







AN  
ENCYCLOPÆDIA  
OF  
PLANTS;

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

COMBINING  
MUCH OF THE INFORMATION CONTAINED IN A SPECIES PLANTARUM,  
A *Historia Plantarum*, a *Grammar of Botany*,  
AND A DICTIONARY OF BOTANY AND VEGETABLE CULTURE.

THE WHOLE IN ENGLISH;  
WITH FIGURES OF NEARLY TEN THOUSAND SPECIES;

AND  
SUPPLEMENTS  
BRINGING DOWN THE WORK TO THE YEAR 1840.

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

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## P R E F A C E.

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

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

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

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

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

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

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

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

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

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

*Bayswater, May, 1829.*

J. C. L.

The SUPPLEMENTS which accompany the present edition of the *Encyclopædia of Plants* contain all the new species and varieties which have been introduced into Britain, or originated in British gardens, between 1827 and 1840. A new Table of Contents is given, and a new General Index. The whole of the Supplements were prepared by **Mr. W. H. BAXTER**, Curator of the Royal Botanic Garden, Bath, son of the distinguished cryptogamist and author of *British Flowering Plants*, **Mr. BAXTER**, Curator of the Royal Botanic Garden, Oxford; and all the details were examined and revised by **GEORGE DON, Esq., F.L.S.**, a profound scientific botanist and traveller, known as the author of an edition of *Miller's Dictionary of Botany and Gardening*.

*Bayswater, January 1. 1841.*

J. C. L.

☞ To indicate when a reference to the Supplement is necessary, a cross (+) is placed in the body of the work before such genera as are divided or repeated, and also in those places where new genera should have come in; and a § before such species as have some further information given respecting them in the Supplement. An asterisk (\*) is prefixed in the same manner, to direct the reader to the Alphabetical List (p. 1303.) of all the Genera given in the body of the work, which have undergone any Change in their Nomenclature since the publication of the same.

\*\*\* Insert a § before the following numbers, that mark being wanting in a few copies:—365, 366, 472, 475 to 482, 500, 509, 520 to 543, 569, 570, 571, 704, 706, 736, 751, 752, 806, 807, 808, 809, 811, 812, 813, 816, 822, 826, 828, 831, 833 to 840, 848, 914, 931, 932, 933, 999, 1008, 1069, 1032, 1041 to 1045, 1068, 1069, 1070, 1072, 1091, 1099, 1101, 1102, 1108, 1109, 1111, 1173, 1195, 1201, 1228, 1238, 1239, 1240, 1242, 1245, 1280, 1291, 1504, 1549 to 1558, 1559, 1560, 1561, 1563, 1569 to 1594, 1649, 1652, 1726, 1727, 1728, 1760, 1761, 2004, 2005, 2188, 5579, 5593, 5629, 5630, 5631, 5640 to 5643, 5647, 5651.

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## LINNEAN ARRANGEMENT.

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|               | sisted by Professor Henslow.     | H. tr. }        | <i>See</i> Jac. schön.              |
|               | In monthly numbers, 8vo.         | Jac. sc.        | <i>See</i> Kunth mim.               |
| Bot. gar.     | The Botanic Garden; or Maga-     | Kth. mim.       | <i>See</i> Lab. nov. ho.            |
|               | zine of hardy flowering Plants   | Lab. n. h.      | Lamarck (Jean Baptiste Monet        |
|               | cultivated in Great Britain.     | Lam. ic.        | de). Icones Plantarum in-           |
|               | By B. Maund, F. L. S. 1824,      |                 | editæ.                              |
|               | continued monthly.               | Led. alt.       | Ledebour (Carolus Fredericus)       |
| Bot. mis.     | The Botanical Miscellany. By Sir |                 | Icones Plantarum Altaicarum,        |
|               | W. J. Hooker, F. R. S., &c.      |                 | Fol. Berolinsæ, 1830.               |
|               | 8vo. London, 1830.               | Led. ic. }      | <i>Id.</i> Icones Plantarum novarum |
| Col. h. rip.  | Colla. Hortus Ripulensis. 4to.   | Led. fl. ros. } | vel imperfecte cognitarum           |
|               | Turin, 1827—1829.                |                 | Floram Rossicam, &c. Rigæ,          |
| Cur. lon.     | Curtis (William). Flora Londi-   |                 | &c. Fol. 1829.                      |
|               | nisensis. Fol. London, 1777,     | Leh. m.         | Lehman (J. C. G.). Monogra-         |
|               | continued.                       |                 | phia Generis Primularum.            |
| Dec. leg.     | <i>See</i> Dec. legum.           |                 | 4to. Lipsiæ, 1817.                  |
| Den. br.      | Dendrologia Britannica. By P.    | Lin. tr.        | <i>See</i> Linn. trans.             |
|               | W. Watson. 1 vol. 1825.          | Loud. fl. g.    | The Ladies' Flower Garden of        |
| Desf. at.     | <i>See</i> Desf. atl.            |                 | Ornamental Annuals. By              |
| Di. cl.       | <i>See</i> Dil. el.              |                 | Mrs. Loudon. 1 vol. 4to.            |
| Don's Mill.   | A General System of Gardening    |                 | 1840.                               |
|               | and Botany, &c., founded on      | Mart. br.       | Martius (C. F. P.). Nova Genera     |
|               | Miller's Dictionary, and ar-     |                 | et Species Plantarum quas in        |
|               | ranged according to the Na-      |                 | Itinere per Braziliam ann.          |
|               | tural System. By G. Don,         |                 | 1817—1820. 4to.                     |
|               | F. L. S. 4 vols. 4to. London,    | Mic. ar.        | <i>See</i> Mich. arb.               |
|               | 1831—1838.                       |                 |                                     |



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

LIST OF AUTHORITIES  
FOR  
GENERIC AND SPECIFIC NAMES.

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

- Forst.* *Forster.* A traveller in the South Seas with Captain Cook.
- Fr.* *Fries.* A Swedish botanist, and writer upon Fungi.
- Fraz.* *Frazer.* A gardener and collector of plants in North America.
- Frol.* *Frölich.* A German writer upon Gentiana.
- Funck.* *Funck.* A German cryptogamic botanist.
- Gae., Gärt.* *Gärtner.* A celebrated German carpologist.
- Gay.* *Gay.* A French botanist.
- Gleditsch.* *Gleditsch.* A German botanist.
- Gmel., Gm.* *Gmelin.* A Russian botanist, and traveller in Siberia.
- Gouan.* *Gouan.* A French botanist.
- Gr., Grev., Greville.* *Greville.* An English botanist, and writer upon cryptogamic plants.
- Hal.* *Hales.* A distinguished English writer upon physiological botany.
- Hänke.* *Hänke.* A German botanical writer.
- Haw.* *Haworth.* An English writer upon succulent plants.
- Hayne.* *Hayne.* A German botanist.
- Hedw.* *Hedwig.* A German cryptogamic botanist.
- Heist.* *Heister.* A German botanist.
- Herb.* *Of the Herbarium.*
- Herit.* *Heritier.* A French botanist.
- Hill.* *Hill.* An English compiler of botanical matters.
- H. K.* *Hortus Kewensis.* A catalogue of the plants growing in the King's garden at Kew.
- Hoff., Hoffm.* *Hoffmann.* A German writer upon Umbelliferae, &c.
- Holmsk.* *Holmskold.* A Danish botanist.
- Hook.* *Hooker.* An English botanist, and professor at Glasgow.
- Hoppe.* *Hoppe.* A German botanist, and collector of plants.
- Horn., Hor-nem.* *Hornemann.* A Danish botanist and professor.
- Hor.* *Of the gardens.*
- Host.* *Host.* An Austrian writer upon Grapes and European plants.
- H. Par.* *Of the Paris garden.*
- Hud., Huds.* *Hudson.* An English writer upon British plants.
- Humb.* *Humboldt.* A celebrated Prussian traveller and philosopher.
- Jack., Jacks.* *Jackson.* An English botanist.
- Ja., Jac., Jacq.* *Jacquin.* An Austrian traveller in South America, and botanist.
- Jon.* *Jones.* An accomplished writer upon Indian matters.
- J., Juss.* *Jussieu.* A celebrated French systematic botanist.
- Kauf.* *Kaufuss.* A German writer upon Ferns.
- Ker.* *Ker.* An English garden botanist.
- Kit.* *Kitabel.* A Hungarian botanist.
- Kn. Pr.* *Knight's Proteacea.*
- Kon.* *König.* Several German naturalists of this name.
- Kunth.* *Kunth.* A Prussian botanist.
- Kunz.* *Kunze.* A German cryptogamic botanist.
- Lag.* *Lagasca.* A Spanish botanist and professor.
- Lam.* *Lamarck.* A French botanist.
- La Peyr., Lap.* *La Peyrouse.* A French writer upon the plants of the Pyrenees.
- Lavor.* *Lawrence (Miss).* An English flower painter.
- Lax.* *Laxmann.* A German writer on Siberian plants.
- Ledeb.* *Ledebur.* A botanist, and traveller in Siberia.
- Lehm.* *Lehmann.* A German botanist.
- L. fl.* *Linnaeus the younger.* The son of the great Linnaeus.
- L'Her.* *L'Heritier.* A French botanist.
- Lightf.* *Lightfoot.* A writer upon the Scottish Flora.
- Lind., Lindl.* *Lindley.* An English botanist, and professor in London.
- L. K.* *Link.* A Prussian botanist.
- Lk., Link.* *Link.*
- Linn., Linn.* *Linnaeus.* The celebrated Swedish reformer of natural history.
- Lob.* *Lobel.* An old writer upon plants.
- Lodd.* *Loddiges.* English nurserymen and botanists.
- Loe.* *Loesel.* An old Prussian botanist.
- Lois.* *Loiseleur Deslongchamps.* A French botanist.
- Lour.* *Loureiro.* A Portuguese traveller in Cochinchina.
- L. T.* *Linnean Society's Transactions.*
- Lynghb.* *Lynghby.* A Danish writer upon cryptogamic matters.
- Marcg.* *Marcegraan.* An old Dutch traveller in Brazil.
- Mart.* *Martius.* A Bavarian botanist, and traveller in Brazil.
- Mass.* *Mason.* A collector of plants at the Cape, and elsewhere.
- Mayer.* *Mayer.* Several German botanists of this name.
- M. B.* *Marschall v. Bieberstein.* A writer upon Russian botany.
- Med.* *Medicus.* A German botanist of the last century.
- Menz.* *Menzies.* A Scotch botanist, and traveller round the world with Vancouver.
- Mert.* *Mertens.* A German professor.
- Mcy.* *Meyer.* A German botanist.
- Mi., Mich.* *Michaux.* A French botanist, and traveller in North America.
- Mik.* *Mikan.* A German writer on Brazilian plants.
- Mill.* *Miller.* An English gardener and botanist.
- Mir.* *Mirbel.* A French physiological botanist.
- Mohr.* *Mohr.* A German cryptogamic writer.
- Mol.* *Molina.* An Italian writer upon the natural history of Chili.
- Mönch.* *Mönch.* A German botanist.
- Morett.* *Moretti.*
- Moug.* *Mougeot.* A German cryptogamic botanist.
- Muhl., Mhl.* *Muhlenberg.* A North American botanist.
- Murr.* *Murray.* A German botanist.
- Mutis.* *Mutis.* A Spanish botanist, resident in New Grenada.
- Mr.* *Michaux.* See above.
- Neck.* *Necker.* A German writer upon botanical affairs.
- Nees.* *Nees v. Esenbeck.* A German botanist.
- Nois.* *Noisette.* A French nurseryman.
- Nor.* *Noronha.* A Spanish botanist who visited Madagascar.
- Nutt.* *Nuttall.* A North American botanist.
- Ort.* *Ortega.* A Spanish botanist.
- Oth.* *Oth.* A French writer in Decandolle's Prodomus.
- Otto.* *Otto.* A Prussian gardener.
- Pall.* *Pallas.* A Russian traveller and naturalist.
- Panz.* *Panzer.* A German botanist.
- P. de B., Pal. de Beauv.* *Palisot de Beauvois.* A French botanist, and traveller in Africa.
- Pers.* *Persoon.* A German botanist.
- Pet.* *Petiver.* An old English botanist.
- Pet. Th.* *Du Petit Thouars.* A French botanist, and traveller in Madagascar.
- Ph., Psh.* *Pursh.* A Prussian botanist, and traveller in North America.
- P. L.* *Paradiseus Londinensis.*
- Plin.* *Pliny.* An ancient writer upon natural history.
- Plu.* *Plumier.* A French botanist, and traveller in the West Indies.
- Poir.* *Poiret.* A French botanical compiler.
- Poit.* *Poitau.* A French botanist and draughtsman.
- Poll.* *Pollich.* A German writer on the plants of the Palatinate.
- Pour.* *Pourret.* A French botanist.
- P. S.* *Persoon's Synopses.*
- Raddi.* *Raddi.* An Italian cryptogamic botanist, and traveller in Brazil.
- Raf., Rafi.* *Rafinesque Schmalz.* A modern writer upon botanical matters.
- R. & S.* *Römer and Schultes.* German editors of Linnaeus's Species Plantarum.
- R. B., R. Br., R. Brown.* *Robert Brown.* A distinguished English botanist, and traveller in New Holland.
- Rchb.* *Reichenbach.* A German botanist.
- Reber.* *Reber.* A Prussian botanist.
- Red.* *Redouté.* A French botanical draughtsman.
- Relh.* *Relhan.* A writer upon the Flora of Cambridgeshire.
- Retz., Rtz.* *Retzius.* A German botanist.
- Rich.* *Richard.* A French botanist.

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|------------------------|--|----------------------|---|
| <i>Risso.</i>          | <i>Risso.</i> An Italian writer upon Oranges.  | <i>Stern.</i>        | <i>Sternberg.</i> A noble German botanist.                              |
| <i>R. L.</i>           | <i>Redouté's Lilinæes.</i>   | <i>St. Hil.</i>      | <i>Auguste St. Hilaire.</i> A French botanist, and traveller in Brazil. |
| <i>Rosc.</i>           | <i>Rosc.</i> An English botanist, and writer upon Scitamineæ.  | <i>Strauss.</i>      | <i>Strauss.</i> A German writer on Coffee.                              |
| <i>Roß.</i>            | <i>Roßböll.</i> A Danish botanist.   | <i>Sturm.</i>        | <i>Sturm.</i> A German botanical draughtsman.                           |
| <i>Roth, Rth.</i>      | <i>Roth.</i> A German botanical writer.  | <i>Sw., Swz.</i>     | <i>Swaartz.</i> A Swedish botanist, and traveller in the West Indies.   |
| <i>Rozb., Roz.</i>     | <i>Rozburgh.</i> An Indian botanist.   | <i>Ten.</i>          | <i>Tenore.</i> A Neapolitan botanist.                                   |
| <i>Roy., Royen.</i>    | <i>Van Royen.</i> A Dutch botanist.  | <i>Th., Thunb.</i>   | <i>Thunberg.</i> A Swedish botanical traveller.                         |
| <i>Rudge.</i>          | <i>Rudge.</i> An English writer upon botanical subjects.   | <i>Thunb.</i>        | <i>Thunb.</i> A Swedish botanical traveller.                            |
| <i>Rudol.</i>          | <i>Rudolph.</i> A German botanist.   | <i>Tode.</i>         | <i>Tode.</i> A German writer on Fungi.                                  |
| <i>Sab., Sabine.</i>   | <i>Sabine.</i> An English amateur of botany.   | <i>Tou.</i>          | <i>Tourey.</i> A North American botanist.                               |
| <i>Sai., Salisb.</i>   | <i>Salisbury.</i> An English botanist.   | <i>Trent.</i>        | <i>Trenatepohl.</i>   |
| <i>Salm.</i>           | <i>The Prince of Salm Dyck.</i> A noble German amateur.  | <i>Trev.</i>         | <i>Treviranus.</i>  |
| <i>Savi.</i>           | <i>Savi.</i> An Italian botanist.  | <i>Turner.</i>       | <i>Turner.</i> An old English herbalist.                                |
| <i>Sc., Sch.</i>       | <i>Schkuhr.</i> A German writer upon Grasses and Ferns.  | <i>Turp.</i>         | <i>Turpin.</i> A French botanist and draughtsman.                       |
| <i>Schaff.</i>         | <i>Schaffner.</i> A German writer upon Fungi.  | <i>Turr., Turra.</i> | <i>Turra.</i> An Italian botanist.                                      |
| <i>Schl., Schlect.</i> | <i>Schlechtendahl.</i> A German botanist.  | <i>Tuss.</i>         | <i>Tussac.</i> A French writer on the Flora of the Antilles.            |
| <i>Schleich.</i>       | <i>Schleicher.</i> A Swiss plant collector.  | <i>Va., Vahl.</i>    | <i>Vahl.</i> A Danish botanist.   |
| <i>Schm., Schmidt.</i> | <i>Schmidt.</i> A Bohemian botanist.   | <i>Vaill.</i>        | <i>Vaillant.</i> A French botanist and traveller.                       |
| <i>Schneew.</i>        | <i>Schneevoght.</i> A Dutch nurseryman.  | <i>Vand.</i>         | <i>Vandelli.</i> A Portuguese botanist.                                 |
| <i>Schott.</i>         | <i>Schott.</i>   | <i>Ven., Ven.</i>    | <i>Venemat.</i> A French botanist.                                      |
| <i>Schousb.</i>        | <i>Schousboe.</i> A writer upon the Flora of Morocco.  | <i>V.</i>            | <i>Viguier.</i> A writer upon Poppies.                                  |
| <i>Schr.</i>           | <i>Schreber.</i> A German botanist.  | <i>Vig.</i>          | <i>Villars.</i> A French botanist.                                      |
| <i>Schrad.</i>         | <i>Schrader.</i> A German botanist.  | <i>Vill.</i>         | <i>Villars.</i> An Italian botanist.                                    |
| <i>Schrank.</i>        | <i>Schrank.</i> A Bavarian botanist.   | <i>Viviani.</i>      | <i>Viviani.</i> A German botanist.                                      |
| <i>Schrad.</i>         | <i>Schultes.</i> A German botanist.  | <i>W.</i>            | <i>Willdenow.</i> A German botanist.                                    |
| <i>Schum.</i>          | <i>Schumacher.</i> A Danish botanist.  | <i>Wahl.</i>         | <i>Wahlenberg.</i> A Swedish botanist.                                  |
| <i>Schw., Schwægr.</i> | <i>Schwægrichen.</i> A German cryptogamic botanist.  | <i>Waldst.</i>       | <i>Walstein.</i> A noble German patron of botany.                       |
| <i>Scop.</i>           | <i>Scopoli.</i> An Italian botanist.   | <i>Wall.</i>         | <i>Wallroth.</i> A German botanist.                                     |
| <i>Sib.</i>            | <i>Sibthorp.</i> An English botanist, and traveller in Greece.   | <i>Walt.</i>         | <i>Walter.</i> A writer on the Flora of Carolina.                       |
| <i>Sims.</i>           | <i>Sims.</i> An English garden botanist.   | <i>W. &amp; K.</i>   | <i>Walstein and Kitaibel.</i> Authors of the Flora of Hungary.          |
| <i>S. M.</i>           | <i>Sole's Monograph of Mints.</i>  | <i>Wats.</i>         | <i>Watson.</i> An English writer upon Trees and Shrubs.                 |
| <i>Sm.</i>             | <i>Smith.</i> An English botanist, and purchaser of the Linnean Herbarium.                               | <i>W.E., W.en.</i>   | <i>Willdenow's Enumeration of the Plants in the Berlin Garden.</i>      |
| <i>Smith Fl. Brit.</i> | <i>Smith's Flora Britannica.</i>   | <i>Web.</i>          | <i>Weber.</i> A German cryptogamic botanist.                            |
| <i>Sol.</i>            | <i>Solander.</i> A Swedish botanist, and companion of Sir Joseph Banks in Cook's voyage round the world. | <i>Weibe.</i>        | <i>Weibe.</i> A German writer on Ribi.                                  |
| <i>Sowerb.</i>         | <i>Sowerby.</i> An English botanical draughtsman.  | <i>Wendl., Wnl.</i>  | <i>Wendland.</i> A German garden botanist.                              |
| <i>Spar.</i>           | <i>Sparmann.</i> A Swedish travelling botanist.  | <i>With.</i>         | <i>Withering.</i> An English botanist.                                  |
| <i>Spr., Spreng.</i>   | <i>Sprengel.</i> A German botanist.  | <i>Wood.</i>         | <i>Woodville.</i> An English writer on Medicinal Plants.                |
| <i>St., Stev.</i>      | <i>Steen.</i> A Russian botanist.  | <i>Woods.</i>        | <i>Woods.</i> An English writer on Roses.                               |
| <i>Steph.</i>          | <i>Stephan.</i> A Russian botanist.  | <i>Wul., Wul.</i>    | <i>Wulfen.</i> A German botanist.                                       |
|                        |  | <i>Wul.</i>          | <i>Wulfen.</i>  |

ADDITIONAL AUTHORITIES FOR GENERIC AND SPECIFIC NAMES.

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

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

# TABLE OF ABBREVIATIONS AND REFERENCES

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

|   |   |  |  |   |  |   |   |   |   |   |   |   |
|---|---|--|--|---|--|---|---|---|---|---|---|---|
| <p style="text-align: center;"><b>COLUMN 3. <i>Habit.</i></b></p> <p>             * Deciduous tree.<br/>             † Evergreen tree.<br/>             ‡ Palm tree.<br/>             § Deciduous shrub.<br/>             ¶ Evergreen shrub.<br/>             ⌘ Deciduous under-shrub.<br/>             ♁ Evergreen under-shrub.<br/>             ⌘ Deciduous twiner, ligneous or herbaceous.<br/>             ‡ Evergreen twiner, lig. or herb.<br/>             † Deciduous climber, lig. or herb.<br/>             † Evergreen climber, lig. or herb.<br/>             * Deciduous trailer, lig. or herb.<br/>             ‡ Evergreen trailer, lig. or herb.<br/>             ¶ Deciduous creeper, lig. or herb.<br/>             ¶ Evergreen creeper, lig. or herb.<br/>             ‡ Deciduous herbaceous plant.<br/>             ‡ Evergreen herbaceous plant.<br/>             ⌘ Grass.<br/>             † Bulbous plant.<br/>             † Fusiform-rooted plant.<br/>             † Tuberous-rooted plant.<br/>             † Aquatic.<br/>             † Parasite.         </p> <p style="text-align: center;"><b>COLUMN 4. <i>Duration and Habitation.</i></b></p> <p>             △ Perennial.<br/>             ○ Biennial.<br/>             ○ Annual.<br/>             □ Bark, or moist, stove.<br/>             □ Dry stove.<br/>             □ Green-house.<br/>             □ Frame.<br/>             ☒ Bark stove perennial.<br/>             ☒ Dry stove perennial.<br/>             ☒ Green-house perennial.<br/>             △ Frame perennial.<br/>             ☒ Bark stove biennial.<br/>             ☒ Dry stove biennial.<br/>             ☒ Green-house biennial.<br/>             ☒ Frame biennial.<br/>             ☒ Bark stove annual.<br/>             ☒ Dry stove annual.<br/>             ☒ Green-house annual.<br/>             ☒ Frame annual.         </p> <p style="text-align: center;"><b>COLUMN 5. <i>Popular Character.</i></b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 ag agricultural.<br/>                 cl clothing.<br/>                 cilt cultivated in its native country.<br/>                 cu curious.<br/>                 cul culinary.<br/>                 de delicate.<br/>                 dy dyeing plant.<br/>                 ec economical.<br/>                 el elegant.<br/>                 esc esculent.<br/>                 fr fruit tree.<br/>                 fra fragrant.<br/>                 gr grotesque.             </td> <td style="width: 50%; vertical-align: top;">                 m medicinal.<br/>                 or ornamental.<br/>                 p poisonous.<br/>                 pr pretty.<br/>                 rk for rock-work.<br/>                 ro robust.<br/>                 spl splendid.<br/>                 tm timber tree.<br/>                 un unattractive.<br/>                 w weed, abundant in cultivated soils in its native country.             </td> </tr> </table> | ag agricultural.<br>cl clothing.<br>cilt cultivated in its native country.<br>cu curious.<br>cul culinary.<br>de delicate.<br>dy dyeing plant.<br>ec economical.<br>el elegant.<br>esc esculent.<br>fr fruit tree.<br>fra fragrant.<br>gr grotesque.  | m medicinal.<br>or ornamental.<br>p poisonous.<br>pr pretty.<br>rk for rock-work.<br>ro robust.<br>spl splendid.<br>tm timber tree.<br>un unattractive.<br>w weed, abundant in cultivated soils in its native country. | <p style="text-align: center;"><b>COLUMN 7. <i>Time of Flowering.</i></b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 ja January.<br/>                 f February.<br/>                 mr March.<br/>                 ap April.<br/>                 my May.<br/>                 jn June.<br/>                 jl July.<br/>                 au August.             </td> <td style="width: 50%; vertical-align: top;">                 s September.<br/>                 o October.<br/>                 n November.<br/>                 d December.<br/>                 sp Spring.<br/>                 su Summer.<br/>                 aut Autumn.<br/>                 w Winter.             </td> </tr> </table> <p style="text-align: center;">all sea all seasons.<br/>wet w wet weather.</p> <p style="text-align: center;"><b>COLUMN 8. <i>Color of the Flower.</i></b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 Ap apetalous.<br/>                 Erug sergi-mous.<br/>                 B blue.<br/>                 Bd blood.<br/>                 Bh blush.<br/>                 Bk black.<br/>                 Bksh blackish.<br/>                 Br brown.<br/>                 Bri brick-colored.<br/>                 Brsh brownish.<br/>                 Bsh bluish.<br/>                 Bt bright.<br/>                 C crimson.<br/>                 Ccs cassious.<br/>                 Ch chestnut.<br/>                 Ci citron.<br/>                 Cin cinereous.<br/>                 Cop copper-colored.<br/>                 Crea cream-colored.<br/>                 D dark.<br/>                 Din dingy.<br/>                 Dd dull.<br/>                 Dp deep.<br/>                 F flesh.<br/>                 Fer ferruginous.<br/>                 Fi fiery.<br/>                 Fla flame-colored.<br/>                 Ful fulvid.<br/>                 Fus fuscous.<br/>                 G green.<br/>                 Gl glaucous.<br/>                 Go golden.<br/>                 Gsh greenish.<br/>                 Gy grey.<br/>                 Hoa hoary.<br/>                 L light.<br/>                 Ld livid.<br/>                 Lem lemon-colored.             </td> <td style="width: 50%; vertical-align: top;">                 Li lilac.<br/>                 Lu lurid.<br/>                 O orange.<br/>                 Och ochraceous.<br/>                 Ol olive.<br/>                 Oliva olivaceous.<br/>                 P purple.<br/>                 Pa pale.<br/>                 Pk pink or rose.<br/>                 Pl pellucid.<br/>                 R red.<br/>                 Ro rosy.<br/>                 Rsh reddish.<br/>                 Ru rufous.<br/>                 Rus russet.<br/>                 Rust rusty-colored.<br/>                 S scarlet.<br/>                 Saf saffron.<br/>                 Sil silvery.<br/>                 Smo smoky ash-color.<br/>                 Spot spotted.<br/>                 St striped.<br/>                 Str straw.<br/>                 Su sulphur.<br/>                 Tan tan-colored.<br/>                 Taw tawny.<br/>                 Test testaceous.<br/>                 Tran transparent.<br/>                 Umb umber-colored.<br/>                 V violet.<br/>                 Va variegated.<br/>                 Ve vermillion.<br/>                 Vy veiny.<br/>                 W white.<br/>                 Wash whitish.<br/>                 Y yellow.<br/>                 Ysh yellowish.             </td> </tr> </table> <p style="text-align: center;"><b>COLUMN 9. <i>Native Country.</i></b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 C. G. H. Cape of Good Hope.<br/>                 E. Ind. E. Indies.<br/>                 N. Amer. North America.<br/>                 N. Eur. North of Europe.<br/>                 N. Holl. New Holland.<br/>                 N. S. W. New South Wales.<br/>                 S. Amer. South America.<br/>                 S. Eur. South of Europe.<br/>                 V. Di. L. Van Diemen's Land.<br/>                 W. Ind. West Indies.             </td> <td style="width: 50%; vertical-align: top;">                 al. roc. alpine rocks.<br/>                 a. r. tr. alpine rocks and trees.<br/>                 ba. banks.<br/>                 bar. gr. barren ground.<br/>                 bar. he. barren heaths.<br/>                 bar. pa. barren pastures.<br/>                 ba. s. p. barren sandy places.<br/>                 bog. h. boggy heaths.<br/>                 bog. pl. boggy places.<br/>                 bo. m. } bogs on mountains.<br/>                 bgs. m. }<br/>                 bo. me. boggy meadows.<br/>                 bor. fi. borders of fields.<br/>                 br. branches.<br/>                 bu. fi. bushy fields.<br/>                 bu. hi. bushy hills.<br/>                 bu. pl. bushy places.<br/>                 cal. ba. calcareous banks.<br/>                 cal. ro. calcareous rocks.<br/>                 ch. ba. chalky banks.<br/>                 ch. cl. chalky cliffs.<br/>                 ch. fi. chalky fields.<br/>                 ch. hil. chalky hills.<br/>                 ch. pa. chalky pastures.<br/>                 ch. so. chalky soil.<br/>                 ch. wo. chalky woods.<br/>                 clov. fi. clover fields.<br/>                 cit. gr. cultivated ground.<br/>                 cor. fi. corn fields.<br/>                 dit. ditches.<br/>                 dit. ba. ditch banks.<br/>                 d.m.pl. dry mountainous places.<br/>                 dr. co. dry commons.<br/>                 dr. fi. dry fields.<br/>                 dr. he. dry heaths.<br/>                 dr. pa. dry pastures.<br/>                 dr. wo. dry woods.<br/>                 d. st. pl. dry stony places.<br/>                 d. st. w. dry stony woods.<br/>                 dungh. dunghills.<br/>                 ed. of d. edges of ditches.<br/>                 gra. ba. gravelly banks.<br/>                 gra. he. gravelly heaths.<br/>                 gra. pa. gravelly pastures.<br/>                 gra. so. gravelly soil.<br/>                 hea. heaths.<br/>                 hea. w. heaths and woods.<br/>                 hed. hedges.<br/>                 hed. b. hedge banks.<br/>                 hghl. v. Highland valleys.<br/>                 hil. pa. hilly pastures.<br/>                 ir. bog. Irish bogs.<br/>                 ir. mo. Irish mountains.<br/>                 ir. roc. Irish rocks.<br/>                 ir. sho. Irish shores.<br/>                 ir. thi. Irish thickets.<br/>                 lak. lakes.<br/>                 m. al. p. moist alpine places.<br/>                 mar. marshes.<br/>                 mar. la. margins of lakes.<br/>                 m. a. w. moist alpine woods.<br/>                 m. c. h. moist chalky hills.<br/>                 m. ch. s. moist chalky soil.<br/>                 me. pa. meadows.<br/>                 me. pa. meadows and pastures.<br/>                 m. h. } mountainous heaths.<br/>                 m. he. }<br/>                 m. hed. moist hedges.<br/>                 mic. ro. micaceous rocks.<br/>                 m. me. moist meadows.<br/>                 moi. fi. moist fields.<br/>                 moi. gr. moist ground.<br/>                 moi. h. moist heaths.<br/>                 moi. pl. moist places.<br/>                 moi. ro. moist rocks.<br/>                 moi. w. moist woods.<br/>                 mo. pl. mountainous places.<br/>                 mos. b. mossy bogs.<br/>                 moun. mountains.<br/>                 m. pas. moist pastures.<br/>                 m. pas. mountainous pastures.<br/>                 m. r. h. mountainous rocky heaths.<br/>                 mrit. r. maritime rocks.<br/>                 m. r. tr. moist rocks and trees.             </td> </tr> </table> <p style="text-align: center;"><b>COLUMN 10. <i>Year of Introduction of Exotics, and Localities of British Species.</i></b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 al. bogs alpine bogs.<br/>                 al. b. p. alpine bushy places.<br/>                 al. hea. alpine heaths.<br/>                 al. lak. alpine lakes.<br/>                 al. ma. alpine marshes.<br/>                 al. me. alpine meadows.<br/>                 al. riv. alpine rivers.             </td> <td style="width: 50%; vertical-align: top;">                 al. roc. alpine rocks.<br/>                 a. r. tr. alpine rocks and trees.<br/>                 ba. banks.<br/>                 bar. gr. barren ground.<br/>                 bar. he. barren heaths.<br/>                 bar. pa. barren pastures.<br/>                 ba. s. p. barren sandy places.<br/>                 bog. h. boggy heaths.<br/>                 bog. pl. boggy places.<br/>                 bo. m. } bogs on mountains.<br/>                 bgs. m. }<br/>                 bo. me. boggy meadows.<br/>                 bor. fi. borders of fields.<br/>                 br. branches.<br/>                 bu. fi. bushy fields.<br/>                 bu. hi. bushy hills.<br/>                 bu. pl. bushy places.<br/>                 cal. ba. calcareous banks.<br/>                 cal. ro. calcareous rocks.<br/>                 ch. ba. chalky banks.<br/>                 ch. cl. chalky cliffs.<br/>                 ch. fi. chalky fields.<br/>                 ch. hil. chalky hills.<br/>                 ch. pa. chalky pastures.<br/>                 ch. so. chalky soil.<br/>                 ch. wo. chalky woods.<br/>                 clov. fi. clover fields.<br/>                 cit. gr. cultivated ground.<br/>                 cor. fi. corn fields.<br/>                 dit. ditches.<br/>                 dit. ba. ditch banks.<br/>                 d.m.pl. dry mountainous places.<br/>                 dr. co. dry commons.<br/>                 dr. fi. dry fields.<br/>                 dr. he. dry heaths.<br/>                 dr. pa. dry pastures.<br/>                 dr. wo. dry woods.<br/>                 d. st. pl. dry stony places.<br/>                 d. st. w. dry stony woods.<br/>                 dungh. dunghills.<br/>                 ed. of d. edges of ditches.<br/>                 gra. ba. gravelly banks.<br/>                 gra. he. gravelly heaths.<br/>                 gra. pa. gravelly pastures.<br/>                 gra. so. gravelly soil.<br/>                 hea. heaths.<br/>                 hea. w. heaths and woods.<br/>                 hed. hedges.<br/>                 hed. b. hedge banks.<br/>                 hghl. v. Highland valleys.<br/>                 hil. pa. hilly pastures.<br/>                 ir. bog. Irish bogs.<br/>                 ir. mo. Irish mountains.<br/>                 ir. roc. Irish rocks.<br/>                 ir. sho. Irish shores.<br/>                 ir. thi. Irish thickets.<br/>                 lak. lakes.<br/>                 m. al. p. moist alpine places.<br/>                 mar. marshes.<br/>                 mar. la. margins of lakes.<br/>                 m. a. w. moist alpine woods.<br/>                 m. c. h. moist chalky hills.<br/>                 m. ch. s. moist chalky soil.<br/>                 me. pa. meadows.<br/>                 me. pa. meadows and pastures.<br/>                 m. h. } mountainous heaths.<br/>                 m. he. }<br/>                 m. hed. moist hedges.<br/>                 mic. ro. micaceous rocks.<br/>                 m. me. moist meadows.<br/>                 moi. fi. moist fields.<br/>                 moi. gr. moist ground.<br/>                 moi. h. moist heaths.<br/>                 moi. pl. moist places.<br/>                 moi. ro. moist rocks.<br/>                 moi. w. moist woods.<br/>                 mo. pl. mountainous places.<br/>                 mos. b. mossy bogs.<br/>                 moun. mountains.<br/>                 m. pas. moist pastures.<br/>                 m. pas. mountainous pastures.<br/>                 m. r. h. mountainous rocky heaths.<br/>                 mrit. r. maritime rocks.<br/>                 m. r. tr. moist rocks and trees.             </td> </tr> </table> | ja January.<br>f February.<br>mr March.<br>ap April.<br>my May.<br>jn June.<br>jl July.<br>au August. | s September.<br>o October.<br>n November.<br>d December.<br>sp Spring.<br>su Summer.<br>aut Autumn.<br>w Winter. | Ap apetalous.<br>Erug sergi-mous.<br>B blue.<br>Bd blood.<br>Bh blush.<br>Bk black.<br>Bksh blackish.<br>Br brown.<br>Bri brick-colored.<br>Brsh brownish.<br>Bsh bluish.<br>Bt bright.<br>C crimson.<br>Ccs cassious.<br>Ch chestnut.<br>Ci citron.<br>Cin cinereous.<br>Cop copper-colored.<br>Crea cream-colored.<br>D dark.<br>Din dingy.<br>Dd dull.<br>Dp deep.<br>F flesh.<br>Fer ferruginous.<br>Fi fiery.<br>Fla flame-colored.<br>Ful fulvid.<br>Fus fuscous.<br>G green.<br>Gl glaucous.<br>Go golden.<br>Gsh greenish.<br>Gy grey.<br>Hoa hoary.<br>L light.<br>Ld livid.<br>Lem lemon-colored. | Li lilac.<br>Lu lurid.<br>O orange.<br>Och ochraceous.<br>Ol olive.<br>Oliva olivaceous.<br>P purple.<br>Pa pale.<br>Pk pink or rose.<br>Pl pellucid.<br>R red.<br>Ro rosy.<br>Rsh reddish.<br>Ru rufous.<br>Rus russet.<br>Rust rusty-colored.<br>S scarlet.<br>Saf saffron.<br>Sil silvery.<br>Smo smoky ash-color.<br>Spot spotted.<br>St striped.<br>Str straw.<br>Su sulphur.<br>Tan tan-colored.<br>Taw tawny.<br>Test testaceous.<br>Tran transparent.<br>Umb umber-colored.<br>V violet.<br>Va variegated.<br>Ve vermillion.<br>Vy veiny.<br>W white.<br>Wash whitish.<br>Y yellow.<br>Ysh yellowish. | C. G. H. Cape of Good Hope.<br>E. Ind. E. Indies.<br>N. Amer. North America.<br>N. Eur. North of Europe.<br>N. Holl. New Holland.<br>N. S. W. New South Wales.<br>S. Amer. South America.<br>S. Eur. South of Europe.<br>V. Di. L. Van Diemen's Land.<br>W. Ind. 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Highland valleys.<br>hil. pa. hilly pastures.<br>ir. bog. Irish bogs.<br>ir. mo. Irish mountains.<br>ir. roc. Irish rocks.<br>ir. sho. Irish shores.<br>ir. thi. Irish thickets.<br>lak. lakes.<br>m. al. p. moist alpine places.<br>mar. marshes.<br>mar. la. margins of lakes.<br>m. a. w. moist alpine woods.<br>m. c. h. moist chalky hills.<br>m. ch. s. moist chalky soil.<br>me. pa. meadows.<br>me. pa. meadows and pastures.<br>m. h. } mountainous heaths.<br>m. he. }<br>m. hed. moist hedges.<br>mic. ro. micaceous rocks.<br>m. me. moist meadows.<br>moi. fi. moist fields.<br>moi. gr. moist ground.<br>moi. h. moist heaths.<br>moi. pl. moist places.<br>moi. ro. moist rocks.<br>moi. w. moist woods.<br>mo. pl. mountainous places.<br>mos. b. mossy bogs.<br>moun. mountains.<br>m. pas. moist pastures.<br>m. pas. mountainous pastures.<br>m. r. h. mountainous rocky heaths.<br>mrit. r. maritime rocks.<br>m. r. tr. moist rocks and trees. | al. bogs alpine bogs.<br>al. b. p. alpine bushy places.<br>al. hea. alpine heaths.<br>al. lak. alpine lakes.<br>al. ma. alpine marshes.<br>al. me. alpine meadows.<br>al. riv. alpine rivers. | al. roc. alpine rocks.<br>a. r. tr. alpine rocks and trees.<br>ba. banks.<br>bar. gr. barren ground.<br>bar. he. barren heaths.<br>bar. pa. barren pastures.<br>ba. s. p. barren sandy places.<br>bog. h. boggy heaths.<br>bog. pl. boggy places.<br>bo. m. } bogs on mountains.<br>bgs. m. }<br>bo. me. boggy meadows.<br>bor. fi. borders of fields.<br>br. branches.<br>bu. fi. bushy fields.<br>bu. hi. bushy hills.<br>bu. pl. bushy places.<br>cal. ba. calcareous banks.<br>cal. ro. calcareous rocks.<br>ch. ba. chalky banks.<br>ch. cl. chalky cliffs.<br>ch. fi. chalky fields.<br>ch. hil. chalky hills.<br>ch. pa. chalky pastures.<br>ch. so. chalky soil.<br>ch. wo. chalky woods.<br>clov. fi. clover fields.<br>cit. gr. cultivated ground.<br>cor. fi. corn fields.<br>dit. ditches.<br>dit. ba. ditch banks.<br>d.m.pl. dry mountainous places.<br>dr. co. dry commons.<br>dr. fi. dry fields.<br>dr. he. dry heaths.<br>dr. pa. dry pastures.<br>dr. wo. dry woods.<br>d. st. pl. dry stony places.<br>d. st. w. dry stony woods.<br>dungh. dunghills.<br>ed. of d. edges of ditches.<br>gra. ba. gravelly banks.<br>gra. he. gravelly heaths.<br>gra. pa. gravelly pastures.<br>gra. so. gravelly soil.<br>hea. heaths.<br>hea. w. heaths and woods.<br>hed. hedges.<br>hed. b. hedge banks.<br>hghl. v. Highland valleys.<br>hil. pa. hilly pastures.<br>ir. bog. Irish bogs.<br>ir. mo. Irish mountains.<br>ir. roc. Irish rocks.<br>ir. sho. Irish shores.<br>ir. thi. Irish thickets.<br>lak. lakes.<br>m. al. p. moist alpine places.<br>mar. marshes.<br>mar. la. margins of lakes.<br>m. a. w. moist alpine woods.<br>m. c. h. moist chalky hills.<br>m. ch. s. moist chalky soil.<br>me. pa. meadows.<br>me. pa. meadows and pastures.<br>m. h. } mountainous heaths.<br>m. he. }<br>m. hed. moist hedges.<br>mic. ro. micaceous rocks.<br>m. me. moist meadows.<br>moi. fi. moist fields.<br>moi. gr. moist ground.<br>moi. h. moist heaths.<br>moi. pl. moist places.<br>moi. ro. moist rocks.<br>moi. w. moist woods.<br>mo. pl. mountainous places.<br>mos. b. mossy bogs.<br>moun. mountains.<br>m. pas. moist pastures.<br>m. pas. mountainous pastures.<br>m. r. h. mountainous rocky heaths.<br>mrit. r. maritime rocks.<br>m. r. tr. moist rocks and trees. | <p style="text-align: center;"><b>COLUMN 6. <i>Height.</i></b></p> <p>fit floating.</p> |
| ag agricultural.<br>cl clothing.<br>cilt cultivated in its native country.<br>cu curious.<br>cul culinary.<br>de delicate.<br>dy dyeing plant.<br>ec economical.<br>el elegant.<br>esc esculent.<br>fr fruit tree.<br>fra fragrant.<br>gr grotesque.  | m medicinal.<br>or ornamental.<br>p poisonous.<br>pr pretty.<br>rk for rock-work.<br>ro robust.<br>spl splendid.<br>tm timber tree.<br>un unattractive.<br>w weed, abundant in cultivated soils in its native country.  |  |  |   |  |   |   |   |   |   |   |   |
| ja January.<br>f February.<br>mr March.<br>ap April.<br>my May.<br>jn June.<br>jl July.<br>au August.   | s September.<br>o October.<br>n November.<br>d December.<br>sp Spring.<br>su Summer.<br>aut Autumn.<br>w Winter.  |  |  |   |  |   |   |   |   |   |   |   |
| Ap apetalous.<br>Erug sergi-mous.<br>B blue.<br>Bd blood.<br>Bh blush.<br>Bk black.<br>Bksh blackish.<br>Br brown.<br>Bri brick-colored.<br>Brsh brownish.<br>Bsh bluish.<br>Bt bright.<br>C crimson.<br>Ccs cassious.<br>Ch chestnut.<br>Ci citron.<br>Cin cinereous.<br>Cop copper-colored.<br>Crea cream-colored.<br>D dark.<br>Din dingy.<br>Dd dull.<br>Dp deep.<br>F flesh.<br>Fer ferruginous.<br>Fi fiery.<br>Fla flame-colored.<br>Ful fulvid.<br>Fus fuscous.<br>G green.<br>Gl glaucous.<br>Go golden.<br>Gsh greenish.<br>Gy grey.<br>Hoa hoary.<br>L light.<br>Ld livid.<br>Lem lemon-colored.   | Li lilac.<br>Lu lurid.<br>O orange.<br>Och ochraceous.<br>Ol olive.<br>Oliva olivaceous.<br>P purple.<br>Pa pale.<br>Pk pink or rose.<br>Pl pellucid.<br>R red.<br>Ro rosy.<br>Rsh reddish.<br>Ru rufous.<br>Rus russet.<br>Rust rusty-colored.<br>S scarlet.<br>Saf saffron.<br>Sil silvery.<br>Smo smoky ash-color.<br>Spot spotted.<br>St striped.<br>Str straw.<br>Su sulphur.<br>Tan tan-colored.<br>Taw tawny.<br>Test testaceous.<br>Tran transparent.<br>Umb umber-colored.<br>V violet.<br>Va variegated.<br>Ve vermillion.<br>Vy veiny.<br>W white.<br>Wash whitish.<br>Y yellow.<br>Ysh yellowish.   |  |  |   |  |   |   |   |   |   |   |   |
| C. G. H. Cape of Good Hope.<br>E. Ind. E. Indies.<br>N. Amer. North America.<br>N. Eur. North of Europe.<br>N. Holl. New Holland.<br>N. S. W. New South Wales.<br>S. Amer. South America.<br>S. Eur. South of Europe.<br>V. Di. L. Van Diemen's Land.<br>W. Ind. West Indies.   | al. roc. alpine rocks.<br>a. r. tr. alpine rocks and trees.<br>ba. banks.<br>bar. gr. barren ground.<br>bar. he. barren heaths.<br>bar. pa. barren pastures.<br>ba. s. p. barren sandy places.<br>bog. h. boggy heaths.<br>bog. pl. boggy places.<br>bo. m. } bogs on mountains.<br>bgs. m. }<br>bo. me. boggy meadows.<br>bor. fi. borders of fields.<br>br. branches.<br>bu. fi. bushy fields.<br>bu. hi. bushy hills.<br>bu. pl. bushy places.<br>cal. ba. calcareous banks.<br>cal. ro. calcareous rocks.<br>ch. ba. chalky banks.<br>ch. cl. chalky cliffs.<br>ch. fi. chalky fields.<br>ch. hil. chalky hills.<br>ch. pa. chalky pastures.<br>ch. so. chalky soil.<br>ch. wo. chalky woods.<br>clov. fi. clover fields.<br>cit. gr. cultivated ground.<br>cor. fi. corn fields.<br>dit. ditches.<br>dit. ba. ditch banks.<br>d.m.pl. dry mountainous places.<br>dr. co. dry commons.<br>dr. fi. dry fields.<br>dr. he. dry heaths.<br>dr. pa. dry pastures.<br>dr. wo. dry woods.<br>d. st. pl. dry stony places.<br>d. st. w. dry stony woods.<br>dungh. dunghills.<br>ed. of d. edges of ditches.<br>gra. ba. gravelly banks.<br>gra. he. gravelly heaths.<br>gra. pa. gravelly pastures.<br>gra. so. gravelly soil.<br>hea. heaths.<br>hea. w. heaths and woods.<br>hed. hedges.<br>hed. b. hedge banks.<br>hghl. v. Highland valleys.<br>hil. pa. hilly pastures.<br>ir. bog. Irish bogs.<br>ir. mo. Irish mountains.<br>ir. roc. Irish rocks.<br>ir. sho. Irish shores.<br>ir. thi. Irish thickets.<br>lak. lakes.<br>m. al. p. moist alpine places.<br>mar. marshes.<br>mar. la. margins of lakes.<br>m. a. w. moist alpine woods.<br>m. c. h. moist chalky hills.<br>m. ch. s. moist chalky soil.<br>me. pa. meadows.<br>me. pa. meadows and pastures.<br>m. h. } mountainous heaths.<br>m. he. }<br>m. hed. moist hedges.<br>mic. ro. micaceous rocks.<br>m. me. moist meadows.<br>moi. fi. moist fields.<br>moi. gr. moist ground.<br>moi. h. moist heaths.<br>moi. pl. moist places.<br>moi. ro. moist rocks.<br>moi. w. moist woods.<br>mo. pl. mountainous places.<br>mos. b. mossy bogs.<br>moun. mountains.<br>m. pas. moist pastures.<br>m. pas. mountainous pastures.<br>m. r. h. mountainous rocky heaths.<br>mrit. r. maritime rocks.<br>m. r. tr. moist rocks and trees. |  |  |   |  |   |   |   |   |   |   |   |
| al. bogs alpine bogs.<br>al. b. p. alpine bushy places.<br>al. hea. alpine heaths.<br>al. lak. alpine lakes.<br>al. ma. alpine marshes.<br>al. me. alpine meadows.<br>al. riv. alpine rivers.   | al. roc. alpine rocks.<br>a. r. tr. alpine rocks and trees.<br>ba. banks.<br>bar. gr. barren ground.<br>bar. he. barren heaths.<br>bar. pa. barren pastures.<br>ba. s. p. barren sandy places.<br>bog. h. boggy heaths.<br>bog. pl. boggy places.<br>bo. m. } bogs on mountains.<br>bgs. m. }<br>bo. me. boggy meadows.<br>bor. fi. borders of fields.<br>br. branches.<br>bu. fi. bushy fields.<br>bu. hi. bushy hills.<br>bu. pl. bushy places.<br>cal. ba. calcareous banks.<br>cal. ro. calcareous rocks.<br>ch. ba. chalky banks.<br>ch. cl. chalky cliffs.<br>ch. fi. chalky fields.<br>ch. hil. chalky hills.<br>ch. pa. chalky pastures.<br>ch. so. chalky soil.<br>ch. wo. chalky woods.<br>clov. fi. clover fields.<br>cit. gr. cultivated ground.<br>cor. fi. corn fields.<br>dit. ditches.<br>dit. ba. ditch banks.<br>d.m.pl. dry mountainous places.<br>dr. co. dry commons.<br>dr. fi. dry fields.<br>dr. he. dry heaths.<br>dr. pa. dry pastures.<br>dr. wo. dry woods.<br>d. st. pl. dry stony places.<br>d. st. w. dry stony woods.<br>dungh. dunghills.<br>ed. of d. edges of ditches.<br>gra. ba. gravelly banks.<br>gra. he. gravelly heaths.<br>gra. pa. gravelly pastures.<br>gra. so. gravelly soil.<br>hea. heaths.<br>hea. w. heaths and woods.<br>hed. hedges.<br>hed. b. hedge banks.<br>hghl. v. Highland valleys.<br>hil. pa. hilly pastures.<br>ir. bog. Irish bogs.<br>ir. mo. Irish mountains.<br>ir. roc. Irish rocks.<br>ir. sho. Irish shores.<br>ir. thi. Irish thickets.<br>lak. lakes.<br>m. al. p. moist alpine places.<br>mar. marshes.<br>mar. la. margins of lakes.<br>m. a. w. moist alpine woods.<br>m. c. h. moist chalky hills.<br>m. ch. s. moist chalky soil.<br>me. pa. meadows.<br>me. pa. meadows and pastures.<br>m. h. } mountainous heaths.<br>m. he. }<br>m. hed. moist hedges.<br>mic. ro. micaceous rocks.<br>m. me. moist meadows.<br>moi. fi. moist fields.<br>moi. gr. moist ground.<br>moi. h. moist heaths.<br>moi. pl. moist places.<br>moi. ro. moist rocks.<br>moi. w. moist woods.<br>mo. pl. mountainous places.<br>mos. b. mossy bogs.<br>moun. mountains.<br>m. pas. moist pastures.<br>m. pas. mountainous pastures.<br>m. r. h. mountainous rocky heaths.<br>mrit. r. maritime rocks.<br>m. r. tr. moist rocks and trees. |  |  |   |  |   |   |   |   |   |   |   |

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

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

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

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

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

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

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

# THE ENCYCLOPÆDIA OF PLANTS.

## PART I. LINNEAN ARRANGEMENT.

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

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

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

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

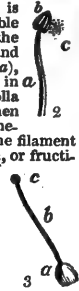
To discover the name of a plant by the Linnean system, therefore, all that is necessary for a beginner is to possess a specimen of it in flower, and to be able to know its different parts by the names given them by botanists. To discover the class, order, and genus of a plant, it is only necessary to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

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

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

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

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





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

| In the same flower,<br>Male and female organs distinct,<br>Stamens not united either above or below,<br>Generally of equal length, |            | CLASSES.   | ORDERS.   |   |
|--|------------|--|---|---|
| Stamens and Pistils  | In Number, | One, { 1. Monándria ( <i>monos</i> , one, <i>aner</i> , a man). Example, <i>Blitum capitatum</i> . 1         | 2. Monogynia ( <i>monos</i> , one, <i>gyné</i> , a woman), Digynia ( <i>dis</i> , twice, <i>gyné</i> , a woman).  |   |
|  |            | Two, { 2. Diándria ( <i>dis</i> , twice, <i>aner</i> , a man). <i>Ferúscus Chamaeúrys</i> . 8                | 3. Monogynia, Digynia, Trigynia ( <i>tris</i> , thrice, <i>gyné</i> , a woman).   |   |
|  |            | Three, { 3. Triándria ( <i>tris</i> , thrice, <i>aner</i> , man). <i>Foa ánn</i> . 30                        | 3. Monogynia, Digynia, Trigynia.  |   |
|  |            | Four, { 4. Tetrándria ( <i>tetra</i> , four, <i>aner</i> , a man). <i>Córnus sanguínea</i> . 76              | 3. Monogynia, Digynia, Tetragynia ( <i>tetra</i> , four, <i>gyné</i> , a woman).  |   |
|  |            | Five, { 5. Pentándria ( <i>penté</i> , five, <i>aner</i> , a man). <i>Lysimáchia ephémérum</i> . 108         | 6. Monogynia, Digynia, Trigynia, Tetragynia, Pentagynia ( <i>pentá</i> , five, <i>gyné</i> , a woman), Polygynia ( <i>polys</i> , many, <i>gyné</i> , a woman).                       |   |
|  |            | Six, { 6. Hexándria ( <i>hex</i> , six, <i>aner</i> , a man). <i>Scilla bifolia</i> . 236                    | 4. Monogynia, Digynia, Trigynia, Polygynia.   |   |
|  |            | Seven, { 7. Heptándria ( <i>hepta</i> , seven, <i>aner</i> , a man). <i>B'aculus Hippocástanum</i> . 296     | 4. Monogynia, Digynia, Tetragynia, Heptagynia ( <i>heptá</i> , seven, <i>gyné</i> , a woman).   |   |
|  |            | Eight, { 8. Octándria ( <i>okto</i> , eight, <i>aner</i> , a man). <i>Fúchia coccinea</i> . 300              | 4. Monogynia, Digynia, Trigynia, Tetragynia.  |   |
|  |            | Nine, { 9. Ennéándria ( <i>ennea</i> , nine, <i>aner</i> , a man). <i>Rhéum Rhopónticum</i> . 332            | 3. Monogynia, Trigynia, Hexagynia ( <i>hex</i> , six, <i>gyné</i> , a woman).   |   |
|  |            | Ten, { 10. Decándria ( <i>deka</i> , ten, <i>aner</i> , a man). <i>Saxifraga umbrosa</i> . 338               | 5. Monogynia, Digynia, Trigynia, Pentagynia, Decagynia ( <i>deka</i> , ten, <i>gyné</i> , a woman).   |   |
|  |            | Twelve, { 11. Dodecándria ( <i>dodeka</i> , twelve, <i>aner</i> , a man). <i>Sempervivum tectórum</i> . 392. | 6. Monogynia, Digynia, Trigynia, Tetragynia, Pentagynia, Dodecagynia ( <i>dodeka</i> , twelve, <i>gyné</i> , a woman).  |   |
|  |            | Many, frequently attached to the calyx,  | 12. Icosándria ( <i>ikoi</i> , twenty, <i>aner</i> , a man). <i>Cratægus Oxycantha</i> . 408  | 3. Monogynia, Di-pentagynia ( <i>dyo</i> , two, <i>penté</i> , five, <i>gyné</i> , a woman), Polygynia.                           |
|  |            | Many, generally upwards of twenty, not attached to the calyx,  | 13. Polyándria ( <i>polys</i> , many, <i>aner</i> , a man). <i>Clématis erecta</i> . 456  | 5. Monogynia, Digynia, Trigynia, Pentagynia; Polygynia.   |
|  |            | Of unequal length,   | 14. Didynámia ( <i>dis</i> , twice, <i>dyo</i> , two, <i>nema</i> , a filament). <i>Tebcrium lucídum</i> . 490  | 2. Gymnospermia ( <i>gymnos</i> , naked, <i>spérma</i> , seed), Anisiospermia ( <i>aggeton</i> , a vessel, <i>spérma</i> , seed). |
|  |            | { Two long, and two short,   | 15. Tetradynámia ( <i>tetra</i> , four, <i>dyo</i> , two, <i>nema</i> , a filament). <i>Ráphanus sativus</i> . 536  | 2. Siliculæ ( <i>sit'cula</i> , a silicle), Siliquæ ( <i>sit'qua</i> , a silique).  |
| { Four long, and two short,  |            |  |   |   |
| Stamens united,  |            |  |   |   |
| by the filaments,  |            |  |   |   |
| into one body,   |            | 16. Monadéphia ( <i>monos</i> , one, <i>adelphos</i> , brother). <i>Málva fragrans</i> . 560                 | 7. Triándria, Pentándria, Heptándria, Octándria, Decándria, Dodecándria, Polyándria.  |   |
| into two bodies,   |            | 17. Diadéphia ( <i>dis</i> , twice, <i>adelphos</i> , a brother). <i>Onónia arvensis</i> . 698               | 4. Pentándria, Hexándria, Octándria, Decándria.   |   |
| into many bodies   |            | 18. Polyadéphia ( <i>polys</i> , many, <i>adelphos</i> , brother). <i>Hypéricum quadrán</i> . 650            | 4. Decándria, Dodecándria, Icosándria, Polyándria.  |   |
| by the anthers or tops, into a cylinder,   |            | 19. Syngénésia ( <i>syn</i> , together, <i>généis</i> , origin). <i>Echínium l'ntybus</i> . 660              | 5. Polygámia æqualis (equal), Polygámia superflua (superfluous), Polygámia frustanáea ( <i>frustra</i> , in vain), Polygámia necessaria (necessary), Polygámia segregata (separated). |   |
| Male organs (stamens) attached to, and standing upon the female (pistil),  |            | 20. Gynándria ( <i>gyné</i> , a woman, <i>aner</i> , a man). <i>O'phrys spifera</i> . 748                    | 3. Monándria, Diándria, Hexándria.  |   |
| In different flowers,  |            | 21. Monoc'cia ( <i>monos</i> , one, <i>oikos</i> , house). <i>Cucúrbita Pépo</i> . 768                       | 8. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Polyándria, Monadéphia.   |   |
| on the same plant,   |            | 22. Dio'cia ( <i>dis</i> , twice, <i>oikos</i> , house). <i>Cánnabis sativa</i> . 816                        | 14. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Octándria, Ennéándria, Decándria, Dodecándria, Icosándria, Polyándria, Monadéphia, Gynándria.                  |   |
| on different plants,   |            | 23. Polygámia ( <i>polys</i> , many, <i>gámos</i> , marriage). <i>Gleditschia triacanthos</i> . 852          | 2. Monoc'cia, Dio'cia.  |   |
| on the same or different plants along with hermaphrodite flowers,  |            |  |   |   |

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

|  |   |   |  |
|--|---|---|--|
| Reproductive organs scarcely visible, so that they have not been distinctly described, | 24. Cryptogámia ( <i>cryptos</i> , concealed, <i>gámos</i> , marriage), 874 |  | 11. Gonopterides ( <i>gono</i> , seed, <i>pteris</i> , fern), Stachyopterides ( <i>stachys</i> , a spike, <i>pteris</i> , fern), Poropterides ( <i>poros</i> , a pore, <i>pteris</i> , fern), Filices ( <i>filix</i> , a fern), Hydropterides ( <i>hydor</i> , water, <i>pteris</i> , fern), Schizmatopterides ( <i>schizma</i> , a cleft, <i>pteris</i> , fern), Múci ( <i>muscus</i> , moss), Hepátices ( <i>hepar</i> , a liver), Al'gæ ( <i>alga</i> , sea weed), Lichens (Greek name), Fúngi ( <i>fungus</i> , a mushroom). |
|--|---|---|--|

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



CLASS I. — MONANDRIA. 1 STAMEN.

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

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

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

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

Order 1. MONOGYNIA.  1 Stamen. 1 Style.

§ 1. *Germen inferior, anther simple, style erect, free. Flowers spathaceous.*

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

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

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

§ 3. *Germen superior, corolla irregular.*

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

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

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

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

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

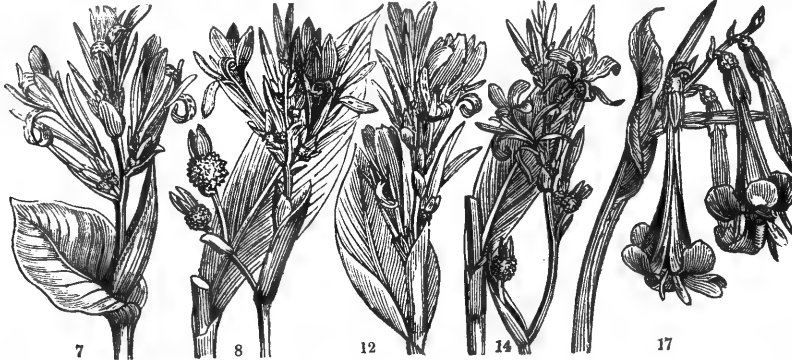
§ 6. *Apetalous.*

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

Order 2. DIGYNIA.  1 Stamen. 2 Styles.

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

| Systematic Name and Authority.        | English Name.  | Habit | Habitation in the Garden. | Popular Character. | Height in Feet. | Time of Flowering. | Color of the Flower. | Native Country. | Year of Intro. Exotics, and Localities of British Specimens. | Propagation. | Soil.                | Reference to Figures. |
|---------------------------------------|----------------|-------|---------------------------|--------------------|-----------------|--------------------|----------------------|-----------------|--|--------------|----------------------|-----------------------|
| <b>11. CAN'NA. W.</b>                 |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>INDIAN SHOT.</b>                   |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 1 <i>pátens</i> <i>Rosc.</i>          | spreading      | ✓     | □                         | or                 | 2               | my                 | R.v                  | Rio Jan.        | 1778.  | R r.m        | Bot. reg. 576        |                       |
| 2 <i>índica</i> <i>Rosc.</i>          | common         | ✓     | □                         | or                 | 2               | ja.d               | R                    | India           | 1570.  | R r.m        | Red. lil. 201        |                       |
| 3 <i>maculáta</i>                     | spotted        | ✓     | □                         | or                 | 2               | ja.d               | R.y                  | India           | ...  | R r.m        | Hook. ex. fl. 53     |                       |
| 3 <i>coccinea</i> <i>Rosc.</i>        | scarlet        | ✓     | □                         | or                 | 2               | ja.d               | S                    | S. Amer.        | 1751.  | R r.m        | Bot. mag. 452        |                       |
| 4 <i>lútea</i> <i>Rosc.</i>           | yellow         | ✓     | □                         | or                 | 2               | ja.d               | Y                    | E. Indies       | 1620.  | R r.m        | Bot. mag. 2385       |                       |
| 5 <i>Lambérti</i> <i>Lind.</i>        | Lambert's      | ✓     | □                         | or                 | 4               | my                 | S                    | Trinidad        | 1819.  | R r.m        | Bot. reg. 470        |                       |
| 6 <i>gigántea</i> <i>B. L.</i>        | gigantic       | ✓     | □                         | or                 | 3               | s.d                | R.v                  | W. Indies       | 1822.  | R r.m        | Bot. reg. 772        |                       |
| 7 <i>occidentális</i> <i>Rosc.</i>    | bordered       | ✓     | □                         | or                 | 3               | ja.d               | R                    | Brazil          | 1818.  | R r.m        | Bot. reg. 771        |                       |
| 8 <i>limbáta</i> <i>Rosc.</i>         | variable       | ✓     | □                         | or                 | 3               | ja.d               | R                    | Índia           | 1822.  | R r.m        |                      |                       |
| 9 <i>variábilis</i> <i>W.</i>         | red            | ✓     | □                         | or                 | 3               | ja.d               | R.y                  | W. Indies       | 1820.  | R r.m        |                      |                       |
| 10 <i>rúbra</i> <i>W.</i>             | red-stemmed    | ✓     | □                         | or                 | 3               | my                 | R                    | .....           | 1821.  | R r.m        |                      |                       |
| 11 <i>rubricáulis</i> <i>Lk.</i>      | eatable        | ✓     | □                         | or                 | 3               | s.d                | R                    | Peru            | 1830.  | R r.m        | Bot. reg. 775        |                       |
| 12 <i>edúlis</i> <i>B. R.</i>         | shewy          | ✓     | □                         | or                 | 3               | au.s               | R                    | .....           | 1830.  | R r.m        | Bot. mag. 2317       |                       |
| 13 <i>speciósa</i> <i>B. M.</i>       | stalked        | ✓     | □                         | or                 | 6               | s.d                | O                    | .....           | 1830.  | R r.m        | Bot. mag. 2323       |                       |
| 14 <i>pedunculáta</i> <i>B. M.</i>    | flaccid        | ✓     | □                         | or                 | 5               | jl                 | R                    | S. Carol.       | 1783.  | R r.m        | Sal. st. ra. 3. t. 2 |                       |
| 15 <i>flaccida</i> <i>Rosc.</i>       | glaucous       | ✓     | □                         | or                 | 2               | jn.au              | Y                    | S. Amer.        | 1732.  | R r.m        | Ex. b. 2. t. 102     |                       |
| 16 <i>gláuca</i> <i>Rosc.</i>         | rufous         | ✓     | □                         | or                 | 2               | jn.au              | Br                   | S. Amer.        | .....  | R r.m        | Bot. mag. 2302       |                       |
| 17 <i>iridióflóra</i> <i>Fl. Per.</i> | nodding-flow.  | ✓     | □                         | or                 | 6               | d.ja               | R                    | Peru            | 1816.  | R r.m        | Bot. mag. 1983       |                       |
| <b>12. MARANTA. W.</b>                |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>ARROW ROOT.</b>                    |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 18 <i>arundinácea</i> <i>W.</i>       | Indian         | ✓     | □                         | or                 | 2               | jl.au              | W                    | S. Amer.        | 1782.  | R s.l        | Bot. mag. 2307       |                       |
| 19 <i>obliqua</i> <i>Rudge.</i>       | oblique        | ✓     | □                         | or                 | 2               | d                  | R                    | Guiana          | 1803.  | R s.l        | Ru. p. g. p. 8. t. 2 |                       |
| 20 <i>lútea</i> <i>Jacq.</i>          | yellow         | ✓     | □                         | or                 | 2               | jn.jl              | Y.w                  | Caraccas        | 1809.  | R s.l        | Jac. ic. r. 2. 201   |                       |
| 21 <i>angustifólia</i> <i>B. M.</i>   | narrow-leaved  | ✓     | □                         | or                 | 2               | jl.au              | R                    | W. Indies       | 1820.  | R s.l        | Bot. mag. 2398       |                       |
| 22 <i>Tónchat</i> <i>W.</i>           | ovate          | ✓     | □                         | or                 | 8               | jl.au              | R                    | E. Indies       | 1819.  | R s.l        | Rumph. 4. t. 7       |                       |
| 23 <i>gibba</i> <i>L. K.</i>          | gibbous        | ✓     | □                         | or                 | 4               | au                 | O                    | E. Indies       | 1818.  | R s.l        |                      |                       |
| 24 <i>comósa</i> <i>W.</i>            | close-spiked   | ✓     | □                         | or                 | 2               | jn.jl              | Y.w                  | Surinam         | 1812.  | R s.l        |                      |                       |
| <b>13. CALATHEA. Mey.</b>             |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>CALATHEA.</b>                      |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 25 <i>zebrina</i> <i>Lind.</i>        | striped-leaved | ✓     | □                         | or                 | 2               | ja.d               | R.y                  | Brazil          | 1815.  | R s.p        | Bot. reg. 385        |                       |
| <i>Maránta zebrina</i> <i>B. M.</i>   |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>4. THALIA. W.</b>                  |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>THALIA.</b>                        |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 26 <i>dealbáta</i> <i>Rosc.</i>       | mealy          | ✓     | □                         | or                 | 4               | jl.au              | W                    | S. Carol.       | 1791.  | R p.l        | Bot. mag. 1680       |                       |
| <b>15. PHRYNIUM. W.</b>               |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>PHRYNIUM.</b>                      |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 27 <i>capitátum</i> <i>W.</i>         | headed         | ✓     | □                         | or                 | 5               | W                  | W                    | E. Indies       | 1807.  | R s.l        | As. r. 11. t. 3      |                       |
| 28 <i>dichótomum</i> <i>Rorb.</i>     | forked         | ✓     | □                         | or                 | 5               | jl.au              | W                    | E. Indies       | 1810.  | R s.l        |                      |                       |
| <b>16. HEDYCHIUM. W.</b>              |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| <b>GARLAND FLOWERS.</b>               |                |       |                           |                    |                 |                    |                      |                 |  |              |                      |                       |
| 29 <i>coronárium</i> <i>Rorb.</i>     | sweet-scented  | ✓     | □                         | or                 | 5               | jn.s               | Y                    | E. Indies       | 1791.  | R p.l        | Bot. mag. 706        |                       |
| 30 <i>angustifólium</i> <i>Roz.</i>   | scarlet        | ✓     | □                         | or                 | 5               | jn.s               | S                    | E. Indies       | 1815.  | R s.l        | Bot. reg. 157        |                       |
| 31 <i>elátum</i> <i>Fr.</i>           | tall           | ✓     | □                         | or                 | 5               | jn.d               | Y                    | E. Indies       | 1818.  | R r.s        | Bot. reg. 526        |                       |
| 32 <i>Gardneriánium</i> <i>Wall.</i>  | Gardner's      | ✓     | □                         | or                 | 7               | jn.au              | Y                    | E. Indies       | 1819.  | R s.l        | Bot. reg. 771        |                       |
| 33 <i>flavescens</i> <i>B. C.</i>     | pale-yellow    | ✓     | □                         | or                 | 6               | jn                 | Y                    | India           | 1822.  | R s.l        | Bot. cab. 723        |                       |
| 34 <i>spicátum</i> <i>B. M.</i>       | spiked         | ✓     | □                         | or                 | 3               | jn                 | Y                    | E. Indies       | 1810.  | R co         | Bot. mag. 2300       |                       |
| 35 <i>gráclie</i> <i>Rorb.</i>        | slender        | ✓     | □                         | or                 | 3               | jn                 | W                    | Bengal          | 1823.  | R s.l        |                      |                       |
| 36 <i>flávum</i> <i>Rorb.</i>         | yellow         | ✓     | □                         | or                 | 3               | jn.au              | Y                    | Nepal           | 1822.  | R s.l        | Bot. cab. 604        |                       |
| 37 <i>heteromállum</i> <i>B. R.</i>   | variable       | ✓     | □                         | or                 | 3               | jn.au              | Y                    | India           | 1822.  | R s.l        | Bot. reg. 767        |                       |



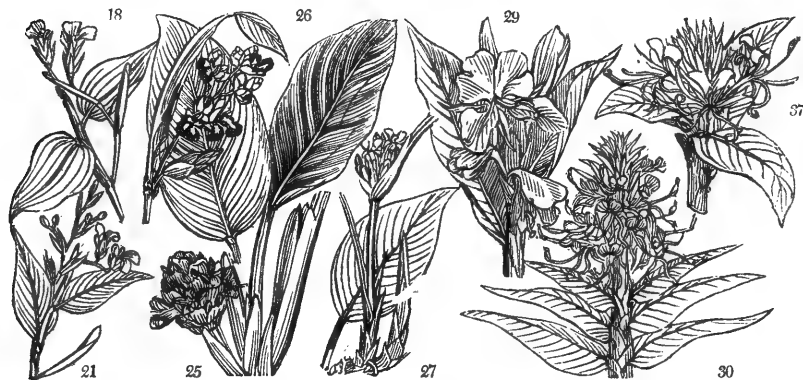
History, Use, Propagation, Culture,

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

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

## Essential specific Character.

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



## and Miscellaneous Particulars.

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

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

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

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

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

|                               |                 |   |   |                     |            |          |           |        |                            |
|-------------------------------|-----------------|---|---|---------------------|------------|----------|-----------|--------|----------------------------|
| 7. ROSCOEA. <i>Sm.</i>        | ROSCOEIA.       |   |   | <i>Scitamineae.</i> | Sp. 1-5.   |          |           |        |                            |
| 38 purpurea <i>Sm.</i>        | purple          | ∩ | ∆ | or 1                | P          | Nepal    | 1820.     | R s.l. | Ex. b. t. 108              |
| 18. ALPYNIA. <i>W.</i>        | ALPYNIA.        |   |   | <i>Scitamineae.</i> | Sp. 13-19. |          |           |        |                            |
| 39 comosa <i>Jacq.</i>        | close-spiked    | ∩ | ∆ | or 1                | oc.f       | W.y      | E. Indies | 1752.  | R s.l. Ja. ic. rar. v. 3   |
| 40 Galanga <i>W.</i>          | loose-flowered  | ∩ | ∆ | or 6                | jl.s       | W        | W. Indies | 1752.  | R s.l. Ru. am. 5. t. 63    |
| 41 racemosa <i>Ros.</i>       | clustered       | ∩ | ∆ | or 5                | jl.s       | W        | W. Indies | 1752.  | R s.l. Pl. ic. 11. t. 20   |
| 42 occidentalis <i>Su.</i>    | occidental      | ∩ | ∆ | or 6                |            | W        | Jamaica   | 1793.  | R s.l.                     |
| 43 nótans <i>Ros.</i>         | nodding         | ∩ | ∆ | or 13               | ap.jn      | Pk       | E. Indies | 1792.  | R s.l. Ex. b. 2. t. 106    |
| 44 cernua <i>B.M.</i>         | drooping        | ∩ | ∆ | or 6                | ap.jn      | Pk       | E. Indies | 1804.  | R s.l. Bot. mag. 1900      |
| 45 calcarata <i>Ros.</i>      | upright         | ∩ | ∆ | or 3                | s          | W        | E. Indies | 1800.  | R s.l. Bot. rep. 421       |
| 46 malaccensis <i>Ros.</i>    | petiolate       | ∩ | ∆ | or 5                | ap.my      | W        | E. Indies | 1799.  | R s.l. Bot. reg. 328       |
| 47 mútica <i>Rozb.</i>        | spurless        | ∩ | ∆ | or 5                | au         | W        | E. Indies | 1811.  | R s.l.                     |
| 48 Cardamómum <i>Rozb.</i>    | cardamoms       | ∩ | ∆ | or 8                | au         | W.P      | E. Indies | 1815.  | R s.l. R. mal. 11. t. 4, 5 |
| 49 spicata <i>Rozb.</i>       | spiked          | ∩ | ∆ | or 2                |            |          | Sumatra   | 1822.  | R r.m.                     |
| 50 tubulata <i>B.R.</i>       | tubular         | ∩ | ∆ | or 2                | jl.au      | R        | Demarara  | 1820.  | R s.l. Bot. reg. 777       |
| 51 Allúghas <i>W.</i>         | Ceylon          | ∩ | ∆ | or 2                | f.m        | R        | E. Indies | 1796.  | R s.l. Bot. rep. 501       |
| 9. HELLENIA. <i>R.B.</i>      | HELLENIA.       |   |   | <i>Scitamineae.</i> | Sp. 1.     |          |           |        |                            |
| 52 cærdia <i>Br.</i>          | blue            | ∩ | ∆ | or 2                | B          | N. Holl. | 1820.     |        |                            |
| 10. ZINGIBER. <i>Rosc.</i>    | GINGER.         |   |   | <i>Scitamineae.</i> | Sp. 8-16.  |          |           |        |                            |
| 53 pandurátum <i>Rozb.</i>    | fiddle-lipped   | ∩ | ∆ | or 3                | my.jn      | Pk       | E. Indies | 1812.  | R s.l.                     |
| 54 Mioga <i>Ros.</i>          | Japanese        | ∩ | ∆ | or 2                | my.jn      | Pk       | Japan     | 1796.  | R r.m. Kæm. ic. 1          |
| 55 officinalis <i>Ros.</i>    | narrow-leaved   | ∩ | ∆ | or 2                | jn.au      | R        | E. Indies | 1605.  | R r.m. Jac. vin. 1. t. 73  |
| 56 Zerúmbet <i>Ros.</i>       | broad-leaved    | ∩ | ∆ | or 4                | au         | Y.g      | E. Indies | 1690.  | R r.m. Ex. b. 2. t. 112    |
| 57 Casumínar <i>Rozb.</i>     | downy-leaved    | ∩ | ∆ | or 2                | s          | W.y      | E. Indies | 1807.  | R r.m. Bot. mag. 1426      |
| 58 purpúreum <i>Rosc.</i>     | purple-bracted  | ∩ | ∆ | or 2                | s          | P        | E. Indies | 1796.  | R s.l.                     |
| 59 róseum <i>Rozb.</i>        | rosy            | ∩ | ∆ | or 2                | au         | R.y      | E. Indies | 1822.  | R s.l. Roxb. cor. 2. 126   |
| 60 squarrósum <i>Rozb.</i>    | squarrose       | ∩ | ∆ | or 2                | au         | Pk       | E. Indies | 1822.  | R s.l.                     |
| 11. COSTUS. <i>Rosc.</i>      | COSTUS.         |   |   | <i>Scitamineae.</i> | Sp. 6-13.  |          |           |        |                            |
| 61 arábicus <i>L.</i>         | Arabian         | ∩ | ∆ | or 2                | au         | W        | both Ind. | 1752.  | R s.l.                     |
| 62 spicata <i>W.</i>          | spiked          | ∩ | ∆ | or 1                | jn         | Y        | W. Indies | 1793.  | R s.l. Jacq. am. t. 1      |
| 63 speciosus <i>Rosc.</i>     | shewy           | ∩ | ∆ | or 3                | au         | W        | E. Indies | 1793.  | R s.l. Jacq. ic. 1         |
| 64 angustifolius.             | narrow-leaved   | ∩ | ∆ | or 3                | au         | W        | E. Indies | 1793.  | R s.l. Bot. reg. 665       |
| 65 áfer <i>B.R.</i>           | African         | ∩ | ∆ | or 2                | jn.jl      | W        | S. Leone  | 1822.  | R s.l. Bot. reg. 683       |
| 66 hírsutus.                  | hairy           | ∩ | ∆ | or 2                | jn.jl      | W        | S. Leone  | 1822.  | R s.l.                     |
| 67 spiralis <i>Rozb.</i>      | spiral          | ∩ | ∆ | or 4                | n.d        | Sc       | St. Vinc. | ...    | R s.l. Jacq. schb. 1. t. 1 |
| 68 villosissimus <i>Jacq.</i> | villous         | ∩ | ∆ | or 6                | n.d        | Y        | St. Vinc. | 1822.  | R s.l.                     |
| 112. KEMPFERIA. <i>W.</i>     | GALANGALE.      |   |   | <i>Scitamineae.</i> | Sp. 6-8.   |          |           |        |                            |
| 67 rotúnda <i>L.</i>          | round-rooted    | ∩ | ∆ | or 1                | jl.au      | R.w      | E. Indies | 1764.  | R s.l. Bot. mag. 920       |
| 68 Galánga <i>L.</i>          | official        | ∩ | ∆ | or 1                | jn.s       | W.P      | E. Indies | 1728.  | R s.l. Bot. mag. 850       |
| 69 angustifolia <i>Jacq.</i>  | narrow-leaved   | ∩ | ∆ | or 1                | m.ap       | W.B      | E. Indies | 1797.  | R s.l. Red. hil. 7. t. 389 |
| 70 pandurata <i>B. Reg.</i>   | fiddle-shaped   | ∩ | ∆ | or 1                | ap.jn      | P        | E. Indies | 1797.  | R s.l. Bot. reg. 173       |
| 71 latifolia <i>Donn.</i>     | broad-leaved    | ∩ | ∆ | or 1                | ap.jn      | W        | E. Indies | 1803.  | R s.l.                     |
| 72 ovalifolia <i>Rozb.</i>    | oval            | ∩ | ∆ | or 1                | jl         | W.P      | Malacca   | 1822.  | R s.l.                     |
| 13. AMOMUM. <i>Rosc.</i>      | AMOMUM.         |   |   | <i>Scitamineae.</i> | Sp. 7-20.  |          |           |        |                            |
| 73 Afzélii <i>Ros.</i>        | sweet-scented   | ∩ | ∆ | or 3                | my.jn      | Pk       | S. Leone  | 1795.  | R r.m. Ann. bot. 1. t. 13  |
| 74 grandiflorum <i>E. E.</i>  | large-flowered  | ∩ | ∆ | or 3                | jn.jl      | W        | S. Leone  | 1795.  | R r.m. Ex. bot. t. 111     |
| 75 angustifolium <i>Ros.</i>  | narrow-leaved   | ∩ | ∆ | or 8                | jn.jl      | R        | Madagasc. | ...    | R r.m. Sonn. it. 2. t. 137 |
| 76 Grana Paradisi <i>W.</i>   | grain of parad. | ∩ | ∆ | or 1                | f.m        | R        | Madagasc. | ...    | R r.m. Rh. mal. 11. t. 6   |
| 77 dealbátum <i>Rozb.</i>     | insipid         | ∩ | ∆ | or 3                | mr.ap      | W        | Bengal    | 1819.  | R s.l.                     |
| 78 sylvestre <i>W.</i>        | wild            | ∩ | ∆ | or 1                | mr.ap      | W        | E. Indies | 1819.  | R s.l. Slo. jam. 1. t. 105 |
| 79 subulátum <i>Rozb.</i>     | subulate        | ∩ | ∆ | or 3                | mr.ap      | Y        | Bengal    | 1822.  | R s.l.                     |



#### History, Use, Propagation, Culture,

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

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

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

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

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

- 30 Spike terminal comose, Bracteas colored longer than the flowers, Leaves oblong-ovate pubescent  
 40 Leaves sessile broad lanc. Panicle termin. Lip obl. unguiculated bifid, Caps. obov. smooth, Seeds few  
 41 Lip trifid, Leaves ovate-lanc. apex revolute, Caps. striated  
 42 Lip emarginate, Leaves lanceolate ovate very smooth [and bifid, Caps. spher. open. on sides, Seeds few  
 43 Leaves lanc. short stkd. small, Rac. comp. droop. Lip broad 3-lob. lateral incurv. into a tube: external curled  
 44 Racemes terminal drooping, Lip bifid, Leaves lanc. acumin. Margins rough with little spinous teeth  
 45 Leaves linear-lanc. polished, Spike compound erect, Lip ovate-obl. apex curled and bifid  
 46 Racemes spiked, Lip round und. 2-lob. Caps. vill. Leaves obl. villous beneath  
 47 Racemes compound, Lip 3-lob. no spur, Caps. berried, Leaves narrow shining  
 48 Scape radical compound flexuose procumbent, Lip 3-lob. calcarate  
 49 Spike terminal oblong compactly imbricated with narrow sharp bractes  
 50 Leaves bifar. very remote scape sheathed radical, Bracts dry pointed perm. Cor. tub. Lip included, Anth. sess.  
 51 Nectary 2-leaved, Capsules spongy, Leaves smooth entire

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

- 53 Spikes radical, Leaves stalked broad smooth, Ligula large, Lip fiddle-shaped  
 54 Segments of the corolla concave acute equal, Lip ovate concave  
 55 Leaves sub-sessile linear-lanceolate smooth, Spikes elevated oblong, Bracteas acute, Lip 3-lobed  
 56 Stems decl. Leaves bifar. sess. lanc. Spike long-ped. oval close obt. Bract. broad obov. obt. marg. col. Lip 3-lob.  
 57 Stem erect, Leaves narr. sess. Spikes compact cone-shaped, Bract. broad ovate-pointed, Lip 3-lobed  
 58 Spikes lat. Bracteas ovate col. Segm. of cor. erect, Nect. 2-lob.  
 59 Spikes lat. Leaves short-stalked lanc. Spikes lax  $\frac{1}{2}$  in the earth, Lip entire  
 60 Spikes lat. squarr.  $\frac{1}{2}$  in the earth, Bract. narrow recurv. Lip 3-lobed

- 61 Nect. ovate entire, Leaves smooth on both sides  
 62 Nect. wavy sub-3-fid. Leaves pointed entire shining, Spike close  
 63 Nect. obsol. 3-lob. fringed wavy, Leaves silky beneath

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

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

66 Leaves rounded and stem very hairy, Flowers crisp

- 67 Dorsal segments of nectary lanc. acute: frontal 2 part. Segments obovate, Leaves oblong colored beneath  
 68 Dorsal segments of nect. obtuse obsoletely 3-lobed: frontal 2-lobed wavy, Leaves ovate pale beneath  
 69 Dorsal segments of nect. linear obtuse: frontal emarg. Leaves lanc. pale beneath  
 70 Leaves stalked broad lanc. smooth, Spike central, Cor. with inferior segment very large and panduriform  
 71 Leaves orbiculate ovate wavy woolly beneath  
 72 Leaves oval, Spike central, Anther crest jagged

- 73 Scape very short, Flowers heaped, Leaves distant ovate acum. entire smooth  
 74 Scape short, Flowers numerous close, Sterile stem simple, Leaves ellipt. lanc. pointed  
 75 Scape naked very short, Spike capitate, Leaves linear lanceolate  
 76 Scape branching lax, Leaves ovate  
 77 Leaves broad villous beneath, Spikes radical, Lip round oval, Crest broad truncated, Caps. 9 winged  
 78 Scape naked, Spike elong. Bract. inflated, Leaves broad lanceol.  
 79 Leaves lanceol. smooth, Spikes obovate echinated, Lip oblong



and Miscellaneous Particulars.

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

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

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

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

|                                |                  |   |       |                           |              |                 |             |                                |
|--------------------------------|------------------|---|-------|---------------------------|--------------|-----------------|-------------|--------------------------------|
| 14. CURCUMA. <i>W.</i>         | TURMERIC.        |   |       | <i>Scitamineæ.</i>        | Sp. 16-18.   |                 |             |                                |
| 80 Zedoária <i>Ros.</i>        | broad-leaved     | △ | or 3  | ap.au                     | R            | E. Indies       | 1797.       | R r m Bot. mag. 1546           |
| 81 Zerumbet <i>Rozb.</i>       | Zedoary          | △ | clt 3 | ap.au                     | Y            | E. Indies       | 1807.       | R r m Bot. mag. 2000           |
| 82 æruginósa <i>Rozb.</i>      | green-rooted     | △ | or 5  | ap.au                     | R v          | E. Indies       | 1807.       | R r m                          |
| 83 rubescens <i>Rozb.</i>      | reddish          | △ | or 3  | my.s                      | Y            | E. Indies       | 1805.       | R r m Rosc. scit. ic.          |
| 84 casia <i>Rozb.</i>          | casious          | △ | or 1  | ap.jn                     | Y            | Bengal          | 1819.       | R s l                          |
| 85 comósa <i>Rozb.</i>         | many-flowered    | △ | or 2  | my                        | R v          | E. Indies       | 1819.       | R s l                          |
| 86 eláta <i>Rozb.</i>          | tall             | △ | or 3  | my                        | Cr           | E. Indies       | 1819.       | R s l Rosc. scit. ic.          |
| 87 ferruginea <i>Rozb.</i>     | sweet-rooted     | △ | or 1  | my                        | Y            | E. Indies       | 1819.       | R s l Rosc. scit. ic.          |
| 88 leucorhiza <i>Rozb.</i>     | white-rooted     | △ | or 1  | my                        | R v          | E. Indies       | 1819.       | R s l                          |
| 89 xanthorhiza <i>Rozb.</i>    | yellow-rooted    | △ | or 4  | my                        | R            | Amboyna         | 1819.       | R s l                          |
| 90 rubricaulis <i>Lk.</i>      | red-stemmed      | △ | or 1  | my                        | R            | E. Indies       | 1822.       | R s l                          |
| 91 angustifolia <i>Rozb.</i>   | narrow-leaved    | △ | or 3  | jl                        | Y            | E. Indies       | 1822.       | R s l As. res. 11. 5           |
| 92 viridiflora <i>Rozb.</i>    | green-flowered   | △ | or 2  | jlau                      | Y. g         | Sumatra         | 1822.       | R s l                          |
| 93 petiolata <i>Rozb.</i>      | long-stalked     | △ | or 2  | au                        | Y            | Pegu            | 1822.       | R s l                          |
| 94 Amáta <i>Rozb.</i>          | Mango-ginger     | △ | clt 2 | ap.jn                     | R v          | Bengal          | 1819.       | R s l Rosc. scit. ic.          |
| 95 lóngá <i>Ros.</i>           | long-rooted      | △ | clt 2 | au                        |              | E. Indies       | 1759.       | R s l Jac. vind. 3. t. 4       |
| 15. GLOBBA. <i>Ros.</i>        | GLOBBA.          |   |       | <i>Scitamineæ.</i>        | Sp. 3-11.    |                 |             |                                |
| 96 marantína <i>Ros.</i>       | round-headed     | △ | or 1½ | jlau                      | Y            | E. Indies       | 1800.       | R s l Ex. bot. 2. t. 103       |
| 97 sessiliflora <i>B. M.</i>   | sessile-flower'd | △ | or 1½ | au                        | Y            | Pegu            | 1807.       | R s l Bot. mag. 1428           |
| 98 Careyána <i>Rozb.</i>       | Dr. Carey's      | △ | or 1½ | au                        | Y            | Pegu            | 1822.       | R s l Bot. cab. 691            |
| 16. MANTISIA. <i>Sim.</i>      | MANTISIA.        |   |       | <i>Scitamineæ.</i>        | Sp. 1.       |                 |             |                                |
| 99 saltatória <i>B. M.</i>     | opera girls      | △ | or 1  | jn                        | P            | E. Indies       | 1808.       | R s l Bot. mag. 1320           |
| 17. PHILYDRUM. <i>B. P.</i>    | PHILYDRUM.       |   |       | <i>Related to Juncea,</i> | <i>R. B.</i> | <i>Sp. 1-2.</i> |             |                                |
| 100 lanuginósum <i>B. P.</i>   | woolly           | △ | or 3  | jn.jl                     | Y            | China           | 1801.       | C l p Bot. mag. 783            |
| 18. LOPEZIA. <i>Cav.</i>       | LOPEZIA.         |   |       | <i>Onagraricæ.</i>        | Sp. 4-5.     |                 |             |                                |
| 101 hirsúta <i>H.K.</i>        | hairy            | △ | or 1½ | s.n                       | R            | Mexico          | 1796.       | S co Jac. c. s. 5. t. 15. f. 4 |
| 102 racemósa <i>H.K.</i>       | smooth           | △ | or 1½ | au.o                      | R            | Mexico          | 1792.       | S co Bot. mag. 254             |
| 103 coronáta <i>H.K.</i>       | coronet-flower.  | △ | or 1½ | jl.s                      | R            | Mexico          | 1805.       | S co Bot. rep. 551             |
| 104 cordáta <i>Horn.</i>       | cordate          | △ | or 1  | jl.s                      | P            | Mexico          | 1821.       | S co                           |
| 19. BOERHAAVIA. <i>W.</i>      | HOGWEED.         |   |       | <i>Nyctagineæ.</i>        | Sp. 5-25.    |                 |             |                                |
| 105 erécta <i>W.</i>           | upright          | △ | or 1½ | jl.s                      | W            | India           | 1733.       | S co Jac. vind. 1. t. 5, 6     |
| 106 diffusa <i>W.</i>          | spreading        | △ | or 1  | au.s                      | Cr           | India           | 1690.       | S co Her. par. 257. ic.        |
| 107 hirsúta <i>W.</i>          | scarlet-trailing | △ | or 1  | my.au                     | R            | Jamaica         | 1733.       | S co Jac. vind. 1. t. 7        |
| 108 scan'dens <i>W.</i>        | climbing         | △ | or 6  | ap.s                      | G            | Jamaica         | 1691.       | S co Jac. vind. 1. t. 4        |
| 109 viscosa <i>Lag.</i>        | clammy           | △ | or 3  | ap.s                      | Sc           | Peru            | 1821.       | C co                           |
| 20. CENTRANTHUS. <i>Mich.</i>  | CENTRANTHUS.     |   |       | <i>Valerianææ.</i>        | Sp. 3-4.     |                 |             |                                |
| 110 rúber <i>D. C.</i>         | red              | △ | or 1½ | my.jl                     | Cr           | Britain         | mea.        | R co Eng. bot. 1531            |
| 111 angustifolius <i>D. C.</i> | narrow-leaved    | △ | or 1½ | my.jl                     | Cr           | S. Europe       | 1759.       | R co Fl. grac. 29              |
| 112 calcitrapa <i>Dufr.</i>    | cut-leaved       | △ | or 1  | my.jl                     | P            | Portugal        | 1683.       | S co Fl. grac. 30              |
| 21. POLLICHIA. <i>W.</i>       | POLLICHIA.       |   |       | <i>Chenopodææ.</i>        | Sp. 1.       |                 |             |                                |
| 113 campéstris <i>W.</i>       | short-leaved     | △ | or 6  | s                         | Ap           | C. B. S.        | 1780.       | C co Sm. spicil. 1. t. 1       |
| 22. SALICORNIA. <i>W.</i>      | GLASSWORT.       |   |       | <i>Chenopodææ.</i>        | Sp. 5-18.    |                 |             |                                |
| 114 arábica <i>W.</i>          | Arabian          | △ | or 1  | jn.jl                     | Ap           | Arabia          | 1758.       | C s l Mor. 2. t. 33. f. 7      |
| 115 fruticósa <i>W.</i>        | shrubby          | △ | or 1  | au.s                      | Ap           | Britain         | sea sh. S s | Eng. bot. 2467                 |
| 116 radicans <i>E. B.</i>      | rooting          | △ | or 1  | s                         | Ap           | Britain         | sea sh. S s | Eng. bot. 1691                 |
| 117 herbácea <i>W.</i>         | marsh            | △ | clt 1 | au.s                      | Ap           | Britain         | sea sh. S s | Eng. bot. 415                  |
| 118 procumbens <i>E. B.</i>    | procumbent       | △ | clt 1 | au                        | Ap           | England         | sal. m. S l | Eng. bot. 1691                 |
| 23. HIPPURIS. <i>W.</i>        | MARESTAIL.       |   |       | <i>Haloragææ.</i>         | Sp. 1.       |                 |             |                                |
| 119 vulgáris <i>W.</i>         | common           | △ | clt 1 | my.jn                     | Ap           | Britain         | dit.        | R co Eng. bot. 763             |



*History, Use, Propagation, Culture.*

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

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

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

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

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

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

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

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

99 The only species

100 Flowers bright yellow, Leaves hairy

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

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

- 110 Leaves entire lanceolate, Stem  $\frac{1}{2}$ -shrubby at base, Flowers corymbose, Stamens nearly twice as long as cor.  
 111 Leaves linear, Stem herbaceous, Flowers corymbose, Stamens nearly thrice as long as corolla  
 112 Rad. leaves ovate cauline pinnatifid, Stem upright smooth, Flowers paniced

113 Stems branching declining, Flowers minute sessile in axillary heads

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

119 Leaves whorled 10-12 linear acute



and Miscellaneous Particulars.

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

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

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

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

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



|   |              |        |    |                       |          |           |         |   |    |                          |          |
|---|--------------|--------|----|-----------------------|----------|-----------|---------|---|----|--------------------------|----------|
| 24. <i>ZOSTERA</i> . L. SEA WRACKGRASS.     |              |        |    | <i>Fluviales</i> .    | Sp. 1.   |           |         |   |    |                          |          |
| 120 <i>marina</i> L.                        | common       | ≡ Δ ec |    | au.s                  | Ap       | Britain   | sea sh. | S | ♂  | Eng. bot.                | 467      |
| 25. <i>CHLORANTHUS</i> . W. CHLORANTHUS.    |              |        |    | <i>Chlorantheae</i> . | Sp. 3-4. |           |         |   |    |                          |          |
| 121 <i>inconspicuus</i> W.                  | trailing     | ☐ cu   | 1  | ap.s                  | Ap       | China     | 1781.   | C | co |                          |          |
| 122 <i>monostachys</i> Lindl.               | herbaceous   | ☐ cu   | 1  | my.s                  | Ap       | China     | 1819.   | C | co | Lind. coll.              | 17       |
| 123 <i>monánder</i> Br.                     | upright      | ☐ cu   | 1½ | jn                    | Ap       | China     | 1817.   | C | co |                          |          |
| <b>DIGYNIA.</b>                             |              |        |    |                       |          |           |         |   |    |                          |          |
| 26. <i>CORISPERMUM</i> . W. TICKSEED.       |              |        |    | <i>Chenopodææ</i> .   | 4-9.     |           |         |   |    |                          |          |
| 124 <i>hypsopifolium</i> W.                 | hysop-leaved | ○      | 1½ | jl                    | Ap       | Europe    | 1739.   | S | co | Fl. græc.                | 1. t. 1  |
| 125 <i>squarrosum</i> W.                    | rough-spiked | ○      | 1  | au.s                  | Ap       | Russia    | 1759.   | S | co | Pall. ross.              | 2. t. 99 |
| 126 <i>Redówskii</i> Fisch.                 | Redowky's    | ○      |    | jl.au                 | Ap       | Siberia   | 1822.   | S | co |                          |          |
| 127 <i>intermediúum</i> Schku.              | intermediate | ○      |    | jl.au                 | Ap       | Poland    | 1822.   | S | co |                          |          |
| 27. <i>CALLITRICHÉ</i> . W. WATER STARWORT. |              |        |    | <i>Haloragææ</i> .    | Sp. 1.   |           |         |   |    |                          |          |
| 128 <i>aquática</i> E. B.                   | common       | ≡ ○    |    | ap.o                  | W        | Britain   | dit.    | S | aq | Eng. bot.                | 722      |
| 28. <i>BLITUM</i> . W. STRAWBERRY BLITE.    |              |        |    | <i>Chenopodææ</i> .   | Sp. 3.   |           |         |   |    |                          |          |
| 129 <i>capitátum</i> W.                     | berry-headed | ○ or   | 2  | my.au                 | Ap       | Austria   | 1633.   | S | ru | Pt. et T. fl. p. 1. t. 2 |          |
| 130 <i>virgátum</i> W.                      | slender      | ○ or   | 2  | my.s                  | Ap       | S. Europe | 1680.   | S | ru | Bot. mag.                | 276      |
| 131 <i>chenopodioides</i> Lam.              | goosefoot    | ○      | 2½ | my.au                 | Ap       | Crimæa    | 1797.   | S | co | M. h. l. t. 32. f. 11    |          |
| 29. <i>ASPICARPA</i> . Rich. ASPICARPA.     |              |        |    | <i>Malpighiaceæ</i> . | Sp. 1.   |           |         |   |    |                          |          |
| 132 <i>úrens</i> Rich.                      | stinging     | ☐ Δ    | 5½ | ju. jl                | Ap       | S. Amer.  | 1821.   | C | co | Mem. n. 2. . 13          |          |



History, Use, Propagation, Culture,

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

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

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



## CLASS II. — DIANDRIA. 2 STAMENS.

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

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

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

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

## Order I. MONOGYNIA. 2 Stamens. 1 Style.



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

20. *Codarium*. Cal. 5-cut, with a persistent tube. Cor. flattish. Legumen one-seeded, filled with a soft fœcula.

31. *Maytenus*. Cal. 5 lobed. Cor. campanulate, entire. Caps. compressed, 2-valved, with 2 cells, and 2 seeds.

120 Leaves entire somewhat 3-nerved, Stems nearly round

- 121 Spikes compound, Stem decumbent  
 122 Spike simple solitary, Stem upright  
 123 Spikes 2-4 simple, Stem upright, Leaves thick

### DIGYNIA.

- 124 Spikes terminal, Flowers distant, Leaves nerveless and bracts unarmed  
 125 Spikes axillary, Flowers close imbricate, Leaves nerveless and bracts mucronate pungent  
 126 Spikes terminal, Flowers becoming remote, Leaves nerveless and bracts pungent, Fruit incurved  
 127 Spikes terminal and axillary, Flowers imbricate, Leaves and bracts mucronate, Stem villous

128 A small floating plant resembling Lemna

- 129 Heads in terminal spikes  
 130 Heads lateral scattered  
 131 Heads axillary small not juicy, Stem very branching

132 A stinging twining perennial plant



### and Miscellaneous Particulars.

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

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

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

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

32. *Olea*. Cor. 4-cleft. Segments subovate. Drupe one-seeded.  
 33. *Phillyrea*. Cor. 4-cleft. Berry one-seeded.  
 34. *Chionanthus*. Cor. 4-cleft. Segments very long. Drupe one-seeded, with a furrowed nut.  
 35. *Notelaea*. Cal. 4-toothed. Cor. 4 short oval petals united by the base of the stamens. Filaments 4-horned. Style O. Stigma bifid. Drupe with a papery putamen.  
 36. *Ligustrum*. Cor. 4-cleft. Berry 4-seeded.  
 37. *Syringa*. Cor. 4-cleft. Capsule of two cells.  
 38. *Nyctanthes*. Cor. 4-cleft. Segments truncated. Caps. with two cells edged. Seeds solitary.  
 39. *Jasminum*. Cor. 5 or 8-cleft. Berry with two divisions. Seeds solitary with an arillus.

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

40. *Veronica*. Cor. 4-cleft: limb flattish; the lowest segment the narrowest. Capsule 2-celled.  
 41. *Galipea*. Cor. 4 or 5-cleft, hypocrateriform. Stam. 4: 2-sterile.  
 42. *Schwenkia*. Cor. nearly equal: the orifice plaited, stellate, and glandular. Stam. 5: 3-sterile. Capsule 2-celled.  
 43. *Gratiola*. Cor. 4-cleft, 2-lipped, resupinate. Stamens 4: 2-sterile. Caps. 2-celled.  
 44. *Schizanthus*. Cal. 5-parted. Cor. 2-lipped resupinate: the upper lip 5-parted, the lower 3-parted. Stam. 4, 2-sterile. Caps. 2-celled.  
 45. *Elytraria*. Cal. 4-5-parted. Cor. 5-cleft, nearly equal. Caps. 2-valved, 2-celled. Seeds attached below to a dissepiment contrary to the valves.  
 46. *Hypostes*. Cal. 5-cleft equal, with a 4-cleft 3-flowered involucre. Cor. 2-lipped. Stamens 2. Anther. 1-celled. Seeds fixed by little hooks.  
 47. *Justicia*. Cal. 5-parted equal. Cor. 2-lipped or ringent: the lower lip divided. Anthers 2-celled. Seeds attached by little hooks.  
 48. *Dicliptera*. Cal. 5-parted. Cor. bilabiate. Caps. with two elastic valves,  $\frac{1}{2}$  2-celled, the dissepiment retaining the seeds by its inflexed toothed edge.  
 49. *Eranthemum*. Cal. 5-parted. Cor. 5-cleft, with the tube curved in the middle. Caps. many seeded.  
 50. *Wulfenia*. Cor. 4-cleft: smooth bearded. Cal. 5-parted. Caps. 2-celled.  
 51. *Calceolaria*. Cor. ringent, inflated. Cal. 4-cleft. Caps. 2-celled, 4-valved.  
 52. *Pinguicula*. Cor. ringent, spurred. Cal. 5-cleft. Caps. 1-celled.  
 53. *Utricularia*. Cor. ringent, spurred. Cal. 2-leaved. Caps. 1-celled.

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

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

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

MONOGYNIA.

|                       |                  |             |           |          |           |       |                           |
|-----------------------|------------------|-------------|-----------|----------|-----------|-------|---------------------------|
| 30. CODA'RRIUM. Vahl. | WILD TAMARIND.   | Leguminosæ. | Sp. 1-2.  |          |           |       |                           |
| 133 acutifolium Afz.  | shining-leaved ♀ | □ or 20     | G         | S. Leone | 1800.     | C lp  | Ro. arc. 1. 31. t. 6      |
| †31. MAYTENUS. Mol.   | MAYTENUS.        | Celastrinæ. | Sp. 1.    |          |           |       |                           |
| 134 bořia Mol.        | yellow-fruited ♀ | □ or 15     | W         | Chili    | 1822.     | C co  | Feuill. ch. 3. t. 27      |
| 32. O'LEA. W.         | OLIVE.           | Oleinæ.     | Sp. 2-12. |          |           |       |                           |
| 135 oleaster Hoffm.   | bastard          | ♂ or 5      | jn.au     | W        | Portugal  | 1821. | C co                      |
| 136 europæa W.        | European olive   | ♂ fr 15     | jn.au     | W        | S. Europe | 1570. | C r.m. Flora Græca t. 3   |
| β longifolia          | long-leaved      | ♂ fr 15     | jn.au     | W        | S. Europe | ...   | C r.m.                    |
| γ latifolia           | broad-leaved     | ♂ fr 15     | jn.au     | W        | S. Europe | ...   | C r.m. Bot. cab. 456      |
| δ ferruginea          | iron-colored     | ♂ fr 15     | jn.au     | W        | S. Europe | ...   | C r.m.                    |
| ε obliqua             | twisted-leaved   | ♂ fr 15     | jn.au     | W        | S. Europe | ...   | C r.m.                    |
| ζ busifolia           | box-leaved       | ♂ fr 15     | jn.au     | W        | S. Europe | ...   | C r.m.                    |
| 137 capensis W. en.   | leathery-leaf'd  | ♂ or 5      | jn.s      | W        | C. B. S.  | 1730. | C p.1 Bot. reg. 613       |
| 138 undulata W. en.   | wave-leaved      | ♂ or 6      | ap.my     | W        | C. B. S.  | 1730. | C p.1 Bot. cab. 379       |
| 139 verrucosa W.      | warted           | ♂ or 6      | ap.my     | W        | C. B. S.  | 1814. | C p.1                     |
| 140 americana W.      | American         | ♂ or 6      | jn        | W        | N. Amer.  | 1753. | S a.p. Cat. car. 1. t. 61 |
| 141 excelsa W.        | laurel-leaved    | ♂ or 15     | ny        | W        | Madeira   | 1784. | S p.1                     |
| 142 fragrans W.       | fragrant         | ♂ or 4      | jn.au     | Y        | China     | 1771. | L p.1 Bot. mag. 1552      |



History, Use, Propagation, Culture,

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

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

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

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

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

§ 10. *Flowers complete, superior.*

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

71. *Circæa*. Cal. 2-leaved. Cor. with two obcordate petals.

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

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

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

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

Order 2. DIGYNIA.



2 Stamens. 2 Styles.

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

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

Order 3. TRIGYNIA.



2 Stamens. 3 Styles.

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

MONOGYNIA.

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

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

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

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

♂ Leaves linear-lanceolate flat silky beneath

♀ Leaves oblong flat hoary beneath

♂ Leaves narrow acute at each end, rusty beneath

♀ Leaves oblong bent obliquely pale beneath

♂ Leaves oblong ovate, Branches divaricate

137 Leaves oblong, Flowers racemose panicled terminal

138 Leaves elliptical wavy, Stalks of leaves green

139 Leaves lanceolate flat white beneath, Branches warted

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

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

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



and Miscellaneous Particulars.

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

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

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

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

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

|                         |                  |                              |       |   |           |       |         |                      |
|-------------------------|------------------|------------------------------|-------|---|-----------|-------|---------|----------------------|
| 33. PHILLYREA L.        | PHILLYREA        | <i>Oleinae. Sp. 9.</i>       |       |   |           |       |         |                      |
| 143 angustifolia W. en. | narrow-leaved 葉  | or 8                         | my.jn | W | S. Europe | 1597. | L a.l   | Lam. ill. t. 8. f. 3 |
| β rosmarinifolia        | rosemary-leav. 葉 | or 8                         | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| γ brachiata             | brachiate 葉      | or 8                         | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| 144 media W. en.        | twiggy 葉         | or 15                        | my.jn | W | S. Europe | 1597. | L s.p   | Duham. t. 27         |
| β buxifolia             | box-leaved 葉     | or 15                        | my.jn | W | S. Europe | 1597. | L a.p   |                      |
| 145 virgata W. en.      | privet-leaved 葉  | or 15                        | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| 146 pendula W. en.      | drooping 葉       | or 15                        | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| 147 oleaeifolia W. en.  | olive-leaved 葉   | or 15                        | my.jn | W | S. Europe | 1597. | L a.l   | Fluk. alt. 310. f. 5 |
| 148 laevis W. en.       | smooth-leaved 葉  | or 15                        | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| 149 illeifolia W. en.   | holly-leaved 葉   | or 15                        | my.jn | W | S. Europe | 1597. | L a.l   |                      |
| 150 latifolia W. en.    | broad-leaved 葉   | or 15                        | my.jn | W | Europe    | 1597. | C r.m   | Fl. græc. 1. t. 2    |
| 151 obliqua W. en.      | oblique-leaved 葉 | or 15                        | my.jn | W | S. Europe | 1597. | C r.m   |                      |
| 34. CHIONANTHUS W.      | FRINGE-TREE.     | <i>Oleinae. Sp. 3.</i>       |       |   |           |       |         |                      |
| 152 virginica W.        | smooth-leaved 葉  | or 30                        | my.jl | W | N. Amer.  | 1736. | L pl    | Cat. car. 1. t. 60   |
| 153 maritima Ph.        | pubescent 葉      | or 10                        | my.jl | W | N. Amer.  | 1736. | L pl    |                      |
| 154 axillaris Br.       | axil-flowering 葉 | or 7                         | my.jl | W | E. Indies | 1810. | C pl    |                      |
| 35. NOTELÆA B. P.       | NOTELÆA          | <i>Oleinae. Sp. 3.</i>       |       |   |           |       |         |                      |
| 155 longifolia B. P.    | long-leaved 葉    | or 3                         | mr.jn | W | N.S.W.    | 1790. | C a.p   | Bot. rep. t. 316     |
| 156 ligustrina Vent.    | privet-leaved 葉  | or 3                         | jlau  | W | V. Di. L. | 1807. | C a.p   | Vent. choix. 26. b   |
| 157 rigida Desf.        | rigid 葉          | or 3                         | jlau  | W | V. Di. L. | 1821. | C a.p   |                      |
| 136. LIGUSTRUM W.       | PRIVET.          | <i>Oleinae. Sp. 2-4.</i>     |       |   |           |       |         |                      |
| 158 lucidum H. K.       | wax-tree 葉       | or 8                         | jn.s  | W | China     | 1794. | g.l.a.l | Bot. mag. 2565       |
| β floribundum           | flowering 葉      | or 8                         | jn.s  | W | China     | 1794. | g.l.a.l |                      |
| 159 vulgare W.          | common 葉         | or 10                        | jn.jl | W | Britain   | hedg. | S co    | Eng. bot. 64         |
| β sempervirens          | evergreen 葉      | or 8                         | jn.jl | W | Italy     | ...   | L co    |                      |
| γ xanthocarpum          | yellow-berried 葉 | or 8                         | jn.jl | W | Italy     | ...   | L co    |                      |
| 137. SYRINGA W.         | LILAC.           | <i>Oleinae. Sp. 3-4.</i>     |       |   |           |       |         |                      |
| 160 vulgaris W.         | comimon 葉        | or 8                         | my    | B | Persia    | 1597. | Sk co   | Sch. han. 1. t. 2    |
| β violacea              | purple 葉         | or 8                         | my    | P | Persia    | ...   | Sk co   | Bot. mag. 183        |
| γ alba                  | white 葉          | or 5                         | my    | W | Persia    | ...   | Sk co   |                      |
| 161 chinensis W.        | Chinese 葉        | or 4                         | my.jn | V | China     | 1795. | L l.p   | Duham. 2. t. 63      |
| β rothomagensis Turp.   | hybrid 葉         | or 4                         | mn.jn | V | China     | ...   | L l.p   |                      |
| 162 persica W.          | Persian 葉        | or 5                         | my    | P | Persia    | 1640. | L a.p   | Bot. mag. 486        |
| β alba                  | white 葉          | or 2                         | my    | W | Persia    | ...   | L a.p   |                      |
| γ laciniata             | cut-leaved 葉     | or 5                         | my    | P | Persia    | ...   | L l.p   | Schm. ar. 2. t. 79   |
| 38. NYCTANTHES W.       | NYCTANTHES.      | <i>Jasmineae. Sp. 1.</i>     |       |   |           |       |         |                      |
| 163 arbor tristis W.    | square-stalked 葉 | or 15                        | ...   | W | E. Indies | 1781. | C r.m   | Bot. reg. 399        |
| 139. JASMINUM W.        | JASMINE.         | <i>Jasmineae. Sp. 18-40.</i> |       |   |           |       |         |                      |
| 164 Sambac W.           | single Arabian 葉 | or 6                         | ja.d  | W | E. Indies | 1665. | C r.m   | Bot. reg. 1          |
| β fl. pleno             | double ditto 葉   | or 6                         | ja.d  | W | E. Indies | 1700. | C r.m   | Bot. rep. 497        |
| γ trifoliatum           | Tuscan 葉         | or 6                         | ja.d  | W | E. Indies | 1730. | C r.m   | Bot. mag. 1785       |
| 165 hirsutum Es. B.     | hairy Indian 葉   | or 3                         | my.au | W | E. Indies | 1759. | C r.m   | Ex. bot. 2. t. 118   |
| 166 campanulatum Lk.    | campanulate 葉    | or 4                         | ...   | W | ...       | 1822. | C r.m   |                      |
| 167 laurifolium Roxb.   | laurel-leaved 葉  | or 4                         | my.s  | W | E. Indies | 1813. | C r.m   | Bot. reg. 521        |



History, Use, Propagation, Culture,

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

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

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

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

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

143 Leaves linear lanceolate entire

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

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

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

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

148 Leaves elliptic oblong nearly entire veiny somewhat obtuse

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

150 Leaves ovate rounded at the base serrated acute veiny

151 Leaves oblong serrated acute at each end veiny

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

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

154 Spikes axillary very short, Leaves oblong elliptic acute

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

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

157 Leaves opposite rigid broad lanceolate entire, Bunches axillary

158 Leaves ovate oblong pointed shining above, Flowers spreading

159 Leaves ellipt-lanceolate smooth, Racemes compound dense

160 Leaves ovate cordate, Branches stiff white colored

161 Leaves ovate-lanceolate, Branches stiff mottled

162 Leaves lanceolate, Branches virgate mottled

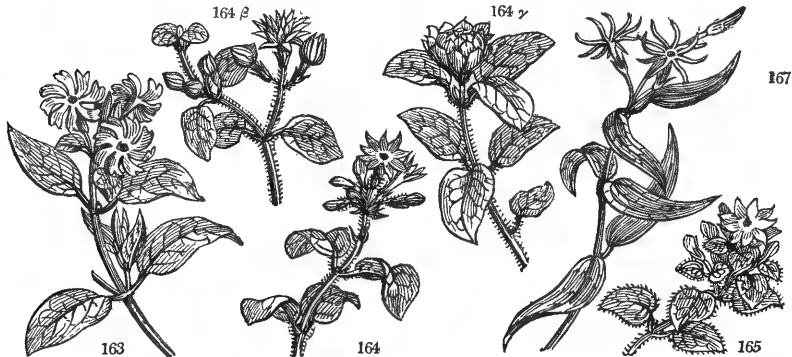
163 A delightfully fragrant plant, Leaves cordate, Flowers paniced

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

165 Leaves cordate downy, Umbels terminal sessile many-flowered

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

167 Leaves opp. shining lanc. 3-nerv. Fl. 1.5 ax. and term. Cal. 6.7 toothed, Cor. 9.12 part. Seg. lin. the length of tube



and Miscellaneous Particulars.

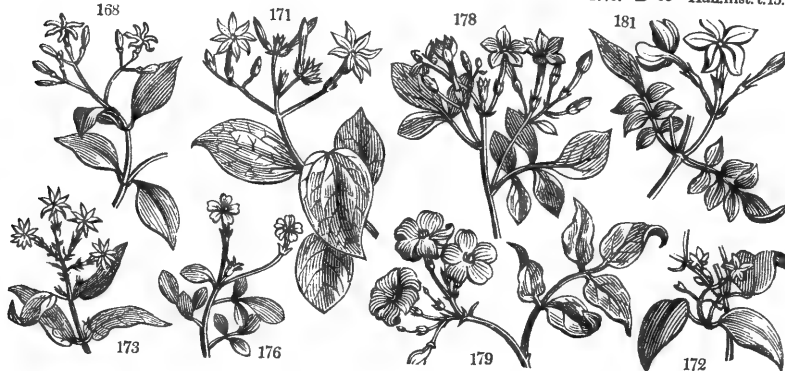
nerally deciduous. Sometimes the leaves grow by threes, are enlarged at the base and variegated. The regular number of stamens is two; but sometimes there are three or four in a flower. The berries are usually purple or black, but some have been seen of a white color; and a yellow fruited variety is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

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

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

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

|                                 |                    |       |       |     |                        |       |                          |
|---------------------------------|--------------------|-------|-------|-----|------------------------|-------|--------------------------|
| 168 gráclle <i>B. P.</i>        | slender            | or 3  | ja.d  | W   | Norfolk I. 1791.       | C s.p | Bot. rep. 127            |
| 169 glaucum <i>W.</i>           | glaucous           | or 3  | au    | W   | C.B.S. 1774.           | C l.p | Sal. st. ra. t. 8        |
| 170 trinérve <i>W.</i>          | three-nerved       | or 20 | ...   | W   | Sylhet 1804.           | C l.p |                          |
| 171 simplicifólium <i>W.</i>    | simple-leaved      | or 3  | jn.jl | W   | China 1818.            | C r.m | Bot. mag. 980            |
| 172 paniculátum <i>Rozb.</i>    | panicled           | or 5  | ja    | W   | China 1819.            | C r.m | Bot. cab. 469            |
| 173 undulátum <i>Vahl.</i>      | wavy               | or 5  | ja    | W   | E. Indies 1790.        | C r.m | Bot. reg. 436            |
| 174 auriculátum <i>Vahl.</i>    | auriculated        | or 10 | my.s  | W   | Madeira 1794.          | C r.m | Bot. reg. 89             |
| 175 azóricum <i>W.</i>          | Azorian            | or 5  | ap.n  | Y   | S. Europe 1570.        | C r.m | Bot. reg. 461            |
| 176 fráticans <i>W.</i>         | comm. yellow       | or 3  | ap.o  | Y   | S. Europe 1656.        | L co  | Bot. reg. 350            |
| 177 húmle <i>W.</i>             | Italian            | or 3  | jn.s  | Y   | Madeira 1656.          | C r.m | Bot. reg. 285            |
| 178 odoratíssimum <i>W.</i>     | sweet-scented      | or 3  | my.n  | W   | E. Indies 1812.        | C r.m | Bot. reg. 178            |
| 179 revolútum <i>B. R.</i>      | curled flowered    | or 12 | m.o   | Y   | ..... 1548.            | C r.m | Bot. mag. 31             |
| 180 officinále <i>W.</i>        | common white       | or 15 | jn.o  | W   | E. Indies 1629.        | C r.m | Bot. reg. 91             |
| 181 grandifórum <i>W.</i>       | Catalonian         | or 15 | jn.o  | W   | .....                  | C r.m | Bot. reg. 91             |
| *40. VERÓNICA. <i>W.</i>        | SPREDDWELL.        |       |       |     | <i>Scrophularinae.</i> |       |                          |
| §182 sibirica <i>W.</i>         | Siberian           | or 3  | jl.au | B   | Siberia 1779.          | D co  | Am. rut. 20. t. 1        |
| §183 virgínica <i>W.</i>        | Virginian          | or 5  | jl.s  | W   | Virginia 1714.         | D co  | Hoff. got. 15. t. 1      |
| 184 foliósá <i>Schr.</i>        | leafy              | or 1  | jl.s  | F   | .....                  | D co  |                          |
| 185 crenulátá <i>Vahl.</i>      | notch-flowered     | or 1½ | jl.s  | B   | Hungary 1805.          | D co  | Wa. & K. 2. t. 102       |
| 186 marítima <i>Schr.</i>       | sea-side           | or 2  | jl.s  | B   | S. Europe 1814.        | D co  | Hoff. ph. t. E. f. 3     |
| 187 angustifólia <i>Fisch.</i>  | narrow-leaved      | or 1½ | jl.s  | B   | Sweden 1570.           | D co  | Hoff. p. 29. t. 1. f. 1  |
| 188 spúria <i>Schr.</i>         | bastard            | or 2  | jl.s  | L.B | Siberia 1731.          | D co  | Gmel. it. 1. t. 39       |
| 189 paniculátá <i>Pall.</i>     | panicled           | or 1½ | jn.jl | B   | Russia 1797.           | D co  |                          |
| 190 complicátá <i>W. en.</i>    | folded-leaved      | or 2  | s.o   | B   | S. Europe 1812.        | D al  | Hoff. ph. t. E. f. 4     |
| 191 azúrea <i>Lk.</i>           | sky-blue           | or 3  | jl.s  | B   | ..... 1821.            | D co  |                          |
| 192 polystáchya <i>Lk.</i>      | many-spiked        | or 2  | jl.s  | B   | ..... 1821.            | D co  |                          |
| 193 glábra <i>Schr.</i>         | smooth             | or 4  | jl.s  | B   | S. Europe 1804.        | D co  | Sc. v. p. 25. t. 1. f. 4 |
|                                 | white              | or 4  | jl.s  | W   | .....                  | D co  |                          |
| 194 amethystina <i>W. en.</i>   | fine blue          | or 4  | jl.s  | B   | S. Europe 1812.        | D co  |                          |
| 195 elátiur <i>W. en.</i>       | tall               | or 7  | jl.s  | B   | S. Europe 1806.        | D co  |                          |
| 196 acúta <i>Mart.</i>          | acute              | or 3  | jn.jl | B   | ..... 1822.            | D co  |                          |
| 197 argúta <i>Schr.</i>         | sharp-notched      | or 3  | jl.s  | B   | S. Europe 1812.        | D co  | Sc. v. p. 22. t. 2. f. 2 |
| 198 média <i>Schr.</i>          | long-spiked        | or 3  | jl.s  | B   | Germany 1804.          | D co  | Sc. v. p. 23. t. 1. f. 2 |
| 199 persicifólia <i>Schott.</i> | peach-leaved       | or 2  | jl.s  | B   | ..... 1823.            | D co  |                          |
| 200 austrális <i>Schr.</i>      | pubescent          | or 1½ | jl.s  | B   | S. Europe 1812.        | D co  | Sc. v. p. 24. t. 2. f. 3 |
| 201 longifólia <i>Schr.</i>     | long-leaved        | or 3  | jl.s  | B   | S. Europe 1731.        | D co  | Sc. v. p. 24. t. 2. f. 1 |
|                                 | <i>β incarnáta</i> | or 3  | jl.s  | F   | .....                  | D co  |                          |
|                                 | <i>γ álba</i>      | or 3  | jl.s  | W   | .....                  | D co  |                          |
| 202 gróssa <i>Mart.</i>         | short              | or 2  | jn.jl | B   | Crimea 1821.           | D co  |                          |
| 203 ambigua <i>Mart.</i>        | doubtful           | or 3  | jn.jl | B   | Sweden 1823.           | D co  |                          |
| 204 neglécta <i>W. en.</i>      | evanescent         | or 1½ | jl.au | D.B | Siberia 1797.          | D co  | Wa. & K. 3. t. 244       |
| 205 incána <i>Schr.</i>         | hoary              | or 2  | jl.s  | B   | Russia 1759.           | D co  | Hoff. got. 15. t. 6      |
| 206 rigens <i>Mart.</i>         | stiff              | or 2  | my.jn | B   | ..... 1823.            | D co  |                          |
| 207 élegans <i>D. C.</i>        | elegant            | or 2  | my.jn | Fk  | S. France 1822.        | D co  |                          |
| 208 brevifólia <i>Lk.</i>       | short-leaved       | or 1  | jl.s  | B   | ..... 1822.            | D co  |                          |
| 209 spicáta <i>Schr.</i>        | spiked             | or 1  | jl.s  | B   | England ch. pa.        | D co  | Eng. bot. 2              |
| 210 clóssii <i>Schott.</i>      | Écluse's           | or ½  | jl.s  | B   | Hungary 1822.          | D co  |                          |
| 211 mentháefólia <i>Schott.</i> | mint-leaved        | or 1  | jl.s  | B   | Austria 1823.          | D co  |                          |
| 212 barreliéri <i>Schott.</i>   | Barreliers         | or 1  | jl.s  | B   | S. Europe 1823.        | D co  |                          |
| 213 orchidéa <i>Crz.</i>        | orchis-flowrd.     | or 1  | jl.s  | B   | Europe 1819.           | D co  | Bot. mag. 2210           |
| 214 híbrida <i>Schr.</i>        | Welsh              | or 1  | jl.s  | B   | England moun.          | D co  | Eng. bot. 673            |
| 215 crassifólia <i>Kit.</i>     | thick-leaved       | or 2½ | my.jn | V   | Europe 1822.           | D co  |                          |
| 216 ruthénica <i>Jacq.</i>      | villous            | or 2  | my.jn | B   | Hungary 1821.          | D co  |                          |
| 217 Póné <i>W.</i>              | Fona's             | or 2  | my.jn | B   | Pyrenees 1822.         | D co  |                          |
| 218 villósá <i>Schr.</i>        | hairy              | or 1½ | jl.s  | B   | S. Europe 1804.        | D co  | Sc. v. p. 31. t. 1. f. 5 |
| 219 pinnáta <i>Schr.</i>        | wing-leaved        | or 1  | jn.au | B   | Siberia 1776.          | D co  | Hoff. got. 15. t. 10     |
| 220 incísa <i>Schr.</i>         | cut-leaved         | or 2  | jn.au | B   | Siberia 1779.          | D co  |                          |
| 221 laciniáta <i>Schr.</i>      | jagged-leaved      | or 2  | jn.au | B   | Siberia 1780.          | D co  | Jung. ic. rar. f. 2      |
| 222 gentianoides <i>W.</i>      | gentian-leaved     | or 2  | my.jn | D.B | Levant 1748.           | D co  | Bot. mag. 1002           |
| 223 pállida <i>Hornem.</i>      | pale               | or 2  | my.jn | B   | Tauria 1821.           | D co  |                          |
| 224 bellidióides <i>W.</i>      | daisy-leaved       | or ½  | jn.jl | B   | Switzerl. 1775.        | D co  | Hall. hist. t. 15. f. 1  |



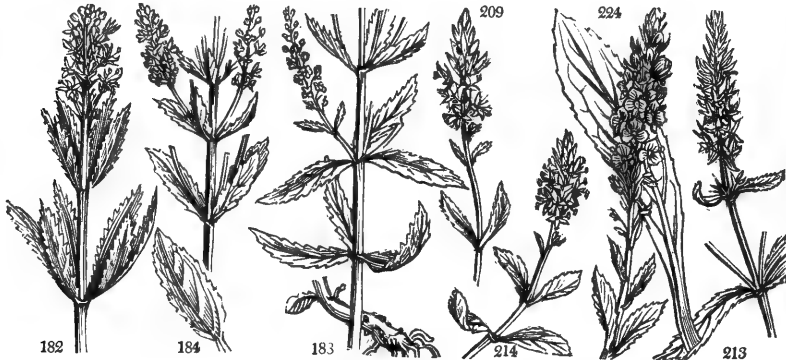
History, Use, Propagation, Culture,

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

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

- 184 Leaves 3 or 4 together ovate or ovate-lanceolate sub-biserrate; serratures unequal  
 185 Leaves ternate and opposite obl.-lanc. serrate, Cal. acute, Cor. notched. [equal shorter than capsule  
 186 Leaves 3 or 4 togeth. lin. lanc. from an ov. base acumin. deeply doubly serr. with the stem sub-pub. Cal. nearly  
 187 Leaves opp. linear narrowed by degrees very acute remotely serrated, Bractes longer than the flower-stalks  
 188 Leaves 3 or 4 together nearly sessile lanceolate simply serrate; serratures equal  
 189 Leaves narrow lanc. remotely serr. or lin. and very ent. Bract. much longer than fl.-stalks, Stem ascending  
 190 Spikes lateral short nodding, Leaves opp. folded together toothed: teeth thick, Segments of corolla entire  
 191 Leaves lan. lin. narr. by deg. to very end finely serr. the serrat. at base of leaf deep. Bract. longer than flower-st.  
 192 Leaves sub-sess. ovate acute serrated pubes. Flower bearing branches in bundles, Flow. sub-sess. very small  
 193 Leaves opp. 3 togeth. lanc. sub-cord. lanc. simply serrated with the stem smooth, Serratures remote nearly equal  
 194 Stem pubes. Leaves opp. and tern. lanc. rather fleshy simply and remotely serrate wedge-shaped at the base  
 195 All over slightly pubes. Leaves 3 togeth. lanc. acumin. sub-cord. at base doubly serrate: serrat. of base deepest  
 196 Leaves very long almost coriaceous opp. or 3 together on short stalks cordate at base acutely and unequally  
 dentate serrate hanging down  
 197 Leaves lanceolate acute simply serrate entire at the end, Serratures distant simple equal  
 198 Leaves opposite and 3 together lanceolate acute serrate with the stem downy, Serratures near unequal  
 199 Leaves opp. and tern. lanc. very much lengthened out serrated to the very end, Bract. longer than fl.-stalk  
 200 Leaves ovate lanceolate simply serrate entire at the end with the stem pubescent, Serratures near unequal  
 201 Leaves opposite 3 or 4 together cordate lanceolate acuminate doubly serrated with the stem downy  
 202 Leaves 3 or 4 tog. at base widely cord. lanc. deeply doubly acutely unseq. dent. serr. Serr. sprdg. lowest distant.  
 203 Leaves 3 or 4 tog. ov. acum. cord. at base doubly acutely and unseq. serr. beneath and with the stem pubesc.  
*Racemes terminal, Leaves opposite.*

- 204 Hoary, Leaves lanceolate serrate acute at the base wedge-shaped and entire, Stem erect  
 205 Hoary, Leaves lanceolate crenate and nearly entire obtuse, Stem erect  
 206 Leaves on short stalks stiffish cordate at the base pointed closely acutely and doubly serrate, Stem pubescent  
 207 Leaves ovate oblong crenate stalked obtuse with the stem pubescent, Spikes many, Bractes very small  
 208 Stem simp. pub. Lvs. op. lan. obl. by deg. narr. fr. base point. ser. ent. at end, up. ones sub-ser. Br. lon. than fl.-st.  
 209 Slightly pub. Lvs. cren. the rad. ov. obl. running down into stalk, Caul. lanc. sess. Fl. spkd. Br. and cal. pilose  
 210 Toment. with stlkd. glands, Lvs. tooth. rad. ov. runn. down into stalk. Caul. lan. stlkd. Fl. in spks. Br. & cal. cil.  
 211 Villous, Leaves serr. rad. ovate, Caul. obl. acute stalkd. at base and end entire, Fl. in racemes, Bractes linear  
 212 Villous, Leaves cren. rad. ov. Caul. obl. obtuse sub-sess. Flow. in racemose spikes, Br. and cal. smooth ciliate  
 213 Slightly pubesc. Leaves crenulate radical oblong ovate running down into stalk, Cauline lanceol. acuminate  
 sub-sessile, Flowers in close spikes  
 214 Lvs. unseq. tooth serr. with stem pub. rad. stlkd. ov. Caul. sub-sess. ellipt. obl. Fl. in spks. Br. lin. lon. than cal.  
 215 Leaves opp. ov. lanc. runn. down into st. the lower cren. the upp. ent. Spks. term. or 3 tog. Fl. like an orchis  
 216 Leaves ov. lan. unseq. ser. Br. lin. as long as cal. Cal. 4 part. unseq. Seg. ov. obl. Caps. smth. rather long. than cal.  
 217 Leaves cordate ovate sessile very obtuse with the very simple stem hairy, Racemes few-fl. Calyx smooth  
 218 Leaves oblong ovate cut and serrated with the stem somewhat villous  
 219 Stem ascending, Leaves in fasc. the lower pinnate, the upper pinnatifid and simp. Leaf. and div. filif. sprdg.  
 220 Leaves in fasc. stalked pinnatifid lanc. Segm. nearly entire, Racemes several, Seg. of the Calyx lanceolate  
 221 Leaves in fasc. on short stalks linear pinnatifid: Seg. entire, Raceme nearly sol. Seg. of calyx oblong ovate  
 222 Raceme corymbose term. Leaves radical obl. connate sheathing cartil. crenate or ent. Stem simp. ascending  
 223 Stem ascend. feeble, Lvs. lanc. obt. sub-serr.: lower sheathing, Rac. loose, Up. seg. of cor. wider than side ones  
 224 Leaves obov. cren. with simple ascend. stem pilose, Cauline lvs. remote, Rac. corymb. hairy about 5-flowered



and Miscellaneous Particulars.

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

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



|                            |                 |   |    |   |       |     |                           |          |   |     |                          |
|----------------------------|-----------------|---|----|---|-------|-----|---------------------------|----------|---|-----|--------------------------|
| 225 fruticulosa W.         | flesh-colored   | ■ | or | ‡ | jn.au | F   | Scotland                  | Sc. alp. | D | co  | Eng. bot. 1028           |
| 226 saxatilis W.           | blue-rock       | △ | or | ‡ | jl    | B   | Scotland                  | Sc. alp. | D | co  | Eng. bot. 1027           |
| 227 alpina W.              | alpine          | △ | or | ‡ | my    | B   | Scotland                  | Sc. alp. | D | co  | Eng. bot. 484            |
| β integrifolia             | entire-leaved   | △ | or | ‡ | my.jn | B   | Silesia                   | 1814.    | D | co  | Krock. all. 28. t. 3     |
| 228 depauperata Kit.       | impooverished   | △ | or | ‡ | ap.jl | B   | Hungary                   | 1823.    | D | ap  | W. & K. 3. t. 245        |
| 229 serpyllifolia W.       | smooth          | △ | or | ‡ | ap.jl | B   | Britain                   | me.pa.   | D | co  | Eng. bot. 1075           |
| 230 hirsuta Lk.            | hairy           | △ | or | ‡ | ap.jl | W   | .....                     | 1820.    | D | ap  |                          |
| 231 microphylla Kit.       | small-leaved    | △ | or | ‡ | ap.jl | B   | Hungary                   | 1822.    | D | ap  |                          |
| 232 decussata W.           | cross-leaved    | ■ | or | 1 | jn.au | B   | Falkl. I.                 | 1776.    | C | r.m | Bot. mag. 242            |
| 233 aphylla W.             | naked-stalked   | △ | or | ‡ | my    | B   | Italy                     | 1775.    | D | co  | Seg. ver. 1. t. 3. f. 2  |
| 234 Beccabunga W.          | Brook-lime      | △ | or | 2 | my.jn | B   | Britain                   | rivul.   | D | co  | Eng. bot. 655            |
| 235 anagallis W.           | long-leav.-wat. | △ | or | 2 | jl    | B   | Britain                   | mar.     | D | co  | Eng. bot. 781            |
| 236 scutellata W.          | marsh           | △ | or | 2 | jn.au | F   | Britain                   | mar.     | D | co  | Eng. bot. 782            |
| 237 orientalis W.          | various-leaved  | △ | or | 1 | jn.au | L.B | Britain                   | 1748.    | D | co  | Bot. cab. 419            |
| 238 Jacquini Schott.       | Jacquins        | △ | or | 1 | my.jn | B   | Austria                   | 1748.    | D | co  | Jac. aust. 4. t. 329     |
| 239 austriaca Jac.         | Austrian        | △ | or | 1 | jn.au | L.B | Austria                   | 1748.    | D | co  | M. his. 2. t. 23. f. 17  |
| 240 multifida W.           | fine-cut        | △ | or | ‡ | my.jl | L.B | Siberia                   | 1748.    | D | co  | Bot. mag. 1679           |
| 241 Allionii W.            | shining-leaved  | △ | or | ‡ | jn.au | L.B | S. Europe                 | 1748.    | D | co  | All. ped. 1. t. 46. f. 3 |
| 242 officinalis W.         | official        | △ | or | ‡ | ap.jl | B   | Britain                   | bar. gr. | D | co  | Eng. bot. 765            |
| 243 prostrata W.           | trailing        | △ | or | 1 | my.jn | B   | Germany                   | 1774.    | D | co  | Riv. mon. 95             |
| 244 micrantha Hoff.        | small-flowered  | △ | or | 1 | my.jn | W   | Portugal                  | 1822.    | D | co  | Fl. port. t. 57          |
| 245 latifolia W.           | broad-leaved    | △ | or | 1 | my.jn | W.B | Austria                   | 1748.    | D | co  | Sw. f. gard. 23          |
| 246 Tedricum P. S.         | rugged-leaved   | △ | or | 2 | jn.au | L.B | Germany                   | 1596.    | D | co  | Bot. cab. 425            |
| 247 crinita Kit.           | long-bracted    | △ | or | 1 | jl.au | B   | Hungary                   | 1822.    | D | co  |                          |
| 248 Chamædryas W.          | Germander       | △ | or | 1 | jl.au | B   | Britain                   | m. pas.  | D | co  | Eng. bot. 623            |
| 249 urticifolia W.         | nettle-leaved   | △ | or | 1 | jn.jl | L.B | Austria                   | 1776.    | D | co  | Jac. aust. 1. t. 59      |
| 250 montana W.             | mountain        | △ | or | 1 | jl.au | B   | Britain                   | mo. w.   | D | co  | Eng. bot. 766            |
| 251 perfoliata B. P.       | perfoliate      | △ | or | 1 | jl.au | B   | N.S.W.                    | 1815.    | D | r.m | Bot. mag. 1836           |
| 252 labiata B. P.          | labiate         | △ | or | 1 | ap.jl | L.B | N. Holl.                  | 1802.    | C | r.m | Bot. mag. 1660           |
| 253 polymorpha W. en.      | variable        | △ | or | 1 | jn.au | B   | .....                     | 1817.    | D | co  |                          |
| 254 verna W.               | vernal          | ○ | w  | ‡ | ap.my | B   | Britain                   | san. fi. | S | s   | Eng. bot. 25             |
| 255 digitata W.            | digitated       | ○ | w  | ‡ | jl    | B   | S. Europe                 | 1805.    | S | co  |                          |
| 256 triphylos W.           | fingered        | ○ | w  | ‡ | ap.my | B   | Britain                   | san. fi. | S | s   | Eng. bot. 26             |
| 257 hederifolia W.         | ivy-leaved      | × | or | ‡ | mr.jn | B   | Britain                   | clt. gr. | D | co  | Eng. bot. 784            |
| 258 cymbalaria Bertol.     | twining         | △ | or | 2 | au.my | W   | S. Europe                 | 1821.    | S | co  | Fl. grac. t. 9           |
| 259 peregrina W.           | knotgrass-leav. | ○ | or | ‡ | mr.jn | W   | N. Europe                 | 1680.    | S | co  | Fl. dan. 407             |
| 260 filiformis W.          | long-stalked    | ○ | or | ‡ | my    | L.B | Levant                    | 1780.    | S | co  | B. cen. 1. t. 40. f. 1   |
| 261 crista galli Steu.     | cocks-comb      | × | or | ‡ | ap.my | B   | Caucasus                  | 1812.    | S | co  | Linn. trans              |
| 262 praecox All.           | early           | ○ | or | ‡ | mr    | B   | S. Europe                 | 1775.    | S | co  | All. auc. 5. t. 1. f. 1  |
| 263 acinifolia W.          | basil-leaved    | ○ | or | ‡ | ap.my | L.B | S. Europe                 | 1788.    | S | co  | Pet. T. fl. p. 1. t. 23  |
| 264 arvensis W.            | wall            | × | or | ‡ | ap.jl | B   | Britain                   | old w.   | S | co  | Eng. bot. 734            |
| 265 agræstia W.            | field           | × | or | ‡ | mr.jl | B   | Britain                   | clt. gr. | S | co  | Eng. bot. 783            |
| 41. GALIPEA. Aub.          | GALIPEA.        |   |    |   |       |     | Rutaceæ. Sp. 1.           |          |   |     |                          |
| 266 trifoliata W.          | three-leaved    | ■ | or | 4 | ?     | G   | Guiana                    | 1803.    | C | p.l | Aublet 662. t. 269       |
| 42. SCHWENCKIA. W.         | SCHWENCKIA.     |   |    |   |       |     | Primulaceæ. Sp. 1.—7.     |          |   |     |                          |
| 267 americana W.           | American        | ■ | or | 1 | aus   | Li  | Guiana                    | 1781.    | C | s.p | Sch. bs. p. 328. t. 1    |
| *43. GRATIOLA. W.          | HEDGE-HYSSOP.   |   |    |   |       |     | Scrophularinæ. Sp. 4.—45. |          |   |     |                          |
| 268 officinalis W.         | official        | △ | m  | 1 | my.au | L.B | Europe                    | 1568.    | D | co  | Fl. dan. 363             |
| 269 veronicifolia W.       | speedwell-ld.   | △ | or | ‡ | jn.s  | B   | E. Indies                 | 1798.    | C | co  | Rh. mal. 9. t. 58        |
| 270 virginica W.           | Virginian       | △ | or | 1 | au    | Y   | Virginia                  | 1759.    | D | co  |                          |
| 271 quadridentata Mich.    | four-toothed    | △ | or | ‡ | my.au | W   | N. Amer.                  | 1821.    | D | co  | Lam. ill. t. 16. f. 2    |
| †44. SCHIZANTHUS. Fl. per. | SCHIZANTHUS.    |   |    |   |       |     | Scrophularinæ. Sp. 2.     |          |   |     |                          |
| 272 pinnatus Fl. per.      | pinnate         | ○ | or | 2 | jn.o  | W.P | Chili                     | 1822.    | S | i.p | Hook. ex. fl. 73         |
| 273 porrigenus Hook.       | spreading stalk | ○ | or | 2 | jn.o  | W.P | Chili                     | 1822.    | S | i   | Hook. ex. fl. 86         |



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

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

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

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

*Racemes lateral.*

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

*Flower-stalks one-flowered.*

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

266 Leaves alternate stalked, lanceolate entire

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

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

269 Leaves oblong acutely serrated, Stem creeping, Flowers racemose. [acuminate longer than the calyx]

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

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

272 Stalk of fruit on one side deflexed at base

273 Stalk of fruit spreading all ways straightish

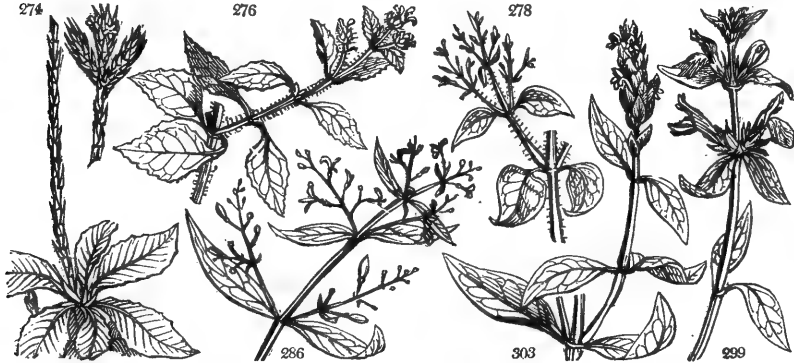
*and Miscellaneous Particulars.*

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

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

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

|  |                                  |                                    |      |    |       |         |                         |
|--|----------------------------------|------------------------------------|------|----|-------|---------|-------------------------|
| 45. ELYTRARIA. <i>M. ELYTRARIA.</i>      |                                  | <i>Acanthaceae.</i> Sp. 2—5.       |      |    |       |         |                         |
| 274                                      | <i>virgata M.</i>                | twiggy                             | Δ or | 1  | jl    | W       | Carolina 1813. D s.p    |
| 275                                      | <i>crenata Vahl.</i>             | stemless                           | ∇ or | 1  | jl    | W       | E. Indies 1820. D s.p   |
|  | <i>Justicia acutis Roxb.</i>     |                                    |      |    |       |         | Roxb. cor. t. 127       |
| 46. HYPOESTES. <i>R. BR. HYPOESTES.</i>  |                                  | <i>Acanthaceae.</i> Sp. 2—10.      |      |    |       |         |                         |
| 276                                      | <i>involuta Rob.</i>             | involved                           | ∞ or | 1  | jl.au | W       | E. Indies 1811. C p.l   |
| 277                                      | <i>purpurea W.</i>               | purple                             | ∇ or | 2  | my.jn | P       | China 1822. C p.l       |
| 147. JUSTICIA. <i>W. JUSTICIA.</i>       |                                  | <i>Acanthaceae.</i> Sp. 28—137.    |      |    |       |         |                         |
| 278                                      | <i>bicalyculata W.</i>           | Malabar                            | ∞ or | 3  | au    | Li      | E. Indies 1755. S s.l   |
| 279                                      | <i>Ecbolium W.</i>               | long-spiked                        | ∞ or | 3  | mr.au | B       | E. Indies 1759. C p.l   |
| 280                                      | <i>coccinea W.</i>               | scarlet                            | ∞ or | 5  | f     | S       | S. Amer. 1770. C p.l    |
| 281                                      | <i>quadrifida H. K.</i>          | twiggy                             | ∞ or | 3  | mr.s  | S       | Mexico 1795. C p.l      |
| 282                                      | <i>nigricans Lour.</i>           | black-striped                      | ∞ or | 6  | mr.s. | W. R.   | China 1819. C p.l       |
| 283                                      | <i>nitida W.</i>                 | glossy                             | ∞ or | 4  | mr.s  | W       | W. Indies 1790. C p.l   |
| 284                                      | <i>bracteolata Jacq.</i>         | small-bracted                      | ∞ or | 6  | jl.au | P       | Caraccas 1823. C p.l    |
| 285                                      | <i>picta W.</i>                  | painted                            | ∞ or | 8  | jl.au | Cr      | E. Indies 1780. C p.l   |
| 286                                      | <i>paniculata Vahl.</i>          | paniced                            | ∞ or | 1  | jl.au | Pk      | E. Indies 1811. S p.l   |
| 287                                      | <i>secunda Vahl.</i>             | side-flowering                     | ∞ or | 3  | jn.jl | R       | W. Indies 1793. C p.l   |
| 288                                      | <i>ciliaris W.</i>               | ciliated                           | ∞ or | 1  | jl.au | W       | W. Indies 1780. S s.l   |
| 289                                      | <i>lucida Vahl.</i>              | shining leaved                     | ∞ or | 3  | jl.au | W       | W. Indies 1795. C p.l   |
| 290                                      | <i>Gondataria W.</i>             | willow-leaved                      | ∞ or | 3  | jn.jl | Li      | E. Indies 1800. C p.l   |
| 291                                      | <i>carthaginiensis W.</i>        | Caribbean                          | ∞ or | 1  | jn.jl | Pu      | Carthag. 1792. C p.l    |
| 292                                      | <i>perunculosa Mich.</i>         | N. American                        | ∞ or | 1  | jl.au | Li      | N. Amer. 1759. C s.p.l  |
| 293                                      | <i>procumbens W.</i>             | procumbent                         | ∞ or | 1  | jl.au | Pk      | E. Indies 1798. L s.p   |
| 294                                      | <i>comata W.</i>                 | balsam herb                        | ∞ or | 2  | jl.au | Jamaica | 1795. R s.p             |
| 295                                      | <i>eustachiana W.</i>            | Eustachian                         | ∞ or | 3  | aus   | O       | St. Eustac. 1799. C s.p |
| 296                                      | <i>nasuta W.</i>                 | white-flowerg.                     | ∞ or | 2  | f.o   | W       | E. Indies 1790. C p.l   |
| 297                                      | <i>pectoralis W.</i>             | Garden-balsam                      | ∞ or | 3  | my.jn | P       | W. Indies 1787. L s.p   |
| 298                                      | <i>periplocifolia W.</i>         | periploc-leav.                     | ∞ or | 1  | jn    | P       | S. Amer. 1799. C s.p    |
| 299                                      | <i>furcata Va.</i>               | forked                             | ∞ or | 5  | ap.au | V       | Peru 1795. C p.l        |
| 300                                      | <i>lithospermifolia W.</i>       | gronwell-leav.                     | ∞ or | 3  | ap.au | P       | Peru 1796. C p.l        |
| 301                                      | <i>caracasana Jacq.</i>          | violet                             | ∞ or | 5  | my.jn | V       | Caraccas 1822. C p.l    |
| 302                                      | <i>adhata W.</i>                 | Malabar-nut                        | ∞ or | 10 | my.jl | P       | Ceylon 1823. C s.l      |
| 303                                      | <i>betonica Va.</i>              | snappy-leaved                      | ∞ or | 3  | my.jl | W       | E. Indies 1737. S p.l   |
| 304                                      | <i>hyssopifolia W.</i>           | Snap-tree                          | ∞ or | 2  | mr.au | Y       | Canaries 1690. C p.l    |
| 305                                      | <i>orchoides W.</i>              | broom-leaved                       | ∞ or | 2  | au    |         | C.B.S. 1774. C p.l      |
| 48. DICLIPTERA. DICLIPTERA.              |                                  | <i>Acanthaceae.</i> Sp. 5—25.      |      |    |       |         |                         |
| 306                                      | <i>hexangularis W.</i>           | chickw.-leaved                     | ∞ or | 2  | jl    | R       | S. Amer. 1733. S s.l    |
| 307                                      | <i>scorpioides L.</i>            | scorpion-like                      | ∞ or | 3  | jl    |         | Vera Cruz 1802. C p.l   |
| 308                                      | <i>resupinata W.</i>             | resupinate                         | ∞ or | 1  | jl    | W.P.    | S. Amer. 1805. S p.l    |
| 309                                      | <i>pectinata Vahl.</i>           | small-flowered                     | ∞ or | 1  | jn.jl | B       | E. Indies 1793. C p.l   |
| 310                                      | <i>retusa Vahl.</i>              | blunt                              | ∞ or | 2  | mr.ap | P       | W. Indies 1821. C l     |
| 149. ERANTHEMUM. <i>R.P. ERANTHEMUM.</i> |                                  | <i>Acanthaceae.</i> Sp. 3—14.      |      |    |       |         |                         |
| 311                                      | <i>spinatum E. P.</i>            | thorny                             | ∞ or | 2  | jl.au | Sc      | W. Indies 1733. C s.p   |
| 312                                      | <i>pulchellum B. R.</i>          | nervose                            | ∞ or | 1  | ja.o  | B       | E. Indies 1796. C p.l   |
| 313                                      | <i>bicolor E. M.</i>             | two-coloured                       | ∞ or |    | mv.au | W. R.   | Luconia 1802. C s.p     |
| 50. WULFENIA. <i>W. WULFENIA.</i>        |                                  | <i>Scrophulariaceae.</i> Sp. 1.    |      |    |       |         |                         |
| 314                                      | <i>carinthiaca W.</i>            | annual                             | ∞ or | 1  | jl.au | B       | Carinthia 1817. S co    |
| 151. CALCEOLARIA. <i>W. SLIPPERWORT.</i> |                                  | <i>Scrophulariaceae.</i> Sp. 7—55. |      |    |       |         |                         |
| 315                                      | <i>pinnata W.</i>                | entire-leaved                      | ∞ or | 2  | jl.e  | Y       | Peru 1773. S s.p        |
| 316                                      | <i>scabiosifolia R. &amp; S.</i> | scabious-leav.                     | ∞ or | 2  | my.o  | Y       | Chili 1822. C co        |
| 317                                      | <i>rugosa Fl. per.</i>           | rugose                             | ∞ or | 2  | aus   | Y       | Chili 1822. C co        |
| 318                                      | <i>integrifolia L.</i>           | entire-leaved                      | ∞ or | 2  | aus   | Y       | Chili 1822. C co        |



History, Use, Propagation, Culture,

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

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

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

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

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

278 Panicles axillary dichotomous

*Calyx double.*

*Calyx simple, Flowers labiate.*

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

*Calyx simple, Flowers ringent.*

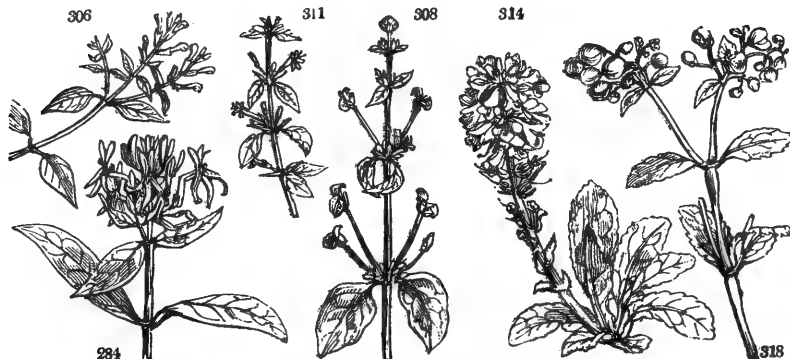
301 Spikes axillary and term. Flowers opposite, Bract. shorter than cal. Stem. and branc. round 6-streak. Leaves  
 302 Spikes axillary opposite, Bractes ovate acute nerved      Ovate acuminate wavy-stalked  
 303 Spikes terminal, Bract. ovate acuminate netted with veins, Leaves lanceolate ovate stalked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

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

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

|       |                               |                         |        |   |       |     |                      |                   |   |     |                      |
|-------|-------------------------------|-------------------------|--------|---|-------|-----|----------------------|-------------------|---|-----|----------------------|
| 319   | <i>corymbosa</i> Cav.         | corymbose               | □ or   | 1 | my.jn | Y   | Chili                | 1822.             | S | co  | Bot. reg. 793        |
| 320   | <i>paralia</i> Cav.           | sea-side                | □ or   | 1 | my.jn | Y   | Chili                | 1822.             | S | co  | Hook. fl. ex. 75?    |
| 321   | <i>Fothergillii</i> W.        | Fothergill's            | ☞ △ or | 1 | my.au | O   | Falkl. I.            | 1777.             | D | lp  | Bot. mag. 348        |
| 52.   | <b>PINGUICULA. W.</b>         | <b>BUTTERWORT.</b>      |        |   |       |     | <i>Lentibularia.</i> | <i>Sp. 6—15.</i>  |   |     |                      |
| 322   | <i>lusitanica</i> W.          | pale                    | △ cu   | 1 | jn.jl | Li  | Britain              | bogs              | D | m.s | Eng. bot. 145        |
| 323   | <i>vulgaris</i> W.            | common                  | △ ec   | 1 | my    | V   | Britain              | bogs              | D | m.s | Eng. bot. 70         |
| 324   | <i>alpina</i> W.              | alpine                  | △ cu   | 1 | ap    | W   | Germany              | 1794.             | D | lp  | Fl. dan. 453         |
| 325   | <i>grandiflora</i> W.         | large-flowered          | △ el   | 1 | ap.my | B   | Britain              | ir. bog.          | D | m.s | Eng. bot. 2184       |
| 326   | <i>lutea</i> M.               | yellow                  | □ or   | 1 | jn.jl | Y   | Carolina             | 1816.             | S | pl  | Bot. reg. 126        |
| 327   | <i>edéntula</i> Hook.         | toothless               | △ el   | 1 | ap    | Y   | N. Amer.             | 1823.             | D | sp  | Hook. ex. fl. 16     |
| 53.   | <b>UTRICULARIA. W.</b>        | <b>HOODED MILPOIL.</b>  |        |   |       |     | <i>Lentibularia.</i> | <i>Sp. 3—63.</i>  |   |     |                      |
| 328   | <i>vulgaris</i> W.            | common                  | △ cu   | 1 | jn.jl | Y   | Britain              | sta.wa.           | D | aq  | Eng. bot. 253        |
| 329   | <i>minor</i> W.               | lesser                  | △ cu   | 1 | jl    | Y   | Britain              | bogs              | D | aq  | Eng. bot. 254        |
| 330   | <i>intermedia</i> P. S.       | intermediate            | △ cu   | 1 | my.jn | Y   | Britain              | bogs              | D | aq  | Eng. bot. 2489       |
| 54.   | <b>STACHYTA/RPHETA. Vahl.</b> | <b>BASTARD VERVAIN.</b> |        |   |       |     | <i>Verbenaceae.</i>  | <i>Sp. 7—13.</i>  |   |     |                      |
| 331   | <i>indica</i> Vahl.           | Indian                  | □ or   | 2 | au.s  | W   | Ceylon               | 1732.             | S | ap  |                      |
| 332   | <i>jamaicensis</i> Vahl.      | Jamaica                 | □ or   | 2 | jn.s  | B   | W. Indies            | 1714.             | C | pl  | Bot. mag. 1860       |
| 333   | <i>orbica</i> Vahl.           | Orubian                 | □ or   | 3 | jn.au | V   | Panama               | 1699.             | C | lp  | Ehr. pict. t.5. f. 1 |
| 334   | <i>mutabilis</i> Vahl.        | chang.-flower.          | □ or   | 3 | mr.s  | O   | S. Amer.             | 1801.             | C | pl  | Bot. mag. 976        |
| 335   | <i>prismatica</i> Vahl.       | German.leav.            | □ or   | 2 | my.jn | B   | W. Indies            | 1699.             | C | pl  | Jac. ic. 2. t. 208   |
| 336   | <i>cayennensis</i> Rich.      | Cayenne                 | □ or   | 3 | my.jn | B   | Cayenne              | 1822.             | C | pl  |                      |
| 337   | <i>hirsutissima</i> Lk.       | hairy                   | ☞ △ or | 1 | mr.ap | B   | Brazil               | 1822.             | D | pl  |                      |
| 55.   | <b>LYCOPUS. W.</b>            | <b>WATER HOREHOUND.</b> |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 4—6.</i>   |   |     |                      |
| 338   | <i>europaeus</i> W.           | common                  | △ ro   | 3 | jl.au | W   | Britain              | riv. ba.          | D | m.s | Eng. bot. 1105       |
| 339   | <i>exaltatus</i> W.           | tall                    | △ ro   | 6 | jl.au | W   | Italy                | 1739.             | D | m.s | Fl. grac. 1. t. 12   |
| 340   | <i>virginicus</i> W.          | Virginian               | △ ro   | 3 | au.s  | W.P | Virginia             | 1760.             | D | m.s |                      |
| 341   | <i>intermedius</i> Sch.       | intermediate            | △ ro   | 3 | jl.au | W   | Europe               | 1820.             | D | m.s |                      |
| *56.  | <b>AMETHYSTEA. W.</b>         | <b>AMETHYSTEA.</b>      |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 1.</i>     |   |     |                      |
| 342   | <i>caerulea</i> W.            | blue-flowering          | □ or   | 1 | jn.jl | B   | Siberia              | 1759.             | S | pl  | Bot. mag. 2448       |
| 57.   | <b>ZIZIPH'ORA. W.</b>         | <b>ZIZIPHORA.</b>       |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 2—12.</i>  |   |     |                      |
| 343   | <i>capitata</i> W.            | oval-leaved             | □ or   | 1 | jl.au | R   | Syria                | 1752.             | S | co  | Fl. grac. 1. t. 13   |
| 344   | <i>hispanica</i> W.           | Spanish                 | □ or   | 1 | jn    | R   | Spain                | 1759.             | S | co  | Lam. ill. t.18. f.1  |
| 345   | <i>tenúior</i> W.             | spear-leaved            | □ or   | 1 | jn.jl | Li  | Levant               | 1752.             | S | co  | Lam. ill. t. 18. f.2 |
| 346   | <i>acinoidea</i> W.           | thyme-leaved            | ☞ △ rk | 1 | jl.au | R   | Siberia              | 1786.             | D | s.l |                      |
| 347   | <i>serpyllacea</i> E. M.      | sweet-scented           | ☞ △ rk | 1 | jl.au | R   | Caucasus             | 1803.             | C | pl  | Bot. mag. 906        |
| 348   | <i>media</i> Lk.              | intermediate            | ☞ △ rk | 1 | jn.au | R   | Caucasus             | 1822.             | C | co  |                      |
| 349   | <i>dasyántha</i> W. en.       | hairyflowering          | ☞ △ rk | 1 | jn.au | R   | Siberia              | 1803.             | C | co  | Bot. mag. 1093       |
|       | <i>Pouschkini</i> B. M.       |                         |        |   |       |     |                      |                   |   |     |                      |
| 350   | <i>taurica</i> W. en.         | Taurian                 | □ or   | 1 | jl.s  | R   | Tauria               | 1816.             | S | co  |                      |
| 58.   | <b>CUNILA. P. S.</b>          | <b>CUNILA.</b>          |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 2—5.</i>   |   |     |                      |
| 351   | <i>mariana</i> Ph.            | mint-leaved             | △ or   | 1 | jl.s  | R   | N. Amer.             | 1759.             | D | co  | Mor. h.3. t.19. f.7  |
| 352   | <i>capitata</i> P. S.         | headed                  | △ or   | 1 | jl.au | R   | Siberia              | 1799.             | D | co  | Mem. petr.2. t.11    |
| 59.   | <b>HEDEOMA. P. S.</b>         | <b>HEDEOMA.</b>         |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 2—3.</i>   |   |     |                      |
| 353   | <i>pulegioides</i> Ph.        | pennyroy.-lvd.          | □ or   | 1 | jn.au | B   | N. Amer.             | 1777.             | S | co  |                      |
| 354   | <i>thymoides</i> P. S.        | thyme-leaved            | □ or   | 1 | jn    | R   | France               | 1699.             | S | co  | Mor. h. 3. t.19. f.6 |
| †*60. | <b>MONARDA. W.</b>            | <b>MONARDA.</b>         |        |   |       |     | <i>Labiatae.</i>     | <i>Sp. 13—16.</i> |   |     |                      |
| 355   | <i>fistulosa</i> Ph.          | hollow-stalked          | △ or   | 3 | jn.au | P   | N. Amer.             | 1656.             | D | r.m | Mill. ic. t.183 f.2  |
| 356   | <i>media</i> W. en.           | purple-bracted          | △ or   | 2 | jn.s  | P   | N. Amer.             | 1656.             | D | r.m |                      |
| 357   | <i>mollis</i> Ph.             | soft                    | △ or   | 2 | jn.s  | Li  | N. Amer.             | 1656.             | D | r.m |                      |



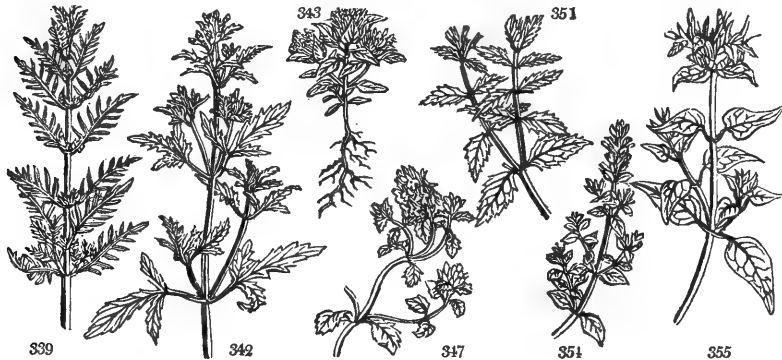
History, Use, Propagation, Culture,

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

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

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

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



## and Miscellaneous Particulars.

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

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

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

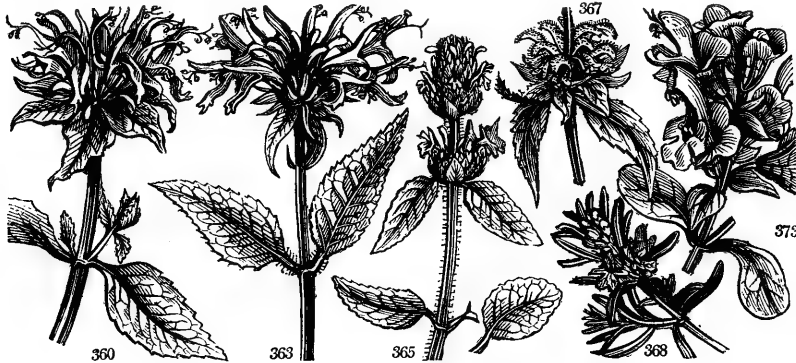
57. *Ziziphora*. Etymology uncertain. This genus, and the two following, consist of little herbaceous plants resembling thyme: they are generally pretty, and easily cultivated. It would, perhaps, have been better to unite, with some writers, *Ziziphora*, *Cunila*, and *Hedeoma*, in one genus.

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

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

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

|                        |                  |    |     |    |       |      |           |        |   |    |   |
|------------------------|------------------|----|-----|----|-------|------|-----------|--------|---|----|---|
| 358 oblongáta Ph.      | long-leaved      | Δ  | or  | 2  | jl.s  | P    | N. Amer.  | 1761.  | D | r  | l |
| 359 clinopódia Ph.     | wild-basil-leav. | Δ  | or  | 2  | jl    | P.w  | N. Amer.  | 1771.  | D | r  | l |
| 360 purpurea Ph.       | crimson          | Δ  | or  | 3  | jn.au | P    | N. Amer.  | 1789.  | D | r  | l |
| 361 altísima W.        | tall             | Δ  | or  | 4  | jn.au | Lá   | N. Amer.  | 1821.  | D | r  | l |
| 362 rugósa Ph.         | white            | Δ  | or  | 1  | jl.s  | W    | N. Amer.  | 1761.  | D | r  | l |
| 363 kalmiána Ph.       | pub. flowered    | Δ  | or  | 4  | jn.au | P    | N. Amer.  | 1813.  | D | p  | l |
| 364 didyma W.          | Oswego tea       | Δ  | or  | 3  | jn.au | R    | N. Amer.  | 1752.  | D | r  | l |
| 365 ciliáta Ph.        | blue flowered    | Δ  | or  | 1  | jl    | B    | N. Amer.  | 1798.  | D | r  | l |
| 366 hirsúta Ph.        | hairy            | Δ  | or  | 1  | jl.s  | P    | N. Amer.  | 1798.  | D | r  | l |
| 367 punctáta Ph.       | spotted          | Δ  | or  | 2  | jn.o  | Br   | N. Amer.  | 1714.  | S | ap |   |
| 61. ROSMARINUS. W.     | ROSEMARY.        |    |     |    |       |      |           |        |   |    |   |
| 368 officinális W.     | common           | ** | or  | 4  | ja.ap | P    | S. Europe | 1548.  | C | co |   |
| β variegáta            | variegated       | ** | or  | 4  |       |      |           |        |   |    |   |
| 369 chilénsis W.       | Chile            | ** | or  | 4  | jl    | P    | Chile     | 1795.  | C | al |   |
| +62. SALVIA. W.        | SAGE.            |    |     |    |       |      |           |        |   |    |   |
| 370 pomifera W.        | apple-bearing    | ** | or  | 2  | jl.au | B    | Candia    | 1699.  | C | p  | l |
| 371 calycina Sm.       | large calyx      | ** | or  | 1  | jl.au | Pk   | Levant    | 1823.  | C | co |   |
| 372 canariénsis W.     | canary           | ** | or  | 4  | jn.s  | P    | Canaries  | 1697.  | C | l  | p |
| 373 aérea W.           | gold.-flowered   | ** | or  | 3  | ap.n  | Y    | C. G. H.  | 1731.  | C | p  | l |
| 374 dentáta W.         | tooth-leaved     | ** | or  | 3  | d.ja  |      | C. G. H.  | 1774.  | C | p  | l |
| 375 interrúpta Va.     | ash-leaved       | ** | or  | 4  | ap.s  | B    | Carbary   | 1798.  | C | al |   |
| 376 pilántha Lk.       | hairy-flowered   | ** | or  | 2  | jl.au | B    | .....     | 1823.  | C | co |   |
| 377 pinnáta Vahl.      | winged-leaved    | ** | or  | 1  | jl    | P    | Levant    | 1731.  | C | al |   |
| 378 habitziána W.      | Siberian         | ** | or  | 1½ | au    | B    | Siberia   | 1795.  | C | co |   |
| 379 lanceoláta W. en.  | lanceolate       | ○  | or  | 1  | my.s  | B    | .....     | 1813.  | S | co |   |
| 380 hirsúta W. en.     | hirsute          | ○  | or  | 1  | my.jn | B    | .....     | 1801.  | S | co |   |
| 381 angustifólia Ca.   | narrow-leaved    | Δ  | or  | 2  | jn.jl | B    | Mexico    | 1806.  | C | co |   |
| 382 azúrea Ph.         | azure-flowered   | Δ  | or  | 6  | au    | B    | Carolina  | 1803.  | C | co |   |
| 383 pseudo-coccinea W. | pale scarlet     | Δ  | or  | 3  | jn.au | P.n  | S. Amer.  | 1797.  | C | ap |   |
| 384 bouiána Jacq.      | blue Peruvian    | Δ  | or  | 2  | mr.ap | B    | Peru      | -1821. | C | co |   |
| S. amœna B. R. 446.    |                  |    |     |    |       |      |           |        |   |    |   |
| 385 mexicóna W.        | Mexican          | ** | or  | 2  | my.jl | S    | Mexico    | 1724.  | C | p  | l |
| 386 chamaedryoides Va. | germander        | ** | or  | 1½ | jn.s  | B    | Mexico    | 1795.  | C | p  | l |
| 387 cœsia W. en.       | grey             | ** | or  | 2  | jn.s  | B    | S. Amer.  | 1813.  | C | p  | l |
| 388 hispánica W.       | Spanish          | ** | or  | 1½ | jn.au | Pr.B | Spain     | 1739.  | D | p  | l |
| 389 serotina W.        | late-flowering   | ** | or  | 1½ | au    | B    | Ohio      | 1803.  | C | al |   |
| 390 dominíca W.        | Dominica         | ** | or  | 4  | jl    | W    | W. Indies | 1759.  | C | ap |   |
| 391 tiliefólia W.      | lime-leaved      | ** | or  | 4  | jn.au | B.c  | S. Amer.  | 1793.  | C | p  | l |
| 392 polystáchya W.     | many-spiked      | ** | or  | 3  | o.d   | B    | Mexico    | 1822.  | C | co |   |
| 393 micrántha Vahl.    | small-flowered   | ** | or  | 1  | my.jn | B    | Cuba      | 1823.  | C | co |   |
| 394 formósa W.         | shining-leaved   | ** | or  | 4  | ap.o  | S    | Peru      | 1783.  | C | p  | l |
| 395 coccinea W.        | scarlet-flower'd | ** | or  | 2  | ap.o  | S    | S. Amer.  | 1774.  | C | p  | l |
| 396 pulchélla Dec.     | pretty           | ** | or  | 2  | o.f   | S    | S. Amer.  | 1821.  | C | co |   |
| 397 amarissima H. K.   | bitter           | ** | or  | 2  | jl.au | B    | Mexico    | 1803.  | C | ap |   |
| 398 glutinósa W.       | glutinous        | ** | or  | 3  | jn.s  | Y    | Germany   | 1796.  | C | co |   |
| 399 lineatífólia Lag.  | lime-leaved      | ** | or  | 3  | jn.s  | B    | Mexico    | 1823.  | C | co |   |
| 400 egyptiaca W.       | Egyptian         | ○  | or  | ½  | jn.jl | W    | Egypt     | 1770.  | S | co |   |
| 401 crética W.         | Cretan           | ** | or  | 6  | jn.au | V    | Crete     | 1760.  | C | co |   |
| 402 paniculáta W.      | panicled         | ** | or  | 1  | jn.au | V    | C. G. H.  | 1758.  | C | p  | l |
| 403 africána W.        | African          | ** | or  | 2  | ap.jn | V    | C. G. H.  | 1731.  | C | p  | l |
| 404 coloráta W.        | colored calyx    | ** | or  | 6  | jl.au | B    | C. G. H.  | 1758.  | C | ap |   |
| 405 officinális W.     | garden           | ** | cul | 2  | jn.jl | R.c  | S. Europe | 1597.  | C | co |   |



History, Use, Propagation, Culture.

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

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

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

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

368 Leaves sessile

369 Leaves on stalks

*Calyx 3-lobed, enlarged.*

- 370 Leaves ovate lanceolate rugose crenulate undulate, Calyx blunt longer than ovate bracte  
 371 Leaves ovate crenate flat hoary netted with veins, Calyx 3-lobed dilated retuse with little lips  
 372 Leaves triangular hastate oblong crenated obtuse  
 373 Hoary, Lower leaves roundish truncate at base smooth : upper oblong entire, Calyx of fruit large  
 374 Leaves linear oblong serrate, Whorls 2-flowered, Calyx obtuse  
 375 Leaves interruptedly pinnate, Stem shrubby erect  
 376 Leaves pinnate in 2 or 3 pairs, Leaflets sess. lanceol. obtuse crenulate rugose, hoary beneath, Bract. cordate  
 377 Hairy viscid, Leaves interruptedly pinnate, Leaflets oblong eroded unequal-sided, Calyx inflated  
 378 Leaves pinnate entire, Leaflets lanceolate nearly equal : upper generally in pairs  
*Calyx 3-toothed, sub-cylindrical.*  
 379 Leaves lanc. obt. remotely serrate stalked beneath pub. Spike racemose winged, whorls 2-fl. Bract. lanceolate  
 380 All hairy, Leaves oblong ovate crenate, Flowers in spiked whorls, Bractes roundish acute  
 381 Leaves lanceolate : the lower serrated outwards, with the stem hoar. Lower lip very broad, Calyx acute  
 382 Leaves linear lanceolate the lower serrated outwards with the stem smooth, Segments of calyx rounded  
 383 Leaves ovate acute serrated villous on each side, Stem hairy  
 384 Leaves obl. ov. rugose serr. smooth dotted, Flowers in spiked whorls on one side, Bract. decid. Helmet hairy

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

*Calyx 5-toothed, generally 3-2.*

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



and Miscellaneous Particulars.

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



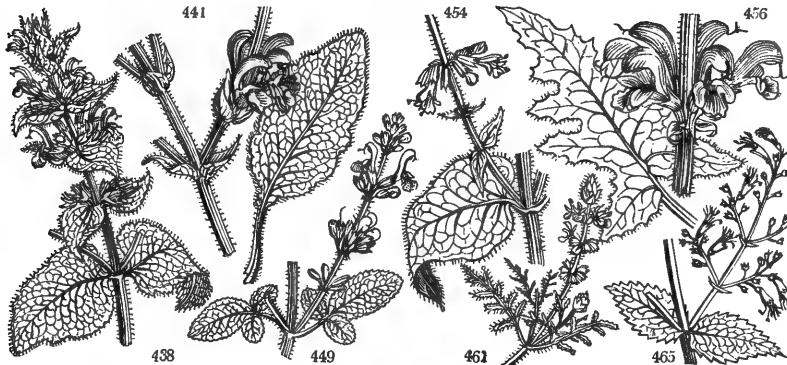


- 406 Leaves radical obl. sub-cord. bluntly tooth. : cauline tooth cren. Whorls 6-fl. Fl. horizon. a sing. fl.-st. term.  
 407 Leaves stalked ovate lanceolate flat smooth beneath, Corolla and coloured calyx downy, Style exserted  
 408 Leaves lanceolate nearly entire with the stem woolly clammy  
 409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

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

465 Leaves ovate and stem smooth

466 Leaves sub-cordate a little hairy, Stem roughish

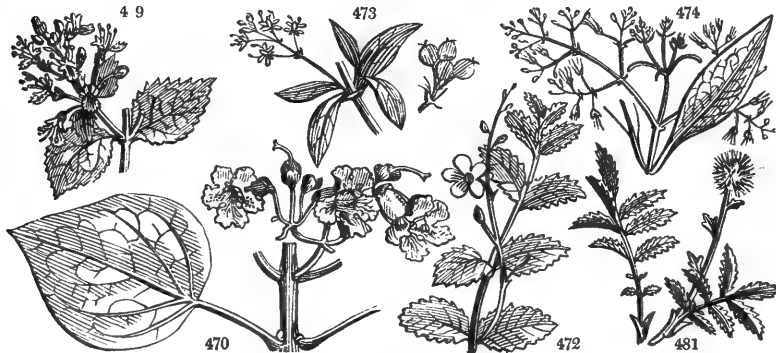


and Miscellaneous Particulars.

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

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

|                           |                         |        |       |       |     |                       |                  |   |                               |
|---------------------------|-------------------------|--------|-------|-------|-----|-----------------------|------------------|---|-------------------------------|
| 467 oviflis Ph.           | oval-leaved             | ♂ Δ or | 2     | au    | Y   | Carolina              | 1812.            | D | p.l                           |
| 468 tuberosa Ph.          | tuberous                | ♂ Δ or | 2     | au    | Y   | Carolina              | 1806.            | R | p.l                           |
| 469 anisata R. M.         | anise-scented           | ♂ Δ or | 3     | o     | Y   | Carolina              | 1806.            | D | p.l Bot. mag. 1213            |
| † 64. CATALPA. Juss.      | CATALPA.                |        |       |       |     | <i>Bignoniaceae.</i>  | <i>Sp. 2.</i>    |   |                               |
| 470 syringifolia H. K.    | common                  | ♀ or   | 20    | jn.au | W   | N. Amer.              | 1796.            | S | p.l Bot. mag. 1094            |
| 471 longissima H. K.      | wave-leaved             | ♀ □ or | 20    |       |     | W. Indies             | 1777.            | L | s.p Plum. ic. t. 57           |
| * 65. GHINIA. W.          | GHINIA.                 |        |       |       |     | <i>Verbenaceae.</i>   | <i>Sp. 1—2.</i>  |   |                               |
| 472 spinosa W.            | thorny-fruited          | □ cu   | 2     | au    | Pl  | W. Indies             | 1733.            | S | a.l Bnks. r. hous. t. 2       |
| * 66. FONTANESIA. W.      | FONTANESIA.             |        |       |       |     | <i>Jasmineae.</i>     | <i>Sp. 1—2.</i>  |   |                               |
| 473 phyllaeoides W.       | phyllaea-leav.          | ♂ □ or | 12    | au    | Y   | Syria                 | 1787.            | C | a.l Lab. syr. 1. t. 1         |
| 67. LINOCIERA. B. P.      | LINOCIERA.              |        |       |       |     | <i>Oleinae.</i>       | <i>Sp. 1—7.</i>  |   |                               |
| 474 compacta B. P.        | Caribean                | ♂ □ or |       |       |     | W. Indies             | 1793.            | C | l.s.p Jac. col. 2. t. 6. f. 1 |
| * 68. ANCISTRUM. L.       | ANCISTRUM.              |        |       |       |     | <i>Sanguisorbeae.</i> | <i>Sp. 8—15.</i> |   |                               |
| 475 latebrosum Vahl.      | hairy                   | ♀ Δ cu | 1     | ap,jn | G   | C. G. H.              | 1774.            | C | l.p.s                         |
| 476 pinnatifidum Fl. per. | pinnatifid              | ♀ Δ cu | 1     | my,jn | G   | Chile                 | 1822.            | D | l.p.s Fl. per. 1. t. 104      |
| 477 ovalifolium Vahl.     | creeping                | ♀ Δ cu | 1     | my,jn | G   | Peru                  | 1802.            | D | l.p.s                         |
| 478 ascendens Vahl.       | ascending               | ♀ Δ cu | 1     | my,jn | G   | Magellan              | 1822.            | D | l.p.s                         |
| 479 sanguisorbae Vahl.    | Burnet-leaved           | ♀ Δ cu | 1     | jn    | G   | N. Zeal.              | 1796.            | D | l.p.s Lam. ill. t. 12. f. 1   |
| 480 lucidum Vahl.         | shining                 | ♀ Δ cu | 1     | my,jn | G   | Falklandi.            | 1777.            | D | l.p.s Lm. ill. 1. t. 22. f. 3 |
| 481 argenteum Fl. per.    | silky                   | ♀ Δ cu | 2     | my,jn | G   | Chile                 | 1822.            | D | l.p.s Fl. per. 1. t. 103      |
| 482 levigatum H. K.       | smooth                  | ♀ Δ cu | 1     | jn.au | G   | Magellan              | 1790.            | D | l.p.s                         |
| 69. ORNUS. P. S.          | FLOWERING ASH.          |        |       |       |     | <i>Oleinae.</i>       | <i>Sp. 3.</i>    |   |                               |
| 483 europaea P. S.        | European                | ♀ or   | 30    | my,jn | W   | Italy                 | 1810.            | G | co Fl. græc. 1. t. 4          |
| 484 rotundifolia P. S.    | manna                   | ♀ or   | 30    | ap    | W   | Italy                 | 1697.            | G | co Willd. bm. t. 2. f. 1      |
| 485 floribunda Wal.       | many-flowered           | ♀ □ or | 30    |       |     | Nepal                 | 1822.            | G | co                            |
| 70. MORINA. W.            | MORINA.                 |        |       |       |     | <i>Dipsaceae.</i>     | <i>Sp. 1.</i>    |   |                               |
| 486 persica W.            | Persian                 | ♀ Δ or | 3     | jl.au | R.w | Persia                | 1740.            | C | s.p Fl. græc. 1. t. 28        |
| 71. CIRCEA. W.            | ENCHANTER'S NIGHTSHADE. |        |       |       |     | <i>Onagrarizae.</i>   | <i>Sp. 3.</i>    |   |                               |
| 487 lutetiana W.          | common                  | ♀ Δ or | 1     | jn.au | R   | Britain               | sha pl.          | D | co Eng. bot. 1056             |
| 488 intermedia            | intermediate            | ♀ Δ or | 1     | jn.au | R   | Europe                | 1821.            | D | co Fl. dan. t. 256            |
| 489 alpina W.             | mountain                | ♀ Δ or | 1     | jn.s  | R   | Britain               | moun.            | D | co Eng. bot. 1057             |
| 72. FEDIA. D. C.          | FEDIA.                  |        |       |       |     | <i>Valerianae.</i>    | <i>Sp. 1—2.</i>  |   |                               |
| 490 cornucopiae D. C.     | red                     | ○ or   | 1     | jn,jl | R   | S. Europe             | 1796.            | S | co Fl. græc. t. 32            |
| † 73. PIMELEA. B. P.      | PIMELEA.                |        |       |       |     | <i>Thymelaeae.</i>    | <i>Sp. 4—39.</i> |   |                               |
| 491 linifolia B. P.       | flax-leaved             | ♂ □ or | 2     | fau   | W   | N. S. W.              | 1793.            | C | s.p Bot. mag. 891             |
| 492 rosea B. P.           | rose-coloured           | ♂ □ or | 2     | mrs.  | Pk  | N. Holl.              | 1800.            | C | s.p Bot. mag. 1458            |
| 493 drupacea Br.          | fleshy-fruited          | ♂ □ or | 2     | my    | W   | N. Holl.              | 1817.            | C | s.p Bot. cab. 540             |
| 494 pauciflora B. P.      | few-flowered            | ♂ □ or | 3     | my    | W   | V. Di. L.             | 1812.            | C | l.p Bot. cab. 179             |
| 74. CLADIMUM. Schr.       | CLADIMUM.               |        |       |       |     | <i>Cyperaceae.</i>    | <i>Sp. 1—14.</i> |   |                               |
| 495 germanicum            | prickly-sedge           | ♂ Δ w  | 3     | jl.au | Ap  | Britain               | mar.             | D | m.s Eng. bot. 950             |
| 75. GUNNERA. W.           | GUNNERA.                |        |       |       |     | <i>Urticaceae.</i>    | <i>Sp. 1—3.</i>  |   |                               |
| 496 perpensa W.           | common                  | ♀ □ cu | 1 1/2 | jl.au | P   | C. G. H.              | 1688.            | D | m.s Bot. mag. 2376            |



History, Use, Propagation, Culture,

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

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

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

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

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

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

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

467 Leaves oblong acute at both ends, Stem smooth, Cal. teeth very short, Flowers terminal naked  
 468 Leaves sub-rhomboidal ovate, Cal. teeth bristly longer than the tube, Panicle leafy, Stem much branched  
 469 Leaves ovate cordate rugose, Flowers tetrandrous

470 Leaves cordate flat  
 471 Leaves oblong undulated

472 Fruit with 4 spines, Leaves smooth

473 Leaves ovate-oblong pointed at each end, Flowers racemose

474 Racemes compound and decomposed, Flowers sessile in threes, Petals subulate

475 Leaflets oblong cut, Flower-stalks like scapes, Spikes elongated prickly, Stems half under ground  
 476 Leaves linear-lanceol. sub-pinnatifid hairy beneath, Spikes cylindrical, Stem erect  
 477 Leaves oblong and a little wedge-shaped serrated silky beneath, Spikes globose, Stems creeping  
 478 Leaflets oblong and obovate serrated smoothish, Spikes round, Stem decumbent  
 479 Leaves remote, Leaflets wedge-shaped serrated silky beneath, Spikes globose, Stem decumbent  
 480 Leaves 3.5-parted, Segments linear-villosus beneath, Spikes oblong, Stem half under ground  
 481 Leaflets ovate-oblong serrated silky beneath, Spikes globose, Stem creeping  
 482 Leaflets oval crenate and cut smooth above hoary beneath, Spike terminal cylindrical, Stem decumbent

483 Leaves lanceolate attenuated stalked serrated  
 484 Leaves roundish acute doubly serrated nearly sessile  
 485 Leaflets oblong tapering acuminate acutely and unequally serrated, Male flowers with a corolla

486 A plant like the Acanthus. Flowers in whorls

487 Stem pubescent erect, Leaves ovate acute denticulate sub-pubescent  
 488 Stem erect simple nearly smooth, Leaves cordate with spreading teeth acuminate  
 489 Stem much branched erect smooth, Leaves cordate smooth shining

490 Upper leaves toothed and angular, Flowers in heads

491 Invol. 4-lvd. leaf. broad ov. smth. on both sides much short. than the head, Lvs. lin.-stalk. 1-nerv. Cor. silky  
 492 Invol. 4-lvd. leaf. lanceol. ovate acute smooth on both sides, Leaves lanceol. lin. Cor. hairy on its lower half  
 493 Invol. oval. flat pubesc. beneath, Floral lvs. longer than the head, Cor. cyind. deciduous, Fruit berried  
 494 Lvs. smooth on both sides lin. lanc. twice as narr. as the floral lvs. longer than the few-fl. head, Cor. smooth

495 Culm round, Corymbs dense, Panicle contracted, Flowers in bunches

496 Leaves uniform toothed shorter than the scape in seed, Scape and leafstalks smooth



and Miscellaneous Particulars.

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

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

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

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

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

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

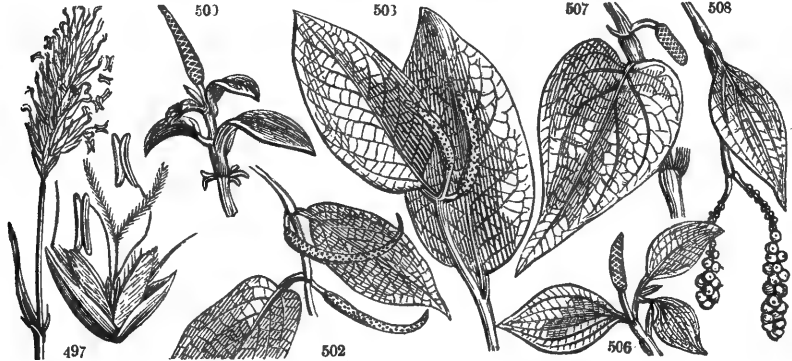
75. *Gunnera*. After Ernest Gunner, bishop of Norway, of which country he published a Flora. A singular plant, cultivated merely as an object of curiosity. It likes a moist peat soil, and the temperature of a cool greenhouse.

DIGYNIA.

|  |               |   |    |   |    |    |         |        |   |                   |
|--|---------------|---|----|---|----|----|---------|--------|---|-------------------|
| 76. ANTHOXANTHUM. W. SPRING-GRASS. <i>Graminea. Sp. 3-6.</i> |               |   |    |   |    |    |         |        |   |                   |
| 497 odoratum W.  | sweet-scented | △ | ag | 1 | my | Ap | Britain | me pa. | S | h.1 Eng. bot. 697 |
| 498 amarum Brot.   | bitter        | △ | cu | 1 | jl | Ap | Morocco | 1810.  | S | co                |
| 499 ovatum Lag.  | ovate         | ○ | cu | 1 | jl | Ap | Spain   | 1821.  | S | co                |

TRIGYNIA.

|   |                 |   |     |    |       |    |            |       |   |                               |
|---|-----------------|---|-----|----|-------|----|------------|-------|---|-------------------------------|
| *77. PIPER. W. PEPPER. <i>Piperaceae. Sp. 44-250.</i> |                 |   |     |    |       |    |            |       |   |                               |
| 500 coriaceum Vahl.                                   | leathery        | △ | cu  | 4  | my.jn | Ap | E. Indies  | 1815. | C | r.m Bot. cab. 128             |
| 501 nitidum W.  | shining-leaved  | △ | cu  | 3  | my.jn | Ap | Jamaica    | 1793. | C | r.m                           |
| 502 aduncum W.  | hooked          | △ | cu  | 5  | my    | Ap | Jamaica    | 1748. | C | r.m Jac. ic. 2. t. 210        |
| 503 macrophyllum W.                                   | broad-leaved    | △ | cu  | 12 | ...   | Ap | W. Indies  | 1800. | C | r.m Slo. jam. 88. f. 1        |
| 504 geniculatum W.                                    | swollen-jointed | △ | cu  | 2  | ...   | Ap | Jamaica    | 1823. | C | r.m                           |
| 505 hispidum W.                                       | hairy-leaved    | △ | cu  | 6  | jl    | Ap | Jamaica    | 1793. | C | r.m                           |
| 506 Amalago W.  | rough-leaved    | △ | cu  | 6  | jl.au | Ap | Jamaica    | 1759. | C | r.m Slo. hist. 1. t. 87. f. 1 |
| 507 Bête W.   | betle           | △ | clt |    |       | Ap | E. Indies  | 1804. | C | r.m Rheed. 7. t. 15           |
| 508 nigrum W.   | black           | △ | clt | 6  |       | Ap | E. Indies  | 1790. | C | r.m Lam. ill. 79. t. 23       |
| 509 discolor W.                                       | discoloured     | △ | cu  | 4  | jl.au | Ap | W. Indies  | 1821. | C | r.m Bot. cab. 610             |
| 510 reticulatum W.                                    | netted          | △ | cu  | 6  | au    | Ap | Carthag.   | 1768. | C | r.m Plumier. 57. t. 75        |
| 511 decumanum W.                                      | the great       | △ | cu  | 6  |       | Ap | E. Indies  | 1768. | C | r.m Rumph. 5. t. 117          |
| 512 Siriboa W.  | Siriboa         | △ | cu  | 6  |       | Ap | W. Indies  | 1748. | C | r.m Rumph. 5. t. 116. f. 2    |
| 513 longum P. S.                                      | long            | △ | clt | 6  | jn    | Ap | E. Indies  | 1788. | C | r.m Plumier. 56. t. 74        |
| 514 peltatum W.                                       | peltated        | △ | cu  | 2  |       | Ap | W. Indies  | 1748. | C | r.m Plumier. 53. t. 73        |
| 515 umbellatum W.                                     | umbelled        | △ | cu  | 3  | my.jl | Ap | W. Indies  | 1748. | C | lp Plumier. 53. t. 73         |
| 516 laurifolium Mill.                                 | laurel-leaved   | △ | cu  | 10 |       | Ap | W. Indies  | 1768. | C | r.m                           |
| 517 tomentosum Mill.                                  | downy           | △ | cu  | 14 | my.jn | Ap | W. Indies  | 1768. | C | r.m                           |
| 518 glabrum Mill.                                     | smooth          | △ | cu  | 10 |       | Ap | Campeac.   | 1768. | C | r.m                           |
| 519 racemosum Mill.                                   | great racemose  | △ | cu  | 10 |       | Ap | Campeac.   | 1768. | C | r.m                           |
| 520 brachyphyllum W.                                  | short-leaved    | △ | cu  | 1  | jn.s  | Ap | S. Amer.   | 1818. | C | r.m                           |
| 521 amplexicaule W.                                   | stem-clasping   | △ | cu  | 1  | jn.s  | Ap | W. Indies  | 1793. | C | r.m                           |
| 522 magnoliæfolium Va.                                | magnolia-ld.    | △ | cu  | 1  | ja.mr | Ap | W. Indies  | 1793. | C | r.m Jac. ic. 2. t. 213        |
| 523 obtusifolium W.                                   | obtuse-leaved   | △ | cu  | 1  | ap.jl | Ap | W. Indies  | 1738. | C | r.m Tr. eht. 54. t. 96        |
| 524 cuneifolium W. en.                                | wedge-leaved    | △ | cu  | 1  | jn.jl | Ap | Caraccas   | 1809. | C | r.m Jac. ic. 2. t. 214        |
| 525 alatum P. S.                                      | winged          | △ | cu  | 1  | mr.ap | Ap | S. Amer.   | 1812. | C | r.m FL per. 31. t. 48         |
| 526 acuminatum W. en                                  | acuminate       | △ | cu  | 1  | jn.jl | Ap | W. Indies  | 1812. | C | r.m Bot. mag. 1882            |
| 527 distichyon P. S.                                  | two-rowed       | △ | cu  | 1  | jn.jl | Ap | S. Amer.   | 1793. | C | r.m Plumier. 51. t. 67        |
| 528 maculosum W.                                      | spot-stalked    | △ | cu  |    | s     | Ap | St. Domin. | 1790. | C | r.m Plumier. 60. t. 76        |
| 529 pellucidum W.                                     | pellucid        | △ | cu  | 1  | ap.s  | Ap | S. Amer.   | 1748. | C | r.va Plumier. 54. t. 62       |
| 530 pubescens H. S.                                   | pubescent       | △ | cu  | 1  | jl.o  | Ap | S. Amer.   | 1809. | C | r.m                           |
| 531 hùmile Vahl.                                      | low             | △ | cu  | 1  | jn.jl | Ap | W. Indies  | 1768. | C | r.m                           |
| 532 trifolium P. S.                                   | three-leaved    | △ | cu  | 1  | jn.au | Ap | S. Amer.   | 1802. | C | r.m Plumier. 52. t. 68        |
| 533 pulchellum W.                                     | small-leaved    | △ | cu  | 1  | jl.o  | Ap | Jamaica    | 1778. | C | r.m Bot. cab. 574             |
| 534 pereskiaefolium W.                                | cactus-leaved   | △ | cu  | 1  | my.jn | Ap | S. Amer.   | 1820. | C | r.m Hook. ex. fl. 57          |
| 535 blandum W.  | villous         | △ | cu  | 1  | my.n  | Ap | Caraccas   | 1802. | C | r.m Hook. ex. fl. 21          |
| 536 rubricaulè Nees.                                  | red-stemmed     | △ | cu  | 1  | my.jn | Ap | Jamaica    | 1775. | C | r.m Hook. ex. fl. 23          |
| 537 polystachion W.                                   | many-spiked     | △ | cu  | 1  | jn.jl | Ap | .....      | 1822. | C | r.m Hor. phys. br. t. 8       |
| 538 quadrifolium W.                                   | four-leaved     | △ | cu  | 1  | jn.jl | Ap | S. Amer.   | 1818. | C | r.m Hook. ex. fl. 22          |
| 539 inaequalifolium                                   | unequal-leaved  | △ | or  | 1  | jl.au | Ap | Peru       | 1800. | C | r.m Fl. per. 1. t. 46. a.     |
| 540 stellatum P. S.                                   | starry          | △ | cu  | 1  | my.jl | Ap | Jamaica    | 1802. | C | r.m Jac. vind. 2. t. 217      |
| 541 incanum Haw.                                      | great-downy     | △ | cu  | 1  | f     | Ap | Brazil     | 1815. | C | r.m Bot. cab. 503             |
| 542 subrotundum Haw                                   | sm. clusia-ld.  | △ | cu  | 1  | f     | Ap | .....      | 1812. | C | r.m                           |
| 543 rubellum Haw.                                     | red             | △ | cu  | 1  | mr.ap | Ap | W. Indies  | 1820. | C | r.m Hook. ex. fl. 59          |



History, Use, Propagation, Culture,

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

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

## DIGYNIA.

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

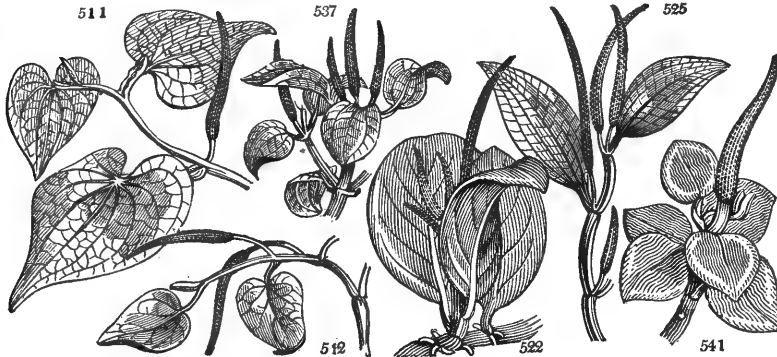
## TRIGYNIA.

*Shrubby.*

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

*Stem fleshy.*

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



and Miscellaneous Particulars.

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

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

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

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



## CLASS III. — TRIANDRIA. 3 STAMENS.

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

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

*Palææ* . . . . *Corolla*.

*Scale* . . . . *Nectary*.

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

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

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

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

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

Order 1. MONOGYNIA.  3 Stamens. 1 Style.1. *Flowers with Calyx and Corolla distinct; or with a trifid Corolla only.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

99. *Sparaxis*. Spatha 2-valved, scarious, membranous, torn at the end. Flower tubular. Stigmas 3, recurved. Caps. oblong, globose.
100. *Tritonia*. Spatha 2-valved. Flower tubular, with a 6-parted nearly regular limb. Stigmas 3, spreading. Seeds neither winged nor berried.
101. *Watsonia*. Spatha 2-valved. Flower tubular, with a 6-parted limb. Stigmas 3, filiform, 2-parted, with recurved segments. Caps. cartilaginous, many-seeded.
102. *Babiana*. Spatha 2-valved, the inner valve 2-parted. Flower tubular, with a 6-parted limb. Stigmas 3, spreading. Seeds berried.
103. *Lapeyrousia*. Flower hypocrateriform. Tube longer than the 6-parted limb. Stigmas 3, 2-parted. Caps. membranous, many-seeded.
104. *Melaspheura*. Spatha 2-valved. Flower nearly divided into 6 petals: the segments pointed equal. Stigmas 3, recurved. Caps. 3-lobed.
105. *Gladiolus*. Spatha 2-valved. Flower tubular, with a 6-parted irregular limb. Stamens ascending. Stigmas 3. Seeds winged.
106. *Anomatheca*. Spatha 2-valved. Flower hypocrateriform. Stigmas 3, 2-parted. Caps. frosted over with little warts.
107. *Antholyza*. Spatha 2-valved. Flower tubular, with a ringent differently formed limb. Stigmas 3, simple. Seeds nearly round.
108. *Xiphidium*. Flower inferior, 6-petaled, regular. Caps. 3-celled, many-seeded.
109. *Leptanthus*. Flower monopetalous, with a very long slender tube, a 6-parted limb, and nearly equal segments. Stigma simple.
110. *Wachendorfia*. Flower inferior, 6-parted, irregular. Caps. 3-celled. Seeds solitary.
111. *Hæmodorum*. Flower 6-parted, persistent, smooth. Stamens attached to the base of the inner segments of cor. Ovarium 3-celled. Cells 2-seeded. Stigma 1. Caps. 4-superior, 3-lobed, 3-celled. Seeds petate, edged.
112. *Aristea*. Flower superior, 6-petaled, regular; after flowering twisted spirally and persistent. Caps. 3-celled, many seeded.
113. *Dilatris*. Flower superior, 6-petaled, regular. One filament shorter than the others, and with a larger anther. Stigma simple. Caps. 3-celled. Seeds solitary.
114. *Brodiea*. Flower inferior, tubular, with a 6-cleft regular limb, and a 3-leaved corona in the orifice. Caps. 3-celled, many seeded.
115. *Iris*. Flower 6-parted: every other division reflexed. Stigmas shaped like petals.
116. *Moræa*. Flower 6-petaled; after flowering involute above, spirally twisted beneath, finally falling off. Caps. many-seeded.
117. *Marica*. Flower 6-parted, or of 6 petals: the 3 outer segments largest, the inner connivent and very much smaller. Stigma like a petal, 3-fid: its segments undivided. Caps. 3-celled.
118. *Pardanthus*. Flower 6-petaled, regular, equal. Caps. many-seeded. Seeds attached to a central loose receptacle.

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

119. *Sclæmus*. Spikelets few-flowered, distichous: the lower scales empty, the upper enclosing flowers. No bristles under the ovarium.
120. *Rhynchospora*. Spikelets few-flowered, slender: the lower nearly empty, the upper enclosing flowers. Bristles under the ovarium.
121. *Fimbristylis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Style jointed at the base, and deciduous. No bristles under the ovarium.
122. *Isolopis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. No bristles under the ovarium. Style not jointed at the base, and deciduous.
123. *Scirpus*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style not jointed at the base, and deciduous.
124. *Eleocharis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style jointed at the base, and deciduous.
125. *Eriophorum*. Glumes chafly imbricated in all directions. Seed surrounded by very long dense wool.
126. *Trichophorum*. Spikelets nearly ovate, imbricated in all directions. Bristles about the seed usually six, capillary, finally very much lengthened and exserted.
127. *Cyperus*. Spikelets in two ranks, imbricated; nearly all the scales enclosing flowers. No bristles under the ovarium. Style deciduous, not bulbous.
128. *Pappus*. Spikelets many-flowered. Glumes imbricated in two rows, 1-flowered. Style 3-fid. Scales 2, membranous, contrary to the glumes. No bristles beneath the ovarium. Seed 3-cornered.
129. *Kyllinga*. Spikelets 1-flowered. Glumes 4, imbricated in two rows, compressed: the 2 lower which are smaller and the upper one empty; the intermediate similar to the upper, and including a naked hermaphrodite flower. Style bifid. No bristles under the ovarium. Seed lenticular.
130. *Mariacus*. Spikelets few-flowered. Glumes imbricated in two rows, the lower empty. Stamens sometimes 2. Style trifid. Neither scales nor bristles below the ovarium. Seed triangular.
- β. Leaves with a split sheath, and a membranous ligule. *True grasses.*
131. *Remirea*. Spikelets 1-flowered, with imbricated scales; the outer ones nerved, the upper which bears the flower enclosed in them and unlike them. No bristles beneath the ovarium. Seed oblong, enclosed in the uppermost scale become thickened and corky.
132. *Lygeum*. Flowers 2 or 3 together, with two valved glumes, at the base united into a 2-celled villous pericarpium. Involucrum a convolute spatha.
133. *Cornucopia*. Involucere 1-leaved, cup-shaped or funnel-shaped, many-flowered. Glumes 2-valved, united at base, mitre-formed, equal. Palea 1, bladder-like, split on one side, with a beard below the middle. Stigmas long. Seed not furrowed. Flowers in a head.
134. *Cenchrus*. Involucrum 1-3-flowered, many parted, bristly without, finally hardened. Glume 2-flowered, 2-valved: the outer valve smallest. Florets dissimilar: the outer male or neuter, the inner hermaphrodite. No scales.
135. *Pennisetum*. Involucrum double, composed of many bristles: the outer unequal, the inner pinnated, bearded. Spikelets 2-3.5. Glume 2-valved, unequal. Lower floret male, upper hermaphrodite, both sessile. Paleæ nearly cartilaginous. Spike compound, with sessile spikelets.
136. *Spartina*. Glume 3-valved, 1-flowered, unequal, keeled, very acute. Paleæ 2, beardless, bifid, emarginate and toothed, shorter than the glumes. Scales fringed. Style very long. Seed loose, covered with the paleæ. Spikelets 1-sided, inserted in a double row. Spike compound.
137. *Nardus*. Glume 1-valved, 1-flowered. Palea 1. Stigma simple. Seed covered by the palea.
138. *Oryzopsis*. Glume 2-valved, 1-flowered, membranous, a little longer than the hardened paleæ. Paleæ 2, the lower villous at the end with a jointed beard, the upper entire. Scales 2, linear, the length of the ovarium. Panicle nearly simple and loose.

## Order 2. DIGYNIA.



3 Stamens. 2 Styles.

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



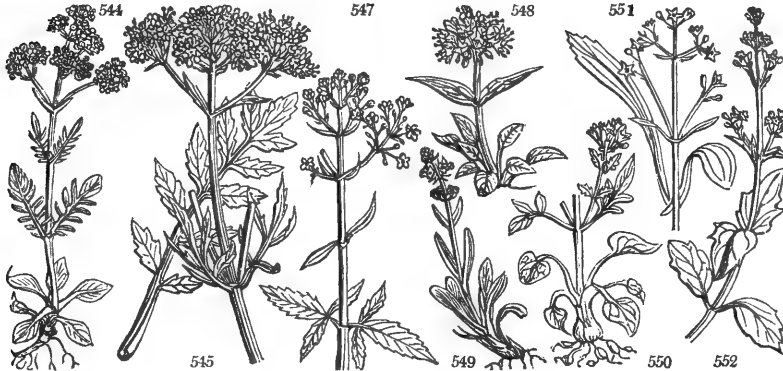
140. *Acynops*. The inflorescence digitate. Spikelets simple. Otherwise, as *Paspalum*.
141. *Milium*. Glume naked, beardless, 2-valved: the valves concave, larger than the paleæ, which are two, concave and equal. Seed coated with the indurated paleæ.
142. *Knappia*. Glume 1-flowered, 2-valved, truncate,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

- Valves unequal, shorter than the stalked florets. Lower palea irregularly 2-toothed, setigerous. Scales longer than the ovarium, subulate. Spike compound.
178. *Cynosurus*. Involucrum 1-leaved, with pinnatifid divisions, containing two spikelets. Glume 4-5-flowered, shorter than the forets. Lower palea very acute, upper bifid-toothed. Scales hairy. Seed coated, furrowed. Spike compound.
179. *Köleria*. Spikelets compressed. Glume 2 or 3-flowered, beardless, 2-valved: the valves shorter than the lowest floret. Paleæ 2, the outer beardless or bearded under the point.
180. *Dactylis*. Many spikelets heaped in a head, 1-sided. Glume 2-7-flowered. Lower palea under the end, which is emarginate, setigerous, upper bifid, toothed. Scales hairy. Seed loose, not furrowed. Panicle compound with short branches.
181. *Glyceria*. Spikelet slender. Glume 5-7-flowered. Valves 2, truncate, with transparent membranous edges, shorter than the forets. Lower palea eroded or many-toothed, navicular, embracing the upper, which is bifid-toothed. Scales connate. Seed furrowed. Panicle nearly simple.
182. *Festuca*. Glume beardless, 2-valved: valves nearly equal, shorter than the lowest floret. Paleæ 2, the outer one bearded at the end. Seed inclosed in the paleæ.
183. *Mygalurus*. Glume 1 or 2-valved, many-flowered, shorter than the spikelet: one valve very small. Paleæ 2, one of them bearded near the end. Seed inclosed in the paleæ.
184. *Bromus*. Glume 3-20-flowered. Valves shorter than the forets, which are imbricated in two rows. Lower palea cordate, emarginate below the end, sometimes torn in two, with a straight beard. Scales ovate, smooth. Seed coated, furrowed. Panicle compound.
185. *Brachypodium*. Spikelets stalked, alternate in each tooth of the rachis. Stalks broad and thick. Glume 3-15-flowered. Valves shorter than the forets. Paleæ entire, lower setigerous at the end, upper bluntly truncated, generally edged with stiff reflexed hairs. Scales pilose. Seed coated, furrowed.
186. *Ustilola*. Spikelets compressed. Florets imbricated in two rows, the lower only abortive. Glume 3-20-flowered, shorter than the forets. Lower palea navicular at the end, abruptly cut off and mucronate between the lobes, the upper subulate, somewhat bifid-toothed. Scales bifid. Seeds turbinate, with two horns, not furrowed. Panicle compound, loose.
187. *Tricuspis*. Glume 5-7-flowered. Valves navicular, shorter than the forets. Lower palea bifid-toothed, between the teeth and on each side mucronate: the upper truncate, almost emarginate. Seed 2-horned.
188. *Dipachne*. Glume 7-9-flowered: the upper valve mucronate at the end. Lower palea twice torn, with a bristle beneath the divisions, upper sub-truncate, emarginate. Seed not furrowed. Panicle simple, much branching. Branches alternate, filiform.
189. *Ceratocloa*. Glume 12-18-flowered. Valves shorter than the forets. Paleæ bifid-toothed: the lower mucronate between the teeth. Ovarium 3-horned. Seed coated, furrowed, 3-horned. Panicle nearly simple. Spikelets compressed. Florets imbricated in two rows.
190. *Schismus*. Glume 3-6-flowered. Valves the length of the forets, or longer. Lower palea cordate, emarginate, its rib extended between the lobes into a filiform mucro, the upper entire. Seed obtuse, nearly furrowed. Panicle simple, contracted, spike-shaped.
191. *Triodia*. Glume 3-5-flowered. Valves navicular, longer than the forets. Paleæ bifid-toothed: lower with a thick tooth-shaped mucro between the teeth. Scales lanceolate, smooth. Ovarium with a bifid diverging beak.
192. *Beckmannia*. Spikelets 1-sided, 3-5-flowered. Glumes unequal, navicular, with a little stalk at the base, obtuse at the end, spatulate, nearly the length of the forets. Paleæ nearly equal. Scales lanceolate. Seed loose, not furrowed. Spike compound. 3 spikelets in each tooth of the rachis.
193. *Melica*. Glume unequal, 2-5-flowered, membranous, nearly the length of the forets, of which the upper are incomplete, abortive and stalked. Scales truncate, fringed. Seed loose, not furrowed. Panicle simple or compound.
194. *Molinia*. Glume 2-4-flowered, unequal. Paleæ conical, lanceolate, acute, much longer than the glume, the upper barren and abortive, or often in its place, a formless rudiment. Scales subtruncate. Seed with two points from the remains of the style, with a broad furrow. Panicle compound. Spikelets slender.
195. *Briza*. Glumes navicular, compressed, nearly cordate at the base, many-flowered (3-14), shorter than the forets which are imbricate in two rows. Lower palea cordate at the base, embracing the upper, which is nearly round and much shorter. Seed with two short filiform beaks. Panicle compound, loose, branches pendulous.
196. *Poa*. Glume 2-20-flowered. Valves shorter than the forets. Paleæ sometimes woolly at the base, the upper bifid-toothed. Scales smooth. Seed furrowed. Panicle more or less branching or scattered.
197. *Eragrostis*. Glume 4-11-flowered. Valves shorter than the paleæ, which are imbricated in two ranks. Upper palea reflexed, its edges folded back, shell-shaped, entire, fringed, persistent. Seed loose, 2-horned, not furrowed. Panicle compound, more or less scattered.
198. *Megastachya*. Spikelets elongated: the forets imbricated in two rows. Glume 5-20-flowered. Valves shorter than the forets. Lower palea emarginate, with a point between the divisions, upper bifid-toothed. Seed loose, not furrowed. Panicle compound.
5. *Inflorescence spiked. Spikelets solitary, seldom many-flowered, with the upper flower abortive and differently formed. Glumes with a keel, not opposite. Lower palea generally bearded, seldom beardless, the upper with two keels.* (CHLORIDEA.)
199. *Sclerochloa*. Glume 3-5-flowered. Valves obtuse, shorter than the forets. Lower palea cordate, emarginate, obtuse, upper entire. Scales emarginate. Seed with a bifid beak. Spike simple. Spikelets 1-sided or dichotomous.
200. *Eleusine*. Glume 5-7-flowered. Valves obtuse. Paleæ obtuse, upper bifid-toothed. Scales truncate, fimbriate. Seed inclosed in a separate membrane, broadly and deeply furrowed. Inflorescence digitate. Spikelets 4-5, erect, 1-sided.
201. *Dactyloctenium*. Spikelets 1-sided. Glume 5-7-flowered. Lower valve with a falcate spine-shaped mucro. Lower palea navicular, ventricose, subulate, upper bifid-toothed. Scales truncate, fringed. Seed square, warted, obtuse, loose. Spikelets digitate, 4-5, erect or horizontal.
202. *Leptocloa*. Glume 3-5-flowered. Valves lanceolate, acute, nearly as long as the forets. Lower palea navicular, acute, upper bifid-toothed. Seed loose, furrowed. Panicle simple. Branches alternate, simple, with nearly 1-sided spikelets.
203. *Cynodon*. Spikelets 1-sided in a simple row. Glumes membranous, persistent, shorter than the forets, and only embracing them at the base. Fertile floret with the upper palea bifid-toothed. A rudiment of an abortive floret, stalked, smooth, clavate. Scales truncate. Seed loose, not furrowed. Spike digitate. Spikelets 4-5-filiform, simple, slender.
204. *Dinebra*. Glume 2-5-flowered. Valves subulate. Paleæ bifid, emarginate, the lower setigerous under the end. Scales truncate, or somewhat lanceolate. Inflorescence spiked, acuminate, the point of the rachis protruding beyond. Spike simple or compound. Spikelets 1-sided, alternate, remote, pendulous.
205. *Echinaria*. Spikelets close together. Glume 2-4-flowered. Valves mucronate, shorter than the forets. Lower palea truncate, fringed, terminated by 5 lanceolate unequal bristles, upper cordate, emarginate, with two similar bristles. Scales truncate. Seed loose, gibbous, not furrowed, with two diverging beaks. Spike simple, capitate.
6. *Inflorescence spiked. Spikelets solitary, in pairs, or several together, 1-flowered, or many-flowered. Glumes opposite, equal. Lower palea bearded or beardless, upper with two keels.* (CEREALEA.)
206. *Triticum*. Glume 2-valved, many-flowered, shorter than the spikelet: the valves nearly equal, beardless, or with one beard enclosing the forets. Paleæ 2, one of them being bearded from the end. Seed inclosed in the paleæ, rarely otherwise.

207. *Lolium*. Spikelets sessile, to the lowest a glume of one valve, to the uppermost of two opposite valves. Lower palea with a mucro or bristle at the end, upper membranous, bifid-toothed. Scales with two unequal teeth. Seed furrowed.
208. *Elymus*. Spikelets in each tooth of the rachis two or more, 3-9-flowered. Glume 2-valved, nearly equal, rarely (as in *E. Hystrix*) absent or nearly so. Lower palea entire with a bristle which is sometimes very short, upper somewhat bifid-toothed. Scales ovate, hairy. Seed furrowed. Spike simple.
209. *Scalae*. Spikelets in each tooth of the rachis solitary, 2-3-flowered, the two lower florets fertile, sessile, opposite, the upper abortive. Glumes subulate, opposite, entire, shorter than the florets. Lower palea entire, with a very long bristle, upper bifid-toothed. Scales obovate, hairy. Seed coated, furrowed.
210. *Hordeum*. Spikelets 1-flowered, three together, the two lateral often barren. Glumes 2, subulate. Palea 2, the lower bearded. Scales 2. Stigmas feathery. Seed coated with the palea.
211. *Microchloa*. Spikelets 1-flowered. Glumes 2, membranous, beardless. Palea 2, much shorter than the glumes, villous. Stigmas very finely divided.
212. *Ophiurus*. Glumes cartilaginous, half immersed in hollows of the rachis, longer than the floret. Palea membranous, transparent. Ovarium cordate. Spike simple.
213. *Monerma*. Spikelets half immersed in hollows of the rachis. Glume 1-valved, cartilaginous, furrowed. Palea membranous, transparent. Scales lanceolate, entire, smooth. Spike simple. Rachis jointed, toothed.
7. *Inflorescence spiked, or panicled, jointed. Spikelets generally in pairs, 1 or 2-flowered, the one sessile, the other stalked, and usually of one sex only. Glumes of a stouter texture than the palea, neither keeled nor opposite. Palea very delicate and membranous, not with a keel, the lower commonly bearded.* (SACCHARINA.)
214. *Perotis*. Glume 2-valved : valves with a long bristle at the end. Palea 1, nearly as long as the calyx. Spike nearly simple, involucreted at the base, with woolly hairs.
215. *Saccharum*. Glume 2-valved, 2-flowered, enveloped in long wool. Lower floret neuter with one palea, upper hermaphroditic with two palea, the upper of which is very small or obsolete.
216. *Imperata*. Glume 2-valved : valves herbaceous, at the lower part of the back clothed with very long hairs the length of the palea, which are two, and beardless, the lowest only half the size of the other. Scales none. Stamens 2-3.

MONOGYNIA.

|                                     |                 |                               |       |            |           |            |                          |
|-------------------------------------|-----------------|-------------------------------|-------|------------|-----------|------------|--------------------------|
| 78. VALERIANA. W. VALERIAN.         |                 | <i>Valerianae.</i> Sp. 12-47. |       |            |           |            |                          |
| 544 dioica W.                       | dicacious       | Δ                             | or 1  | my.jl F    | Britain   | mar.       | D co Eng. bot. 628       |
| 545 officinalis W.                  | great wild      | Δ                             | or 3  | jn.jl F    | Britain   | mar.       | D co Eng. bot. 698       |
| 546 Phu W.                          | garden          | Δ                             | or 3  | my.jl W    | Germany   | 1597.      | D co Blackw. t. 250      |
| 547 tripteris W.                    | three-leaved    | Δ                             | or 1  | mr.my W    | Switzerl. | 1752.      | D co Jac. aus. 3. t. 268 |
| 548 montana W.                      | mountain        | Δ                             | or 1  | jn.jl L.R. | Switzerl. | 1748.      | D co Bot. cab. 317       |
| 549 celtica W.                      | celtic          | Δ                             | or 1  | jn W       | S. Europe | 1623.      | D co Jac. coll. 1. t. 1  |
| 550 tuberosa W.                     | tuberous-root   | Δ                             | or 1  | my.jn L.R. | S. Europe | 1623.      | D co Mor.h.7.t.15.f.20   |
| 551 saxatilis W.                    | rock            | Δ                             | or 1  | jl W       | Austria   | 1748.      | D co Jac. aus. 3. t. 267 |
| 552 elongata Ja.                    | elongated       | Δ                             | or 1  | jn.jl Y    | Austria   | 1812.      | D co Jac. aus. 3. t. 519 |
| 553 pyrenaea W.                     | heart-leaved    | Δ                             | or 3  | my.jn Pk   | Scotland  | sc.w.o.    | D co Eng. bot. 1591.     |
| 554 sambucifolia Mik.               | elder-leaved    | Δ                             | or 1  | my.jn Pk   | Germany   | 1819.      | D co                     |
| 555 supina Vahl.                    | prostrate       | Δ                             | or 1  | my.jn Pk   | S. Europe | 1822.      | D co Jac. mi.2.t.17.f.2  |
| 9. PATRINIA. PATRINIA.              |                 | <i>Valerianae.</i> Sp. 2.     |       |            |           |            |                          |
| 556 sibirica W.                     | Siberian        | ○                             | or 1  | my.jn Y    | Siberia   | 1759.      | S co Bot. mag. 714       |
| 557 ruthenica W.                    | Russian         | ○                             | or 1  | jn Y       | Siberia   | 1801.      | D co Bot. mag. 2325      |
| † 80. VALERIANELLA. LAMB'S LETTUCE. |                 | <i>Valerianae.</i> Sp. 11-26. |       |            |           |            |                          |
| 558 echinata W.                     | prickly capsul. | ○                             | cul 1 | jl.au Pk   | S. Europe | 1807.      | S co Col. eph. 1. t. 206 |
| 559 olitória W.                     | common          | ○                             | cul 1 | ap.my Bk   | Britain   | cor. fi. S | co Eng. bot. 811.        |
| 560 dentata W.                      | oval-fruited    | ○                             | w 1   | ap.jn B    | Britain   | cor. fi. S | co Eng. bot. 1570        |
| 561 vesicaria W.                    | bladdery        | ○                             | w 1   | ap.my W    | Candia    | 1739.      | S co Fl. grac. 1. t. 34  |
| 562 coronata W.                     | crowned         | ○                             | w 1   | ap.jn Pk   | Portugal  | 1731.      | S co Col. eph. 1. t. 209 |
| 563 discoidea W.                    | discoid         | ○                             | w 1   | ap.jl B    | Italy     | 1731.      | S co Mor.h.7.t.16.f.29   |
| 564 carinata D. C.                  | keeled          | ○                             | w 1   | ap.my B    | France    | 1819.      | S co Mor.h.7.t.16.f.31   |
| 565 eriocrapa D. C.                 | woolly-fruited  | ○                             | w 1   | ap.my Li   | France    | 1821.      | S co Mor.h.7.t.16.f.33   |
| 566 radiata Vahl.                   | radiate         | ○                             | w 1   | ap.my Pk   | N. Amer.  | 1821.      | S co                     |
| 567 dasycarpa M. B.                 | thick-fruited   | ○                             | w 1   | ap.my Li   | Crimée    | 1821.      | S co                     |
| 568 uncinata M. B.                  | hook-fruited    | ○                             | w 1   | my.jn Li   | Tauria    | 1822.      | S co                     |



History, Use, Propagation, Culture,

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

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

## Order 3. TRIGYNIA.



3 Stamens. 3 Styles.

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

## MONOGYNIA

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

- 558 Caps. linear 3-toothed: the outer larger recurved, Stem smooth, Flowers in dichotomous spikes
- 559 Caps. naked globose compressed, Stem weak, Flowers in heads
- 560 Caps. polished ovate, Limb of the calyx short 3-5-toothed crowned, Stem smooth, Flowers corymbose
- 561 Caps. ovate villous, Limb of the calyx bladdered crowned, Stem a little villous, Flowers nearly in heads
- 562 Caps. villous, Limb of cal. 6-10-tooth. crowned, Crown camp. Teeth long straight, Stem pubesc. Fls. in heads
- 563 Caps. vill. Limb of cal. 10-12-rayed crowned, Crown rotate, Teeth long acute, Stem smooth, Flow. in heads
- 564 Caps. naked smooth cleft-keeled elongated, Stem weak, Flowers nearly in heads
- 565 Caps. ovate angular hairy irregularly toothed, Stem angular, Flowers corymbose
- 566 Caps. pubescent naked at the end, Leaves spatulate oblong nearly entire
- 567 Stem scabrous, Fruit ovate acute 1-toothed at the end pubescent
- 568 Caps. linear 6-toothed, Teeth hooked loose, Stem and radical leaves spatulate, cauline pinnatifid pubescent



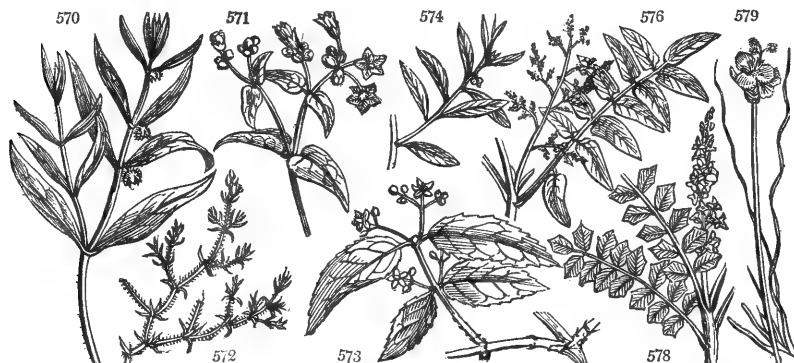
and Miscellaneous Particulars.

Phu is the Arabic name of the species so called.

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

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

|                        |                |                    |          |    |     |    |               |                                      |
|------------------------|----------------|--------------------|----------|----|-----|----|---------------|--------------------------------------|
| *81. CALYME'NIA.       | UMBRELLA-WORT. | <i>Nyctagineæ.</i> | Sp. 3-7. |    |     |    |               |                                      |
| 563 viscosa W.         | viscid         | ☒                  | cu       | 6  | mys | P  | Peru          | 1793. C 1p Bot. mag. 434             |
| 570 aggregata Cav.     | aggregate      | ☐                  | cu       | 1  | jl  | au | Pk N. Spain   | 1811. S s.l Cav. ic. t. 437          |
| 571 glabrifolia W. en. | smooth-leaved  | ☒                  | cu       | 3  | jl  | au | P N. Spain    | 1811. C s.l Cav. ic. t. 379          |
| 82. LÆFLI'NGIA. W.     | LÆFLINGIA.     |                    |          |    |     |    |               |                                      |
| 572 hispánica W.       | Spanish        | ○                  | w        | ½  | jl  |    | G Spain       | 1770. S a.l Cav. ic. 1. t. 94        |
| 83. HIPPOCRATE'A.      | HIPPOCRATEA.   |                    |          |    |     |    |               |                                      |
| 573 volubilis W.       | climbing       | ☐                  | or       | 20 |     |    | W S. Amer.    | 1739. C p.l Jac. amer. t. 9.         |
| 84. CNEO'RUM. W.       | WIDOW-WAIL.    |                    |          |    |     |    |               |                                      |
| 574 tricoccum W.       | smooth         | ☐                  | or       | 6  | aps | Y  | S. Europe     | 1793. C p.l Lam. ill. t. 27          |
| 575 pulverulentum Ven. | powdery        | ☐                  | or       | 6  | aps | Y  | Madeira       | 1822. C p.l Vent. cels. 77           |
| 85. COMOCLA'DIA. W.    | MAIDEN-PLUM.   |                    |          |    |     |    |               |                                      |
| 576 integrifolia W.    | entire-leaved  | ☐                  | tm       | 15 |     |    | W Jamaica     | 1778. C p.l Slo. ja. 2. t. 222. f. 1 |
| 577 dentata W.         | tooth-leaved   | ☐                  | tm       | 30 | jl  |    | W W. Indies   | 1790. C p.l J. am. 13. t. 173. f. 4  |
| 578 ilicifolia W.      | holly-leaved   | ☐                  | tm       | 15 |     |    | W Caribbe Is. | 1789. C p.l Plum. t. 113. f. 1       |
| 86. XY'RIS. L.         | XYRIS.         |                    |          |    |     |    |               |                                      |
| 579 operculata B. P.   | rush-leaved    | ☐                  | pr       | 1  | jn  | jl | Y N. S. W.    | 1804. S s.p Bot. mag. 1158           |
| 580 brevifolia P. S.   | short-leaved   | ☐                  | pr       | ½  | jn  | au | Y Carolina    | 1812. S s.p                          |
| 581 laevis Br.         | smooth         | ☐                  | pr       | 1½ | jn  | au | Y N. Holl.    | 1819. S s.p                          |
| 87. CALLI'SIA. W.      | CALLISIA.      |                    |          |    |     |    |               |                                      |
| 582 repens W.          | creeping       | ☐                  | pr       | ½  | jn  | jl | B W. Indies   | 1776. R s.p Jac. am. 11. t. 11       |
| 88. COMMELI'NA. B. P.  | COMMELINA.     |                    |          |    |     |    |               |                                      |
| 583 communis W.        | common         | ☐                  | or       | 2  | jn  | jl | P.B America   | 1732. S co Red. lil. 206             |
| 584 caroliniana W.     | Carolina       | ☐                  | or       | 2  | jn  | jl | P.B America   | 1732. D r.m                          |
| 585 africana W.        | African        | ☐                  | or       | 1  | my  | o  | Y C. G. H.    | 1759. R r.m Bot. mag. 1431           |
| 586 bengalensis W.     | Bengal         | ☐                  | or       | 3  | jn  |    | B Bengal      | 1794. R s.p Mur. got. p. 18. t. 5    |
| 587 erecta W.          | upright        | ☐                  | or       | 1  | aus |    | B Virginia    | 1732. R s.p Di. el. 9. t. 77. f. 88  |
| 588 virginica W.       | Virginian      | ☐                  | or       | ½  | jn  |    | B Virginia    | 1779. R s.p P. al. 135. t. 174. f. 4 |
| 589 longicaulis W.     | long-stalked   | ☐                  | or       | 3  | au  |    | B Caraccas    | 1806. R s.p Jac. ic. 2. t. 324       |
| 590 mollis W.          | soft           | ☐                  | or       | 2  | au  |    | B Caraccas    | 1804. R s.p Jac. ic. 2. t. 323       |
| 591 tuberosa W. en.    | tuberos-root.  | ☐                  | or       | 1  | jn  | jl | B Mexico      | 1732. R r.m Bot. rep. 399            |
| 592 caelastis W. en.   | sky-blue       | ☐                  | or       | 1½ | jn  | jl | B             | 1813. R r.m Bot. mag. 1695.          |
| 89. ANEILE'MA. B. P.   | ANEILEMA.      |                    |          |    |     |    |               |                                      |
| 593 biflorum Br.       | creeping       | ☐                  | or       | 1  | jl  | au | B N. Holl.    | 1820. R co                           |
| 594 ambiguum Beauv.    | doubtful       | ☐                  | or       | 3  |     |    | V S. Leone    | 1822. D r.m Beauv. Ow. t. 15         |
| 595 sinicum Ker.       | Chinese        | ☐                  | or       | 1  | my  | jn | P.B China     | 1820. D r.m Bot. reg. 659            |
| 90. CARTONE'MA.        | CARTONEMA.     |                    |          |    |     |    |               |                                      |
| 596 spicatum           | spear-leaved   | ☐                  | or       | ½  | jl  | au | B E. Indies   | 1783. S s.p                          |
| 91. ORTE'GIA. W.       | ORTEGIA.       |                    |          |    |     |    |               |                                      |
| 597 hispánica W.       | Spanish        | ☐                  | w        | ½  | jn  | jl | Ap Spain      | 1768. D 1p Cav. ic. 1. t. 47         |
| 598 dichotoma W.       | forked         | ☐                  | w        | ½  | aus |    | Ap Italy      | 1781. D 1p All. taur. 3. t. 4. f. 1  |
| 92. POLYCNE'MUM. W.    | POLYCNEMUM.    |                    |          |    |     |    |               |                                      |
| 599 arvense W.         | trailing       | ☐                  | w        | ½  | jl  |    | Ap S. Europe  | 1640. S s.l Jac. aus. 4. t. 365      |
| 600 recurvum Lois.     | recurved       | ☐                  | w        | ½  | jl  |    | Ap France     | 1820. S s.l                          |
| †93. CRO'CUS. Ker.     | CROCUS.        |                    |          |    |     |    |               |                                      |
| 601 vernus E. B.       | spring         | ☐                  | or       | ½  | fap |    | P England     | mea. O co Eng. bot. 344              |
| 602 albitörus Kt.      | Austrian vern. | ☐                  | or       | ½  | fmr |    | W Austria     | ... O co                             |



History, Use, Propagation, Culture,

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

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

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

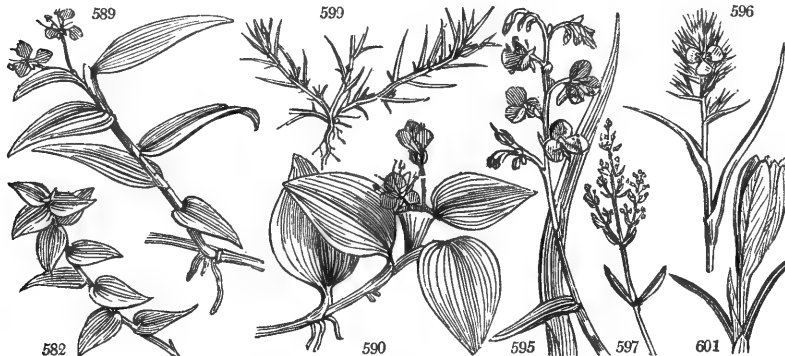
84. *Cneorum*. *Κνισρον* is a plant described by Theophrastus, as resembling the olive. This is a low yellowish evergreen shrub, which like *Veronica decussata*, will endure our winters in the open air, with protection during frost. It grows naturally in hot dry barren and rocky soils; thrives well in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

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

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

1. *Vernal.*

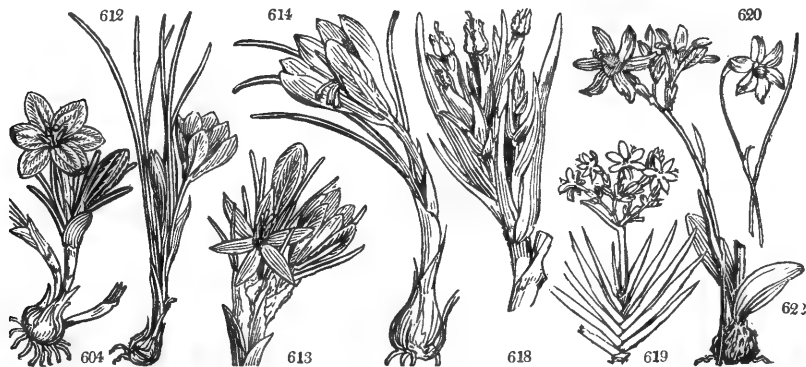
- 601 Mouth of flower closed by hairs, Segments obtuse, Stigmas dilated, Flowers large early  
 602 Segments of flower quite entire obt. Anthers twice as long as the stigmas, Mouth of flower closed by hairs



## and Miscellaneous Particulars.

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

|      |                             |                 |   |   |    |   |       |      |                |                   |   |       |                     |
|------|-----------------------------|-----------------|---|---|----|---|-------|------|----------------|-------------------|---|-------|---------------------|
| 603  | <i>minimus</i> Red.         | least           | ♂ | Δ | or | ♂ | f.mr  | P    | .....          | 1629.             | O | co    |                     |
| 604  | <i>versicolor</i> H. K.     | party-colored   | ♂ | Δ | or | ♂ | f.mr  | Li   | S. Europe      | 1629.             | O | co    | Bot. mag. 1110      |
| 605  | <i>hiſſorus</i> H. K.       | Scotch          | ♂ | Δ | or | ♂ | f.mr  | W    | Crimea         | 1629.             | O | co    | Bot. mag. 845       |
| 606  | <i>pusillus</i> Ten.        | Neapolitan      | ♂ | Δ | or | ♂ | f.mr  | W.br | Naples         | 1824.             | O | co    | Bot. Cab. 1454      |
| 607  | <i>suſianus</i> H. K.       | cloth of gold   | ♂ | Δ | or | ♂ | f.mr  | Y    | Turkey         | 1605.             | O | co    | Bot. mag. 652       |
| 608  | <i>reticulatus</i> M. B.    | netted vernal   | ♂ | Δ | or | ♂ | f.mr  | B    | Crimea         | ...               | O | co    | Bot. Cab. 1822      |
| 609  | <i>striatus</i> Lk.         | striped vernal  | ♂ | Δ | or | ♂ | f.mr  | W    | .....          | 1820.             | O | co    |                     |
| 610  | <i>sulphureus</i> H. K.     | sulphur-colored | ♂ | Δ | or | ♂ | f.mr  | Y    | S. Europe      | 1629.             | O | co    | Bot. mag. 938       |
|      | <i>β flavus</i>             | pale-yellow     | ♂ | Δ | or | ♂ | f.mr  | P.y  | S. Europe      | 1629.             | O | co    | Bot. mag. 1384      |
| 611  | <i>luteus</i> Lam.          | common-yell.    | ♂ | Δ | or | ♂ | f.mr  | Y    | Turkey         | 1629.             | O | co    | Bot. mag. 45        |
| 612  | <i>lagenæſlorus</i> Satisb. | golden          | ♂ | Δ | or | ♂ | f.mr  | D.y  | Greece         | ...               | O | co    | Fl. grac. l. t. 35  |
|      | <i>β flavus</i>             | pale            | ♂ | Δ | or | ♂ | f.mr  | P.y  | Greece         | ...               | O | co    | Bot. mag. 1111      |
|      | <i>γ penicillatus</i>       | penicilled      | ♂ | Δ | or | ♂ | f.mr  | P.y  | .....          | ...               | O | co    |                     |
| 613  | <i>stellaris</i> Haw.       | starry-yellow   | ♂ | Δ | or | ♂ | f.mr  | Y    | .....          | ...               | O | co    | Hor. trans. l. t. 6 |
| 614  | <i>sativus</i> W.           | saffron         | ♂ | Δ | or | ♂ | s.o   | V    | England        | mea.              | O | s.l   | Eng. bot. 343       |
| 615  | <i>serotinus</i> H. K.      | late autumnal   | ♂ | Δ | or | ♂ | s.n   | V    | S. Europe      | 1629.             | O | co    | Bot. mag. 1267      |
| 616  | <i>nudiſſorus</i> H. K.     | naked autumn.   | ♂ | Δ | or | ♂ | o.u   | V    | England        | mea.              | O | co    | Eng. bot. 491       |
| 617  | <i>Pallāſii</i> M. B.       | Russian autumn. | ♂ | Δ | or | ♂ | s.o   | Li   | Crimea         | 1821.             | O | co    |                     |
| †94. | WITSEŒNIA. Ker.             | WITSEŒNIA.      |   |   |    |   |       |      | <i>Irideæ.</i> | <i>Sp. 2-4.</i>   |   |       |                     |
| 618  | <i>maura</i> H. K.          | downy-flowered  | ♂ | Δ | or | 4 | n.ja  | Y.B  | C. G. H.       | 1790.             | C | s.p   | Bot. reg. 5         |
| 619  | <i>corymbosa</i> H. K.      | corymbose       | ♂ | Δ | or | ♂ | ap.s  | P.B  | C. G. H.       | 1803.             | C | s.p   | Bot. mag. 895       |
| 95.  | IXIA. Ker.                  | IXIA.           |   |   |    |   |       |      | <i>Irideæ.</i> | <i>Sp. 20-30.</i> |   |       |                     |
| 620  | <i>linearis</i> H. K.       | slender         | ♂ | Δ | or | ♂ | ap.my | W    | C. G. H.       | 1796.             | O | s.p.l | Bot. mag. 570       |
| 621  | <i>capillaris</i>           | capillary       | ♂ | Δ | or | 1 | ap.my | V    | C. G. H.       | 1774.             | O | s.p.l | Bot. mag. 617       |
| 622  | <i>alūca</i> W.             | rose-colored    | ♂ | Δ | or | 2 | ap.my | Pk   | C. G. H.       | 1774.             | O | s.p.l | Bot. mag. 1013      |
| 623  | <i>fucata</i> Ker.          | painted         | ♂ | Δ | or | ♂ | jn.jl | Pk   | C. G. H.       | ...               | O | s.p.l | Bot. mag. 1379      |
| 624  | <i>pātens</i> W.            | spreading-flow. | ♂ | Δ | or | 1 | ap    | P    | C. G. H.       | 1779.             | O | s.p.l | Bot. mag. 522       |
| 625  | <i>leucantha</i> P. S.      | white-flowered  | ♂ | Δ | or | 1 | my    | W    | C. G. H.       | 1779.             | O | s.p.l | Jac. ic. 2. t. 278  |
| 626  | <i>flexuosa</i> H. K.       | bending-stalked | ♂ | Δ | or | 2 | ap.my | Pk   | C. G. H.       | 1757.             | O | s.p.l | Bot. mag. 624       |
| 627  | <i>hybrida</i> Ker.         | spurious        | ♂ | Δ | or | 1 | ap.my | W    | C. G. H.       | 1757.             | O | s.p.l | Bot. mag. 127       |
| 628  | <i>cōnica</i> H. K.         | orange-colored  | ♂ | Δ | or | 1 | ap.my | O    | C. G. H.       | 1757.             | O | s.p.l | Bot. mag. 539       |
| 629  | <i>monadelphæ</i> H. K.     | monadelphous    | ♂ | Δ | or | ♂ | ap.my | B    | C. G. H.       | 1792.             | O | s.p.l | Bot. mag. 607       |
|      | <i>β alūca</i> Andr.        | short           | ♂ | Δ | or | ♂ | ap.my | O    | C. G. H.       | 1792.             | O | s.p.l | Bot. mag. 1378      |
| 630  | <i>columnellaris</i> H. K.  | variegated      | ♂ | Δ | or | ♂ | au    | St   | C. G. H.       | 1790.             | O | s.p.l | Bot. mag. 630       |
| 631  | <i>amena</i> Lk.            | pretty          | ♂ | Δ | or | 1 | ap.my | R    | C. G. H.       | 1822.             | O | s.p.l |                     |
| 632  | <i>maculata</i> W.          | spotted         | ♂ | Δ | or | 1 | my.jn | W.br | C. G. H.       | 1780.             | O | s.p.l | Bot. rep. 196       |
|      | <i>β ochroleuca</i>         | cream-colored   | ♂ | Δ | or | 1 | my.jn | P.y  | C. G. H.       | 1780.             | O | s.p.l | Bot. mag. 1285      |
| 633  | <i>capitata</i> P. S.       | headed          | ♂ | Δ | or | 2 | my.jn | Lm   | C. G. H.       | 1780.             | O | s.p.l | Bot. rep. 159       |
| 634  | <i>viridiflora</i> P. S.    | green-flowered  | ♂ | Δ | or | 1 | my.jn | G    | C. G. H.       | 1780.             | O | s.p.l | Bot. mag. 549       |
| 635  | <i>erecta</i> H. K.         | upright         | ♂ | Δ | or | 1 | my.jn | Va   | C. G. H.       | 1757.             | O | s.p.l | Bot. m. 623. 1173   |
| 636  | <i>crateroides</i> H. K.    | crimson         | ♂ | Δ | or | ♂ | my.jn | D.a  | C. G. H.       | 1778.             | O | s.p.l | Bot. mag. 594       |



History, Use, Propagation, Culture,

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

- 603 Segments of flower acute, Stigmas small, Flowers small late, Mouth of throat closed by hairs  
 604 Stigmas convolute hooded lobed as long as the anthers  
 605 Leaves longer than flowers, Stigmas but little longer than the anthers [membranous  
 606 Stigma inclosed trifid longer than stamens, Lobes filiform cucullate crisp, Lvs. setaceous, Tunic of the bulbs  
 607 The three outer segments of flower revolute  
 608 Stam. as long as the truncate top stigmas, Leaves supporting the flowers, Bulbs coated with net-work  
 609 Leaves longer than the flowers, Spathes 2 inner narrowest, Limb of cor. funnel-shaped, Stigma length of  
 610 Stigmas unequal much longer than the anthers [anthers flattish jagged
- 611 Filaments hairy, Anthers longer than the stigma  
 612 Stigma enclosed trifid, Lobes somewhat linear toothed, Coat of the roots membranous  
 β Pale cream-coloured flowers  
 γ Pale cream-coloured flowers, with 3 sky-blue lines on the tube  
 613 Leaves upright-spreading: their keel blunt: sides nerveless, Flower in the sun campanulate stellate  
 2. Autumnal.
- 614 Stigmas very long reflexed crenate at the end  
 615 Stigmas erect much divided, Leaves coming out with the flowers  
 616 Stigmas erect much divided, Leaves later than the flowers  
 617 Bulbs with a thready skin, Leaves later than the fl. Stam. as long as the truncate stigmas, Flower large
- 618 Flowers spiked, Outer segments of flower downy without  
 619 Flowers corymbose smooth

- 620 Leaves linear very narrow convex, Scape simple erect  
 621 Leaves with a cartilaginous edge, Racemes 1-7-flowered  
 622 Leaves ensiform, Tube of the flower turbinate [Anthers diverging  
 623 Leaves grassy, Spike 1-2-flowered, Flower hypocrateriform, Tube clavate straight, Filaments columnar,  
 624 Tube filiform, Limb bell-shaped spreading, Stigmas longer than the anthers  
 625 Leaves linear ensiform, Flowers 1-sided, Spathes toothed shorter than the tube  
 626 Tube slender a little enlarged, Limb below bell-shaped contracted, Segments spreading  
 627 Leaves slender, Raceme flexuose many-flowered  
 628 Limb spreading spotted at base, Stigmas not divided lower than the base of the anthers  
 629 Filaments united in a tube
- 630 Filaments united at base  
 631 Leaves lanceolate, Spathes toothed much shorter than the filiform tube, Segments lanceolate  
 632 Limb campanulate spreading spotted at base, Stigmas divided as low as the tube
- 633 Smooth with stalked bulbs, Leaves linear ensiform, Flowers in spiked heads, Tube shorter than segments  
 634 Leaves linear ensiform edged, Scape many-spiked many-flowered, Flowers spotted at base  
 635 Limb spreading not spotted, Stigmas divided as low as the tube  
 636 Limb hemispherical campanulate, Stigmas longer than anthers



and Miscellaneous Particulars.

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

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

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

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





- 637 Tube twice as long as spathe, Segments oblong, Stigmas split gaping  
 638 Tube the length of the spathe, Segments spatulate concave, Stigmas funnel-shaped  
 639 Leaves curled

- 640 Leaves linear channelled  
 641 Leaves linear nerved thickened at the edge  
 642 Radical leaves with 4 furrows, Outer valve of spathe convolute rigid, Flower turbinate, Segments lanc.  
 643 Leaves twisted, inflated at base, Flower very large spreading, Segm. with a black mark at the base,  
 Stamens bearded at base, Anthers connate  
 644 Leaves linear, very long, Flowers veiny, spreading on long stalks, Edge of spathe membranous  
 645 Leaves filiform, Scapes 1-flowered, shorter than the campanulate flower

- 646 Leaves radical linear acute, Stem smooth, a little honey-pore at the base of the divisions of the flower  
 647 Leaves filiform, Stem few-flow. smooth, spathes scarious much longer than tube, Segments of flower obl.  
 648 Stem simple few-flowered, Radical leaves bristly  
 649 Radical leaves ensiform-linear obtuse  
 650 Radical leaves linear-acute, Stem villous  
 651 Radical leaves ovate oblong  
 652 A doubtful species, known only by name

- 653 Leaves fistulous  
 654 Leaves linear hairy, Stem smooth  
 655 Leaves linear with stem smooth  
 656 Radical leaves falcate smooth  
 657 Radical leaves falcate curled

- 658 Spathes spotted, Limb of flower regular

- 659 Spathes spotted, Limb of flower bilabiate  
 660 Spathes lined, Limb of flower regular : segments ovate-oblong

- 661 Spathes lined, Limb of flower regular : segments elliptical

- 662 Leaves waved curled, Segments of flower flat  
 663 Scape 3-cornered : angles membranous  
 664 Outer valve of the spathe cuspidate, Tube of the flower very long, Upper segment largest  
 665 Spathe lanceolate pointed, Flower striped : Upper segment erect largest, the rest linear oblong  
 666 Outer valve of the spathe obtuse 3-toothed, Tube very long, Segments of the limb equal  
 667 Leaves ensiform, Flowers in two rows, Spathes membranous shorter than tube, Segm. of the limb linear

- 668 Upper segment of flower largest, outer retuse  
 669 Outer valve of spathe obtuse 3-toothed at end, Three lower segments of the limb with a stalked perpendicular callus at base  
 670 Outer valve of spathe cuspidate, Three lower segments of limb with a stalked perpendicular callus at base  
 671 Limb campanulate : segments approximated, transparent at the edge towards the base  
 672 Limb infundibuliform ; segments distant, transparent at the edge towards the base  
 673 Limb campanulate transparent at the base  
 674 Three outer segments gibbous within, at the base spotted and carinate  
 675 Leaves ensiform, Scape many spiked, Base of the flower lined not transparent  
 676 Spikes reflexed one-sided, Flowers infundibuliform, Spathes very short, Leaves linear ensiform  
 677 Leaves fistular slender  
 678 Upper leaves linear ensiform ; lower fistular compressed  
 679 Leaves linear very narrow  
 680 Leaves linear ensiform, Anthers as long as throat, Corolla funnel-shaped with elliptical pointed segments  
 681 Leaves ensiform thickened at the edge, Spikelets several appressed, Flower funnel-shaped



and Miscellaneous Particulars.

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



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

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

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

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

700 Flowers corymbose, Stamens much spreading  
 701 Flowers solitary

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

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

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

716 Leaves 3 slender upright 4-cornered, Spike 2-3 fld. 1-sided, Fl. funnel-shaped nearly equal somewhat nodd.  
 717 Leaves linear the edge on each side ribbed, middle nerve nearly obsolete  
 718 Leaves linear with a rib on each side in the middle, Sheaths radical spotted  
 719 Tube lngr. than spathe, Up. seg. wider than rest, convol. and recurv. at end; lowest very narrow hang. down  
 720 Tube twice as long as the segments of the limb which are acuminate wavy and reflexed  
 721 Tube shorter than the spathe, Limb campan. subringent: upper segm. concave; the lower narr. spotted  
 722 Leaves lanceolate smooth, Scape about 3-furrowed longer than the leaves, Flower nearly campanulate  
 723 Leaves linear with a rib on each side in the middle, Tube longer than the spathe, the lower segments with a stalked 3-angular spot  
 724 Flowers ringent remote in two rows, Tube shorter than spathe, Segm. lanc. the lat. rolled inwards at edge  
 725 Flowers erect funnel-shaped, Segments wavy, three lower nearly half as short as the others  
 726 Flowers erect turbinate campanulate, Segments equal in length, upper widest  
 727 Flowers erect campanulate, Segments equal in length: upper narrower than the lateral ones  
 728. Spikes several one-sided, three lower segments marked with a white lanceolate spot  
 729 Spike 2-rowed, Upper seg. covered by lateral ones; the 3 lower marked by a white edged linear lanc. spot  
 730 Spike 1-sided, Upper seg. covered by lat. ones; 3 lower marked by a white lin.-lanc. spot, lowest very large  
 731 Spike 1-sided, Upper segm. divaricating, 3 lower nearly equal, marked with a white edged lin.-lanc. spot

732 Leaves broad lanceolate rather wavy



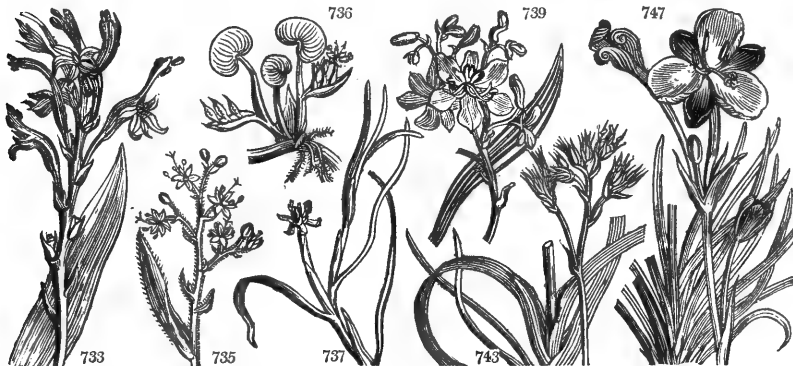
and Miscellaneous Particulars.

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

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

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

|                         |                 |                               |    |       |      |           |          |                              |
|-------------------------|-----------------|-------------------------------|----|-------|------|-----------|----------|------------------------------|
| †107. ANTHOLYZA. Ker.   | ANTHOLYZA.      | <i>Irideae. Sp. 1-4.</i>      |    |       |      |           |          |                              |
| 733 aethiopsica H. K.   | flag-leaved     | ♂ Δ   or                      | 3  | my.jn | O    | C. G. H.  | 1759.    | O s.p. Bot. mag. 561         |
| β vittigera             | ribband         | ♂ Δ   or                      | 2  | ja.f  | O    | C. G. H.  | ...      | O s.p. Bot. mag. 1172        |
| 108. XIPHIDIUM. W.      | XIPHIDIUM.      | <i>Hemodoraceae. Sp. 2.</i>   |    |       |      |           |          |                              |
| 734 album W.            | white           | ♀ Δ   or                      | 1½ | ...   | W    | W. Indies | 1787.    | R s.p.                       |
| 735 ceruleum W.         | blue            | ♀ Δ   or                      | 1½ | ...   | B    | Guiana    | 1793.    | R s.p. Aub. gui. l. t. 11    |
| *109. LEPTANTHUS. Mich. | LEPTANTHUS.     | <i>Fluviales. Sp. 2-3.</i>    |    |       |      |           |          |                              |
| 736 reniformis M.       | kidney-leaved   | ♀ Δ                           | 1  | jn.jl | G    | N. Amer.  | 1812.    | D aq. Fl. per. 1. t. 71      |
| 737 gramineus Vahl.     | grassy          | ♀ Δ                           | 1  | ja.au | Y    | N. Amer.  | 1823.    | D aq. Hook. ex. fl. t. 94    |
| 110. WACHENDORFIA. Ker. | WACHENDORFIA.   | <i>Hemodoraceae. Sp. 5-6.</i> |    |       |      |           |          |                              |
| 738 thysanota W.        | tall-flowered   | ♀ Δ   or                      | 2  | my.jn | Y    | C. G. H.  | 1759.    | D r.m. Bot. mag. 1060        |
| 739 paniculata W.       | paniced         | ♀ Δ   or                      | 2  | f     | Y    | C. G. H.  | 1700.    | D r.m. Bot. mag. 616         |
| 740 graminea W.         | grass-leaved    | ♀ Δ   or                      | 1  | jn    | Y    | C. G. H.  | ...      | D r.m.                       |
| 741 hirsuta W.          | hairy           | ♀ Δ   or                      | 1½ | jn    | V    | C. G. H.  | 1687.    | D r.m. Bot. mag. 614         |
| 742 brevifolia H. K.    | short-leaved    | ♀ Δ   or                      | 1  | mr.ap | P    | C. G. H.  | 1795.    | D r.m. Bot. mag. 1166        |
| 111. HEMODORUM. Sm.     | HEMODORUM.      | <i>Hemodoraceae. Sp. 1-6.</i> |    |       |      |           |          |                              |
| 743 planifolium B. P.   | plain-leaved    | ♀ Δ   or                      | 1½ | jl.n  | O    | N. S. W.  | 1810.    | S s.p. Bot. mag. 1610        |
| 112. ARISTEA. Ker.      | ARISTEA.        | <i>Irideae. Sp. 5.</i>        |    |       |      |           |          |                              |
| 744 cyanea H. K.        | woolly-headed   | ♀ Δ   or                      | 1  | ap.jn | B    | C. G. H.  | 1759.    | S s.p. Bot. mag. 458         |
| 745 capitata H. K.      | tall            | ♀ Δ   or                      | 3  | jl.au | B    | C. G. H.  | 1750.    | C s.p. Bot. mag. 605         |
| 746 spiralis H. K.      | spiral-flowered | ♀ Δ   or                      | 1  | ap.my | P.Bl | C. G. H.  | 1795.    | C s.p. Bot. mag. 520         |
| 747 melaleuca H. K.     | three-colored   | ♀ Δ   or                      | 1  | my.jn | P.Bl | C. G. H.  | 1786.    | C s.p. Bot. mag. 1277        |
| 748 pusilla B. M.       | flat-stemmed    | ♀ Δ   or                      | 1  | jn.jl | B    | C. G. H.  | 1803.    | C s.p. Bot. mag. 1231        |
| *113. DILATRIS. Ker.    | DILATRIS.       | <i>Hemodoraceae. Sp. 3-4.</i> |    |       |      |           |          |                              |
| 749 corymbosa W.        | broad-petalled  | ♀ Δ   or                      | 1  | my    | P    | C. G. H.  | 1790.    | S s.p. Ex. bot. 1. t. 16     |
| 750 viscosa W.          | clammy          | ♀ Δ   or                      | 1  | ...   | B    | C. G. H.  | 1795.    | S s.p. Lam. ill. t. 34       |
| 751 Heritiæra Pers.     | dyers           | ♀ Δ   dy                      | 1½ | jl.au | Fk   | N. Amer.  | 1812.    | S s.p. Mich. am. 4           |
| †114. BRODIAEA. Sm.     | BRODIAEA.       | <i>Irideae. Sp. 1-4.</i>      |    |       |      |           |          |                              |
| 752 ixioides Sims.      | Ixia-like       | ♀ Δ   or                      | 1  | o     | Lá   | Chili     | 1822.    | O s.p. Bot. mag. 2382        |
| †115. IRIS. Ker.        | IRIS.           | <i>Irideae. Sp. 63-92.</i>    |    |       |      |           |          |                              |
| 753 susiana W.          | Chalcedonian    | ♀ Δ   or                      | 2  | mr.ap | St   | Levant    | 1596.    | R s.l. Bot. mag. 91          |
| 754 florentina W.       | Florentine      | ♀ Δ   or                      | 2  | my.jn | W    | S. Europe | 1596.    | R p.l. Bot. mag. 571         |
| 755 germanica W.        | German          | ♀ Δ   or                      | 3  | my.jn | B    | Germany   | 1573.    | R co. Bot. mag. 570          |
| 756 pallida W.          | pale Turkey     | ♀ Δ   or                      | 1½ | my.jn | L.Y  | Turkey    | 1596.    | R co. Bot. mag. 685          |
| 757 flavescens Red.     | yellowish       | ♀ Δ   or                      | 2  | my.jn | Y    | .....     | 1818.    | R co. Red. lil. 375          |
| 758 orientalis W.       | red-leaved      | ♀ Δ   or                      | 1  | my.jn | L.B  | China     | 1790.    | R co. Bot. mag. 1604         |
| 759 sambuctina W.       | elder-scented   | ♀ Δ   or                      | 4  | jn    | L.B  | S. Europe | 1658.    | R co. Bot. mag. 187          |
| 760 lúrida W.           | dinky           | ♀ Δ   or                      | 2  | ap    | Br   | S. Europe | 1758.    | R co. Bot. mag. 669. 996     |
| 761 squálens W.         | brown-flowered  | ♀ Δ   or                      | 2  | jn    | St   | S. Europe | 1768.    | R co. Bot. mag. 787          |
| 762 variegata W.        | variegated      | ♀ Δ   or                      | 2  | my.jn | St   | Hungary   | 1597.    | R s.l. Bot. mag. 16          |
| 763 neglecta Horn.      | neglected       | ♀ Δ   or                      | 2  | my.jn | P.Bl | .....     | ...      | R co. Bot. mag. 2435         |
| 764 Swertii Lam.        | Swert's         | ♀ Δ   or                      | 1½ | ap.my | W    | .....     | 1819.    | R co. Bot. mag. 870          |
| 765 biflora B. M.       | two-flowered    | ♀ Δ   or                      | 1  | ap.my | P    | S. Europe | 1596.    | R co.                        |
| 766 sub-biflora H. K.   | double-bearing  | ♀ Δ   or                      | 1  | ap.my | V    | Portugal  | 1596.    | R p.l. Bot. mag. 1190        |
| 767 cristata W.         | crested         | ♀ Δ   or                      | 1  | my    | St   | N. Amer.  | 1792.    | R p.l. Bot. mag. 412         |
| 768 chinensis W.        | Chinese         | ♀ Δ   or                      | 1  | my.jn | P.B  | China     | 1792.    | R co. Bot. mag. 373          |
| 769 arenaria W. en.     | sand            | ♀ Δ   or                      | 1  | jn    | Br   | Hungary   | 1802.    | R co. Bot. reg. 549          |
| 770 lutescens W.        | pale-yellow     | ♀ Δ   or                      | 1  | ap.my | Y    | Germany   | 1748.    | R p.l. Red. lil. t. 263      |
| 771 flavissima W.       | bright-yellow   | ♀ Δ   or                      | 1  | my.jn | Y    | Siberia   | 1814.    | R co. Jac. ic. 3. t. 220     |
| 772 púmila H. K.        | dwarf           | ♀ Δ   or                      | 1  | ap.my | P    | Austria   | 1596.    | R p.l. Bot. mag. 6. 1209     |
| 773 dichotoma W.        | forked          | ♀ Δ   or                      | 1  | au    | L.P  | Dauria    | 1784.    | R p.l. Bot. reg. 246         |
| 774 hungárica W. en.    | Hungarian       | ♀ Δ   or                      | 1  | my    | V    | Hungary   | 1815.    | R co. W. et. k. h. 3. t. 232 |
| 775 ibérica St.         | reflexed        | ♀ Δ   or                      | 1  | ap.my | Br   | Iberia    | 1821.    | R co.                        |
| 776 pseud-ácorus W.     | yellow-water    | ♀ Δ   or                      | 3  | jn    | Y    | Britain   | moi. pl. | R p.l. Eng. bot. 578         |
| 777 fetidissima W.      | Gladwyn         | ♀ Δ   or                      | 1½ | jn    | Ld   | Britain   | sha. pl. | R p.l. Eng. bot. 596         |
| 778 versicolor W.       | various-colored | ♀ Δ   or                      | 1  | my.jn | St   | N. Amer.  | 1732.    | D s.l. Bot. mag. 21          |



History, Use, Propagation, Culture,

107. *Antholyza*. From *ανθης*, a flower, and *λυσσα*, rage. A metaphorical name. The flower has some resemblance to the mouth of an animal, which by the aid of a little imagination, may be supposed ready to bite.

108. *Xiphidium*. A name of a similar import with *Gladiolus*, being derived from *εξοφος*, a sword, in allusion to its stiff and sword-shaped leaves.

109. *Leptanthus*. *λεπτος*, slender, and *ανθος*, a flower. The tube of the flower is long and slender. These are aquatic floating plants of little beauty.

110. *Wachendorfia*. In memory of E. J. Wachendorf, a Dutchman, and professor of botany at Utrecht.

111. *Hemodorum*. *αιμα*, blood, and *δορον*, a gift; that is to say, a plant which produces a red flower.

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

734 Leaves smooth, Petals linear-lanceolate

735 Leaves hairy, Petals ovate

736 Leaves roundish reniform, Spathes oblong acuminate many-flowered

737 Leaves all linear

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

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

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

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

742 Leaves elliptic sword-shaped hairy

743 Corymbs compound, Branches spreading, Leaves flat

744 Flowers headed, Spathes many-parted torn

745 Heads of flowers alternate, Spathes entire

746 Flowers alternate, Segments of flower equal

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

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

749 Petals ovate oblong, Corymb level-topped hairy

750 Petals linear, Corymb level-topped villous viscid

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

752 Leaflets of the crown subulate

1. *Flowers bearded.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

768 Scape compressed many-flowered, Stigmas jagged

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

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

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

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

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

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

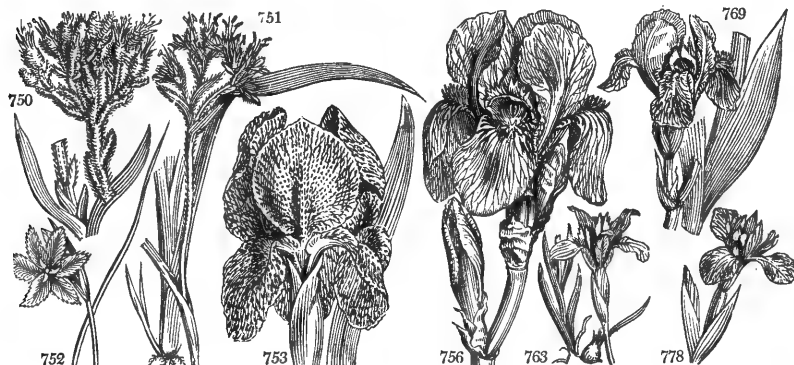
775 Leaves ensiform falcate smooth, Scape 1-flowered, Petals obovate

2. *Flowers beardless.*

776 Leaves flat, Inner petals less than the stigma

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

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



and Miscellaneous Particulars.

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

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

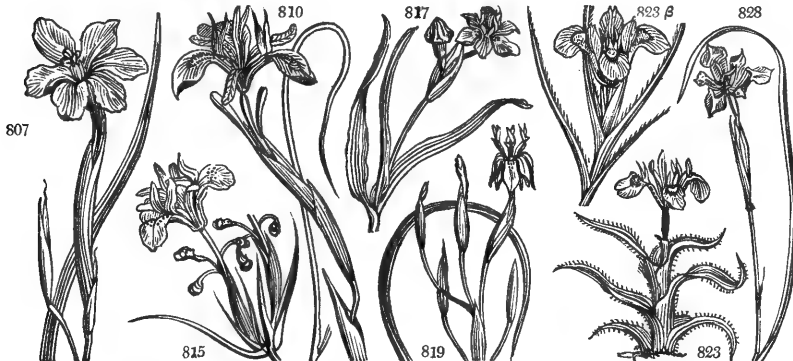
114. *Brodiea*. Named in honor of Mr. Brodie, of Brodie House, a Scotch gentleman, who paid great attention to the botany, especially *Cryptogamia*, of his own country.

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



- 779 Stem round flexuose as long as leaves, Petals all emarginate obovate, the inner shortest, Capsules very large  
 780 Stem 2-edged many-flowered longer than the leaves  
 781 Leaves linear, Scape round, Germens 6-cornered, Stigmas acute, Petals rounded  
 782 Leaves linear, Scape about 3-flowered round, Germens hexagonal, Petals ovate longer than their claw  
 783 Leaves ensiform, Scape nearly round, Germens hexagonal, Petals erect oblong  
 784 Radical leaves very long, Stem higher than the leaves, Germens hexagonal  
 785 Stemless, leaves channelled, Three erect petals very small, Tube very long  
 786 Leaves channelled subulate, Stem 2-flowered, Petals nearly as narrow as stigmas, Germen round  
 787 Leaves channelled subulate, Stem 2-flowered, Petals much wider than stigmas, Germen acutely angular  
 788 Leaves channelled, Scape 2-flowered, Inner petals emarginate  
 789 Stemless, Leaves filiform very long, Scape very short 2-flowered, Tube of the corolla filiform  
 790 Leaves linear subul. channelled longer than the very short 1-flw. scape, Inner petals very short spreading  
 791 Leaves flat, Scape 1-flowered shorter than the leaves, Petals nearly equal  
 792 A little caulescent, Stem about 2-flowered shorter than the leaves, Spathes ventricose, Germens 3-angular  
 793 Stem about 3-flowered fistulose longer than the leaves, Germens 3-angular  
 794 Stem solid round as long as the leaves, Leaves very narrow long, Capsules long pointed at each end  
 795 Stem about 2-flowered 2-edged shorter than the leaves, Germens hexangular  
 796 Leaves linear-ensiform very much longer than the 2-flowered very short scape, Petals acuminate  
 797 Leaves linear longer than the 1-flowered scape, Alternate petals smaller  
 798 Leaves 4-cornered  
 799 Scape 1-flowered shorter than the 4-cornered leaves, Tube filiform, Root bulbous  
 800 Outer petals spatulate, Stem branched at the base shorter than the leaves  
 801 Leaves lanceolate falcate edged, Stem about 2-flowered  
 802 Leaves ensiform shorter than the 3-flowered 2-forked scape, Germen 3-angular 3-cornered  
 803 Leaves linear acute length of the 3-fl. scape, Spathes withered with a long point, Flowers close together  
 804 Leaves linear-lanceolate very long, Inner petals very short, Stigmas spirally revolute  
 805 Leaves ensiform doubled together striated incurved at end, Ovaries very long cylindrical, Stigmas keeled serrated at end

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



and Miscellaneous Particulars.

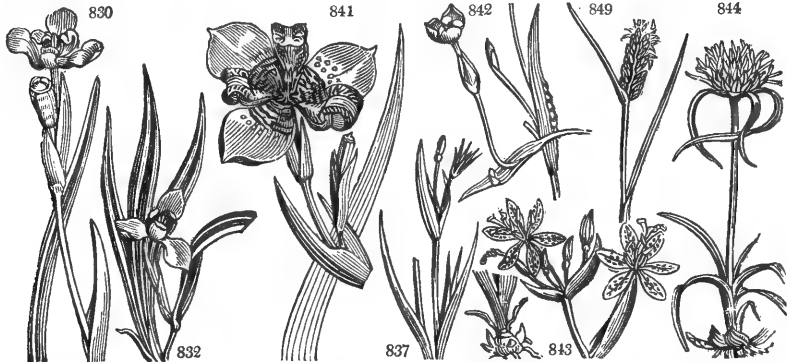
sandy soil and eastern exposure; the bulbs are taken up every other year, but must not be kept longer out of ground than a month. *I. persica* is highly odoriferous; it is propagated by separating the bulbs, or from seeds; but by the latter mode no new varieties have hitherto been obtained. *I. susiana*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

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

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



|   |                 |        |            |    |            |          |        |                        |  |
|---|-----------------|--------|------------|----|------------|----------|--------|------------------------|--|
| 830 martinicensis H. K.   | Martinico       | ☞ ☒ or | 2 jn       | Y  | Martinico  | 1782.    | D s.p  | Bot. mag. 416          |  |
| 831 gladiata B. Reg.  | Cape            | ☞ ☒ or | 2 jn, jl   | Y  | C. G. Fl.  | 1816.    | D s.p  | Bot. reg. 229          |  |
| 832 paludosa H. K.  | marsh           | ☞ ☒ or | 1 jl, au   | W  | Guiana     | 1792.    | Sk s.p | Bot. mag. 646          |  |
| 833 californica B. M.   | yellow          | ☞ ☒ or | 1 my s     | Y  | California | 1796.    | Sk s.p | Bot. mag. 983          |  |
| 834 palmifolia W.   | palm-leaved     | ☞ ☒ or | 2 fmr      | W  | Brazil     | 1779.    | Sk s.p | Bot. mag. 655          |  |
| <i>M. plicata</i> B. M.   |                 |        |            |    |            |          |        |                        |  |
| 835 striata B. M.   | streaked        | ☞ ☒ or | 2 ap, s    | Y  | Mexico     | 1788.    | Sk s.p | Bot. mag. 701          |  |
| 836 anceps W.   | two-edged       | ☞ ☒ or | 1 jn, jl   | B  | N. Amer.   | 1693.    | D co   | Bot. mag. 464          |  |
| 837 micrantha Cav.  | small-flowered  | ☞ ☒ or | 1 jn, jl   | Y  | S. Amer.   | 1815.    | D co   | Cv. diss. t. 191. f. 2 |  |
| 838 Bermudiæna W.   | Iris            | ☞ ☒ or | 1 jn, jl   | B  | Bermudas   | 1732.    | D co   | Bot. mag. 94           |  |
| 839 convoluta W.  | convolute       | ☞ ☒ or | ½ my, jn   | Y  | S. Amer.   | 1816.    | D co   | Red. lil. t. 47        |  |
| 840 tenuifolia Red.   | slender-leaved  | ☞ ☒ or | ½ my, jn   | Y  | S. Amer.   | 1816.    | D co   | Bot. mag. 2313         |  |
| 841 carulea Ker.  | blue            | ☞ ☒ or | ½ my, jn   | B  | Brazils    | 1818.    | D co   | Bot. reg. 713          |  |
| 842 semi-aperta Lodd.   | half-open       | ☞ ☒ or | 1½ my, jn  | Y  | Brazils    | 1820.    | D co   | Bot. cab. 685          |  |
| <b>118. PARDANTHUS.</b>   |                 |        |            |    |            |          |        |                        |  |
| Ker. PARDANTHUS. <i>Irideæ.</i> Sp. 1.                                  |                 |        |            |    |            |          |        |                        |  |
| 843 chinensis H. K.   | Chinese         | ☞ ☒ or | 2 jn, jl   | O  | China      | 1759.    | R pl   | Bot. mag. 171          |  |
| <b>*119. SCHE'NUS. Vahl.</b>  |                 |        |            |    |            |          |        |                        |  |
| Bog-RUSH. <i>Cyperacææ.</i> Sp. 7—79.                                   |                 |        |            |    |            |          |        |                        |  |
| 844 mucronatus W.   | clustered       | ☞ ☒ w  | 1 ap, my   | Ap | S. Europe  | 1781.    | D co   | Fl. grac. 1. t. 43     |  |
| 845 nigricans W.  | black           | ☞ ☒ w  | 1 jl       | Ap | Britain    | sp. bo.  | D co   | Eng. bot. 1121         |  |
| 846 rufus E. B.   | brown           | ☞ ☒ w  | ½ jl       | Ap | Scotland   | sc. bog. | D co   | Eng. bot. 1010         |  |
| 847 monoloch E. B.  | monocæous       | ☞ ☒ w  | 1 jl, au   | Ap | England    | bogs.    | D co   | Eng. bot. 1410         |  |
| 848 ferrugineus Schr.   | rusty           | ☞ ☒ w  | 1 ap, my   | Ap | Europe     | 1781.    | D co   | Sch. gm. 1. t. 1. f. 4 |  |
| 849 compressus Sm.  | compressed      | ☞ ☒ w  | 1 ap, my   | Ap | Britain    | bogs.    | D co   | Eng. bot. 791          |  |
| 850 stellatus W.  | star-headed     | ☞ ☒ pr | ½ s.d      | Ap | W. Indies  | 1822.    | D co   | Slo. jam. t. 78. f. 1  |  |
| <b>120. RHYNCHOS'PORA. Va. RHYNCHOSPORA.</b>                            |                 |        |            |    |            |          |        |                        |  |
| <i>Cyperacææ.</i> Sp. 3—26.   |                 |        |            |    |            |          |        |                        |  |
| 851 alba H. K.  | white-headed    | ☞ ☒ w  | 1 au       | Ap | Britain    | bogs.    | D co   | Eng. bot. 985          |  |
| 852 fusca H. K.   | brown-headed    | ☞ ☒ w  | 1 au       | Ap | Britain    | bogs.    | D co   | Eng. bot. 1575         |  |
| 853 comata Lk.  | leafy-headed    | ☞ ☒ cu | 1½         | Ap | Brazil     | 1820.    | D co   |                        |  |
| <b>121. FIMBRIS'TYLIS. Vahl. FIMBRISTYLIS.</b>                          |                 |        |            |    |            |          |        |                        |  |
| <i>Cyperacææ.</i> Sp. 1—65.   |                 |        |            |    |            |          |        |                        |  |
| 854 dichotoma V.  | dichotomous     | ☞ ☒ w  | 1 jn, jl   | Ap | E. Indies  | 1819.    | D co   | Rothb. gr. t. 13. f. 1 |  |
| <b>*122. ISOLE'PIS. R. Br. ISOLEPIS.</b>                                |                 |        |            |    |            |          |        |                        |  |
| <i>Cyperacææ.</i> Sp. 3—46.   |                 |        |            |    |            |          |        |                        |  |
| 855 fluitans R. Br.   | floating        | ☞ ☒ w  | fl. jl, au | Ap | Britain    | dit.     | D co   | Eng. bot. 216          |  |
| 856 setacea R. Br.  | bristle-like    | ☞ ☒ w  | ½ jl, au   | Ap | Britain    | bogs.    | S co   | Eng. bot. 1693         |  |
| 857 Holoschoenus Sm.  | cluster-headed  | ☞ ☒ w  | 3 jl       | Ap | England    | sea sh.  | Sk co  | Eng. bot. 1612         |  |
| <i>β românus</i> W.   |                 |        |            |    |            |          |        |                        |  |
| <i>Roman.</i> ☞ ☒ w 3 jl Ap Austria ... Sk co Jacq. aust. 5. 448        |                 |        |            |    |            |          |        |                        |  |
| <i>γ australis</i> L.   |                 |        |            |    |            |          |        |                        |  |
| <i>southern.</i> ☞ ☒ w 3 jl Ap S. Europe ... Sk co Plk. ph. t. 40. f. 5 |                 |        |            |    |            |          |        |                        |  |
| <b>123. SCIR'PUS. R. Br. CLUB-RUSH.</b>                                 |                 |        |            |    |            |          |        |                        |  |
| <i>Cyperacææ.</i> Sp. 11—96.  |                 |        |            |    |            |          |        |                        |  |
| 858 multicaulis E. B.   | many-stalked    | ☞ ☒ w  | ½ jl       | Ap | Britain    | tur. bo. | Sk co  | Eng. bot. 1187         |  |
| 859 cæspitosus W.   | scaly-stalked   | ☞ ☒ w  | ½ jl       | Ap | Britain    | tur. he. | Sk co  | Eng. bot. 1029         |  |
| 860 pauciflorus E. B.   | chocolate-head. | ☞ ☒ w  | ½ au       | Ap | Britain    | bgs. m.  | Sk co  | Eng. bot. 1122         |  |
| 861 lacustris W.  | tall            | ☞ ☒ ec | 6 jl, au   | Ap | Britain    | rivera.  | Sk co  | Eng. bot. 666          |  |
| 862 glaucus E. B.   | glaucous        | ☞ ☒ w  | 2 jl, au   | Ap | England    | sal. m.  | Sk co  | Eng. bot. 2321         |  |
| 863 triquetus W.  | triangular      | ☞ ☒ w  | 3 au       | Ap | England    | mar.     | Sk co  | Eng. bot. 1694         |  |
| 864 mucronatus W.   | sharp-pointed   | ☞ ☒ w  | 2 au       | Ap | Eur. Asia  |          | Sk co  |                        |  |
| 865 carinatus E. B.   | blunt-edged     | ☞ ☒ w  | 3 jl, au   | Ap | England    | riv. ba. | Sk co  | Eng. bot. 1983         |  |
| 866 martinius W.  | salt-marsh      | ☞ ☒ w  | 2 jl, s    | Ap | Britain    | sal. m.  | Sk co  | Eng. bot. 542          |  |
| 867 Lézulae W.  | clustered       | ☞ ☒ w  | 1½ jl, s   | Ap | E. Indies  | 1776.    | Sk co  | P. m. 27. t. 417. f. 3 |  |
| 868 sylvatica W.  | wood            | ☞ ☒ w  | 1½ jl, s   | Ap | Britain    | m. s. p. | Sk co  | Eng. bot. 919          |  |
| <b>124. ELEO'CHARIS. R. Br. SPIKE-RUSH.</b>                             |                 |        |            |    |            |          |        |                        |  |
| <i>Cyperacææ.</i> Sp. 3—24.   |                 |        |            |    |            |          |        |                        |  |
| 869 palustris R. Br.  | marsh           | ☞ ☒ w  | ½ jl       | Ap | Britain    | mar.     | Sk co  | Eng. bot. 131          |  |
| 870 acicularis R. Br.   | needle          | ☞ ☒ w  | ½ jl       | Ap | Britain    | mar.     | Sk co  | Eng. bot. 749          |  |
| 871 ovata W.  | ovate           | ☞ ☒ w  | ½ jn, jl   | Ap | Germany    | 1818.    | Sk co  |                        |  |



History, Use, Propagation, Culture,

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

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

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

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

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

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

- 830 Beardless, leaves linear, Petals with glandular spots, Ovaries 3-cornered  
 831 Flower-stalks lateral nearly equal to the one-leaved involucre  
 832 Leaves linear-lanceolate, Scape round shorter than the plaited leaves  
 833 Leaves linear-ensate flat, Scape simple leaf-like winged, Flowers opened out, Fil. united at base  
 834 Scape 2-edged, Flowers in spikes, Leaves sword-shaped nerved-plaited
- 835 Scape 2-edged leafy, Flowers in spikes, Petals roundish ovate acute, Leaves linear sword-shaped  
 836 Scape 2-edged simple nearly leafless, Spathe about 4-flowered unequal longer than the flowers, Pet. muc.  
 837 Scape 2-edged branched leafy, Spathe about 3-flow. unequal, Pet. linear acuminate, Leaves grassy channelled  
 838 Scape 2-edged branched leafy, Spathe about 4-flow. shorter than the flowers, Pet. muc. Leaves sword-shaped  
 839 Scape 2-edged branched leafy, Spathe 3-flowered shorter than the flower, Leaves sword-shaped  
 840 Scape 2-edged ascending leafy, Spathe 3-flowered, Caps. hairy, Leaves capillary  
 841 Stigmas united petal shaped, Scape many-flowered erect, Spathe not viviparous  
 842 Leaves linear-lanc. nerved a little wavy at back, Fl.-stalks nearly as long as spathe, Flowers campanul.
- 843 Flowers spotted with orange
- 844 Culm round naked, Spikelets bundled in a roundish head, Involuc. 3, 6-leaved very long reflexed  
 845 Culm naked round, Spikelets in headed bundles, Invol. 2-leaved longer than the valves, Setæ none  
 846 Culm round leafy, Leaves channelled, Spike compound 2-ranked longer than the bractea  
 847 Culm round naked, Spike compound, Flower monœcious, Leaves channelled rough  
 848 Culm round, Spikelets 2-3, Outer valve of involucre as long as spikelets, Setæ several  
 849 Spike distichous, Spikelets many-flowered, Involucre 1-leaved, Culm roundish  
 850 Involucres very long white. (*Dichromena*, *Vahl.*)
- 851 Culm leafy 3-angular, Leaves linear keeled, Root creeping  
 852 Culm 3-angular, Leaves bristly channelled, Root creeping  
 853 Leaves flat glaucous with hairy sheaths, Invol. longer than the contracted panicle, Spikelets oblong, Scales oblong carinate mucronate
- 854 Spikes ovate oblong, Involucre about 3-leaved decompound longer than the umbel
- 855 Culms branched leafy flaccid, Spikelets few-flowered, Floating  
 856 Culm bristle-shaped, Spikelets lateral sessile  
 857 Culm round naked, Heads terminal globose clustered, Leaves channelled

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



and Miscellaneous Particulars.

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

124 *Eleocharis*. From *Elos*, a march, and *chairo*, to delight.

|                           |                  |            |              |    |                       |
|---------------------------|------------------|------------|--------------|----|-----------------------|
| 125. ERIOPHORUM. P. S.    | COTTON-GRASS.    | Cyperaceæ. | Sp. 6—7.     |    |                       |
| 872 vaginatum W.          | Hare's-tail      | ♂ Δ pr     | 1 fr. ap     | Ap | Britain moors. D co   |
| 873 polystachion W.       | broad-leaved     | ♂ Δ pr     | 1 fl. jl     | Ap | Britain bogs. D co    |
| 874 angustifolium W.      | narrow-leaved    | ♂ Δ pr     | 1 sp         | Ap | Britain bogs. D co    |
| 875 virginicum W.         | Virginian        | ♂ Δ pr     | 1 my. au     | Ap | N. Amer. 1802. D co   |
| 876 gracile P. S.         | slender          | ♂ Δ pr     | 1 jl. au     | Ap | Scotland sc. mo. D co |
| 877 capitatum E. B.       | round-headed     | ♂ Δ pr     | 2 a. s       | Ap | Scotland sc. mo. D co |
| 126. TRICHO'PHORUM. P. S. | TRICHO'PHORUM.   | Cyperaceæ. | Sp. 2.       |    |                       |
| 878 cyperinum P. S.       | cyperine         | ♂ Δ cu     | 6 my. s      | Ap | N. Amer. 1802. D co   |
| 879 alpinum P. S.         | Alpine           | ♂ Δ cu     | 1 jl         | Ap | Scotland bogs. D co   |
| 127. CYPERUS. W.          | CYPERUS.         | Cyperaceæ. | Sp. 22—250.  |    |                       |
| 880 dúbius W.             | bulbous-rooted   | ♂ Δ cu     | 1 jl         | Ap | E. Indies 1802. S co  |
| 881 tenellus Vahl.        | slender          | ♂ Δ cu     | 1 my. jn     | Ap | C. G. H. 1819. S co   |
| 882 conglomeratus Rotb.   | many-flowered    | ♂ Δ cu     | 1 my. s      | Ap | Arabia 1820. D co     |
| 883 pannonicus W.         | dwarf            | ♂ Δ cu     | 1 jl. au     | Ap | Hungary 1781. Sk co   |
| 884 Lúzula W.             | compact-flower.  | ♂ Δ cu     | 2 my. s      | Ap | W. Indies ... Sk co   |
| 885 distans Vahl.         | distant          | ♂ Δ cu     | 2 jl. au     | Ap | W. Indies 1820. D co  |
| 886 viscosus W.           | clammy           | ♂ Δ cu     | 2 my. au     | Ap | Jamaica 1781. Sk co   |
| 887 fastigiatus W.        | lofty            | ♂ Δ cu     | 1 my. au     | Ap | E. Indies 1800. Sk co |
| 888 erubescens Lk.        | pink             | ♂ Δ cu     | 1 my. jn     | Ap | ..... 1820. D co      |
| 889 paniculatus Vahl.     | panicked         | ♂ Δ cu     | 1 my. jl     | Ap | E. Indies 1804. D co  |
| 890 glomeratus W. en.     | round-headed     | ♂ Δ cu     | 2 my. au     | Ap | Italy 1804. S co      |
| 891 elegans W.            | elegant          | ♂ Δ cu     | 1 1/2 my. s  | Ap | Jamaica 1801. S co    |
| 892 flavescens W.         | yellow           | ♂ Δ cu     | 1 jn. s      | Ap | Germany 1776. S co    |
| 893 fuscus W.             | brown            | ♂ Δ cu     | 1 1/2 jls    | Ap | Europe 1777. S co     |
| 894 strigosus W.          | bristle-spiked   | ♂ Δ cu     | 1 1/2 jls    | Ap | W. Indies 1786. Sk co |
| 895 vegetus W.            | smooth           | ♂ Δ cu     | 1 1/2 my. s  | Ap | America 1790. Sk co   |
| 896 esculentus W.         | Rush-nut         | ♂ Δ cul    | 1 jl         | Ap | S. Europe 1597. Sk co |
| 897 longus W.             | sweet            | ♂ Δ cu     | 3 jl         | Ap | England mar. Sk co    |
| 898 L'ria W.              | tall             | ♂ Δ cu     | 1 1/2 jl     | Ap | E. Indies 1802. Sk co |
| 899 alopecuroides P. S.   | fox-tail         | ♂ Δ cu     | 2 my. au     | Ap | C. G. H. 1804. Sk co  |
| 900 bádius P. S.          | brown            | ♂ Δ cu     | 2 1/2 jl     | Ap | Algiers 1804. Sk co   |
| 901 alternifolius W.      | alternate-leav'd | ♂ Δ cu     | 2 fmr        | Ap | Madagasc. 1781. Sk co |
| 128. PAPPYRUS. Lk.        | PAPPYRUS.        | Cyperaceæ. | Sp. 1—3.     |    |                       |
| 902 antiquorum Lk.        | ancient          | ♂ Δ or     | 10 jls       | Ap | Egypt 1803. D co      |
| 129. KYLLIN'GA. W.        | KYLLINGA.        | Cyperaceæ. | Sp. 4—12.    |    |                       |
| 903 monocéphala W.        | one-headed       | ♂ Δ w      | 1 jn. jl     | Ap | India 1793. Sk co     |
| 904 polycephala Lk.       | many-headed      | ♂ Δ w      | 1 jl. au     | Ap | Brazil 1820. D co     |
| 905 uncinata Lk.          | hooked           | ♂ Δ w      | 1 1/2 jl. au | Ap | Brazil 1820. D co     |
| 906 triceps W.            | three-headed     | ♂ Δ w      | 1 1/2 an     | Ap | India 1776. Sk co     |
| 130. MARISCUS. Vahl.      | MARISCUS.        | Cyperaceæ. | Sp. 4—28.    |    |                       |
| 907 umbellatus W. en.     | umbelled         | ♂ Δ cu     | 1 1/2 jn. au | Ap | E. Indies 1789. Sk co |
| 908 elatus W. en.         | tall             | ♂ Δ cu     | 3 jn. au     | Ap | E. Indies 1805. Sk co |
| 909 conflexus Lk.         | contracted       | ♂ Δ cu     | 1 1/2 jl     | Ap | Brazil 1819. D co     |
| 910 aggregatus W.         | aggregated       | ♂ Δ cu     | 1 jn. jl     | Ap | ..... 1822. D co      |
| 131. REMIRE'A. Aub.       | REMIREA          | Gramineæ.  | Sp. 1—2.     |    |                       |
| 911 maritima Aub.         | sea              | ♂ Δ cu     | 1 1/2 jl. au | Ap | Florida 1822. D co    |



History, Use, Propagation, Culture.

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

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

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

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

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

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

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

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

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

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

- 911 Common peduncle shorter than the spikes



and Miscellaneous Particulars.

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

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

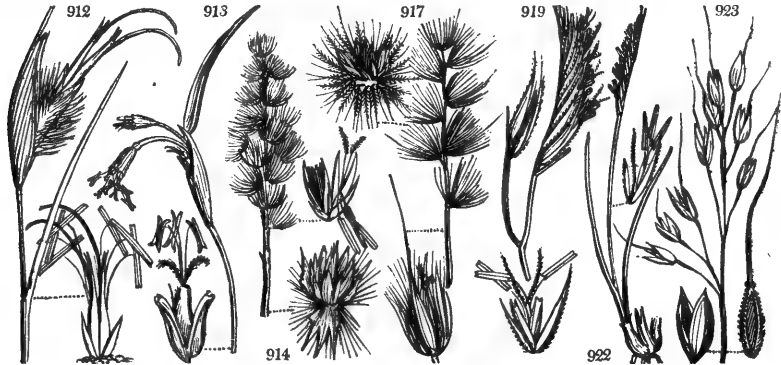
130. *Mariscus*. A word derived from the Celtic *mar*, a marsh, in allusion to the situations in which it is found.

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

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

DIGYNIA.

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



History, Use, Propagation, Culture,

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

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

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

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

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

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

912 The only species

913 The only species

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

915 Spikelets approximated, Involucres 10-parted villous

916 Spike with alternate spikelets, Involucres entire spiny

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

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

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

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

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

922 Spike bristly straight one-sided

923 The only species

## DIGYNIA.

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

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

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

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

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

929 Panicles unbelled, Racemes about 4, One glume fringed

930 Panicles diffuse, Florets beardless ovate dispersed

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

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

933 Flowers paniced bearded, Beard shorter than glume

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

935 The only species. The least of grasses

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

937 Spikes many setaceous, Leaves and sheaths very hairy

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

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

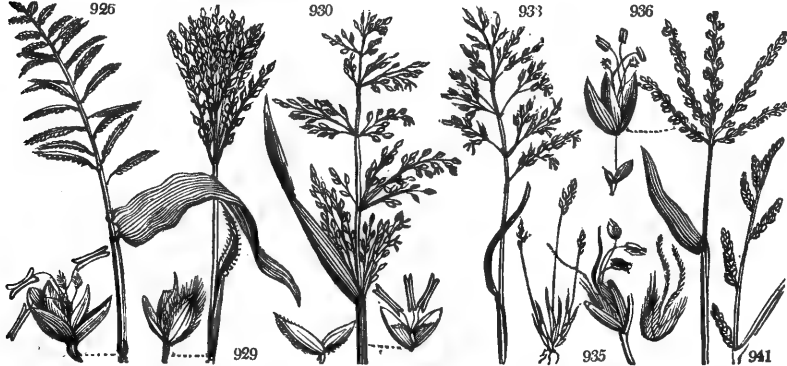
940 Stem decumbent, Sheaths hairy at end, Spikes divaricate, Paleæ fringed at end

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

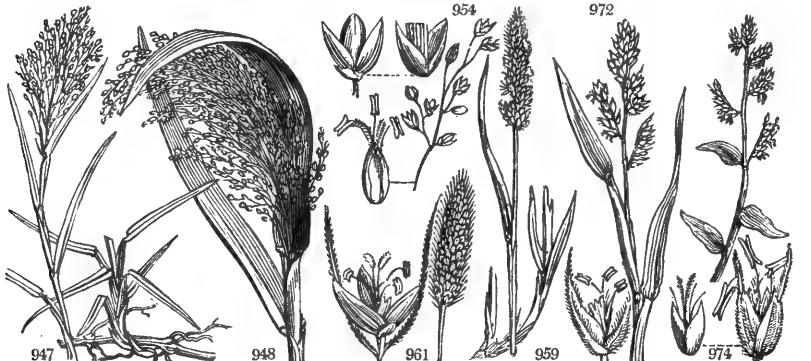
141. *Milium*. Derived by some from *mille*, a thousand, on account of its numerous grains; by others, from *mél*, the Celtic for a pebble, in reference to the hard shining nature of the grains. *M. effusum* is admired for the elegance of its panicle. *M. paradoxum* resembles the Arundo.

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

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

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

|  |                 |   |   |    |    |        |    |           |          |   |     |                        |
|--|-----------------|---|---|----|----|--------|----|-----------|----------|---|-----|------------------------|
| 945 hispidulum <i>W.</i>   | hispid          | ♂ | ○ | w  | 2  | jl.au  | Ap | E Indies  | 1804.    | S | co  |                        |
| 946 coloratum <i>W.</i>  | coloured        | ♂ | ○ | w  | 2  | jl.s   | Ap | Egypt     | 1771.    | S | co  | Jac. ic. 1. t. 58      |
| 947 repens <i>W.</i>   | slender         | ♂ | ○ | w  | 1  | jl.s   | Ap | S. Europe | 1771.    | S | co  | Fl. grac. 1. t. 61     |
| 948 miliaceum <i>W.</i>  | millet          | ♂ | ○ | ag | 1½ | jl.s   | Ap | E. Indies | 1586.    | S | co  | Host. gr. 2. t. 20     |
| 949 muricatum <i>W.</i>  | prickly         | ♂ | ○ | cu | 1½ | jl.s   | Ap | E. Indies | 1805.    | S | co  |                        |
| 950 capillare <i>W.</i>  | hair-panicked   | ♂ | ○ | w  | 2  | jn.au  | Ap | America   | 1758.    | S | co  | Host. gr. 4. t. 16     |
| 951 latifolium <i>W.</i>   | broad-leaved    | ♂ | △ | w  | 5  | au.s   | Ap | N. Amer.  | 1765.    | S | co  | Mor. h. 8. t. 5. f. 4  |
| 952 clandestinum <i>W.</i>   | hidden-flower'd | ♂ | △ | w  | 1½ | jl     | Ap | N. Amer.  | 1802.    | S | co  |                        |
| 953 arborescens <i>W.</i>  | tree            | ♂ | △ | w  | 50 | mr.ap  | Ap | E. Indies | 1776.    | S | co  |                        |
| 954 virgatum <i>W.</i>   | long-panicked   | ♂ | △ | w  | 1  | au.s   | Ap | N. Amer.  | 1781.    | S | co  |                        |
| 955 patens <i>P. S.</i>  | spreading       | ♂ | ○ | w  | 1  | jl.au  | Ap | India     | 1804.    | S | co  |                        |
| 956 brevifolium <i>W.</i>  | short-leaved    | ♂ | ○ | w  | 1½ | jl.au  | Ap | E. Indies | 1800.    | S | co  | Pl. al. 176. t. 189    |
| 957 divaricatum <i>W.</i>  | straddling      | ♂ | △ | w  | 5  | jl.au  | Ap | Jamaica   | 1800.    | S | co  | Jac. schcen. 1. t. 25  |
| 958 palmifolium  | Palm-leaved     | ♂ | △ | w  | 6  | jl.au  | Ap | E. Indies | 1804.    | S | co  |                        |
| <b>145. SETARIA. <i>P. de B.</i> SETARIA. <i>Gramineæ.</i> Sp. 11—24.</b>          |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 959 verticillata <i>P. de B.</i>   | rough           | ♂ | ○ | w  | 1½ | jl.au  | Ap | England   | mol. fi. | S | co  | Eng. bot. 874          |
| 960 glauca <i>P. de B.</i>   | glauous         | ♂ | ○ | w  | 1½ | jl.au  | Ap | S. Europe | 1771.    | S | co  | Host. gr. 2. t. 16     |
| 961 viridis <i>P. de B.</i>  | green           | ♂ | ○ | w  | 1½ | jl.au  | Ap | England   | san. fi. | S | co  | Eng. bot. 875          |
| 962 italica <i>P. de B.</i>  | Italian         | ♂ | ○ | ec | 1½ | jl.au  | Ap |           | 1816.    | S | co  |                        |
| 963 setosa <i>P. de B.</i>   | setose          | ♂ | ○ | w  | 2½ | jl.au  | Ap | W. Indies | 1804.    | S | co  |                        |
| 964 sericea <i>P. de B.</i>  | silky           | ♂ | ○ | w  | 1½ | my.s   | Ap | W. Indies | 1780.    | S | co  |                        |
| 965 germanica <i>P. de B.</i>  | German          | ♂ | ○ | ag | 1½ | jl     | Ap | S. Europe | 1543.    | S | co  | Host. gr. 2. t. 15     |
| 966 geniculata <i>Horn.</i>  | knee-jointed    | ♂ | ○ | w  | 1½ | jl.au  | Ap | .....     | 1805.    | S | co  |                        |
| 967 pumila <i>Lk.</i>  | dwarf           | ♂ | ○ | w  | 1  | jl.au  | Ap | .....     | 1819.    | S | co  |                        |
| 968 macrochaeta <i>Lk.</i>   | long-spiked     | ♂ | ○ | w  | 2  | jl.au  | Ap | .....     | 1819.    | S | co  |                        |
| 969 aspera <i>Lk.</i>  | rough           | ♂ | △ | w  | 2  | jl.au  | Ap | C. G. H.  | 1820.    | S | co  |                        |
| <b>146. ECHINOCHLOA. <i>P. de B.</i> PRICKLY-GRASS. <i>Gramineæ.</i> Sp. 3—15.</b> |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 970 stagnina <i>P. de B.</i>   | pond            | ♂ | ○ | w  | 3  | jl.au  | Ap | E. Indies | 1802.    | S | co  | Host. gr. 3. t. 51     |
| 971 crus cervi <i>P. de B.</i>   | crow's-foot     | ♂ | ○ | w  | 1  | jl.au  | Ap | E. Indies | 1781.    | S | co  |                        |
| 972 crus galli <i>P. de B.</i>   | loose           | ♂ | ○ | w  | 1½ | jl.au  | Ap | Britain   | moi. fi. | S | co  | Eng. bot. 876          |
| <i>Panicum</i> E. B.   |                 |   |   |    |    |        |    |           |          |   |     |                        |
| <b>147. ORTHOPOGON. <i>B. P.</i> ORTHOPOGON. <i>Gramineæ.</i> Sp. 2—6.</b>         |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 973 hirtellus <i>B. P.</i>   | hairy           | ♂ | ○ | ag | 1  | jn. jl | Ap | W. Indies | 1795.    | S | co  |                        |
| 974 undulatifolius <i>R. &amp; S.</i>  | wavy-leaved     | ♂ | ○ | w  | 1  | jn. jl | Ap | S. Europe | 1795.    | S | co  | Host. gr. 3. t. 52     |
| <b>148. PENICILLARIA. <i>P. de B.</i> PENICILLARIA. <i>Gramineæ.</i> Sp. 2.</b>    |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 975 ciliata <i>W.</i>  | fox-tail        | ♂ | ○ | w  | 2  | jl.s   | Ap | Jamaica   | 1748.    | S | co  | Pl. al. t. 92. f. 5    |
| 976 spicata <i>W.</i>  | Bull-rush       | ♂ | ○ | w  | 2  | jn. jl | Ap | India     | 1592.    | S | co  | Pl. al. t. 32. f. 4    |
| <b>149. LAPPAGO. <i>W.</i> LAPPAGO. <i>Gramineæ.</i> Sp. 1.</b>                    |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 977 racemosa <i>W.</i>   | branching       | ♂ | ○ | cu | 1½ | jl.au  | Ap | S. Europe | 1771.    | S | co  | Host. gr. 1. t. 36     |
| <b>150. STYPA. <i>W.</i> FEATHER-GRASS. <i>Gramineæ.</i> Sp. 6—37.</b>             |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 978 pennata <i>W.</i>  | common          | ♂ | △ | or | 2  | jl.au  | Ap | Britain   | al. roc. | D | s.1 | Eng. bot. 1356         |
| 979 humilis <i>Cav.</i>  | low             | ♂ | ○ | cu | ½  | jl.au  | Ap | S. Amer.  | 1802.    | S | co  | C. ic. 5. t. 466. f. 1 |
| 980 juncea <i>W.</i>   | rush-leaved     | ♂ | ○ | cu | 3  | jl     | Ap | France    | 1772.    | D | co  | Fl. grac. 1. t. 85     |
| 981 sibirica <i>P. S.</i>  | Siberian        | ♂ | △ | cu | 3  | jl.au  | Ap | Siberia   | 1777.    | D | co  | Gmel. sib. 1. t. 22    |
| 982 capillata <i>W.</i>  | capillary       | ♂ | △ | cu | 2  | jl.au  | Ap | Europe    | 1815.    | D | co  | Host. gr. 3. t. 5      |
| 983 tenacissima <i>W.</i>  | tough           | ♂ | △ | cu | 2½ | jl.au  | Ap | Spain     | 1817.    | D | co  | Desf. atl. 1. t. 30    |
| <b>151. MUHLENBERGIA. <i>Schr.</i> MUHLENBERGIA. <i>Gramineæ.</i> Sp. 1.</b>       |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 984 diffusa <i>Schr.</i>   | spreading       | ♂ | △ | w  | ½  | my. jn | Ap | N. Amer.  | 1816.    | S | co  | Schr. gram. t. 51      |
| <b>152. CHÆTURUS. <i>Lk.</i> CHÆTURUS. <i>Gramineæ.</i> Sp. 1—2.</b>               |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 985 fasciculatus <i>Lk.</i>  | bundled         | ♂ | ○ | w  | ½  | jl.s   | Ap | Spain     | 1816.    | S | co  |                        |
| <b>153. LAGURUS. <i>W.</i> HARE'S-TAIL-GRASS. <i>Gramineæ.</i> Sp. 1.</b>          |                 |   |   |    |    |        |    |           |          |   |     |                        |
| 986 ovatus <i>W.</i>   | oval-spiked     | ♂ | ○ | cu | 1  | jn     | Ap | Guernsey  | bor. fi. | S | co  | Eng. bot. 1384         |



History, Use, Propagation, Culture.

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

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

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

- 945 Spikes 2-3 together erect, Glumes hispid with two beards  
 946 Panicles spreading, Stamens and pistils coloured, Stem branching  
 947 Panicles twiggly, Leaves divaricating  
 948 Panicles lax nodding, Spikelets beardless, Leaves lanceolate pilose, Sheaths hirsute, Valves mucronate  
 949 Panicles spreading, Flowers solitary muricated, Stem rooting ascending  
 950 Panicles capillary erect spreading, Pedunc. straight, Glumes acuminate smooth, Sheaths very hairy  
 951 Panicles with simple lateral racemes, Leaves ovate lanceolate hairy at the neck.  
 952 Panicles few axillary, Stem dichotomous, Sheaths dotted  
 953 Panicle much branched, Leaves ovate oblong acuminate, Shrubby  
 954 Panicles branched diffuse, Glumes acuminate smooth gaping, Leaves reedy  
 955 Panicles oblong flexuose capillary spreading, Glumes two-flowered, Leaves linear-lanc. Stem creeping  
 956 Panicked, Sheaths of the leaves ciliated lengthwise  
 957 Pan. short beardless, Stem much branched divaricating, Flower-stalks 2-flow. one shorter than the other  
 958 Panicles simple upright, Spikelets appressed, Leaves oblong lined plaited, Sheaths pubescent
- 959 Pan. spiked whorl. Invol. 1-fl. with hairs in bundles toothed hispid, teeth reversed, Herm. palææ wavy crosswise  
 960 Raceme spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. palææ wavy crosswise  
 961 Pan. spiked cylind. Invol. 2-fl. with hairs in bundles, hispid above, Herm. palææ smoothish, Sheaths downy  
 962 Spike comp. interrupted at base nodding, Spikelets heaped, Invol. setaceous much longer than flower  
 963 Spike comp. Spikelets paniced in bundles, Bristles mixed with the florets very long, Pedunc. smoothish  
 964 Spike round, Involucres setaceous villous 1-flowered as long as florets, Leaves flat  
 965 Spike compound contracted, Spikelets heaped, Invol. setaceous longer than the flowers, Rachis smoothish  
 966 Spike elongated cylind. Invol. 2-fl. bristly, Herm. palææ smoothish, Stem ascending, Sheaths smooth  
 967 Stem branched, Sheaths pubescent, Spike dense short, Setæ none, Palææ smooth  
 968 Spike compound erect, Clusters remote, the lowest sessile, Setæ 8 times as big as florets  
 969 Sheaths very rough, Spike simple with naked setæ longer than florets

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

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

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

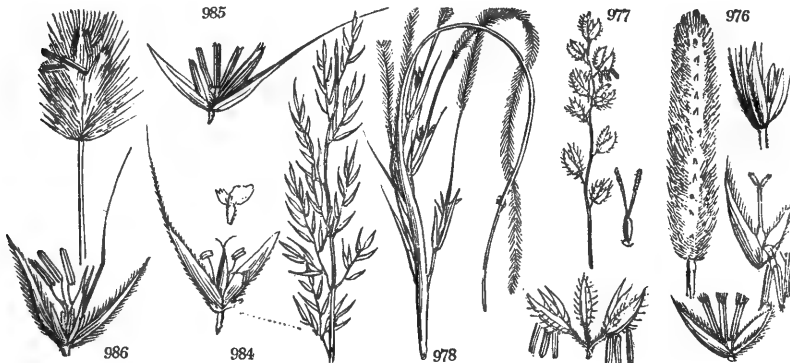
977 The only species

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

- 984 Panicles branched compressed, Leaves linear smooth, Stem diffuse

985 The only species. A plant looking like a Polygopon

986 The only species

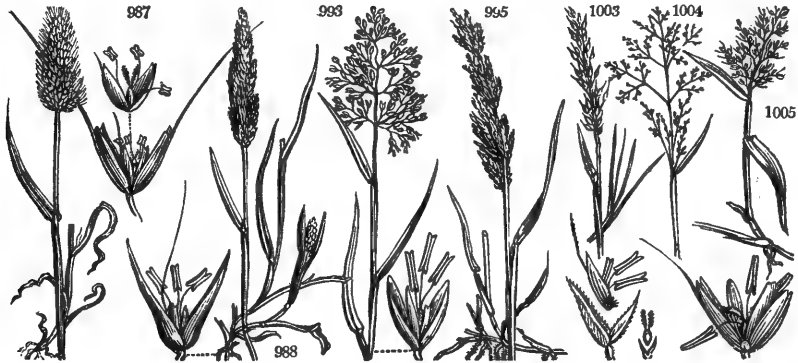


and Miscellaneous Particulars.

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



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



History, Use, Propagation, Culture,

154. *Polygomon*. Named by M. Desfontaines from *πολύ*, much, and *πυγών*, beard, in allusion to its bearded heads.

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

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

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

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

989 Flowers beardless

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1005 A little agrostis-like plant. The only species

1006 Panicle contracted beardless, Racemes lateral erect alternate

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

1008 Panicle spreading, with a setaceous involucre, Florets beardless

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

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

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

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

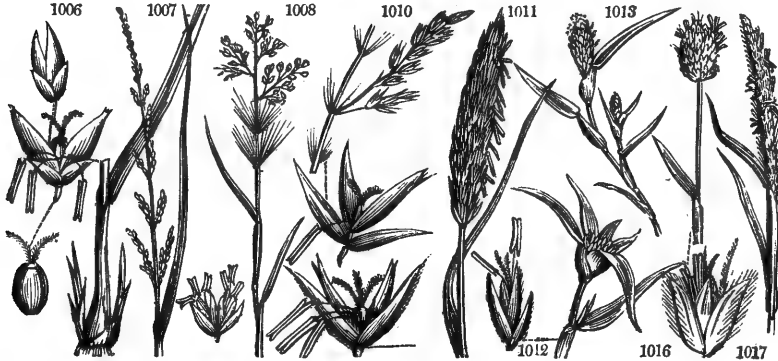
1013 Stems branched compressed, Panicle spiked oblong sheathed at base, Triandrous

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

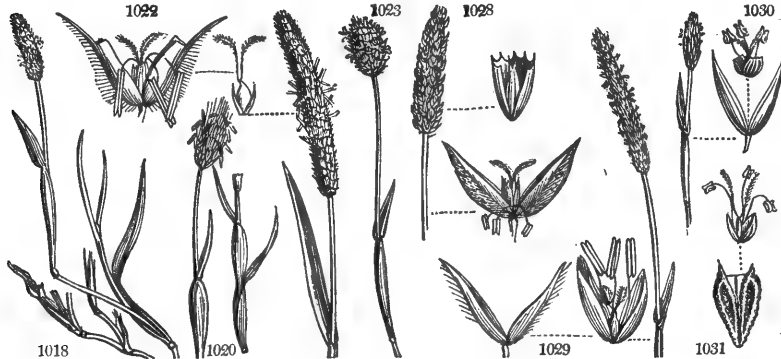
161. *Cinna*. An ancient name used by Dioscorides, who ascribes heating and stimulating qualities to this grass when eaten by cattle, whence the name (from *κειν*, to heat). Linnæus applied it to this genus of American grasses.

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

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

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

|       |                                 |                   |        |    |       |    |                  |           |   |     |                       |
|-------|---------------------------------|-------------------|--------|----|-------|----|------------------|-----------|---|-----|-----------------------|
| 1018  | <i>geniculatus W.</i>           | floating          | ♂ Δ w  | 1  | my.au | Ap | Britain          | mea.      | S | ms  | Eng. bot. 1250        |
| 1019  | <i>fulvus E. B.</i>             | orange-spiked     | ♂ Δ w  | 1  | jn    | Ap | England          | ponda.    | S | ms  | Eng. bot. 1467        |
| 1020  | <i>utriculatus Pers.</i>        | bladdered         | ♂ ○ w  | 1  | jl.au | Ap | Italy            |           | S | co  | Host. gram. 3. t. 7   |
| 1021  | <i>nigricans Horn.</i>          | blackish          | ♂ Δ w  | 4  | jn.jl | Ap | Europe           | 1815.     | S | co  | Jac. ecl. gra. t. 13  |
| 165.  | <b>PHLEUM. W.</b>               | CAT'S-TAIL-GRASS. |        |    |       |    | <i>Gramineæ.</i> | Sp. 5-8.  |   |     |                       |
| 1022  | <i>pratense W.</i>              | common            | ♂ Δ ag | 2  | jl    | Ap | Britain          | me.pa.    | S | ms  | Eng. bot. 1076        |
| 1023  | <i>alpinum W.</i>               | Alpine            | ♂ Δ w  | 1  | jl    | Ap | Scotland         | sc. alp.  | S | hl  | Eng. bot. 519         |
| 1024  | <i>nodosum W.</i>               | knotted           | ♂ Δ w  | 1½ | jl.s  | Ap | Britain          | Wales.    | S | co  | Flor. dan. t. 380     |
| 1025  | <i>felinum Sm.</i>              | smooth-spiked     | ♂ ○ w  | 1  | jl    | Ap | Greece           | 1819.     | S | co  |                       |
| 1026  | <i>Michélii W. en.</i>          | slender-spiked    | ♂ Δ w  | 1  | jn.jl | Ap | Scotland         | al. roc.  | S | co  | Eng. bot. 2265        |
| 166.  | <b>ACHNODONTON. P. de B.</b>    | ACHNODONTON.      |        |    |       |    | <i>Gramineæ.</i> | Sp. 2.    |   |     |                       |
| 1027  | <i>Bellardi P. de B.</i>        | bulbous           | ♂ Δ w  | ¼  | jn.jl | Ap | Spain            | 1798.     | S | co  |                       |
| 1028  | <i>tenuë R. &amp; S.</i>        | slender           | ♂ ○ w  | 1  | jn.jl | Ap | Mesopota.        | 1804.     | S | co  | Barr. ic. t. 14. f. 1 |
| *167. | <b>CHILOCHLOA. P. de B.</b>     | CHILOCHLOA.       |        |    |       |    | <i>Gramineæ.</i> | Sp. 2-3.  |   |     |                       |
| 1029  | <i>Bohméri Schr.</i>            | Phalaris-like     | ♂ ○ w  | 1½ | jl.s  | Ap | England          | plains.   | S | co  | Eng. bot. 459         |
| 1030  | <i>arenaria Schr.</i>           | sea               | ♂ ○ w  | ¾  | jl.au | Ap | England          | sea co.   | S | co  | Eng. bot. 222         |
|       | <i>Phalaris E. B.</i>           |                   |        |    |       |    |                  |           |   |     |                       |
| 1031  | <i>aspera Schr.</i>             | rough             | ♂ ○ w  | 1  | jl.au | Ap | England          | hea.      | S | co  | Eng. bot. 1077        |
|       | <i>Phleum paniculatum E. B.</i> |                   |        |    |       |    |                  |           |   |     |                       |
| *168. | <b>PHALARIS. W. en.</b>         | CANARY-GRASS.     |        |    |       |    | <i>Gramineæ.</i> | Sp. 8-23. |   |     |                       |
| 1032  | <i>arundinacea P. S.</i>        | reed-like         | ♂ Δ w  | 4  | jl    | Ap | Britain          | dit.      | S | co  | Eng. bot. 402         |
| 1033  | <i>canariensis W.</i>           | common            | ♂ ○ ag | 2  | jn.au | Ap | Britain          | unc. pl.  | S | r.m | Eng. bot. 1310        |
| 1034  | <i>aquatica W.</i>              | water             | ♂ ○ w  | 1½ | jn.jl | Ap | Egypt            | 1778.     | S | co  | Host. gra. 2. t. 39   |
| 1035  | <i>capensis W.</i>              | cape              | ♂ ○ w  | 1  | jn.jl | Ap | C. G. H.         | 1804.     | S | co  |                       |
| 1036  | <i>cærulescens Desf.</i>        | blue              | ♂ ○ w  | 1  | jn.jl | Ap | Spain            | 1818.     | S | a.l | Buxb. cent. 4. t. 53  |
| 1037  | <i>paradoxa W.</i>              | bristle-spiked    | ♂ ○ w  | ¾  | jn.jl | Ap | Levant           | 1857.     | S | co  | Host. gra. 2. t. 40   |
| 1038  | <i>seminœtra R. &amp; S.</i>    | half-barren       | ♂ Δ w  | 2  | jn.jl | Ap | Hungary          | 1813.     | S | co  |                       |
| 1039  | <i>bulbosa W.</i>               | bulbous           | ♂ Δ w  | 1  | jn.jl | Ap | Spain            | 1798.     | S | co  | Cav. ic. 1. t. 64     |
| 169.  | <b>CORYNEPHORUS. P. de B.</b>   | CLUB-GRASS.       |        |    |       |    | <i>Gramineæ.</i> | Sp. 1-2.  |   |     |                       |
| 1040  | <i>canescens P. de B.</i>       | grey              | ♂ Δ w  | ¾  | jl.au | Ap | England          | san.sh.   | S | a.l | Eng. bot. 1190        |
|       | <i>Aira E. B.</i>               |                   |        |    |       |    |                  |           |   |     |                       |
| *170. | <b>AIRA. E. B.</b>              | HAIR-GRASS.       |        |    |       |    | <i>Gramineæ.</i> | Sp. 8-25. |   |     |                       |
| 1041  | <i>aquatica W.</i>              | water             | ♂ Δ w  | 1½ | my.jn | Ap | Britain          | pools.    | S | ms  | Eng. bot. 1557        |
| 1042  | <i>cæspitosa W.</i>             | turfy             | ♂ Δ w  | 3  | au    | Ap | Britain          | m.s.p.    | S | ms  | Eng. bot. 1453        |
| 1043  | <i>lavigata L. T.</i>           | smooth-sheath.    | ♂ Δ w  | 1  | jn.jl | Ap | Scotland         | sc. alp.  | S | s   | Eng. bot. 2102        |
| 1044  | <i>truncata W.</i>              | Pennsylvanian     | ♂ Δ w  | 1  | jn.jl | Ap | N. Amer.         | 1819.     | S | s   | Act. petr. 11. l. 7   |
| 1045  | <i>média Gouan.</i>             | intermediate      | ♂ Δ w  | 1  | jn.jl | Ap | S. Europe        | 1820.     | S | s   |                       |
| 1046  | <i>pulchella W.</i>             | pretty            | ♂ ○ w  | ½  | jn    | Ap | Spain            | 1820.     | S | s   |                       |
| 1047  | <i>flexuosa W.</i>              | waved             | ♂ Δ w  | 1  | jl.au | Ap | Britain          | hea.      | S | a.l | Eng. bot. 1519        |
| 1048  | <i>caryophyllæa W.</i>          | silver            | ♂ ○ w  | ¾  | jl    | Ap | Britain          | sa.pas.   | S | a.l | Eng. bot. 812         |
| *171. | <b>AVE'NA. P. S.</b>            | OAT-GRASS.        |        |    |       |    | <i>Gramineæ.</i> | Sp. 9-34. |   |     |                       |
| 1049  | <i>brevis W.</i>                | short             | ♂ ○ w  | 3  | jn.jl | Ap | Germany          | 1804.     | S | co  | Host. gra. 3. t. 22   |
| 1050  | <i>orientalis W.</i>            | Tartarian         | ♂ ○ ag | 3  | jn.jl | Ap | .....            | 1798.     | S | co  | Host. gra. 3. t. 44   |



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

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

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

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

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

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

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

1029 Panicle spiked cylindrical smooth, Glumes lanceolate mucronate obtuse roughish

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

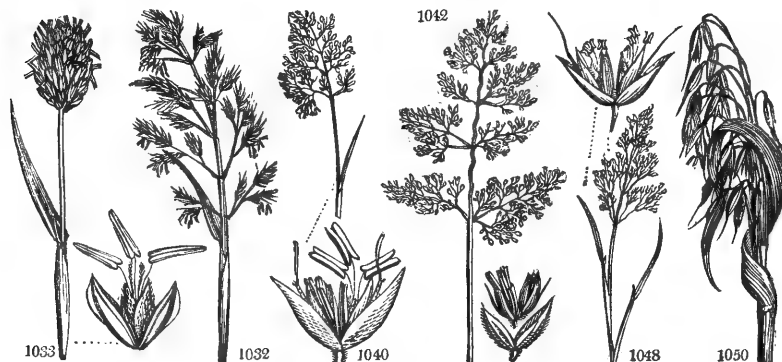
1031 Panicle spiked cylindrical, Glumes wedge-shaped mucronate rough

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

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

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

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



and Miscellaneous Particulars.

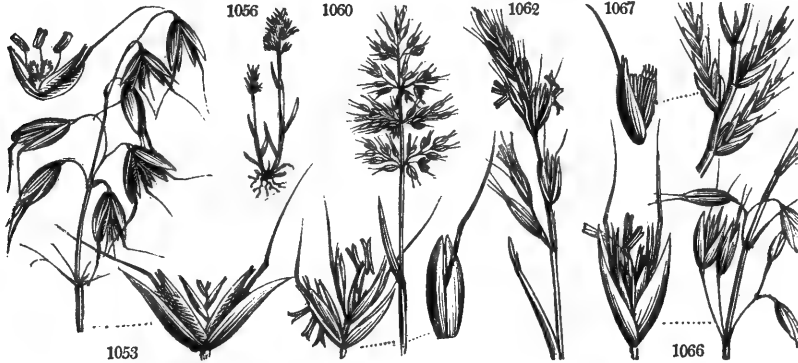
168. *Phalaris*. An ancient name said to have arisen out of φαλος, brilliant, because the plant had shining grains. *P. canariensis* is cultivated for the seeds, which are given to singing birds, and more especially the canary. It requires a loamy soil, well manured, clean, and in good tilth. The grain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

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

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

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

|                                    |               |   |   |    |    |       |    |                  |            |     |     |                         |
|------------------------------------|---------------|---|---|----|----|-------|----|------------------|------------|-----|-----|-------------------------|
| 1051 sativa <i>W.</i>              | common        | ♂ | ○ | ag | 3  | jn.jl | Ap | .....            | ...        | S   | r.m | Host gra. 2. t. 59      |
| 1052 nuda <i>W.</i>                | naked         | ♂ | ○ | ag | 2  | jn.jl | Ap | .....            | ...        | S   | r.m | Host gra. 3. t. 48      |
| 1053 fatua <i>W.</i>               | wild          | ♂ | ○ | w  | 4  | au    | Ap | Britain          | cor. fl.   | S   | co  | Host gra. 2. t. 56      |
| 1054 stérilis <i>W.</i>            | Animal-oat    | ♂ | ○ | cu | 4  | jl.au | Ap | Barbary          | me. pa.    | S   | co  | Host gra. 2. t. 57      |
| 1055 praténsis <i>W.</i>           | meadow        | ♂ | △ | ag | 1  | jn.jl | Ap | Britain          | hea.       | S   | co  | Eng. bot. 1304          |
| 1056 præcox <i>P. de B.</i>        | early         | ♂ | ○ | w  | 1  | my.jn | Ap | Britain          |            | S   | co  | Eng. bot. 1296          |
| <i>Aira E. B.</i>                  |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 1057 hirsuta <i>Roth.</i>          | hirsute       | ♂ | ○ | w  | 3  | jn.s  | Ap | Barbary          |            | S   | co  |                         |
| 172. TRISETUM. <i>P. S.</i>        | TRISETUM.     |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 8—30.  |     |     |                         |
| 1058 striatum <i>P. S.</i>         | striated      | ♂ | ○ | w  | 1½ | jl.au | Ap | S. Europe        | 1804.      | S   | co  | Lra herb. t. 9. f. 3    |
| 1059 Löflingianum <i>W.</i>        | Löfling's     | ♂ | ○ | w  | 1  | jn.jl | Ap | Spain            | 1770.      | S   | co  | Cav. ic. 1. t. 45. f. 1 |
| 1060 flavescens <i>R. &amp; S.</i> | yellowish     | ♂ | △ | w  | 1½ | jn.jl | Ap | Britain          | ...        | S   | co  | Eng. bot. 952           |
| <i>Avena E. B.</i>                 |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 1061 pennsylvanic. <i>P. de B.</i> | Pennsylvanian | ♂ | ○ | w  | 6  | jl    | Ap | N. Amer.         | 1785.      | S   | co  |                         |
| 1062 pubescens <i>P. &amp; S.</i>  | downy         | ♂ | △ | w  | 1½ | jl.au | Ap | Britain          | ch. pa. D  | s.l | co  | Eng. bot. 1640          |
| <i>Avena E. B.</i>                 |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 1063 planiculme                    | flat-stalked  | ♂ | △ | w  | 1½ | jn.s  | Ap | Britain          | sc. alp. D | co  |     | Eng. bot. 2141          |
| <i>Avena E. B.</i>                 |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 1064 distichophyllum <i>Sc.</i>    | fan-leaved    | ♂ | △ | w  | 1½ | jn.s  | Ap | Switzerl.        | 1796.      | D   | co  | Host gra. 2. t. 53      |
| 1065 airoides <i>P. de B.</i>      | Aira-like     | ♂ | ○ | w  | 1  | jn.jl | Ap | Switzerl.        | 1800.      | S   | co  | Host gra. 2. t. 45      |
| 173. DANTHONIA. <i>P. de B.</i>    | DANTHONIA.    |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 1—15.  |     |     |                         |
| 1066 strigosa <i>P. de B.</i>      | meagre        | ♂ | ○ | w  | 3  | jn.jl | Ap | Britain          | hed.       | S   | co  | Eng. bot. 1266          |
| <i>Avena E. B.</i>                 |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 174. GAUDYNIA. <i>P. de B.</i>     | GAUDYNIA.     |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 1.     |     |     |                         |
| 1067 fragilis <i>P. de B.</i>      | brittle       | ♂ | △ | w  | 1½ | jn.au | Ap | Spain            | 1778.      | D   | co  | Host gra. 2. t. 54      |
| *175. ARUNDO. <i>Wüh.</i>          | REED.         |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 5—33.  |     |     |                         |
| 1068 epigejos <i>E. B.</i>         | wood          | ♂ | △ | w  | 2  | jl    | Ap | Britain          | moi. w.    | S   | m.s | Eng. bot. 403           |
| 1069 stricta <i>E. B.</i>          | upright       | ♂ | △ | w  | 1½ | jl.au | Ap | Scotland         | sc. ma.    | S   | m.s | Eng. bot. 2160          |
| 1070 sylvatica <i>Schr.</i>        | wild          | ♂ | △ | w  | 3  | jl.au | Ap | Germany          | 1813.      | S   | m.s | Eng. bot. 4. t. 49      |
| 1071 Dónax <i>W.</i>               | cultivated    | ♂ | △ | ec | 10 | jl.au | Ap | S. Europe        | 1648.      | S   | co  | Host gra. 4. t. 38      |
| <i>β versicolor</i>                | striped       | ♂ | △ | or | 3  | jl.au | Ap | S. Europe        | 1648.      | S   | co  | Mor. h. 3. t. 8. f. 9   |
| 1072 phragmites <i>W.</i>          | common        | ♂ | △ | ec | 6  | jl.s  | Ap | Britain          | dit.       | S   | m.s | Eng. bot. 401           |
| *176. CHRYSURUS. <i>P. S.</i>      | CHRYSURUS.    |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 2—4.   |     |     |                         |
| 1073 aureus <i>P. de B.</i>        | golden-spiked | ♂ | ○ | w  | 1  | jl    | Ap | Levant           | 1770.      | S   | co  | Host gra. 3. t. 4       |
| 1074 echinatus <i>P. de B.</i>     | rough         | ♂ | ○ | w  | 2  | au    | Ap | England          | san. fl. S | a.l | co  | Eng. bot. 1333          |
| 177. SESLERIA. <i>P. de B.</i>     | SESLERIA.     |   |   |    |    |       |    | <i>Gramineæ.</i> | Sp. 4—11.  |     |     |                         |
| 1075 elongata <i>Host.</i>         | long-spiked   | ♂ | △ | w  | 1½ | jn.jl | Ap | Germany          | 1805.      | S   | co  | Host gra. 2. t. 97      |
| 1076 cærulea <i>Schr.</i>          | blue          | ♂ | △ | w  | 1  | my.jn | Ap | Britain          | fields.    | S   | co  | Eng. bot. 1613          |
| <i>Cynosurus E. B.</i>             |               |   |   |    |    |       |    |                  |            |     |     |                         |
| 1077 tenella <i>Host.</i>          | weak          | ♂ | △ | pr | 1  | ap.my | Ap | Switzerl.        | 1819.      | S   | co  | Host gra. 2. t. 100     |
| 1078 sphaerocéphala <i>Ard.</i>    | round-headed  | ♂ | △ | pr | 1  | ap.my | Ap | Switzerl.        | 1819.      | S   | co  | Host gra. 2. t. 99      |



History, Use, Propagation, Culture.

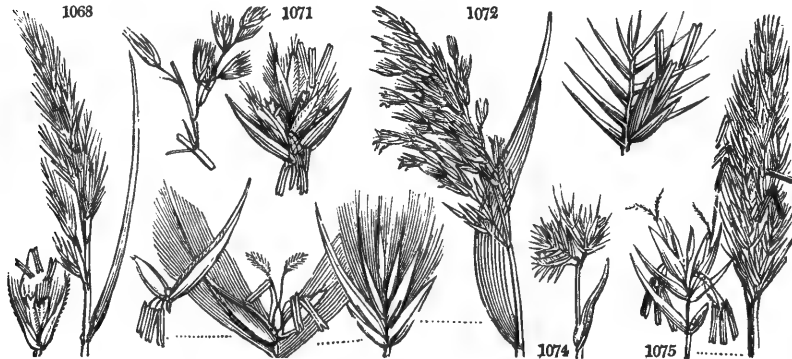
and wild oat originally the same. The wild oat is remarkable for the length of time the grain will lie in the soil, and retain its vegetative powers; its awns are sometimes used as hygrometers, and its seeds as artificial flies in fishing. Where it abounds naturally it is an inveterate weed.

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

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

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

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



## and Miscellaneous Particulars.

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

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

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

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

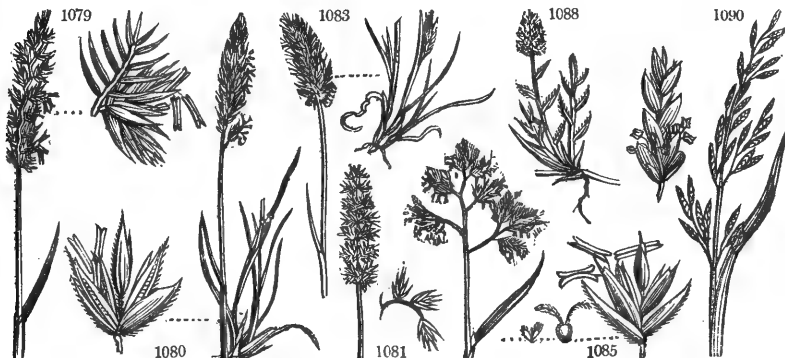
175. *Arundo*. An ancient name of doubtful origin; perhaps, as a recent author conjectures, from *arsu*, the Celtic word for water. *Phragmites* is derived from *φραγμος*, a hedge or separation. A. donax, *Canne*, Fr., *Rohr*, Ger., and *Canna di Giardini*, Ital. is common in the south of France and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

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

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

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

|                         |                    |                  |            |    |           |         |   |     |                          |
|-------------------------|--------------------|------------------|------------|----|-----------|---------|---|-----|--------------------------|
| 178. CYNOSURUS. P. S.   | DOG'S-TAIL-GRASS.  | <i>Gramineæ.</i> | Sp. 1-8.   |    |           |         |   |     |                          |
| 1079 cristatus W.       | crested            | ▲ Δ ag           | 2 au       | Ap | Britain   | pas.    | S | a.l | Eng. bot. 316            |
| 179. KÆLERIA. P. S.     | KÆLERIA.           | <i>Gramineæ.</i> | Sp. 5-13.  |    |           |         |   |     |                          |
| 1080 cristata P. S.     | crested            | ▲ Δ w            | 1 jn.au    | Ap | Britain   | pas.    | S | co  | Eng. bot. 648            |
| 1081 tuberosa P. S.     | tuberosus          | ▲ Δ w            | 1 jl.au    | Ap | Europe    | 1802.   | S | co  | Lam. ill. t.45. f.4      |
| 1082 pubescens P. de B. | pubescens          | ▲ ○ w            | 1 jn.jl    | Ap | S. Europe | 1800.   | S | co  | Ger. prov. t. 1          |
| 1083 phleoides P. S.    | cat's-tail         | ▲ ○ w            | 1 jl.au    | Ap | Portugal  | 1802.   | S | co  | Desf. atl. 1. t. 23      |
| 1084 hispida D. C.      | hispid             | ▲ ○ w            | ½ jl.au    | Ap | Mediterr. | 1819.   | S | co  | Savi. pis. t. 1. f. 5    |
| 180. DACTYLIS. W. en.   | COCK'S-FOOT-GRASS. | <i>Gramineæ.</i> | Sp. 5-19.  |    |           |         |   |     |                          |
| 1085 glomerata W.       | rough              | ▲ Δ ag           | 2 jn.jl    | Ap | Britain   | mea.    | S | h.l | Eng. bot. 335            |
| 1086 hispánica W. en.   | Spanish            | ▲ Δ w            | 2 jn.jl    | Ap | Spain     | 1814.   | S | co  |                          |
| 1087 glauca Rth.        | glaucous           | ▲ Δ w            | 2 jn.jl    | Ap | Saxony    | 1800.   | S | co  |                          |
| 1088 répens Desf.       | creeping           | ▲ Δ w            | ½ jn.jl    | Ap | Barbary   | 1821.   | S | co  | Desf. atl. 1. t. 15      |
| 1089 patens H. K.       | spreading          | ▲ Δ w            | 2 aus      | Ap | N. Amer.  | 1781.   | S | co  |                          |
| 181. GLYCERIA. R. Br.   | GLYCERIA.          | <i>Gramineæ.</i> | Sp. 1.     |    |           |         |   |     |                          |
| 1090 fluitans B. P.     | floating           | ▲ Δ w            | 1½ my.au   | Ap | Britain   | ponds.  | S | m.s | Eng. bot. 1520           |
| 182. FESTUCA. W.        | FESTUC-GRASS.      | <i>Gramineæ.</i> | Sp. 27-66. |    |           |         |   |     |                          |
| 1091 tenella Ph.        | slender            | ▲ ○ w            | ½ jl.au    | Ap | N. Amer.  | 1804.   | S | co  |                          |
| 1092 ovina W.           | sheep's            | ▲ Δ ag           | ½ jn       | Ap | Britain   | dr.pa.  | S | a.l | Eng. bot. 585            |
| 1093 vivipara E. B.     | viviparous         | ▲ Δ ag           | ½ jn       | Ap | Britain   | sc. mo. | S | a.l | Eng. bot. 1355           |
| 1094 rubra W.           | creeping           | ▲ Δ w            | 1 jl       | Ap | Britain   | me.pa.  | S | h.l | Eng. bot. 2056           |
| 1095 durifuscula W.     | hard               | ▲ Δ ag           | 1 jn       | Ap | Britain   | me.pa.  | S | a.l | Eng. bot. 470            |
| 1096 amethystina W.     | blue               | ▲ Δ w            | 1½ jn.jl   | Ap | S. Europe | 1804.   | S | co  | Host. gra. 2. t. 89      |
| 1097 cæsia E. B.        | grey               | ▲ Δ w            | 1 jn.jl    | Ap | England   | bar.he. | S | co  | Eng. bot. 1917           |
| 1098 dumetorum W.       | bushy              | ▲ Δ w            | 1 jn.jl    | Ap | Europe    | ...     | S | co  | Fl. dan. t. 700          |
| 1099 calamaria E. B.    | reed-like          | ▲ Δ w            | 3 jl.au    | Ap | Scotland  | m.wo.   | S | m.s | Eng. bot. 1005           |
| 1100 triflora E. B.     | three-flowered     | ▲ Δ w            | 2 jl.au    | Ap | Britain   | woods.  | S | m.s | Eng. bot. 1373           |
| 1101 spadicea W.        | brown              | ▲ ○ w            | 2 ap.my    | Ap | Italy     | 1775.   | S | co  | Host. gra. 3. t. 20      |
| 1102 pratensis E. B.    | meadow             | ▲ Δ ag           | 1½ jn.jl   | Ap | Britain   | me.pa.  | S | h.l | Eng. bot. 1592           |
| 1103 vaginata W. en.    | sheathed           | ▲ Δ w            | 1½ jn.jl   | Ap | Hungary   | 1804.   | S | co  |                          |
| 1104 mexicana Donn.     | Mexican            | ▲ ○ w            | 1½ jl      | Ap | Mexico    | 1805.   | S | co  |                          |
| 1105 pubescens W. en.   | downy              | ▲ Δ w            | 1 jn.jl    | Ap | Hungary   | 1822.   | S | co  |                          |
| 1106 flavescens Bell.   | yellowish          | ▲ Δ w            | ½ jn.jl    | Ap | Savoy     | 1804.   | S | co  |                          |
| 1107 pannonica Wulf.    | Hungarian          | ▲ Δ w            | 1 jn.jl    | Ap | Hungary   | 1804.   | S | co  | Host. gra. 4. t. 62      |
| 1108 decida E. B.       | deciduous          | ▲ Δ w            | 2 jn.jl    | Ap | England   | m.wo.   | S | m.s | Eng. bot. 2266           |
| 1109 elatior W.         | tall               | ▲ Δ ag           | ½ jn.jl    | Ap | Britain   | m.me.   | S | m.s | Eng. bot. 1593           |
| 1110 diandra Ph.        | diandrous          | ▲ Δ w            | 2 jn.jl    | Ap | N. Amer.  | 1810.   | S | co  | Mich. amer. t. 10        |
| 1111 loliacea W.        | spiked             | ▲ Δ ag           | 3 jn.jl    | Ap | England   | moi.p.  | S | m.s | Eng. bot. 1281           |
| 1112 grandiflora Ph.    | large-flowered     | ▲ Δ w            | 3 jn.jl    | Ap | N. Amer.  | 1812.   | S | co  |                          |
| 1113 rubens P. S.       | Spanish            | ▲ ○ w            | 1 jn       | Ap | S. Europe | 1776.   | S | co  | Fl. grac. t. 83          |
| 1114 glauca P. S.       | glaucous           | ▲ Δ ag           | 1 jn.jl    | Ap | S. Europe | ...     | S | co  | Lam. ill. 1. t. 46. f. 3 |
| 1115 ciliata P. S.      | ciliated           | ▲ Δ w            | ½ jl.au    | Ap | Portugal  | 1802.   | S | co  | Host. gra. 4. t. 65      |
| 1116 nutans Ph.         | nodding            | ▲ Δ w            | 3 jn.jl    | Ap | N. Amer.  | 1805.   | S | co  | Host. gra. 4. f. 61      |
| 1117 heterophylla P. S. | various-leaved     | ▲ Δ w            | 3 jn.jl    | Ap | France    | 1812.   | S | co  | Vaill. par. t. 19. f. 6  |



History, Use, Propagation, Culture,

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

178. *Cynosurus*. *Kyon zynos*, a dog, and *ura*, a tail : dog's-tail.

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

180. *Dactylis*. (*Δακτύλιος*, a finger : finger-grass). The divisions of its heads may be fancied to resemble the fingers, and the large cluster at the bottom the thumb of an animal. *D. glomerata* is a coarse grass of early and rapid growth, and considered valuable as a pasture grass on light soils from the quantity of herbage it affords.

It comes in from the time turnips are over, till the meadows are fit for grazing; but old and dry, or made into hay, neither horses nor cattle are fond of it. To reap the full benefit of this grass, it must be kept closely cropped. It has been of late strongly recommended by Mr. Coke of Holkham.

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

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

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

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

1085 Panicle one-sided bearded, Leaves keeled

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

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

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

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

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

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

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

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

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

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

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

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

1098 Panicle spike-shaped pubescent, Leaves filiform

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

1100 Panicle spreading, Spikelets 3-flowered with long beards

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

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

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

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

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

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

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

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

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

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

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

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

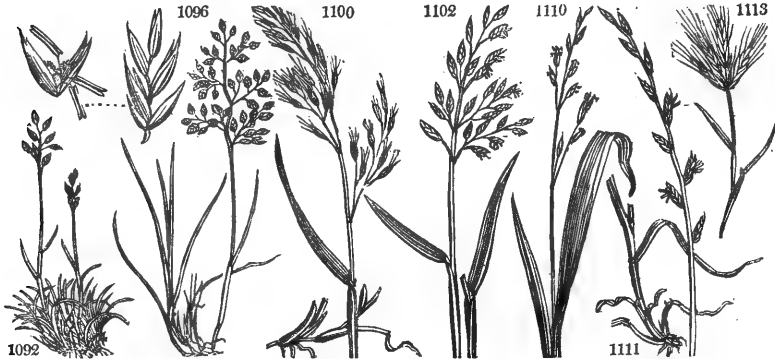
1113 Panicle fasciated, Spikelets subsessile villous, Beard erect

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

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



| *183. MYGALURUS. Lk. MOUSE-TAIL.           |               | Gramineæ. |   | Sp. 5.     |          |    |           |          |                            |
|--|---------------|-----------|---|------------|----------|----|-----------|----------|----------------------------|
| 1118 caudatus Lk.                          | wall          | ♂         | ○ | w          | ½ jn     | Ap | Britain   | ways.    | S co Eng. bot. 1412        |
| <i>Festuca Myurus</i> E. B.                |               |           |   |            |          |    |           |          |                            |
| 1119 bromoides Lk.                         | barren        | ♂         | ○ | w          | ½ my.jn  | Ap | Britain   | walls.   | S co Eng. bot. 1411        |
| <i>Festuca</i> E. B.                       |               |           |   |            |          |    |           |          |                            |
| 1120 stipoides Lk.                         | fine-leaved   | ♂         | ○ | w          | 1 jn.jl  | Ap | Majorca   | 1793.    | S co Barr. ic. t. 76. f.1  |
| 1121 delicatulus Lk.                       | delicate      | ♂         | ○ | w          | ½ jn.jl  | Ap | Spain     | 1817.    | S co                       |
| 1122 unigermis Lk.                         | single-husked | ♂         | ○ | w          | ½ jn     | Ap | Britain   | sea co.  | S co Eng. bot. 1430        |
| <i>Festuca</i> E. B.                       |               |           |   |            |          |    |           |          |                            |
| *184. BRO-MUS. W. BROME-GRASS.             |               | Gramineæ. |   | Sp. 19-66. |          |    |           |          |                            |
| 1123 secalinus W.                          | smooth-rye    | ♂         | ○ | w          | 2 jn.au  | Ap | England   | cor. fi. | S co Eng. bot. 1171        |
| 1124 multiflorus W. en.                    | downy-rye     | ♂         | ○ | w          | 2 jn.au  | Ap | Britain   | ...      | S co Eng. bot. 1884        |
| 1125 mollis W.                             | soft          | ♂         | ○ | w          | 2 jn.au  | Ap | Britain   | walls.   | S co Eng. bot. 1078        |
| 1126 lanceolatus W.                        | spear-leaved  | ♂         | ○ | w          | 3 jn.au  | Ap | Crimea    | 1798.    | S co                       |
| 1127 squarrosus W.                         | corn          | ♂         | △ | w          | 3 jn.au  | Ap | England   | cor. fi. | S co Eng. bot. 1885        |
| 1128 Alopecurus W.                         | Fox-tail      | ♂         | △ | w          | 2 jn.au  | Ap | Barbary   | 1799.    | S co Desf. atl. 1. t. 25   |
| 1129 purgans W.                            | purging       | ♂         | △ | w          | 1½ jn.au | Ap | Canada    | 1793.    | S co                       |
| 1130 inermis W.                            | awnless       | ♂         | △ | w          | 2 jn.au  | Ap | Germany   | 1794.    | S co Host. gra. 1. t. 9    |
| 1131 asper W.                              | hairy wood    | ♂         | △ | w          | 4 jn.au  | Ap | England   | m. s. p. | S co Eng. bot. 1172        |
| 1132 pratensis E. B.                       | meadow        | ♂         | △ | w          | 2 jn.au  | Ap | England   | cor. fi. | S co Eng. bot. 920         |
| 1133 sterilis W.                           | barren        | ♂         | △ | w          | 2 jn.au  | Ap | Britain   | rub.     | S co Eng. bot. 1030        |
| 1134 arvensis E. B.                        | field         | ♂         | △ | w          | 3 jn.au  | Ap | Britain   | cor. fi. | S co Eng. bot. 1984        |
| 1135 erectus E. B.                         | upright       | ♂         | △ | w          | 3 jn.au  | Ap | England   | ch. pa.  | S co Eng. bot. 471         |
| 1136 tectorum W.                           | nodding       | ♂         | ○ | w          | 1 jn.au  | Ap | Europe    | 1776.    | S co Host. gra. 1. t. 15   |
| 1137 altissimus Ph.                        | tallest       | ♂         | △ | w          | 8 jn.au  | Ap | N. Amer.  | 1812.    | S co                       |
| 1138 racemosus W.                          | smooth        | ♂         | ○ | w          | 3 jn.au  | Ap | England   | me. pa.  | S h.l Eng. bot. 1079       |
| 1139 maximus Roth.                         | great         | ♂         | ○ | w          | 3 jn.au  | Ap | Morocco   | 1804.    | S h.l Desf. atl. 1. t. 26  |
| 1140 madritensis W.                        | wall          | ♂         | ○ | w          | 1½ jn.au | Ap | Britain   | walls.   | S h.l Eng. bot. 1006       |
| 1141 giganteus Schr.                       | giant         | ♂         | △ | w          | 3 jl.au  | Ap | Britain   | mea.     | D co Eng. bot. 1820        |
| <i>Festuca</i> E. B.                       |               |           |   |            |          |    |           |          |                            |
| *185. BRACHYPODIUM. P. de B. BRACHYPODIUM. |               | Gramineæ. |   | Sp. 9-25.  |          |    |           |          |                            |
| 1142 ciliatum W.                           | ciliated      | ♂         | △ | w          | 2 jn.au  | Ap | Canada    | 1802.    | S co                       |
| 1143 sylvaticum R. & S.                    | wood          | ♂         | △ | w          | 2 jn.au  | Ap | Britain   | hed.     | S co Eng. bot. 729         |
| <i>Bromus</i> E. B.                        |               |           |   |            |          |    |           |          |                            |
| 1144 pinnatum P. de B.                     | spiked heath  | ♂         | △ | w          | 3 jn.au  | Ap | Britain   | hea.     | S co Eng. bot. 730         |
| <i>Bromus</i> E. B.                        |               |           |   |            |          |    |           |          |                            |
| 1145 distachyon R. & S.                    | two-spiked    | ♂         | △ | w          | 1 jn.au  | Ap | S. Europe | 1772.    | S co Host. gra. 1. t. 20   |
| 1146 tenellum W.                           | slender       | ♂         | ○ | w          | ½ jl.au  | Ap | S. Europe | 1781.    | S co Vi. fragm. t. 26. f.1 |
| 1147 loliaceum R. & S.                     | Darnel-like   | ♂         | ○ | w          | 1 jn.jl  | Ap | Britain   | sea co.  | S co Eng. bot. 221         |
| <i>Triticum</i> E. B.                      |               |           |   |            |          |    |           |          |                            |
| 1148 unioloides Lk.                        | Uniola-like   | ♂         | ○ | w          | ½ jl.au  | Ap | Italy     | 1758.    | S co Jacq. ic. 2. t. 303   |
| 1149 obtusifolium Lk.                      | blunt-leaved  | ♂         | △ | w          | 1½ jl.au | Ap | Spain     | 1818.    | S co                       |
| 1150 unilaterale R. & S.                   | one-sided     | ♂         | ○ | w          | ½ jn.jl  | Ap | S. Europe | 1800.    | S co                       |
| 186. UNI'OLA. W. SEA-SIDE-OAT.             |               | Gramineæ. |   | Sp. 4-7.   |          |    |           |          |                            |
| 1151 latifolia Ph.                         | broad-leaved  | ♂         | △ | w          | 4 jn.jl  | Ap | N. Amer.  | 1809.    | S co                       |
| 1152 paniculata Ph.                        | paniced       | ♂         | △ | w          | 4 jn.jl  | Ap | N. Amer.  | 1793.    | S co Cates. car. 1. t. 32  |
| 1153 spicata W.                            | spiked        | ♂         | △ | w          | ½ jl     | Ap | N. Amer.  | 1790.    | S co                       |
| 1154 distichophylla R. & S.                | two-ranked    | ♂         | △ | w          | ½ jn.jl  | Ap | N. Holl.  | 1780.    | S co Lab. N. Holl. t. 24   |
| 187. TRICUSPIS. P. de B. TRICUSPIA.        |               | Gramineæ. |   | Sp. 1-3.   |          |    |           |          |                            |
| 1155 quinquefida P. de B.                  | five-cleft    | ♂         | △ | ag         | 2 jn.jl  | Ap | N. Amer.  | 1820.    | S r.m Jac. gr. ecl. t. 16  |
| 188. DIPLACHNE P. de B. DIPLACHNE.         |               | Gramineæ. |   | Sp. 1-2.   |          |    |           |          |                            |
| 1156 fascicularis P. de B.                 | bundled       | ♂         | ○ | w          | 2 jl.au  | Ap | N. Amer.  | 1823.    | S co                       |

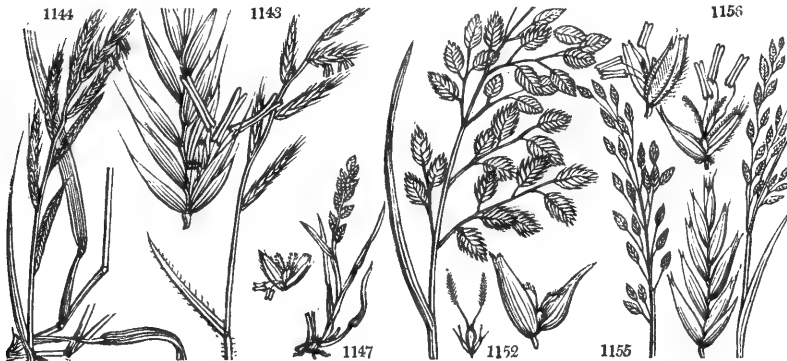


History, Use, Propagation, Culture,

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

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

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



and Miscellaneous Particulars.

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

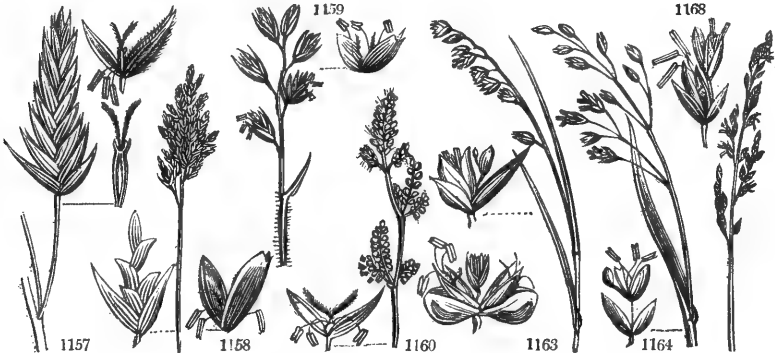
185. *Brachypodium*. From *βραχυς*, short, and *πυδ*, a foot, in allusion to the short stalks of the spikelets. An artificial genus, made up of various species of *Bromus*, *Festuca*, and *Triticum* of former writers.

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

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

188. *Diplachne*. *Διπλος*, divided, *αχνη*, chaff. The outer palæa is divided at the end, and bearded between the divisions.

|                                  |                          |                  |             |    |           |          |                             |
|----------------------------------|--------------------------|------------------|-------------|----|-----------|----------|-----------------------------|
| 189. CERATOCLOA. <i>P. de B.</i> | HORN-GRASS.              | <i>Gramineæ.</i> | Sp. 1-2.    |    |           |          |                             |
| 1157 unioloides <i>P. de B.</i>  | large-spiked             | ♂ ○ w            | 1½ jl       | Ap | N. Amer.  | 1788.    | S co Hort. ber. 1. t. 3     |
| 190. SCHISMUS. <i>P. de B.</i>   | SCHISMUS.                | <i>Gramineæ.</i> | Sp. 1.      |    |           |          |                             |
| 1158 marginatus <i>P. de B.</i>  | marginated               | ♂ ○ w            | ½ jn, jl    | Ap | Spain     | 1781.    | S co Lam. ill. t. 46. f. 1  |
| 191. TRIODIA. <i>R. Br.</i>      | TRIODIA.                 | <i>Gramineæ.</i> | Sp. 1-10.   |    |           |          |                             |
| 1159 decumbens <i>R. Br.</i>     | decumbent                | ♂ △ w            | 1 jl, au    | Ap | Britain   | ...      | S co Eng. bot. 792          |
| 192. BECKMANNIA. <i>Host.</i>    | BECKMANNIA.              | <i>Gramineæ.</i> | Sp. 1.      |    |           |          |                             |
| 1160 eruceiformis <i>W. en.</i>  | linear-spiked            | ♂ ○ w            | 2 jl        | Ap | Europe    | 1773.    | S co Host. gra. 3. t. 6     |
| 193. MELICA. <i>W.</i>           | MELIC-GRASS.             | <i>Gramineæ.</i> | Sp. 7-24.   |    |           |          |                             |
| 1161 ciliata <i>W.</i>           | ciliated                 | ♂ △ or           | 3 jl        | Ap | Europe    | 1771.    | S s.l. Host. gra. 2. t. 12  |
| 1162 Bauhini <i>W. en.</i>       | Italian                  | ♂ △ w            | 2 jn, jl    | Ap | Italy     | 1806.    | S co Host. gra. 4. t. 23    |
| 1163 aütans <i>W.</i>            | mountain                 | ♂ △ or           | 1½ jn, jl   | Ap | Britain   | moun.    | S s.l. Eng. bot. 1659.      |
| 1164 uniflora <i>W.</i>          | wood                     | ♂ △ w            | 1½ my, jn   | Ap | Britain   | groves.  | S m.s. Eng. bot. 1058       |
| 1165 pyramidalis <i>P. S.</i>    | pyramidal                | ♂ △ w            | 3 jn, jl    | Ap | Barbary   | 1804.    | S co Barr. ic. t. 96. f. 1  |
| 1166 glabra <i>Ph.</i>           | smooth                   | ♂ △ w            | 3 jn, jl    | Ap | N. Amer.  | 1812.    | S co Mor. h. 3. t. 7. f. 51 |
| 1167 altissima <i>W.</i>         | tallest                  | ♂ △ or           | 4 jl, au    | Ap | Siberia   | 1770.    | S co Host. gra. 2. t. 9     |
| 194. MOLINIA. <i>P. de B.</i>    | MOLINIA.                 | <i>Gramineæ.</i> | Sp. 1.      |    |           |          |                             |
| 1168 cærulea <i>P. de B.</i>     | purple                   | ♂ △ w            | 1 au        | Ap | Britain   | bogs.    | S p.m. Eng. bot. 750        |
|                                  | <i>Melica E. B.</i>      |                  |             |    |           |          |                             |
| 195. BRIZA. <i>W.</i>            | QUAKING-GRASS.           | <i>Gramineæ.</i> | Sp. 4-9.    |    |           |          |                             |
| 1169 minor <i>W.</i>             | small                    | ♂ ○ or           | ½ jl, au    | Ap | England   | cor. fi. | S co Eng. bot. 1316         |
| 1170 virens <i>W.</i>            | green                    | ♂ ○ or           | 1½ jl, au   | Ap | Spain     | 1800.    | S co Hay. trm. t. 25. f. 6  |
| 1171 media <i>W.</i>             | common                   | ♂ △ or           | 1½ my, jn   | Ap | Britain   | pas.     | S co Eng. bot. 340          |
| 1172 maxima <i>W.</i>            | greatest                 | ♂ ○ or           | 1½ jn, jl   | Ap | S. Europe | 1633.    | S co Host. gra. 2. t. 30    |
| *196. POA. <i>W.</i>             | MEADOW-GRASS.            | <i>Gramineæ.</i> | Sp. 34-142. |    |           |          |                             |
| 1173 aquatica <i>W.</i>          | water                    | ♂ △ w            | 6 jl        | Ap | Britain   | dit.     | S m.s. Eng. bot. 1315       |
| 1174 alpina <i>W.</i>            | Alpine                   | ♂ △ w            | ½ jn, jl    | Ap | Scotland  | sc. alp. | S s.l. Eng. bot. 1003       |
| 1175 flexuosa <i>E. B.</i>       | zigzag                   | ♂ △ w            | ½ jn, jl    | Ap | Scotland  | sc. alp. | S h.l. Eng. bot. 1123       |
| 1176 laxa <i>W.</i>              | loose-spiked             | ♂ △ w            | ½ jn, jl    | Ap | Germany   | 1800.    | S co Host. gra. 3. t. 1     |
| 1177 cæsia <i>E. B.</i>          | sea-green                | ♂ △ w            | ½ jn, jl    | Ap | Scotland  | sc. mo.  | S s.l. Eng. bot. 1719       |
| 1178 vivipara <i>W. en.</i>      | viviparous               | ♂ △ w            | ½ jn, jl    | Ap | Switzerl. | 1800.    | S co Fl. dan. t. 307        |
| 1179 trivialis <i>W.</i>         | common                   | ♂ △ ag           | 2 jn, au    | Ap | Britain   | me. pa.  | S h.l. Eng. bot. 1072       |
| 1180 pratensis <i>W.</i>         | smooth-stalked           | ♂ △ ag           | 1½ my, jn   | Ap | Britain   | me. pa.  | S s.l. Eng. bot. 1073       |
|                                  | <i>β angustifolia W.</i> | ♂ △ ag           | 2 jn, au    | Ap | Germany   | ...      | S co Leers, t. 6. f. 3      |
| 1181 humilis <i>E. B.</i>        | narrow-leaved            | ♂ △ w            | ½ my, jn    | Ap | Britain   | me. pa.  | S s.l. Eng. bot. 1004       |
| 1182 annua <i>W.</i>             | short-blucish            | ♂ ○ w            | ½ mr. o     | Ap | Britain   | pas.     | S h.l. Eng. bot. 1141       |
| 1183 badensis <i>W.</i>          | turfy                    | ♂ △ w            | ½ jl        | Ap | Baden     | 1800.    | S co Host. gra. 2. t. 66    |
| 1184 sudetica <i>W.</i>          | broad-leaved             | ♂ △ w            | 3 jl, au    | Ap | Germany   | 1802.    | S co Host. gra. 3. t. 13    |
| 1185 censis <i>W. en.</i>        | soft                     | ♂ △ w            | ½ jl, au    | Ap | Mt. Cenis | 1791.    | S co Host. gra. 3. t. 16    |
| 1186 flava <i>W.</i>             | pale-yellow              | ♂ △ w            | 1½ jl, au   | Ap | N. Amer.  | 1804.    | S co                        |
| 1187 serotina <i>W. en.</i>      | late-flowering           | ♂ △ w            | ½ jls       | Ap | Germany   | 1800.    | S co Lers. her. t. 6. f. 4  |
| 1188 festuciformis <i>W. en.</i> | festuca-like             | ♂ △ ag           | 2 jls       | Ap | Dalmatia  | 1800.    | S co Host. gra. 3. t. 17    |
| 1189 abyssinica <i>W.</i>        | smooth-upright           | ♂ ○ w            | 1½ au, o    | Ap | Abyssinia | 1775.    | S co Jac. ic. 1. t. 17      |
| 1190 capillaris <i>W.</i>        | hair-panicked            | ♂ ○ w            | 1½ o, n     | Ap | N. Amer.  | 1781.    | S co Mor. h. 3. t. 6. f. 33 |
| 1191 Molinieri <i>Batb.</i>      | dwarf-glaucous           | ♂ △ w            | 1 jn, jl    | Ap | Italy     | 1807     | S co Bal. mis. t. 5. f. 1   |



History, Use, Propagation, Culture,

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

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

191. *Triodia*. *Τρεις*, three, *οδοντες*, teeth, an account of the three teeth of the palea.

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

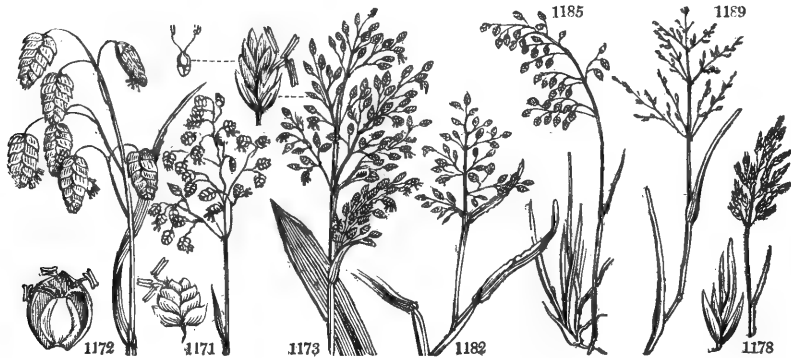
193. *Melica*. A name applied in Italy to the *Holcus sorghum*, L., the pith of which is like *mel*, honey.

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

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

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

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



and Miscellaneous Particulars.

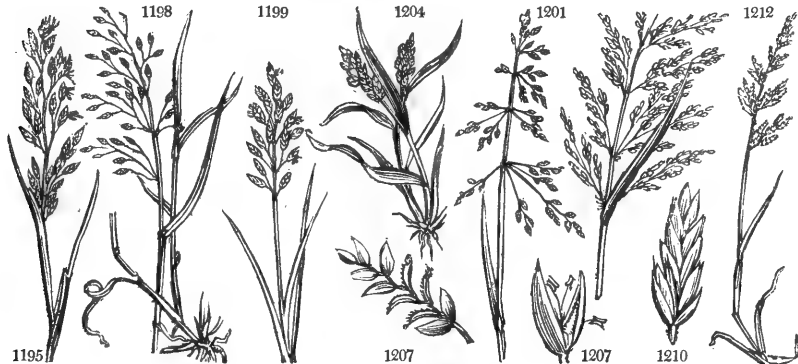
and tears up the plants by the roots, which float, and are carried down the stream. (Curtis.) W. Salisbury says, "it is highly ornamental, and might be introduced into ponds for the same purposes as *Arundo phragmites*, or planted with *Festuca elatior*, *Poa sudetica*, and *Phalaris arundinacea* in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

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

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

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

|   |                |       |    |       |    |             |            |   |     |                      |
|---|----------------|-------|----|-------|----|-------------|------------|---|-----|----------------------|
| 1192 <i>stérilis</i> M. B.                    | barren         | ♂ Δ w | 1  | jn.jl | Ap | Tauria      | 1821.      | S | co  |                      |
| 1193 <i>angustáta</i> R. Br.                  | narrow-spiked  | ♂ Δ w | ½  | ja.f  | Ap | Melv. Isld. | 1823.      | S | co  |                      |
| 1194 <i>ténax</i> Lk.                         | tough          | ♂ Δ w | 2  | jl.au | Ap | .....       | 1817.      | S | co  |                      |
| 1195 <i>maritima</i> W.                       | sea            | ♂ Δ w | 1  | jn.jl | Ap | Britain     | sal. m.    | S | m.s | Eng. bot. 1140       |
| 1196 <i>compressa</i> W.                      | flat-stalked   | ♂ Δ w | 1  | jn.au | Ap | Britain     | walls.     | S | s.l | Eng. bot. 365        |
| 1197 <i>gláucia</i> E. B.                     | glaucous       | ♂ Δ w | 1  | jn.au | Ap | Britain     | moun.      | S | s.l | Eng. bot. 1720       |
| 1198 <i>memorális</i> W.                      | wood           | ♂ Δ w | 2  | jn    | Ap | Britain     | woods.     | S | a.h | Eng. bot. 1265       |
| 1199 <i>amboinénsis</i> W.                    | upright        | ♂ Δ w | 1  | jn.jl | Ap | E. Indies   | 1800.      | S | co  | Rumph. 6. t.7. f.3   |
| 1200 <i>bulbósa</i> W.                        | bulbous        | ♂ Δ w | 1  | jl    | Ap | England     | pas.       | S | h.l | Eng. bot. 1071       |
| 1201 <i>distans</i> W.                        | distant        | ♂ Δ w | 1½ | jl.au | Ap | Britain     | pas.       | S | h.l | Eng. bot. 986        |
| 1202 <i>retrofléxa</i> E. B.                  | reflexed       | ♂ Δ w | 1  | jl.au | Ap | Britain     | pas.       | S | co  | Eng. bot. 1532       |
| 1203 <i>ægyptiaca</i> W. em                   | Egyptian       | ♂ Δ w | 1½ | jl.au | Ap | Egypt       | 1812.      | S | co  |                      |
| 1204 <i>peruviána</i> W.                      | Peruvian       | ♂ Δ w | 1  | jl.au | Ap | Peru        | 1802.      | S | co  | Jac. ic. 1. t. 18    |
| 1205 <i>nerváta</i> W.                        | nerved         | ♂ Δ w | 1½ | jl.au | Ap | N. Amer.    | 1812.      | S | co  |                      |
| 1206 <i>digitáta</i> R. Br.                   | fingered       | ♂ Δ w | 1½ | jl.au | Ap | N. S. W.    | 1800.      | S | co  |                      |
| 197. ERAGROSTIS. P. de B. LIVE-GRASS.         |                |       |    |       |    | Gramineæ.   | Sp. 3—10.  |   |     |                      |
| 1207 pilósa P. de B.                          | pilose         | ♂ Δ w | 1½ | jl.au | Ap | Italy       | 1804.      | S | co  | Host. gra. 2. t.68   |
| 1208 penéssa P. de B.                         | small          | ♂ Δ w | 1  | jl.au | Ap | E. Indies   | 1781.      | S | co  | Bur. zey. t.47. f.3  |
| 1209 purpuráscens Spr.                        | purple         | ♂ Δ w | 1½ | jl.au | Ap | .....       | 1817.      | S | co  |                      |
| 198. MEGASTACHYA. P. de B. MEGASTACHYA.       |                |       |    |       |    | Gramineæ.   | Sp. 5—29.  |   |     |                      |
| 1210 Eragrostis P. de B.                      | Love-grass     | ♂ Δ w | 2  | jl    | Ap | Italy       | 1699.      | S | co  | Host. gra. 2. t.69   |
| 1211 amábilis P. de B.                        | purple         | ♂ Δ w | 1  | jl    | Ap | E. Indies   | 1802.      | S | co  | Lam. ill. t.45. f.2  |
| 1212 rígida P. de B.                          | hard           | ♂ Δ w | ½  | jn.jl | Ap | England     | san. pl.   | S | s.l | Eng. bot. 1371       |
| Poa E. B.                                     |                |       |    |       |    |             |            |   |     |                      |
| 1213 elongáta P. de B.                        | long-panicked  | ♂ Δ w | 2  | jl.au | Ap | E. Indies   | 1812.      | S | s.l | Jac. ecl. gra. t. 3  |
| 1214 ciliáris P. de B.                        | ciliated       | ♂ Δ w | 1½ | jl.au | Ap | Jamaica     | 1776.      | S | s.l | Jac. ic. 2. t. 304   |
| 199. SCLEROCHELOA. P. de B. HARD-GRASS.       |                |       |    |       |    | Gramineæ.   | Sp. 3.     |   |     |                      |
| 1215 divariáta P. de B.                       | divaricate     | ♂ Δ w | ½  | jl.au | Ap | S. Europe   | 1802.      | S | co  | Gou. ill.4. t.2. f.1 |
| 1216 procumbens P. de B.                      | procumbent     | ♂ Δ w | ½  | jl.au | Ap | Britain     | sea co.    | S | h.s | Eng. bot. 532        |
| Poa E. B.                                     |                |       |    |       |    |             |            |   |     |                      |
| 1217 dúra P. de B.                            | coarse         | ♂ Δ w | ½  | jn.jl | Ap | Europe      | 1822.      | S | co  | Host. gra. 2. t.73   |
| 200. ELEUSINE. R. Br. ELEUSINE.               |                |       |    |       |    | Gramineæ.   | Sp. 2—4.   |   |     |                      |
| 1218 coracána P. S.                           | thick-spiked   | ♂ Δ w | 4  | jl.s  | Ap | India       | 1714.      | S | co  | Schrbr.gra.2. t.35   |
| 1219 indica P. S.                             | Indian         | ♂ Δ w | 2  | jl.s  | Ap | India       | 1714.      | S | co  | Rheede. 12. t. 69    |
| 201. DACTYLOCTENIUM. P. de B. DACTYLOCTENIUM. |                |       |    |       |    | Gramineæ.   | Sp. 1—2.   |   |     |                      |
| 1220 ægyptiacum P. de B.                      | creeping       | ♂ Δ w | 1½ | jl.s  | Ap | Egypt       | 1770.      | S | co  |                      |
| 202. LEPTOCHLOA. P. de B. LEPTOCHLOA.         |                |       |    |       |    | Gramineæ.   | Sp. 4—5.   |   |     |                      |
| 1221 virgáta P. de B.                         | slender-spiked | ♂ Δ w | 3  | jl.au | Ap | W. Indies   | 1727.      | S | co  | Sloane.1. t.70. f.2  |
| 1222 tenérrima R. & S.                        | very-slender   | ♂ Δ w | 1½ | jn    | Ap | China       | 1820.      | S | co  |                      |
| 1223 domingénsis Lk.                          | close-spiked   | ♂ Δ w | 3  | jn    | Ap | W. Indies   | 1820.      | S | co  | Jacq. ic. t. 22      |
| 1224 filifórmis P. de B.                      | Chinese        | ♂ Δ w | 2  | jl.au | Ap | China       | 1820.      | S | co  | Jacq. ecl. gra. t.4  |
| Poa chinénsis                                 |                |       |    |       |    |             |            |   |     |                      |
| 203. CYNODON P. S. CYNODON.                   |                |       |    |       |    | Gramineæ.   | Sp. 2—10.  |   |     |                      |
| 1225 Dáctylon P. S.                           | creeping       | ♂ Δ w | 1  | jl    | Ap | England     | ...        | S | co  | Eng. bot. 850        |
| 1226 lineáris W. em.                          | linear-leaved  | ♂ Δ w | ½  | jl.au | Ap | E. Indies   | 1796.      | S | co  |                      |
| *204. DINEBRA. P. de B. DINEBRA.              |                |       |    |       |    | Gramineæ.   | Sp. 2—5.   |   |     |                      |
| 1227 arábica Jacq.                            | reflexed       | ♂ Δ w | ½  | jn.jl | Ap | E. Indies   | 1804.      | S | co  | Jac.frag.t.121.f.1   |
| 1228 Líma P. de B.                            | imbricated     | ♂ Δ w | ½  | jl.au | Ap | Spain       | 1776.      | S | co  | Cav. ic. 1. t. 91    |
| 205. ECHINARIA. Desv. ECHINARIA.              |                |       |    |       |    | Gramineæ.   | Sp. 1.     |   |     |                      |
| 1229 capitáta Desv.                           | headed         | ♂ Δ w | ½  | my.au | Ap | S. Europe   | 1771.      | S | co  | Host. gra. 3. t. 8   |
| *206. TRITICUM. W. WHEAT.                     |                |       |    |       |    | Gramineæ.   | Sp. 16—28. |   |     |                      |
| 1230 æstivum W.                               | summer         | ♂ Δ w | 4  | jn.jl | Ap | Baschkiros  | ...        | S | r.m | Host. gra. 3. t.26   |
| 1231 hybérnum W.                              | Lammas         | ♂ Δ w | 4  | jn.jl | Ap | .....       | ...        | S | r.m | Host. gra. 3. t.20   |



## History, Use, Propagation, Culture,

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

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

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

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

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

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

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

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

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

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

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

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

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

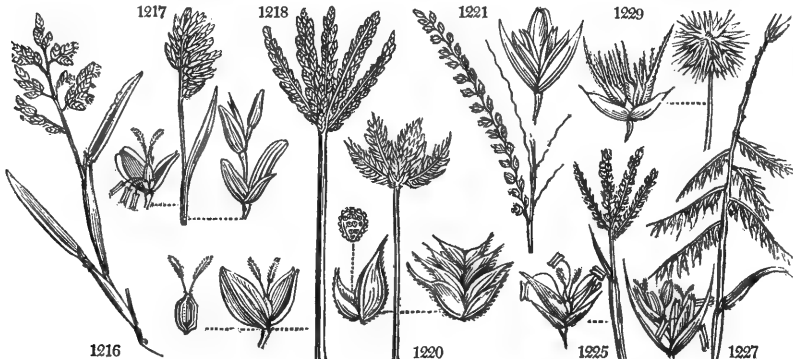
1221 Panicle with simple branches, Flowers sessile 6-flowered, the last sterile, lower bearded  
 1222 Spike alternate very slender, Spikel. distich. beardless, Leaves rather hairy, Sheaths compressed smooth  
 1223 Pan. branched fringed, Branches simple, Spikelets 5-fl. subsess. Florets all bearded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

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

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

1229 The only species

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



and Miscellaneous Particulars.

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

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

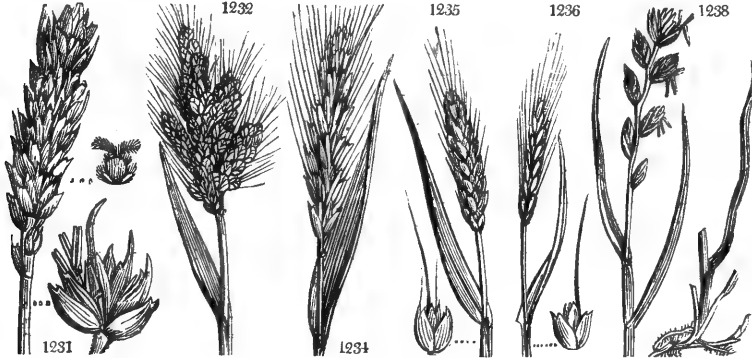
203. *Cynodon*. *Κυνος, κυνος*, a dog, and *odus*, a tooth; wherefore we know not. *Cynodon linearis*, the *Agrostis linearis* of König, is the famous *durva* grass of the Hindoos, for which, see Lambert in the Linn. trans. vii. No. 22.

204. *Dinebra*. Its Arabic name.

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

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

|      |                                 |             |   |   |    |   |       |    |                               |                  |           |                     |                       |  |
|------|---------------------------------|-------------|---|---|----|---|-------|----|-------------------------------|------------------|-----------|---------------------|-----------------------|--|
| 1232 | <i>compōsitum</i> <i>W.</i>     | Egyptian    | ♂ | ○ | ag | 3 | jn,jl | Ap | Egypt                         | 1799.            | S         | r,m                 | Mor. h. 3. t. 1. f. 7 |  |
| 1233 | <i>turgidum</i> <i>W.</i>       | turgid      | ♂ | ○ | ag | 3 | jn,jl | Ap | .....                         | ....             | S         | r,m                 | Host. gra. 3. t. 28   |  |
| 1234 | <i>polōnicum</i> <i>W.</i>      | Polish      | ♂ | ○ | ag | 4 | jn,jl | Ap | .....                         | 1692.            | S         | r,m                 | Host. gra. 3. t. 11   |  |
| 1235 | <i>Spēta</i> <i>W.</i>          | Spelt       | ♂ | ○ | ag | 3 | jn,jl | Ap | .....                         | .....            | S         | r,m                 | Host. gra. 3. t. 30   |  |
| 1236 | <i>monocōccum</i> <i>W.</i>     | one-grained | ♂ | ○ | ag | 3 | jn,jl | Ap | .....                         | 1648.            | S         | r,m                 | Host. gra. 3. t. 32   |  |
| 1237 | <i>squarōsum</i> <i>Roth.</i>   | Porcupine   | ♂ | ○ | w  | 1 | jn,jl | Ap | Egypt                         | 1800.            | S         | co                  | Host. gra. 3. t. 32   |  |
| 1238 | <i>jūnceum</i> <i>W.</i>        | rushy       | ♂ | △ | w  | 1 | jn,jl | Ap | England sea. sh.              | S                | co        | Eng. bot. 814       |                       |  |
| 1239 | <i>repēs</i> <i>W.</i>          | Couch-grass | ♂ | △ | w  | 2 | jl,au | Ap | Britain <sup>u</sup>          | S                | m,s       | Eng. bot. 909       |                       |  |
| 1240 | <i>caninum</i> <i>E. B.</i>     | bearded     | ♂ | △ | w  | 1 | jl,aa | Ap | Britain <sup>u</sup> ch. wo.  | S                | s,1       | Eng. bot. 1372      |                       |  |
| 1241 | <i>rigidum</i> <i>W. en.</i>    | rigid       | ♂ | △ | w  | 1 | jn,jl | Ap | Germany 1805.                 | S                | co        | Host. gra. 2. t. 22 |                       |  |
| 1242 | <i>crīstātum</i> <i>Schr.</i>   | crested     | ♂ | △ | w  | 1 | jl,au | Ap | Britain <sup>u</sup> hed.     | S                | co        | Eng. bot. 2267      |                       |  |
| 1243 | <i>Zea</i> <i>Host.</i>         | maize-like  | ♂ | ○ | ag | 4 | jn,jl | Ap | Austria 1815.                 | S                | r,m       | Host. gra. 3. t. 28 |                       |  |
| 1244 | <i>villōsum</i> <i>P. de B.</i> | villous     | ♂ | ○ | w  | 3 | jn,jl | Ap | S. Europe 1790.               | S                | co        | Fl. grac. 1. t. 97  |                       |  |
| 1245 | <i>elongātum</i> <i>Host.</i>   | long-spiked | ♂ | △ | w  | 5 | jn,jl | Ap | Germany 1805.                 | S                | co        | Host. gra. 2. t. 23 |                       |  |
| 997. | <i>LOLIUM. W.</i>               | DARNEL.     |   |   |    |   |       |    |                               | <i>Gramineæ.</i> | Sp. 4—10. |                     |                       |  |
| 1246 | <i>perēnne</i> <i>W.</i>        | Rye-grass   | ♂ | △ | ag | 3 | my,jn | Ap | Britain <sup>u</sup> me. pa.  | S                | co        | Eng. bot. 315       |                       |  |
| 1247 | <i>tēnue</i> <i>W.</i>          | slender     | ♂ | △ | w  | 3 | jl,au | Ap | S. Europe 1590.               | S                | co        | .....               |                       |  |
| 1248 | <i>temulētum</i> <i>W.</i>      | bearded     | ♂ | ○ | p  | 3 | jl,au | Ap | Britain <sup>u</sup> cor. fl. | S                | co        | Eng. bot. 1124      |                       |  |
| 1249 | <i>arvēnse</i> <i>E. B.</i>     | beardless   | ♂ | ○ | ag | 4 | jl    | Ap | England <sup>u</sup> cor. fl. | S                | co        | Eng. bot. 1125      |                       |  |



History, Use, Propagation, Culture.

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

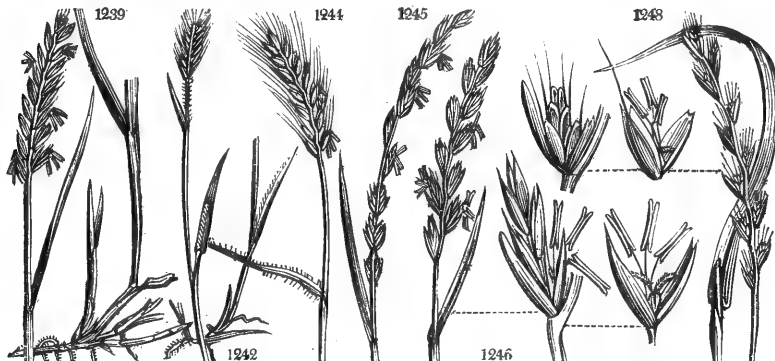
*T. spelta* appears a distinct species, and more hardy than common wheat; it has a stout straw almost solid, with strong spikes and chaff adhering firmly to the grain. The grain is light, yields but little flour, and makes but indifferent bread. It is grown in Switzerland in elevated situations, where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

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

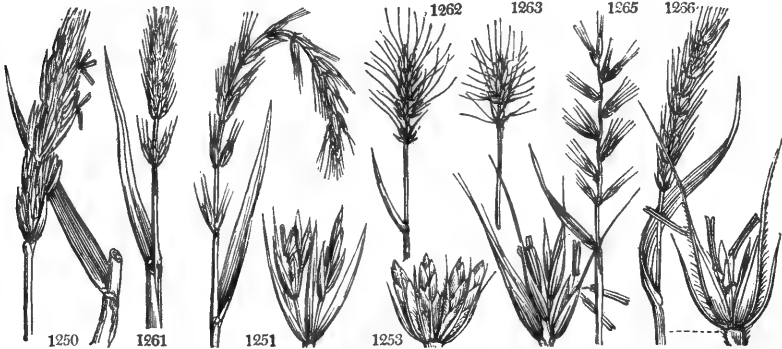
*T. junceum* grows in loose sand on the sea-coast, and by its tough creeping roots and numerous fibres co-operates with *Carex arenaria*, *Elymus arenarius*, and *Festuca rubra*, in keeping them stationary, accumulating more, and eventually rendering drifting sands fit for agricultural purposes.

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

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



|                          |               |      |    |                  |            |        |         |             |                 |                             |
|--------------------------|---------------|------|----|------------------|------------|--------|---------|-------------|-----------------|-----------------------------|
| 208. ELYMUS. W.          | LYME-GRASS.   |      |    | <i>Gramineæ.</i> | Sp. 16—24. |        |         |             |                 |                             |
| 1250 arenarius W.        | upright-sea   | ♂, Δ | ag | 4                | ap, jn     | Ap     | Britain | sea co. S s | Eng. bot. 1672  |                             |
| 1251 geniculatus E. B.   | pendulous     | ♂    | Δ  | w                | 4          | jl     | Ap      | England     | sea sh. S s     | Eng. bot. 1586              |
| 1252 sabulosus W. en.    | glaucous      | ♂    | Δ  | w                | 4          | jn, jl | Ap      | Siberia     | 1806. S co      |                             |
| 1253 giganteus W.        | gigantic      | ♂    | Δ  | or               | 5          | l. au  | Ap      | Mexico      | 1790. S co      |                             |
| 1254 sibiricus W.        | Siberian      | ♂    | Δ  | w                | 6          | jn, jl | Ap      | Siberia     | 1758. S co      | Sch. gra. 2. t. 21. f. 1    |
| 1255 tener W.            | tender        | ♂    | Δ  | w                | 2          | jn, jl | Ap      | Siberia     | 1801. S co      |                             |
| 1256 philadelphicus W.   | Philadelphian | ♂    | Δ  | w                | 4          | jl, au | Ap      | N. Amer.    | 1790. S co      |                             |
| 1257 canadensis W.       | Canadian      | ♂    | Δ  | w                | 4          | jl, au | Ap      | N. Amer.    | 1689. S co      | Mor. h. 3. t. 2. f. 10      |
| 1258 virginicus W.       | Virginian     | ♂    | Δ  | w                | 2½         | jn, jl | Ap      | Virginia    | 1781. S co      |                             |
| 1259 striatus W.         | striated      | ♂    | Δ  | w                | 2          | jn, jl | Ap      | N. Amer.    | 1790. S co      |                             |
| 1260 villosus Ph.        | villosus      | ♂    | Δ  | w                | 2          | jn, jl | Ap      | N. Amer.    | 1802. S co      |                             |
| 1261 europæus W.         | wood          | ♂    | Δ  | w                | 2          | jn, jl | Ap      | England     | woods. S a. l.  | Eng. bot. 1317              |
| 1262 crinitus Sch.       | long-awned    | ♂    | Δ  | w                | 1          | jn, jl | Ap      | Smyrna      | 1806. S co      | Schr. gr. t. 24. f. 3       |
| 1263 Cápüt-Medusæ W.     | Portuguese    | ♂    | Δ  | w                | 1          | jn, jl | Ap      | Portugal    | 1784. S co      | Schr. gr. t. 24. f. 2       |
| 1264 juncus Fisch.       | Rush          | ♂    | Δ  | w                | 2          | jn, jl | Ap      | Siberia     | 1806. S co      | Mem. msq. 1. p. 45          |
| 1265 hystrix L.          | Porcupine     | ♂    | Δ  | w                | 2          | jn, jl | Ap      | Crimea      | 1770. S co      | Jacq. ic. 2. t. 305         |
| 209. SECALE W.           | RYE.          |      |    | <i>Gramineæ.</i> | Sp. 2.     |        |         |             |                 |                             |
| 1266 ceriale W.          | common        | ♂    | Δ  | ag               | 3          | jn, jl | Ap      | Crimea      | ...             | S s. l. Host. gra. 2. t. 48 |
| 1267 orientale W.        | hairy-spiked  | ♂    | Δ  | ag               | 3          | jn, jl | Ap      | Levant      | 1807. S co      | N. ac. ber. 2. t. 4. f. 3   |
| *210. HORDEUM W.         | BARLEY.       |      |    | <i>Gramineæ.</i> | Sp. 9—12.  |        |         |             |                 |                             |
| 1268 vulgare W.          | spring        | ♂    | Δ  | ag               | 3          | jl     | Ap      | Sicily      | ...             | S r. m. Host. gra. 3. t. 34 |
| 1269 hexastichon W.      | winter        | ♂    | Δ  | ag               | 3          | jl     | Ap      | .....       | ...             | S r. m. Host. gra. 3. t. 35 |
| 1270 distichon W.        | common        | ♂    | Δ  | ag               | 3          | jl     | Ap      | Tartary     | ...             | S r. m. Host. gra. 3. t. 36 |
| 1271 Zeocriton W.        | battledore    | ♂    | Δ  | ag               | 2          | au     | Ap      | .....       | ...             | S r. m. Host. gra. 3. t. 37 |
| 1272 bulbosum W.         | bulbous       | ♂    | Δ  | w                | 3          | jl     | Ap      | Italy       | 1770. S co      | Fl. græc. 1. t. 98          |
| 1273 murinum W.          | wall          | ♂    | Δ  | w                | 1½         | ap, au | Ap      | Britain     | sal. m. S s. l. | Eng. bot. 1971              |
| 1274 pratense Roth.      | meadow        | ♂    | Δ  | w                | 2          | jn     | Ap      | Britain     | m. me. S h. l.  | Eng. bot. 409               |
| 1275 martimum W.         | sea           | ♂    | Δ  | w                | 1          | jn, jl | Ap      | Britain     | sal. m. S m. s. | Eng. bot. 1205              |
| 1276 jubatum H. K.       | long-bearded  | ♂    | Δ  | w                | 1          | jl, au | Ap      | N. Amer.    | 1782. S co      |                             |
| 211. MICROCHLOA R. Br.   | MICROCHLOA.   |      |    | <i>Gramineæ.</i> | Sp. 1.     |        |         |             |                 |                             |
| 1277 setacea R. Br.      | setaceous     | ♂    | Δ  | w                | ½          | jl     | Ap      | E. Indies   | 1806. S co      | Rox. cor. t. 132            |
| 212. OPHIURUS P. de B.   | HARD-GRASS.   |      |    | <i>Gramineæ.</i> | Sp. 3—4.   |        |         |             |                 |                             |
| 1278 incurvatus P. de B. | sea           | ♂    | Δ  | w                | ½          | jl     | Ap      | Britain     | sea co. S m. s. | Eng. bot. 760               |
| 1279 filiformis P. de B. | filiform      | ♂    | Δ  | w                | ½          | jl     | Ap      | Portugal    | 1800. S co      | Barr. ic. t. 117. f. 1      |
| 1280 pannonicus P. de B. | two-flowered  | ♂    | Δ  | w                | ½          | jl     | Ap      | Hungary     | 1804. S co      | Host. gra. 1. t. 24         |
| 213. MONERMA P. de B.    | MONERMA.      |      |    | <i>Gramineæ.</i> | Sp. 2—3.   |        |         |             |                 |                             |
| 1281 monandrum P. de B.  | monandrous    | ♂    | Δ  | w                | ½          | jl     | Ap      | Spain       | 1804. S co      | Cav. ic. t. 39. f. 1        |
| 1282 subulatum P. de B.  | subulate      | ♂    | Δ  | w                | 1          | jl     | Ap      | S. Europe   | 1806. S s. l.   | Barr. ic. t. 5              |



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

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

209. *Secale*. An ancient name, supposed to have been derived from *seco*, to cut, which word is said to have been formed from the Celtic *sega*, a sickle. This grain, of which there is probably only one species, affords a grain next in value to the wheat for making bread, and is generally used for this purpose, alone or mixed with wheat, throughout Germany and the north of Europe. It is harder and earlier than wheat. Like it, it will ripen if sown in spring, but better if treated like a winter-wheat. In Britain it is little sown. Its grain yields 750-1000 parts of soluble matter, of which 645 are mucilage, 190 gluten, and 33 sugar.

210. *Hordeum*. *Bodeus* à Stapel derives this word from *horðus*, heavy, because bread made with barley is very heavy. *Barra* is the Celtic for bread, whence the English words barn and barley; as beer is a slight alteration of the appellation of barley in that tongue. *Bere*, *Hexastichon* (½ six, *σπείρωτος*, row) signifies grain growing in six rows; *distichon* in two rows. *Zeocriton* is derived from *ζωε*, which is supposed to have been Spelt, and *σπείρωτος*, barley; that is to say, barley resembling spelt wheat. The four first species, or, more probably, sub-species, are cultivated as barleys. *H. vulgare* or two rowed barley, is that in general cultivation, and of this the rath-ripe and Thanet are preferred as varieties. *H. hexastichon* is the bear or bigg chiefly cultivated in the north of Scotland, and in Denmark and Sweden. *H. distichon* has thin husks, and is preferred for malting. *H. zeocriton* or sprat barley has short broad ears, long awns, and short coarse straw, and is not much cultivated. The native country of barley is unknown. It was cultivated by the Romans as a horse-corn, and also for the army, and the gladiators were called *Hordiarii* from their feeding on this grain. In the south of Europe they have sometimes two crops in one season; one sown in autumn and cut in May, and another

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

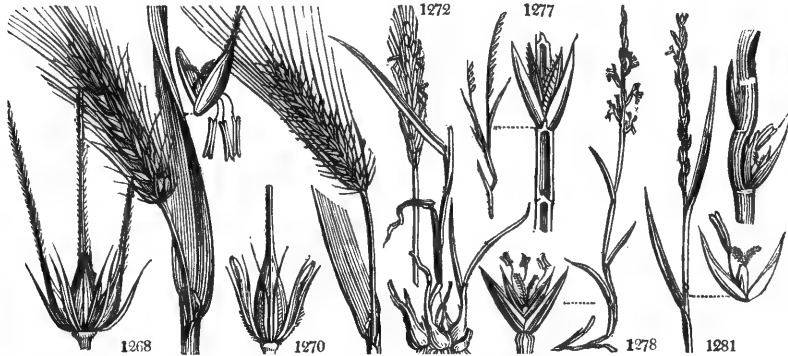
- 1266 Glumes and beard rough, Paleæ smooth toothed at the end  
 1267 Stem procumbent at base, Uppermost leafsheath tumid, Glumes and paleæ subulate bearded

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

1277 The only species

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

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



and Miscellaneous Particulars.

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

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

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

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

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

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

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

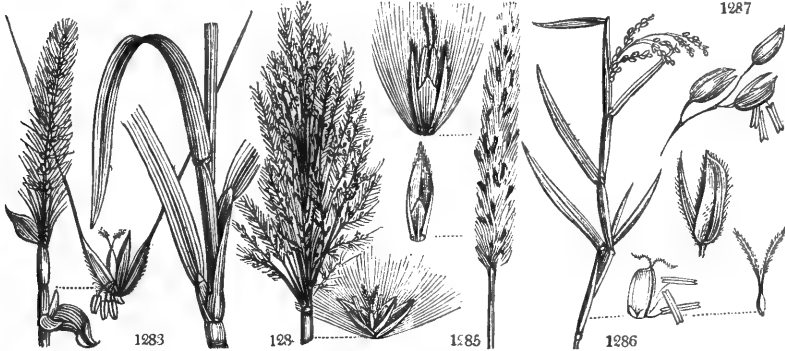
212. *Ophiturus*. A name constructed by Gartner from *opsis*, a snake, and *ura*, a tail, from a fancied resemblance in the spikes of the genus to the tail of a viper. This is the genus *Rotböllia* of English botanists: but no true species of that genus have yet been cultivated in this country.

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

|                                 |             |         |    |                  |                  |           |       |        |                      |
|---------------------------------|-------------|---------|----|------------------|------------------|-----------|-------|--------|----------------------|
| 214. PERO'TIS. <i>H. K.</i>     | PEROTTIS.   |         |    | <i>Gramineæ.</i> | <i>Sp. 1-2.</i>  |           |       |        |                      |
| 1283 latifolia <i>W.</i>        | spiked      | ☉ □ cu  | 2  | aus.             | Ap               | E. Indies | 1777. | S s.p. | Rheede. 12. t. 82    |
| 215. SAC'CHARUM. <i>W.</i>      | SUGAR-CANE. |         |    | <i>Gramineæ.</i> | <i>Sp. 1-14.</i> |           |       |        |                      |
| 1284 officinarum <i>W.</i>      | common      | ☉ □ clt | 12 | ...              | Ap               | India     | 1597. | Sk r.m | Sloan. jam. 1. t. 66 |
| 216. IMPERA'TA. <i>Cyr.</i>     | IMPERATA.   |         |    | <i>Gramineæ.</i> | <i>Sp. 1-5.</i>  |           |       |        |                      |
| 1285 arundinacea <i>Cyr.</i>    | reedy       | ☉ △ ec  | 2½ | jl.au            | Ap               | S. Europe | 1817. | S co   | Cyrill. ic. 2. t. 11 |
| 217. LEER'SIA. <i>R. Br.</i>    | LEERSIA.    |         |    | <i>Gramineæ.</i> | <i>Sp. 2.</i>    |           |       |        |                      |
| 1286 oryzoides <i>W.</i>        | rough       | ☉ △ w   | 2  | jl.au            | Ap               | Levant    | 1793. | S co   | Host. gra. 1. t. 35  |
| 1287 virginica <i>W.</i>        | Virginian   | ☉ △ w   | 1½ | jl.au            | Ap               | N. Amer.  | 1770. | S co   | Jac. ic. 2. t. 305   |
| 218. DIARRHE'NA. <i>Mich.</i>   | DIARRHENA.  |         |    | <i>Gramineæ.</i> | <i>Sp. 1.</i>    |           |       |        |                      |
| 1288 americana <i>M.</i>        | American    | ☉ △ w   | 2  | in.jl            | Ap               | N. Amer.  | 1810. | S --   | Mich. am. t. 10      |
| 219. ARUNDINA'RIA. <i>Mich.</i> | CANE-BRAKE. |         |    | <i>Gramineæ.</i> | <i>Sp. 1-2.</i>  |           |       |        |                      |
| 1289 macrospërma <i>Mich.</i>   | long-seeded | ☉ △ or  | 10 | jn               | Ap               | N. Amer.  | 1809. | S co   |                      |

## TRIGYNIA.

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



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214. *Perotis*. From *σπερς*, deficient, some parts of the flower being absent. 215. *Saccharum*. From its Arabic name *soukar*, from which the Greeks formed *σακχαρε*, and modern European nations sugar. *Sucere*, Fr. *Sucker*, Ger., &c. This grass or reed, though unknown to the ancients, has become of immense importance in modern times. There are many varieties or species both wild and cultivated, natives of the banks of rivers and meadows in both the Indies, China, Africa, the South Sea islands, and South America. It is cultivated in a zone extending from 35 to 40 degrees on each side of the equator. Where it was first cultivated is unknown; in all probability, in India, for the Venetians imported it from thence by the Red Sea prior to 1148. It is supposed to have been introduced into the islands of Sicily, Crete, Rhodes, and Cyprus by the Saracens, as abundance of sugar was made in these islands previously to the discovery of the West Indies in 1492 by the Spaniards, and the East Indies and Brazil by the Portuguese in 1497 and 1500. It was cultivated afterwards in Spain, in Valencia, Granada, and Murcia by the Moors, and sugar is still made in these provinces. (*Townsend and Jacob*.) In the 15th century the cane was introduced to the Canary islands by the Spaniards, and to Madeira by the Portuguese, and thence to the West India islands and the Brazils. The Dutch began to make sugar in the island of St. Thomas, under the line, in 1610, and the English in Barbadoes in 1643, and in Jamaica in 1644. The culture of the cane has since become general in warm climates, and the use of sugar being universal, it forms one of the first articles of commerce throughout the world. Sugar is described by Pliny and Galen as a sweet salt, and from the former it appears to have been used only in medicine. Actuarius, a physician, who wrote in the 10th century, or later, was the first to substitute sugar for honey in medicinal compositions. It was called Indian salt, and a small piece was recommended to be kept in the mouth to moisten it in fevers. Different medical men have written for and against the use of sugar, as they have against tea, coffee, wine, and all with similar success. The enjoyment derived from these articles to all mankind who enjoy them, is too great to be left off in deference to the opinions of a few. Dr. Mosely is the greatest advocate for sugar. For the last two centuries it has been an ingredient in the popular diet of Europe. It was in use in England in 1466, but chiefly in feasts and as a medicine, till it was brought from the Brazils about 1580 to Portugal, and imported from thence. The quantity consumed in Britain has always kept increasing; the consumption of England alone in 1790 amounted to 166,573,344 lbs.; which, taking the population at eight millions, gives each individual at an average about 20 lbs. a-year.

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

The cane in the West Indies is propagated by cuttings from the root end, planted in hills or trenches in spring or autumn, something in the manner of hops. The cuttings root at the joints under ground, and from those above send up shoots, which in eight, twelve, or fourteen months are from six to ten feet long, and fit to cut down for the mill. A plantation lasts from six to ten years. Sugar mills are merely iron rollers placed vertically or horizontally, between which the canes are passed and repressed. The juice thus squeezed out, is collected and boiled with quick-lime, which being an alkali, imbibes the superfluous acid, which would otherwise impede crystallization: impurities are skimmed off, and the boiling is continued till a thick syrup is pro-

1283 Culm simple, Leaves very smooth, Joints smooth

1284 Flowers paniced, Leaves flat

1285 Pan. spiked cylindrical, Leaves convolute, Joints smooth, Flowers generally diandrous

1286 Pan. diffuse sheathed, Florets 3-androus spreading, Keel of the glumes fringed

1287 Pan. diffuse, Branches horizontally spreading, Florets 3-androus, Keel of the glumes fringed

1228 The only species

1289 Smooth, Leaves linear-lanceolate distichous, Flowers paniced

### TRIGYNIA.

1290 Leaves elliptical glaucous smooth, Flowers umbelled, Common peduncle viscid

1291 Leaves cordate

1292 Stem branched 4-leaved prostrate

1293 Leaves ovate lanceolate, Flowers lateral scattered

1294 Leaves linear-lanceolate, Flowers paniced



and Miscellaneous Particulars.

duced, when the whole is cooled and granulated in shallow vessels. It is now the raw or Muscovado sugar of commerce. A further purification is effected by dissolving it in water, boiling, skimming, adding lime, and clarifying from the oily or mucilaginous parts, by adding blood or eggs, which incorporate with them and form a scum. When boiled to a proper consistency it is put into unglazed earthen vessels of a conical shape, with a hole at the apex, but placed in an inverted position, and the base, after the sugar is poured in, covered with clay. When thus drained of its impurities, it is taken out of the mould, wrapped in paper, and dried or baked in a close oven. It is now the loaf sugar of the shops, and according to the number of operations it undergoes, is called single or double refined. The operation of refining is seldom or never performed by the growers; but in Europe, at least, generally forms a separate branch in the mother country of the colony.

Sugar candy, *Shukur* and *khand*, Indian names for sugar in general, is formed by dissolving loaf sugar in water over a fire, boiling it to a syrup, and then exposing it to crystallize in a cool place. This is the only sugar esteemed in the east.

Barley sugar is a syrup from the refuse of sugar candy, hardened in cylindrical moulds.

Rum is distilled from the fermented juice of sugar and water.

Sugar as a chemical compound is described as a neutral salt, consisting of the acetic acid, united to a small quantity of oil and charcoal, carbonated hydrogen, and carbonic acid gas. Besides its use in medicine, dietetics, and distillation, it is employed to preserve animal and vegetable substances from putrefaction, and to communicate a gloss to ink, varnishes, and pigments. When very cheap, it has been successfully employed to fatten cattle. Most plants contain sugar, and it has been extracted in considerable quantities from the beet, parsnip, maple, birch, grape, &c., but the case is preferred as affording it in greater abundance.

216. *Imperata*. The derivation or application of the idea not explained. The plants resemble in their noble port and waving silky heads the plumes of a cap of state.

217. *Leersia*. Named after J. D. Leers, an author of the *Flora Herborenensis*, the first edition of which, in 1789, is very valuable on account of its rarity: but its merits have been extolled much beyond reality by Sir James Smith. One species, *L. lenticularis*, which has not yet been introduced to this country, has the power of catching flies by the singular structure of its corolla, which resembles the leaves of *Dionæa muscipula*.

218. *Diarrhæna*. A word signifying diandrous; *dis*, two, *ἄρρη*, male.

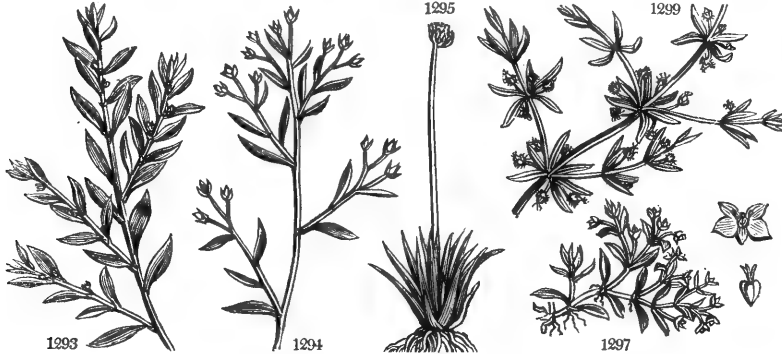
219. *Arundinaria*. An alteration of the word *Arundo*, to which genus this may be compared with reference to its large size.

220. *Holostemon*. A name derived from *ὅλος*, all, and *ὀστρον*, bone, all-bone, and applied by antiphrasis to this plant, which is no-bone, being very soft and delicate. The plant is very common in many parts of Britain, by road sides, where protected by hedges; it flowers early in the season, and keeps flowering for a long time. In coppice woods on loamy soils it grows with the greatest luxuriance, and, along with the yellow primrose, and the purple wild hyacinth, forms a most ornamental clothing to the earth in the end of April and beginning of May.

221. *Polygonum aviculare*. From *πῶλον*, many, *καρπῶς*, fruit; all-seed; one of the names applied by the ancients to the *Polygonum aviculare*, and sufficiently applicable to this plant.

222. *Lechea*. In memory of G. Lecheo, a Swede, professor of natural history at Abo, and author of observations on rare plants; died in 1764. The genus consists of small N. American plants of no beauty.

|   |        |                      |                  |                  |       |                |                     |  |
|---|--------|----------------------|------------------|------------------|-------|----------------|---------------------|--|
| *223. ERIOCAULON. <i>W.</i> PIPEWORT.   |        | <i>Eriocaulac.</i>   | <i>Sp. 2—34.</i> |                  |       |                |                     |  |
| 1295 septanguläre <i>E. B.</i> jointed  | ≡ Δ cu | ‡ s                  | W                | Scotland         | bogs  | D m.s          | Eng. bot. 77:3      |  |
| 1296 australe <i>R. B.</i> australasian | ≡ Δ cu | ‡ jn                 | W                | N. Holl.         | 1890. | D m.s          |                     |  |
| 224. MONTIA. <i>W.</i> CHICKWEED.       |        | <i>Portulacac.</i>   | <i>Sp. 2.</i>    |                  |       |                |                     |  |
| 1297 fontána <i>W.</i> water            | ≡ ○ w  | ‡ ap,my              | W                | Britain springs. | S aq  | Eng. bot. 1206 |                     |  |
| 1298 rivularis <i>Gmel.</i> brook       | ≡ ○ w  | ‡ jn,jl              | W                | Labrador         | 1823. | D m.s          |                     |  |
| 225. MOLLUGO. <i>W.</i> MOLLUGO.        |        | <i>Caryophyllec.</i> | <i>Sp. 2—7.</i>  |                  |       |                |                     |  |
| 1299 verticillata <i>W.</i> whorled     | ○ w    | ‡ jn,au              | Ap               | Virginia         | 1743. | S co           | Ehret. pict. t. 6   |  |
| 1300 triphylla <i>Lk.</i> three-leaved  | □ w    | ‡ jl                 | Ap               | Brazil           | 1821. | D m.s          |                     |  |
| 226. MINUARTIA. <i>W.</i> MINUARTIA.    |        | <i>Caryophyllec.</i> | <i>Sp. 3.</i>    |                  |       |                |                     |  |
| 1301 dichotoma <i>W.</i> forked         | ○ w    | ‡ jn,jl              | Ap               | Spain            | 1771. | S co           | Ac.st.1758.t.1.f.2  |  |
| 1302 campestris <i>W.</i> field         | ○ w    | lin jn,jl            | Ap               | Spain            | 1806. | S co           | Ac.st.1758.t.1.f.3  |  |
| 1303 montana <i>W.</i> mountain         | ○ w    | ‡ jn,jl              | Ap               | Spain            | 1806. | S co           | Loef.it.rar.t.1.f.4 |  |
| 227. QUERIA. <i>W.</i> QUERIA.          |        | <i>Caryophyllec.</i> | <i>Sp. 1—2.</i>  |                  |       |                |                     |  |
| 1304 hispánica <i>W.</i> Spanish        | ○ w    | lin my,s             | Ap               | Spain            | 1800. | S co           | Quer.f.6.t.15.f.2   |  |
| 228. KENIGIA. <i>W.</i> KENIGIA.        |        | <i>Polygonac.</i>    | <i>Sp. 1.</i>    |                  |       |                |                     |  |
| 1305 islándica <i>W.</i> Iceland        | ○ cu   | ‡ ap                 | Ap               | Iceland          | 1773. | S co           | Lam. ill. t. 51     |  |



History, Use, Propagation, Culture,

223. *Eriocaulon*. *Eciw*, wool, and *καυλος*, a stem; in allusion to the velvety stem of some species. Only one kind, *E. septangulare*, has been found in Britain. The species are all very curious, and deserving of more attention than they have received at the hands of cultivators.  
 224. *Montia*. In honor of Joseph de Monti, professor of botany and natural history at Bologna in the beginning of the 18th century. The plants are small inconspicuous weeds.  
 225. *Mollugo*. The Roman name of what is supposed to be our *Galium mollugo*, which the present plant resembles in its whorled leaves and inconspicuous appearance.



CLASS IV. — TETRANDRIA. 4 STAMENS.

This class is neither so large nor so important as the last. It is composed chiefly of ornamental or curious plants, mostly shrubs, of which the *Proteaceæ* hold the first rank. Among the few plants used in the arts which it contains, may be mentioned the madder (*Rubia*), Fuller's thistle (*Dipsacus*), the holly (*Ilex*), one of the best evergreen hedge plants; and some foreign timbers and dyes, as the sandal-wood and chayroot.

The *Proteaceæ*, of which the first section of the class partly consists, are natives chiefly of the Cape of Good Hope and New South Wales; and there is this singular circumstance connected with their geographical distribution, that these two continents do not possess any one genus in common; a singular fact, and of the more difficult solution, as the genera of the order are strictly natural. They have been described by Mr. Brown, in a long and learned memoir, in the Transactions of the Linnean Society, vol. x., where much information respecting them may be found. It has been impossible to state the natural height or color of flower of many of the New Holland kinds, as Mr. Brown says nothing upon these two points; and he is the only author who has seen the plants in their native country, where alone many of them have flowered. In the conservatory they are mostly shrubs of from four to seven feet in height.

The principal part of the fourth section of Monogynia consists of the *Stellatæ* or Crossworts, which are common weeds all over Europe.

Many of the genera in the sixth section, such as *Ixora*, *Pavetta*, *Catesbæa*, are beautiful ornaments of the conservatory. The wood of *Curtisia* in the seventh section furnishes the Caffres with materials for the shafts of their hassagays.

With the exception of *Proteaceæ*, the class is made up of a miscellaneous assemblage of species, with few characters in common. The genera have not been combined in any other than a purely artificial manner, and among them are to be found plants belonging to almost all the natural orders of Dicotyledonous plants of the older French botanists. *Pothos*, *Potamogeton*, and *Ruppia* are among the rare instances of a quaternary division of the flower in Monocotyledonous plants.



Order I. MONOGYNIA. 4 Stamens. 1 Style.

1. *Flowers incomplete, (no corolla), inferior.*

229. *Petrophila*. Cal. 4-cleft, all deciduous. Style persistent at base. Stigma spindle-shaped, narrowed at end. Scales beneath the ovary none. Cone ovate. Nut lenticular, comose at one end.

1295 Stem 7-angled, Leaves acuminate cellular, Male fl. monopetalous tetrandrous  
 1296 Stem 7-angled, Leaves flat hairy much shorter than the stem, Scales of the head powdery

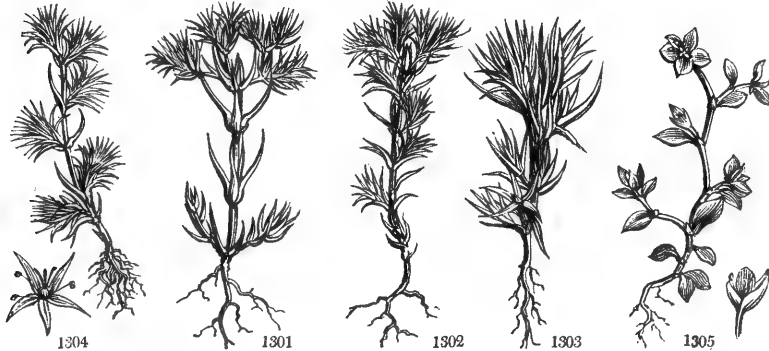
1297 Stem erect divaricating, Leaves connate-sessile oblong ovate  
 1298 Stem weak dichotomous, Leaves opp. sessile obtuse lanceolate fleshy

1299 Leaves whorled wedge-shaped acute, Stem divided decumbent, Pedunc. 1-flowered  
 1300 Stem erect, Leaves whorled thrée larger than the rest, Pan. terminal and lateral

1301 Leaves filiform dilated at base, Branches terminal capitate corymbose, Flowers axillary  
 1302 Leaves capillary, Flowers terminal stalked alternate longer than bractæe  
 1303 Leaves capillary, Corymbs leafy axillary stalked, Flowers shorter than bractæe

1304 Leaves opposite filiform, Flowers terminal heaped, Bractæe squarrose

1305 The only species



and Miscellaneous Particulars.

226. *Minuartia*. In memory of John Minuart, a Spanish botanist, and correspondent of Linnæus. He published some Opuscula in 1739.

227. *Queria*. In memory of Joseph Quer, a Spanish botanist, who published a *Flor Espagnol* in 1762, in six volumes, quarto.

228. *Kœnigia*. In honor of Emanuel Kœnig, professor of botany at Bale, and called the modern Avicenna; he died in 1731. He published several works now forgotten. The plant is a curious inconspicuous annual, occasionally seen in botanic gardens.

230. *Isopogon*. Cal. 4-cleft, with a slender tube, persistent for a long time. Style wholly deciduous. Stigma spindle-shaped or cylindrical. Scales beneath the ovary none. Nut sessile, ventricose, comose on all sides.

231. *Protea*. Cal. bipartite, unequal, with the stamen-bearing divisions of the broader lip cohering. Style subulate. Stigma narrowly cylindrical. Nut bearded on all sides, with the remains of the persistent style. Common receptacle with short persistent scales. Involucrum imbricated, persistent.

232. *Leucospermum*. Cal. irregular, labiate, with three of the segments (rarely all) cohering at the base, the stamen-bearing divisions distinct. Style filiform, deciduous. Stigma thickened, smooth, sometimes unequal-sided. Nut ventricose, sessile, smooth. Head indefinitely many-flowered. Involucrum many-leaved, imbricated.

233. *Mimetes*. Cal. 4-parted, equal, with distinct divisions. Style filiform, deciduous. Stigma cylindrical, slender. Nut ventricose, sessile, smooth. Common receptacle flat, with narrow deciduous scales. Involucrum indefinitely many-leaved, imbricated.

234. *Serruria*. Cal. 4-cleft, nearly equal, with distinct claws. Stigma vertical, smooth. Scales 4, hypogynous. Nut shortly stalked, ventricose. Head indefinitely many-flowered, with persistent imbricated scales.

235. *Nivenia*. Cal. 4-cleft, equal, wholly deciduous. Stigma clavate, vertical. Nut ventricose, shining, sessile, entire at the base. Involucrum 4-leaved in a simple series, 4-flowered, when in fruit indurated. Receptacle flat, without scales.

236. *Sorocephalus*. Cal. 4-cleft, equal, wholly deciduous. Stigma vertical, clavate. Nut ventricose on a very short stalk, or emarginate at base. Involucrum 3-6-leaved in a simple series, definitely few-flowered or 1-flowered, in fruit not altered. Recept. without scales.

237. *Spatalla*. Cal. 4-cleft, wholly deciduous, the inner segment usually largest. Stigma oblique, dilated. Nut ventricose on a short stalk. Involucrum 2-4-leaved in a simple series, 1-flowered, or definitely many-flowered. Recept. without scales.

238. *Persoonia*. Cal. 4-leaved, regular, the segments having the stamens in their middle, recurved at end, and deciduous. Stamens exerted. Glands 4, hypogynous. Ovary stalked, 1-celled, 1-2-seeded. Stigma obtuse. Drupe berried, with a 1-2-celled nut.

239. *Grevillea*. Cal. irregular, with the segments 1-sided, bearing the stamens in their hollow ends. Anthers immersed. Gland 1, hypogynous, halved. Ovary 2-seeded. Stigma oblique, depressed (sometimes nearly vertical and conical). Follicle 1-celled, 2-seeded, with a cell in the middle. Seeds edged, or with a very short wing at the end.

240. *Hakea*. Cal. 4-leaved, irregular, with the segments on one side. Stamens immersed in the concave ends of the calyx. Gland 1, hypogynous, halved. Ovary stalked, 2-seeded. Stigma nearly oblique, with a conical point from a dilated base. Follicle 1-celled, woody, with a cell out of the centre, falsely 2-valved. Seed with a wing at the end longer than the nut.

241. *Stenocarpus*. Cal. irregular, segments distinct, at one side. Stamens immersed in the concave ends of the cal. Gland 1, hypogynous, half-annular. Ovary stalked, many-seeded. Style deciduous. Stigma oblique, orbicular, flattened. Follicle linear. Seeds winged at base.

242. *Lambertia*. Cal. tubular, 4-cleft, the segments spirally revolute. Stamens inserted in the segments.

Scales 4, hypogynous, distinct or united in a sheath. Ovary 2-seeded. Stigma subulate. Follicle 1-celled, coriaceous. Seeds emarginate. Involucrum 1-7-flowered, imbricated, deciduous. Receptacle flat, without chaff.

243. *Xylomelum*. Cal. 4-leaved, regular, the segments revolute at the end. Stam. inserted above the middle of the segments. Glands 4, hypogynous. Ovary 2-seeded. Style deciduous. Stigma vertical, clavate, obtuse. Follicle thick, woody, 1-celled: the cell out of the centre. Seeds winged at end.

244. *Telopea*. Cal. irregular, on one side irregularly divided, on the other 4-toothed. Stam. immersed in the concave ends of the calyx. Gland none. Ovary stalked, many-seeded. Stigma oblique, orbicular, dilated. Follicle cylindrical. Seeds winged at end. Involucrum none.

245. *Lomatia*. Calyx irregular, with distinct 1-sided segments. Stamens immersed in the concave ends of the calyx. Glands 3, hypogynous on one side. Ovary stalked, many-seeded. Style persistent. Stigma oblique, dilated, roundish, flat. Follicle oval. Seeds winged at ends.

246. *Rhopala*. Cal. 4-leaved, regular, segments recurved at end. Stamens inserted above the middle of the segments. Scales 4, hypogynous, distinct or connate. Ovary 2-seeded. Style persistent. Stigma vertical, clavate. Follicle 1-celled, woody. Seeds winged at both ends.

247. *Banksia*. Cal. 4-parted. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody. Dissepiment loose, bifid.

248. *Dryandra*. Cal. 4-parted or 4-cleft. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody, with a loose bifid dissepiment. Common receptacle flat.

249. *Struthiola*. Cal. tubular, having 8 glands at the mouth. Berry without juice, 1-seeded.

250. *Opercularia*. Common calyx 1-leaved, campanulate, 3-6-flowered, 6-9-toothed, proper none. Seeds solitary, immersed in a closing receptacle, which is operculiform, deciduous.

251. *Cryptospermum*. Common calyx 6-leaved: leaflets spreading, unequal; proper, 3-leaved from the chaff of the receptacle. Recept. globose, chaffy. Capsules 1-celled, united into a sub-globose receptacle, opening lengthwise in the middle.

252. *Pothos*. Spathe 1-leaved. Spadix cylindrical, simple, covered with flowers. Cal. 4-leaved. Stamens next the ovary. Berry 2-seeded.

253. *Rivina*. Cal. 4-leaved, persistent. Berry 1-seeded, with a lentiform rough seed.

254. *Camporosma*. Calyx urceolate, with two opposite and alternate teeth very small. Caps. 1-seeded. Stamens exerted.

255. *Alchemilla*. Cal. 8-cleft, the alternate segments smallest. Style from the base of the ovary. Seed 1, naked, covered with the calyx.

256. *Sanguisorba*. Cal. coloured, 4-lobed, with 2 scales at the base. Caps. 4-cornered, enclosed in the calyx, 1-2-celled.

257. *Dorstenia*. Common receptacle 1-leaved, fleshy, dilated, spreading, orbicular, or angular, in which the solitary seeds nestle.

#### 2. Flowers incomplete, superior.

258. *Isarda*. Cal. campanulate, adhering to the ovary, 4-cleft. Caps. 4-celled, surrounded by the calyx, 4-cornered, many-seeded.

259. *Elaeagnus*. Cal. 4-8-cleft, campanulate on the outside rugose, inside colored, deciduous. Filaments very short between the segments of the calyx. Style short. Drupe ovate, with an oblong 1-seeded nut.

#### 3. Flowers monopetalous, 1-seeded or dicocous, inferior.

260. *Globularia*. Common calyx imbricated: proper tubular, 5-toothed. Cor. with the upper lip 2-, the lower 3-parted. Seed 1, enclosed in the calyx. Recept. chaffy.

261. *Houstonia*. Cal. 5-toothed. Cor. tubular. Caps. 2-celled, 2-valved, 2-seeded.

#### 4. Flowers monopetalous, 1-seeded or dicocous, superior.

##### DIPSACEÆ.

262. *Dipsacus*. Common calyx many-leaved; proper superior. Cor. tubular, 4-cleft. Seed 1, crowned by the calyx. Recept. conical, chaffy. Pappus cross-shaped, entire.

263. *Cephalaria*. Common calyx sub-globose, with scales more or less scarious, proper double, pappus-shaped, variously split. Receptacle chaffy.

264. *Scabiosa*. Common calyx many-leaved, proper double pappus-shaped, variously split. Receptacle chaffy.

265. *Knaulia*. Common cal. many-leaved, cylindrical, oblong, simple, 5-flowered, proper simple, superior Corolla irregular. Seed 1, crowned by the calyx. Receptacle naked.

##### STELLATÆ.

266. *Galium*. Cal. an obsolete superior edge. Cor. rotate. Seeds 2, globose.

267. *Rubia*. Cal. an obsolete superior edge. Cor. rotate, sub-campanulate. Berries 2, 1-seeded. Stam. 4-5.

268. *Asperula*. Cal. an obsolete edge, 4-toothed. Cor. monopetalous, funnel-form. Seeds 2, globose, not crowned by the calyx.

269. *Sherardia*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Seeds 2, 3-toothed, crowned by the persistent calyx.

270. *Spermacoce*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Caps. 2-celled, not divisible in two, with 2 cells, 2-toothed. Seeds with their edge rolled together over their side.

271. *Crucianella*. Cal. 2-3-leaved. Cor. monopetalous, funnel-form, with a filiform tube and an unguiculate limb. Seeds 2, linear.

#### 5. Flowers monopetalous, many-seeded, inferior.

272. *Callicarpa*. Calyx 4-toothed. Corolla tubular, campanulate, 4-cleft. Stamens exerted. Berry 4-seeded.

273. *Witheringia*. Cor. sub-campanulate, with a tube having 4 projections. Cal. very small, obsolete 4-toothed. Pericarp 2-celled, berried. Anthers conniving, opening laterally.

274. *Egiphila*. Cal. 4-toothed. Cor. 4-cleft. Style semi-bifid, filiform. Berry 2-celled. Cells 2-seeded.

275. *Cephalanthus*. Common cal. none; proper, as well as corolla, 4-toothed, tubular funnel-form. Receptacle globose. Caps. 2-4-celled, not splitting. Seeds solitary by abortion, oblong.

276. *Scoparia*. Cal. 4-parted, equal. Cor. 4-parted, rotate, with a hairy throat, regular. Stamens equal. Stigma obtuse. Capsule nearly round, 2-celled, 2-valved, with a dissepiment from the inflexed margins of the valves.

277. *Centunculus*. Cal. 4-cleft. Cor. 4-cleft, tubular, with a spreading limb. Stamens short. Caps. 2-celled, cut round, many-seeded.

278. *Plantago*. Cal. 4-cleft. Cor. quadrifid, with a reflexed limb. Stamens very long. Caps. 2-celled, cut round.

279. *Buddlea*. Calyx and corolla 4-cleft. Stamens from the incisures. Caps. 2-furrowed, 2-celled, many-seeded.

280. *Eracum*. Cal. 4-leaved. Cor. somewhat bell-shaped, 4-cleft, with a globose tube. Caps. compressed, 2-furrowed, 2-celled, many-seeded, splitting at the end.

281. *Sebea*. Cal. 4-5-parted, the sepals keeled or winged. Cor. 4-5-cleft, withering. Stamens exerted,

the anthers bursting lengthwise after flowering with a recurved callus at the end. Stigmas 2. Caps. with the valves inflexed at the edge, inserted in a central placenta, which finally becomes loose.

282. *Frasera*. Cal. deeply 4-parted, spreading. Cor. much larger than the calyx, very deeply 4-parted, spreading, the segments oval, bearded with a gland in the middle. Stamens shorter than corolla, with anthers 4-divided at the base. Stigmas 2, thick, glandular. Caps. oval, much compressed, 1-celled, 2-valved at the edge. Seeds 8-12, elliptical, with a membranous edge.

283. *Penaea*. Cal. 2-leaved deciduous. Cor. campanulate. Style quadrangular. Stigma 4-lobed. Caps. 4-cornered, 4-valved, 8-seeded.

284. *Blaeria*. Calyx 4-parted. Corolla 4-cleft, somewhat campanulate. Seeds inserted into a receptacle. Caps. 4-celled, many-seeded, opening at the angles.

#### 6. Flowers monopetalous, 2 or many-seeded, superior.

285. *Chomelia*. Cal. 4-parted, tubular, with unequal segments. Cor. hypocrateriform, 4-parted. Drupe oval, inferior, with a 2-celled, 2-seeded nut. Stigmas 2, thickish.

286. *Ailna*. Cal. 4-5 cleft, with an occasional toothlet between the divisions. Corolla infundibular. Filaments inserted into the mouth of corolla. Stigma turbinate. Seeds 2-3 in each cell. Flowers in heads.

287. *Bouvardia*. Cal. 4-leaved, with some teeth between. Corolla tubular. Anthers included. Caps. 2-partible, many-seeded. Seeds edged.

288. *Isora*. Cal. 4-parted. Cor. monopetalous, funnel-shaped, long. Stamens above the throat. Berry 4-seeded.

289. *Catesbea*. Cal. 4-toothed, very small. Cor. funnel-shaped, very long. Stamens within the throat. Stigma simple. Berry 2-celled, many-seeded.

290. *Pavetta*. Cal. 4-toothed. Cor. monopetalous, funnel-form. Stigma thickened, incurved. Berry 1-2-seeded, 1-celled.

291. *Ernodea*. Cal. 4-parted. Cor. hypocrateriform. Style simple. Berry 2-celled. Seeds 2, solitary.

292. *Siderodendrum*. Cal. small, 4-toothed. Cor. hypocrateriform, 4-cleft, with an incurved tube. Stigmas 2, revolute. Berry 2-coccos, 2-celled, dry, with a contrary dissepiment. Seeds 2, solitary.

293. *Coccyphyllum*. Cal. 4-parted. Cor. funnel-shaped. Berry inflated, 2-celled, many-seeded. Style half 2-cleft.

294. *Mitchella*. Cal. 2, on one ovary, 4-parted. Cor. funnel-shaped, hairy within. Stigmas 4. Berry bifid, 4-seeded.

295. *Oudenandia*. Cal. 5-toothed, persistent. Cor. of 5 petals inserted into the calyx.

296. *Manettia*. Cal. 8-leaved. Cor. quadrifid, tubular. Caps. 2-valved, 1-celled. Seeds imbricated, orbiculate, with a central point.

#### 7. Flowers polypetalous, inferior.

297. *Epimedium*. Cal. 4-leaved, caducous, opposite the petals. Nectaries 3, cup-shaped, incumbent upon the petals. Pod 1-celled, 2-valved, many-seeded.

298. *Ptelea*. Cal. 4-parted. Pet. coriaceous. Stigmas 2. Samara roundish with a 1-seeded centre, or 2-celled, 2-seeded.

299. *Monetia*. Cal. 4-cleft, urceolate. Pet. 4, revolute, linear. Berry 2-celled, with 2-seeded cells, one of which is usually abortive.

300. *Curtisia*. Cal. 4-parted. Petals 4, obtuse. Drupe roundish succulent. Nut 4-5-celled.

301. *Hartogia*. Cal. 4-5-cleft. Petals 4, spreading. Drupe not juicy, ovate. Nut rather fleshy, 2-seeded.

302. *Ammannia*. Cal. 1-leaved, campanulate, plaited, 8-toothed. Pet. 4, inserted in the calyx, or very often none. Caps. 2-4-celled, many-seeded.

303. *Ragaria*. Cal. 4-5-cleft. Corolla of 4-5 petals, which are shorter than the stamens. Cal. 2-valved, 1-2-celled, 1-seeded, simple or compound. Stam. 4-5-8.

304. *Zieria*. Cal. 4-cleft. Cor. of 4 petals. Stam. 4, smooth, with filaments inserted into a gland. Style simple. Stigma 4-lobed. Caps. 4, connivent. Seeds with an arillus.

#### 8. Flowers polypetalous, superior.

305. *Cissua*. Cal. 1-leaved, nearly entire. Berry 1-seeded, rarely 3-4-seeded, surrounded by the calyx.

306. *Cornus*. Involucre 4-leaved in some. Cal. 4-toothed. Pet. 4. Drupe with a 2-celled nut.

307. *Santalum*. Cal. 4-superior, campanulate, 4-cleft. Pet. 4, squamiform. Berry 1-seeded. Embryo inverse, albuminous.

308. *Trapa*. Cal. 4-parted. Nut with 2 opposite spines proceeding from the leaves of the calyx, 1-celled, 1-seeded.

309. *Ludwigia*. Cal. 4-parted, superior, with long persistent sepals. Cor. 4-petals or 0. Caps. 4-cornered, 4-celled, crowned, inferior, many-seeded.

#### Order 2. DIGYNIA.



4 Stamens. 2 Styles.

310. *Cuscuta*. Cor. 4-fid, ovate. Cal. 4-fid. Caps. 2-celled, cut round.

311. *Byfonia*. Cal. 4-leaved. Pet. 4, shorter than calyx. Caps. 1-celled, 2-valved, 2-seeded.

312. *Hamamelis*. Involucre 3-leaved. Sepals 4. Petals 4, linear, very long. Nut 2-horned, 2-celled.

313. *Hypocoonum*. Cal. 2-4-leaved. Pet. 4, the two exterior widest. Fruit a silique.

#### Order 3. TETRAGYNIA.



4 Stamens. 4 Styles.

314. *Myginda*. Cal. 4-toothed, very small, persistent. Pet. 4, rounded, flat, spreading. Stamens shorter than corolla. Style short. Stigmas 2-4. Drupe globose, 1-celled, with a 1-seeded nut.

315. *Ilex*. Cal. 4-5-toothed. Cal. rotate, 4-cleft. Style 0. Berry 4-seeded.

316. *Goldenia*. Cor. 1-petalous. Cal. 4-leaved. Seeds 2, 2-celled.

317. *Potamogeton*. Sepals 4. Pet. 0. Style 0. Seeds 4, sessile.

318. *Ruppia*. Cal. and Cor. 0. Seeds 4-stalked.

319. *Sagina*. Sepals 4. Pet. 4. Caps. 4-celled, 4-valved, many-seeded.

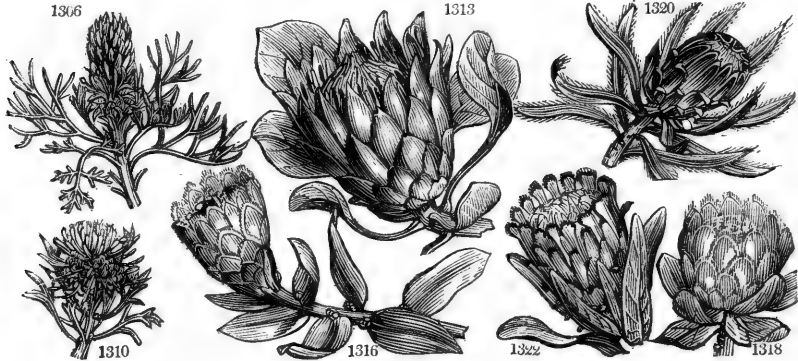
320. *Tilaea*. Cal. 3-5-parted. Pet. 3-5, equal. Caps. 3-5, 2 or many-seeded, opening inwards. Nectary none.

321. *Radiola*. Cal. many-cut. Pet. 4. Caps. superior, 4-8-valved, 8-celled, globose. Seeds solitary.



## MONOGYNIA.

|  |                   |                   |     |       |      |          |       |                           |
|--|-------------------|-------------------|-----|-------|------|----------|-------|---------------------------|
| 229. <b>PETROPHILA</b> . <i>R. Br.</i> <b>PETROPHILA</b> .     | <i>Protea</i> ca. | <i>Sp.</i> 2—10.  |     |       |      |          |       |                           |
| 1306 pulchella <i>R. Br.</i> Fennel-leaved                     | ■                 | or                | 5   | jl.au | W    | N. S. W. | 1790. | S s.p Bot mag. 796        |
| 1307 diversifolia <i>R. Br.</i> various-leaved                 | ■                 | or                | 5   | ...   | ...  | N. Holl. | 1803. | S s.p                     |
| †230. <b>ISOPOGON</b> . <i>R. Br.</i> <b>ISOPOGON</b> .        | <i>Protea</i> ca. | <i>Sp.</i> 5—13.  |     |       |      |          |       |                           |
| 1308 anethifolius <i>R. Br.</i> Dill-leaved                    | ■                 | or                | 5   | mr.jn | Pa   | N. Holl. | 1796. | S s.p Cav. ic. 6. t. 549  |
| 1309 formosa <i>R. Br.</i> handsome                            | ■                 | or                | 4   | mr.jn | Pa   | N. Holl. | 1805. | S s.p                     |
| 1310 anemónifolius <i>R. Br.</i> Anemone-leav.                 | ■                 | or                | 5   | jl.au | Y    | N. Holl. | 1791. | S s.p Bot. mag. 697       |
| 1311 trilobus <i>R. Br.</i> three-lobed                        | ■                 | or                | 4   | my.jn | Pa   | N. Holl. | 1803. | S s.p                     |
| 1312 attenuatus <i>R. Br.</i> attenuate                        | ■                 | or                | 4   | ...   | Pa   | N. Holl. | 1822. | S s.p                     |
| 231. <b>PROTEA</b> . <i>R. Br.</i> <b>PROTEA</b> .             | <i>Protea</i> ca. | <i>Sp.</i> 36—55. |     |       |      |          |       |                           |
| 1313 cynaroides <i>R. Br.</i> Artichoke-fld.                   | ■                 | or                | 1½  | mr.n  | Pu   | C. G. H. | 1774. | C s.l Bot. mag. 770       |
| 1314 latifolia <i>Kn. Pr.</i> ray-flowered                     | ■                 | or                | 7   | jl.s  | Pu   | C. G. H. | 1806. | S s.l Bot. mag. 1717      |
| 1315 compacta <i>R. Br.</i> compact                            | ■                 | or                | 6   | ...   | ...  | C. G. H. | 1810. | C s.l.p                   |
| 1316 longiflora <i>R. Br.</i> milk-colored                     | ■                 | or                | 7   | ja.mr | Pa   | C. G. H. | 1795. | C s.l.p Ex. bot. 2. t. 81 |
| 1317 speciosa <i>R. Br.</i> splendid                           | ■                 | or                | 2   | mr.jn | Pu   | C. G. H. | 1786. | S s.l Bot. mag. 1183      |
| 1318 obtusa <i>Kn. Pr.</i> obtuse                              | ♣                 | or                | 10  | ...   | Re   | C. G. H. | 1786. | C s.l.p Bot. rep. 110     |
| 1319 formosa <i>R. Br.</i> crown-flowered                      | ■                 | or                | 6   | my.jn | Re   | C. G. H. | 1789. | S s.l Bot. mag. 1713      |
| 1320 melaleuca <i>R. Br.</i> black-fringed                     | ■                 | or                | 6   | mr.jl | D.pu | C. G. H. | 1786. | C s.l.p Bot. rep. 103     |
| 1321 Lepidocarpon <i>R. Br.</i> crested                        | ■                 | or                | 6   | mr.jl | D.pu | C. G. H. | 1806. | S s.l Bot. rep. 301. 8    |
| 1322 nerifolia <i>R. Br.</i> Oleander-leav'd                   | ■                 | or                | 6   | f.ap  | W    | C. G. H. | 1806. | C s.l.p Bot. rep. 208     |
| 1323 pulchella <i>R. Br.</i> wave-leaved                       | ■                 | or                | ... | mr.au | Re   | C. G. H. | 1795. | L s.l Bot. rep. 20        |
| 1324 patens <i>R. Br.</i> spreading                            | ■                 | or                | 2   | mr.jn | W.pu | C. G. H. | 1783. | C s.l Bot. rep. 543       |
| 1325 magnifica <i>Kn. Pr.</i> magnificent                      | ■                 | or                | 6   | mr.jn | W    | C. G. H. | 1789. | S s.l Bot. rep. 438       |
| 1326 longifolia <i>R. Br.</i> long-leaved                      | ■                 | or                | 2   | mr.au | Pu   | C. G. H. | 1798. | S s.l Bot. rep. 47        |
| 1327 umbonalis <i>Kn. Pr.</i> embossed                         | ■                 | or                | 7   | mr.au | W.bk | C. G. H. | 1798. | C s.l.p Bot. rep. 144     |
| 1328 ligulifolia <i>Kn. Pr.</i> strap-leaved                   | ■                 | or                | 7   | mr.au | Pu   | C. G. H. | 1798. | C s.l Bot. rep. 133       |
| 1329 mellifera <i>R. Br.</i> honey-bearing                     | ■                 | or                | 6   | my.d  | Pa.Y | C. G. H. | 1774. | S s.l Bot. mag. 346       |
| 1330 grandiflora <i>R. Br.</i> great-flowered                  | ♣                 | or                | 8   | my.jn | W    | C. G. H. | 1787. | S p.l Bot. rep. 569       |
| 1331 Scelymus <i>R. Br.</i> small-flowered                     | ■                 | or                | 3   | my.jn | Pu   | C. G. H. | 1780. | C s.l Bot. mag. 698       |
| 1332 mucronifolia <i>R. Br.</i> dagger-leaved                  | ■                 | or                | ... | jl.d  | W    | C. G. H. | 1803. | C s.l Bot. mag. 933       |
| 1333 incómpta <i>R. Br.</i> bearded                            | ■                 | or                | 3   | ap.my | W    | C. G. H. | 1822. | C s.l.p                   |
| 1334 nana <i>R. Br.</i> dwarf                                  | ■                 | or                | 2   | ap.jl | Pk   | C. G. H. | 1787. | C s.l.p Ex. bot. 1. t. 44 |
| 1335 pendula <i>R. Br.</i> pendulous                           | ■                 | or                | 2   | mr.jn | ...  | C. G. H. | 1806. | C l.p                     |
| 1336 tenax <i>R. Br.</i> tough                                 | ■                 | or                | 2   | f.my  | Y    | C. G. H. | 1801. | C l.p Par. lond. 70       |
| 1337 canaliculata <i>R. Br.</i> channel-leaved                 | ■                 | or                | 3   | f.d   | Pk   | C. G. H. | 1800. | S s.l Bot. rep. 437       |
| 1338 acuminata <i>R. M.</i> sharp-pointed                      | ■                 | or                | 3   | mr.jn | Pu   | C. G. H. | 1803. | C s.l Bot. mag. 1694      |
| 1339 acalis <i>R. Br.</i> short-stalked                        | ■                 | or                | 1½  | my.s  | Pu   | C. G. H. | 1802. | S s.l Bot. mag. 2065      |
| β glaucophylla <i>Kn. P.</i> glaucous-leaved                   | ■                 | or                | 1½  | ...   | G    |          |       | Par. lond. 11             |
| 1340 laevis <i>R. Br.</i> smooth-leaved                        | ■                 | or                | ½   | ...   | G    | C. G. H. | 1806. | C l.p Bot. mag. 2439      |
| 1341 scabra <i>R. Br.</i> rough-leaved                         | ■                 | or                | ½   | ...   | Br   | C. G. H. | 1809. | C l.p                     |
| 1342 repens <i>R. Br.</i> creeping                             | ■                 | or                | ½   | ...   | Y    | C. G. H. | 1800. | C s.l Weimm. t. 897. a    |
| 1343 turbiniflora <i>R. Br.</i> turfy                          | ■                 | or                | ½   | ap.my | Pk   | C. G. H. | 1803. | C l.p Par. lond. 108      |
| 1344 Scolopendrium <i>R. Br.</i> turfy                         | ■                 | or                | ½   | ...   | ...  | C. G. H. | 1802. | S s.l                     |
| 1345 cordata <i>R. Br.</i> heart-leaved                        | ■                 | or                | 1½  | mr.my | Pu   | C. G. H. | 1790. | S s.l Bot. rep. 289       |
| 1346 amplexicaulis <i>R. Br.</i> stem-clasping                 | ■                 | or                | 1½  | ja.mr | Pu   | C. G. H. | 1802. | S p.l Par. lond. 67       |
| 1347 humilis <i>R. Br.</i> low-flowering                       | ■                 | or                | 1   | jn.au | Br   | C. G. H. | 1802. | S s.l Bot. rep. 532       |
| 1348 acerosa <i>R. Br.</i> Pine-leaved                         | ■                 | or                | 3   | mr.my | Pk   | C. G. H. | 1803. | C s.l Bot. rep. 577       |
| 232. <b>LEUCOSPERMUM</b> . <i>R. Br.</i> <b>LEUCOSPERMUM</b> . | <i>Protea</i> ca. | <i>Sp.</i> 12—18. |     |       |      |          |       |                           |
| 1349 lineare <i>R. Br.</i> linear-leaved                       | ■                 | or                | 4   | ...   | ...  | C. G. H. | 1774. | C s.l Th. prot. n.35. t.4 |
| 1350 tectum <i>R. Br.</i> smooth-bracted                       | ■                 | or                | 3   | jn.au | Y    | C. G. H. | 1774. | S p.l                     |
| 1351 médium <i>R. Br.</i> oval-leaved                          | ■                 | or                | 3   | my.jn | O    | C. G. H. | 1794. | C l.p Bot. rep. 17        |



## History, Use, Propagation, Culture.

229. *Petrophila*. From *πετρος* and *φίλας*, to love rocks, in allusion to the places in which it is found growing in a wild state. Stiff shrubs, with smooth leaves of various kinds. Heads of flowers ovate or oblong, terminal or axillary. Ripened cuttings root in sand under a hand-glass.

230. *Iso Pogon*. This genus consists of stiff shrubs, with smooth, flat or filiform, divided or entire leaves. Heads terminal or rarely axillary. Flowers sometimes closely imbricated in a globose cone, sometimes clustered in a common flat receptacle which is somewhat involucreated; they thrive best in a soil composed of one-third loam, a third of peat, and a third of sand. The pots must be well drained, and ripened wood may be chosen for cuttings which will root in sand and a little earth under a hand-glass. They must be uncovered frequently, and the glass wiped, as they are liable to damp off if kept too close. (Sweet.)

231. *Protea*. A mythological name of Proteus the son of Ocean and Thetis, who assumed various forms upon various occasions, to whom this genus, once equally variable in its forms, has been likened. It, as Sweet observes, thrives best in a soil composed of "light turfy loam, mixed with rather more than one-third of fine sand; the pots must be well drained with broken potsherds to prevent them from getting soddened with too much water; the roots are also very fond of running amongst the small bits of sherds. Care must be taken not

## MONOGYNIA.

- 1306 Leaves trifid bipinnate, Segments erect, Flowers silky their segments tomentose at end  
 1307 Leaves bi-tri-pinnatifid plain, Segments mucronate, Flowers bearded, Cones axillary stalked

- 1308 Leaves pinnatifid and bipinnatifid filiform furrowed above, Segments erect, Branches smooth  
 1309 Leaves bipinnatifid somewhat tritermate filif. chan. above, Segments divaricating, Branchlets tomentose  
 1310 Leaves trifid pinnatifid or bipinnatifid, Leaves linear flat spreading erect smooth beneath  
 1311 Leaves wedge-shaped flat 3-lobed attenuated at base stalked lobes entire, Branchlets tomentose  
 1312 Leaves elongate oblong mucronate attenuate at base, Branches and involucre smooth

*Flowers terminal.*

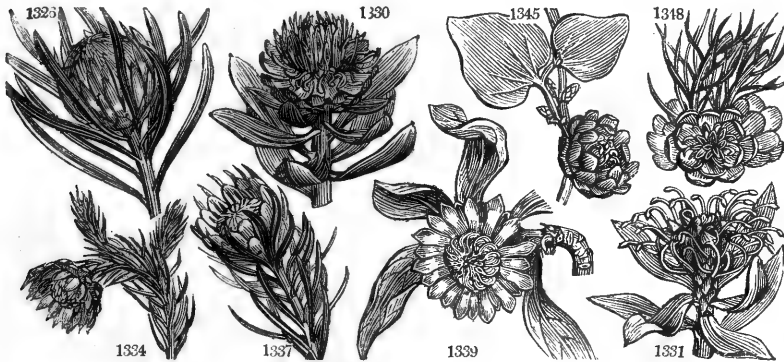
- 1313 Leaves roundish stalked, Invol. silky, Inner bractes acute beardless, Style pubescent below the middle  
 1314 Leaves broad ovate  $\frac{1}{2}$  cordate sessile, Invol. silky toment. Inner bractes narr. dilated at end and bearded  
 1315 Leaves ovate oblong cordate edged the callus of the end prominent, Invol. silky fringed beardless  
 1316 Leaves ov. obl. sessile subcord. or simple, Branches toment. Invol. silky, Inner bracte elong. fringed silky  
 1317 Leaves ov. obl. narr. at base with branches smooth, All the bractes sim. inn. dilat. at end and beard. in mid.  
 1318 Leaves glaucous obov. the adult smooth, Bractes red the upper lyrate spatul. fimb. obt. Petals obtuse  
 1319 Leaves narr. oblong veiny oblique simple at base, the edges and branches downy, Involucre ciliated  
 1320 Leaves linear ligulate edged ciliated, Branches hairy, Invol. long turbinate, Bract. fringed with white  
 1321 Leaves linear ligulate edged roughish shining with the branches smooth, Inner bract. of invol. spatulate  
 1322 Leaves linear ligulate smooth opaque at base outside with the branches downy, Invol. fringed with black  
 1323 Leaves linear ligulate edged shining roughish, Branches little downy, Invol. fringed with black  
 1324 Leaves narrow oblong rather wavy attenuated at base, Invol. hemisph. inner bearded with black and purple  
 1325 Leaves broad long elliptical edged the old ones pubescent wavy, Bractes pale yellow, the upper fringed  
 1326 Leaves elong. lin. atten. at base, Inv. turb. Bractes smooth acute beardl. Beards of cal. longer than segm.  
 1327 Leaves long ligulate, Head broad convex embossed in middle, Upper bractes spatul. the length of flower  
 1328 Leaves long ligulate, Head broad not convex, Upper bractes spatulate longer than flowers  
 1329 Leaves lanc. ligul. attenu. at base, Inv. turb. Bractes smooth beardl. viscid, Beards of flow. woolly white  
 1330 Leaves obl. sessile and branches smooth, Invol. hemispherical beardl. naked, Fl. toment. Style smooth  
 1331 Leaves lin. lanceolate acute submucr. attenuated at base, Invol. hemispherical, Bractes smooth obtuse  
 1332 Leaves lanc. lin. mucr. pungent with an obtuse base, Bractes lanc. mucr. smooth, Stem erect many-flow.  
 1333 Leaves ligulate oblong the upper and the branches hairy, Inner bractes with a round and bearded end  
 1334 Leaves subulate mucronate, Invol. nodding hemispherical, Bract. smooth obtuse  
 1335 Leaves linear lanceolate mucronate, Flower-bearing branches recurved, Bract. obtuse at length smooth  
 1336 Leaves lin. lanc. flat attenuated at base roughish at edge, Branches decumbent, Invol. hemisph.  
 1337 Leaves linear veinless smooth concave above, Branches smooth decumbent, Invol. obtuse  
 1338 Leaves lin. lanc. acute flat veiny above, Bractes obtuse pubesc. and conc. at end, Branches wavy colored  
 1339 Stems short with depressed branches, Leaves obov. obl. edged veiny attenuat. at base, Invol. hemispher.  
 $\beta$  Leaves more glaucous and narrow

- 1340 Stems dwarf decumb. Leaves elong. lin. smooth veinless recurved at edge, Invol. hemispherical  
 1341 Leaves dwarf, Leaves elong. lin. scabrous obsolete veiny recurv. at edge, Invol. turbinate hemispher.  
 1342 Stems decumb. dwarf, Leaves elong. lin. roughish revol. at edge, Invol. turb. Bractes obtuse tomentose  
 1343 Stems dwarf, Leaves elongate lanc. edged subundulate smooth, Invol. turb. Bractes tomentose obtuse  
 1344 Stems dwarf, Leaves elongate lanc. edged smooth, Invol. turbinate, Bractes lanceolate acuminate

*Flowers lateral.*

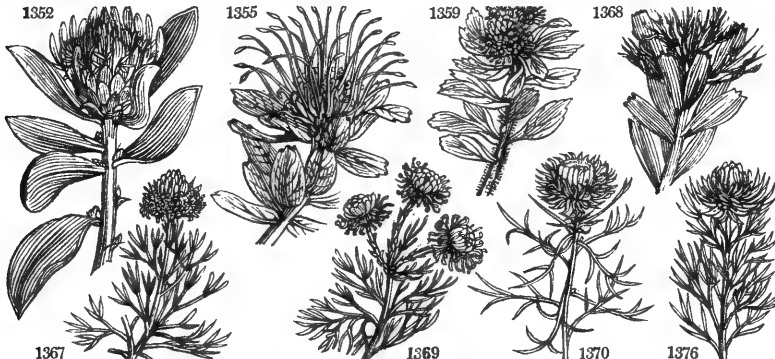
- 1345 Leaves cordate roughish nerved, Bractes smooth  
 1346 Leaves cordate ovate, Stem clasping divaricate recurved at the end, Bractes pubescent  
 1347 Leaves linear acute, Receptacle conical, Paleae acute  
 1348 Leaves subulate, Receptacle convex, Paleae obtuse

- 1349 Style longer than the hairy flower, Stigma gibbous on one side, Invol. downy, Leaves linear entire  
 1350 Style a quarter longer than the hairy flow. Stigma gibb. on one side, Leaves lin. obl. veiny ent. obt. at base  
 1351 Style nearly twice as long as hairy flow. Stigma gibb. on one side, Leaves lin. obl. entire or 2 or 3-toothed

*and Miscellaneous Particulars.*

to let them droop for want of water, as the young roots are of a very fleshy substance, and soon suffer by too much drought, as well as by too much wet, so that they seldom recover if suffered to flag much; they also like to be placed where they may have a free circulation of air, as they cannot bear to be crowded like some more rigid-growing plants. Ripened cuttings taken off at a joint, and pared quite smooth, will strike root if planted thinly in pots of sand placed under a hand-glass, but not plunged: the glasses must be often taken off to give them air, as they are very liable to get the damp amongst them, which soon spreads if not cleaned off, and destroys them; water them regularly whenever they want it, but not over the leaves, and let them get a little dry before the glasses are placed over them again. Some of the kinds root very soon, others are a long time before they root. The quickest rooting kinds I have met with are *P. cordata*, *cynaroides*, *amplexicaulis*, *grandiflora*, *acerosa*, *nana*, and *acaulis*. *P. mellifera* also roots very quickly sometimes. The same treatment will agree with several other genera belonging to this family, as *Leucospermum*, *Spatalla*, *Sorocephalus*, *Leucaedendron*, and *Aulax*. (See *Bot. Mag.* No. 1717. *Bot. Cult.* 244.) There are several kinds in cultivation, and published in Knight's *Proteaceae*, which have not been retained here; because, as they are not acknowledged by Mr. R. Brown, it is probable that they are not distinct from some which are here enumerated."

|       |                                  |                  |   |    |    |       |                    |            |       |   |       |                            |
|-------|----------------------------------|------------------|---|----|----|-------|--------------------|------------|-------|---|-------|----------------------------|
| 1352  | <i>formosum</i> Kn. Pr.          | handsome         | ☐ | or | 4  | my.au | Pk                 | C. G. H.   | 1774. | S | p.l   | Bot. rep. 469              |
| 1353  | <i>ellipticum</i> R. Br.         | elliptic         | ☐ | or | 4  | my.au | Y                  | C. G. H.   | 1803. | C | l.p   |                            |
| 1354  | <i>conocarpum</i> R. Br.         | many-toothed     | ☐ | or | 3  | ...   | Y                  | C. G. H.   | 1774. | S | p.l   | Pl. pht. t. 200. f.2       |
| 1355  | <i>grandiflorum</i> R. Br.       | great-flowered   | ☐ | or | 4  | my.jl | Y                  | C. G. H.   | 1800. | S | p.l   | Par. lond. 116             |
| 1356  | <i>puberum</i> R. Br.            | downy-leaved     | ☐ | or | 2  | my.au | Y                  | C. G. H.   | 1774. | C | s.l   |                            |
| 1357  | <i>tomentosum</i> Kn. Pr.        | cottony          | ☐ | or | 2  | aus.  | Y                  | C. G. H.   | 1789. | S | p.l   |                            |
| 1358  | <i>párilis</i> Kn. Pr.           | matched          | ☐ | or | 2  | aus.  | Y                  | C. G. H.   | 1789. | C | l.p   |                            |
| 1359  | <i>cándicans</i> B. R.           | Rose-scented     | ☐ | or | 2  | aus.  | Y                  | C. G. H.   | 1790. | S | p.l   | Bot. rep. 294              |
| 1360  | <i>Hypophyllum</i> R. Br.        | trifid-leaved    | ☐ | or | 1½ | ...   | Y                  | C. G. H.   | 1787. | S | p.l   | Pl. am. t. 440. f.3        |
| 233.  | MIMETES. R. Br.                  | MIMETES.         |   |    |    |       | <i>Proteaceae.</i> | Sp. 6—13.  |       |   |       |                            |
| 1361  | <i>hirta</i> R. Br.              | hairy            | ☐ | or | 3½ | in.au | R                  | C. G. H.   | 1774. | C | s.l   | W. ph. 4. t. 899. f. a     |
| 1362  | <i>pálstris</i> Kn. Pr.          | marsh            | ☐ | or | 4  | in.au | Pu                 | C. G. H.   | 1802. | C | l.p   | B. lqd. 2. p. 194. c.t     |
| 1363  | <i>cuculláta</i> R. Br.          | three-toothed.   | ☐ | or | 2  | ...   | Pu                 | C. G. H.   | 1789. | S | p.l   | P. a. l. 212. t. 304. f. 6 |
| 1364  | <i>divarienáta</i> R. Br.        | divaricate       | ☐ | or | 1½ | in.s. | W                  | C. G. H.   | 1795. | C | s.l   |                            |
| 1365  | <i>vacciniifolia</i> Sweet.      | Vacciniun-ld.    | ☐ | or | 3  | ...   | Pu                 | C. G. H.   | 1800. | C | l.p   |                            |
| 1366  | <i>purpurea</i> R. Br.           | Heath-leaved     | ☐ | or | 2  | n.d.  | Pu                 | C. G. H.   | 1789. | C | s.l   |                            |
| 234.  | SERRURIA. R. Br.                 | SERRURIA.        |   |    |    |       | <i>Proteaceae.</i> | Sp. 20—46. |       |   |       |                            |
| 1367  | <i>arífaniifolia</i> Kn. P.      | Southernw-ld.    | ☐ | or | 4  | in.au | Pk                 | C. G. H.   | 1803. | C | l.p   | Bot. rep. 522              |
| 1368  | <i>millefólia</i> Kn. P.         | thousand-leaf'd  | ☐ | or | 4  | in.au | Pu                 | C. G. H.   | 1803. | C | l.p   | Bot. rep. 337              |
| 1369  | <i>artemisiiefólia</i> Kn. P.    | wormwood-ld.     | ☐ | or | 5  | in.au | Pu                 | C. G. H.   | 1789. | C | l.p   | Bot. rep. 264              |
| 1370  | <i>pinnáta</i> R. Br.            | slend.-creeping  | ☐ | or | 1  | in.au | Pk                 | C. G. H.   | 1803. | S | p.l   | Bot. rep. 512              |
| 1371  | <i>arenária</i> R. Br.           | sand             | ☐ | or | 1  | in.au | Pu                 | C. G. H.   | 1803. | C | s.p   |                            |
| 1372  | <i>cyanoides</i> R. Br.          | trifid-leaved    | ☐ | or | 1½ | in.au | Pu                 | C. G. H.   | 1803. | S | p.l   | Pl. am. t. 345. f. 6       |
| 1373  | <i>pedunculáta</i> R. Br.        | woolly-headed    | ☐ | or | 7  | in.au | Pu                 | C. G. H.   | 1789. | C | p.l.s | Bot. rep. 264              |
| 1374  | <i>Nivéni</i> R. Br.             | decumbent        | ☐ | or | 4  | in.au | Pu                 | C. G. H.   | 1800. | C | s.p.l | Bot. rep. 349              |
| 1375  | <i>ciliáta</i> R. Br.            | ciliated         | ☐ | or | 2  | in.au | Pu                 | C. G. H.   | 1803. | C | s.l   |                            |
| 1376  | <i>phylícoides</i> R. Br.        | Phlyca-flower.   | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1788. | S | p.l   | Bot. rep. 507. f. 4        |
| 1377  | <i>æmula</i> R. Br.              | grey-branched    | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1803. | C | l.p   |                            |
| 1378  | <i>párilis</i> Kn. P.            | matched          | ☐ | or | 2  | in.au | Pk                 | C. G. H.   | 1803. | C | p.l   | Bot. rep. 507              |
| 1379  | <i>odoráta</i> Sweet.            | sweet-scented    | ☐ | or | 2  | in.au | Pu                 | C. G. H.   | 1803. | C | p.l   | Bot. rep. 545              |
| 1380  | <i>emargináta</i> Sweet.         | emarginated      | ☐ | or | 2  | in.au | Pk                 | C. G. H.   | 1800. | C | p.l   | Bot. rep. 536              |
|       | <i>Serrúria arenária</i> Kn. Pr. | Kn. Pr.          |   |    |    |       |                    |            |       |   |       |                            |
| 1381  | <i>glomeráta</i> R. Br.          | many-headed      | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1789. | S | p.l   | Bur. afr. t. 99. f. 2      |
| 1382  | <i>decepiens</i> R. Br.          | deceptive        | ☐ | or | 4  | in.au | Pu                 | C. G. H.   | 1806. | C | l.p   |                            |
| 1383  | <i>Roxbárgi</i> R. Br.           | Roxburgh's       | ☐ | or | 3  | in.au | W                  | C. G. H.   | 1806. | C | l.p   |                            |
| 1384  | <i>Burmánni</i> R. Br.           | Burmunn's        | ☐ | or | 2½ | in.au | Pu                 | C. G. H.   | 1786. | C | l.p   | Bur. afr. t. 90. f. 1      |
| 1385  | <i>triternáta</i> R. Br.         | silvery-flower'd | ☐ | or | 7  | in.au | W                  | C. G. H.   | 1802. | S | p.l   | Bot. rep. 447              |
| 1386  | <i>elóngáta</i> R. Br.           | long-stalked     | ☐ | or | 1½ | in.au | Pu                 | C. G. H.   | 1800. | C | l.p   |                            |
| 235.  | NIVENIA. R. Br.                  | NIVENIA.         |   |    |    |       | <i>Proteaceae.</i> | Sp. 5—12.  |       |   |       |                            |
| 1387  | <i>Scéptrum</i> R. Br.           | sceptre-like     | ☐ | or | 2  | my.jn | W                  | C. G. H.   | 1790. | S | p.l   |                            |
| 1388  | <i>spáthuláta</i> R. Br.         | maiden-hair-iv.  | ☐ | or | 2  | in.au | Pu                 | C. G. H.   | 1790. | C | s.l   | Thu. dis. n. 58. t. 5      |
| 1389  | <i>spicáta</i> R. Br.            | spiked           | ☐ | or | 2½ | in.au | Pu                 | C. G. H.   | 1786. | S | p.l   |                            |
| 1390  | <i>crithmifólia</i> R. Br.       | Samphire-leav.   | ☐ | or | 2½ | in.au | Pa.pu              | C. G. H.   | 1797. | S | p.l   | Bot. rep. 243              |
| 1391  | <i>média</i> R. Br.              | middle           | ☐ | or | 6  | in.au | W                  | C. G. H.   | 1803. | C | s.p   | Bot. rep. 234              |
| 236.  | SOROCEPHALUS. R. Br.             | SOROCEPHALUS.    |   |    |    |       | <i>Proteaceae.</i> | Sp. 6—10.  |       |   |       |                            |
| 1392  | <i>imberbia</i> R. Br.           | smooth           | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1806. | C | s.p   |                            |
| 1393  | <i>diversifólius</i> R. Br.      | various-leaved   | ☐ | or | 4  | ...   | Pu                 | C. G. H.   | 1803. | C | l.p   |                            |
| 1394  | <i>spáthilóides</i> R. Br.       | club-bearing     | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1803. | C | s.p   |                            |
| 1395  | <i>tenuifólius</i> R. Br.        | slender-leaved   | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1802. | C | s.p   |                            |
| 1396  | <i>lanúsa</i> R. Br.             | woolly           | ☐ | or | 2  | in.s. | Pu                 | C. G. H.   | 1790. | C | l.p   | Thu. dis. n. 30. t. 3      |
| 1397  | <i>imbricátus</i> R. Br.         | imbricated       | ☐ | or | 3  | ap.jl | Pu                 | C. G. H.   | 1794. | S | p.l   | Bot. rep. 517              |
| †237. | SPATAL/LA. R. Br.                | SPATALLA.        |   |    |    |       | <i>Proteaceae.</i> | Sp. 4—16.  |       |   |       |                            |
| 1398  | <i>prolífera</i> R. Br.          | proliferous      | ☐ | or | 1½ | in.au | Pu                 | C. G. H.   | 1800. | C | s.l   | Thunb. dis. 27. t. 4       |
| 1399  | <i>ramulósá</i> R. Br.           | cluster-flowered | ☐ | or | 3  | in.au | Pu                 | C. G. H.   | 1787. | C | l.p   |                            |
| 1400  | <i>incúrva</i> R. Br.            | incurved-leav'd  | ☐ | or | 2½ | my.jn | Pu                 | C. G. H.   | 1789. | S | p.l   |                            |
| 1401  | <i>Thunbégii</i> R. Br.          | Thunberg's       | ☐ | or | 3  | my.jn | Pu                 | C. G. H.   | 1806. | C | l.p   |                            |



*History, Use, Propagation, Culture,*

232. *Leucospermum*. From λευκος, white, and σπειμα, seed, in allusion to the color of the seeds. The genus is chiefly composed of low shrubs, which are usually downy or hairy. Leaves entire, or with callous teeth at the end. Heads terminal. Flowers yellow. The culture as for Protea.

233. *Mimetes*. Named by Mr. Salisbury from μίμητις, a mimic, because it resembles various other genera. The soil for this genus is two-thirds of light loam, and one third of sand. In other respects, the treatment is the same as for Isopogon.

234. *Serruria*. Named by Burmannus after Professor Joseph Serrurier, a foreign botanist, of whom little is known. The species flower freely, and make handsome bushy shrubs. The soil best adapted to them is one-third light loam, a third of peat, and a third of sand, with well drained pots. They also require an airy situation, as they are so crowded with leaves that the branches are liable to damp and canker if any wet settles

- 1352 Leaves elliptical edged, Bractes spreading: upper spatulate minutely fringed, Petals downy  
 1353 Style nearly twice as long as hairy flower, Stigma conical ovate gibb. on one side, Leaves obl. 3-4-toothed  
 1354 Style longer than the very villous flower, Stigma equal-sided conical, Leaves oval 3-9-toothed  
 1355 Style longer than very vill. fl. Stig. equal-sided obl. Lvs. obl. lanc. 3-toothed and entire, Branches very hairy  
 1356 Style longer than hairy fl. Stigma equal-sided ovate, Lvs. lanc. and ellipt. entire short pub. Branches hairy  
 1357 Leaves linear channelled veinless, Branches and bractes tomentose, Segments of flower bearded  
 1358 Leaves linear flat, Branches hairy, Bractes smoothish ciliated  
 1359 Leaves linear wedge-shaped flat veiny 3-5-toothed, Branches hairy, Bractes and segments of flow. toment.  
 1360 Leaves linear 3-toothed, Bractes rounded tomentose twice as short as tube of flower

- 1361 Involucr. equal-sided colored acuminate half exserted 8-10-flowered, Leaves acute entire  
 1362 Leaves oval lanceolate pubescent, Stigma short prominent at base  
 1363 Invol. unequal-sided, Leaves lin. oblong 3-toothed smooth the floral dilated beneath with recurved edges  
 1364 Stem procumbent, Leaves oval obtuse pubescent, Style smooth, Heads terminal  
 1365 Leaves narrow obovate almost smooth, Upper bractes longer than flowers very acuminate  
 1366 Stem procumbent, Branches ascending, Leaves linear subulate channelled, Segments of flower smooth

*Heads simple.*

- 1367 Leaves from below the middle bipinnatifid hairy, Head sessile higher than leaves, Bractes hairy outside  
 1368 Leaves from base bipinnat. hairy, Ped. as long as head or longer, Bractes hairy at end outside, Stig. trunc.  
 1369 Leaves from the base 3-pinnatifid pubescent, Ped. 1-3 long smoothish, Bractes recurved scarcely toment.  
 1370 Heads terminal and axillary stalked clustered, Leaves pinnatifid and trifid more than an inch long  
 1371 Heads terminal longer than the stalk, Leaves pinnatifid and trifid less than an inch long, Stem pubesc.  
 1372 Heads ter. longer than stalk, Lvs. sprdg. upper less an inch long nearly bipin. lower shorter trifid, Branches erect  
 1373 Heads terminal stalked, Leaves bi-tripinnatifid with the erect stem hairy  
 1374 Heads term. sessile, Leaves bi-pin. about an inch long upper longer than heads with the branches smooth  
 1375 Heads ter. longer than stalks, Brac. subul. smooth hairy at edge, Lvs. sub-bipinnate and branches smooth  
 1376 Heads ter. and axil. stalks branch-like squarrose, Outer bractes subul. inner lanc. Lvs. an inch and half long  
 1377 Bractes a little shorter than the terminal head, Outer lanc. fringed inner less villous, Leaves bipinnatifid  
 1378 Stem pubesc. Leaves from below middle all bipinnatifid, Heads 1-3 shorter than ped. Bracts reflex. ciliat.  
 1379 Leaves bipinnatifid filiform pointed hairy, Flowers terminal sweet-scented  
 1380 Leaves from below the middle bipinnatifid pubescent, Heads 1-3 longer than leaves, Bractes silky at base

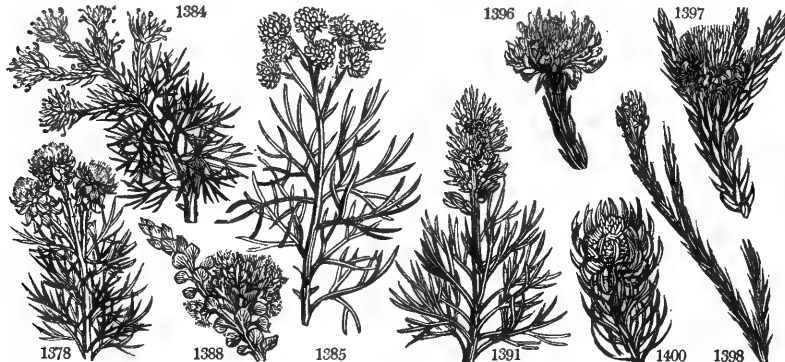
*Heads compound.*

- 1381 Stem erect, Lvs. smth. bipin. more than an inch long, Partial heads many-fl. outer brac. smth.: inner silky  
 1382 Stem erect, Branches pub. Lvs. bipin. an inch and more long, Partial heads few-fl. All the bractes very vill.  
 1383 Stem erect, Leaves triternate bundled less than  $\frac{1}{2}$  inch long common and partial heads few-flow. sessile  
 1384 Heads corymbose 10-flow. Leaves bipinnatifid setaceous scarcely 2 inches long, Flowers silky clustered  
 1385 Corymbs compound, Leaves triternate  $\frac{1}{2}$  inch long and stem very smooth, Bractes and partial stalks silky  
 1386 Corymbs simple or compound, Leaves bi-tripinnat. common flower-stalk long, partial and bractes smooth

- 1387 Leaves obovate or lanceolate flattish simple at edge, Flower silky with appressed hairs  
 1388 Leaves broader than long hooded edged, Leaves of invol. obt. Flower bearded style smooth, Stig. clavate  
 1389 Stalks umbelld  $\frac{1}{2}$  as long as the cylindrical spike, Bractes ovate, Style 2-3ds hairy, Leaves smooth  
 1390 Stalks umbelld about as long as cylind. spikes, Leaves obtuse divar. smooth, Styles vill. as far as middle  
 1391 Spikes cylindrical 4 times as long as their stalk, Leaves of involucrem ovate acute beardless at end

- 1392 Involucr. 3-flowered, Segments of flower and points of bractes smooth, Spike naked  
 1393 Leaves spatulate lanceolate smooth beneath, the lower bipinnatifid, Flower bearded, Stigma cylindrical  
 1394 Involucr. 3-flowered stalked, Segments of flower bearded, Spike naked  
 1395 Lvs. filif. less than  $\frac{1}{2}$  inch long, Heads few-fl. Seg. of fl. feathery except the inner one, Spike with an invol.  
 1396 Leaves 3-cornered filiform more than  $\frac{1}{2}$  inch long furrowed above, All the segments of flower feathery  
 1397 Leaves lanceolate scabrous beneath, Claws of flower glandular hairy, Stigma clavate

- 1398 Involucr. 4-leaved, Leaflets withered at end, Spike conical headed, Flowers sessile  
 1399 Involucr. 2-leaved the wider leaf trifid, Spike sessile imbricated, Leaves with a sharp point  
 1400 Spikes racemose stalked, Bractes shorter than the 4-flowered downy involucrem, Leaves incurved  
 1401 Spike sessile, Bractes and invol. ovate lanc. vill. Leaves longer than flow. acute chann. and branches hairy

*and Miscellaneous Particulars.*

amongst them. Ripened cuttings taken off at a joint and planted thinly in a pot of sand, will root without difficulty under a hand-glass: but the glass must be taken off occasionally to give them air, and dry their leaves." (*Bot. Cult.* 254.)

235. *Nivenia*. Named by Salisbury, in compliment to Mr. James Niven, an intelligent collector, who discovered many new plants in South Africa while in the service of Mr. Hibbert. Culture as for *Serruria*.

236. *Sorocephalus*. From *σωρος*, a heap, and *κεφαλη*, a head, on account of the heads of flowers being in clusters.

237. *Spatalla*. A word formed by Mr. Salisbury, with more wit than decency, from *σπαρταλας*, *lascivio*, on account of its ample stigma. Culture as for *Leucospermum*.

|  |                             |                                     |    |     |       |     |                 |       |                    |
|--|-----------------------------|-------------------------------------|----|-----|-------|-----|-----------------|-------|--------------------|
| 1238. <i>PERSOONIA</i> . <i>R. Br.</i> <i>PERSOONIA</i> .    |                             | <i>Proteaceæ.</i> <i>Sp. 6-22.</i>  |    |     |       |     |                 |       |                    |
| 1402   | <i>hirsúta R. Br.</i>       | hairy                               | or | 4   | my.jl | Y   | N. S. W. 1800.  | C lp  | Bot. cab. 327      |
| 1403   | <i>lineáris R. Br.</i>      | linear-leaved                       | or | 5   | jl.au | Y   | N. S. W. 1794.  | L s.p | Bot. mag. 760      |
| 1404   | <i>lanceolatá R. Br.</i>    | spear-leaved                        | or | 4   | in.jl | Y   | N. S. W. 1791.  | L s.p | Bot. rep. 74       |
| 1405   | <i>salicina R. Br.</i>      | willow-leaved                       | or | 7   | in.jl | Pk  | N. S. W. 1795.  | C lp  | Cav. ic. 4. t. 389 |
| 1406   | <i>latifolia Andr.</i>      | broad-leaved                        | or | 4   | in.jl | Y   | N. S. W. 1795.  | L s.p | Bot. rep. 280      |
| 1407   | <i>pinifolia R. Br.</i>     | pine-leaved                         | or | 4   | in.jl | Y   | N. S. W. 1822.  | L s.p |                    |
| 1239. <i>GREVIL/LEA</i> . <i>R. Br.</i> <i>GREVILLEA</i> .   |                             | <i>Proteaceæ.</i> <i>Sp. 13-38.</i> |    |     |       |     |                 |       |                    |
| 1408   | <i>pericea R. Br.</i>       | silky                               | or | 6   | aps.  | Pk  | N. S. W. 1790.  | S s.p | Bot. mag. 862      |
| 1409   | <i>purpurea R. Br.</i>      | purple                              | or | ... | ...   | Pu  | N. S. W. 1822.  | C lp  | Sm. N.H. t.9. f.5  |
| 1410   | <i>juniperina R. Br.</i>    | juniper-like                        | or | 4   | ...   | Pk  | N. S. W. 1822.  | C lp  | Bot. cab. 1003     |
| 1411   | <i>lineáris R. Br.</i>      | linear-leaved                       | or | 6   | aps.  | W   | N. S. W. 1790.  | S s.p | Bot. rep. 272      |
| 1412   | <i>ripáris R. Br.</i>       | river-side                          | or | 4   | aps.  | Pk  | N. S. W. 1791.  | C lp  |                    |
| 1413   | <i>arenária R. Br.</i>      | sand                                | or | 5   | aps.  | Pk  | N. S. W. 1803.  | C lp  |                    |
| 1414   | <i>acuminatá R. Br.</i>     | acute-leaved                        | or | 4   | aps.  | ... | N. S. W. 1805.  | S s.p |                    |
| 1415   | <i>stylósa Kn. P.</i>       | long-styled                         | or | 4   | aps.  | Pk  | N. S. W. 1809.  | C s.l |                    |
| 1416   | <i>mucronulatá R. Br.</i>   | <i>Podalyria</i> -leav.             | or | 4   | aps.  | Pk  | N. S. W. 1809.  | C lp  |                    |
| 1417   | <i>cinérea R. Br.</i>       | cinereous                           | or | ... | ...   | ... | N. S. W. 1822.  | C lp  | Bot. cab. 857      |
| 1418   | <i>buxifolia R. Br.</i>     | Box-leaved                          | or | 6   | fs.   | Pk  | N. S. W. 1790.  | S s.p | Bot. rep. 218      |
| 1419   | <i>collina Kn. P.</i>       | hill                                | or | ... | mr.jl | Pk  | N. S. W. 1802.  | C lp  |                    |
| 1420   | <i>aspleniifolia R. Br.</i> | <i>Asplenium</i> -lvd.              | or | 5   | mr.jl | Pk  | N. S. W. 1806.  | C lp  |                    |
| 240. <i>HA/KEA</i> . <i>R. Br.</i> <i>HAKA</i> .             |                             | <i>Proteaceæ.</i> <i>Sp. 20-40.</i> |    |     |       |     |                 |       |                    |
| 1421   | <i>pugionifórmis R. Br.</i> | dagger-fruited                      | or | 6   | my.jn | W   | N. S. W. 1796.  | S s.p | Bot. cab. 353      |
| 1422   | <i>párilis Kn. P.</i>       | matched                             | or | ... | my.jn | W   | V. Di. L. 1796. | C lp  |                    |
| 1423   | <i>obliqua R. Br.</i>       | oblique-flower.                     | or | 6   | ...   | W   | N. Holl. 1803.  | C s.p | Bot. cab. 1682     |
| 1424   | <i>gibbosa R. Br.</i>       | gibbous-fruited                     | or | 7   | my.jn | W   | N. S. W. 1790.  | C s.p | Cav. ic. 6. t. 534 |
| 1425   | <i>aciculáris R. Br.</i>    | needle-leaved                       | or | 3   | my.jn | W   | N. S. W. 1790.  | C s.p | Vent. mal. 111     |
| 1426   | <i>suavólenis R. Br.</i>    | sweet-smelling                      | or | 4   | ja.n  | W   | N. Holl. 1803.  | C s.p |                    |
| 1427   | <i>microcarpa R. Br.</i>    | small-fruited                       | or | 4   | my.jn | W   | V. Di. L. 1819. | C s.p | Bot. reg. 475      |
| 1428   | <i>flórida R. Br.</i>       | many-flowered                       | or | 5   | my.jn | W   | N. Holl. 1803.  | C s.p | Bot. mag. 2579     |
| 1429   | <i>ilicifolia R. Br.</i>    | Holly-leaved                        | or | 4   | jl.s  | W   | N. Holl. 1803.  | C s.p |                    |
| 1430   | <i>nitida R. Br.</i>        | glossy                              | or | 5   | in.jl | W   | N. Holl. 1803.  | C s.p | Bot. mag. 2246     |
| 1431   | <i>amplexicaulis R. Br.</i> | stem-clasping                       | or | 2   | ...   | W   | N. Holl. 1803.  | C s.p |                    |
| 1432   | <i>prostrata R. Br.</i>     | trailing                            | or | 1½  | ...   | W   | N. Holl. 1803.  | C s.p |                    |
| 1433   | <i>ceratophylla R. Br.</i>  | horn-leaved                         | or | 4   | my.jn | Br  | N. Holl. 1803.  | C s.p |                    |
| 1434   | <i>acanthophylla Lk.</i>    | prickly-leaved                      | or | 3   | ...   | ... | N. S. W. 1821.  | C s.p |                    |
| 1435   | <i>undulatá R. Br.</i>      | wave-leaved                         | or | 3   | ...   | ... | N. Holl. 1803.  | L s.p |                    |
| 1436   | <i>oleifolia R. Br.</i>     | olive-leaved                        | or | 5   | in.jl | W   | N. Holl. 1794.  | S s.p |                    |
| 1437   | <i>saligna R. Br.</i>       | willow-leaved                       | or | 7   | mr.jl | W   | N. Holl. 1791.  | C s.p | Bot. rep. 215      |
| 1438   | <i>cinérea R. Br.</i>       | hoary-leaved                        | or | 5   | in.jl | W   | N. Holl. 1803.  | S s.p |                    |
| 1439   | <i>dictyoides R. Br.</i>    | nerved-leaved                       | or | 7   | in.au | W   | N. S. W. 1790.  | C s.p | Cav. ic. 6. t. 535 |
| 1440   | <i>elliptica R. Br.</i>     | oval-leaved                         | or | 4   | in.au | W   | N. Holl. 1794.  | C s.p |                    |
| 241. <i>STENOCARPUS</i> . <i>R. Br.</i> <i>STENOCARPUS</i> . |                             | <i>Proteaceæ.</i> <i>Sp. 1-2.</i>   |    |     |       |     |                 |       |                    |
| 1441   | <i>salignus R. Br.</i>      | fragrant                            | or | 5   | in.jl | G   | N. Holl. 1819.  | C s.l | Bot. reg. 441      |
| 242. <i>LAMBERTIA</i> . <i>R. Br.</i> <i>LAMBERTIA</i> .     |                             | <i>Proteaceæ.</i> <i>Sp. 1-2.</i>   |    |     |       |     |                 |       |                    |
| 1442   | <i>formosa R. Br.</i>       | handsome                            | or | 4   | in.au | Re  | N. S. W. 1788.  | C s.p | Bot. rep. 69       |
| 243. <i>XYLOMELUM</i> . <i>R. Br.</i> <i>XYLOMELUM</i> .     |                             | <i>Proteaceæ.</i> <i>Sp. 1.</i>     |    |     |       |     |                 |       |                    |
| 1443   | <i>pyrifórme R. Br.</i>     | pear-fruited                        | or | 14  | ...   | ... | N. S. W. 1789.  | S s.p | Cav. ic. 6. t. 536 |
| 244. <i>TELOPEA</i> . <i>R. Br.</i> <i>WARRATAE</i> .        |                             | <i>Proteaceæ.</i> <i>Sp. 1-2.</i>   |    |     |       |     |                 |       |                    |
| 1444   | <i>speciosissima R. Br.</i> | splendid                            | or | 10  | my.jl | S   | N. S. W. 1789.  | C s.p | Bot. mag. 1128     |
| 245. <i>LOMATIA</i> . <i>R. Br.</i> <i>LOMATIA</i> .         |                             | <i>Proteaceæ.</i> <i>Sp. 2-8.</i>   |    |     |       |     |                 |       |                    |
| 1445   | <i>siláifolia R. Br.</i>    | cut-leaved                          | or | 2   | in.au | O   | N. S. W. 1792.  | C s.p | Bot. mag. 1272     |
| 1446   | <i>longifolia R. Br.</i>    | long-leaved                         | or | 2   | jn    | G   | N. S. W. 1816.  | C lp  | Bot. reg. 442      |



History, Use, Propagation, Culture,

238. *Persoonia*. So named by Sir J. E. Smith, in honor of C. H. Persoon, the celebrated author of *Synopsis Plantarum* and other esteemed works: he is still living, and about to publish a new edition of his most useful *Synopsis*.

239. *Grevillea*. So named by Mr. R. Brown, after the Right Honorable Charles Francis Greville, a great promoter of natural history. He was one of the vice-presidents of the Royal Society. Some species ripen abundance of seeds; all of them thrive in an equal mixture of sandy loam and peat, and strike roots freely in sand under a hand-glass.

240. *Hakea*. Named by Schreber after Baron Hake, a patron of the botanic garden at Hanover. This genus thrives in equal parts of loam, peat, and sand well drained; and cuttings root readily in sand under a hand-glass.

- 1402 Leaves linear hairy scabrous recurved at edge, Flowers axillary, Ovary one-sided silky  
 1403 Leaves oblong linear mucronate rather villous, Flowers axillary solitary  
 1404 Leaves lanceolate or elliptical mucronate glabrous smooth, Peduncle axillary 1-flowered, Flower silky  
 1405 Leaves lanceolate oblong unequal-sided, Stem arborescent, Bark scarious in layers  
 1406 Leaves obovate acute smooth on both sides without ribs thick, Flowers axillary remote on long stalks  
 1407 Leaves filiform lax, Spike leafy elongated pyramidal, Floral leaves abbreviated  
*Style smooth, Follicle ribless.*  
 1408 Leaves ellipt. or obl. obt. mucr. broken back at the edges, Flower branches erect, Racemes abbrev. recurv.  
 1409 Leaves elliptical oblong attenuate at base broken back at edges, Flower bearing branches recurved  
 1410 Leaves subulate fasciated divaricating broken back at the edge, Branches villous rounded  
 1411 Leaves linear lanceolate acute mucr. broken back at edges, Rac. abbreviate erect, Style very smooth at end  
 1412 Lvs. elong. linear broken back at edges smooth, Inner beard of flower very dense, Stalks longer than ovary  
*Style hairy. Follicle ribbed.*  
 1413 Leaves oblong obtuse mucronate, Racemes recurved few-flowered, Pistils tomentose  
 1414 Leaves lanc. sub-acum. mucr. above dotted scabrous beneath cinereous, Branc. pubes. Rac. few-fl. recurved  
 1415 Leaves lanceol. hairy beneath, Style very long compressed hairy at back [or horizontal  
 1416 Leaves obovate obt. mucr. above scabrous and shining beneath rather silky, Hairs of flowers appressed  
 1417 Leaves elliptical and obovate mucronate above roughish beneath cinereous  
*Pistil woolly. Follicle ribless.* [as recurved appendage  
 1418 Leaves elliptical above dotted scabrous beneath cinereous with close tomentum, Stig. orbic. scarcely as long  
 1419 Leaves elliptic lanceolate little revolute at edge, Flowers scarcely higher than leaves  
*Raceme thyrsoid. Leaves pinnatifid. (True Grevillea, Br.)*  
 1420 Leaves elongate linear pinnatifid cut or entire beneath tomentose, Racemes 3 times as short as the leaf  
*Leaves filiform.*  
 1421 Leaves smooth, Flowers silky or hairy, Caps. lanceolate acuminate straight crested on both sides  
 1422 Leaves smooth with bloom not channelled, Petals woolly  
 1423 Leaves terete, Branches toment. Gland attached to oblique end of stalk, Flow. silky, Caps. gibbous nodose  
 1424 Lvs. ben. with an obsol. furr. at base and branc. s.-pub. Branch. and fl.-stks. hairy, Caps. gibb. with cav. inside  
 1425 Leaves smooth beneath below the middle with an obsolete furrow the length of fruit, Caps. gibbous rugose  
 1426 Leaves furrowed above pinnatifid occasionally undivided, Flowers racemose smooth, Caps. gibbous  
 1427 Lvs. of upper branches filif. of lower flat, Perianths very smooth, Caps. with 2 spurs umbelled much shorter  
*Leaves flat, toothed, or entire.* [than leaf  
 1428 Leaves narrow-lanceol. prickly toothed minutely dotted a little rough at the edge, Caps. 2-spurred convex  
 1429 Leaves oval opaque sinuate-toothed prickly stalked, Caps. 2-spurred ovate gibbous compressed at end  
 1430 Lvs. lanc. or obl. attenu. at base with a few prickly teeth or entire shining veiny with branches very smooth  
 1431 Lvs. sinu. tooth. shining veiny stem-clasp, with a dilated cord. base, Stem prost. Branc. smooth, Caps. spurl.  
 1432 Lvs. angul. tooth. dil. at end and cuneate at base cord. stem clasp. Stem prost. Branc. pubes. Caps. spurless  
 1433 Leaves pinnatifid and bipinnatifid linear, Capsules spurless  
 1434 Leaves pinnatifid the anterior segments 1 inch long the posterior 1½ inch and more  
 1435 Leaves obovate 3-nerved reticulated wavy prickly toothed, Caps. spurless ventricose  
 1436 Leaves lanc. entire and nerved obsoletely veined prickly at end upper pubesc. Caps. term. 2-spurred gibbous.  
 1437 Lvs. elongate-lanc. entire 1-nerv. acute withered at end with bran. very smooth, Caps. keeled on both sides  
 1438 Lvs. lin.-lanc. elongate entire 3-nerv. obsoletely veined rough. wither. at end, Bran. downy, Caps. lanceol.  
 1439 Leaves entire 3-nerved veiny obovate-oblong or linear lanceolate reversed, Branches angular, Bark warted  
 1440 Leaves entire 5-nerved reticulated elliptical or oval pointless, Stalks and flowers smooth, Bark shining

1441 Leaves elongate lanceolate 3-nerved at base

1442 Involucres 7-flowered, Leaves linear-lanceolate cuspidate

1443 The only species

1444 Leaves wedge-shaped oblong toothed veiny smooth

1445 Leaves bipinnatifid very smooth, Segments wedge-shaped or lanceolate cut

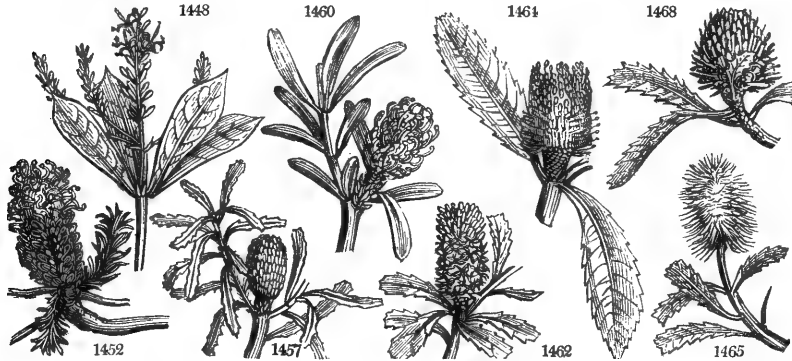
1446 Leaves linear lanceolate elongate smooth remotely serrate



and Miscellaneous Particulars.

241. *Stenocarpus*. A handsome genus. The name is derived from *στένος*, narrow, and *καρπος*, fruit.  
 242. *Lambertia*. In honor of A. B. Lambert, Esq. F. R. S., vice-president of the Linnæan Society, and possessor of a rich Herbarium. This handsome plant thrives well in loam and peat not over watered. Cuttings must be taken off at a joint before they begin to push, and planted thinly in sand under a glass, and guarded from damp.  
 243. *Xylomelum*. A name derived by Sir J. E. Smith from the remarkable fruit of the plant which resembles a wooden apple; *ξύλον*, wood, and *μέλον*, an apple.  
 244. *Telopsea*. From *τηλωτός*, seen at a distance, in allusion to the brilliant crimson blossoms which decorate the plant, and make it a conspicuous object in its own country, as well as in our conservatories.  
 245. *Lomatia*. From *λομία*, an edge, on account of the winged edge of the seeds.

|                          |                  |            |            |     |                |         |
|--------------------------|------------------|------------|------------|-----|----------------|---------|
| 244. RHOPALIA R. Br.     | RHOPALIA.        | Proteaceæ. | Sp. 2.     |     |                |         |
| 1447 dentata R. Br.      | tooth-leaved     | ♂ or 10    | my.au      | G   | S. Amer. 1802. | C l p   |
| 1448 sessilifolia R. Br. | sessile-leaved   | ♀ or 10    | ...        | G   | Guiana 1803.   | C l p   |
| 247. BANKSIA R. Br.      | BANKSIA.         | Proteaceæ. | Sp. 26-35. |     |                |         |
| 1449 pulchella R. Br.    | small-flowered   | ♂ or 6     | ...        | Y   | N. Holl. 1805. | C l p   |
| 1450 sphaerocarpa R. Br. | round-fruited    | ♂ or 6     | ...        | Y   | N. Holl. 1803. | C s l   |
| 1451 nitans R. Br.       | nodding-flower.  | ♂ or 4     | ja.s       | Y   | N. Holl. 1803. | C s l   |
| 1452 ericifolia R. Br.   | Heath-leaved     | ♂ or 6     | ja.d       | Y   | N. S. W. 1788. | C s p   |
| 1453 spinulosa R. Br.    | spiny            | ♂ or 6     | my.d       | Y   | N. S. W. 1788. | C s p   |
| 1454 collina R. Br.      | hill             | ♂ or 6     | ...        | Y   | N. S. W. 1800. | C s l   |
| 1455 occidentalis R. Br. | west-coast       | ♂ or 4     | ...        | ... | N. Holl. 1803. | C s p   |
| 1456 littoralis R. Br.   | sea-side         | ♂ or 8     | ...        | O   | N. Holl. 1803. | C s p   |
| 1457 marginata R. Br.    | various-leaved   | ♂ or 6     | my.au      | Y   | N. S. W. 1804. | G s p   |
| 1458 australis R. Br.    | southern         | ♂ or 6     | ...        | G   | N. S. W. 1822. | C s p   |
| 1459 integrifolia R. Br. | entire-leaved    | ♂ or 12    | ...        | Y   | N. S. W. 1788. | C l p   |
| 1460 verticillata R. Br. | verticillate     | ♂ or 12    | jl.o       | Y   | N. Holl. 1794. | C s p   |
| 1461 coccinea R. Br.     | scarlet-flowered | ♂ or 6     | ...        | S   | N. Holl. 1803. | C l p   |
| 1462 paludosa R. Br.     | marshy           | ♂ or 5     | ja.ap      | Y   | N. S. W. 1805. | L s p   |
| 1463 oblongifolia R. Br. | oblong-leaved    | ♂ or 15    | my.au      | Y   | N. S. W. 1788. | C l p   |
| 1464 latifolia R. Br.    | broad-leaved     | ♂ or 30    | my.au      | G   | N. S. W. 1802. | S s p   |
| 1465 marceces R. Br.     | short-leaved     | ♂ or 6     | ja.d       | Pu  | N. Holl. 1794. | C s p   |
| 1466 insularis R. Br.    | Island           | ♂ or 6     | ...        | ... | N. S. W. 1822. | C s p   |
| 1467 attenuata R. Br.    | smooth-flower.   | ♂ or 6     | ...        | ... | N. Holl. 1794. | L s p   |
| 1468 serrata R. Br.      | saw-leaved       | ♂ or 20    | jl.s       | Y   | N. S. W. 1788. | S s p   |
| 1469 æmula R. Br.        | deeply-sawed     | ♂ or 6     | jl.s       | G   | N. S. W. 1788. | C l p   |
| 1470 quercifolia R. Br.  | oak-leaved       | ♂ or 5     | ...        | ... | N. Holl. 1805. | C l p   |
| 1471 dentata R. Br.      | toothed          | ♂ or 4     | ...        | ... | N. S. W. 1822. | C s p   |
| 1472 speciosa R. Br.     | long-leaved      | ♂ or 5     | my.au      | ... | N. Holl. 1805. | C l s p |
| 1473 grandis R. Br.      | great-flowered   | ♂ or 4     | ...        | ... | N. Holl. 1794. | S s p   |
| 1474 repens R. Br.       | creeping         | ♂ or 2     | ...        | Y   | N. Holl. 1803. | C l s p |
| 248. DRYANDRA R. Br.     | DRYANDRA.        | Proteaceæ. | Sp. 9-13.  |     |                |         |
| 1475 floribunda R. Br.   | many-flowered    | ♂ or 3     | ja.d       | Y   | N. Holl. 1803. | S s p   |
| 1476 cuneata R. Br.      | wedge-leaved     | ♂ or 3     | f.n        | Y   | N. Holl. 1803. | C l p   |
| 1477 armata R. Br.       | acute-leaved     | ♂ or 3     | ja.d       | Y   | N. Holl. 1803. | C l p   |
| 1478 formosa R. Br.      | splendid         | ♂ or 4     | ja.d       | Y   | N. Holl. 1803. | C l p   |
| 1479 plumbea R. Br.      | feathered        | ♂ or 3     | ...        | Y   | N. Holl. 1803. | C l p   |
| 1480 obtusa R. Br.       | obtuse-leaved    | ♂ or 1     | ...        | Y   | N. Holl. 1803. | C l p   |
| 1481 nivea R. Br.        | white-leaved     | ♂ or 1     | jl.s       | Y   | N. Holl. 1803. | C l p   |
| 1482 longifolia R. Br.   | long-leaved      | ♂ or 2     | ja.d       | Y   | N. Holl. 1805. | S s p   |
| 1483 tenuifolia R. Br.   | fine-leaved      | ♂ or 2     | mr.my      | Y   | N. Holl. 1803. | S s p   |
| 249. STRUTHIOA W.        | STRUTHIOA.       | Thymelææ.  | Sp. 9-18.  |     |                |         |
| 1484 juniperina W.       | drooping         | ♂ or 2     | aps        | W   | C. G. H. 1758. | C l p   |
| 1485 erecta W. en.       | upright          | ♂ or 14    | aps        | W   | C. G. H. 1798. | C s p   |
| 1486 ovata W.            | oval-leaved      | ♂ or 2     | f.jn       | W   | C. G. H. 1792. | C s p   |
| 1487 imbricata H. K.     | tiled-leaved     | ♂ or 2     | ap.au      | Y   | C. G. H. 1794. | C s p   |
| 1488 tomentosa H. K.     | downy-leaved     | ♂ or 2     | aus        | Y   | C. G. H. 1799. | C s p   |
| 1489 virgata H. K.       | twiggly          | ♂ or 2     | ap.au      | R   | C. G. H. 1779. | C s p   |
| 1490 ciliata Andr.       | ciliated         | ♂ or 2     | ap.au      | W   | C. G. H. 1779. | C s p   |
| 1491 pubescens H. K.     | downy            | ♂ or 3     | ap.au      | R   | C. G. H. 1790. | C s p   |
| 1492 incana Lodd.        | hoary            | ♂ or 2     | au         | W   | C. G. H. 1817. | C s p   |



History, Use, Propagation, Culture,

246. *Rhopalia*. The vernacular name of one of the species found in Guiana is Roupalia. The species seldom flower, and are remarkable more for the beauty of their foliage than blossoms, which are disposed in long spikes, usually of a greenish color.

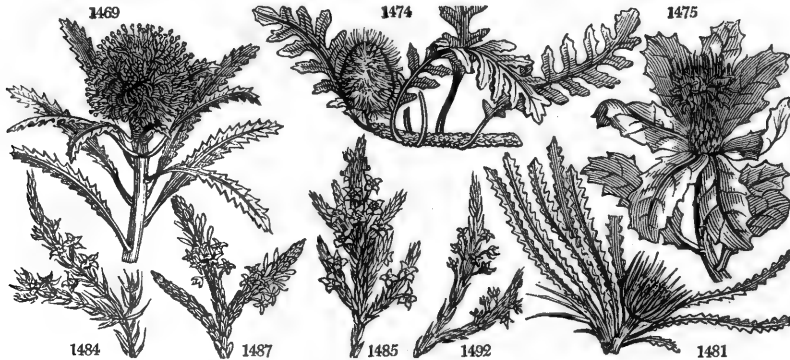
247. *Banksia*. So named by Linnæus, in honor of Sir Joseph Banks, Bart., Pres. R. S., a distinguished promoter of the study of natural history, and of science in general; he died in 1820. This is an elegant genus, and to be grown well requires a soil composed of equal parts of peat, loam, and sand. The pots must be well drained; and the following is the mode recommended by Sweet: "Place a piece of potsherd about half way over the hole at the bottom of the pot, then lay another piece against it that it may be hollow, afterwards put some smaller pieces all round them, and some more, broken very small, on the top of these. All plants belonging to the Proteaceæ should be drained in the same manner, as the roots are very fond of running amongst the broken potsherds; and there is not so much danger of their being overwatered; care must be taken not to let them flag for want of water, as they seldom recover if allowed to get very dry; they should also be placed in an airy part of the green-house when in doors, as nothing is more beneficial to them than a free circulation of air. Cuttings are generally supposed to be difficult to root, but they will root readily if properly managed: let them be well ripened before they are taken off; then cut them off at a joint, and plant them in pots of sand without shortening any of the leaves, except on the part that is planted in the sand, where they should be taken off quite close; the less depth they are planted in the pots the better, if they only stand firm when the sand is well closed round them; then place them under hand-glasses in the propagating house, but not plunge them in

1447 Leaves alternate ovate lanceolate complicate toothed attenuated at both ends  
 1448 Leaves 4 together subsessile wedge-shaped oblong entire

1449 Leaves acroese entire not pointed, Claws of flower woolly, Segments smooth, Stigma a depressed head  
 1450 Leaves acroese entire mucronate, Flower all hairy, Stigma subulate, Comes globose  
 1451 Leaves acroese entire mucronate, Flower heads nodding, Flowers silky  
 1452 Leaves acroese emarginate 2-toothed entire, Flower heads long, Flowers silky, Stigma capitate  
 1453 Leaves acroese 3-toothed at end, the middle tooth longest prickly or entire at the edge, Stigma subulate  
 1454 Leaves linear prickly toothed; the terminal tooth shortest  
 1455 Leaves linear beyond the middle prickly toothed beneath veinless, Stem shrubby, Branches smooth  
 1456 Leaves long lin. prickly toothed atten. at base veinless beneath, Stem arborescent, Branchlets tomentose  
 1457 Leaves linear truncate mucronate entire or toothed; veins beneath inconspicuous, Ends of branches hairy  
 1458 Leaves linear truncate mucronate recurved at edge entire beneath netted, Ends of branches tomentose  
 1459 Leaves whorled oblong lanc. entire mucronulate with conspicuous netted veins beneath, Stem arborescent  
 1460 Leaves whorled lingulate oblong obtuse unarmed beneath veinless white, Stem arborescent  
 1461 Leaves altern. wedge-shaped obovate or obl. toothed truncated ribbed reticulated at the base transverse  
 1462 Leaves somewhat whorled wedge-shaped obl. subtrunc. attenuated at base beyond middle toothed serrate  
 1463 Leaves scattered narr. obl. trunc. toothed serr. beneath ribbed and veiny, Footstalks and branchl. toment.  
 1464 Leaves obovate oblong prickly serrate acute at base beneath ribbed reticulated cinereous  
 1465 Leaves wedge-shaped flat scattered truncate beyond the middle toothed serrate at the base acutish  
 1466 Leaves linear or wedge-shaped oblong rounded mucronulate scattered or whorled beneath netted  
 1467 Leaves elongate lin. trunc. at the base attenuate beyond the middle serrated beneath ribbed retic. toment.  
 1468 Leaves broad linear elongate truncated serrate beneath reticulated smoothish at the base attenuated  
 1469 Lvs. broad lin. elong. truncated deeply serrate beneath reticulated smoothish, Stig. bearded not furrowed  
 1470 Leaves oblong wedge-shaped subtruncate smooth cut serrate mucronate, Segments of flower awned  
 1471 Leaves wedge-shaped oblong truncate sinuate toothed undulated acute at base beneath ribbed veiny snowy  
 1472 Leaves linear pinnatifid, Lobes triangular half ovate mucronate beneath snowy obsoletely nerved  
 1473 Leaves pinnatifid, Lobes triangular ovate acute flat beneath nerved smoothish, Flowers smooth  
 1474 Leaves pinnatifid, Lobes sinuate or toothed, Stem prostrate

1475 Leaves wedge-shaped cut serrate, Bractes of involucre striated outer smoothish  
 1476 Leaves wedge-shaped sinuate toothed prickly stalked, Bractes all smooth silky  
 1477 Lvs. pinnatifid, Lobes triang. flat divaricating straight prickly pointed the term. longer than those next it  
 1478 Lvs. elongate linear pinnatifid, Lobes triangular pointless flat snow-white beneath, Involucres tomentose  
 1479 Leaves elongate lin. pinnatifid, Lobes an equal-sided triangle mucron. recurved at edge beneath snow-white  
 1480 Leaves lin. pinnatifid longer than decumbent tomentose stem, Lobes triangular obtuse snow-white beneath  
 1481 Leaves lin. pinnatifid as long as smooth stem, Lobes triang. acute mucr. beneath white with recurved edge  
 1482 Lvs. lin. pinnatifid very long acute beneath ashy at base attenuated and entire, Lobes triang. ascend. decur.  
 1483 Leaves linear elongate pinnatifid sub-truncate white beneath, Lobes triangular decurrent divaricating

1484 Leaves linear acute spreading, Flowers naked, Anthers included  
 1485 Leaves linear and 4-cornered branches smooth  
 1486 Leaves ovate and branches rugose smooth  
 1487 Leaves ovate furrowed quadrifarious ciliated at edge, Glands of flower 4  
 1488 Leaves ovate tomentose, Glands of flower 12  
 1489 Leaves lanceolate ciliated, Bractes the length of germen  
 1490 Leaves lanceolate mucronate ciliate concave incurved at end  
 1491 Leaves linear ciliated, Bractes longer than germen  
 1492 Leaves all over hoary



and Miscellaneous Particulars.

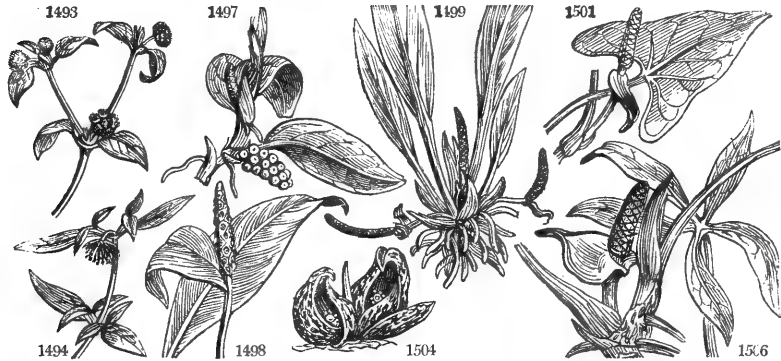
heat; the glasses must be frequently taken off to give them air and dry them, or they are apt to damp off; when they are rooted, the sooner they are potted off in little pots the better, as the sand is liable to canker their roots if left too long in it; when potted off, they should be placed in a close frame, but not on heat, as a bottom heat will destroy their roots, when they must be hardened to the air by degrees. Plants raised in this way have better roots, grow faster, and flower sooner than plants raised from seeds. In raising them from seeds they should be sown in the same kind of soil as the plants are grown in, and placed in the green-house; or if it is in summer they will come up sooner if placed out in the open air; they will soon make their appearance, when they should be potted off in small pots, if left in the seed-pots too long they are apt to die, and are more difficult to move with safety." (*Bot. Cult.* 147.)

248. *Dryandra*. Was named by Mr. R. Brown after the famous Jonas Dryander, whose catalogue of the Banksian library would alone be a monument of talent and industry, if his high botanical acquirements had been unknown. This genus is allied in character and habits to *Banksia*. It thrives best in very sandy loam and peat in well drained pots. Cuttings made from ripened wood taken off at a joint before they begin to push, planted in sand without shortening any of the leaves, and covered with a glass, will root without difficulty. The pots should not be plunged, and as soon as the cuttings are rooted they must be potted off, as the sand is apt to injure their roots. Place them afterwards in a close frame or under hand-glasses till they strike root afresh, and then harden them by degrees. (*Sweet*.)

249. *Struthiola*. From *στρουθίος*, a sparrow: the pointed seed vessels have some resemblance to the beak of a



|  |                    |                       |            |        |    |   |
|--|--------------------|-----------------------|------------|--------|----|---|
| 250. OPERCULARIA. <i>W.</i> OPERCULARIA.       | <i>Valerianae.</i> | <i>Sp</i>             | 1—12.      |        |    |   |
| 1493 áspera <i>W.</i>                          | rough-seeded       | Δ                     | 1          | jn.jl  | W  | N. S. W. 1790. S s.p An. mu.4.t.70.f.1    |
| 251. CRYPTOSPERMUM. <i>P. S.</i> CRYPTOSPERMUM | <i>Valerianae.</i> | <i>Sp.</i>            | 1.         |        |    |   |
| 1494 Youngii <i>P. S.</i>                      | chaffy             | Δ                     | 4          | jl.au  | Pk | N. S. W. 1793. C co Linn.trans.3. t.5     |
| *252. POTTHOS. <i>W.</i>                       | POTTHOS.           | <i>Aroideae.</i>      | <i>Sp.</i> | 12—28. |    |   |
| 1495 acuilis <i>W.</i>                         | stemless           | Δ                     | 1          | ap.jl  | Ap | W. Indies 1790. Sk s.p Jac.am.240.t.153   |
| 1496 lanceolata <i>W.</i>                      | lance-leaved       | Δ                     | 1          | ap.jl  | Ap | Barbadoes1790. Sk s.p Plum am.47.t.62     |
| 1497 violacea <i>W.</i>                        | blue-fruited       | Δ                     | 2          | ap.jn  | Ap | Jamaica 1793. Sk s.l Hook. ex. fl. 55     |
| 1498 cannaefolia <i>H. K.</i>                  | sweet-scented      | Δ                     | 3          | ap.my  | Ap | W. Indies 1793. Sk s.p Bot. mag. 303      |
| 1499 crassinervis <i>W.</i>                    | thick-nerved       | Δ                     | 2          | ap     | Ap | S. Amer. 1796. Sk s.p Jac. ic. 3. t. 609  |
| 1500 cordata <i>W.</i>                         | heart-leaved       | Δ                     | 3          | ap     | Ap | America 1770. Sk s.p Plum. ic. 26. t.38   |
| 1501 sagittata <i>B. M.</i>                    | arrow-leaved       | Δ                     | 3          | au     | Ap | W. Indies 1800. Sk p.l Bot. mag. 1584     |
| 1502 macrophylla <i>W.</i>                     | large-leaved       | Δ                     | 3          | my.jn  | Ap | W. Indies 1794. Sk s.p Jac. ic. 3. t. 610 |
| 1503 obtusifolia <i>H. K.</i>                  | blunt-leaved       | Δ                     | 2          | my.jn  | Ap | Barbadoes1790. Sk p.l                     |
| 1504 foetida <i>H. K.</i>                      | Skunkweed          | Δ                     | 1          | mr.ap  | Ap | N. Amer. 1735. Sk p.l Bot. mag. 836       |
| 1505 palmata <i>W.</i>                         | palmed             | Δ                     | 3          | jn.jl  | Ap | S. Amer. 1803. Sk p.l Plum.am.49.t.64     |
| 1506 pentaphylla <i>W.</i>                     | five-leaved        | Δ                     | 2          | o.n    | Ap | Cayenne 1803. Sk p.l Bot. mag. 1375       |
| 253. RIVINA. <i>W.</i>                         | RIVINA.            | <i>Chenopodeae.</i>   | <i>Sp.</i> | 5—7.   |    |   |
| 1507 humilis <i>W.</i>                         | downy              | Δ                     | 2          | ja.o   | W  | W. Indies 1699. S r.m Bot. mag. 1781      |
| β canescens <i>W.</i>                          | hoary              | Δ                     | 2          | my.au  | W  | W. Indies 1804. C l.p                     |
| 1508 purpurascens <i>W. en.</i>                | purple             | Δ                     | 2          | my.au  | Pk | W. Indies 1815. C l.p                     |
| 1509 laevis <i>W.</i>                          | smooth             | Δ                     | 2          | f.s    | Pk | W. Indies 1733. S r.m Bot. mag. 2333      |
| 1510 brasiliensis <i>W.</i>                    | wave-leaved        | Δ                     | 2          | jn.jl  | G  | Brazil 1790. C l.p                        |
| 1511 octandra <i>W.</i>                        | climbing           | Δ                     | 20         | my.jn  | W  | W. Indies 1752. C p.l B. jm.149.t.23.f.2  |
| 254. CAMPHOROMA. <i>W.</i> CAMPHOROMA.         |                    | <i>Chenopodeae.</i>   | <i>Sp.</i> | 1—5.   |    |   |
| 1512 monspeliaca <i>W.</i>                     | hairy              | Δ                     | 1          | au.s   | Ap | Š. Europe 1640. C p.l Schk. han.1. t.26   |
| *255. ALCHEMILLA. <i>W.</i> LADIES-MANTLE.     |                    | <i>Sanguisorbeae.</i> | <i>Sp.</i> | 7—14.  |    |   |
| 1513 vulgaris <i>W. en.</i>                    | common             | Δ                     | 1          | jn.au  | G  | Britain me.pa. D co Eng. bot. 597         |
| 1514 montana <i>W. en.</i>                     | mountain           | Δ                     | 1          | jn.au  | G  | Britain moum. D co Mill. ic. t. 18        |
| 1515 pubescens <i>W. en.</i>                   | pubescent          | Δ                     | 1          | jn.au  | G  | Caucasus 1813. D co Hort. ber. 2. t.79    |
| 1516 sericea <i>W. en.</i>                     | silky              | Δ                     | 1          | jn.au  | G  | Caucasus 1813. D co                       |
| 1517 alpina <i>W.</i>                          | silvery            | Δ                     | 1          | jl     | G  | Britain rocks. D co Eng. bot. 244         |
| 1518 pentaphylla <i>W.</i>                     | five-leaved        | Δ                     | 1          | jl     | W  | Switzerl. 1784. D co Bocc. mus.1. t. 1    |
| 1519 A'phanes <i>W.</i>                        | Parsley-piert      | Δ                     | 1          | ap.jn  | G  | Britain ... D co Eng. bot. 1011           |
| 256. SANGUISORBA. <i>W.</i> GREAT-BURNET.      |                    | <i>Sanguisorbeae.</i> | <i>Sp.</i> | 5.     |    |   |
| 1520 officinalis <i>W.</i>                     | official           | Δ                     | 2          | jn.au  | Pk | Britain me.pa. S co Eng. bot. 1312        |
| β auriculata                                   | earred             | Δ                     | 2          | jn.au  | Pk | Italy Bocc.mus.19. t.9                    |
| 1521 carnea <i>Fisch.</i>                      | flesh-colored      | Δ                     | 2          | jn.au  | R  | ..... 1823. D co Schr. mon. t. 69         |
| 1522 tenuifolia <i>Fisch.</i>                  | fine-leaved        | Δ                     | 2          | jn.au  | Pk | ..... 1820. D co                          |
| 1523 media <i>W.</i>                           | short-spiked       | Δ                     | 2          | jl.s   | R  | Canada 1785. D co Zan. h.181. t.138       |
| 1524 canadensis <i>W.</i>                      | Canadian           | Δ                     | 3          | jl.s   | W  | Canada 1693. D co Cor. can. t. 174.       |
| 257. DORSTENIA. <i>W.</i> DORSTENIA.           |                    | <i>Urticeae.</i>      | <i>Sp.</i> | 4—14.  |    |   |
| 1525 brasiliensis <i>W.</i>                    | Brazilian          | Δ                     | 1          | ap.au  | G  | S. Amer. 1792. R s.l                      |
| 1526 Houstonii <i>W.</i>                       | Houston's          | Δ                     | 1          | jn.jl  | G  | S. Amer. 1747. R s.l Bot. mag. 2017       |
| 1527 Contrajerva <i>W.</i>                     | Contrajerva-rt.    | Δ                     | 1          | my.au  | G  | S. Amer. 1748. Sk p.l Jac. ic. 3. t. 614  |
| 1528 arifolia <i>Lam.</i>                      | arum-leaved        | Δ                     | 1          | my.jl  | G  | Brazil 1822. R s.l Bot. mag. 2476         |



History, Use, Propagation, Culture,

sparrow or other small bird. The species are all slender, hardy, green-house plants, of pretty appearance, and easy cultivation.

250. *Opercularia*. From *operculum*, a lid, in allusion to the manner in which the calyx is closed. Plants of no beauty.

251. *Cryptospermum*. From *κρυπτα*, to conceal, and *σπέρμα*, seed. The seeds, or rather seed-vessels, are hidden in the involucre. Weeds of some tropical countries.

252. *Pothos*. From *ποθος*, the native name of this plant in Ceylon. Most of the species are sub-parasitic, and found climbing, like ivy, on the trunks of trees in the West Indies and America. In our stores most of the species will thrive planted in old bark and moss, and plunged in heat. P. palmata has leaves upward of three feet long, with a foot-stalk nearly four feet long, palmate, as thick as strong parchment, smooth, with a midrib of a deep green above, and the fructification on spikes more than a foot in length. The species are cultivated for the sake of their foliage, which is always of an agreeable green color, and not liable to discoloration by damp or other accidents of a hot-house.

253. *Rivina*. In memory of A. Q. Rivinus, a native of Saxony, born in 1652, and died in 1722. He was for a long time professor of botany and medicine at Leipsig, and left behind him some valuable botanical works; and among them a very ingenious attempt at a classification of plants by the corolla; from which some modern botanists have profited more than they have acknowledged. The name, as Linnaeus observes, with his usual neatness, has been given to a shrub always covered with leaves and fruits, in allusion to the merit of the works of Rivinus. R. octandra, the Hoop-witly of Jamaica, and *liane à baril* of Martinique, has a very long tough flexile stalk an inch or more in diameter, and sometimes made into hoops in the West Indies. The berries con-

1493 Leaves opposite ovate rough, Flowers capitate, Heads stalked axillary

1494 Stem erect 4-cornered and leaves lanceolate entire smooth

1495 Leaves lanceolate entire nerveless

1496 Leaves lanceolate 3-nerved veinly entire, Scape 3-cornered at the end

1497 Leaves ovate lanceolate entire nerved dotted

1498 Leaves obovate lanceolate pointed at both ends ribbed, Spathe oblong acuminate flat stalked

1499 Leaves obl. attenuated at both ends veinly entire, Middle rib convex on both sides with 3 keels at its base

1500 Leaves cordate lobed imbricated, Spathe flat, Scape rounded

1501 Leaves cordate acute, Lobes spreading, Spathe reflexed as long as the erect spadix

1502 Leaves cordate lobes divaricating, Spadix much shorter than the spathe

1503 Leaves cordate very obtuse

1504 Leaves cordate acute, Spadix subglobose

1505 Leaves palmated, Lobes 9 or 10 lanceolate obtuse

1506 Leaves digitate quinque ovate acuminate

1507 Leaves pubescent

1508 Leaves ovate smooth ciliated, Petioles pubescent

1509 Leaves ovate acuminate smooth flat, Stem round

1510 Leaves ovate wavy rugose, Stem furrowed

1511 Flowers octandrous and dodecandrous

1512 Tufted tomentose hoary, Stems ascending simple

1513 Leaves reniform plaited serrated, Stem and petiole smoothish, Flowers dichotomous corymbose

1514 Leaves reniform 9-lobed beneath with the stem and petioles silky, Flowers fastigate clustered sessile

1515 Leaves reniform 7-lobed toothed silky beneath, Corymbs terminal

1516 Leaves digitate in sevens lanceolate acute, from the middle to the end deeply serrated silky beneath

1517 Leaves digitate in fives or sevens lanceolate cuneate obtuse serrated or toothed at the end silky beneath

1518 Leaves three together, Leaflets ciliated multifid smooth

1519 Leaves three parted, Segments trifid pubescent, Flowers clustered monandrous

1520 Spike ovate, Stamens shorter than the cor. Cal. and leaves smooth, Leaflets ovate subcordate

1521 Leaflets cordate lanceolate crenate toothed quite smooth, Stamens shorter than corolla

1522 Leaflets subsessile ovate-lanceolate finely serrated, Spikes cylindrical, Stamens longer than corolla

1523 Spikes cylindrical, Stamens longer than corolla, Cal. somewhat ciliated

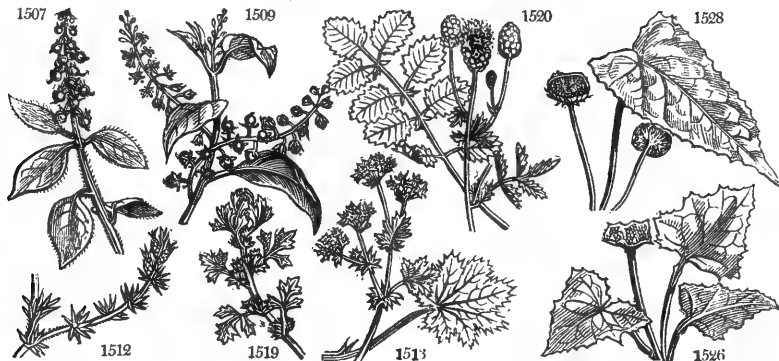
1524 Spikes cylindrical very long, Stamens much longer than corolla

1525 Leaves cordate oval obtuse crenulate, Receptacles orbicular

1526 Leaves cordate angular acute, Receptacles quadrangular

1527 Leaves cordate or pinnatifid palmate serrated, Receptacles quadrangular

1528 Leaves cordate sagittate undulated toothed large, Receptacles oval



and Miscellaneous Particulars.

stitute the principal part of the food of the American thrush or nightingale; they contain a very oily seed, and after the bird has swallowed many of them he frequently flies to the next bird-pepper bush (*Capsicum*), and picks a few pods: instinct directing him to what is necessary to promote the digestion of that oleaginous heavy food.

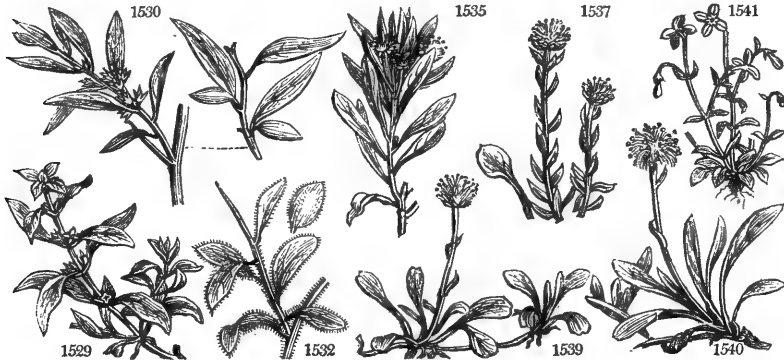
254. *Camphorosma*. Barbarously named from two words, the one Latin (*camphora*), and the other Greek (*orjan*), signifying a smell of camphor. The plant abounds with a volatile oily salt, and is warm and stimulating; but its appearance has nothing to recommend it.

255. *Alchemilla*. Named, as Linnaeus asserts, from its supposed alchymical purposes; but, as others maintain, from its Arabic appellation *alkêmyleh*. (*J. de Souza*, p. 52.) *A. vulgaris* is eaten readily by horses, sheep, and goats, and is considered a good herbage-plant where it abounds in upland pastures. *A. alpina* is an elegant species, common on many of the Highland mountains, and supposed by Lightfoot and others to aid considerably in giving the peculiarly excellent flavor to Highland mutton. *A. aphanes* is a worthless weed.

256. *Sanguisorba*. From *sanguis*, blood, and *sorbere*, to absorb. The plant has passed for an excellent vulnerary. This genus greatly resembles *Poterium* (*Monecia Polyan.*), and Professor Martyn observes, that it is certainly a defect in the Linnæan system that two genera so similar in habit should be placed so far apart. It must be considered, however, that the object of the Linnæan system was less to bring plants together according to all their relative qualities, than to associate them according to one quality, which might serve as an index by which to ascertain their names.

257. *Dorstenia*. In memory of Theodore Dorsten, a German, author of a work entitled *Botanicon*, printed in 1740. Its flowers, says Linnaeus, are like the works of Dorsten, they have little to recommend them. The roots are imported under the name of *Contryerva* roots, and used both in medicine and dyeing.

|  |                             |       |    |       |     |                                   |                 |   |     |                         |
|--|-----------------------------|-------|----|-------|-----|-----------------------------------|-----------------|---|-----|-------------------------|
| 258. ISNARDA. W.<br>1529 palustris W.          | ISNARDA.<br>marsh           | ≡ ○ W | 1  | jl    | G   | <i>Onagraceae.</i><br>Sp. 1-6.    | Eur., &c. 1776. | S | co  | Schk. han. 1. t. 25     |
| 259. ELÆAG'NUS. W.                             | OLEASTER.<br>narrow-leaved  | ≡ ○ W | 15 | jl    | Ap  | <i>Elæagnæ.</i><br>Sp. 6-10.      | S. Europe 1633. | C | co  | Pall. ross. 1. t. 4     |
| 1531 argentea Ph.                              | silvery                     | ≡ ○ W | 10 | jl.au | Ap  |                                   | N. Amer. 1813.  | C | co  |                         |
| 1532 orientalis W.                             | oriental                    | ≡ ○ W | 10 | jl.au | Ap  |                                   | Levant 1748.    | L | p.l | Pall. ross. 1. t. 5     |
| 1533 latifolia W.                              | broad-leaved                | ≡ ○ W | 3  | jl.au | Ap  |                                   | E. Indies 1712. | L | p.l | Bm. zeyl. t. 39. f. 2   |
| 1534 acuminata Lk.                             | acuminated                  | ≡ ○ W | 3  | ...   | Ap  |                                   | .....           | C | co  |                         |
| 260. GLOBULARIA. W.                            | GLOBULARIA.<br>long-leaved  | ≡ ○ W | 3  | jl.au | W   | <i>Globularinae.</i><br>Sp. 6-13. | Madeira 1775.   | L | p.l | Bot. reg. 685           |
| 1536 Alypum W.                                 | three-toothed               | ≡ ○ W | 2  | aus.  | Pa  |                                   | S. Europe 1640. | L | p.l | Garid. aix. t. 42       |
| 1537 vulgaris W.                               | common                      | ≡ ○ W | 4  | my.jn | B   |                                   | Europe 1640.    | C | p.l | Bot. mag. 2956          |
| 1538 spinosa W.                                | prickly-leaved              | ≡ ○ W | 4  | my.jn | B   |                                   | Spain 1640.     | C | p.l |                         |
| 1539 cordifolia W.                             | wedge-leaved                | ≡ ○ W | 4  | jn.jl | B   |                                   | Germany 1633.   | C | p.l | Jac. aus. 3. t. 245     |
| 1540 nudicaulis W.                             | naked-stalked               | ≡ ○ W | 4  | jn.jl | B   |                                   | Germany 1629.   | C | p.l | Jac. aus. 3. t. 230     |
| †261. HOUSTONIA. W.                            | HOUSTONIA.<br>blue-flowered | ≡ ○ W | 4  | pr    | L.B | <i>Rubiaceae.</i><br>Sp. 2-15.    | N. Amer. 1785.  | D | a.p | Bot. mag. 370           |
| 1542 purpurea W.                               | purple-flower'd             | ≡ ○ W | 1  | my.au | Pu  |                                   | N. Amer. 1800.  | D | co  | Bot. cab. 1621          |
| 262. DIPSA'CUS. W.                             | TRABEL.<br>clothier's       | ≡ ○ W | 6  | jl    | Pu  | <i>Dipsaceae.</i><br>Sp. 6-10.    | Britain hedg.   | S | l   | Eng. bot. 2080          |
| 1544 sylvestris W.                             | wild                        | ≡ ○ W | 4  | jl    | Pu  |                                   | Britain m.hed.  | S | m.s | Eng. bot. 1032          |
| 1545 laciniatus W.                             | cut-leaved                  | ≡ ○ W | 4  | jl.au | Pu  |                                   | Germany 1683.   | S | m.s | Jac. aus. 5. t. 403     |
| 1546 Gmelin. Bieb.                             | intermediate                | ≡ ○ W | 3  | jl.au | B   |                                   | Caucasus 1820.  | S | m.s |                         |
| 1547 inermis Wall.                             | unarmed                     | ≡ ○ W | 4  | ...   | W   |                                   | Nepal 1823.     | S | m.s |                         |
| 1548 pilosus W.                                | small                       | ≡ ○ W | 4  | au    | W   |                                   | Britain moip.l. | S | m.s | Eng. bot. 877           |
| *263. CEPHALA'RIA. Schr.                       | CEPHALARIA.<br>Alpine       | ≡ ○ W | 3  | jn.jl | L.Y | <i>Dipsaceae.</i><br>Sp. 13-30.   | Switzerl. 1570. | D | co  | Be. yss. t. 8. f. 1     |
| 1549 albescens W. en.                          | whitish                     | ≡ ○ W | 2  | jn.jl | W   |                                   | Siberia 1804.   | D | co  |                         |
| 1551 rigida W.                                 | stiff-leaved                | ≡ ○ W | 2  | jl    | W   |                                   | C. G. H. 1781.  | S | p.l | Com. hort. 2. t. 93     |
| 1552 attenuata W.                              | narrow-leaved               | ≡ ○ W | 1  | jl.s  | W   |                                   | C. G. H. 1774.  | S | l.p |                         |
| 1553 transylvanica W.                          | Transylvanian               | ≡ ○ W | 2  | jl    | Li  |                                   | Transylv. 1699. | S | co  | Jac. vind. 2. t. 111    |
| 1554 syriaca W.                                | Syrian                      | ≡ ○ W | 3  | jl    | W   |                                   | Syria 1633.     | S | co  | Mor. h. 3. t. 14. f. 15 |
| 1555 leucantha W.                              | white-flowered              | ≡ ○ W | 2  | s.o   | W   |                                   | France 1739.    | D | co  | Ger. ema. 721. f. 8     |
| 1556 tatárca W.                                | Tartarian                   | ≡ ○ W | 6  | jn.au | L.Y |                                   | Russia 1759.    | S | co  | Act. ups. 1744. t. 1    |
| 1557 uralensis W.                              | Uralian                     | ≡ ○ W | 5  | jl.au | Y   |                                   | Siberia 1789.   | S | co  | Co. got. 1782. t. 4     |
| 1558 laevigata W. & K.<br>β <i>corniculata</i> | smooth<br>horned            | ≡ ○ W | 1  | jl.au | Str |                                   | Hungary 1805.   | D | co  | Wl. & Kit. 3. t. 230    |
| 1559 cretacea Bieb.                            | chalky                      | ≡ ○ W | 4  | jl.au | Str |                                   | Hungary 1801.   | D | co  | W. et Kit. t. 13        |
| 1560 Vaillantii Schott.                        | Vaillant's                  | ≡ ○ W | 14 | jl.au | B   |                                   | Caucasus 1818.  | D | co  |                         |
| 1561 papposa W.                                | downy-headed                | ○     | 1  | jl    | W   |                                   | S. Europe 1739. | S | co  |                         |
| *264. SCABIO'SA. W.                            | SCABIOUS.<br>forked         | ≡ ○ W | 1  | jn.au | Pk  | <i>Dipsaceae.</i><br>Sp. 32-103.  | Sicily 1804.    | S | co  | Bocc. mus. t. 120       |
| 1563 Succisa W.                                | Devil's-bit                 | ≡ ○ W | 1  | au.o  | V   |                                   | Britain pas.    | D | co  | Eng. bot. 878           |
| 1564 integrifolia W.                           | red-flowered                | ≡ ○ W | 14 | jn.au | R   |                                   | France 1748.    | S | co  |                         |
| 1565 arvensis W.                               | field                       | ≡ ○ W | 2  | jl.o  | Pu  |                                   | Britain cor. f. | S | co  | Eng. bot. 659           |
| 1566 sylvatica W.                              | broad-leaved                | ≡ ○ W | 3  | jl    | Pu  |                                   | Austria 1633.   | D | co  | Jac. aus. 4. t. 362     |
| 1567 longifolia P. S.                          | long-leaved                 | ≡ ○ W | 14 | jl.au | Li  |                                   | Hungary 1802.   | D | co  | W. et Kit. t. 5         |
| 1568 ciliata Spr.                              | ciliated                    | ≡ ○ W | 2  | jl.au | W   |                                   | Germany 1802.   | D | co  |                         |



History, Use, Propagation, Culture,

258. *Isnarda*. Antoine Tristan Danti d'Isnard was a French botanist, professor at the Jardin du Roi, and member of the Academy of Sciences, to which he communicated many memoirs upon plants from 1716 to 1724. An obscure marsh plant.

259. *Elæagnus*. From *elaia*, an olive: the tree having a striking resemblance to the olive tree. *E. angustifolia* is a low tree with elegant silvery leaves and a brown bark, but not of long duration. All the hardy species are commonly propagated by layers; but according to Sweet and Haynes, "cuttings will strike if taken off at a joint in ripened wood, and planted in a sheltered situation early in autumn." The green-house and stove species strike in sand under a bell-glass.

260. *Globularia*. From the flowers being packed in *globose* heads. The species called *Alypum* has been so named from *α*, privative, and *λυω*, pain; by use of antiphrasis, according to Dalechamp, because it is a dangerous purgative. Bauhin even calls it *Frutex terribilis*; but Clusius says, it was used by the Spanish quacks of his day as a cure for venereal diseases. It is however doubtful whether the *Alypum* of the old botanists is the same with the plant so called by the moderns. Cuttings of the shrubby green-house species, taken off before they begin to make new shoots, root freely in loam and peat under a bell-glass, and in moderate bottom heat. The hardy and herbaceous kinds may be propagated from seeds, or divided like daisies. Miller says, they prefer a shady situation and a moist loamy soil; but Sweet recommends a light sandy soil. The leaves of most of the species dry black.

261. *Houstonia*. Named after Dr. Wm. Houston, the friend and correspondent of Miller: he died in 1733. The plants are small, elegant in their habits, and very fit for pots or rockwork.

1529 Leaves stalked ovate acute

1530 Leaves lanceolate

1531 Leaves oblong acute at each end silvery, Flowers solitary nodding

1532 Leaves oblong ovate opaque

1533 Leaves ovate

1534 Leaves ovate acuminate wavy

1535 Stem shrubby, Leaves lanceolate linear entire, Flowers axillary subsessile solitary

1536 Stem shrubby, Leaves lanceolate 3-toothed and entire, Heads terminal

1537 Stem herbaceous, Radical leaves about 3-toothed much longer than the stalk, Cauline lanceolate

1538 Radical leaves crenate acuminate, Head ovate, Cauline entire mucronate

1539 Radical leaves wedge-shaped retuse toothed at end the intermediate tooth very small

1540 Stem naked, Leaves entire lanceolate

1541 Leaves radical ovate, Stem compound, First peduncles 2-flowered

1542 Leaves ovate lanceolate, Corymbs terminal

1543 Corona obsolete, Head cylindrical, Bractes recurved, Leaves connate entire subcoriaceous

1544 Corona obsolete, Head cylind. Bractes straight, Invol. weak longer than head, Lvs. conn. entire or jagged

1545 Leaves of involucre linear-lanceolate rigid about as long as the head, Leaves usually sinuately jagged

1546 Corona membranaceous, Head ovate, Involucre weak deflexed

1547 Leaves oblong serrate villous stalked sublobate, Cauline connate, Heads globally villous

1548 Corona obsolete, Head globose, Involucre deflexed not quite so long as bractes:

*Corollas 4-cleft.*

1549 Corona with 8 nearly eq. awned teeth, Anth. strip. with green at time of open. Br. acum. pub. Corol. radiant

1550 Corolla equal, Cal. imbr. Radical leaves pinnated, Leaf. lanc. cut toothed ciliat. Caul. tern. and sim. lin.

1551 Corollas 4-fid unequal, Scales of calyx obtuse, Leaves oblong serrated scabrous

1552 Corollas equal, Scales of calyx oblong obtuse, Leaves linear smooth entire trifid and at base pinnatifid

1553 Corona with 8 equal short teeth, Bractes awned, Awns purplish black

1554 Corona with 8 teeth of which 4 are awned and the other 4 very short, Br. awned, Awns rufous, Corol. equal

1555 Coroll. sub-equal, Scales of calyx ovate, Leaves pinnatifid

1556 Corona with 8 awned nearly equal teeth, Anth. str. with green at time of op. Br. acum. pub. Corol. radiant

1557 Coroll. radiant, Radical leaves simple, Cauline decurrent pinnated, Paleæ arid reflexed at end

1558 Corona with 4-8 obsolete teeth, Bractes awnless yellowish white the outer obtuse the inner acuminate

β Teeth of the corona distorted

1559 Coroll. radiant, Calyx imbricated, Leaves coriaceous smooth lanceolate entire: the upper lyrate

1560 Coroll. equal, Calyx and paleæ awned, Stem simple smoothish, Leaves lanceolate almost smooth

*Corollas 5-cleft.*

1561 Coroll. unequal, Stem herbaceous erect, Leaves pinnatifid, Seeds bearded and feathery pappose

*Corollas 4-fid.*

1562 Coroll. nearly equal, Stem dichotomous, Leaves oblong cauline entire subsessile radical toothed stalked

1563 Cor. equal, Stem simple, Branches approximated, Leaves lanc. ovate pubescent, Caul. lin. nearly entire

1564 Cor. radiant, Leaves undivided, Radical ovate serrated, Cauline lanceolate

1565 Coroll. radiant, Leaves entire pinnatifid and cut, Stem hispid

1566 Coroll. radiant, Leaves all undivided ovate oblong serrated, Stem hispid

1567 Coroll. radiant, Leaves oblong lanceolate entire, Stem below smooth above pilose

1568 Coroll. sub-radiant, Stem and leaves ovate hispid the lower leaves stalked entire auric. or pinn. Calyx cil.



and Miscellaneous Particulars.

262. *Dipsacus*. From *δὲ ψάω*, to thirst. At the axillæ of the leaves is usually a quantity of limpid water, which may be acceptable to people who are thirsty. This water once had reputation as a cosmetic. *Chardon à Foudre*. Fr. *Kardendistel*, Ger.; and *Dissaco*, Ital. D. fullonum is cultivated in the west of England for raising the nap upon woollen cloths, by means of the crooked awns or chaffs upon the heads, which in the wild Teasel are not hooked. For this purpose they are fixed round the circumference of a large broad wheel, which is made to turn round, and the cloth is held against them. The seeds are sown in March, on well prepared strong clayey loam, broad-cast, and at the rate of one peck to the acre. They are hoed, like turnips, to a foot distance; and the second year, in August, the heads are fit to cut. They are sold by the bundle or stave, twenty-five in each, and the ordinary produce is 160 staves per acre. In Essex, caraway is often sown along with teasel, and the second year after the latter is pulled, the former is mown or reaped. (*Young's Annals*, vol. xxi. p. 53.)

D. pilosus is the handsomest species; the seeds are eaten by small birds, and the flowers frequented by moths in great numbers.

263. *Cephalaria*. From *κεφαλή*, a head, in reference to the manner in which the flowers grow. A mere artificial division of the genus *Scabiosa*, from which it differs in no natural characters whatever.

264. *Scabiosa*. From *scabies*, leprosy. The sudorific qualities of this plant are said to be useful in cutaneous diseases. This is a vigorous-growing coarse-looking genus. *S. succisa* is one of the few examples of *radix pre-morsa* or bitten-off root; an appearance, as Keith states, owing to the point or top of the seminal root

|  |                 |   |    |       |       |      |           |          |   |     |                         |
|--|-----------------|---|----|-------|-------|------|-----------|----------|---|-----|-------------------------|
| 1569 canescens P. S.   | hoary           | △ | or | 1     | jl.au | Li   | Hungary   | 1802.    | D | co  | W.&K.hun. t.53          |
| 1570 gramúncia W.  | cut-leaved      | △ | or | 1     | jl.au | L.B  | S. Europe | 1597.    | D | p.l | Ger. herb. 592. f.2     |
| 1571 columbária W.   | fine-leaved     | △ | or | 1     | jl.au | Pu   | Britain   | dr. pa.  | S | co  | Eng. bot. 1311          |
| 1572 grandiflora P. S.   | great-flowered  | ○ | or | 3     | jn.s  | W    | Barbary   | 1804.    | S | co  | Scd. dl. ins. 3. t.14   |
| 1573 lúcida P. S.  | shining         | △ | or | 2     | jn.s  | B    | Dauphiny  | 1800.    | D | co  |                         |
| 1574 sicula W.   | Sicilian        | ○ | or | 1     | au    | Pk   | Sicily    | 1783.    | S | co  | Jac. vind. 1. t. 15     |
| 1575 rutáfolia P. S.   | Rue-leaved      | △ | or | 1     | jn.au |      | Sicily    | 1804.    | D | co  | Bocc. sic. t. 52        |
| 1576 maritima W.   | sea             | △ | or | 2     | jl    | Pu   | Italy     | 1683.    | D | co  | Mor. h. 6. t. 15. f. 29 |
| 1577 Webbiana B. R.  | Webb's          | △ | or | 1     | jl    | W    | Mnt. Ida  | 1818.    | D | co  | Bot. reg. 717           |
| 1578 holosericea Bert.   | silky           | △ | or | 1     | jn.jl | B    | Pyrenees  | 1818.    | D | co  |                         |
| 1579 stellata W.   | starry          | △ | or | 1 1/2 | jl.au | B    | Spain     | 1596.    | S | co  | Clu. hist. 2. p. 1. ic  |
| 1580 prolifera W.  | prolific        | ○ | or | 1     | jl.au | Y    | Egypt     | 1683.    | S | co  | Her. parad. t. 125      |
| 1581 atropurpurea W.   | sweet           | ○ | or | 4     | jl.s  | Br   | .....     | 1623.    | S | co  | Bot. mag. 347           |
| 1582 argentea W.   | silvery         | △ | or | 2     | jn.o  | W    | Levant    | 1713.    | D | co  | Ann. mus. 11. t. 24     |
| 1583 urecolata P. S.   | jagged          | △ | or | 3     | jl.au | Y    | Barbary   | 1804.    | S | co  | Mor. h. 6. t. 13. f. 34 |
| 1584 africana W.   | affrican        | △ | or | 6     | ilo   | W    | Africa    | 1690.    | S | p.l | Herm. par. t. 219       |
| 1585 nitens R. & S.  | Masson's        | △ | or | ...   | jn.au | ...  | Azores    | 1779.    | D | co  |                         |
| <i>Scabiösa lucida</i> H. K.   |                 |   |    |       |       |      |           |          |   |     |                         |
| 1586 crética W.  | Cretan          | △ | or | 1     | jn.o  | Pu   | Crete     | 1596.    | S | p.l | Mor. h. 3. t. 15. f. 31 |
| 1587 graminifolia W.   | grass-leaved    | △ | or | 1     | jn    | B    | Switzerl. | 1683.    | D | p.l | Bot. reg. 835           |
| 1588 caucasea B. M.  | Caucasian       | △ | or | 1     | jl.au | B    | Caucasus  | 1803.    | D | p.l | Bot. mag. 886           |
| 1589 lyrata W.   | lyrate-leaved   | △ | or | 1     | jl.au | Pu   | Turkey    | 1799.    | S | s.l |                         |
| 1590 palestina W.  | Palestine       | △ | or | 1     | jl.au | Ci   | Palestine | 1771.    | S | s.l | Jac. vind. 1. t. 96     |
| 1591 isetensis W.  | Siberian        | △ | or | 1     | jl.au | W    | Siberia   | 1801.    | S | s.l | Gmel. sib. 2. t. 88     |
| 1592 ucranica W.   | Ukraine         | △ | or | 1     | s     | L. Y | Ukraine   | 1795.    | C | s.l | Gmel. sib. 2. t. 87     |
| 1593 ochroleuca W. en.   | pale-flowered   | △ | or | 1     | jl.au | Y    | Germany   | 1597.    | D | s.l | Jac. aut. 5. t. 439     |
| 1594 banatica P. S.  | Hungarian       | △ | or | 3     | jl.au | Pk   | Hungary   | 1800.    | D | co  | W. & Kit. 10. t. 12     |
| <b>265. KNAUTIA. W.</b> <b>KNAUTIA.</b> <b>Dipsacæ. Sp. 2-6.</b>     |                 |   |    |       |       |      |           |          |   |     |                         |
| 1595 orientalis W.   | red-flowered    | ○ | or | 1     | jn.s  | R    | Levant    | 1713.    | S | co  | Schk. han. 1. t. 22     |
| 1596 propionica W.   | purple-flower'd | △ | or | 2     | jn.au | Pu   | Levant    | 1768.    | S | co  | Till. pis. 153. t. 48   |
| <b>266. GALIUM. W.</b> <b>BED-STRAW.</b> <b>Rubiacæ. Sp. 26-160.</b> |                 |   |    |       |       |      |           |          |   |     |                         |
| 1597 rubioides W.  | Madder-leaved   | △ | w  | 1     | jl    | W    | S. Europe | 1775.    | D | co  | Buxb. cent. 2. t. 29    |
| 1598 palustre W.   | marsh           | △ | w  | 2     | jl.au | W    | S. Europe | m.me.    | D | m.s | Eng. bot. 1837          |
| 1599 Witheringii E. B.   | rough           | △ | w  | 1/2   | jn.jl | W    | England   | hea.     | D | s.p | Eng. bot. 2206          |
| 1600 austriaca W.  | Austrian        | △ | w  | 1     | jn.jl | W    | Europe    | 1804.    | D | co  | Jac. aut. t. 80         |
| 1601 Bocconi W.  | Boccone's       | △ | w  | 1     | my.jn | Pk   | Europe    | 1801.    | D | co  | Boc. m. 145. t. 101     |
| 1602 erectum E. B.   | upright         | △ | w  | 1 1/2 | jn.jl | W    | Britain   | m. pas.  | D | m.s | Eng. bot. 2067          |
| 1603 pusillum W.   | least           | △ | w  | 1/2   | jl.au | W    | England   | moun.    | D | s.l | Eng. bot. 74            |
| 1604 verum W.  | Cheese-rennet   | △ | w  | 1 1/2 | jl.au | Y    | Britain   | bu. pl.  | D | m.s | Eng. bot. 660           |
| 1605 Mollúgo W.  | great-hedge     | △ | w  | 2     | jl.au | W    | Britain   | hedg.    | D | co  | Eng. bot. 1673          |
| 1606 sylvaticum W.   | wood            | △ | w  | 3     | jl.au | W    | S. Europe | 1658.    | D | co  | Flor. dan. t. 609       |
| 1607 linifolium W.   | Flax-leaved     | △ | w  | 1 1/2 | jn.jl | W    | S. Europe | 1759.    | D | co  | Barrel. ic. 583         |
| 1608 rigidum W.  | rigid           | △ | w  | 1     | jn.jl | W    | .....     | 1778.    | D | co  |                         |
| 1609 aristatum W.  | awned           | △ | w  | 3     | jn.jl | W    | Italy     | 1699.    | D | co  | Boc. mus. 83. t. 75     |
| 1610 tyrolense W. en.  | Tyrolean        | △ | w  | 1     | jl    | W    | Tyrol     | 1801.    | D | co  |                         |
| 1611 glaucum W.  | glaucous        | △ | w  | 2     | jn.s  | W    | S. Europe | 1710.    | D | co  | Jac. aut. 1. t. 81      |
| 1612 purpureum W.  | purple          | △ | or | 1     | jn.jl | Pu   | Switzerl. | 1731.    | D | co  |                         |
| 1613 rubrum W.   | red             | △ | or | 1     | jn.jl | Pu   | Italy     | 1597.    | D | co  | Ger. herb. 967. f. 3    |
| 1614 spurium E. B.   | spurious        | △ | or | 1 1/2 | jn.jl | G    | Britain   | cor. fi. | S | co  | Eng. bot. 1871          |
| 1615 uliginosum W.   | marsh           | △ | or | 1 1/2 | jl.au | W    | Britain   | mar.     | D | m.s | Eng. bot. 1972          |
| 1616 anglicum E. B.  | wall            | △ | w  | 1/2   | jl.au | Y    | England   | Wales.   | D | s.l | Eng. bot. 384           |
| 1617 saxatile W.   | smooth-heat     | △ | w  | 1/2   | ap.s  | W    | Britain   | hea.     | D | s.p | Eng. bot. 815           |
| 1618 tricorne Sm.  | three-horned    | ○ | w  | 1/2   | jn.jl | W    | Britain   | hea.     | S | co  | Eng. bot. 1641          |



History, Use, Propagation, Culture.

dying off, in consequence of which horizontal roots naturally protrude themselves. Why it should rot off is not known, but is vulgarly accounted for by ascribing it to a bite from the devil. The same appearance is found in Plantago, Trifolium, and some other plants with subfusiform roots. A decoction of *S. succisa* is an empirical specific for the gonorrhœa.

*S. atropurpurea* is the handsomest species, and is cultivated as a border annual and biennial. It has been so long in cultivation that its native country is unknown. Linnaeus and Miller consider it as a native of India; Professor Martyn of the south of Europe.

265. *Knautia*. So named by Linnaeus in honor of Christopher Knaut, physician at Halle in Saxony: born in 1636; died in 1694. Another Knaut (Christian) published a system of plants in 1706, which has nothing to recommend it.

266. *Gallium*. Derived from *γαλα*, milk; because one sort is used for the purpose of curdling milk. This is a very natural genus; the roots of most of the sorts dye red, and the herb, like madder, colors the bones of animals that feed on it. The stems of all the species are four-cornered, and the leaves in whorls; the flowers ge-

*Corollas 5-fld.*

- 1569 Hoary, Coroll. radiant, Stem many-flowered, Radical leaves ovate lanceolate entire, Cauline pinnatifid  
 1570 Calyx very short, Cauline leaves bipinnate filiform  
 1571 Coroll. radiant, Radical leaves obovate or lyrate pubescent crenate, Cauline pinnate setaceous  
 1572 Coroll. radiant, Radical leaves oblong crenated, Caul. pinnatifid: the pinnae linear lanceolate spreading  
 1573 Coroll. radiant, Leaves smooth, Radical ovate oblong serrate or lyrate, Caul. pinnate: the segm. lin. cut  
 1574 Coroll. equal shorter than calyx, Leaves lyrate pinnatifid hairy, Stem branched divaricating  
 1575 Leaves pinnate: the upper linear, Calyxes 1-leaved 5-cleft  
 1576 Coroll. radiant shorter than calyx, Leaves pinnated the upper linear entire  
 1577 Silky, Lower lvs. stalked roundish or cuneate rugose cren. upper pinnat. Florets uniform longer than invol.  
 1578 Hoary very soft, Radical leaves obl. crenated upper caul. pinnatifid with ovate or lanc. crenated segm.  
 1579 Coroll. radiant, Lvs. cut, Recept. of fruit roundish, Outer limb of calyx broad membran. Stem branched  
 1580 Coroll. radiant, Flowers subsessile, Stem dichotomous, Leaves oblong lanceolate nearly entire pubescent  
 1581 Coroll. radiant, Leaves cut, Receptacles of the flower subulate  
 1582 Coroll. radiant, Leaves pinnatifid, Segments linear, Peduncles very long, Stem rounded  
 1583 Calyx multifid ureolate, Coroll. radiant, Leaves fleshy pinnatifid with linear stiff pinnae  
 1584 Coroll. equal, Stem shrubby, Leaves simple erect  
 1585 Coroll. radiant, Leaves undivided elliptical serrated shining stalked  
 1586 Coroll. radiant, Leaves lanceolate nearly entire, Stem shrubby  
 1587 Coroll. radiant, Leaves linear lanceolate entire, Stem herbaceous 1-flowered  
 1588 Coroll. radiant, Radical leaves lanceolate stalked entire, Cauline pinnated, Stem 1-flowered  
 1589 Coroll. radiant, Segments entire, Lower leaves oblong coarsely serrated upper pinnatifid at base  
 1590 Coroll. radiant, all the segments trifid, Leaves undivided subserrate the upper pinnatifid at base  
 1591 Coroll. radiant longer than calyx, Leaves bipinnate longer than stem  
 1592 Coroll. radiant, Radical leaves pinnatifid, Cauline linear fringed at base  
 1593 Coroll. radiant, Radical leaves bipinnate with linear leaflets, Cauline pinnate with perfoliate stalks  
 1594 Coroll. radiant, Radical leaves lyrate, Cauline sub-bipinnate, Calyxes as long as disk

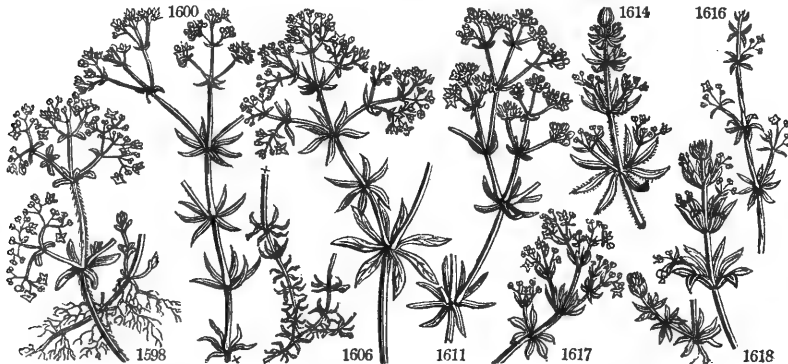
- 1595 Leaves cut, Cor. 5 longer than calyx  
 1596 Upper leaves lanceolate entire, Cor. 10 as long as calyx

*Fruit smooth.*

- 1597 Leaves 4 ovate lanceolate 3-nerved beneath scabrous, Stem erect simple  
 1598 Leaves 4 obovate unequal obtuse, Stems diffuse  
 1599 Leaves 5 reflexed lanceolate awned ciliated, Stem erect simple scabrous  
 1600 Leaves linear smooth mucronate, Stems 4-cornered diffuse  
 1601 Leaves 6 linear mucron. roughish, Peduncles trichot. Stems prostrate diffuse 4 angular winged branched  
 1602 Leaves 8 lanceolate prickly serrate forwards, Panicles trichotomous, Stems smoothish flaccid  
 1603 Leaves 8 hispid lanceolate linear acuminate subimbricate, Peduncles twice dichotomous  
 1604 Leaves 8 linear furrowed with stem smooth to the touch, Branches flexible, the flow. bearing ones short  
 1605 Leaves 8 elliptical lanceolate obtuse mucronate at the edge rough horizontally spreading, Stem flaccid  
 1606 Leaves 8 smooth lanc. scabrous beneath, Floral in pairs, Panicle term. Ped. capill. Stem rounded smooth  
 1607 Leaves 8 linear lanceolate very smooth, Peduncles panicled capillary, Stem rounded  
 1608 Leaves whorled linear above scabrous, Panicle divaricating, Stem erect rounded pilose roughish  
 1609 Leaves 8 lanceolate smooth mucronate, Panicle capillary, Petals awned, Stem 4-cornered weak  
 1610 Leaves 8-6 obovate lanc. mucr. rough at edge, Peduncles 3-flow. Petals awned, Stem 4-cornered smooth  
 1611 Leaves whorled linear, Peduncles dichotomous flower-bearing from the top of the stem which is smooth  
 1612 Leaves whorled linear setaceous, Peduncles capillary longer than the leaves  
 1613 Leaves whorled linear spreading, Peduncles very short  
 1614 Leaves 6 lanceolate keeled round aculeate backwards joints simple  
 1615 Leaves 6 or 8 lanceolate prickly serrate backwards mucronate stiff, Cor. larger than fruit  
 1616 Leaves 6 linear lanceolate mucronate thin, edges and the stem scabrous, Peduncles bifid, Fruit granular

*Fruit rough or hispid.*

- 1617 Leaves 4-6 oblong with short point rough at edge, Panicles close, Stem weak short smooth  
 1618 Leaves 8 lanc. at edge and stem aculeate backwards. Peduncles axillary 3-f. Fruit granular nodding

*and Miscellaneous Particulars.*

nerally axillary, but sometimes panicled. *G. verum*, *petit Muget*, Fr. is called bed-straw, from the verb to strew, straw, or straw; being one among a variety of odoriferous herbs which were formerly used to strew beds with. The bruised plant is sometimes put in milk intended for cheese to give it a flavor and color. Boiled in alum-water, the flowering stems dye a good yellow color, and the roots a red equal to madder. They were once cultivated like that plant, at the recommendation of the Committee of Council for Trade, and yielded 12½ cwt. of dried roots per acre. *G. mollugo*, of which there are several varieties, and *G. sylvaticum* and boreale have similar qualities, though in a less degree.

*G. aparine*, (from *απειρω*, to lay hold of), has the fruit set with hooked bristles which adhere to whatever they come in contact with, whence it was called by the Greeks *Philanthropon* (man-lover), and by us cleavers, catch-weed, scratch-weed, &c.; and from being a favorite food or medicine with geese, goose-grass, &c. Linnaeus informs us, that they use the stalks in Sweden as a filtre to strain their milk through. Dioscorides relates, that the shepherds made the same use of it in his time; and certainly it is no bad thing to take hairs from milk, where a sieve is not at hand. It is reckoned to purify the blood, and for that purpose the tops are

|                         |                |        |       |       |       |           |           |        |                        |                   |
|-------------------------|----------------|--------|-------|-------|-------|-----------|-----------|--------|------------------------|-------------------|
| 1619 boreale W.         | cross-leaved   | ✱ Δ w  | 1 1/2 | jl    | W     | Britain   | moun.     | D co   | Eng. bot. 105          |                   |
| 1620 Aparine W.         | Cleavers       | ↓ ○ w  | 3     | my.au | W     | Britain   | hedg.     | S co   | Eng. bot. 816          |                   |
| 1621 pilosum W.         | hairy          | ↓ Δ Δ  | 1     | jn.jl | W     | N. Amer.  | 1778.     | D co   |                        |                   |
| 1622 gracum W.          | Candian        | ↓ Δ Δ  | cu    | 1     | jn.jl | Pu        | Candia    | 1798.  | D co                   | Alp.ex.167. t.166 |
| 267. RUBIA W.           | MADDER.        |        |       |       |       |           |           |        |                        |                   |
| 1623 tinctorum W.       | dyer's         | ✱ Δ ag | 4     | jn    | Y     | S. Europe | 1596.     | D s.1  | Lam. ill. t.60. f.1    |                   |
| 1624 peregrina W.       | wild           | ✱ Δ w  | 2     | jl    | Y     | England   | bu. pl.   | D co   | Eng. bot. 851          |                   |
| 1625 lucida W.          | shining        | ✱ Δ w  | 2     | jl    | Y     | Majorca   | 1762.     | C l.p. | Fl. grac. t. 142       |                   |
| 1626 fruticosa W.       | prickly-leaved | ✱ Δ w  | 4     | s     | Y     | Canaries  | 1779.     | C s.1  | Jac. ic. 1. t. 25      |                   |
| 1627 angustifolia W.    | narrow-leaved  | ✱ Δ w  | 2     | jl.au | Y     | Minorca   | 1772.     | C l.p. | Lam. ill. t.60. f.2    |                   |
| 1628 cordifolia W.      | heart-leaved   | ✱ Δ cu | 2     | jl    | W     | Siberia   | 1783.     | D p.1  | Pall. it. 3. t. 2. f.1 |                   |
| 268. ASPERULA W.        | WOODROOF.      |        |       |       |       |           |           |        |                        |                   |
| 1629 odorata W.         | sweet-scented  | ↓ Δ or | 3     | my.jn | W     | Britain   | woods.    | D s.1  | Eng. bot. 755          |                   |
| 1630 arvensis W.        | field          | ↓ ○ w  | 1     | jl    | Li    | Europe    | 1596.     | S co   | Lob. ic. t.801. f.2    |                   |
| 1631 hirta P. S.        | hairy          | ↓ Δ pr | 1     | jn.jl | Pu    | Pyrenees  | 1817.     | D co   |                        |                   |
| 1632 hirsuta Desf.      | hirsute        | ↓ Δ pr | 1     | my.jn | W     | Portugal  | 1819.     | D co   |                        |                   |
| 1633 taurina W.         | broad-leaved   | ↓ Δ pr | 1     | ap.jn | W     | Italy     | 1739.     | D s.1  | Moris.s.9.t.21.f.1     |                   |
| 1634 crassifolia W.     | thick-leaved   | ↓ Δ pr | 1     | jn    | W     | Levant    | 1775.     | D s.1  |                        |                   |
| 1635 aristata L.        | awned          | ↓ Δ pr | 1     | jl.au | Y     | S. Europe | 1823.     | D co   |                        |                   |
| 1636 scabra Lk.         | rough          | ↓ Δ pr | 1     | jn.jl | W     | Italy     | 1824.     | D co   |                        |                   |
| 1637 tinctoria W.       | narrow-leaved  | ↓ Δ pr | 3     | jn.jl | Pk    | Europe    | 1764.     | D s.1  | Tab. ic. t.733. f.1    |                   |
| 1638 cynanchica W.      | small          | ↓ Δ pr | 3     | jn    | F     | England   | ch. hill. | D s.1  | Eng. bot. 33           |                   |
| 1639 supina Bieb.       | supine         | ↓ Δ pr | 3     | jn    | Pk    | Caucasus  | 1821.     | D co   |                        |                   |
| 1640 arcadiensis B. M.  | Arcadian       | ↓ Δ pr | my    | my    | W     | Arcadia   | 1819.     | D co   | Bot. mag. 2146         |                   |
| 1641 levigata W.        | shining        | ↓ Δ pr | 1     | jn    | W     | S. Europe | 1775.     | D s.1  | Mor. his. t.21. f.4    |                   |
| 1642 montana W. en.     | mountain       | ↓ Δ pr | 1     | jn.jl | Pk    | Hungary   | 1801.     | D co   |                        |                   |
| 269. SHERARDIA W.       | FIELD-MADDER.  |        |       |       |       |           |           |        |                        |                   |
| 1643 arvensis W.        | little         | ↓ ○ w  | 1     | aps   | B     | Britain   | cor. fi.  | S co   | Eng. bot. 891          |                   |
| 1644 murills W.         | wall           | ↓ ○ w  | 1     | jn.au | Y     | Italy     | 1805.     | S co   | Allion. t. 77. f. 1    |                   |
| 270. SPERMACOCE W.      | BUTTON-WEED.   |        |       |       |       |           |           |        |                        |                   |
| 1645 tenior W.          | slender        | ↓ ○ w  | 2     | jn.au | Pk    | W. Indies | 1732.     | S co   | Sch. hand.l. t.22      |                   |
| 1646 latifolia W.       | broad-leaved   | ↓ ○ w  | 2     | jl    | W     | Guiana    | 1803.     | S s.1  | Aublet. t. 19. f. 1    |                   |
| 1647 strigosa B. M.     | Cross-wort     | ↓ ○ w  | 1     | jl.au | W     | W. Indies | 1760.     | S s.1  | Bot. mag. 1658         |                   |
| 1648 radicans W.        | rooting        | ↓ Δ w  | 1     | jl    | W     | Guiana    | 1803.     | S s.1  | Aublet. l.t.20. f.4    |                   |
| 1649 verticillata W.    | whorl-flowered | ↓ ○ w  | 2     | jn.au | W     | Africa    | 1732.     | S s.p. | Dil. el. t.277. f.358  |                   |
| 1650 hispida W.         | bristly        | ↓ ○ w  | 1 1/2 | aus   | V     | E. Indies | 1781.     | S s.1  | Mur.co.got.3. t.6      |                   |
| 1651 rubra Jacq.        | red            | ↓ ○ w  | 1     | jn.au | Pu    | .....     | 1804.     | S s.1  | Jac.schoen. t.256      |                   |
| 1652 stricta L.         | upright        | ↓ ○ w  | 1     | jn.jl | W     | E. Indies | 1820.     | S s.1  |                        |                   |
| 1653 stylosa Lk.        | long-styled    | ↓ ○ w  | 1     | my.jn | W     | Manilla   | 1819.     | S s.1  |                        |                   |
| 1654 cornifolia Fisch.  | dogwood-leaf'd | ↓ ○ w  | 1     | my.jn | R     | Brazil    | 1819.     | S s.1  |                        |                   |
| 1655 Fischéri Lk.       | Fischer's      | ↓ ○ w  | 1     | my.jn | W     | Jamaica   | 1821.     | S s.1  |                        |                   |
| 1656 suffruticosa Jacq. | suffruticose   | ↓ Δ w  | 1     | jn.au | F     | .....     | 1824.     | C s.1  | Jac.schoen. t.322      |                   |
| 1657 mucronata Nees.    | mucronate      | ↓ Δ w  | 2     | jn.jl | W     | Jamaica   | 1822.     | D s.1  |                        |                   |
| 171. CRUCIANELLA W.     | W. Cross-wort. |        |       |       |       |           |           |        |                        |                   |
| 1658 angustifolia W.    | narrow-leaved  | ↓ ○ cu | 1     | jn.jl | Y     | France    | 1658.     | S co   | Ex. bot. 2. t. 109     |                   |
| 1659 latifolia W.       | broad-leaved   | ↓ ○ cu | 1     | jn.jl | G     | France    | 1633.     | S co   | Barr. ic. t. 520       |                   |



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an ingredient in spring-broth. The expressed juice of the herb, taken to the amount of four ounces or a quarter of a pint night and morning, during several weeks, is very efficacious in removing many of those cutaneous eruptions, which are called, though improperly, scorbutic. The seeds have been substituted for coffee. The roots, like those of most of the species, will dye red; and, eaten by birds, tinge their bones of that color. It is a very troublesome weed, particularly in young hedges, but being an annual is easily eradicated.

*C. tuberosum* is cultivated in China for the roots, which are eaten boiled, either whole or in meal, and Loureiro says, are esteemed salubrious. It has not yet been introduced.

267. *Rubia*. From *ruber*, red. *R. tinctorum* has an annual stalk, which trails or climbs, supporting itself in the latter case by its leaves and prickles. Its root is composed of many long thick succulent shoots nearly half an inch in diameter, striking deep into the ground, and growing to the length of three or four feet. From them is procured a well-known red and scarlet dye used by clothiers and callico-printers, and employed to a great extent, though chiefly from foreign roots. England was formerly supplied with this article exclusively from Holland, and as in times of political derangement the price was greatly increased, its dearness induced some patriotic individuals, who had recently set on foot the Society of Arts, to attempt its culture in England. Miller paid great attention to the subject about 1758, publishing separately, as well as in his Dictionary, the Dutch practice as observed by him while in Holland. A. Young, in his "Annals," details several trials; the result of which, and especially those of J. Arbuthnot in 1765, proves, that it could be grown here to as great perfection as in Holland, but not sold at so low a price. Its culture was not therefore encouraged, and we are now supplied from Holland, France, Italy, and Turkey, and the cochineal is very generally in use as a substitute. Like others of the natural order of Rubiaceæ, madder tinges with a florid red color the milk, urine, and bones of the animals that feed on the plant. The hardest part of the bones receives the color first, which gradually extends through the whole substance; but if the plant be alternately given and inter-

- 1619 Leaves 4 lanceolate 3-nerved smooth, Stem erect, Fruit hispid  
 1620 Leaves 8 lanc. keels and edge scab. acul. backw. Stem flaccid, Joints vill. Fruit covered with hooked hairs  
 1621 Leaves 4 subovate pilose nerveless, Fruit hairy  
 1622 Hairy leaves about 6 linear lanceolate, Stems woody
- 1623 Leaves 6 lanceolate smooth above: their edge and keel beneath scabrous, Stem herbaceous aculeate  
 1624 Leaves 4 perennial lanceolate above shining smooth their edge and rib beneath scabrous  
 1625 Leaves perennial 6 elliptical shining, Stem smooth  
 1626 Leaves perennial elliptical at the edge and keel very prickly, Stem rough shrubby  
 1627 Leaves perennial linear above scabrous  
 1628 Leaves perennial 4 cordate oblong stalked 3-nerved above and at the edges scabrous
- 1629 Leaves 8 lanceolate, Corymbs terminal stalked, Seeds echinate  
 1630 Lower leaves 4 obovate, upper 5-6-8, Flowers terminal sessile aggregated, Involucres ciliated  
 1631 Leaves hairy acute 6 longer than the joint, Flowers terminal aggregate sessile longer than involucre  
 1632 Leaves 6 linear acute toothletted: the lower hirsute, Flowers aggregate terminal  
 1633 Leaves 4 ovate lanceolate 3-nerved, Flowers fasciated terminal  
 1634 Leaves 4 together oblong: the lateral revolute obtuse pubescent  
 1635 Leaves linear fleshy: the lower 4, Flowers 3 awned  
 1636 Cauline leaves 4 linear the lower elliptical the upper in pairs all rough awned, Cor. rough  
 1637 Leaves linear the lower 6 3-nerved, the middle 4, the upper opposite, Stem flaccid, Cor. smooth 3-fid  
 1638 Lower leaves 4 lanceolate upper linear very unequal in pairs, Stem erect, Fruit smooth tubercled  
 1639 Leaves 4 linear the lower imbricate, Stem much branched at base procumbent, Flowers 4-fid  
 1640 Hispid, Leaves 6 oblong-ovate acute revolute at edge, Stems decumbent  
 1641 Leaves 4 elliptical obsolete nerved smooth glabrous at edge, Fruit scabrous  
 1642 Leaves linear the lower 6, middle 4, upper opposite, Stem flaccid, Cor. 4-fid scabrous outside
- 1643 Lower leaves 8 and 4, Flowers terminal, Stem and branches scabrous, Involucres naked  
 1644 Leaves 6 linear: floral in pairs opposite, Branches simple, Flowers two, Fruit hispid subsessile
- 1645 Smooth, Leaves lanceolate, Stamens included, Flowers whorled, Seeds hairy  
 1646 Smooth, Leaves ovate, Stamens exerted, Flowers whorled ciliated  
 1647 Leaves and bracts oblong ovate hispid, Stalks stem-clasping, Flowers capitate, Stamens exerted  
 1648 Smooth, Leaves subsessile lanceolate acute, Flowers whorled small, Stem procumbent rooting  
 1649 Smooth, Leaves lanceolate, Whorls globose  
 1650 Hispid, Leaves obovate oblique, Flowers axillary in pairs  
 1651 Hairy, Leaves ovate the upper four together, Heads terminal  
 1652 Leaves linear-lanceolate lined  
 1653 Stem decum. rounded smooth, Lvs. obl. lanc. atten. at base, Stipules setose, Fl. whorled, Style exerted  
 1654 Stem erect slightly downy, Leaves stalked oblong acute rough and pubescent at edge, Stamens exerted  
 1655 Stem erect 4-cornered hairy, Leaves acute entire lined pubescent with very short hairs, Flowers termina.  
 1656 Stem ascending very smooth 4-cornered, Leaves stalked ovate acuminate thin, Flowers whorled  
 1657 Resembles *Sp. verticillata*, but the leaves are shorter and obtuse with a point, at the edge and back rough

- 1658 Erect, Leaves 6 linear, Flowers spiked  
 1659 Procumbent, Leaves 4 lanceolate, Flowers spiked



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mitted, the bones are found to be colored in concentric circles. In medicine, madder was formerly used in complaints of the kidneys.

To cultivate the madder, choose a deep sandy loam, and prepare it by trenching or very deep ploughing. Plant cuttings of the roots in rows, eighteen inches by one foot in the row, in March, and the third year they may be taken up in September. The roots are next kiln-dried, and afterwards threshed to clean them from earth and dust. They are then dried a second time, and immediately afterwards pounded or stamped in a mill. It is cultivated extensively in Zealand, and especially in the isle of Schowen: round Avignon and in Lombardy it is grown on narrow ridges, and irrigated by directing water along the furrows.

268. *Asperula*. From *asper*, rough. The species *cynanchica* is so called from *κυνανχιον*, to choke, it being a specific in cases of squinancy. The English name of this genus is supposed to be a corruption of the word *wood-rowel*, the whorls of leaves, according to Turner, representing certain kinds of "rowelles of spores." All the species, excepting *arvensis* and *cynanchica*, will thrive in the shade and drip of trees in a moist soil. *A. odorata* has a pleasant scent like *Anthoxanthum*: it imparts a grateful flavor to wine, an agreeable perfume to clothes, and preserves them from insects. It is eaten by cattle and horses, and from containing an acid principle, with much fixed alkaline salt, has been thought useful in obstructions of the liver and biliary ducts. The roots of *A. tinctoria* are used in Gothland to dye wool a red color.

269. *Sherardia*. So named in honor of the famous Sherard, of whose noble garden at Eltham Dillenius's Hortus Elthamensis is a living monument, and whose herbarium is still one of the few things which recommend Oxford to the notice of a botanist. This is a little insignificant weed, by no means worthy to be consecrated to the memory of so celebrated a man.

270. *Spermacoce*. From *σπερμα*, seed, and *ακον*, point. The seeds have two remarkable points. The rubbish of the tropics.



|  |                    |   |    |       |       |          |           |           |       |                   |                     |
|--|--------------------|---|----|-------|-------|----------|-----------|-----------|-------|-------------------|---------------------|
| 1660 <i>ægyptiaca</i> W.                       | Egyptian spreading | ○ | ‡  | jn.jl | Y     | Egypt    | 1800.     | S         | co    |                   |                     |
| 1661 <i>patula</i> W.                          | pubescent          | △ | ‡  | jn.jl | Y     | Spain    | 1798.     | S         | co    |                   |                     |
| 1662 <i>pubescens</i> W.                       | ciliated           | △ | 1  | jl.au | Pu    | Candia   | 1799.     | C         | lp    |                   |                     |
| 1663 <i>ciliata</i> W.                         | sea                | □ | ‡  | jl.au | Y     | Levant   | 1805.     | S         | co    |                   |                     |
| 1664 <i>martina</i> W.                         | long-leaved        | □ | 1  | jl.au | Y     | France   | 1640.     | C         | lp    |                   |                     |
| 1665 <i>monsipeliaca</i> W.                    | Montpelier         | △ | ‡  | jl.au | Y     | France   | 1791.     | S         | l.s.p |                   |                     |
| 1666 <i>molluginoides</i> W.en.                | Mollugo-like       | △ | 1  | jl.au | G     | Caucasus | 1800.     | D         | co    | Bux.cn.2.t.30.f.1 |                     |
| <b>272. CALLICARPA. W. CALLICARPA.</b>         |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1667 <i>americana</i> W.                       | American           | △ | or | 6     | jn.jl | R        | N. Amer.  | 1724.     | C     | s.p               | Cat. car. 2. t. 47  |
| 1668 <i>caña</i> W.                            | woolly             | □ | or | 3     | ...   | Pu       | E. Indies | 1799.     | C     | s.p               | Bot. mag. 2107      |
| 1669 <i>lanata</i> W.                          | long-leaved        | □ | or | 4     | jn.jl | Pu       | E. Indies | 1788.     | C     | lp                |                     |
| 1670 <i>macrophylla</i> W.                     | rusty              | □ | or | 6     | ...   | Pk       | India     | 1808.     | C     | s.p               | Vah.symb.3.t.53     |
| 1671 <i>ferruginea</i> W.                      | American           | □ | or | 2     | jn.jl | B        | Jamaica   | 1794.     | C     | lp                |                     |
| <b>273. WITHERIN'GIA. W. WITHERINGIA.</b>      |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1672 <i>solanæca</i> W.                        | yellow-flower'd    | △ | □  | 1     | my.s  | Y        | S. Amer.  | 1742.     | D     | lp                | L'Her.ser.33.t.1    |
| <b>274. ÆGYPHILA. W. ÆGYPHILA.</b>             |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1673 <i>martiniensis</i> W.                    | Martinique         | □ | or | 6     | n     | W        | W. Indies | 1780.     | S     | p.l               | Jac. obs. 2. t. 27  |
| 1674 <i>fer'tida</i> W.                        | fetid              | □ | or | 2     | jn.jl | Li       | W. Indies | 1800.     | C     | lp                |                     |
| 1675 <i>diffusa</i> Andr.                      | diffuse            | □ | or | 2     | jl.au | Y        | W. Indies | 1804.     | C     | lp                | Bot. rep. 578. f. 1 |
| 1676 <i>obovata</i> Andr.                      | oval-leaved        | □ | or | 2     | jl.au | Y        | W. Indies | 1804.     | C     | lp                | Bot. rep. 578. f. 2 |
| <b>275. CEPHALANTHUS. W. BUTTON-WOOD.</b>      |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1677 <i>occidentalis</i> W.                    | American           | △ | or | 7     | au    | W        | N. Amer.  | 1735.     | S     | s.l               | Schm. arb.1.t.45    |
| <b>276. SCOPARIA. W. SCOPARIA.</b>             |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1678 <i>dulcis</i> W.                          | sweet              | □ | cu | 3     | jn.s  | W        | Jamaica   | 1730.     | S     | s.l               | Herm. par.t.241     |
| <b>277. CENTUNCULUS. W. BASTARD-PIMPERNEL.</b> |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1679 <i>minus</i> W.                           | least              | □ | cu | ‡     | jn.jl | F        | Britain   | moi. h. S | p.l   |                   | Eng. bot. 531       |
| <b>278. PLANTAGO. W. PLANTAIN.</b>             |                    |   |    |       |       |          |           |           |       |                   |                     |
| 1680 <i>major</i> W.                           | greater            | △ | w  | 1     | my.jn | W        | Britain   | me. pa.   | D     | co                | Eng. bot. 1558      |
| 1681 <i>crispa</i> Jacq.                       | thick-leaved       | △ | w  | ‡     | jn.jl | W        | S. Europe | 1793.     | D     | s.l               | Jc.co.sup.34.t.16   |
| 1682 <i>asiatica</i> W.                        | broad-leaved       | △ | w  | 1     | jl    | W        | Siberia   | 1787.     | D     | s.l               | Gmel.sib.4.t.37.7   |
| 1683 <i>maxima</i> W.                          | hollow-leaved      | △ | w  | 2     | jl.au | G        | Siberia   | 1763.     | D     | co                | Jac. ic. 1. t. 26   |
| 1684 <i>media</i> W.                           | hoary              | △ | w  | ‡     | my.jl | G        | Britain   | me. pa.   | D     | co                | Eng. bot. 1559      |
| 1685 <i>virginica</i> W.                       | Virginian          | △ | w  | ‡     | jn.s  | G        | N. Amer.  | 1688.     | S     | co                | Mor.h.3.t.15.f.8    |
| 1686 <i>altissima</i> W.                       | tall               | △ | w  | 3     | jn.jl | G        | Italy     | 1774.     | S     | co                | Jac. obs. 4. t. 83  |
| 1687 <i>lanceolata</i> W.                      | Rib-grass          | △ | w  | ‡     | my.jl | G        | Britain   | me. pa.   | S     | co                | Eng. bot. 507       |
| 1688 <i>capensis</i> W.                        | Cape               | △ | w  | 1     | my.au | G        | C. G. H.  | 1788.     | C     | co                |                     |
| 1689 <i>Lagopus</i> W.                         | round-headed       | △ | w  | 1     | jn.jl | G        | Spain     | 1683.     | S     | co                | W. ph.4.t.820.f.2   |
| 1690 <i>tumida</i> Lk.                         | swelling           | △ | w  | 1     | jn.jl | G        | Chili     | 1819.     | S     | co                |                     |
| 1691 <i>mexicana</i> Lk.                       | Mexican            | △ | w  | 1     | jn.jl | G        | Mexico    | 1820.     | D     | co                |                     |
| 1692 <i>kamtchatica</i> Lk.                    | Kamtchatka         | △ | w  | ‡     | jn.jl | G        | Kamtsh.   | 1819.     | D     | co                |                     |
| 1693 <i>tenuiflora</i> W. & K.                 | slender-flower.    | △ | w  | ‡     | jn.jl | G        | Hungary   | 1802.     | S     | s.l               | Pl. rar. hn.1.t.39  |
| 1694 <i>salsa</i> Pal.                         | grassy             | △ | w  | ‡     | jl.s  | G        | Siberia   | 1804.     | D     | s.l               |                     |
| 1695 <i>lusitânica</i> W.                      | Portuguese         | △ | w  | ‡     | jl.au | W        | Spain     | 1781.     | D     | s.l               | Bar. ic.119.t.745   |
| 1696 <i>albicans</i> W.                        | woolly             | △ | w  | ‡     | jn.s  | G        | S. Europe | 1776.     | D     | s.l               | Cav. ic. 2. t. 26   |
| 1697 <i>patagonica</i> W.                      | Patagonian         | △ | w  | ‡     | jn.s  | Y        | Patagonia | 1793.     | S     | s.l               | Jac. ic. 2. t. 306  |
| 1698 <i>hirsuta</i> W.                         | hairy              | △ | w  | ‡     | jn.jl | G        | C. G. H.  | 1801.     | S     | s.l               | Jac.schee.3.t.258   |
| 1699 <i>villôsa</i> P. S.                      | villous            | △ | w  | ‡     | jn.jl | G        | Germany   | 1804.     | S     | s.l               |                     |
| 1700 <i>Wulfeni</i> W. en.                     | Wulfen's           | △ | w  | ‡     | jn.jl | G        | Germany   | 1802.     | D     | co                |                     |
| 1701 <i>alpina</i> W.                          | Alpine             | △ | w  | ‡     | jn.jl | W        | Austria   | 1774.     | D     | s.l               | Jac.vind.2.t.125    |
| 1702 <i>Bellardi</i> W.                        | Bellardi's         | △ | w  | ‡     | jn.jl | G        | S. Europe | 1797.     | S     | co                | Al. ped.1.t.85.f.3  |
| 1703 <i>crética</i> W.                         | Cretan             | △ | w  | ‡     | jn.jl | G        | Candia    | 1711.     | S     | co                |                     |



History, Use, Propagation, Culture,

271. *Crucianella*. A diminutive of *crux*, a cross; some of the roots having their leaves in whorls of four. These are small herbaceous plants of little beauty, natives of the south of France, and rarely seen in this country except in botanic gardens.

272. *CalliCARPA*. From *καλος*, beautiful, and *καρπος*, fruit. Its berries are of a bright purple color.

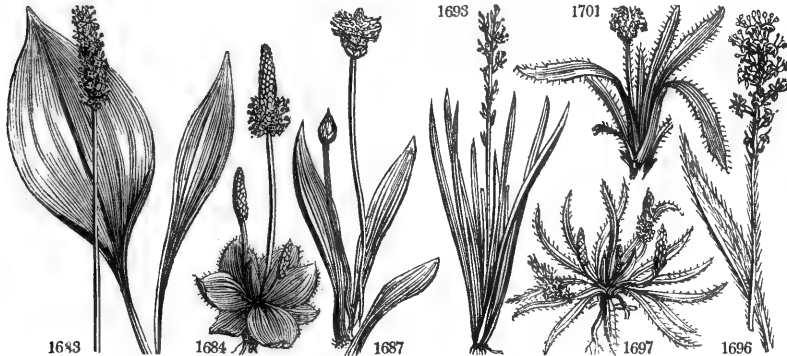
273. *Witheringia*. In honor of Dr. W. Withering, the author of a classification of English plants, which has been one of the most popular of our English botanical works, and deservedly so, although it has now yielded to others of a more modern character.

274. *Ægiphila*. From *αιξ* αιγος, a goat, and *φιλος*, friend, beloved by goats. In Martinique the plant is called *Bois de Cabri*.

275. *Cephalanthus*. From *κεφαλη*, a head, and *ανθος*, a flower; because the flowers grow in heads. This is a low evergreen shrub, with large light green leaves, and the flowers in spherical heads, about the size of a musket bullet. It has a good effect on lawns in scattered groups, or in the front ranks of shrubberies. Sweet says, "soil that has some peat in it suits them best," and that they are readily propagated by layers, or ripened cuttings under a hand-glass. Miller, in whose time the art of striking cuttings was not nearly so well understood as at present, recommends a moist light soil, and propagating from seeds.

- 1660 Leaves 4 sublinear, Flowers spiked 5-cleft  
 1661 Diffuse, Leaves 6 revolute at edge, Bract. linear subulate roughish, Flowers scattered  
 1662 Erect, Leaves 6 linear pubescent, Heads stalked axillary and terminal  
 1663 Diffuse, Leaves 4 or 2 lin. keeled, Bract. ciliated loosely spiked, Seeds oval covered with obtuse tubercles  
 1664 Procumbent suffruticose, Leaves 4 mucronate, Flowers opposite 5-cleft  
 1665 Procumbent, Leaves acute, of the stem in 4s ovate, of the branches 6 linear, Flowers spiked  
 1666 Erect, Leaves whorled 8-12 linear lanc. scab. Fascic. of flowers stalked term. and axillary, Cor. 5-cleft
- 1667 Lvs. ovate acum. uneq. obtusely toothed at base wedge-shaped atten. entire beneath and branches toment.  
 1668 Leaves ovate toothletted running down the petiole beneath hoary villous, Panic. dichotomous  
 1669 Leaves ovate rounded at base entire somewhat toothletted rugose above beneath with the branches woolly  
 1670 Leaves ovate lanc. serrulate reticul. hoary beneath, Corymbs axillary dichotomous longer than petioles  
 1671 Leaves broad lanceolate serrate roughish beneath, Cymes terminal and axillary
- 1672 Stem hairy herbaceous angular, Leaves ovate lanceolate pilose, Stalks 1-flowered umbelled axillary
- 1673 Leaves ovate lanceolate acuminate smooth, Branches diffuse, Panic. terminal and axillary, Cal. smooth  
 1674 Leaves ovate lanceolate beneath and the stalks hairy, Peduncles axillary solitary  
 1675 Leaves ovate lanceolate with a long point smooth on both sides, Pan. diffuse axillary and terminal  
 1676 Leaves obovate acuminate smooth on both sides, Pan. axillary and terminal, Stalks and calyxes less pub.
- 1677 Leaves opposite and ternate oblong oval acuminate
- 1678 Leaves 3 together, Flowers stalked
- 1679 Leaves alternate ovate, Flowers sessile

- 1680 Lvs. ovate smoothish generally shorter than footst. Scape rounded, Spike cyl. slender, Caps. many-seeded  
 1681 Leaves obovate shining undulated fleshy sessile, Scape compressed below, Flowers imbric. remote at base  
 1682 Leaves ovate smooth somewhat toothed, Scape angular, Spike with distinct flowers  
 1683 Leaves ovate subdentulate 9-nerved pubescent, Spike cylindrical imbricated, Scape rounded  
 1684 Leaves ovate pubescent longer than the footstalk, Scape rounded, Spike short cylindrical, Filam. lilac  
 1685 Leaves lanceolate ovate pubescent toothletted, Spikes cylindrical pubescent, Scape angular  
 1686 Leaves lanceolate 5-nerved toothed smooth, Spike oblong cylindrical, Scape angular  
 1687 Leaves lanceolate acuminate both ways, Spike short ovate cylind. Scape angular, Caps. 2-seeded  
 1688 Leaves elliptical, Spike with distinct flowers  
 1689 Leaves lanceolate somewhat toothed, Spike ovate hairy, Scape rounded  
 1690 Leaves linear lanceolate toothletted silky, Scapes ascending with appressed hairs, Caps. tumid  
 1691 Leaves lanceolate linear entire, Hairs scattered, Scapes erect rounded, Spike cylindrical dense  
 1692 Leaves oblong toothed 5-nerved hairy, Scapes ascending angular hairy, Spike cylindrical dense  
 1693 Leaves linear nearly entire obtuse fleshy, Scape rounded, Spike erect, Flowers distant  
 1694 Leaves linear convex beneath a little toothed smooth, Scape rounded hirsute, Spike cylindrical smooth  
 1695 Leaves broad lanceolate 3-nerved a little toothed pilose, Scape angular, Spike oblong hairy  
 1696 Leaves lanceolate oblique villous, Spike cylindrical erect, Scape rounded  
 1697 Leaves lanc. lin. somew. chan. ent. woolly; Scape rounded hirsute, Spike cyl. Stam. not longer than flower  
 1698 Leaves linear ciliated, Spike cylindrical, Stem hirsute  
 1699 Subcaulescent, Lvs. lin. lanc. obsol. 3-nerv. toothl. hoary, Spike roundish, Br. winged keeled shorter than fl.  
 1700 Leaves linear attenuated both ways flat 3-nerved, Scape rounded  
 1701 Leaves lin. atten. remotely toothed, Scape rounded hairy, Spike obl. acute, Br. ovate membranous at edge  
 1702 Leaves linear lanceolate hairy longer than the rounded hairy scape, Spike ovate erect, Bractes lanceolate  
 1703 Leaves linear, Scape rounded very short woolly, Spike roundish nodding



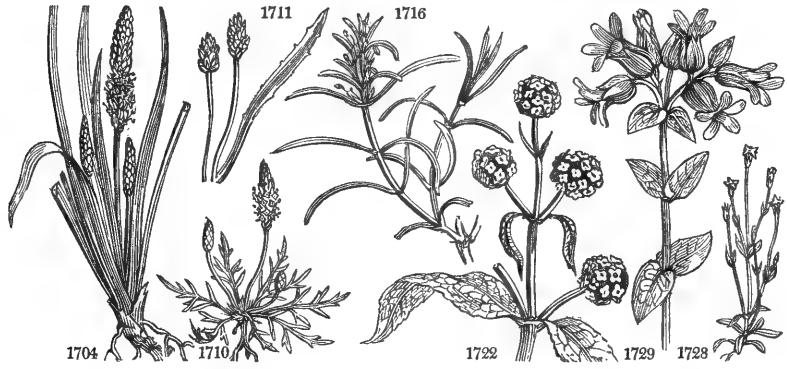
and Miscellaneous Particulars.

276 *Scoparia*. From *scopa*, a broom. In the Antilles brooms are made of the twigs. This plant is treated as a tender annual, and after being raised in the hot-house or hot-bed, is potted off, and kept in the greenhouse, or planted out in the flower borders.

277. *Cenunculus*. A name given by the Romans to a small plant found in cultivated lands. The present is a little mean weed of no use or beauty.

278. *Plantago*. A name of which no satisfactory explanation has been given. Of the species, *Psyllium* is derived from  $\psi\upsilon\lambda\lambda\omicron\varsigma$ , a flea, in allusion to the appearance of its little seeds. *Lagopus*, from  $\lambda\alpha\gamma\omicron\varsigma$ , a hare, and  $\pi\upsilon\varsigma$ , foot; its velvety or silky spike resembling the foot of such an animal. *Coronopus*, from  $\kappa\omicron\upsilon\tau\alpha\nu$ , a crow, and  $\pi\upsilon\varsigma$ , foot; its deeply-cut leaf having been compared to a bird's foot. *Cynops*, signifying dog's-eye, is the name of a plant of Pliny, and one of his plantains. This is a genus of little beauty, and no great utility. Like all other plants known to our botanical forefathers, they were said to have their medical virtues; but that is nothing, or at least but little guide to their absolute use in the arts. *P. lanceolata* (rib-grass) has been employed in agriculture as a herbage plant, but to which it appears to have no great claim. Where it abounds naturally, it is a certain indication of a dry soil. Haller attributes the richness of the milk in the alpine dairies to this plant and *Alchemilla vulgaris*, but Linnæus says cows refuse it. This every shepherd knows to be the case as far as

|                                |                   |   |     |    |       |     |                       |           |   |       |                     |
|--------------------------------|-------------------|---|-----|----|-------|-----|-----------------------|-----------|---|-------|---------------------|
| 1704 marítima <i>W.</i>        | sea               | Δ | w   | ½  | jl    | G   | Britain               | sea.co.   | S | co    | Eng. bot. 175       |
| 1705 graminæa <i>P. S.</i>     | grass-leaved      | Δ | w   | ½  | jn,jl | G   | France                | 1804.     | D | co    | Dod. pempt. 108     |
| 1706 recurvata <i>W.</i>       | recurved-leav'd   | Δ | w   | ½  | jn,jl | G   | S. Europe             | 1793.     | S | s.l   | M.co.go.1780. t.6   |
| 1707 subulata <i>W.</i>        | awl-leaved        | Δ | w   | ½  | jl    | W   | S. Europe             | 1593.     | D | s.l   | Lab. ic. 439        |
| 1708 macrorrhiza <i>W.</i>     | large-rooted      | Δ | w   | ½  | jl.au | Br  | Morocco               | 1790.     | D | s.l   | Mor. h.3. t.17. f.2 |
| 1709 Serrária <i>W.</i>        | saw-leaved        | Δ | w   | 1  | jn,jl | G   | Barbary               | 1690.     | D | s.l   | Col.cephr. t.259    |
| 1710 Coronopus <i>W.</i>       | Star of the earth | ○ | clt | ½  | aps.  | G   | Britain               | seash.    | S | s.l   | Eng. bot. 892       |
| 1711 Læfingii <i>W.</i>        | narrow-leaved     | ○ | w   | ½  | jl.au | G   | Spain                 | ...       | S | co    | Jac. vind.2. t.126  |
| 1712 Cornúti <i>W.</i>         | rough-leaved      | Δ | w   | ½  | jl.au | G   | .....                 | 1801.     | S | co    | Jac. ic. 2. t. 125  |
| 1713 amplexicaëlis <i>W.</i>   | stem-clasping     | ○ | w   | ½  | jn,jl | G   | Spain                 | 1797.     | S | co    | Car. ic. 2. t. 125  |
| 1714 Psyllium <i>W.</i>        | Flwearot          | Δ | w   | ½  | jl.au | G   | S. Europe             | 1562.     | S | co    | Mor. h.3. t.17. f.4 |
| 1715 arenária <i>P. S.</i>     | sandy             | ○ | w   | ½  | my.au | G   | Hungary               | 1804.     | S | co    | W. & Kit. t. 51     |
| 1716 squarrosa <i>W.</i>       | leaf-spiked       | ○ | w   | 2  | aus.  | G   | Egypt                 | 1787.     | S | co    | Jac. ic. 1. t. 28   |
| 1717 indica <i>W.</i>          | Indian            | ○ | w   | ½  | jl.au | G   | India                 | 1780.     | S | co    | Sch.mar.1.ic.145    |
| 1718 stricta <i>P. S.</i>      | upright           | ○ | w   | 1  | jl.au | G   | Morocco               | 1804.     | S | co    | M.co.go.1778. t.5   |
| 1719 púmila <i>W.</i>          | dwarf             | ○ | w   | ½  | jl.au | G   | S. Europe             | 1596.     | C | s.l   | W.ph.4.t.837.f.a    |
| 1720 Cynops <i>W.</i>          | shrubby           | # | w   | ½  | my.au | G   | S. Europe             | 1596.     | C | s.l   | W.ph.4.t.837.f.a    |
| 1721 áfra <i>W.</i>            | Barbary           | Δ | w   | 1  | jn    | G   | Sicily                | 1640.     | S | s.l   | Mor.h.8.t.17. f.4   |
| 279. BUDDLEA. <i>W.</i>        | BUDDLEA.          |   |     |    |       |     | <i>Scrophularinæ.</i> | Sp. 4—26. |   |       |                     |
| 1722 globosa <i>W.</i>         | round-headed      | Δ | or  | 15 | my,jn | Or  | Chili                 | 1774.     | C | co    | Bot. mag. 174       |
| 1723 Neem'da <i>Euch.</i>      | Indian            | Δ | or  | 15 | W     | W   | Nepal                 | 1824.     | C | lp    |                     |
| 1724 salvifolia <i>W.</i>      | Sage-leaved       | Δ | or  | 3  | aus.  | C   | C. G. H.              | 1760.     | C | s.l   | Jac.schcen.1.t.98   |
| 1725 saligna <i>W. cn.</i>     | Willow-leaved     | Δ | or  | 3  | aus.  | W   | C. G. H.              | 1816.     | C | lp    | Jac.schcen.1.t.29   |
| *280. EX'ACUM. <i>W.</i>       | EXACUM.           |   |     |    |       |     | <i>Gentianeæ.</i>     | Sp. 3—18. |   |       |                     |
| 1726 viscosum <i>Sm.</i>       | clammy            | Δ | or  | 2  | jn,jl | Y   | Canaries              | 1781.     | S | pl    | Smit.ic.fas.3.t.18  |
| 1727 spicatum <i>Fahl.</i>     | spiked            | Δ | or  | 2  | ...   | ... | S. Amer.              | 1823.     | S | m.p   | Aub. gui. 1. t. 27  |
| 1728 filiforme <i>W.</i>       | least             | ○ | cu  | ½  | jn,jl | Y   | Britain               | sa.ma.    | S | pl    | Eng. bot. 235       |
| 281. SEBÆ'A. <i>R. Br.</i>     | SEBÆA.            |   |     |    |       |     | <i>Gentianeæ.</i>     | Sp. 1—4.  |   |       |                     |
| 1729 cordata <i>R. Br.</i>     | heart-leaved      | ○ | or  | ½  | jl.au | Y   | C. G. H.              | 1815.     | S | co    | Bur. afr. t.74. f.5 |
| 282. FRASERA. <i>Walt.</i>     | FRASERA.          |   |     |    |       |     | <i>Gentianeæ.</i>     | Sp. 1.    |   |       |                     |
| 1730 carolinensis <i>P. S.</i> | Carolina          | Δ | or  | 4  | jl.au | G   | Carolina              | 1795.     | S | co    | Bart. m.bot.t.35    |
| †283. PENÆA. <i>W.</i>         | PENÆA.            |   |     |    |       |     | <i>Ericaceæ?</i>      | Sp. 2—14. |   |       |                     |
| 1731 mucronata <i>W.</i>       | heart-leaved      | Δ | or  | 2  | jn,jl | R   | C. G. H.              | 1787.     | S | pl    | Vent. mal. 87       |
| 1732 squamosa <i>W.</i>        | scaly             | Δ | or  | 1  | jn,jl | R   | C. G. H.              | 1787.     | S | pl    | Bot. reg. 106       |
| 284. BLE'RIA. <i>W.</i>        | BLE'RIA.          |   |     |    |       |     | <i>Ericaceæ.</i>      | Sp. 5—13. |   |       |                     |
| 1733 ericoides <i>W.</i>       | heath-leaved      | Δ | or  | 2  | au.o  | Pu  | C. G. H.              | 1774.     | C | sp    | P.gz.471. t.2. f.10 |
| 1734 articulata <i>W.</i>      | jointed           | Δ | or  | 2  | my,jn | Pk  | C. G. H.              | 1795.     | C | sp    | Lam. ill. t. 78     |
| 1735 purpurea <i>W.</i>        | purple-flowered   | Δ | or  | 2  | my,jn | Pu  | C. G. H.              | 1791.     | C | sp    |                     |
| 1736 muscosa <i>W.</i>         | Moss-leaved       | Δ | or  | 1  | jn.au | W   | C. G. H.              | 1774.     | C | lp    |                     |
| 1737 ciliaris <i>W.</i>        | ciliated          | Δ | or  | 2  | jn.au | W   | C. G. H.              | 1795.     | C | sp    | Wend.col.2. t.49    |
| 285. CHOMELIA. <i>W.</i>       | CHOMELIA.         |   |     |    |       |     | <i>Rubiaceæ.</i>      | Sp. 1—2.  |   |       |                     |
| 1738 spinosa <i>W.</i>         | spiny             | Δ | or  | 12 | ...   | W   | W. Indies             | 1793.     | C | pl    | Jac.amer.18.t.13    |
| 286. ADI'NA. <i>Sal.</i>       | ADINA.            |   |     |    |       |     | <i>Rubiaceæ.</i>      | Sp. 1.    |   |       |                     |
| 1739 globiflora <i>Sal.</i>    | globe-flowered    | Δ | or  | 2  | jl.au | W   | China                 | 1804.     | C | s.l.p | Par. lon. 115       |
| 287. BOUVAR'DIA. <i>H. K.</i>  | BOUVAR'DIA.       |   |     |    |       |     | <i>Rubiaceæ.</i>      | Sp. 2.    |   |       |                     |
| 1740 triphylla <i>H. K.</i>    | three-leaved      | Δ | or  | 2  | ap.n  | S   | Mexico                | 1794.     | C | sp    | Par. lond. 88       |
| 1741 versicolor <i>B. Reg.</i> | various-colored   | Δ | or  | 2  | jl.s  | R   | S. Amer.?             | 1814.     | C | lp    | Bot. reg. 245       |



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respects the flower-stalks. Zappa of Milan, and A. Young, speak in high terms of it; but the general feeling and practice of scientific agriculturists is against it, and it is now seldom sown.

P. major is a native of most parts of Europe and of Japan, and always by way-sides, whence its name of way-bread or way-bred. The seeds afford food to linnets, finches, and other small birds, and the leaves are a common application to wounds and cutaneous sores. An American negro once received a reward from an assembly of South Carolina for a cure for the bite of the rattle-snake; and in the receipt, it is said by Woodville (*Med. Bot.*), plantain was a principal ingredient. There are several varieties of this species to be met with in rich pastures and in botanic gardens, such as the rose P., in which the flower appears changed into a tuft of leaves expanded like a rose, and the besom P., in which the spike-leaves are imbricate and pyramidal.

P. maritima varies in size and situation more than most plants. Its leaves are sometimes scarcely an inch, and at other times more than a foot in length; and the number of flowers in the spike varies extremely. Like *Statice armeria* and *Sambucus nigra*, it is found on the summits of the highest mountains, in the clefts of rocks, on the sea-shore, in salt marshes, and muddy banks.

P. coronopus is a singular-growing plant, with recumbent stems pressing closely on the ground. The leaves have a very peculiar flavor, and are rather disagreeable, but were formerly used in salads. P. psyllium is sometimes imported from the south of France in a dried state for the druggists.

279. *Buddlea*. In honor of Adam Buddle, a name well known to the English botanist as authority for many rare British plants. B. globosa is a very handsome shrub, and though rather tender, flowers freely in warm situations, or against a wall, with protection in very severe winters. Its leaves are long, narrow, pointed,

- 1704 Leaves semicylindrical entire woolly at base, Scape rounded  
 1705 Leaves lin. flat somewhat toothed smooth at base, Spike cyl. Scape rounded hairy scarcely longer than leaves  
 1706 Leaves linear channelled recurved naked  
 1707 Leaves linear channelled entire beneath with rigid ciliae hairy at base, Scape rounded pubescent  
 1708 Leaves spatulate cut-toothed, Teeth imbricated mucronated, Scape rounded hairy  
 1709 Leaves lanceolate 5-nerved toothed serrate, Scape rounded  
 1710 Leaves linear pinnate toothed, Scape rounded  
 1711 Leaves linear sub-toothed, Scape rounded, Head ovate, Bractes keeled membranous  
 1712 Leaves ovate entire fleshy rough woolly at base, Capsules 4-seeded  
 1713 Stem erect simple short, Leaves lanceolate fleshy entire stem-clasping hairy, Heads oblong leafless  
 1714 Stem branched herbaceous, Leaves somewhat toothed recurved, Heads leafless  
 1715 Hoary, Stem erect branched herbaceous, Leaves nearly entire, Heads leafy and sepals ovate  
 1716 Herbaceous, Stem branched diffuse decumbent, Leaves linear entire, Heads squarrose  
 1717 Stem branched herbaceous, Leaves linear entire reflexed, Heads leafy  
 1718 Stem branched herbaceous erect, Leaves linear channelled entire, Heads leafless  
 1719 Stem branched herbaceous weak, Leaves subulate entire, Heads leafy  
 1720 Stem branched suffruticose, Leaves entire filiform straight, Heads somewhat leafy  
 1721 Stem branched shrubby, Leaves lanceolate toothed, Heads leafless

- 1722 Leaves lanceolate acuminate crenulate beneath hoary, Heads globose stalked  
 1723 Leaves lanceolate subserrate hoary underneath, Spikes terminal lengthening with flowers threefold  
 1724 Leaves lanceolate cordate crenate rugose beneath tomentose, Flowers panicled  
 1725 Leaves linear lanceolate entire revolute at edge tomentose beneath, Corymbs terminal

- 1726 Leaves oblong nerved stem-clasping, Bractes cordate perfoliate longer than calyx  
 1727 Flowers spiked whorled and ternary, Leaves ovate lanceolate, Stem nearly simple  
 1728 Limb spreading, Stem filiform branched, Radical leaves roundish, Cauline subulate

- 1729 Flowers 5-cleft, Sepals cordate striated membranous keeled, Stem dichotomous, Leaves cordate

- 1730 A singular plant found in morasses in North America, and resembling *Swertia*

- 1731 Flowers terminal, Leaves cordate acuminate smooth  
 1732 Leaves rhomboidal wedge-shaped fleshy smooth, Flowers terminal

- 1733 Anthers exserted awnless, Cal. 4-leaved, Bract. 3 length of cal. Leaves 4 oblong acerose hairy imbricated  
 1734 Anthers exserted awnless, Leaves 4 ovate smooth, Flower-heads cernuous  
 1735 Anthers included awnless, Leaves 4 ovate subciliated, Flowers umbelled, Stem flexuose erect  
 1736 Anthers subexserted awnless, Cal. 1-leaved pilose, Cor. campanulate pilose above, Flowers axillary  
 1737 Leaves 4 smooth, Calyx lacinated ciliated

- 1738 Leaves ovate acuminate entire, Peduncles axillary

- 1739 The only species

- 1740 Leaves ternate lanceolate, Stamens included  
 1741 Leaves opp. Cor. clavate, Tube smooth inside



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rugose, of the color of the common sage, and the flowers are very fragrant. It is commonly propagated by layers; but cuttings of the young wood of all the species root freely in common earth under a hand-glass. *Buddlea Neemda* is one of the most beautiful plants of India.

280. *Eracum*. The ancient name of a plant nearly related to *Centaurium*; said to have been derived from  $\epsilon\zeta$  and  $\alpha\gamma\alpha$ , to conduct out, on account of its properties of expelling poison taken into the stomach.

281. *Sebaea*. A genus nearly related to the last, named after the famous Albert Seba, whose museum was once one of the wonders of Europe.

282. *Frazera*. After Mr. John Frazer, an indefatigable collector of plants in North America.

283. *Penaea*. In honor of P. Pena, who published *Adversaria Botanica*, 1570, in conjunction with Lobel. A handsome genus, readily propagated by cuttings in sand under a hand-glass. Many of the finest species remain to be introduced from the Cape of Good Hope.

284. *Blaria*. In honor of Patrick Blair, who practised physic at Boston in Lincolnshire, and was one of the fellows of the Royal Society. He published *Botanical Essays* in 1778. The species resemble some kinds of heaths, and require the same treatment.

285. *Chomelia*. Named after Pierre Jean Baptiste Chomel, a French botanist, physician to Louis XV.; he died in 1740. Culture as for *Siderodendrum*.

286. *Adina*. From *adina*, clustered, its flowers being in heads. A small Chinese plant, with flowers looking like those of a *Cephalanthus*. It is probably not different from *Cephalanthus*.

287. *Bowvardia*. Named after Dr. Charles Bouvard, formerly a superintendent of the Jardin du Roi at

|                        |                   |   |    |                   |            |                        |           |   |
|------------------------|-------------------|---|----|-------------------|------------|------------------------|-----------|---|
| 288. IXORA. W.         | IXORA.            |   |    | <i>Rubiaceae.</i> | Sp. 11—16. |                        |           |   |
| 1742 grandiflora B. R. | sessile-leaved    | ☐ | or | 4 au              | Or         | E. Indies              | 1814.     | C lp Bot. reg. 154                        |
| 1743 Bandhoca Roxb.    | Bandhooaka        | ☐ | or | 3 jl              | F          | E. Indies              | 1815.     | C pl Bot. reg. 513                        |
| 1744 coccinea W.       | scarlet           | ☐ | or | 4 jl.au           | S          | China                  | ...       | C pl Rhed. mal. 2. t. 12                  |
| 1745 barbata Roxb.     | bearded           | ☐ | or | 12 jn. jl         | W          | E. Indies              | 1823.     | C pl Bot. mag. 2505                       |
| 1746 parviflora W.     | small-flowered    | ☐ | or | 20 au. o          | W          | E. Indies              | 1800.     | C pl V. a. sy. 3. p. 11. t. 52            |
| 1747 rosea Wall.       | highland          | ☐ | or | 4 jl              | F          | Bengal                 | 1819.     | C pl Bot. reg. 540                        |
| 1748 alba W.           | white             | ☐ | or | 4 jn              | W          | E. Indies              | 1768.     | C pl                                      |
| 1749 stricta Roxb.     | upright           | ☐ | or | 3 jl. au. S       | S          | Moluccas               | 1690.     | C pl Bot. mag. 169                        |
| 1750 blanda B. Reg.    | charming          | ☐ | or | 4 au              |            | E. Indies              | 1822.     | C pl Bot. reg. 100                        |
| 1751 cuneifolia Roxb.  | wedge-shaped      | ☐ | or | 3 jn. jl          | S          | E. Indies              | ...       | C pl Bot. reg. 648                        |
| 1752 crocata B. R.     | orange            | ☐ | or | 3 au. s           | O          | E. Indies              | 1822.     | C pl Bot. reg. 782                        |
| 289. CATESBEA W.       | LILY-THORN.       |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 2—3.  |   |
| 1753 spinosa W.        | spiny             | ☐ | or | 12 my. s          | Y          | I. Provid.             | 1816.     | C s p Bot. mag. 131                       |
| 1754 parviflora P. S.  | small-flowered    | ☐ | or | 1 ...             | W          | Jamaica                | 1720.     | C lp Sl. h. 2. t. 207. f. 1               |
| 290. PAVETTA W.        | PAVETTA.          |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1—13. |   |
| 1755 indica W.         | Indian            | ☐ | or | 4 au. o           | W          | E. Indies              | 1791.     | C pl Bot. reg. 198                        |
| 291. ERNODEA Swz.      | ERNODEA.          |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1—3.  |   |
| 1756 montana Sm        | mountain          | ☐ | or | ↓ jn. jl          | R          | Sicily                 | 1820.     | D rk Fl. grac. t. 143                     |
| 292. SIDERODENDRUM W.  | IRON-TREE.        |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1.    |   |
| 1757 triflorum W.      | three-flowered    | ☐ | tm | 20                | ...        | Pk                     | W. Indies | 1793. C pl Jacq. am. t. 175. f. 9         |
| 293. COCCOCYPSELUM W.  | COCCOCYPSILUM.    |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1—5.  |   |
| 1758 repens W.         | creeping          | ☐ | or | ↓ my              | Pu         | W. Indies              | 1793.     | D s p Bro. jam. t. 6. f. 1                |
| 294. MITCHELLA W.      | MITCHELLA.        |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1.    |   |
| 1759 repens W.         | creeping          | ☐ | or | ↓ jn              | W          | N. Amer.               | 1761.     | L s p Cat. car. i. t. 20                  |
| †295. OLDENLANDIA W.   | W. INDIAN MADDER. |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 2—3.  |   |
| 1760 umbellata W.      | common            | ☐ | or | ↓ jl. au          | W          | E. Indies              | 1792.     | R s p Roxb. cor. i. t. 3                  |
| 1761 corymbosa W.      | Hyssop-leaved     | ☐ | or | ↓ jn. o           | W          | Jamaica                | 1739.     | S s i Eh. pic. t. 2. f. 1. t. 4           |
| †296. MANETTIA W.      | MANETTIA.         |   |    |                   |            | <i>Rubiaceae.</i>      | Sp. 1—8.  |   |
| 1762 coccinea W.       | pink              | ☐ | or | 20 my. jl         | Pk         | Guiana                 | 1806.     | C lp Bot. reg. 693                        |
| †297. EPIMEDIUM W.     | BARREN-WORT.      |   |    |                   |            | <i>Berberideae.</i>    | Sp. 1.    |   |
| 1763 alpinum W.        | Alpine            | ☐ | or | ↓ ap. my          | Bd         | England                | m. thi.   | C pl Eng. bot. 438                        |
| 298. PTELEA W.         | SHRUBBY-TREFOIL.  |   |    |                   |            | <i>Terebinthaceae.</i> | Sp. 1—2.  |   |
| 1764 trifoliata W.     | three-leaved      | ☐ | or | 12 jn. jl         | G          | N. Amer.               | 1704.     | L co Schm. ar. 2. t. 76                   |
| 299. MONEZIA W.        | MONETTIA.         |   |    |                   |            | <i>Incerta.</i>        | Sp. 1.    |   |
| 1765 barlerioides W.   | four-spined       | ☐ | or | 3 jl              | G          | E. Indies              | 1758.     | C s p L'Her. stn. n. 1. t. 1              |
| 300. CURTISIA W.       | HASSAGAY-TREE.    |   |    |                   |            | <i>Incerta.</i>        | Sp. 1.    |   |
| 1766 faginea W.        | Beech-leaved      | ☐ | or | tm                | 30         | ...                    | Pa        | C. G. H. 1775. C s l Bur. afr. 235. t. 82 |
| 301. HARTOGIA W.       | HARTOGIA.         |   |    |                   |            | <i>Terebinthaceae?</i> | Sp. 1.    |   |
| 1767 capensis W.       | Cape              | ☐ | or | 6 jn. jl          | G          | C. G. H.               | ...       | C s l Lam. ill. t. 76                     |



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Paris. *B. triphylla* is a beautiful, and not very tender plant, which flowers great part of the year; var. *β* has smooth shining leaves, and flowers of a deeper scarlet than the other. *B. versicolor* requires the warmest part of the green-house, and the cuttings require bottom heat, with the same soil as the plants.

288. *Ixora*. A name of doubtful origin. *Iswara* is the name of an Indian divinity. According to Sweet, the species of this beautiful genus "require to be kept in a moist heat to thrive well; but not plunged in tan, as that is almost certain to injure their roots. A mixture of sandy loam and peat is the best soil for them. Care must be taken to keep them clean and free from insects, or they will not thrive. Cuttings root very freely in sand under a hand-glass.

289. *Catesbea*. So named by Gronovius, in honor of Mark Catesby, author of the natural history of Carolina, &c. who discovered the first species of this genus. It is very ornamental. *C. spinosa* has flowers about six inches long, in the form of a Roman trumpet, and succeeded by fruit the size of a pullet's egg; the skin smooth and yellow, and the pulp like that of a ripe apple, with an agreeable taste. It does not flower very freely, but strikes root readily in sand under a bell-glass, and in moist heat.

290. *Pavetta*. The name of the plant in Malabar. A small genus nearly related to *Ixora*, with flowers usually white, as those of *Ixora* are red.

291. *Ernodea*. From *ερνωδης*, branching, in allusion to the habit of the plant.

292. *Siderodendrum*. From *σιδηρος*, iron, and *δενδρον*, a tree. Wood, compared for hardness to iron. This tree may be noticed on account of an anomaly which occurs in the corolla, which is often changed, perhaps by some insect, into an oblong bag, half an inch in length, fleshy, and hollow within, and ending in a point at top like a fruit. Cuttings of ripened wood root in sand under a hand-glass.

293. *Coccocypselum*. From *κοκκος*, fruit, and *κυψελον*, a vase, its berry being surmounted by a corona resembling a little cup. Cuttings root freely in sand under a bell-glass.

294. *Mitchella*. Named after John Mitchell, an Englishman, who travelled in Virginia, and left some papers upon North American plants behind him. This is one of those plants which Humboldt (*De Distrib. Plant.*) calls

- 1742  
 1743 Shrubby spreading, Lvs. oval stem-clasping, Corymbs crowded, Segm. of cor. ovate obt. Berries crowned  
 1744 Leaves elliptical acute cordate at base sessile, Umbels terminal aggregate, Segm. of cor. ovate acute  
 1745 Corol. long bearded at mouth, Lvs. opp. obl. entire smooth shining, Floral lvs. round cord. sess. Pan. open  
 1746 Leaves subsessile oblong smooth, Panicles ovate oblong decusated, Pet. oval, Style hairy  
 1747 Leaves obl. acute with a contr. emarg. base pubesc. beneath subsessile, Corymbs large, Pet. cuneate acute  
 1748 Leaves sessile broad lanceolate, Corymbs decomposed dense, Pet. obovate reflexed  
 1749 Shrubby straight, Lvs. subsess. obl. Corymbs dense, Pet. round spreading, Anthers round bristle-pointed  
 1750 Leaves ovate-lanceolate, Cyme trichotomous contracted  
 1751 Leaves wedge-shaped lanceolate acuminate, Corymbs terminal, Sepals conical  
 1752 Leaves coriaceous oval lanc. Cymes decomposed close, Petals wedge-shaped obovate, Anthers sessile

- 1753 Tube of corolla very long, Berries oval  
 1754 Tube of corolla 4-cornered short, Berries roundish

1755 Leaves smooth entire, Panic. fastigiate axillary and terminal, Style twice as long as corol. Stigma entire

1756 Leaves in 4s oblong obtuse smooth, Stem shrubby

1757 The only species. Branches 4-cornered, Leaves 5-6 inches long elliptic lanceolate

1758 Stem herbaceous creeping, Leaves ovate, Flowers clustered axillary sessile

1759 A little creeping plant with flat round leaves and little scarlet berries

- 1760 Umbels naked lateral alternate, Leaves linear  
 1761 Pedunc. many-flowered, Leaves linear lanceolate

1762 Leaves ovate acuminate, Racemes many-flowered, Stem twining shrubby

1763 The only species

1764 Leaves on long stalks ternate, Fruit with two wings

1765 A small prickly shrub, Leaves opposite ovate acute entire. The only species

1766 The only species. Leaves ovate oblong acute serrated opposite

1767 Leaves opposite elliptical obtuse emarginate serrated



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social, being always found in quantities. Barton says, it is the plant most extensively spread in North America, covering the surface from the 28th to the 69th degree of north latitude.

295. *Oldenlandia*. In honor of H. B. Oldenland, a Dutch naturalist, who travelled in Africa, where he died about the end of the 17th century. O. umbellata, the chay-root, grows on light sandy ground near the sea, and is much cultivated on the coast of Coromandel for dyeing red, purple, brown, and orange, and to paint the red figures on chintz. The coloring matter resides in the bark, which gives it out to water. The Malabar physicians say that the roots cure poisonous bites, colds, and cutaneous disorders, and warm the constitution.

296. *Monettia*. In honor of Xavier Manetti, an Italian, and professor of botany at Florence. Some of the species are rather pretty, but they are seldom seen in collections.

297. *Epimedium*. A name of Dioscorides, applied to this little elegant alpine plant, without any assignable reason.

298. *Ptelea*. The Greek name of the elm. It is derived from πτερον, to fly, in allusion to the winged seed-vessels. A hardy shrub of North America, not unlike a laburnum in foliage, but with small green flowers.

299. *Monetia*. So named by L'Heritier, in honor of the Chevalier Jean Baptiste Monet de la Marck, a celebrated French botanist, now dead; who, unfortunately for botany, many years ago diverted his attention from that science to conchology. Cuttings root in sand under a bell-glass, and in bottom heat.

300. *Curtisia*. Named in honor of W. Curtis, lecturer on botany, author of the Botanical Magazine and other works; he died in 1799. This is one of the largest trees of Africa, from which the Hottentots and Caffres make the shafts of their javelins. It has fine broad leaves, but small flowers, which, however, have not yet appeared in this country.

301. *Hartogia*. Named after John Hartog, a Dutchman, who travelled in Southern Africa and Ceylon. The plant called by this name in the gardens is probably only a variety of the common laurel, and nearly as hardy as it. The flowers grow in axillary racemes like bunches of currants.

|                               |                  |   |    |    |                    |                  |                       |                   |          |                      |                    |
|-------------------------------|------------------|---|----|----|--------------------|------------------|-----------------------|-------------------|----------|----------------------|--------------------|
| 302. AMMAN'NIA. <i>W.</i>     | AMMANNIA.        |   |    |    | <i>Salicariae.</i> | <i>Sp. 6—20.</i> |                       |                   |          |                      |                    |
| 1768 latifolia <i>W.</i>      | broad-leaved     | □ | w  | 1  | jl.au              | W                | W. Indies             | 1733.             | S a1     | Slo. jam.1. t.7. f.4 |                    |
| 1769 debilis <i>W.</i>        | cluster-flowered | □ | w  | 1  | jl.au              | Pu               | E. Indies             | 1778.             | S a1     |                      |                    |
| 1770 caspia <i>Ledeb.</i>     | Caspian          | ○ | w  | 1  | jl.au              | Ap               | Astracan              | 1821.             | S a1     |                      |                    |
| 1771 bacifera <i>L.</i>       | berry-bearing    | □ | w  | 1  | jn.jl              | Ap               | India                 | 1820.             | S a1     | Lam. ill. t.77. f.5  |                    |
| 1772 ramosior <i>W.</i>       | branching        | ○ | w  | 2  | jl.au              | Pu               | Virginia              | 1759.             | S a1     | Bocc. mus. t. 104    |                    |
| 1773 sanguinolenta <i>W.</i>  | bloody           | ○ | w  | 1  | jl.au              | R                | Jamaica               | 1803.             | S a1     |                      |                    |
| 303. FAGARA. <i>W.</i>        | FAGARA.          |   |    |    |                    |                  | <i>Terebintaceae.</i> | <i>Sp. 3—18.</i>  |          |                      |                    |
| 1774 Pterota <i>W.</i>        | Lentiscus-leav.  | ♂ | tm | 30 | aus                | G                | Jamaica               | 1768.             | C p1     | Bro.ja.146.t.5.f.1   |                    |
| 1775 Piperita <i>W.</i>       | ash-leaved       | ♂ | or | 10 | ...                | W                | Japan                 | 1773.             | L p1     | Kempfr. t. 893       |                    |
| 1776 tragoides <i>W.</i>      | prickly-leaved   | ♂ | or | 5  | ...                | W                | W. Indies             | 1759.             | C lp     | Jac. am. 21. t. 14   |                    |
| 304. ZIERIA. <i>Sm.</i>       | ZIERIA.          |   |    |    |                    |                  | <i>Rubiaceae.</i>     | <i>Sp. 1.</i>     |          |                      |                    |
| 1777 Smithii <i>Sm.</i>       | Smith's          | ♂ | or | 2  | ap.jl              | W                | N. S. W.              | 1808.             | C sp     | Bot. mag. 1395       |                    |
| 305. CISSUS. <i>W.</i>        | CISSUS.          |   |    |    |                    |                  | <i>Sarmentaceae.</i>  | <i>Sp. 13—50.</i> |          |                      |                    |
| 1778 vitiginea <i>W.</i>      | vine-leaved      | ♂ | or | 30 | ...                | G                | India                 | 1772.             | C p1     | Pl.m.27. t.337.f.2   |                    |
| 1779 antarctica <i>Vent.</i>  | Kanguru-vine     | ♂ | or | 20 | jn.au              | G                | N. S. W.              | 1790.             | C a1     | Bot. mag. 2483       |                    |
| 1780 heterophylla <i>Lk.</i>  | various-leaved   | ♂ | or | 10 | ...                | G                | .....                 | 1822.             | D co     |                      |                    |
| 1781 glandulosa <i>Horn.</i>  | glandular        | ♂ | or | 10 | ...                | G                | .....                 | 1819.             | D co     |                      |                    |
| 1782 sicyoides <i>W.</i>      | naked-leaved     | ♂ | or | 10 | ...                | G                | Jamaica               | 1768.             | C sp     | Jac. amer.22.t.15    |                    |
| 1783 quadrangularis <i>W.</i> | square-stalked   | ♂ | or | 30 | ...                | G                | E. Indies             | 1790.             | C p1     | Forsk. ic. t. 2      |                    |
| 1784 capensis <i>W.</i>       | Cape             | ♂ | or | 30 | ...                | G                | C. G. H.              | 1792.             | C sp     |                      |                    |
| 1785 casia <i>R. B.</i>       | Sier. Leo. grape | ♂ | or | 15 | ...                | ...              | S. Leone              | 1822.             | D co     |                      |                    |
| 1786 5-folia <i>B. M.</i>     | five-leaved      | ♂ | or | 12 | jl.au              | G                | Brazil                | 1822.             | D co     | Bot. mag. 2443       |                    |
| 1787 acida <i>W.</i>          | acid             | ♂ | or | 6  | ...                | G                | Jamaica               | 1092.             | C p1     | Jac. schem.1. t.33   |                    |
| 1788 trifoliata <i>W.</i>     | three-leaved     | ♂ | or | 6  | ...                | G                | Jamaica               | 1739.             | C p1     | Slo. ja.1. t.145.f.2 |                    |
| 1789 pentaphylla <i>W.</i>    | five-leaved      | ♂ | or | 6  | ap.jl              | G                | Japan                 | 1790.             | C sp     |                      |                    |
| 1790 quinata <i>H. K.</i>     | wedge-leaved     | ♂ | or | 10 | jl                 | G                | C. G. H.              | 1790.             | C sp     |                      |                    |
| 1306. COR'NUS. <i>W.</i>      | DOGWOOD.         |   |    |    |                    |                  | <i>Caprifotiae.</i>   | <i>Sp. 11—14.</i> |          |                      |                    |
| 1791 sucica <i>W.</i>         | dwarf            | ♂ | △  | or | 1                  | ap               | Pu                    | Britain           | sc. alp. | R sp                 | Eng. bot. 310      |
| 1792 canadensis <i>W.</i>     | Canadian         | ♂ | △  | or | 1                  | jn.au            | Pu                    | Canada            | 1774.    | R sp                 | Bot. mag. 880      |
| 1793 florida <i>W.</i>        | great-flowered   | ♂ | △  | or | 15                 | ap.my            | W                     | N. Amer.          | 1731.    | L co                 | Bot. mag. 526      |
| 1794 mascula <i>W.</i>        | Cornel-cherry    | ♂ | △  | or | 15                 | f.ap             | Y                     | Austria           | 1596.    | L co                 | Schm. arb.2. t.63  |
| 1795 sanguinea <i>W.</i>      | common           | ♂ | △  | or | 8                  | jn.jl            | W                     | Britain           | woods    | L co                 | Eng. bot. 249      |
| 1796 alba <i>W.</i>           | white-berried    | ♂ | △  | or | 10                 | jn.s             | W                     | Siberia           | 1741.    | L co                 | Sch. arb. 2. t. 65 |
| <i>β ros'sica</i>             | Russian          | ♂ | △  | or | 8                  | jn.s             | W                     | Siberia           | ...      | L co                 |                    |
| 1797 sericea <i>W.</i>        | blue-berried     | ♂ | △  | or | 5                  | au               | W                     | N. Amer.          | 1683.    | L co                 | Sch. arb. 2. t. 64 |
| 1798 circinata <i>W.</i>      | Pennsylvanian    | ♂ | △  | or | 6                  | jl.au            | W                     | N. Amer.          | 1758.    | L co                 | Sch. arb. 2. t. 69 |
| 1799 stricta <i>W.</i>        | upright          | ♂ | △  | or | 10                 | jn.jl            | W                     | N. Amer.          | 1784.    | L co                 | Sch. arb. 2. t. 67 |
| 1800 paniculata <i>W.</i>     | panicled         | ♂ | △  | or | 6                  | jn.jl            | W                     | N. Amer.          | 1758.    | L co                 | Sch. arb. 2. t. 68 |
| 1801 alternifolia <i>W.</i>   | alternate-leav'd | ♂ | △  | or | 15                 | s                | W                     | N. Amer.          | 1760.    | L co                 | Sch. arb. 2. t. 70 |
| 307. SANTALUM. <i>W.</i>      | SANDAL-WOOD.     |   |    |    |                    |                  | <i>Santalaceae.</i>   | <i>Sp. 2—6.</i>   |          |                      |                    |
| 1802 album <i>W.</i>          | true             | ♂ | △  | tm | 10                 | ...              | Pu                    | E. Indies         | 1804.    | C p1                 | Rum. amb.2.t.11    |
| 1803 myrtifolium <i>Roxb.</i> | myrtle-leaved    | ♂ | △  | or | 4                  | ...              | R                     | E. Indies         | 1804.    | C p1                 | Roxb. cor. 1. t. 2 |



History, Use, Propagation, Culture,

302. *Ammannia*. Named in honor of John Ammann, a native of Siberia, who was a physician and professor of botany at St. Petersburg. He published a work upon the plants of Finland, and some papers in the Transactions of the Academy at St. Petersburg. None of the species have any beauty. They may be treated like balsams and other tender annuals.

303. *Fagara*. The name of an aromatic plant mentioned by Avicenna. The foliage of the present plant has a strong smell of turpentine. Cuttings root readily in sand under a hand-glass.

304. *Zieria*. So called by Sir J. E. Smith, in honor of his friend Mr. Zier, of whom nothing more is known than that he was "a learned and industrious botanist." The species is a pretty greenhouse plant.

305. *Cissus*. The Greek name of the ivy. The Latin name *hedera* having been retained for the real plant; the Greek word was given to this genus, which climbs like the ivy. The species greatly resemble *Vitis* in generic character. None of them are ornamental, with the exception of *C. quinquefolia*, justly admired for its quince-like leaves, and the different tints of yellow, red, and purple which these take in autumn. It grows rapidly in any soil, and is well adapted for covering naked walls, decorating old unsightly elevations of houses, ruins, cottages, bowers, &c. All the species root freely by cuttings in any soil.

306. *Cornus*. From *cornu*, a horn: the wood being thought to be as hard and durable as horn. Its value as a material for warlike instruments has been celebrated by Virgil—*Bona bello cornus*. The larger species of this genus are very ornamental and hardy shrubs, not only from their flower and berries of different colors, but by their green, red, purple, or striped bark, which have a fine effect in winter, especially among evergreens. *C. florida* blossoms early, but does not bear berries in this country. *C. mascula*, the Cornier of old authors, blossoms still earlier, and bears handsome fruit, which were formerly made into tarts and *rob de cornis*: the wood is very hard; and Evelyn says, made into wedges, it will last like iron. *C. sanguinea*, *alba*, and *sericea*,

- 1768 Leaves stem-clasping, Stem square, Branches erect  
 1769 Leaves lanceolate attenuated at base, Stem branched, Flowers fascicled axillary, Caps. 2-locular  
 1770 Leaves sessile lanceolate attenuated at base, Flowers axillary clustered, Sepals rigid acute  
 1771 Leaves somewhat stalked, Caps. larger than calyx colored  
 1772 Leaves half stem-clasping, Stem square, Branches much spreading  
 1773 Leaves half stem-clasping linear lanceolate cordate at base, Pedunc. very short many-flowered

- 1774 Leaves pinnated, Leaflets obovate emarginated, Common footstalk margined jointed unarmed  
 1775 Leaves pinnated, Leaflets oblong unequal at base crenate  
 1776 Leaves pinnated, Leaflets wedge-shaped emarginate, Common stalk winged jointed prickly beneath

1777 The only species. It may be known by the stamens being inserted into large glands

- 1778 Leaves cordate roundish 3-5 lobed angular repand beneath ferruginous  
 1779 Leaves ovate loosely serrated smoothish, Nerves glandular at base, Petioles and branches pubescent  
 1780 Branches rounded subpubesc. Petioles with a pubesc. line, Lower lvs. simple, middle term. upper quinate  
 1781 Leaves ovate serrate toothed, Pedicels and cal. hispid glandular  
 1782 Leaves ovate cordate smooth thickish bristly serrated, Serratures appressed, Branches rounded  
 1783 Leaves cordate ovate serrated fleshy, Stem 4-cornered winged  
 1784 Leaves 5 angular toothed beneath ferruginous, Flowers headed  
 1785 Leaves cordate serrated, Branches very glaucous  
 1786 Leaves in fives, Leaflets narrowed each way acuminate stalked, Branches rounded knotted smooth  
 1787 Leaves ternate obovate wedge-shaped fleshy smooth toothed at end entire at base  
 1788 Leaves ternate rounded hairy toothed, Branches hairy with membranous angles  
 1789 Leaves quinate, Leaflets undivided ovate serrated  
 1790 Leaves quinate, Leaflets obovate wedge-shaped serrated above

1. *Flowers in umbels with an involucreum.*

- 1791 Herbaceous, Branches binate, Umbel axillary stalked, Nerves of leaves distinct  
 1792 Herbaceous, Branches none, Upper leaves whorled stalked veiny  
 1793 A tree, Involucr. very large colored, Leaflets obovate  
 1794 A tree, Umbels as long as involucreum

2. *Flowers in naked cymes.*

- 1795 Branches upright, Leaves ovate whole-colored, Cymes depressed flat  
 1796 Branches recurved, Branchl. smooth, Leaves broad ovate acute pubesc. hoary beneath, Cymes depressed  
 1797 Branches sprdg. Branchl. woolly, Lvs. ovate acum. beneath ferrugin. Cymes depr. woolly, Nuts compr.  
 1798 Branches warted, Leaves orbicular beneath hoary, Cymes depressed  
 1799 Branches upright, Leaves ovate whole-colored naked, Cymes paniced  
 1800 Branches erect, Leaves ovate acuminate smooth hoary beneath, Cyme paniced  
 1801 Leaves alternate, Stem dichotomously forked

- 1802 Leaves oblong  
 1803 Leaves lanceolate



and *Miscellaneous Particulars.*

have fine red twigs; the wood of the first is equal to that of the cornel for hardness, and makes excellent mill cogs, bobbins for lace, toothpicks, and butchers' skewers. An oil may be extracted from the berries, by boiling and pressing. *C. sericea* from its large leaves, whitish underneath, and its terminating branches of white flowers, is valuable for the shrubbery or lawn. All the species may be propagated by seeds, layers, suckers, or cuttings; the second is the most common mode.

*C. sanguinea* is very common in woods, and after a smothered combustion, affords a charcoal esteemed the best for entering into the composition of gunpowder. It grows in the shade and drip of other trees, and is therefore a valuable plant for thickening strips of plantations which have become naked below.

*C. suecica* is called by the Highlanders *Lus-a-chrasia*, or plant of gluttony, from its berries, which are eaten by the children, being supposed to create an appetite. This plant is difficult to preserve in gardens: a bed of peat in a shady situation, and kept moist, is the most suitable for it; or it may be planted in small pots of peat, and treated as an alpine.

307. *Santalum*. From its Persian name *Sundul-sufed* It is a low tree in habits; leaves and inflorescence a good deal resembling the privet. It produces the white and yellow sandal wood of the materia medica, formerly thought to be the produce of different trees. But in India, as in a certain degree in every other country, most trees when large and old, become colored towards the centre, and when the sandal tree becomes large, its centre acquires a yellow color, and great fragrance and hardness; while the exterior part of the same tree that covers the colored part is less firm, white, and without fragrance. It is only the yellow part that is in use, being in universal esteem for its fragrance. According to Wathen (*Voy. to China*, 1812, p. 116.), it sells so high that the tree is seldom allowed to grow more than a foot in diameter. It is manufactured into musical instruments, small cabinets, escrutaires, boxes, and similar articles, as no insect can exist, or iron rust (as it is



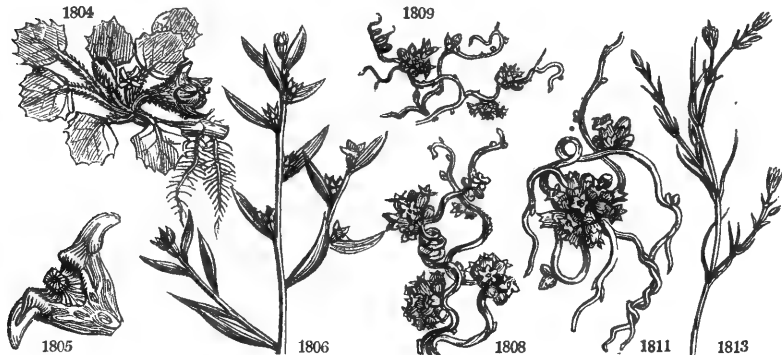
|                             |                 |                                 |         |     |          |       |      |                    |
|-----------------------------|-----------------|---------------------------------|---------|-----|----------|-------|------|--------------------|
| 308. TRA'PA. <i>W.</i>      | WATER-CALTRAPS. | <i>Hydrocharideae. Sp. 2-3.</i> |         |     |          |       |      |                    |
| 1804 <i>nátans W.</i>       | European        | ≡ ○ clt                         | jn.au   | W.f | Europe   | 1781. | S co | Bot. reg. 88       |
| 1805 <i>bicórnis W.</i>     | Chinese         | ≡ △ clt                         | ...     | W   | China    | 1790. | S co | Gert.sem.2. t.95   |
| 309. LUDWIGIA. <i>W.</i>    | LUDWIGIA.       | <i>Onagraceae. Sp. 2-16.</i>    |         |     |          |       |      |                    |
| 1806 <i>alternifolia W.</i> | large-capsuled  | ○ w                             | 1 jn.jl | Y   | Virginia | 1752. | S co | Lam. ill. 1. t. 77 |
| 1807 <i>hirsúta Ph.</i>     | hairy           | △                               | 1 jn.au | Y   | N. Amer. | 1812. | D pl |                    |

DIGYNIA.

|                              |                |                                  |         |   |           |       |       |                      |
|------------------------------|----------------|----------------------------------|---------|---|-----------|-------|-------|----------------------|
| 310. CUSCUTA. <i>W.</i>      | DODDER.        | <i>Convulvulaceae. Sp. 5-10.</i> |         |   |           |       |       |                      |
| 1808 <i>europæa W.</i>       | common         | △ cu                             | jl      | W | Britain   | 1781. | D par | Eng. bot. 378        |
| 1809 <i>Epithymum W.</i>     | lesser         | △ cu                             | jl      | W | Britain   | 1781. | D par | Eng. bot. 55         |
| 1810 <i>chinénsis</i>        | Chinese        | △ cu                             | au.s    | W | China     | 1803. | D par |                      |
| 1811 <i>chilénsis B. M.</i>  | Chili          | △ cu                             | ja.d    | W | Chili     | 1821. | D par | Bot. reg. 603        |
| 1812 <i>verrucósa Sweet.</i> | Nepal          | △ cu                             | ap.o    | W | Nepal     | 1821. | D par | Scot. fl. gard. 6.   |
| 311. BUFONIA. <i>W.</i>      | BUFONIA.       | <i>Caryophyllee. Sp. 1-2.</i>    |         |   |           |       |       |                      |
| 1813 <i>tenuifolia W.</i>    | slender-leaved | △ w                              | 1 jn    | W | England   | 1781. | S co  | Eng. bot. 1313       |
| 312. HAMAMELIS. <i>W.</i>    | WITCH-HAZEL.   | <i>Berberideae. Sp. 1-2.</i>     |         |   |           |       |       |                      |
| 1814 <i>virginica W.</i>     | Virginian      | or 10                            | n. m    | W | N. Amer.  | 1736. | L pl  | Duh. arb. 1. t. 114  |
| 313. HYPECOUM. <i>W.</i>     | HYPECOUM.      | <i>Papaveraceae. Sp. 3-6.</i>    |         |   |           |       |       |                      |
| 1815 <i>procumbens W.</i>    | procumbent     | ○ or                             | 1 jn.jl | Y | S. Europe | 1596. | S co  | Schk. han. 1. t. 27  |
| 1816 <i>péndulum W.</i>      | pendulous      | ○ or                             | 1 jn.jl | Y | S. France | 1640. | S co  | Par. thea. 372. f. 2 |
| 1817 <i>eréctum W.</i>       | erect          | ○ or                             | 1 my.jn | Y | Siberia   | 1759. | S co  | Am. ruth. 58. t. 9   |

TETRAGYNIA.

|                           |                |                            |          |   |           |       |            |                      |
|---------------------------|----------------|----------------------------|----------|---|-----------|-------|------------|----------------------|
| 314. MYGINDA. <i>W.</i>   | MYGINDA.       | <i>Rhamnii. Sp. 3-6.</i>   |          |   |           |       |            |                      |
| 1818 <i>Uragóga W.</i>    | saw-leaved     | □ or 4                     | au.s     | W | S. Amer.  | 1790. | L pl       | Jac. amer. 24. t. 16 |
| 1819 <i>Rhacóna W.</i>    | blunt-leaved   | □ or 4                     | ...      | W | Jamaica   | 1798. | L pl       | Jac. ic. 2. t. 311   |
| 1820 <i>latifolia W.</i>  | broad-leaved   | □ or 4                     | ap.my    | W | W. Indies | 1795. | C ap       | Fl. peruv. t. 84. fb |
| 315. YLEX. <i>W.</i>      | HOLLY.         | <i>Rhamnii. Sp. 12-29.</i> |          |   |           |       |            |                      |
| 1821 <i>Aquifólium W.</i> | common         | ● tm                       | 20 ap.jn | W | Britain   | 1781. | hedg. S co | Eng. bot. 496        |
| β <i>heterophylla</i>     | various-leaved | ● or                       | 20 ap.jn | W | Britain   | ...   | G co       |                      |
| γ <i>crassifolia</i>      | thick-leaved   | ● or                       | 20 ap.jn | W | Britain   | ...   | G co       |                      |
| δ <i>rectifolia</i>       | slender        | ● or                       | 20 ap.jn | W | Britain   | ...   | G co       |                      |
| ε <i>seroz</i>            | hedgohog       | ● or                       | 12 ap.jn | W | Britain   | ...   | G co       |                      |



History, Use, Propagation, Culture.

said) within its influence. It is of the dust of this wood that the Bramins form the pigment which they use in giving the tilac or frontal mark to the God Vishnoo: and the oil used in their ceremonies is obtained from the shavings, or at least scented by them. Cuttings root readily in a pot of sand under a bell-glass.

The true sandal wood is the *Santalum album*, found chiefly on the coast of Malabar, and in the Indian Archipelago.

*Santalum myrtifolium*, which has been confounded with it, is the kind which grows upon the Circar mountains, the wood of which is of little value. An amusing specimen of German critical puzzling upon this subject may be seen in Messrs. Römer and Schultes, *Species Plantarum*, vol. iii. p. 323.

308. *Trapa*. Abridged from *calcitrapa*, the Latin name of a dangerous instrument called caltrops, furnished with four spines, which was formerly used in war to impede the progress of cavalry. The fruit of this plant is hard, and has four spines also. *T. natans* is a curious aquatic, with long brown and green roots and floating leaves, with petioles inflated into a tumour, as in the marine algae. The seed is larger than the kernel of the filbert, with two cotyledons, one large, and the other very small, and not increasing in size during the germination. Hence, Gærtner considers this plant like the *Nelumbium*, as in a sort of middle state between the monocotyledonous and dicotyledonous. The nuts are farinaceous, and are esteemed nourishing and pectoral. The skin with the spines being removed, there is a white sweet kernel within, somewhat like a chestnut. They are sold in the market at Venice under the name of Jesuits' nuts. They are also much eaten in Switzerland and the south of France. Some of the canals at Versailles are covered with the plant; and Neill informs us (*Hort. Tour.*), that the nuts are sometimes served up like chestnuts. Pliny says that the Thracians made them into bread; and Thunberg states that they (the seed of *Trapa bicornis*) are commonly put into broth in Japan. In this country the plant is generally kept in a cistern in the stove, and so treated, was fruited by A. B. Lambert, Esq. in 1815, and specimens of the fruit sent to the Horticultural Society.

*T. bicornis* is cultivated by the Chinese in marshes; and the nuts used as food.

309. *Ludwigia*. So named by Linnaeus, in honor of C. G. Ludwig, professor of botany at Leipsic, in the middle of the last century. He left behind him several works which are now almost forgotten. The species are of no beauty.

310. *Cuscuta*. This is a genus of parasitical plants, which fasten themselves to, and draw their nourishment from others. The seed does not split into lobes, but opens and puts forth a little spiral body, which is the em-

- 1804 Nuts 4 horned, Spines spreading  
1805 Nuts 2 horned

1806 Erect branched smooth, Leaves altern. lanc. hoary beneath, Caps. large crowned with the col. lvs. of cal.  
1807 Leaves alternate lanceolate, Flowers axillary solitary subsessile, Stem rounded diffuse.

## DIGYNIA.

- 1808 Flowers sessile, Orifice of cor. naked, Stigma acute  
1809 Flowers sessile, Stamens with a scale at their base, Stigma acute  
1810 A species of which no account has yet been published. Shoots short white  
1811 Flowers 5-cleft, Segments obovate rounded, Anthers sessile, Stigmas pileate  
1812 All over warted, Color dull brown, Shoots very long

1813 Stem branched at end, Branches erect, Calyx scarious at edge

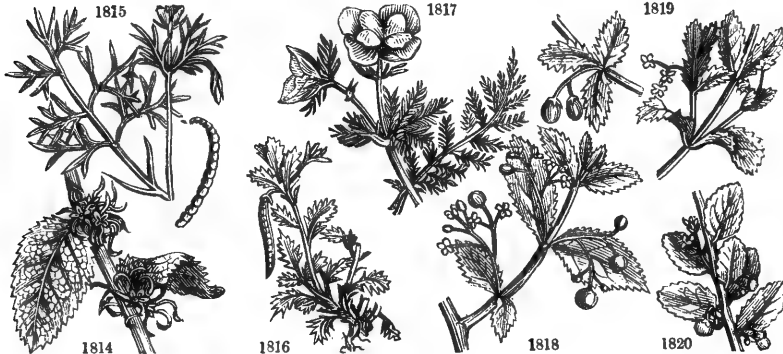
1814 Leaves obovate acutely toothed cordate with a small sinus

- 1815 Pods jointed compressed arcuate, Pet. 3-lobed the outside smooth at the back  
1816 Pods knotty rounded pendulous, Petals smooth the 2 outer ovate oblong pendulous 2 inner 3-parted  
1817 Pods not jointed erect compressed, Pet. smooth outer wedge-shaped about 3-lobed inner trifid the lateral lobes 2-lobed the middle one small

## TETRAGYNIA.

- 1818 Leaves ovate and subcordate acuminate subserrated pubescent  
1819 Leaves lanceolate ovate obtuse crenated, Flowers monogynous, Style quadrifid  
1820 Leaves elliptical crenated subcoriaceous, Stigmas 2-4 sessile

1821 Leaves ovate acute spiny shining waved, Flowers axillary umbelled



## and Miscellaneous Particulars.

bryo. The stalk twines about some other plant, contrary to the sun's apparent motion, or from right to left, sending out from the inner surface a number of little vesicles which attach themselves to the bark of the supporting plant. By degrees, the longitudinal vessels of the stalk shoot from their extremities, and insinuate themselves so intimately with it, that it is easier to break than to disengage them. Plants raised from seed soon die when they have no plant to which they can attach themselves. They adhere to the ground by the original root, and draw a part of their nutriment from thence at first; but the original root withers away as soon as the young stem has fixed itself to any other plant.

*C. europæa* may be sown in peat soil by the sides of other plants; in a wild state it is commonly found in hedges, and on hops, brambles, woody nightshade, fern, thistles, hemp; as also on flax, nettles, clover, grass, &c.

*C. epithymum* will thrive well on any small shrub when once it has got hold. According to Sweet, "it will flower freely, and be very handsome."

*C. chinensis* may be treated like *C. europæa*.

311. *Bufonia*. So named after the celebrated Count de Buffon. It is slender, like the botanical acquirements of that illustrious naturalist.

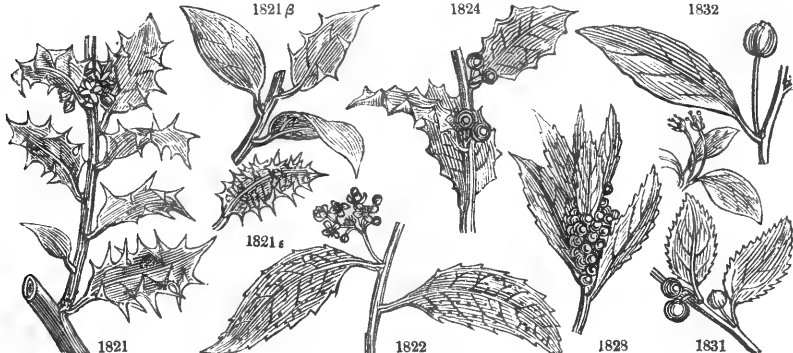
312. *Hamamelis*. From ἄμα, with, and μέλον, an apple, from the fruit and flowers being on the tree at the same time. This is a low tree or shrub, in general appearance resembling the hazel; but it has fine yellow blossoms, which appear in profusion in October or November, and sometimes last till spring. The fruit, which is a small nut, seldom ripens in England.

313. *Hypecoum*. From ὑπηχισω, to rattle, on account of the noise the seeds make in the pods. It is not impossible that *Hypecoum procumbens* is the *Hypecoon* of Pliny: the wild cumin of Gerard. The juice of all the species is yellow, like that of celandine, and is said to have the same effect as opium.

314. *Myginda*. So named by Jacquin, in honor of Counsellor Mygind of Vienna; a botanical amateur and patron. A tree resembling some kind of *Ilex*.

315. *Ilex*. A word upon which much ingenuity and learning have been tortured in vain. De Théis derives it from *ec*, or *ac*, a point, in Celtic; but that explanation applies better to the specific name *Aquifolium*. *I. Aquifolium* is one of our most beautiful shrubs or low trees, displaying either character, according to situation, age, and application of art. It is found in most parts of Europe, and in North America, Japan, Cochinchina.

|                                 |                |       |       |         |     |                      |                   |   |     |
|---------------------------------|----------------|-------|-------|---------|-----|----------------------|-------------------|---|-----|
| <i>ζ flava</i>                  | yellow-berried | ▲     | or 15 | ap.jn   | W   | Britain              | ...               | G | co  |
| <i>η albo-marginata</i>         | silver-edged   | ▲     | or 12 | ap.jn   | W   | Britain              | ...               | G | co  |
| <i>σ aureo-marginata</i>        | gold-edged     | ▲     | or 12 | ap.jn   | W   | Britain              | ...               | G | co  |
| <i>ι medio-picta</i>            | painted        | ▲     | or 10 | ap.jn   | W   | Britain              | ...               | G | co  |
| 1822 chinensis <i>B. M.</i>     | Chinese        | └     | or 10 | jl      | W   | China                | 1814.             | G | s.l |
| 1823 laxiflora <i>Ph.</i>       | loose-flowered | ✱     | or 20 | ap.jn   | W   | Carolina             | 1811.             | G | s.p |
| 1824 opaca <i>W.</i>            | Carolina       | ✱     | or 10 | my.jn   | W   | Carolina             | 1744.             | G | p.l |
| 1825 crocea <i>W.</i>           | African        | ✱     | tm    | 30      | ... | C. G. H.             | 1794.             | G | s.p |
| 1826 Perado <i>W.</i>           | thick-leaved   | ✱     | or 10 | ap.my   | Pk  | Madeira              | 1760.             | G | s.l |
| 1827 Prinoides <i>W.</i>        | deciduous      | ✱     | or 2  | jl      | W   | N. Amer.             | 1760.             | G | s.p |
| 1828 Cassine <i>Ph.</i>         | br.-lv.-Dahoon | └     | or 12 | au      | W   | Carolina             | 1726.             | G | s.l |
| 1829 Dahoon <i>Ph.</i>          | Dahoon         | └     | or 6  | my.jn   | W   | Carolina             | 1726.             | G | s.l |
| 1830 augustifolia <i>W. en.</i> | Myrtle-leaved  | └     | or 6  | ray.jn  | W   | Carolina             | 1806.             | G | s.l |
| 1831 vomitoria <i>W.</i>        | South Sea Tea  | └     | or 10 | ...     | ... | Florida              | 1700.             | G | p.l |
| 1832 canadensis <i>Ph.</i>      | Canadian       | └     | or 3  | ap.my   | W   | N. Amer.             | 1802.             | G | s.l |
| 316. COLDENIA. <i>W.</i>        | COLDENIA.      |       |       |         |     | <i>Boraginææ.</i>    | <i>Sp. 1—2.</i>   |   |     |
| 1833 procumbens <i>W.</i>       | trailing       | ✱ [□] | or 2  | jl.au   | W   | E. Indies            | 1699.             | S | co  |
| 317. POTAMOGETON. <i>W.</i>     | POND-WEED.     |       |       |         |     | <i>Alismacææ.</i>    | <i>Sp. 13—44.</i> |   |     |
| 1834 natans <i>W.</i>           | broad-leaved   | Δ     | cu    | au      | G   | Britain              | riv.              | D | co  |
| 1835 fluitans <i>W.</i>         | long-leaved    | Δ     | cu    | jl.au   | R   | Britain              | dit.              | D | co  |
| 1836 heterophyllum <i>W.</i>    | various-leaved | Δ     | cu    | jl.au   | G   | Britain              | dit.              | D | co  |
| 1837 perfoliatum <i>W.</i>      | perfoliate     | Δ     | cu    | jl.au   | P   | Britain              | riv.              | D | co  |
| 1838 den sum. <i>W.</i>         | close-leaved   | Δ     | cu    | my.jl   | G   | Britain              | dit.              | D | co  |
| 1839 lucens <i>W.</i>           | shining        | Δ     | cu    | jn.jl   | G   | Britain              | dit.              | D | co  |
| 1840 crispum <i>W.</i>          | curled         | Δ     | cu    | jn.jl   | R   | Britain              | dit.              | D | co  |
| 1841 compressum <i>W.</i>       | flat-stalked   | Δ     | cu    | jn.jl   | G   | Britain              | rivul.            | D | co  |
| 1842 pectinatum <i>W.</i>       | fennel-leaved  | Δ     | cu    | jn.jl   | OI  | Britain              | dit.              | D | co  |
| 1843 lanceolatum <i>E. B.</i>   | spear-leaved   | Δ     | cu    | jl.au   | OI  | England              | w.lak.            | D | co  |
| 1844 gramneum <i>W.</i>         | grass-leaved   | Δ     | cu    | jl.au   | G   | Britain              | lit.              | D | co  |
| 1845 pusillum <i>W.</i>         | small          | Δ     | cu    | jl.au   | G   | Britain              | lit.              | D | co  |
| 1846 setaceum <i>W.</i>         | bristle-leaved | Δ     | cu    | jl.au   | G   | Britain              | ...               | D | co  |
| 318. RUPPIA. <i>W.</i>          | RUPPIA.        |       |       |         |     | <i>Fluviales.</i>    | <i>Sp. 1.</i>     |   |     |
| 1847 maritima <i>W.</i>         | sea            | ≡ Δ   | cu    | jl      | G   | Britain              | s.w.d.            | S | s.l |
| 319. SAGINA. <i>W.</i>          | PEARLWORT      |       |       |         |     | <i>Caryophylleæ.</i> | <i>Sp. 5—7.</i>   |   |     |
| 1848 procumbens <i>W.</i>       | procumbent     | ○     | w     | ½ my.s  | W   | Britain              | rub.              | S | s.l |
| 1849 cerastoides <i>W.</i>      | tetrandrous    | ○     | w     | ½ jn.jl | W   | Britain              | sea sh.           | S | co  |



History, Use, Propagation, Culture,

China, &c. In Britain, it is found congregated in natural woods and forests. Some of the finest in England, are in Medwood forest, in Staffordshire, and in Scotland, in the woods of Dumbartonshire, about Luss and Lochmond. Professor Martyn's father first discovered the difference of sexes in the holly; some being male, others female, and others hermaphrodite. It is a tree of great longevity, and will grow in any soil not very wet, but best in a dry deep loam; such is the soil of Medwood forest. By culture alone, a hundred varieties and subvarieties have been produced, differing in the variegation, margin, and size of the leaves, and in the color of the fruit. These make gay and elegant shrubs for lawn, and small groups; and form an important feature in the general shrubbery. The common green prickly-leaved holly makes the best of all hedges, whether we regard its qualities for defence, shelter, duration, or beauty. It has one fault, it is very slow of growth unless carefully cultivated, and for this reason hawthorn is preferred. It was a very general custom about the end of the 17th century to divide gardens by hedges of this tree, and to keep them exactly short. Evelyn's impenetrable holly hedge at Deptford has been much celebrated. It was 400 feet long, 9 feet high, and 5 feet broad. Gibson, (*Archæologia Brit. &c.*) who mentions Evelyn's hedge, made a tour of the principal gardens near London, and states, as next in grandeur, that of Sir M. Decker at Richmond: of neither does there exist a single plant. The largest holly hedge in Scotland is at Tynningham near Dunbar, planted by a former Earl of Haddington, author of a Treatise on Fruit Trees. It has for many years past been left uncut, and now presents a noble phalanx of deep shining green leaves, and numerous spiry tops with spikes of coral berries. In cultivating the holly, the kernel or stone of the berries is divested of its skin and glutinous pulp, by mixing with sand in heaps in the open garden, and turning over frequently. The berries being gathered in November, may be rotted in this way till the October following, and then sown in beds, and covered three quarters of an inch with fine mould; or they may remain on the trees till spring, then gathered and mashed in a tub of water to separate the pulp, after which they may be sown. In general, the stones do not vegetate till the second year from the gathering; some will occasionally germinate the first year, and a number not till the third. In transplanting and pruning the holly, the months of October and April are to be chosen: the oftener young plants are removed before planted in the final site the better, as it has naturally but few roots, and those chiefly ramose and descending. Miller recommends cutting holly hedges with a knife, as clipping renders them unsightly. The variegated and other curious sorts are generally propagated by budding and grafting on the common green. Evelyn says he raised some of the variegated sorts by sowing the seeds, and Miller always found the hedgehog variety continue the same when so propagated. Some raise them by layers, and Sweet says all of them "will root freely by cuttings taken off at a joint in ripened wood, and planted in sand under a hand-glass in a shady situation."

- 1822 Leaves ovate oblong edge with little cartilaginous scarcely pungent teeth, *Corymb* pedunc. dichotomous  
 1823 Leaves ovate sinuate-toothed slightly spiny, Stipules subulate, Pedunc. lax divided  
 1824 Leaves ovate acute spiny smooth flat, Flowers scattered at the base of the older branches  
 1825 Leaves oblong serrated, *Serratures* prickly-ciliated  
 1826 Leaves ovate with a point unarmed nearly entire  
 1827 Leaves elliptic-lanceolate acute deciduous serrated, *Serratures* unarmed  
 1828 Leaves alternate distant evergreen lanceolate attenuated both ways serrated at the end  
 1829 Leaves lanceolate elliptical nearly entire reflexed at the edge, Rib villous beneath  
 1830 Leaves alternate distant evergreen linear lanceolate shining serrated at end, Rib smooth beneath  
 1831 Leaves alternate distant oblong obtuse crenated serrated, *Serratures* not prickly  
 1832 Leaves oblong acuminate subserrated at the end, Pedunc. long axillary 1-flowered

1833 Leaves wedge-shaped stalked shorter on one side coarsely sawed and plaited

1834 Leaves all elliptical stalked floating, Lower petioles submersed leafless

1835 Leaves floating on long stalks lanceolate ovate narrowed at both ends

1836 Upper leaves stalked elliptical narrowed at both ends the lower close together sessile linear

1837 Leaves cordate stem-clasping all immersed

1838 Leaves ovate acuminate opposite close, Stem dichotomous, Spike 4-flowered

1839 Leaves ovate-lanceolate flat narrowed into the stalks, Spike many-flowered contracted

1840 Leaves lanceolate alternate wavy serrated

1841 Leaves linear obtuse, Stem compressed

1842 Leaves setaceous parallel close together in two rows

1843 Leaves lanceolate membranous flat entire, Spike ovate dense few-flowered

1844 Leaves linear lanceolate alternate sessile broader than their stipule

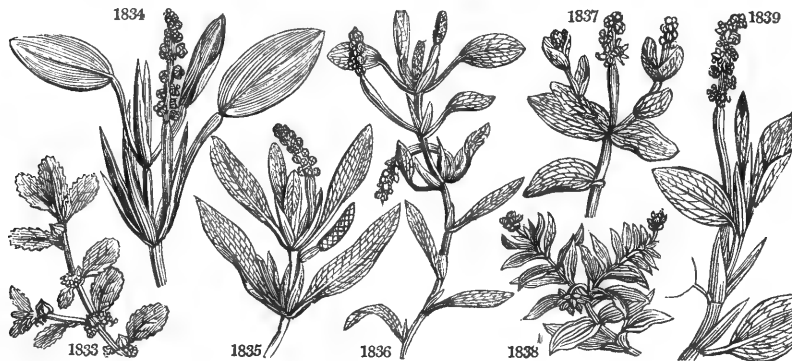
1845 Leaves linear opposite and alternate narrower than their stipule spreading at base, Stem rounded

1846 Leaves lanceolate opposite acuminate

1847 The only species

1848 Branches procumbent smooth, Petals very short

1849 Stem diffuse dichotomous, Leaves spatulate and obovate recurved, Fruit-stalks reflexed



and *Miscellaneous Particulars.*

*I. cassine* and *vomitoria* have bitter leaves, of which the N. American Indians make a tea, which is almost their only physic. At a certain time of the year they come down in droves from a distance of some hundred miles, to the coast, for the leaves of this tree, which is not known to grow at any considerable distance from the sea. They make a fire on the ground, and putting a great kettle of water on it, they throw in a large quantity of these leaves, and setting themselves round the fire, from a bowl that holds about a pint they begin drinking large draughts, which in a very short time occasion them to vomit easily and freely: thus they continue drinking and vomiting for the space of two or three days, until they have sufficiently cleansed themselves; and then every one taking a bundle of the tree to carry away with him, they all retire to their habitations.

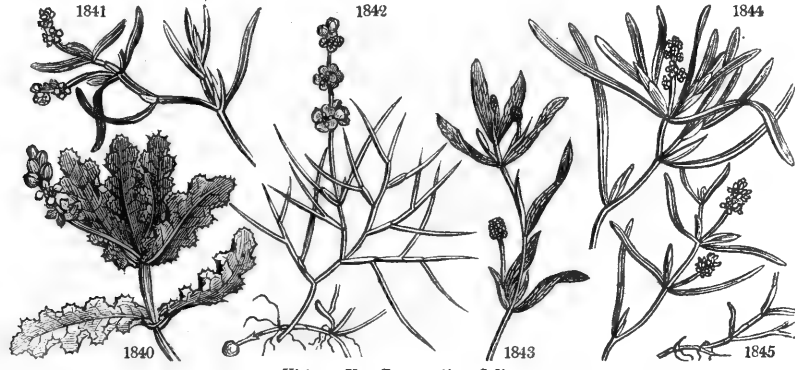
316. *Coldenia*. So named by Linnæus, in honor of Cadwallader Colden, an English naturalist, who published in 1742, an account of the plants of New York.

317. *Potamogeton*. From ποταμος, a river, and γεινον, near. Most of the species grow wholly immersed in water, but like most aquatics, flower above its surface. It should seem, Professor Martyn observes, that the respiration of such truly-aquatic vegetables must be as different from those which inhale atmospheric air, as the breathing of fishes is from that of beasts and birds. Accordingly, they are, as Haller remarks, of a different texture, pellucid, like oiled paper, very vascular, harsh, and ribbed, but often very brittle; and their surface, like that of aquatic animals, destitute of hair or down of any kind. The leaves of aquatic plants afford shade and spawning places to fish, and habitations for aquatic insects and worms for their nourishment. The roots of *P. natans* are a favorite food of the swan, and that bird is in consequence erroneously considered as keeping ponds and lakes clear of all aquatics. Ducks eat the seeds and leaves of *P. crispum*. Haller informs us, that in the Swiss lakes *P. serratum* grows from ten to twenty fathoms long, forming, as it were, immense woods in the midst of these immense reservoirs. Most of the species may be considered as ornamental in a botanic garden, when kept within bounds or in pots. They are readily propagated by seeds or by dividing their long roots, and for the most part, grow best on a clayey bottom.

318. *Ruppia*. Named after Henry Bernard Rupp, a German. He published in 1718, a *Flora Jenensis*. It is remarked by Dr. Goodenough, that the flower-stalk of this plant is spiral, like that of *Valisneria*, and relaxes or contracts itself according to the depth of the water. The truth is, the flower and leaf-stalks of all aquatics have a power of accommodating themselves to the depth of the water, so as just to emerge above its surface; but the singularity in *Ruppia* and *Valisneria* appears to be the employment of a flower-stem for that purpose. (See *Valisneria*.)

319. *Sagina*. This plant, says Linnæus, is so called for its qualities. In Latin, *sagina* expresses something

|                            |                |      |                     |    |         |          |   |    |                |
|----------------------------|----------------|------|---------------------|----|---------|----------|---|----|----------------|
| 1850 apétala <i>W.</i>     | small-flowered | ○ w  | $\frac{1}{2}$ my.jn | W  | Britain | rub.     | S | co | Eng. bot. 881  |
| 1851 marítima <i>E. B.</i> | sea-side       | ○ w  | $\frac{1}{2}$ my.au | W  | Ireland | sc. alp. | S | co | Eng. bot. 2195 |
| 1852 erécta <i>Sm.</i>     | glaucous       | ○ w  | $\frac{1}{2}$ sp.my | W  | Britain | ...      | S | co | Eng. bot. 609  |
| 320. TILLEA <i>W.</i>      | TILLEA.        |      |                     |    |         |          |   |    |                |
| 1853 muscósá <i>W.</i>     | mossy          | ○ cu | $\frac{1}{2}$ jn.o  | Fl | England | sa. he.  | S | co | Eng. bôt. 116  |
| 321. RADYOLA <i>Sm.</i>    | RADYOLA.       |      |                     |    |         |          |   |    |                |
| 1854 millegrána <i>Sm.</i> | all-seed       | ○ w  | $\frac{1}{2}$ jl.au | W  | Britain | san. pl. | S | co | Eng. bot. 893  |



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nourishing. The species are very common in dry pastures, where they are valuable for sheep-food. *S. procumbens* is a small but troublesome weed in shaded garden-walks and paved courts, and with *S. apetala*, seeds the whole summer. Curtis remarks, that the latter species ripens its seeds more rapidly than almost any other plant.



CLASS V. — PENTANDRIA. 5 STAMENS.

ONE of the most extensive of the Linnaean classes, and containing about a fifth part of all phenogamous plants. It includes the whole of the Boraginæ or Asperifoliæ, Asclepiadæ, Apocynæ, and Umbelliferæ, nearly all Primulacæ, and portions of a great variety of other natural orders, among which many are ornamental, and others valuable on account of their relation to medicine and the arts.

The Boraginæ are, in many instances, ornamental plants; a few, such as *Anchusa tinctoria* are applied to economical purposes; but the principal part are weeds of northern latitudes. They have been recently described and re-arranged in a scientific manner by M. Lehmann, whose *Monographia Asperifoliarum* should have a place in every botanical library.

The curious genus *Stapelia* is a part of the Asclepiadæ, which order was in so unsettled and confused a state as to be a reproach to the science until it was remodelled by Mr. Brown, who first determined the just limits of its genera. The Apocynæ contain, among some poisonous plants, such as *Echites venenata*, the Oleander remarkable for the beauty of its flowers, and the Cream fruit and Picimmons of Sierra Leone, which are said to be excellent fruit-trees.

Umbelliferous plants contain numerous species, some of which, like the *Cicuta virosa*, *Conium maculatum*, &c. are dangerous poisons, and others which are useful to mankind either as luxuries or necessities. The seeds of caraway, coriander, &c. are commonly used by the confectioner, of dill and anise by the distiller; the blanched stems of celery and sweet fennel, and the roots and leaves of many others are among the best of British vegetables. The gum galbanum of the shops is said to be the produce of a plant of this tribe. Great difficulty exists in ascertaining upon what principles the genera should be divided. Linnaeus, contrary to his usual practice, attempted to derive the characters from the absence or presence of the involucrem; Hoffman, Link, and Sprengel from peculiarities in the fruit, or, as it is familiarly called, in the seeds. The characters of Sprengel, who has, as it were, grown old in the study of Umbelliferæ, are certainly deserving of attention; but botanists are much divided in opinion upon their merits; and, it is to be feared, that notwithstanding the labours of the learned men who have directed their study particularly to the consideration of the order, little real progress has been made in its final arrangement. In this work the arrangement of Sir James Smith has been adopted, as being the most simple of all that has been published, and the most easy of application.

The plants belonging to Primulacæ are beautiful border-flowers, or pretty alpine plants. In the same artificial section with these, are found the elegant families of *Convolvulus* and *Ipomæa*, one or several species of which produce the jalap of the shops; the various kinds of *Eparcis*, which in New Holland rival the heaths of Southern Africa, and the splendid genus *Azalea*.

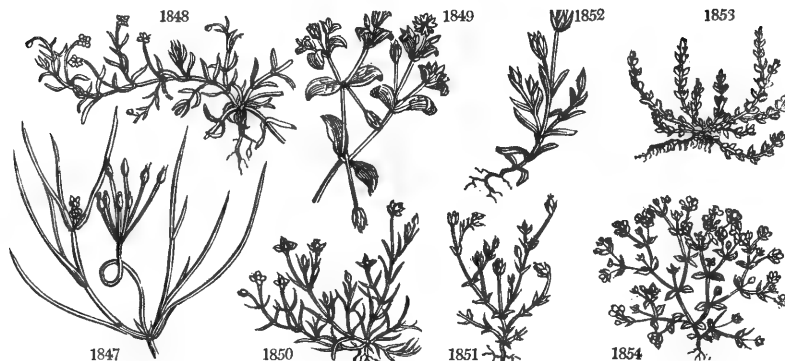
Other sections include the teak wood of the East Indies; the *Sapodilla* plum, and the Star apple, fine fruits of the West Indies; *solanum*, well digested by Dunal; the Jesuit's bark (*Cinchona*), of which no species has yet been brought alive to Europe; the coffee tree, and many others.

Pentandria Dignyma contains little beyond the Asclepiadæ and Umbelliferæ, already mentioned. The *Su-mach*, *Cuedler* Rose, and Elder are contained in Trigynia; in Tetragnymia the paradoxical and curious *Parناسia*; in Pentagynia, *Urasula*, *Linum*, and *Statice*, all ornamental genera; and a few obscure weeds make up the last order, Polygynia.

1850 Stem erect pubescent, Flowers alternate apetalous  
 1851 Stems erect divaricating smooth, Leaves obtuse blunt, Petals obsolete  
 1852 Stem erect about 1-flowered, Sepals acute, Petals entire

1853 Procumbent, Flowers trifid

1854 The only species



and *Miscellaneous Particulars*.

320. *Tillæa*. From Mich. Ang. Tilli, an Italian, born in 1653, died in 1740. He was a foreign member of the Royal Society of London, and published a *Catalogus Horti Pisani*, in one volume, folio.

321. *Radiola*. A diminution of *radix*. A little insignificant weed, formerly referred to the same genus with common flax.

Order I. MONOGYNIA.



5 Stamens. 1 Style.

1. *Flowers monopetalous, inferior. Seed 1, naked.*

322. *Mirabilis*. Nut below the corolla, which is funnel-shaped. Stigma globose, a little warted.  
 323. *Abroma*. Cor. funnel-shaped, with cordate segments, above the germen contracted, at the orifice inflated. Stigma simple.  
 324. *Plumbago*. Seed 1. Stamens inserted into the valves. Corolla funnel-shaped. Stigma 5-cleft.

2. *Flowers monopetalous, inferior. Seeds 2 or more, naked.*

325. *Heliotropium*. Cal. 5-parted. Cor. hypocrateriform, orifice without teeth, limb 5-cleft, sinuses plaited, simple, or toothed. Stamens included. Stigma peltate. Nuts 4, cohering without a common receptacle.  
 326. *Myosotis*. Cal. 5-parted. Cor. hypocrateriform, closed with scales. Limb 5-parted, obtuse. Stamens included. Anthers peltate. Stigma capitate. Nuts 4, distinct, perforated at the base.  
 327. *Echinosperrnum*. Cal. cor. and other parts as in *Myosotis*. Nuts united to a central column, prickly, compressed, closed at the base.  
 328. *Mattia*. Cal. 5-parted, spreading. Cor. tubular, funnel-shaped at the orifice with 5 scales as long as the tube. Anthers sagittate, conniving, exerted. Style longer than stamens. Stigma simple. Seeds winged.  
 329. *Tvaritium*. Cor. hypocrateriform, with an angular tube, the orifice contracted with 5 rays. Style very short. Stigma capitate. Nuts 4, 2-celled, mitre-formed, cohering, closed at base. No common receptacle.  
 330. *Lithospermum*. Cal. 5-parted, persistent. Cor. funnel-shaped, with a half 5-cleft obtuse limb, and an open orifice. Anthers included. Stigma obtuse, bifid. Seeds 4, hard, smooth, closed at the base.  
 331. *Batschia*. Cal. deeply 5-parted. Cor. hypocrateriform, with a hairy ring at the base inside, an open orifice, and rounded segments. Stigma emarginate. Seeds hard, shining.  
 332. *Onosma*. Cal. 5-parted, erect. Cor. campanulate, funnel-shaped, with a ventricose tubular 5-toothed limb, and an open orifice. Anthers sagittate, connected at base by their lobes. Stigma obtuse. Seeds ovate, shining, stony, closed at base.  
 333. *Anchusa*. Cal. 5-cleft, persistent. Cor. funnel-shaped, with a half 5-cleft spreading limb, orifice closed with 5 prominent scales. Anthers included. Stigma emarginate. Seeds gibbous, with a sculptured surface.  
 334. *Symphytum*. Cal. 5-parted, acute. Cor. cylindrical, campanulate, with a short tube and a tubular inflated limb, orifice with 5 subulate rays conniving into a cone. Stigma simple. Seeds gibbous, not pierced at base.  
 335. *Onoemodium*. Cal. deeply 5-parted. Cor. oblong, campanulate, with a ventricose half 5-cleft limb, the edges of which are inflated, orifice open. Anthers sagittate, included.  
 336. *Cynoglossum*. Cal. 5-parted. Cor. short, funnel-shaped, with a 5-parted obtuse limb; orifice closed by scales. Stamens included. Stigma capitate. Nuts depressed, attached to a central column.  
 337. *Omphalodes*. Cal. deeply 5-parted. Cor. rotate, shorter than the tube of the calyx, with 5 short scales crossing over the anthers, which are inserted into the base of the tube. Style short. Stigma thick. Seeds urceolate, toothed at the edge.  
 338. *Pulmonaria*. Cal. prismatic, 5-cornered, 5-toothed. Cor. funnel-shaped, with a cylindrical tube, open orifice, and obtuse 5-lobed limb. Stigma obtuse. Seeds 4, obtuse, rounded.  
 339. *Cerinthe*. Cor. tubular, ventricose. Nuts 2, each 2-celled, open at the base.  
 340. *Borago*. Cal. 5-parted. Cor. rotate, with acute segments; orifice crowned. Filaments conniving. Seeds rounded, closed at base, rugose, inserted lengthways into an excavated receptacle.

341. *Trichodesma*. Cor. rotate, with a naked orifice and subulate segments. Stamens exerted. Anthers villous at base. Nuts half immersed in the 4-winged column.
342. *Asperugo*. Cal. 5-parted, irregular. Cor. funnel-shaped, with a short tube, orifice closed by convex scales. Stigma obtuse. Seeds oblong, compressed, not perforated.
343. *Nonea*. Cal. at length inflated. Cor. funnel-form, with a 5-cleft short limb, and straight naked tube. Stamens included. Orifice nearly open. Seeds 4, with parallel streaks.
344. *Lycopsis*. Cor. funnel-shaped, 5-lobed, with a covered tube and obtuse limb. Scales at the orifice. Stigma emarginate. Nuts hollowed at base.
345. *Echium*. Cal. 5-parted, subulate. Cor. campanulate with unequal obtuse segments, the 2 upper the longest; orifice open. Filaments unequal, declinate. Stigma obtuse. Seeds roundish, warted, not open at base.
346. *Tournefortia*. Berry 2-celled, cells 2-seeded, perforated at end. Cor. hypocrateriform or rotate, naked at the orifice.
347. *Nolana*. Cal. turbinate. Cor. campanulate, plaited. Nuts 5, 2 or 4-celled.
3. *Flowers monopetalous, inferior. Seeds in a capsule or dry drupe. (Vestia, which has a berry, is an exception, but is placed here on account of its relation to other genera.)*
348. *Aretia*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
349. *Androsace*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
350. *Primula*. Caps. 1-celled. Corolla funnel-shaped, pervious at the orifice. Stigma globose.
351. *Cortusa*. Caps. 1-celled, oblong. Corolla rotate. Stigma somewhat capitate.
352. *Soldanella*. Caps. 1-celled. Corolla torn. Stigma simple.
353. *Dodecatheon*. Caps. 1-celled, oblong. Corolla reflexed. Stigma obtuse.
354. *Euclymen*. Caps. 1-celled, palpy within. Corolla reflexed. Stigma acute.
355. *Hottonia*. Caps. 1-celled. Corolla with the tube below the stamens. Stigma globose.
356. *Lysimachia*. Caps. 1-celled, 10-valved. Corolla rotate. Stigma obtuse.
357. *Anagallis*. Caps. 1-celled, cut round. Corolla rotate. Stigma capitate.
358. *Diapensia*. Caps. 3-celled. Corolla hypocrateriform. Cal. 8-leaved.
359. *Pyzidanthera*. Cal. deeply 5-parted. Cor. campanulate, much shorter than the tube of calyx, segments 5, spatulate. Anthers with an appendage at their base. Style thick. Stigmas 3.
360. *Coris*. Caps. 1-celled, 5-valved. Corolla irregular. Stigma capitate.
361. *Galax*. Caps. 1-celled, 2-valved. Corolla hypocrateriform. Stigma roundish.
362. *Menyanthes*. Caps. 1-celled. Corolla villous spreading. Stigma bifid. Cal. 5-parted.
363. *Villarsia*. Caps. many-seeded, 2-valved. Cor. rotate, limb spreading, 5-parted, flat, bearded or scaly at the base. Glands 5, hypogynous.
364. *Chironia*. Caps. ovate, seeds numerous small. Cal. 5-parted erect. Cor. equal, with a 5-parted limb of ovate equal segments. Filaments from mouth of tube. Anthers, after bursting, spiral. Style declinate.
365. *Eustoma*. Cal. deeply 5-cleft. Tube of cor. funnel-shaped, contracted. Filam. short, regular, inserted about the middle of the tube. Stigma large, deeply 2-lobed. Seeds scurfy.
366. *Erythraea*. Caps. linear. Cal. 5-cleft. Cor. funnel-shaped, with a short limb withering. Anthers, after bursting, spiral. Stigmas 2.
367. *Sabbatia*. Cor. with an urceolate tube, and limb 5-12-parted. Stigmas 2-parted, with spiral divisions. Anthers at length revolute.
368. *Logania*. Caps. 2-parted. Cor. subcampanulate, with a villous throat, and 5-parted limb. Stigma clavate.
369. *Phlox*. Caps. 3-celled. Corolla hypocrateriform, with a curved tube. Stigma trifid.
370. *Polemonium*. Caps. 3-celled. Corolla 5-parted. Stamens placed on the valves.
371. *Vestia*. Berry. Cor. funnel-shaped, 5-parted, with a hairy throat. Stamens exerted. Stigma nearly entire.
372. *Hydrophyllum*. Caps. 1-celled, 2-valved. Corolla with 5 nectaries. Stigma bifid.
373. *Phacelia*. Caps. 2-valved, 4-seeded. Cal. persistent. Cor. campanulate, 5-cleft, with 5 furrows inside the base. Stam. exerted. Style short. Stigmas 2, long.
374. *Ramondia*. Caps. 2-valved, valves bent in at edge, septiferous. Cor. rotate, rather unequal. Stamens approximated, perforated at end. Stigma round.
375. *Verbascum*. Caps. 2-celled. Corolla rotate. Stigma obtuse. Stamens declinate.
376. *Datura*. Caps. 2-celled, 4-valved. Corolla funnel-shaped. Calyx deciduous.
377. *Brugmansia*. Caps. unarmed. Cal. bursting at side, persistent. Cor. funnel-shaped. Anthers glued together. Stigma or line running down each side of style.
378. *Lisianthus*. Caps. 2-celled, many-seeded. Corolla funnel-shaped, ventricose. Style persistent.
379. *Spigelia*. Caps. 2-celled, double. Corolla funnel-shaped. Stigma simple.
380. *Nicantra*. Berry without juice, 3-5-celled, covered by the calyx, which is inflated. Cor. campanulate. Stamens incurved, distant.
381. *Hyoscyamus*. Caps. 2-celled, with a lid. Corolla funnel-shaped. Stigma capitate.
382. *Nicotiana*. Caps. 2-celled. Corolla funnel-shaped. Stigma emarginate.
383. *Ipomoea*. Caps. 3-celled. Corolla funnel-shaped. Stigma capitate.
384. *Convolvulus*. Caps. 2-celled, 2-seeded. Cor. campanulate. Stigma 2-cleft.
385. *Argyrea*. Berry rounded, juiceless, 4-celled. Cal. colored, persistent, the outer sepals largest. Cor. 5-parted, with a short thick tube surrounding the nectary. Stamens in the mouth of tube thickened, at base hairy. Anthers sagittate.
386. *Nemophila*. Ovary 1-celled, with 2 parietal placentas, each bearing 2 distant ovules. Capsule 1-celled, with fleshy placentas fixed to a longitudinal dorsal axis, otherwise loose, bearing the seeds on their inner surface.
387. *Calystegia*. Ovary half 2-celled, 4-seeded. Cal. 5-parted, inclosed in two leafy bractes. Cor. campanulate, 5-plaited. Stamens nearly equal, shorter than the limb. Stigmas 2, obtuse.
388. *Cobaea*. Caps. obovate, 3-5-celled, 3-5-valved. Seeds imbricated, edged. Cal. 5-cleft, campanulate, 5-cornered, winged. Cor. campanulate, with 5 blunt lobes. Stamens declinate, filaments spiral.
389. *Crotus*. Caps. 3-celled, 3-valved. Seeds winged. Corolla funnel-shaped. Stigma trifid.
390. *Hottzia*. Caps. of Cantua. Seeds not edged. Cal. double, inner 1-leaved, tubular, outer of 4-8 leaves. Cor. funnel-shaped, 4-5 times as long as calyx, a little incurved. Stamens inserted into base of tube.
391. *Retzia*. Caps. 2-celled. Corolla cylindrical, villous on the outside. Stigma bifid.
392. *Lubinia*. Caps. many-seeded, mucronate, when pressed of 2-4 valves. Cal. 5-parted. Cor. hypocrateriform, with a flat 5-parted equal limb. Filaments attached to middle of tube. Stigma obtuse.
393. *Epacris*. Caps. with placentas attached to a central column. Cal. colored, with many bractes. Cor. tubular, with a beardless limb. Stamens on the petals. Scales 5, hypogynous.
394. *Styphelia*. Drupe juiceless, with a solid bony putamen. Cal. 5-parted, with many bractes. Cor. in a long tube, having within 5 bundles of hairs, and bearded reflexed segments. Filaments exerted.
395. *Lissanthe*. Drupe berried, with a bony solid putamen. Cal. with 2 bractes or more. Cor. infundibuliform, not bearded. Ovary 5-celled.
396. *Astroloma*. Drupe juiceless, with a solid bony putamen. Cal. with 4 or more bractes. Cor. ventricose, twice as long as calyx, with 5 bundles of hairs inside, and a short spreading bearded limb. Filaments linear inclosed.
397. *Sprengelia*. Caps. with placentas attached to a central column. Cal. colored. Cor. 5-parted, rotate, beardless. Stamens hypogynous. Anthers connate or not. No hypogynous scales.
398. *Andersonia*. Caps. of Sprengelia. Cal. colored, with 2 or more leafy bractes. Cor. the length of the

calyx, the segments of the limb bearded at the base. Stamens hypogynous. Scales 5, hypogynous, sometimes connate.

399. *Lysinema*. Caps. of Sprengelia. Cal. colored, with many bractæ. Cor. hypocrateriform, with a tube sometimes 5-partite, with beardless segments bent to the right. Stamens hypogynous. Scales 5, hypogynous.

400. *Monotoca*. Drupe berried. Cal. with 2 bractæ. Cor. funnel-shaped, with the limb and throat beardless. Ovary 1-seeded.

401. *Leucopogon*. Drupe berried or juiceless, sometimes crustaceous. Cal. with 2 bractæ. Cor. funnel-shaped, with a spreading limb bearded lengthwise. Filaments included. Ovary 2-5-celled.

402. *Stenantha*. Drupe juiceless, with a solid bony putamen. Cal. with many bractæ. Cor. tubular, longer than the calyx, ventricose, with a short spreading half-bearded limb. Filaments included, fleshy, broader than the anthers.

403. *Azalea*. Caps. 5-celled. Corolla campanulate. Stigma obtuse.

404. *Chamaeloba*. Caps. 2-celled, opening at the end. Cal. 5-parted, equal. Cor. campanulate, 5-cleft, unequal. Stamens inserted into the base of cor. equal, straight, included. Anthers opening lengthwise. Style straight.

405. *Brezia*. Cal. short, with 5 rounded lobes. Petals ovate, spreading, rounded. Filam. dilated at base. Bristles shorter than the stamens, about the ovarium.

406. *Ophiorhiza*. Caps. 2-celled, 2-parted. Corolla funnel-shaped, villous at mouth, with acute segments. Stigma bifid.

407. *Allamanda*. Caps. 1-celled, lens-shaped, 2-valved, the valves being boat-shaped. Seeds imbricated.

408. *Theophrasta*. Caps. 1-celled, very large. Corolla campanulate. Stigma acute.

409. *Clavija*. Caps. 1-celled, very large. Corolla rotate, with 5 prominences in the centre. Filaments 5, united into a tube at the base of the corolla.

#### 4. Flowers monopetalous, inferior. Seeds in a follicle.

410. *Vinca*. Cal. 5-cleft. Cor. hypocrateriform, plaited at the orifice, with flat segments, truncate at the end. Filaments at the end dilated into concave scales. Glands 2 at base of ovary.

411. *Nerium*. Cor. hypocrateriform, crowned at the mouth with little lacerated appendages, segments of cor. twisted. Filaments inserted into middle of tube. Anthers sagittate, adhering to the stigma by the middle. Little teeth at the base of the calyx outside the corolla.

412. *Frigitia*. Cor. hypocrateriform. Mouth crowned by 10 divided scales. Stam. exerted. Filaments inserted into throat. Anthers sagittate, adhering to the stigma by the middle. Scales 5-10, inserted into base of calyx outside of corolla, some hypogynous.

413. *Echites*. Cor. hypocrateriform, with segments of the limb unequal-sided. Ovaries 2. Style 1, filiform. Follicles slender.

414. *Ichnocarpus*. Cor. hypocrateriform, with segments of limb halved. Ovaries 2. Style 1, filiform. Stigma ovate, acuminate. Filaments 5, hypogynous, alternate with the stamens.

415. *Plumieria*. Cor. funnel-shaped, with a flat limb, and ovate-oblong oblique segments. Filaments from the middle of tube. Anthers conniving. Styles scarcely any.

416. *Strophanthus*. Cor. funnel-shaped, with segments caudate, mouth crowned with 10 entire scales. Stam. inserted into middle of tube. Anthers sagittate, aristate, or mucronate. Style filiform, dilated at end. Stigma cylindrical.

417. *Cameraria*. Cal. very small. Cor. funnel-shaped or hypocrateriform, with a long tube inflated at both ends, and a flat limb, with 5 lanceolate oblique segments. Filaments in the middle of tube. Ovaries, with appendages at their sides. Styles scarcely any.

418. *Tuberanemontana*. Cor. hypocrateriform. Stamens included. Anthers sagittate. Ovaries 2. Style filiform. Stigma dilated at base, bifid. Seeds immersed in pulp.

419. *Amsonia*. Cor. funnel-shaped, closed at the orifice, with a 5-lobed limb. Stigma capitate, surrounded by a membranous angle. Seeds obliquely truncate, naked.

#### 5. Flowers monopetalous, inferior. Seeds in a drupe or berry.

420. *Cerbera*. Cal. persistent, 5-parted. Cor. funnel-shaped, with a clavate tube and 5-cornered throat, with 5 scales, segments of limb oblique obtuse. Stigma fringed, bifid. Drupe bony, 2-celled, 4-valved. Seeds 1-2, covered with a fleshy skin.

421. *Tectona*. Cal. campanulate, with 5-6 lobes. Cor. funnel-shaped, the length of calyx, with a short tube, and 5-6-parted crenulate limb. Stamens under the throat of corolla. Drupe globose in the inflated calyx, 3-4-celled.

422. *Caldasia*. Cal. tubular. Cor. tubular, 2-lipped, with emarginate segments. Filaments declinate. Drupe 3-angular, 3-valved, 3-seeded.

423. *Bumelia*. Cal. 5-parted, very small. Cor. campanulate, 5-cleft, or hypocrateriform, with teeth between the divisions of limb. Nectary a 5-leaved crown, adhering to the tube of the corolla. Drupe ovate or globose.

424. *Chrysophyllum*. Cal. 5-parted, small. Cor. campanulate, short. Filaments on the tube connivent. Style very short. Stigma obtuse, 5-cleft. Berry 10-celled, with solitary shining seeds.

425. *Sideroxylon*. Cal. 5-toothed. Cor. 5-cleft. Scales of nectary five. Stigma simple. Berry 5-seeded.

426. *Jacquinia*. Cal. 5-leaved. Cor. with a campanulate ventricose tube, and 10-cleft limb. Stamens hypogynous. Anthers hastate. Stigma capitate. Berry roundish, 1-celled, 1-seeded.

427. *Achras*. Cal. 5-6-parted. Cor. ovate, 5-6-cleft, with as many scales on the throat. Berry or apple teated, 1-celled. Seeds solitary, with a marginal hilum, and a claw at the end.

428. *Cordia*. Cal. tubular, 4-5-toothed. Cor. funnel-shaped, 4-5-cleft. Style dichotomous. Stigmas 4. Drupe covered by the calyx, 1-4-celled. Cotyledons plaited.

429. *Varronia*. Cal. tubular, 3-toothed. Cor. with a 5-cleft, spreading, plaited limb. Style dichotomous. Stigmas 4. Drupe 4-celled, 4-seeded.

430. *Ehretia*. Cal. deeply 5-cleft. Cor. funnel-shaped, with a naked throat. Stamens exerted. Style semi-bifid. Berry 2-celled, 2-seeded.

431. *Bourreria*. Cal. campanulate, half 5-cleft, very small. Cor. longer than calyx, with a plaited limb. Stam. as long as cor. Stigma obtuse edged. Berry roundish, 1-celled, with 4 convex seeds.

432. *Ellisia*. Cal. 8-parted. Cor. funnel-shaped. Stam. inserted in base of corolla. Stigma simple or bifid. Berry dry, scrotiform, 2-valved, 2-celled, in an enlarged stellate calyx. Seeds globose, black, dotted.

433. *Sersalattia*. Cal. 5-parted. Cor. 5-cleft. Stamens 5, sterile, scale-like, with as many alternate fertile ones. Ovary 5-celled. Stigma undivided. Berry 1-5 seeded. Seeds with a crustaceous skin, and longitudinal hilum.

434. *Mangilla*. Cal. very small, 5-parted. Cor. rotate, 5-parted. Scales of nectary none. Drupe or berry 1-celled, 1-seeded.

435. *Ardisia*. Cal. 5-parted. Cor. hypocrateriform, with a reflexed limb. Anthers large, erect. Stigma simple. Drupe fleshy, superior, 1-seeded.

436. *Arduina*. Cor. funnel-shaped, curved. Stigma bifid. Berry 2-celled. Seeds solitary, oblong.

437. *Strychnos*. Cor. tubular, 5-cleft. Berry 1-celled, with a woody coat. A Contorta.

438. *Carissa*. Cal. short. Cor. tubular. Stamens included. Berry 2-celled. Cells 1-2 or many-seeded. A Contorta.

439. *Pedleria*. Cal. 5-toothed. Cor. infundibuliform, 5-lobed, hairy within. Style bipartite. Berry brittle, shining, 2-seeded.

440. *Gelsemium*. Cal. 5-toothed. Cor. infundibuliform. Limb spreading, 5-lobed, nearly equal. Caps. compressed, flat, 2-partite, 2-celled. Seeds flat, attached to the margins of the valves.

441. *Rauwolfia*. Cor. tubular, globose at base. Berry succulent, 2-seeded. A Contorta.



442. *Vallesia*. Cal. very small, 5-fid. Cor. hypocrateriform, or infundibuliform, with a long slender tube, an inflated throat, and a flat limb with 5 lanceolate spreading segments. Stamens inserted in the throat. Drupes 2, 1-celled, 1-seeded. Nut fibrose, striated.
443. *Baobabrys*. Cor. tubular, 5-cleft. Calyx double, superior: outer 2-leaved, lower campanulate, 5-toothed. Berry 1-celled, many-seeded.
444. *Solanandra*. Cal. bursting. Cor. clavate, funnel-shaped, very large. Berry 4-celled, many-seeded.
445. *Cestrum*. Cal. funnel-shaped. Segments acute, edged. Stamens with or without a tooth. Anthers 4-cornered. Berry 1-2-celled. Seeds few, angular.
446. *Aitropa*. Cor. campanulate. Stamens distant. Berry globose, 2-celled, sitting on the calyx.
447. *Mandragora*. Cal. turbinate. Cor. campanulate. Filaments dilated at base. Ovary with 2 glands. Berry fleshy, solid. Seeds reniform.
448. *Physalis*. Cor. campanulate, rotate. Stamens conniving. Berry within the inflated calyx, 2-celled.
449. *Soracha*. Cor. rotate, campanulate. Berry 1-celled. Receptacle fleshy.
450. *Lycium*. Cor. tubular, with a closed orifice. Filaments bearded. Berry 2-celled, many-seeded.
451. *Solanum*. Cal. persistent. Cor. rotate or campanulate, 5-lobed, plaited. Anthers in some degree united, opening by a double pore at the end. Berry 2-celled, many-seeded.
452. *Nycterium*. Cal. 4-5-cleft. Cor. rotate, unequal. Anthers declinate, conniving, the lowest longest. Berry 2-celled, many-seeded.
453. *Capsicum*. Cor. rotate. Berry without juice.
454. *Leea*. Cor. monopetalous. Nectary 1-leaved, placed on the tube of the corolla, 5-cleft, erect. Berry 5-seeded, inferior.

6. *Flowers monopetalous, superior. Seeds in a capsule.*

455. *Spermadietyon*. Caps. inferior, 1-celled, 5-valved. Seeds 5, with a netted coat. Cor. funnel-shaped. Stigma 5-cleft.
456. *Dentella*. Cal. 5-parted, superior. Cor. funnel-shaped, with 3-toothed divisions. Caps. 2-celled, many-seeded.
457. *Macrocnemum*. Cal. campanulate, cup-shaped. Cor. campanulate or funnel-shaped. Caps. 2-celled. Seeds imbricated.
458. *Esostemma*. Cal. campanulate, 5-toothed. Cor. funnel-shaped. Limb 5-parted, usually hairy. Caps. oblong, rounded, 2-celled, 2-partite. Seeds numerous, with a membranous edge.
459. *Burchellia*. Heads of flowers in an involucre. Cor. clavate, funnel-shaped, with a 5-cleft short limb and a beardless orifice. Segments before expansion twisted together. Stamens inserted above the middle of the tube. Anthers subsessile, included. Stigma clavate. Berry crowned by the deeply 5-cleft calyx, 2-celled, many-seeded.
460. *Rondeletia*. Cor. funnel-shaped. Tube ventricose at top. Segments rounded, flattish. Caps. round, crowned, 2-celled. Seeds several or solitary.
461. *Coutarea*. Cal. 6-leaved. Cor. large, funnel-shaped, 6-cleft, with an incurved ventricose tube. Filaments inserted at base of tube. Caps. 2-celled, 2-valved, many-seeded. Seeds with a membranous edge.
462. *Portlandia*. Cal. 5-leaved. Cor. clavate, funnel-shaped. Segments spreading, deflexed. Caps. 5-cornered, retuse, crowned, 2-celled, 2-valved. Valves doubled, 2-cleft, many-seeded.
463. *Campanula*. Cor. campanulate, closed at bottom with stamiferous valves. Stigma 3-5-cleft. Caps. inferior, opening by lateral pores.
464. *Lobelia*. Cor. with the tube split on one side, the limb 2-lipped, 5-parted. Stigma 2-lobed, sometimes entire. Caps. 2-5-celled, 2-valved at end.
465. *Phytoloma*. Cor. at first rounded conical, afterwards 5-parted with linear weak segments. Stigma 2 or 3-cleft. Caps. 2-3-celled, inferior.
466. *Trachelium*. Cor. funnel-shaped. Style long. Stigma globose. Caps. 3-celled, inferior.
467. *Boella*. Cor. funnel-shaped, closed at bottom with stamiferous valves. Stigma 2-fid. Caps. nearly 2-celled, cylindrical, inferior.
468. *Goodenia*. Cor. labiate, 5-cleft, waved, longitudinally split, pushing forth the stamens. Anthers linear. Stigma urceolate, ciliated. Caps. 1-2-celled, 2-valved, many-seeded. Seeds imbricated.
469. *Euthales*. Cal. tubular, 5-cleft, equal. Cor. split at the end, with a 2-lipped limb. Anthers distinct. Style undivided. Stigma 2-lipped. Caps. 4-valved, 2-celled at base.
470. *Dampiera*. Cor. 2-lipped. Tube split on one side. Segments of upper lip with an auricle upon the inner edge. Anthers cohering. Covering of stigma naked.
471. *Samolus*. Cor. hypocrateriform, 5-cleft, with scales between the divisions. Stamens inserted into the tube. Caps. 1-celled, 5-toothed, many-seeded.
472. *Velela*. Cal. 3-5-leaved, unequal. Tube split at end with a 2-lipped limb. Anthers distinct. Style undivided. A gland between the two front stamens.

7. *Flowers monopetalous, superior. Seeds in a drupe or berry.*

473. *Scavola*. Cor. 1-petalous, with the tube divided lengthwise. Limb 5-cleft, lateral. Drupe inferior, 1-seeded. Nect. 2-celled.
474. *Caprifolium*. Cal. 4-5-toothed or entire. Tube of cor. long, with a 5-cleft, regular, or 2-lipped limb. Stamens length of cor. Stigma globose. Berry distinct, 3-celled, many-seeded.
475. *Lonicera*. Cal. 5-toothed. Cor. tubular, 5-cleft, irregular. Berry inferior, 2-3-4-celled, many-seeded.
476. *Symphoria*. Cal. 4-toothed. Cor. trifid, nearly equal. Berry crowned, 4-celled, 4-seeded, 2 cells sometimes abortive.
477. *Diervilla*. Cal. oblong, 5-cleft. Cor. twice as long, funnel-shaped, 5-cleft, spreading. Caps. oblong, 4-celled, many-seeded.
478. *Triosteum*. Cal. 5-cleft. Cor. scarcely longer, tubular, 5-lobed. Berry 3-celled, 3-seeded, inferior.
479. *Coffea*. Cal. increasing, 5-toothed, teeth deciduous. Cor. hypocrateriform. Stamens above the tube. Anthers sagittate. Berry 2-seeded. Seeds with an arillus, on one side convex, on the other flat.
480. *Chococca*. Cor. funnel-shaped, equal. Berry compressed, double, 2-seeded. Seeds oblong, compressed.
481. *Serissa*. Cor. funnel-shaped, fringed at the throat, with segments of the limb 3-lobed. Berry 2-seeded.
482. *Canthium*. Cal. 5-cleft. Cor. 5-cleft, spreading. Style elevated. Stigma capitate. Berry coated, 2-celled, 2-seeded. Seeds on one side convex, on the other flat, with a longitudinal furrow. Prickly.
483. *Psychotria*. Cal. 5-toothed, crowning. Cor. funnel-shaped. Berry globose or oval. Seeds 2, furrowed, bony.
484. *Hamelia*. Cor. 5-cleft. Berry 5-celled, many-seeded. Racemes divided. Flowers 1-sided.
485. *Posoqueria*. Cal. turbinate. Cor. hypocrateriform, with a long cylindrical curved tube which is dilated at end, with long narrow reflexed segments. Stamens exserted.
486. *Vanguiera*. Cor. campanulate, globose, with a hairy throat. Stigma of 2 lips. Berry apple-shaped, 4-5-celled, 4-5-seeded.
487. *Gardenia*. Segments of the cal. vertical or oblique. Cor. at first twisted, funnel-shaped, 5-9-cleft, with a tube usually long. Style elevated. Stigma 2-lobed. Berry 2-celled, many-seeded. Seeds in a double row.
488. *Genipa*. Cal. tubular or turbinate, entire. Cor. hypocrateriform, with a large 5-parted limb. Anthers sessile in the throat, exserted. Stigma clavate, entire, or simple. Berry large, fleshy, truncated at the end, 2-celled, many-seeded.
489. *Cyananthus*. Cal. contracted at top. Cor. funnel-shaped, with a very long rounded tube, and a 5-parted limb, with very acute lobes. Anthers exserted.
490. *Randia*. Cal. 5-parted, with linear-lanceolate, twisted sepals. Cor. hypocrateriform, tube not much longer than calyx. Stigma 2-lobed, with oblong unequal lobes. Berry half 2-celled, with an incomplete partition; crowned with the tubular calyx. Seeds many.

491. *Mussaenda*. Cor. funnel-shaped. Stigmas 2, thickish. Berry oblong, 2-celled, many-seeded. Seeds in 4 rows. Stamens in the inside of the tube.  
 492. *Pinctopus*. Sepals unequal, one or two of them foliaceous. Cor. a long tube. Filaments in the base of the tube. Caps. 2-valved, valves bearing the divisions in the middle.  
 493. *Erihalis*. Cal. urceolate. Cor. 5-parted, with recurved segments. Berry 10-celled, 10-seeded.  
 494. *Webera*. Cor. funnel-shaped, spreading. Stamens included. Stigma clavate. Berry rounded, two-celled.  
 495. *Plocama*. Cal. 5-toothed. Cor. campanulate, 5-cleft. Berry 3-celled, with 1-seeded cells.  
 496. *Morinda*. Flowers collected in a globe above a spherical receptacle. Cal. 5-toothed. Cor. funnel-shaped, 5-cleft, spreading. Berries aggregate, on account of their mutual compression angular.  
 497. *Cephaelis*. Flowers headed in an involucrem. Cal. 5-toothed. Cor. tubular. Stigma 2-parted. Berry 2-seeded. Receptacle chaffy. Involucrem 1-5-leaved.  
 498. *Sarcocephalus*. Flowers in a naked head, 5-parted. Stigma clavate. Fruit united into a great fleshy tessellated berry.

8. *Flowers polypetalous, inferior. Seeds in a drupe, berry, or berried capsule.*

499. *Hirtella*. Pet. 5. Filam. very long, persistent, spiral. Berry 1-seeded. Style lateral.  
 500. *Triphasia*. Flowers with their parts ternary. Stamens distinct. Anthers sagittate. Berry 3-celled 3-seeded.  
 501. *Vitis*. Petals cohering at the end like a calyx, withering. Berry 5-seeded.  
 502. *Ampelopsis*. Cal. entire. Petals cohering at the end, withering. Stigma capitate. Ovary immersed in the disk, 2-4-seeded.  
 503. *Rhamnus*. Cal. campanulate, 4-5-cleft. Cor. scales protecting the stamens, inserted into the calyx. Stigmas 1-2-5-cleft. Berry 3-4-seeded.  
 504. *Cnophila*. Cal. urceolate, 5-cleft. Petals 5. No fleshy discus. Drupe juicy, 2-celled, one cell being usually abortive, 1-seeded.  
 505. *Paliurus*. The flowers of *Zizyphus*. Styles 3. Drupe dry, 3-celled, surrounded by a membranous orbicular wing.  
 506. *Zizyphus*. Cal. spreading, 5-cleft. Petals 5. Discus fleshy, orbicular, surrounding the ovary. Styles 2. Drupe with a 1 or 2-seeded nut. Flowers axillary.  
 507. *Celastrus*. Cor. 5 petals, spreading. Caps. 3, angular, 3-celled. Seeds with an arillus.  
 508. *Senackia*. Cal. very small, 5-toothed. Cor. 5 petals. Caps. spherical, stalked, 2-valved, 4-seeded. Seeds angular, naked.  
 509. *Euonymus*. Pet. 5. Caps. 5-cornered, 3-celled, 3-valved, colored. Seeds with an arillus.  
 510. *Ceanothus*. Pet. 5, bagged, vaulted. Berry dry, 3-celled, 3-seeded.  
 511. *Staavia*. Flowers aggregate. Stamens inserted into the calyx. Styles 2, united. Berry 5-seeded, coated. Receptacle chaffy, villous.  
 512. *Pomaderris*. Cal. turbinate. Petals arched, scale-like, sometimes none. Style 3-cornered. Stigmas 3, capitate. Caps. of 3 papery divisions.  
 513. *Mangifera*. Pet. 5. Drupe reniform.  
 514. *Schrebera*. Drupe dry, with a 2-celled nut. Nectary an elevated edge.  
 515. *Bilardiera*. Petals 5, alternate with the sepals. Nectary 0. Stigma simple. Berry many-seeded.  
 516. *Elaeodendrum*. Sepals 5-10, with round concave scales. Cor. 5-parted. Segments ovate, lanceolate, concave. Nect. linear, subulate, petal-like. Drupe dry, with a 2 or 3-celled nut. Putamen thick, hard, furrowed.

9. *Flower polypetalous, inferior. Seeds in a capsule.*

517. *Diosma*. Cal. 5-parted. Petals and stamens inserted in the calyx. Nect. of 5 plaits. Ovary crowned. Caps. 5-valved. Each end with an elastic arillus.  
 518. *Adenandra*. Cal. 5-parted. Pet. and stamens inserted in the calyx. Stamens 10, of which every other one is sterile. Anthers with a gland at end.  
 519. *Barysma*. Cal. 5-leaved. Petals 10, unequal, inserted in the receptacle. Nect. a 5-lobed gland inserted on the receptacle.  
 520. *Agathosma*. Cal. 5-parted. Petals 10, unequal, inserted in the calyx. Nect. 5-lobed, inserted in calyx.  
 521. *Nauclea*. Cal. about 5-toothed. Cor. funnel-shaped. Caps. 3-cornered, 2-celled, many-seeded. Flowers in a globose head upon a common pilose receptacle.  
 522. *Pittosporum*. Cal. deciduous. Petals 5, conniving in a tube. Caps. 2-5-celled, 2-5-valved. Seeds pulpy.  
 523. *Lasiopetalum*. Cal. 5-leaved. Petals minute, gland-like. Filaments 5, separate. Anthers opening by two pores inwards. Stipules none.  
 524. *Thomasia*. Cal. persistent, veiny. Pet. 5, very small or 0. Filam. united at base. Anthers opening laterally. Stipules leafy.  
 525. *Scringia*. Cal. withering. Pet. 0. Filam. 10, every other one barren. Anthers opening at their back. Stipules small, deciduous.  
 526. *Butneria*. Pet. 5. Nect. 5-leaved. Filaments inserted into the end of the nectary. Caps. of 5 divisions, muricated.  
 527. *Ayenia*. Cal. 5-parted. Pet. 5, connected at end into a star, with their claws slender, bent into the form of a crown. Glands 5, stamen-shaped. Nectary cup-shaped. Caps. depressed, 5-furrowed, 5-celled, 5-valved. Valves bifid.  
 528. *Calodendrum*. Cal. 5-parted, short. Petals linear lanceolate, stalked. Stam. 5, sterile, petal-shaped. Caps. 5-angular, 5-celled, 5-valved, with 2-seeded cells.  
 529. *Toddalia*. Cal. 5-cleft. Petals 5. Stigma capitate. Caps. berried, 5-celled. Cells 2-seeded.  
 530. *Bursaria*. Cal. inferior, 5-toothed. Pet. 5, linear. Stigma simple. Caps. cordate, compressed, 2-partible, 2-seeded. Seeds reniform.  
 531. *Cedrela*. Cal. withering. Cor. of 5 petals, funnel-shaped, at base united  $\frac{1}{2}$  with the receptacle. Caps. woody, 5-celled, 5-valved. Seeds with a membranous wing.  
 532. *Houenia*. Cal. 5-parted. Pet. 5, convolute. Stigma 3-fid. Caps. 3-celled, 3-valved. Cells 1-seeded.  
 533. *Brunia*. Flowers aggregate. Cal. superior, 5-parted. Filaments inserted into the claws of the petals. Stigma 2-fid. Caps. small, 2-celled.  
 534. *Brossæa*. Cal. fleshy, superior. Cor. conical, truncated. Caps. 5-furrowed, 5-celled, covered by the persistent calyx, with 5-fissures.  
 535. *Itea*. Cal. 5-cleft, campanulate. Pet. 5, linear, reflexed, inserted into calyx. Stigma capitate, 2-lobed. Caps. 2-celled, 2-valved, with the valves bent inwards.  
 536. *Cyrtilla*. Cal. very small, turbinate, 5-parted, superior. Pet. 5, stellate, stiffish. Styles 2-fid. Berry dry, 2-celled. Seeds solitary, attached by a little cord.  
 537. *Claytonia*. Cal. 2-valved. Pet. 5. Stigma 3-fid. Caps. 3-valved, 1-celled, 3-seeded.  
 538. *Impatiens*. Cal. 3-leaved. Pet. 3, irregular, with one cucullate. Anthers at first subconnate. Caps. superior, 5-valved.  
 539. *Sauvagesia*. Pet. 5, fringed. Sepals 5. Nectary 5-leaved, alternate with the petals. Caps. 3-celled, 3-furrowed, 3-valved, with the edges bent inwards.  
 540. *Viola*. Sepals 5. Petals 5, irregular, connate behind. Anthers adhering at the end by a membrane, or distinct. Caps. 3-valved, 1-seeded.  
 541. *Ionidium*. Sepals 5, produced at their base. Cor. 2-lipped, without a spur. Anthers usually distinct. Stigma simple. Caps. 1-celled, 3-valved.

10. *Flowers polypetalous, superior.*

542. *Phytica*. Cal. 5-parted, turbinate. Pet. O. Scales 5, protecting the stamens. Caps. 3-coccos, inferior.  
 543. *Plectronia*. Cal. turbinate, 5-toothed, persistent, closed by 5 villous scales. Pet. 5, inserted in the throat of calyx. Berry 2-celled, 2-seeded.  
 544. *Conocarpus*. Pet. 5 or O. Seeds naked, solitary. Flowers in heads.  
 545. *Cyphia*. Cal. 5-cleft, turbinate. Petals linear, dilated at base, connivent, spreading at end. Filaments hairy, cohering. Anthers distinct. Stigma cernuous, hollow, gibbous.  
 546. *Lightfootia*. Sepals 5. Petals thin, bottom closed by stamen-bearing valves. Stigma 3-5-cleft. Caps. 3-5-celled, 3-5-valved,  $\frac{1}{2}$ -superior.  
 547. *Jasione*. Flowers in heads. Common involucrem 10-leaved. Petals 5, erect. Anthers oblong, cohering at base. Stigma bifid.  
 548. *Lagoccia*. Umbel simple. Common involucre about 8-leaved, partial 4-leaved, finely pinnated. Cal. 5-cleft, with many-cut fine segments. Petals 2-fid. Seeds crowned by the calyx.  
 549. *Hedera*. Petals 5, oblong. Berry 5-seeded, surrounded by the calyx.  
 550. *Ribes*. Petals 5, and stamens inserted into the calyx. Style 2-fid. Berry many-seeded, inferior.  
 551. *Gronovia*. Petals 5, and stamens inserted into the campanulate calyx. Berry dry, 1-seeded, inferior.

11. *Flowers incomplete, inferior.*

552. *Achyranthes*. Sepals 5. Scales 5, connate at the base into a tube, at the end fringed and alternate with the stamens. Stigma 2-fid. Seed solitary, crowned by the conniving sepals.  
 553. *Phitoxerus*. Sepals 5, irregular. Stamens 5, united at the base into a little cup shorter than the ovary. Anthers 1-celled. Style 1. Utricle 1-seeded, without valves.  
 554. *Desmochata*. Sepals 5. Stamens 5, united at base with a very small cup with neither teeth nor chaff between. Stigma capitate. Utricle 1-seeded.  
 555. *Illecebrum*. Sepals 5, vaulted at the end. Pet. O. Stigma simple or bifid. Caps. 5-valved, 1-seeded.  
 556. *Alternanthera*. Sepals 5. Stamens 5, united into a little cup, with or without intermediate teeth, one or more of the stamens usually abortive. Anthers 1-celled. Stigma capitate.  
 557. *Paronychia*. Cal. nearly 5-parted, colored inside. Scales or petals 5, linear. Style 2-fid. Stigmas 2. Caps. 1-celled, 5-valved.  
 558. *Chenolea*. Cal. globose, fleshy, concave. Cor. O. Filam. inserted into the base of calyx. Stigmas 2, spreading. Caps. round, depressed, 1-celled, 1-seeded.  
 559. *Anychia*. Cal. connivent, with oblong segments, bagged at the end. Pet. O. Filam. distinct, with no setae between. Stigmas 2, oblong. Caps. an utricle, not opening. Seed 1, reniform.  
 560. *Xrma*. Sepals 5, with 2-3-bractees, oblong; on the outside white, hairy; inside smooth. Stamens 10, alternately barren, inserted into a little cup at the base. Style larger, filiform. Stigma bifid.  
 561. *Lestibudesia*. Sepals 5. Stamens 5, united into a little cup without teeth. Anthers 2-celled. Ovary many-seeded. Style short or none. Stigmas 3-4, filiform, recurved. Caps. opening transversely.  
 562. *Rhagodia*. Flowers polygamous. Perianth 5-parted. Stamens 5 or fewer. Style bifid. Grain depressed, fleshy, surrounded by the perianth.  
 563. *Deeringia*. Perianth 5-parted. Stamens united at base into a small cup. Anthers 2-celled. Style 3-parted. Berry many-seeded.  
 564. *Trianthema*. Sepals oblong, colored inside. Stamens 5-10-12, with capillary filaments. Ovary half-superior. Style 1 or 2, filiform. Stigmas simple. Caps. oblong, truncate, cut round.  
 565. *Celosia*. Sepals 3, like a 5-petalous corolla. Stam. united at base by a plaited nectary. Caps. horizontally opening. Style 2-3-cleft.  
 566. *Gomphrena*. Sepals 5, colored: outer 3 conniving, keeled. Pet. 5, rude, villous. Nect. cylindrical, 5-toothed. Caps. cut round, 1-seeded. Style half-bifid.  
 567. *Mollia*. Sepals 5. Pet. 5, emarginate. Style simple. Caps. 3-cornered, 1-celled, 3-valved, many-seeded.  
 568. *Glauca*. Cal. 1-leaved, colored, 5-lobed. Cor. O. Caps. 1-celled, 5-valved, 5-seeded, surrounded by a calyx.

12. *Flowers incomplete, superior.*

569. *Thesium*. Cal. 1-leaved, into which the stamens are inserted. Nect. inferior, 1-seeded, surrounded by the persistent calyx.  
 570. *Heliconia*. Spathes universal and partial. Cal. O. Cor. 3 petals, superior. Nect. 2-leaved. Stigma 1. Caps. 3-celled, with 1-seeded cells.  
 571. *Strelitzia*. Spathes universal and partial. Cal. O. Cor. superior, 3 petals, the larger segments hastate. Nect. 3-leaved, surrounding the stamens. Stigmas 3. Caps. 3-celled. Cells many-seeded.

## Order 2. DIGYNIA.



5 Stamens. 2 Styles.

1. *Flowers monopetalous, inferior. Fruit a follicle or capsule. (ASCLEPIADEÆ)*

572. *Apocynum*. Cor. campanulate. Filaments 5, alternate with the stamens. Style none. Stigma broad. Follicles long, linear.  
 573. *Melodinus*. Cal. campanulate, 5-toothed. Cor. hypocrateriform. Limb spreading, with falcate, crenulate segments. Corona 5-cleft, with short, stellate, torn divisions. Stigmas 2. Fruit a fleshy globose, 2-celled, many-seeded berry.  
 574. *Periploca*. Anthers bearded at back. Pollen-masses solitary, made up of 4 confluent ones. Stigma blunt. Follicles cylindrical, divaricating, smooth. Seed comose.  
 575. *Cryptostegia*. Cor. funnel-shaped. Tube with two included bifid scales, alternate with the divisions of the limb. Stamens included, inserted in the base of the tube. Filaments distinct. Anthers cohering with the stigma by their base. Glands 5, spatulate. Pollen granular, simple.  
 576. *Hemidesmus*. Cor. with 5 blunt scales under the sinuses. Anthers free from the stigma, simple at end. Stigma blunt. Follicles cylindrical, much spreading, smooth. Seeds comose.  
 577. *Sacameo*. Corona 5-leaved. Pollen-masses 20, smooth, erect, fixed by fours to the point of each cor-puscle of the stigma. Stigma contracted at end.  
 578. *Microloma*. Tube of cor. inflated, angular, shorter than the limb. Scales inserted into the middle of the tube below the sinuses. Anthers terminated by a membrane, sagittate. Pollen-masses compressed, pendulous. Stigma with a little point.  
 579. *Sarcostemma*. Cor. rotate. Pollen-masses pendulous. Stigma blunt. Seeds comose.  
 580. *Daemia*. Cor. rotate, with a short tube. Outer corona 10-parted, short. Pollen-masses pendulous, compressed. Stigma blunt. Seeds comose.  
 581. *Cynanchum*. Cor. rotate, 5-parted. Pollen-masses inflated. Stigma with a little point. Follicles smooth.  
 582. *Orystelma*. Cor. spreading, rotate, with a short tube. Columna exerted. Crown 5-leaved, with compressed, acute, undivided leaflets. Pollen-masses compressed, pendulous, fixed by a narrow end. Stigma blunt. Follicles smooth. Seeds comose.  
 583. *Gymnema*. Cor. 5-cleft. Scales or little teeth of the orifice 5, inserted in the sinuses. Crown none. Masses of pollen erect, fixed by the base. Follicle slender, smooth.

584. *Calotropis*. Cor. with an angular tube: the angles saccate inside. Crown with carinate leaflets, united lengthwise to the tube of the filaments. Pollen-masses pendulous, fixed by the narrow end. Stigma blunt.
585. *Dischidia*. Cor. urceolate, 5-cleft. Corona with subulate, spreading, recurved segments. Pollen-masses erect, fixed by the base. Stigma blunt. Follicles smooth. Seeds comose.
586. *Xymalobum*. Cor. 5-cleft, spreading. Corona 10-parted in a single row: the 5 divisions next to the anthers fleshy, round, simple within, the 5 others small. Pollen-masses pendulous, with lax connecting processes. Stigma blunt.
587. *Gomphocarpus*. Corona 5-leaved, the segments simple within. Pollen-masses compressed, pendulous, fixed by a fine end. Stigma depressed, blunt. Follicles ventricose, covered with innocuous spines. Seeds comose.
588. *Asclepias*. Corona 5-leaved, with a process on the inside. Pollen-masses fixed by a fine end. Stigma depressed, blunt.
589. *Gonolobus*. Cor. rotate, 5-parted. Corona shield-shaped. Anthers opening across, terminated by a membrane. Stigma flat, depressed.
590. *Pergularia*. Cor. hypocrateriform, with an urceolate tube. Pollen-masses erect, fixed by their base. Stigma blunt. Follicles ventricose, smooth. Seeds comose.
591. *Marsdenia*. Cor. urceolate, 5-cleft, sometimes rotate. Pollen-masses erect, fixed by the base. Follicles smooth. Seeds comose.
592. *Hoya*. Cor. 5-cleft. Pollen-masses fixed by the base, conniving, compressed. Stigma depressed, with an obtuse wart. Follicles smooth. Seeds comose.
593. *Ceropegia*. Outer corona short, 5-lobed; inner 5-leaved, with ligular undivided leaflets. Pollen-masses fixed by their base with simple edges. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
594. *Stapelia*. Cor. rotate, 5-cleft, fleshy. Column of fructification exerted. Pollen-masses fixed by the base. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
595. *Piaranthus*. Cor. fleshy. Outer corona none. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt.
596. *Huernia*. Accessory segments of cor. tooth-like. Leaflets of the inner corona from a gibbous base subulate, undivided, alternate with the outer segments. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
597. *Brachystelma*. Cor. campanulate, with angular recesses. Column included. Crown 1-leaved, 5-cleft, with the lobes opposite the anthers, simple at back. Anthers without a membrane at the end. Pollen-masses erect, inserted by the base.
598. *Caralluma*. Cor. rotate, deeply 5-cleft. Cal. of fructification exerted. Pollen-masses erect, fixed by the base with simple edges. Stigma blunt. Follicles slender, smooth. Seeds comose.

### 2. Flowers monopetalous, inferior. Fruit a capsule.

599. *Swerbia*. Caps. of 1 cell. Cor. wheel-shaped, with 2 nectariferous lobes at the base of each segment.
600. *Gentiana*. Caps. of 1 cell. Cor. tubular at the base, destitute of nectariferous pores.
601. *Hydrolea*. Caps. 2-valved, 2-celled. Cor. rotate, campanulate. Stamens inserted in the tube.
602. *Falkia*. Cal. inflated, 5-parted, 5-angular. Cor. campanulate, emarginate, crenate. Styles spreading. Stigma globose, woolly. Seeds 4, globose, with an arillus in the bottom of the calyx.
603. *Dichondra*. Cal. 5-parted, with spatulate segments. Cor. short, campanulate, 5-parted. Stigma peltate, capitate. Caps. compressed, 2-celled, 2-seeded. Seeds round.

### 3. Flowers pentapetalous, inferior.

604. *Velexia*. Cal. slender, 5-toothed. Cor. of 5 small petals. Caps. 1-celled, at the end 4-valved. Seeds many, attached to a filiform central receptacle.
605. *Bumalda*. Cal. 5-parted. Petals 5. Styles villous. Caps. 2-celled, with 2 bractes.
606. *Heuchera*. Petals 5. Caps. 2-celled, with 2 bractes.
607. *Cussonia*. Invol. O. Cal. 1-leaved, truncated, crenate. Pet. 5, oblong, acute. Fruit twin, 2-celled, crowned by the calyx and styles.
608. *Anabasis*. Cal. 3-leaved. Pet. 5. Berry 1-seeded, surrounded by the calyx.
609. *Salsola*. Caps. closed, imbricated in the fleshy calyx. Seed with a spiral embryo.
610. *Kochia*. Cal. 1-leaved, campanulate, in the fruit expanding into a leafy rim resembling 5 petals. Cor. O. Stigmas 2-3, long. Caps. 1-celled, 1-2-seeded. Seed incurved.
611. *Chenopodium*. Seed lenticular, truncated, superior.
612. *Beta*. Seed kidney-shaped, imbedded in the fleshy calyx.
613. *Bosea*. Cal. 5-leaved. Cor. O. Berry 1-seeded.
614. *Herniaria*. Caps. closed, membranous, invested with the calyx. Stam. with 5 imperfect filaments.
615. *Ulmus*. Caps. closed, membranous, compressed, bordered, superior.
616. *Planera*. Cal. membranous, subcampanulate, 4-5-cleft. Cor. O. Stigmas 2, oblong, glandular, spreading. Caps. globose, membranous, 1-celled, not opening, either smooth or scaly, not winged, 1-seeded. Stamens 4-6. Polygamous.

### 4. Flowers pentapetalous, superior.

617. *Phyllis*. Cal. 2-leaved. Pet. 5. Stigmas hispid. Seeds 2, oblong, fixed to a filiform axis.

### 5. Flowers pentapetalous, superior. Seeds 2. (UMBELLIFERÆ)

#### A. Fruit of a single or double globe.

618. *Coriandrum*. Fruit a single or double globe, smooth, without ribs. Cal. broad, unequal. Petals radiant. Floral recept. none.

#### B. Fruit beaked.

619. *Scandix*. Beak much longer than the seeds, fruit somewhat bristly. Cal. none. Pet. unequal, undivided. Floral recept. 5-lobed, colored.
620. *Anthriscus*. Beak shorter than the seeds, even. Fr. rough, with scattered prominent bristles. Cal. none. Petals equal, inversely heart-shaped. Fl. recept. slightly bordered.
621. *Chærophyllum*. Beak shorter than the seeds, angular. Fr. smooth, without ribs. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. wavy.

#### C. Fruit solid, prickly, without a beak.

622. *Eryngium*. Fr. ovate, clothed with straight bristles. Cal. pointed. Pet. oblong, equal, inflexed, undivided. Fl. aggregate. Common recept. scaly.
623. *Sanicula*. Fr. ovate, clothed with hooked bristles. Cal. acute. Pet. lanceolate inflexed, nearly equal. Fl. separated, dissimilar.
624. *Echinophora*. Fr. ovate, imbedded in the enlarged armed receptacle. Seed solitary. Cal. spinous. Pet. inversely heart-shaped, unequal. Fl. separated.
625. *Daucus*. Fr. elliptic oblong, compressed transversely. Seeds with four rows of flat prickles, and rough intermediate ribs. Cal. obsolete. Pet. inversely heart-shaped, unequal. Fl. separated.
626. *Caucalis*. Fr. elliptic oblong, compressed transversely. Seed with 4 rows of ascending, awl-shaped, hooked prickles, the interstices prickly or rough. Cal. grooved, acute, unequal. Pet. inversely heart-shaped, unequal. Fl. imperfect, separated.
627. *Torilis*. Fr. ovate, slightly compressed laterally. Seeds villous, rough, with scattered prominent,

- ascending, rigid prickles. Cal. short, broad, acute, nearly equal. Pet. inversely heart-shaped, nearly equal. Fl. united.
628. *Oliveria*. Leaflets of the involucre 3-parted. Umbels fasciated, as long as the involucre. Petals split to the base. Fr. ovate, hispid, with three streaks.
629. *Ledeburia*. Involucres O. Fr. ovate, with spreading bristles. Bases of styles 2, conical, connate at base. Styles persistent.
630. *Myrrhis*. Fr. deeply furrowed. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. none. Flowers imperfectly separated.
631. *Bunium*. Fr. slightly ribbed. Cal. small, acute, unequal. Pet. inversely heart-shaped, equal. Fl. recept. none. Flowers imperfectly separated.

D. *Fruit solid, nearly round, unarmed, without wings.*

632. *Enanthe*. Fr. ribbed, somewhat spongy. Cal. large, lanceolate, acute, spreading, unequal. Pet. inversely heart-shaped, very unequal. Fl. recept. dilated, depressed. Fl. separated.
633. *Crithmum*. Fr. ribbed, coriaceous. Cal. small, broad, acute, incurved. Pet. elliptical, acute, incurved, equal. Fl. recept. none. Fl. united, all perfect.
634. *Athanasia*. Fr. ribbed, ovate, hairy. Styles short. Cal. lanceolate, acute, incurved. Pet. inversely heart-shaped, broadly-pointed, equal. Fl. recept. none. Fl. imperfectly separated.
635. *Pimpinella*. Fr. ovate, ribbed, with convex interstices. Styles capillary, as long as fruit. Cal. none. Pet. inversely heart-shaped, nearly equal. Fl. recept. none. Fl. either united or dioecious.
636. *Phellandrium*. Flowers fertile. Fruit crowned. Fruit ovate, smooth, crowned by the calyx and styles. Involucres partial, not universal.
637. *Dandia*. Umbels capitate. Involucre 6-leaved, longer than umbel. Petals entire. Fruit ovate, solid, with 4 ribs, and convex intervals.
638. *Trachyspermum*. Leaves of involucre pinnatifid. Fruit striated, with 5 muricated ribs. Rudiments of calyx 5. Fl. receptacle conical. Style withering.
639. *Ammi*. Involucre pinnate or pinnatifid. Fruit oblong, with 5 obtuse ribs, and convex intervals.
640. *Bubon*. Involucres O. Fruit ovate, solid, hispid, or villous, with 5 ribs, and broadish bands of the intervals and raphe.
641. *Cuminum*. Involucres 5-leaved. Fruit ovate, prismatic, smoothish, bladdery, with 7 ribs, and bearded intervals.
642. *Seseli*. Common involucre O; partial 5-leaved, sometimes 1-leaved. Fruit ovate, solid, with 5 acute ribs, and furrowed, striated intervals.
643. *Thapsia*. Fruit narrow, but little compressed, scarcely ribbed, with 2 dorsal and marginal wings.
644. *Actinotus*. Umbel capitate. Involucre woolly, very large. Cor. O. Cal. 5 sepals. Male flowers mixed with hermaphrodite. Fruit ovate, villous, with 5 stripes, crowned by the calyx.
645. *Trinia*. Flowers dioecious. Involucre few-leaved. Pet. ovate, lanceolate. Seeds roundish, with 5 ribs, with the intervals once-banded.

E. *Fruit solid, unarmed, without wings, compressed laterally, the diameter of its juncture being at least twice as narrow as the opposite diameter.*

646. *Sium*. Fr. ovate or orbicular, ribbed, furrowed. Cal. small, acute, unequal, or obsolete. Pet. inversely heart-shaped or obovate, equal. Styles cylindrical, shorter than the petals. Fl. receptacle none. Fl. uniform, united.
647. *Sison*. Fr. ovate or nearly orbicular, ribbed. Cal. obsolete or blunt. Pet. elliptical or inversely heart-shaped, with an involute point, equal. Styles very short and thick. Fl. recept. none. Fl. uniform, united.
648. *Cicuta*. Fr. nearly orbicular, heart-shaped at the base, with 6 double ribs. Cal. broad, acute, rather unequal. Pet. ovate or slightly heart-shaped, nearly equal. Style scarcely tumid at the base. Fl. recept. depressed, withering. Fl. uniform, nearly regular, united.
649. *Conium*. Fr. ovate, with 10 acute ribs, wavy in an unripe state. Cal. obsolete. Pet. inversely heart-shaped, slightly unequal. Styles a little tumid at the base. Fl. recept. dilated, depressed, wavy, permanent. Fl. slightly irregular, united.
650. *Smyrnium*. Fr. broader than long, concave at each side, with 6 acute dorsal ribs; interstices convex. Cal. very small, acute. Pet. equal, lanceolate, incurved or inversely heart-shaped. Styles tumid and depressed at the base. Fl. recept. none. Fl. nearly regular, partly barren or abortive.
651. *Apium*. Fr. roundish, ovate, with 6 acute dorsal ribs; interstices flat. Pet. roundish, with an inflexed point, very nearly equal. Styles greatly swelled at the base. Fl. recept. thin, orbicular, wavy. Fl. nearly regular, united.
652. *Agopodium*. Fr. elliptic-oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. inversely heart-shaped, broad, a little unequal. Style ovate at the base. Fl. recept. none. Fl. united, all perfect, slightly radiate.
653. *Meum*. Fr. elliptic, oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. obovate, with an inflexed point, equal. Styles tumid at the base, short, recurved. Fl. recept. none. Fl. united, all perfect, regular.
654. *Anethum*. Invol. none. Pet. involute, yellow. Seeds compressed, with 3 ribs; intervals once-banded.
655. *Carum*. Fr. elliptic, oblong, with equidistant ribs; interstices convex. Cal. minute, acute, often obsolete. Pet. inversely heart-shaped, unequal. Styles tumid at the base, subsequently elongated, widely spreading. Fl. recept. angular, thin, wavy, permanent. Fl. separated, irregular.
656. *Cnidium*. Fr. ovate, acute, with equidistant sharp ribs; interstices deep, concave; juncture contracted. Cal. none. Pet. equal, obovate or inversely heart-shaped. Styles hemispherical at the base; subsequently elongated, spreading, cylindrical. Fl. recept. annular, thin, undulated, erect, afterwards depressed. Flower imperfectly separated, nearly regular.
657. *Bupleurum*. Fr. ovate-oblong, obtuse, with prominent, acute, abrupt ribs; interstices flat; juncture contracted. Cal. none. Pet. equal, broadish, wedge-shaped, very short, involute. Styles very short, not extending beyond the circumference of their broad tumid bases. Fl. recept. none. Fl. all perfect and regular.
658. *Hydrocotyle*. Fl. nearly orbicular, rather broader than long, angular, much compressed, juncture very narrow. Cal. none. Pet. equal, ovate, spreading, undivided. Styles cylindrical, shorter than the stamens, tumid at the base. Fl. recept. none. Fl. all perfect and regular.
659. *Spananthe*. Umbel simple, with few rays. Involucre few-leaved. Fruit ovate, solid, smooth, with the juncture and sides contracted, and 5 ribs at the back.
660. *Utospermum*. Involucre few-leaved. Germen oblong. Ribs of fruit membranous, wavy, curled. Calyx scarcely any. Fl. receptacle flattened. Styles withering.

F. *Fruit solid, unarmed, compressed transversely, the diameter of the juncture being much greater than the opposite diameter.*

661. *Aethusa*. Seeds ovate, convex, with 5 tumid, rounded, acutely keeled ribs; interstices deep, acute, angular; border none. Cal. pointed, very minute. Pet. inversely heart-shaped, rather angular. Fl. recept. none. Fl. all perfect, slightly radiant.
662. *Imperatoria*. Seeds orbicular, with a notch at each end, a little convex, with 3 prominent dorsal ribs, and a dilated, flat, even border. Cal. none. Pet. inversely heart-shaped, very slightly irregular. Fl. recept. none. Fl. all perfect, scarcely radiant.
663. *Selinum*. Scales elliptical, slightly convex, with 3 acute dorsal ribs, and a dilated, flat, even border. Cal. minute, pointed, spreading. Pet. inversely heart-shaped, involute, equal. Fl. recept. obsolete. Fl. perfect, regular, a few occasionally abortive.

664. *Angelica*. Seeds elliptic-oblong, convex, with 3 dorsal wings, and a narrow, flat, even border. Cal. none. Pet. lanceolate, flatish, undivided, contracted at each end, equal. Fl. recept. thin, wavy, narrow, permanent. Fl. all perfect.
665. *Ligusticum*. Seeds oblong convex, with 3 dorsal and 2 marginal equal wings. Cal. small, pointed, erect, broad at the base. Pet. elliptical, flatish, undivided, contracted at each end, equal. Fl. recept. none. Fl. all perfect, regular.
666. *Hasselquistia*. Involucres various. Flowers radiant. Fruit compressed at edge, flat, roundish. Bark turgid in the circumference with 5 obtuse ribs. Fruit in the middle of the umbel deformed, navicular, torn at edge, with 3 stripes at back.
667. *Artemisia*. Fruit oblong, compressed, with the marginal wings sinuated, 5 dorsal ribs, and scaly juncture. Flowers radiant. Involucres pinnatifid.
668. *Ferula*. Fruit compressed, flat, thickened at edge, with 3 obtuse dorsal ribs, and banded intervals and juncture. Flowers polygamous. Involucres various.
669. *Laserpitium*. Fruit oval, somewhat compressed, with the 3 principal ribs acute, the secondary winged. Involucres many-leaved.

G. Fruit thin and almost flat, compressed transversely, without dorsal wings.

670. *Peucedanum*. Seeds broadly elliptical, with a notch at each end, a little convex, with 3 slightly prominent ribs, interstices striated, border narrow, flat, even, smooth, and entire. Cal. pointed, ascending. Pet. inversely heart-shaped, all very nearly equal. Fl. recept. none. Flowers regular, imperfectly separated.
671. *Pastinaca*. Seeds elliptic-obovate, with a slight notch at the summit, very nearly flat, with 3 dorsal ribs and 2 marginal ones; border narrow, flat, thin, even, smooth, and entire. Cal. very minute, obsolete. Pet. broadly lanceolate, involute, equal. Fl. recept. broad, orbicular, wavy, rather thin, concealing the calyx. Fl. regular, uniform, perfect.
672. *Heraclium*. Seeds inversely heart-shaped, with a notch at the summit, very nearly flat, with 3 slender dorsal ribs, 2 distant marginal ones, and 4 intermediate, colored, depressed, abrupt lines from the top; border narrow, slightly tumid, smooth, even, and entire. Cal. of 5 small, acute, evanescent teeth. Pet. inversely heart-shaped, radiant. Fl. recept. wavy, crenate, obtuse. Fl. separated.
673. *Tordylium*. Seeds orbicular, nearly flat, roughish, without ribs; border tumid, wrinkled or crenate, naked or bristly. Cal. of 5 awl-shaped unequal teeth. Pet. inversely heart-shaped, radiant, variously unequal and irregular. Fl. recept. none. Fl. separated.
674. *Astrantia*. Umbels fascicled. Involucres as long as umbels. Fruit oblong, surrounded by furrowed, wrinkled, little bladders.
675. *Zosimia*. Both involucres many-leaved. Petals obovate, with the little segment involute, acute. Fruit compressed, villous, thickened at edge, at the back with 4 bands, which are joint: d and conniving.

H. Fruit with a coarse, corky, or spongy bark.

676. *Rumia*. Partial involucre, 8-8-leaved. Cal. 5-toothed. Petals ovate, incurved, with a short crenulate segment. Seeds ovate, fleshy, rugose, scaly.
677. *Cachrys*. No involucre. Cal. O. Petals ovate, lanceolate, acute. Seed obovate, oblong, rounded, smooth, fungous.
678. *Hippomarathrum*. Fruit with scaly, rough ribs, covered with a thick bark.

Order 3. TRIGYNIA.



5 Stamens. 3 Styles.

1. Flowers superior.

679. *Viburnum*. Cor. 5-cleft. Berry with 1 seed.
680. *Sambucus*. Cor. 5-cleft. Berry with 3 seeds.

2. Flowers inferior.

681. *Rhus*. Cal. 5-parted. Petals 5. Berry 1-seeded.
682. *Cassine*. Cal. 5-parted. Petals 6. Berry 3-seeded.
683. *Spathelia*. Cal. 5-leaved. Petals 5. Caps. 3-angular, 3-celled. Seeds solitary.
684. *Staphylea*. Petals 5. Caps. 2 or 3, inflated.
685. *Tamarix*. Pet. 5. Caps. of 3 valves. Seeds numerous, feathered.
686. *Turnera*. Cal. 5-cleft, infundibuliform; the outer 2-leaved. Petals 5, inserted in the calyx. Stigmas many-cleft. Caps. 1-celled, 3-valved.
687. *Drypis*. Cal. 5-toothed. Petals 5. Caps. cut round, 1-seeded.
688. *Alsiné*. Cal. 5-leaved. Pet. 5 equal. Caps. superior, 1-celled, 3-valved, many-seeded. Receptacle central, free.
689. *Telephium*. Cal. 5-leaved. Petals 5, inserted in the receptacle. Caps. 1-celled, 3-valved.
690. *Corrigiola*. Pet. 5. Seed 1, naked, triangular.
691. *Pharnaceum*. Cal. 5-leaved. Cor. O. Caps. 3-celled, many-seeded.
692. *Portulacaria*. Cal. 2-leaved. Petals 5. Seed 1, winged, 3-cornered.
693. *Basella*. Cal. O. Cor. 7-cleft; at length berried, with the two opposite segments larger than the rest.

Order 4. TETRAGYNIA.



5 Stamens. 4 Styles.

694. *Parnassia*. Nectaries fringed with bristles bearing globes. Caps. of 4 valves.
695. *Evolvulus*. Cal. 5-leaved. Cor. rotate, campanulate, with emarginate lobes. Styles 2, deeply bifid. Stigma simple. Caps. 2-celled, 4-valved, 4-seeded. Seeds 2.

Order 5. PENTAGYNIA.



5 Stamens. 5 Styles.

1. Flowers superior.

696. *Aralia*. Involucre very small. Umbels globose. Cal. very small, 5-toothed. Petals 5, ovate, oblong, spreading, or reflexed. Stigmas nearly round, 5-10. Berry roundish, crowned, 5-seeded. Seeds hard, oblong.
697. *Actinophytum*. Cal. an entire rim. Cor. calyptrate, jumping off. Stam. 5-6-8-9. Styles 4-7. Berry with 7 angles and 7 cells. Seeds solitary, bony. Flowers clustered.

2. Flowers inferior.

698. *Rochea*. Cal. 5-parted. Cor. funnel-shaped, 5-cleft. Scales 5, at base of ovary. Caps. 5.
699. *Crassula*. Cal. 5-leaved. Pet. 5. Scales 5, nectariferous at base of ovary. Caps. 5.
700. *Gisekia*. Cal. 5-leaved. Cor. O. Caps. 5, close together, roundish, 1-seeded.
701. *Linum*. Pet. 5. Capsule of 10 cells.
702. *Drosera*. Pet. 5. Caps. of 3 valves, with many seeds.

703. *Commersonia*. Cal. 1-leaved, bearing the cor. Petals 5. Nectary 5-parted. Caps. 5-celled, echinate.  
 704. *Rulingia*. Petals 5, with a cucullate base. Sterile stamens 5, undivided. Ovary 5-celled. Caps. with double septa.  
 705. *Armeria*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seed 1, superior. Flowers in heads, with a common many-leaved involucreum.  
 706. *Statice*. Cal. 2-leaved, entire, plaited, scarious. Petals 5. Seeds 1, superior. Flowers scattered in a paniced or spiked scape.

MONOGYNIA.

|                            |                  |                    |            |     |                        |
|----------------------------|------------------|--------------------|------------|-----|------------------------|
| 322. MIRA'ABILIS. W.       | MARVEL OF PERU.  | <i>Nyctagineæ.</i> | Sp. 4-5.   |     |                        |
| 1855 dichótoma W.          | forked           | ✱ [ ] or           | 2 jl.au    | Y   | Mexico 1640. R co      |
| 1856 Jalápa W.             | common           | ✱ [ ] or           | 2 jn.s     | R   | W. Indies 1596. R r.m  |
| β fláva                    | yellow-flowered  | ✱ [ ] or           | 2 jn.s     | Y   | W. Indies 1596. R r.m  |
| γ álba                     | white-flowered   | ✱ [ ] or           | 2 jn.s     | W   | W. Indies 1596. R r.m  |
| δ rubro-álba               | red and white    | ✱ [ ] or           | 2 jn.s     | R.W | W. Indies 1596. R r.m  |
| ε rubro-fláva              | red and yellow   | ✱ [ ] or           | 2 jn.s     | R.Y | W. Indies 1596. R r.m  |
| 1857 híbrida W. en.        | close-flowered   | ✱ [ ] or           | 2 jn.s     | R   | ..... 1813. R r.m      |
| 1858 longiflóra W.         | long-flowered    | ✱ [ ] or           | 2 jn.s     | W   | Mexico 1759. R r.m     |
| †323. ABRO'NIA. Juss.      | ABRONIA.         | <i>Nyctagineæ.</i> | Sp. 1.     |     |                        |
| 1859 umbelláta J.          | umbell.          | ∠ Δ el             | ‡ ap.my    | R   | California 1823. D s.p |
| 324. PLUMBA'GO. W.         | LEADWORT.        | <i>Plumbaginæ.</i> | Sp. 7-11.  |     |                        |
| 1860 europæ'a W.           | European         | ∠ Δ or             | 3 s.o      | B   | S. Europe 1596. C p.l  |
| 1861 zeylánicá W.          | cingalese        | ∠ [ ] or           | 2 ap.s     | W   | E. Indies 1731. Sk s.p |
| 1862 rósea W.              | Rose-colored     | ∠ [ ] or           | 1‡ mr.jl   | R   | E. Indies 1777. Sk r.m |
| 1863 scándens W.           | climbing         | ∠ [ ] or           | 3 jl.au    | W   | W. Indies 1699. Sk s.p |
| 1864 tristis H. K.         | dark-flowered    | ∠ [ ] or           | 1‡ my.jn   | Br  | C. G. H. 1792. C l.p   |
| 1865 capénsis W.           | Cape             | ∠ [ ] or           | 1‡ n       | B   | C. G. H. 1818. C l.p   |
| 1866 lapathiflóia W.       | Dock-leaved      | ∠ Δ or             | 1‡ jn.jl   | W   | Iberia 1822. Sk s.p    |
| 325. HELIOTRO'PIUM.        | TURNSOLE.        | <i>Boraginæ.</i>   | Sp. 10-77. |     |                        |
| 1867 peruvíanum W.         | Peruvian         | ∠ [ ] or           | 2 my.s     | Li  | Peru 1757. C r.m       |
| 1868 corymbósum B. M.      | large-flowered   | ∠ [ ] or           | 4 my.s     | Li  | Peru 1808. C r.m       |
| 1869 parvisfórum W.        | small-flowered   | ∠ [ ] w            | 1 jl.s     | W   | W. Indies 1732. C s.l  |
| 1870 europæ'um W.          | European         | ○ [ ] or           | ‡ jn.o     | W   | S. Europe 1562. C s.l  |
| 1871 oblongifólium Lk.     | oblong-leaved    | ○ [ ] or           | 1 jn.o     | W   | S. Europe 1824. S s.l  |
| 1872 chenopodioides W. en. | Goose-foot       | ○ [ ] or           | 1 jn.jl    | W   | S. Amer. 1823. S lp    |
| 1873 curassávicum W.       | glaucous         | ∠ [ ] or           | ‡ jn.jl    | W   | W. Indies 1731. C a.l  |
| 1874 hómile Lam.           | dwarf            | ∠ [ ] or           | 1 my.jn    | W   | S. Amer. 1752. C a.l   |
| 1875 indicum W.            | Indian           | ○ [ ] or           | 1 jn.au    | B   | W. Indies 1713. S s.p  |
| 1876 supinum W.            | trailing         | ∠ [ ] or           | ‡ jn.jl    | W   | S. Europe 1640. S co   |
| 326. MYOSO'TIS. B. P.      | SCORPION-GRASS.  | <i>Boraginæ.</i>   | Sp. 10-29. |     |                        |
| 1877 scorpioides W.        | marsh            | ∠ Δ w              | 2 ap.au    | B.Y | Britain meæ. D co      |
| 1878 arvensis W.           | field            | ∠ [ ] w            | 1 ap.au    | B   | Britain dry fl. S co   |
| 1879 nána W.               | dwarf            | ∠ [ ] cu           | ‡ jl       | B   | Europe D co            |
| 1880 obtúsa W. en.         | obtusely-calyxed | ∠ Δ w              | 2 jn.jl    | B   | Hungary 1815. D co     |
| 1881 rupícola E. B.        | rock             | ∠ Δ or             | 1 jn.jl    | B   | Scotland alroc. D co   |
| 1882 stricta Lk.           | upright          | ∠ [ ] cu           | 1 jn.jl    | B   | Germany 1822. S co     |
| 1883 sylvática Ehr.        | wood             | ∠ Δ cu             | 2 jn.jl    | B   | Europe 1823. D co      |



History, Use, Propagation, Culture.

322. *Mirabilis*, is a Latin word, signifying something wonderful or admirable; and applied with some reason to this, the most fragrant of flowers. Clusius called it Admirabilis. We from the same cause call it Marvel of Peru. The French botanists still call the genus by Van Royen's name, Nyctago; derived from *nyx*, night, and *ago*, to act, on account of the flowers expanding at night. *M. dichotoma* is called the four-o'clock flower in the West Indies, from the flowers opening regularly at that time of the afternoon. *M. jalapa* is a very ornamental plant in warm borders. When cultivated, it sports into many agreeable varieties. It flowers best when treated as a tender annual, and then planted out; but if sown at once in the open air, it will flower late in the season in favorable summers. Its large tuberous roots, if taken up and preserved during winter like those of *Dahlia*, or even covered well with litter in the open garden, will flower perennially. The powder of these roots washed, scraped, and dried, is one of the substances which form the jalap of druggists.

323. *Abronia*. Derived from *αβρον*, delicate. The little plant produces flowers surrounded by an involucreum of a charming rose color.

324. *Plumbago*. Pliny says this plant was so called from *plumbum*, because it possessed the power of curing a disorder in the eyes called by that name, which appears to have been the same as what we call cataract. There

Order 6. POLYGYNIA.  5 Stamens. Many styles.

- 707. *Myosurus*. Pet. 5, with tubular honey-bearing claws. Seeds naked. Cal. spurred at the base.
- 708. *Ceratocephalus*. Cal. 5-leaved, persistent. Petals 5, with a honey pore at base covered by a scale. Seeds several, naked, attached to a bearded receptacle.
- 709. *Xanthorhiza*. Cal. 5. Petals 5. Nectaries 5, stalked. Caps. 5, 1-seeded.
- 710. *Sibbaldia*. Cal. 10-cleft. Petals 5, inserted in the calyx. Styles from the side of the ovary. Seeds 5.

MONOGYNIA.

- 1855 Flowers sessile erect axillary solitary
- 1856 Flowers clustered stalked, Leaves smooth
  
- 1857 Flowers clustered somewhat stalked, Tube of cor. 4 times as long as limb, Leaves cordate smooth
- 1858 Flowers clustered sessile, Leaves pubescent
  
- 1859 The only species, resembling *Primula farinosa*. Very beautiful
  
- 1860 Leaves stem-clasping lanceolate rough, Stem erect
- 1861 Leaves stalked ovate smooth, Stem filiform
- 1862 Leaves stalked ovate smooth somewhat toothed, Stem with swollen joints
- 1863 Leaves stalked ovate smooth, Stem flexuose climbing
- 1864 Leaves obovate retuse smooth
- 1865 Leaves stalked oblong entire glaucous beneath, Stem erect
- 1866 Leaves stem-clasping lanceolate smooth, Stem divaricating
  
- 1867 Leaves lanceolate ovate, Stem shrubby, Spikes numerous aggregate corymbose
- 1868 Leaves oblong lanceolate, Stem shrubby, Spikes terminal aggregate corymbose, Sepals long subulate
- 1869 Leaves ovate rugose scabrous opposite and alternate, Spikes in pairs
- 1870 Leaves ovate entire tomentose rugose, Spikes in pairs
- 1871 Leaves stalked oblong obtuse entire rough with scattered hairs
- 1872 Leaves lanceolate glaucous smooth obsolete veined opposite and alternate, Spikes in pairs
- 1873 Leaves linear lanceolate glaucous smooth opposite and alternate, Spikes in pairs or compound
- 1874 Leaves ovate lanceolate villous, Spikes solitary lateral stalked
- 1875 Leaves cordate ovate subserrate rugose, Spikes terminal simple solitary, Stem herbaceous
- 1876 Leaves ovate entire tomentose plaiated, Spikes solitary and in pairs
- 1877 Cal. 5-toothed smoothish, Teeth nearly equal obtuse as long as the tube of cor. Leaves lanceolate obtuse smooth, Limb of cor. more than twice as long as cal.
- 1878 Stem hairy, Calyx with dense spreading hairs hooked at the end
- 1879 Seeds smoothish sawed at edge, Stem simple few-flowered and oblong, Leaves villous
- 1880 Stem nearly sim. with lanc. nearly acute somewhat repand lvs. hispid, Sp. in pairs somew. corym. Cal. very obt.
- 1881 Seeds naked, Radical leaves stalked, Racemes without bractee, Hairs of calyx spreading.
- 1882 Stem diffuse, Branches and flower-stalks much shorter than cal. Leaves oblong ovate obtuse upright
- 1883 Cal. spreading 5-parted, Segments unequal acute, Hairs long downy



and Miscellaneous Particulars.

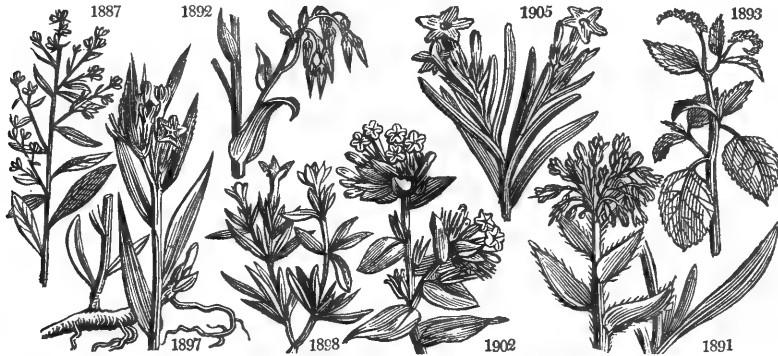
is also a modern reason for the application of the name to this genus. *P. europæa* is called toothwort, and *dentelairé*, Fr., from its curing the tooth-ach, for which purpose the bruised root is chewed, when it excites by its causticity a healthy salivation, but stains the teeth of a lead color. The species are all pretty, easily cultivated, and almost always in flower.

325. *Heliotropium*. From *ἥλιος*, the sun, and *τροπέω*, to turn. Both Pliny and Dioscorides assert that the flowers are always turned towards the sun. It was called *Ferrucaria* by the Latins, because the juice of the leaves mixed with salt was said to be excellent in removing warts, *verruca*. *H. peruvianum* and *europæum* are popular plants, with the smell of new hay: the former is rather tender; but both keep flowering during most of the summer months. Curtis recommends keeping *H. peruvianum* in a stove during winter.

326. *Myosotis*. So named from *μῦς*, a rat, and *ὄτος*, an ear. Its oval velvety leaves are like the ear of a rat or mouse. *M. scorpioides*, Forget-me-not, has its specific name from the racemes of flowers, which, when young, bend in at the top like a scorpion's tail. It is a well known sentimental flower; will grow any where, and varies more than most plants with situation. On dry walls and rubbish, it is dwarfish, rough, and hairy, not rising when in flower more than two or three inches; in muddy ditches it is smooth all over, of a shining light



|                                |                  |   |    |    |       |                   |           |                   |   |     |
|--------------------------------|------------------|---|----|----|-------|-------------------|-----------|-------------------|---|-----|
| 1884 suavifolens <i>Poir.</i>  | sweet-scented    | Δ | or | ½  | jn.jl | B                 | Hungary   | 1823              | D | co  |
| 1885 sparsiflora <i>Mik.</i>   | scattered        | ○ | or | 1  | my.jn | B                 | S. France | 1822.             | S | co  |
| 1886 pedunculáris <i>Trev.</i> | stalked          | ○ | or | 1½ | my.jn | B                 | Astracan  | 1824.             | S | co  |
| 327. ECHINOSPERMUM. <i>Su.</i> | ECHINOSPERMUM.   |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 4—16.</i>  |   |     |
| 1887 virginianum <i>P. S.</i>  | Virginian        | Δ | or | 2  | jn.jl | W                 | Virginia  | 1699.             | S | co  |
| 1888 Láppula <i>P. S.</i>      | common           | ○ | or | 1  | ap.au | B                 | Europe    | 1656.             | S | co  |
| 1889 squarrosum <i>P. S.</i>   | squarrose        | ○ | or | 2  | ap.au | B                 | Siberia   | 1802.             | S | co  |
| 1890 barbátium <i>Lehm.</i>    | bearded          | ○ | or | 1½ | jn.jl | B                 | Tauria    | 1823.             | S | co  |
| 328. MATŪIA. <i>Sch.</i>       | MATŪIA.          |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 2—4.</i>   |   |     |
| 1891 umbelláta <i>Sch.</i>     | umbelled         | Δ | or | 1  | my.jn | R                 | Hungary   | 1822.             | D | s.l |
| 1892 lanáta <i>Sch.</i>        | woolly           | Δ | or | 2  | jn    | Pk                | Levant    | 1800.             | D | s.l |
| 329. TIARŪDIUM. <i>Lehm.</i>   | TIARIDIUM.       |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 1—3.</i>   |   |     |
| 1893 indicum <i>Lehm.</i>      | Indian           | □ | or | 1  | jn.jl | B                 | W. Indies | 1820.             | S | s.l |
| 330. LITHOSPERMUM. <i>W.</i>   | GROMWELL.        |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 10—35.</i> |   |     |
| 1894 officinále <i>W.</i>      | official         | Δ | cu | 2  | my.au | Y                 | Britain   | ch.hil.           | D | co  |
| 1895 arvénse <i>W.</i>         | corn             | ○ | w  | 2  | my.jn | W                 | Britain   | cor.fi.           | S | co  |
| 1896 ápulum <i>W.</i>          | small            | ○ | or | ½  | jn.jl | Y                 | S. Europe | 1768.             | S | co  |
| 1897 purp.-cœrúleum <i>W.</i>  | creeping         | Δ | or | 1  | my    | Pu                | England   | ch.so.            | D | co  |
| 1898 fructícosum <i>W.</i>     | shrubby          | Δ | or | 2  | my.jn | B                 | S. Europe | 1683.             | C | co  |
| 1899 álbitichum <i>P. S.</i>   | two-rowed        | Δ | or | 1½ | my.jn | W                 | Cuba      | 1806.             | D | co  |
| 1900 tenuiflórum <i>W.</i>     | slender-flower'd | ○ | or | ½  | jn.jl | B                 | Egypt     | 1765.             | S | co  |
| 1901 dispérnum <i>W.</i>       | two-seeded       | ○ | or | ½  | jn.jl | B                 | Spain     | 1739.             | S | co  |
| 1902 orientále <i>W.</i>       | yellow           | Δ | or | 2  | jn.jl | Y                 | Levant    | 1713.             | D | co  |
| 1903 canéscens <i>Lehm.</i>    | hoary            | Δ | or | 1  | jn.jl | Y                 | N. Amer.  | 1823.             | D | co  |
| 331. BATŪSCHIA. <i>Mich.</i>   | BATŪSCHIA.       |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 2—4.</i>   |   |     |
| 1904 Gmelin's <i>Ph.</i>       | Gmelin's         | Δ | or | ½  | my.jl | Y                 | Carolina  | 1812.             | D | co  |
| 1905 longiflóra <i>Ph.</i>     | long-flowered    | Δ | or | ½  | my.jl | Y                 | Missouri  | 1812.             | D | co  |
| 332. ONOS'MA. <i>W.</i>        | ONOSMA.          |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 7—23.</i>  |   |     |
| 1906 simplicissimum <i>W.</i>  | linear-leaved    | Δ | or | 1  | ap.jn | Y                 | Siberia   | 1768.             | D | s.l |
| 1907 taúricum <i>H. K.</i>     | golden-flowered  | Δ | or | ½  | ap.jn | Y                 | Caucasus  | 1801.             | D | s.l |
| 1908 orientále <i>W.</i>       | oriental         | Δ | or | ½  | my.jn | Y                 | Levant    | 1752.             | D | s.l |
| 1909 echioides <i>W.</i>       | hairy            | Δ | or | 1  | mr.jn | W                 | S. Europe | 1683.             | D | s.l |
| 1910 sericeum <i>W.</i>        | silky-leaved     | Δ | or | ½  | jn.jl | Y                 | Levant    | 1752.             | D | co  |
| 1911 arenárium <i>W. K.</i>    | sand             | Δ | or | 1  | ap.jn | Y                 | Hungary   | 1804.             | D | s.l |
| 1912 trinervium <i>Lehm.</i>   | three-nerved     | Δ | or | 1  | ...   | Y                 | S. Amer.  | 1824.             | C | s.l |
| 333. ANCHU'SA. <i>W.</i>       | BUGLOSS.         |   |    |    |       | <i>Boragineæ.</i> |           | <i>Sp. 11—50.</i> |   |     |
| 1913 paniculáta <i>W.</i>      | panicled         | ○ | or | 2  | my.jn | B                 | Madeira   | 1777.             | C | p.l |
| 1914 capénsis <i>W.</i>        | Cape             | ○ | or | ½  | jl    | B                 | C. G. H.  | 1800.             | S | p.l |
| 1915 officinális <i>W.</i>     | common           | Δ | or | 2  | jn.o  | Pu                | Britain   | sea.co.           | D | co  |
| 1916 ochroleuca <i>Bieb.</i>   | pale-flowered    | Δ | or | 2  | jl.au | Pa.Y              | M.Caucas. | 1810.             | D | co  |
| β itálica <i>W.</i>            | Italian          | ○ | or | 4  | jn.o  | R.Pu              | S. Europe | 1597.             | S | co  |
| 1917 angustifolia <i>W.</i>    | narrow-leaved    | Δ | or | 2  | my.jn | Pu                | S. Europe | 1640.             | D | co  |
| 1918 Barrelieri <i>Dec.</i>    | Barrellier's     | Δ | or | 2  | my.jn | B                 | S. Europe | 1820.             | D | co  |
| 1919 rupéstris <i>H. Br.</i>   | rock             | Δ | or | ½  | jl    | B                 | Siberia   | 1802.             | D | co  |
| 1920 unduláta <i>W.</i>        | waved-leaved     | Δ | or | 2  | jn.au | B                 | Spain     | 1752.             | D | co  |
| 1921 tinctória <i>W.</i>       | dyer's           | Δ | or | 1½ | jn.o  | Pu                | Montpel.  | 1596.             | D | co  |
| 1922 nevervirens <i>W.</i>     | evergreen        | Δ | or | 1½ | my.jn | B                 | Britain   | 1896.             | D | co  |
| 1923 Milléri <i>W. en.</i>     | pink             | Δ | or | 1½ | my.jn | Pk                | Levant    | 1713.             | D | co  |



History, Use, Propagation, Culture,

green, and two or three feet high. In common soils, as in a garden or loamy corn-field, it assumes an intermediate character. Linnæus considers the plant as deadly to sheep. In gardens it does well in pots in the shade, or treated as a bog-plant, than which few better deserve the name of pretty.

327. *Echinosperrnum.* Named by Lehmann from *ιχνος*, a hedgehog, and *σπερμ*, seed, the seeds being very prickly, by which character, and their being compressed, not depressed, and the bractæe of the inflorescence, the genus is principally distinguished from *Myosotis* and *Cynoglossum*.

328. *Mattia.* A genus divided by Professor Schultes from *Cynoglossum*, with which it agrees in general character. Named after some unknown botanist.

329. *Tiaridium.* From *τιανος*, an episcopal head-dress, and *ειδος*, similar; on account of the resemblance between its seeds and a mitre. Three species have been described, of which one is the *H. indicum* of Linn., a plant of no beauty or merit.

330. *Lithosperrnum.* From *λιθος*, a stone, and *σπερμ*, seed, the seeds being hard and shining, like little pebbles. *L. officinale* has stony, brittle, egg-shaped nuts, exquisitely polished, grey or yellowish; and being considered like a stone, were for that reason used as a cure for the disease so named. The bark of *L. arvense* abounds with a deep red dye, which stains paper, linen, &c. and is easily communicated to oily substances, like the alkanet root, and hence is called bastard alkanet. The country girls in the north of Sweden stain their faces with the root on days of festivity.

1884 Stem nearly simple hispid, Leaves lanc. acute hairy ciliated at base, Cal. very spreading  
 1885 Stem branched diffuse, Lvs. lanc. acute hispid, Racemes simple elongated, Flow. very remote, Cal. acute  
 1886 Stem branched, Leaves obovate obtuse mucr. Fl.-stalks in fruit much spreading thickened under calyx

1887 Seeds all over prickly, Leaves ovate oblong, Racemes divaricating  
 1888 Seeds with a double row of marg. prickles, Lvs. lanc. with incumb. hairs, Limb of cor. camp. longer than cal.  
 1889 Seeds with a single row of marginal prickles, Leaves obl. obtuse with spreading hairs, Cal. as long as cor.  
 1890 Seeds with a doub. row of very short mar. prickl. Lvs. lanc. with incumb. hairs, Cor. twice as long as cal. with a flat limb

1891 Stam. as long as cor. Segments of cor. obtuse, Racemes terminal umbelled, Leaves hoary  
 1892 Cal. woolly, Limb of cor. acute deeply 5-cleft, Racemes cernuous

1893 Stem herbaceous erect hairy, Leaves ovate cordate acute hairy, Tube of cor. twice as long as calyx

1894 Seeds smooth, Cor. scarcely longer than calyx, Leaves lanceolate acute veiny  
 1895 Leaves lanceolate linear strigose, Cal. the length of cor. spreading in fruit  
 1896 Leaves linear lanceolate acute, Spikes terminal 1-sided, Bractes lanceolate, Seeds muricated  
 1897 Seeds smooth, Cor. much longer than cal. Leaves lanceolate acute at each end, Stem herbaceous  
 1898 Leaves linear hispid revolute at edge, Stamens as long as corolla  
 1899 Seeds smooth, Cor. twice as long as cal. Lvs. obl. lanc. acute, Spikes leafy distichous term. and axillary  
 1900 Leaves linear lanceolate strigose, Cal. as long as tube of cor. in fruit conniving  
 1901 Seeds smooth, Cal. spreading incurved, Leaves linear  
 1902 Flower branches lateral, Bractes cordate stem-clasping  
 1903 Stem nearly simple villous, Leaves oblong obtuse hoary, Tube of cor. twice as long as calyx

1904 Hairy, Floral leaves ovate, Cal. long lanceolate  
 1906 Silky, Leaves linear, Cal. long linear, Corolla crenate, Tube long

1906 Hirsute, Hairs prost. scattered, Fl.-stems simp. aggregate, Lvs. lin. acute, Anthers shorter than filaments  
 1907 Flowers ventricose, Fruit erect, Leaves lanceolate hispid, Hairs stellulate  
 1908 Flowers cylindrical acute, Fruit pendulous, Leaves linear hairy  
 1909 Hispid, Hairs erect scattered, Stem branched, Leaves lanceolate, Anthers as long as filaments  
 1910 Silky, Hairs prostrate very minute, Stems branched, Leaves spatulate, Anthers as long as filaments  
 1911 Flowers clavate cylindrical, Leaves oblique the lower lanceolate obtuse, Fruit erect, Seeds smooth  
 1912 Stem simple leafy, Leaves linear lanceolate very long acute 3-nerved above hispid beneath closely hairy

1913 Leaves lanceolate strigose entire, Panic. dichotomous divar. Flower stalked, Cal. 5-parted subulate  
 1914 Leaves lanceolate callous villous, Racemes trichotomous  
 1915 Leaves lanceolate strigose, Spikes 1-sided imbricated, Cal. as long as tube of corolla  
 1916 Leaves linear-lanceolate coarsely dotted hispid, Calyx in fruit camp. nodding

1917 Racemes nearly naked in pairs  
 1918 Leaves oblong entire narrowed at both ends with the simple stem hispid, Peduncles trifid  
 1919 Leaves linear lanceolate villous, Racemes alternate  
 1920 Strigose, Leaves linear toothed, Stalks less than bractes, Cal. in fruit inflated  
 1921 Leaves oblong, Bractes longer than the 5-parted calyx, Valves of corol. shorter than stamens  
 1922 Leaves ovate strigose, Racemes somewhat capitate in pairs leafy, 2-leaved at base, Cal. 5-cleft  
 1923 Leaves obl. toothed hispid the lower stalked the upper sessile, Flowers single lateral, Stems diffuse



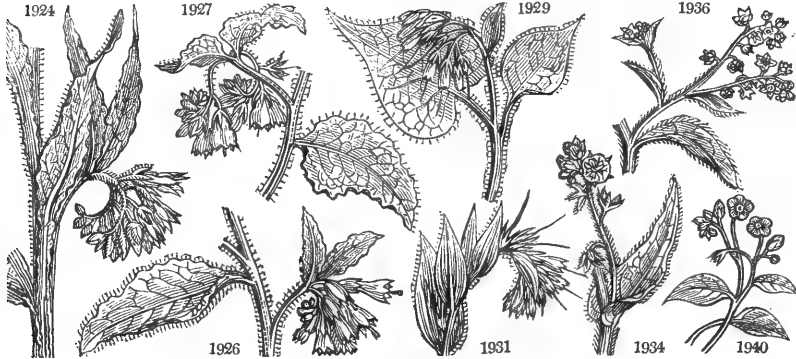
and Miscellaneous Particulars.

331. *Batschia*. Named in honor of John George Batsch, a German professor of botany in the university of Jena, in the latter part of the last century. His works upon Fungi are still quoted. The three species known are natives of North America, and are very pretty plants.

332. *Onosma*. An ancient name, the origin of which, from *ovos*, an ass, and *osmos*, smell, as being a plant with flowers grateful in their smell to asses, is not very certain. What was intended by Pliny and Dioscorides as *Onosma* has not been satisfactorily ascertained. It was undoubtedly a plant of this family. This genus in its wild state is found chiefly on rocks; and, like most temporary rock-plants, is not easily preserved otherwise than on dry walls, heaps of rubbish, or artificial rock-work. The species are pretty, and all have yellow flowers.

333. *Anchusa*. Derived from *αγγύρα*, paint. In early times, the root of *A. tinctoria* was used for staining the features when more delicate colors were unknown. The English name Bugloss has been formed from *βους*, an ox, and *γλίσσα*, a tongue, in allusion to the long rough leaves. *A. officinalis* is nearly allied in qualities to *Borago*. The tube of the corolla is melliferous, and very attractive to bees; the leaves are juicy, and the roots mucilaginous, and used in China for promoting the eruption of the small-pox. *A. tinctoria* is cultivated in the south of France for the roots, which communicate a fine deep red to oils, wax, and all unctuous substances, as well as to spirits of wine. It is used chiefly by the apothecaries for coloring plaisters, lip-salves, &c. and by vintners for staining the corks of their port wine bottles, or for coloring and flavoring the spurious compounds sold as port wine.

|  |                |                  |          |                   |           |          |       |                     |
|--|----------------|------------------|----------|-------------------|-----------|----------|-------|---------------------|
| <b>334. SYMPHYTUM. W. COMFREY.</b>               |                | <i>Boraginæ.</i> |          | <i>Sp. 6-10.</i>  |           |          |       |                     |
| 1924 officinale W.                               | common         | * Δ or           | 4 my.jl  | W                 | Britain   | wet. pl. | D co  | Eng. bot. 817       |
| β patens Sibth.                                  | spreading      | * Δ or           | 4 my.jl  | Pk                | Britain   | wet. pl. | D co  |                     |
| γ bohémicum Sch.                                 | red-flowered   | * Δ or           | 3 my.jl  | R                 | Bohemia   | ...      | D co  |                     |
| 1925 tuberósum W.                                | tuberous       | * Δ or           | 4 my.o   | Y                 | Scotland  | m.s.pl.  | D co  | Eng. bot. 1502      |
| 1926 orientale W. en.                            | eastern        | * Δ or           | 3 my.jl  | W                 | Turkey    | 1752.    | D co  | Bot. mag. 1912      |
| 1927 tauricum W. en.                             | blistered      | * Δ or           | 3 my.jl  | W                 | Tauria    | 1806.    | D co  | Bot. mag. 1787      |
| 1928 asperinum H. K.                             | roughest       | * Δ or           | 4 my.s   | R.B               | Caucasus  | 1799.    | D co  | Bot. mag. 929       |
| 1929 cordatum W.                                 | heart-leaved   | * Δ or           | 2 my.jl  | Y                 | Transylv. | 1813.    | D s.l | Pl. rar. hung. t.7  |
| <b>335. ONOSMODIUM. Mich. ONOSMODIUM.</b>        |                | <i>Boraginæ.</i> |          | <i>Sp. 2-3.</i>   |           |          |       |                     |
| 1930 hispidum M.                                 | Virginian      | * Δ or           | 1 jn     | Y                 | N. Amer.  | 1759.    | D s.l | M.h.3.s.11.t.28f.3  |
| 1931 mollé M.                                    | soft           | * Δ or           | ¼ jn.au  | W                 | N. Amer.  | 1812.    | D s.l | Mich. amer. t.15    |
| <b>336. CYNOGLOSSUM. W. HOUND'S-TONGUE.</b>      |                | <i>Boraginæ.</i> |          | <i>Sp. 8-40.</i>  |           |          |       |                     |
| 1932 officinale W.                               | common         | ○ or             | 2 jn.jl  | P.R               | Britain   | rub.     | S co  | Eng. bot. 921       |
| 1933 sylvaticum E. E.                            | green-leaved   | ○ or             | 3 jn.jl  | B                 | Britain   | sha. la. | S co  | Eng. bot. 1642      |
| 1934 pictum W.                                   | Madeira        | ○ or             | 2 au     | L.B               | Madeira   | 1658.    | S co  | Bot. mag. 2134      |
| 1935 amplexicaule Ph.                            | stem-clasping  | * Δ or           | 2 my.jl  | B                 | N. Amer.  | 1812.    | D p.l |                     |
| 1936 cheirifolium W.                             | silvery-leaved | * Δ or           | 1 jn.jl  | B                 | Levant    | 1596.    | S co  |                     |
| 1937 apenninum W. en.                            | Apennine       | * Δ or           | 6 ap.jl  | R                 | Italy     | 1731.    | D co  | Col. ceph.1. t. 70  |
| 1938 hirsutum W.                                 | hirsute        | * Δ or           | 1 jl.au  | L.B               | C. G. H.  | 1806.    | S co  | Jac. Schön. t.489   |
| 1939 glomeratum Fraz.                            | clustered      | * Δ or           | ...      | ...               | N. Amer.  | 1812.    | D co  |                     |
| <b>337. OMPHALODES. Lehm. VENUS' NAVEL-WORT.</b> |                | <i>Boraginæ.</i> |          | <i>Sp. 2-10.</i>  |           |          |       |                     |
| 1940 verna Lehm.                                 | blue           | * Δ el           | ¼ mr.ap  | B                 | S. Europe | 1633.    | D co  | Bot. mag. 7         |
| 1941 linifolia Lehm.                             | common         | * Δ or           | 1 jn.au  | W                 | Portugal  | 1648.    | S co  |                     |
| 1942 nitida Lehm.                                | shining        | * Δ or           | 3 ap.jn  | W                 | Portugal  | 1812.    | D co  | H.&L.fl.p.1. t.23   |
| <b>338. PULMONARIA. W. LUNGWORT.</b>             |                | <i>Boraginæ.</i> |          | <i>Sp. 10-19.</i> |           |          |       |                     |
| 1943 angustifolia W.                             | narrow-leaved  | * Δ or           | ¾ ap.my  | V                 | Britain   | woods.   | D p.l | Eng. bot. 1628      |
| 1944 officinalis W.                              | common         | * Δ or           | 1 my     | Pk                | England   | woods.   | D p.l | Eng. bot. 118       |
| 1945 davurica Fisch.                             | Daurian        | * Δ or           | 1 my     | Li                | Dauria    | 1812.    | D s.l | Bot. mag. 1743      |
| 1946 paniculata W.                               | paniced        | * Δ or           | 1½ my.jn | L.B               | Hud. Bay  | 1778.    | D p.l | Bot. mag. 2680      |
| 1947 lanceolata Ph.                              | spear-leaved   | * Δ or           | 1 my.jn  | Pu                | Louisiana | 1813.    | D s.l |                     |
| 1948 virginica W.                                | Virginian      | * Δ or           | 1½ mr.my | B                 | N. Amer.  | 1699.    | D p.l | Bot. mag. 160       |
| 1949 sibirica W.                                 | Siberian       | * Δ or           | 3 jn.jl  | Pu                | N. Amer.  | 1801.    | D s.l | G. sib.4.n.15.t.39  |
| 1950 maritima E. E.                              | sea            | * Δ or           | ¼ jn.jl  | B                 | Britain   | sea sh.  | D s.p | Eng. bot. 363       |
| 1951 mollis Wulf.                                | soft           | * Δ or           | ¾ ap.my  | B                 | N. Amer.  | 1805.    | D co  | Bot. mag. 2422      |
| 1952 azurea Bess.                                | sky-blue       | * Δ or           | 1½ ap.jn | B                 | Poland    | 1823.    | D co  |                     |
| <b>339. CERINTHE. W. HONEYWORT.</b>              |                | <i>Boraginæ.</i> |          | <i>Sp. 4-6.</i>   |           |          |       |                     |
| 1953 major W.                                    | great          | ○ or             | 3 jl.au  | Y.P               | S. France | 1596.    | S co  | Bot. mag. 333       |
| 1954 aspera W.                                   | rough          | ○ or             | 2 jl.au  | Y.P               | S. France | 1633.    | S co  | Fl. grac. t. 170    |
| 1955 minor W.                                    | small          | ○ or             | 1½ jn.o  | Y                 | Austria   | 1570.    | S co  | Jac. aus. 2. t. 124 |
| 1956 maculata W.                                 | spotted        | * Δ or           | 2 jn.o   | Y.R               | S. France | 1804.    | S co  |                     |
| <b>340. BORA'GO. W. BORAGE.</b>                  |                | <i>Boraginæ.</i> |          | <i>Sp. 4-7.</i>   |           |          |       |                     |
| 1957 officinalis W.                              | oriental       | ○ cul            | 3 jn.s   | B                 | England   | rub.     | S co  | Eng. bot. 36        |
| 1958 orientalis W.                               | oriental       | * Δ or           | 2 mr.my  | B                 | Turkey    | 1752.    | D co  | Bot. reg. 288       |
| 1959 laxiflora B. M.                             | bell-flowered  | * Δ or           | 1 my.au  | B                 | Corsica   | 1813.    | C s.l | Bot. mag. 1798      |
| 1960 crassifolia Vent.                           | thick-leaved   | * Δ or           | 2 jn.jl  | Pk                | Persia    | 1822.    | C s.l | Vent. cels. 100     |
| <b>341. TRICHODESMA. R. Br. TRICHODESMA.</b>     |                | <i>Boraginæ.</i> |          | <i>Sp. 3-4.</i>   |           |          |       |                     |
| 1961 indicum R. Br.                              | Indian         | ○ ○              | 1 jn.o   | B                 | E. Indies | 1759.    | S co  | Pl. al.30. t.76. £3 |
| 1962 africanum R. Br.                            | African        | ○ ○              | 1 jl.au  | B                 | C. G. H.  | 1759.    | S co  | Is. ac. p.1718.t.11 |
| 1963 zeylanicum R. Br.                           | Ceylon         | ○ ○              | 1½ jl.au | W                 | E. Indies | 1799.    | S co  | Jac. ic. 2. t. 314  |



History, Use, Propagation, Culture,

334. *Symphytum*. Named from *σύν*, a union or junction, the plant having for a long time passed for a famous vulnerary. The French name for the plant, *Consoude*, has the same meaning; but that of the English term Comfrey is obscure. *S. officinale* abounds in mucilage, and may be substituted for *Althea officinalis*. All the species are large, coarse, but showy shrubby plants, flowering for two or three months together, and *S. asperinum* the whole season.

335. *Onosmodium*. From *Onosma* and *ωδός*, similar to *Onosma*; from which it is not very different either in habit or characters.

336. *Cynoglossum*. From *κύων* *κύως*, a dog, and *γλῶσσα*, a tongue. Its long soft leaves have been compared to the tongue of a dog. *C. officinale* smells like mice, was considered anti-scorpuluous, and is disliked by cattle.

337. *Omphalodes*. From *ὀμφαλός*, a navel, and *ωδός*, resemblance; the round seeds, which are depressed in the centre, may be compared to a little navel; for the same cause it is called Navelwort in English. *O. linifolia* is a common border annual. *O. verna* is a beautiful little plant with blue flowers, like the Forget-me-not, peeping from among the snow in every cottager's garden in the early spring.

338. *Pulmonaria*. Derives its name, some say, from the speckled appearance of the leaves resembling diseased lungs; but others think that its name has arisen from the plant having been used with success in pulmonary complaints; whence also, perhaps, the English name Lungwort. It must not, however, be inferred from

1924 Leaves ovate lanceolate decurrent

1925 Leaves ovate oblong narrowed at base the lower stalked, Segments of flower very short obtuse  
 1926 Leaves ovate obl. narr. at base hairy the lower stalked the flor. opp. sess. Cal. spread. Segm. of fl. acute  
 1927 Leaves cordate ovate hairy stalked the floral opp. sess. Segments of flower obtuse, Stem branched  
 1928 Lvs. cord. ovate or lanc. acumin. stalked very rough, Stem muric. With reversed bristles, Limb of fl. camp.  
 1929 Leaves cordate ovate acuminate hairy, floral sessile nearly opposite, Stem simple

1930 Hispid, Leaves oval lanceolate acute papillose, Segments of cor. very acute  
 1931 Hoary, Leaves oblong about 3-nerved, Segments of cor. oval

1932 Leaves broad lanceolate wavy hoary on each side sessile close together, Seeds warty  
 1933 Leaves spatulate lanceolate shining nearly naked scabrous beneath  
 1934 Leaves lanceolate tomentose the upper obovate lanceolate cordate stem-clasping, Sepals ovate  
 1935 Very hairy, Leaves oval the upper stem-clasping, Corymb. terminal leafless on a long stalk  
 1936 Leaves villous, Cal. hairy, Stamens longer than corolla  
 1937 Stamens longer than corolla, Cal. villous, Radical leaves ovate stalked very large  
 1938 Leaves lanceolate villous, Seeds with hooked prickles  
 1939 Leaves spatulate obtuse, Flowers heaped

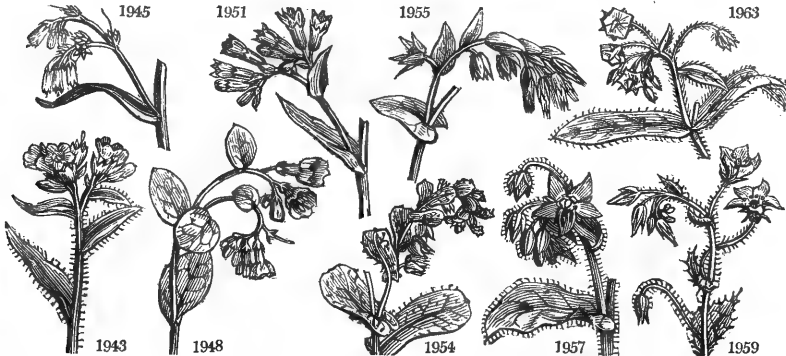
1940 Radical leaves ovate cordate, Cauline ovate stalked, Shoots creeping  
 1941 Leaves linear lanceolate smooth roughish with little teeth at the edge, Seeds urceolate rugose  
 1942 Leaves obl. lanc. nerved smooth and shining above pubesc. beneath the lower on long stalks the upper sess.

1943 Cal. length of the tube of the cor. Leaves oblong lanceolate the radical sessile cauline stalked  
 1944 Cal. length of the tube of the cor. Radical leaves ovate cordate scabrous cauline ovate sessile  
 1945 Cal. short 5-parted hispid, Radical lvs. ovate cordate stalked, cauline half stem-clasping, Flowers paniced  
 1946 Cal. short 5-parted hispid, Leaves ovate oblong acuminate hairy  
 1947 Smooth erect, Radical leaves on long stalks lanceolate, cauline linear oblong, Flowers paniced, Cal. short  
 1948 Cal. much shorter than tube of cor. which is longer than limb, Radical leaves ovate elliptical cauline obl.  
 1949 Cal. short, Rad. leaves cordate [ovate lanceolate obtuse  
 1950 Smooth, Leaves ovate glaucous fleshy, Stem branching procumbent  
 1951 Leaves ovate lanceolate acuminate downy decurrent radical stalked, Cal. longer than tube  
 1952 Leaves hispid radical obl. lanc. acuminate narr. into the stalk, Cauline decurrent, Cor. campanulate

1953 Cor. obtuse spreading ventricose campanulate at end, Stamens shorter than corolla, Leaves smooth  
 1954 Cor. obtuse spreading cylindrical, Stamens as long as cor. Leaves rough  
 1955 Leaves stem-clasping entire, Cor. acute closed whole colored, Segm. of cal. unequal  
 1956 Leaves stem-clasping entire, Cor. acute closed with a red band in middle, Seg. of cal. uneq. Stems many

1957 Leaves ovate the lower stalked all alternate, Cal. spreading, Pedunc. terminal many-flowered  
 1958 Leaves cordate stalked, Pedunc. many-flowered, Stamens exerted villous  
 1959 Leaves alternate oblong sessile, Pedunc. axillary 1-flowered, Cor. campanulate nodding  
 1960 Glauous, Stem smooth, Leaves decurrent rough above, Segments of cor. lin. lanc. spreading unequal

1961 Leaves of stem and branches lanc. half stem-clasping, Pedunc. 1-flowered, Sepals auriculated at base  
 1962 Leaves opposite stalked ovate, Pedunc. many-flowered, Sepals ovate acute erect  
 1963 Sepals not auriculated, Nuts smooth without an edge, Leaves sessile attenuated at the base



and Miscellaneous Particulars.

English names of this sort having been applied to plants, either that lungwort was ever used in this country for the lungs, or liverwort for the liver. The truth is, that the old herbalists, or translators of the classical writers upon natural history, made English names after their Latin denominations, without enquiring whether such continued to be applicable or not, and their less informed successors had no difficulty in finding those virtues in the plants which were indicated by the names of the translators. *P. virginica*, *sibirica*, and *maritima* are elegant plants, greatly resembling each other, and considered by some as most probably only varieties. They are among the most elegant ornaments of the flower-garden in dry springs; but they require some care in keeping, unless in a soil almost entirely of sand.

339. *Cerinth*. From *κνίθος*, wax, and *ἄσπες*, flower, because there is great attraction for bees in the flowers. The French word *meinet* and the English honeywort have been formed in the same sense. *C. major* is a showy border annual, much frequented by bees. In Italy and Sicily it is very common, and a biennial.

340. *Borago*, is said by Apuleius to be an alteration of *corago*, and to have been named on account of its cordial qualities. Fliny says that wine, with this infused in it, cheers the spirits. *B. officinalis* was formerly in great repute as a cordial. According to Withering, the young leaves may be used as a salad or as a pot-herb, and the flowers form an ingredient in cool tankards.

341. *Trichodesma*. From *τριχ* *τριχος*, hair, and *δεσμη*, a bond, the stamens being united by interwoven hairs;



1964 The only species. Stem climbing very rough, Flowers small axillary

1965 Leaves entire, Stem erect, Cal. of fruit inflated pendulous  
 1966 Leaves obl. lanc. strigose floral cordate longer than the cal. Cal. acute, in fruit inflated pendulous  
 1967 Cal. 5-cleft, in fruit inflated pendulous, Leaves obl. hispid floral cordate longer than cal. Stems procumb.  
 1968 Stem procumbent, Leaves entire, Cal. of fruit pendulous, Cor. shorter than calyx  
 1969 Leaves lanceolate, Stem prostrate, Cal. of fruit inflated nodding 10-angular, Cor. longer than calyx  
 1970 Leaves lanceolate denticulated hispid ciliated, Cal. of fruit inflated pendulous

1971 Leaves repand toothed callous, Stem decumbent, Corollas nodding

1972 Leaves lanceolate hispid, Cal. always erect

1973 Leaves ovate entire scabrous, Cal. erect

1974 Pubescent, Fl. in loose corymb. Pan. at end of branches, Tube closed by a 5-lobed fringe, Stam. included  
 1975 Stem shrubby, Leaves lanc. nervose and branches hairy, Sepals oblong and lanceolate acute, Styles hairy  
 1976 Stem smooth, Leaves lanceolate rough above, Flowers cymose equal, Tube of flower very long  
 1977 Stem shrubby, Branches and leaves prickly, Flowers in spikes, Corollas nearly equal  
 1978 Stem shrubby, Leaves lanc. atten. at base hairy, Hairs very short, Bract. and cal. strigose, Stam. exserted  
 1979 Stem shrubby upright branched, Leaves oblong lanc. hairy, Cor. campanulate small, Stamens exserted  
 1980 Stem and lanceolate acute leaves silky, Spike terminal nearly simple leafy  
 1981 Stem smooth, Leaves lanceolate smooth ciliated prickly, Cor. equal  
 1982 Stem smooth, Leaves lanceolate smooth scabrous at edge  
 1983 Stem branched, Leaves lanceolate nerved and branches silky, Styles hairy, Racemes cylindrical  
 1984 Leaves lanceolate nerved and branches silky, Styles hairy, Racemes ovate  
 1985 Stem villous, Leaves sword-shaped elliptical villous, Spike compound linear oblong  
 1986 Stem shrubby, Branc. and cal. smooth, Lvs. lanc. glauc. veinl. smooth above with a few coarse hairs at back  
 1987 Leaves radical ovate lined stalked [towards the end  
 1988 Stem herbaceous hairy, Leaves linear lanc. strigose hairy lower nerved, Cor. equal, Stamens exserted  
 1989 Stem erect hispid, Leaves linear lanceolate hispid, Spike compound terminal, Cor. nearly equal  
 1990 Stem warted hispid, Cauline leaves lanceolate hispid, Flowers spiked lateral  
 1991 Cor. as long as stamens, Tube shorter than calyx  
 1992 Leaves spatulate lanceolate villous, Stam. shorter than corolla  
 1993 Stem herb. erect panic. hisp. dotted, Lvs. lin. lanc. strigose, Flowers remote, Stamens  $\frac{1}{2}$  as long again as cor.  
 1994 Stem herb. echinate, Lvs. obl. lanceol. hispid little narrowed at base, Stam. as long as cor. Cal. of fr. distant  
 1995 Stem branched, Cauline leaves ovate, Flowers solitary lateral  
 1996 Stem nearly simple, Lvs. lanc. rather silky, the radical very long on stalks, Spikes axillary bent backwards  
 1997 Stamens shorter than cor. Cal. as long as limb, Leaves lanceolate strigose

1998 Stem shrubby, Leaves stalked, Flowers hypocrateriform  
 1999 Stem herbaceous, Leaves sessile, Flowers funnel-form  
 2000 Leaves ovate-lanceolate hairy, Peduncles branched, Spikes pendulous  
 2001 Leaves ovate entire naked, Spikes in cymes  
 2002 Leaves ovate acuminate smooth above rugose, Spike cymose erect recurved  
 2003 Leaves nearly lanceolate hoary, Stem half shrubby  
 2004 Leaves ovate acuminate nearly smooth, Leafstalks hairy, Stem climbing, Cal. 5-parted  
 2005 Stem climbing, Leaves ovate oblong acute repand smooth, Berry with 4 projections bipartite

2006 Leaves ovate oblong, Cal. pyramidal, Sepals triangular sagittate

2007 Stems rounded, Leaves imbricated, Flowers sessile

2008 Villous, Scapes 1-flowered

2009 Stem branching, Leaves smooth above, Pedunc. short, Petals conniving



and Miscellaneous Particulars.

346. *Tournefortia*. So named by Linnæus, after Joseph Pitton de Tournefort, author of an elegant arrangement of plants under the title of *Institutiones rei Herbariæ*, and the father of the French school of botany. The system of Jussieu is founded upon that of Tournefort, or is rather an adaptation of the principles of that botanist to the actual state of the science. The species are by no means handsome either in flowers or foliage, and in some cases the latter is even fetid.

347. *Notana*. Is a diminution of *nola*, signifying a bell in low Latin. The name has been applied to this plant on account of its bell-shaped corolla. The species are hardy annuals, of beautiful appearance when in flower. They may be sown in the spring in the open border, where they will grow without protection.

348. *Arctia*. In honor of Benoit Arctia, a Swiss professor in the university of Berne. He died in 1774. He published a work upon alpine plants, and his name has been applied to a charming alpine genus, said by some, with little reason, not to be distinct from *Primula*. The species are very delicate, and require good air and skilful cultivation to succeed well. They are peculiarly suitable for rock-work or growing in pots, well drained, and filled with turfy loam and peat.

| 1349. ANDROSA'CE W. |                      | ANDROSACE.        |      | <i>Primulaceæ.</i> | <i>Sp. 10-35.</i> |         |   |     |
|---------------------|----------------------|-------------------|------|--------------------|-------------------|---------|---|-----|
| 2010                | máxima W.            | oval-leaved       | ○ or | ‡ mr.jn W          | Austria           | 1597.   | S | p.l |
| 2011                | elongáta W.          | cluster-flowered  | ○ or | ‡ ap.my W          | Austria           | 1776.   | S | p.l |
| 2012                | septentrionális W.   | tooth-leaved      | ○ or | ‡ ap.my W          | Russia            | 1755.   | S | p.l |
| 2013                | villósa W.           | villos            | ○ or | ‡ jn.jl Pk         | Pyrenees          | 1790.   | D | ap  |
| 2014                | lactiflóra Fisch.    | Buckshorn-lvd.    | ○ or | ‡ jn.s W           | Siberia           | 1806.   | D | ap  |
| 2015                | Chamaejasme W.       | Grass-leaved      | ○ or | ‡ jn.au Pk         | Austria           | 1768.   | D | sp  |
| 2016                | láctea W.            | white-flowered    | △ or | ‡ jn.au W          | Austria           | 1752.   | D | sp  |
| 2017                | carnea W.            | awl-leaved        | △ or | ‡ jl.au F          | Switzerl.         | 1768.   | D | sp  |
| 2018                | obtusifolia W.       | blunt-leaved      | △ or | ‡ ap.jn Pk         | Italy             | 1817.   | S | ap  |
| 2019                | nána Horn.           | dwarf             | ○ or | ‡ ap.my W          | Denmark           | 1803.   | S | p.l |
| 1350. PRIMULA W.    |                      | PRIMROSE.         |      | <i>Primulaceæ.</i> | <i>Sp. 23-55.</i> |         |   |     |
| 2020                | vulgáris E. E.       | common            | △ or | ‡ mr.my Y          | Britain           | woods.  | D | s.l |
|                     | β plena-carnea B. M. | flesh-col. double | △ or | ‡ mr.my Pk         | Britain           | ...     | D | s.l |
|                     | γ plena-alba         | double-white      | △ or | ‡ mr.my W          | Britain           | ...     | D | s.l |
|                     | δ plena-sulphúrea    | doub.-brimstone   | △ or | ‡ mr.my Y          | Britain           | ...     | D | s.l |
|                     | ε plena-rúbra        | double-red        | △ or | ‡ mr.my R          | Britain           | ...     | D | s.l |
|                     | ζ plena-cúprea       | double-copper     | △ or | ‡ mr.my O          | Britain           | ...     | D | s.l |
|                     | η plena-atropurpúrea | doub.-ark-purp.   | △ or | ‡ mr.my Pu         | Britain           | ...     | D | s.l |
|                     | θ plena-violácea     | double-lilac      | △ or | ‡ mr.my Li         | Britain           | ...     | D | s.l |
| 2021                | elátiór W.           | Oxlip             | △ or | ‡ mr.my Y          | Britain           | woods.  | D | s.l |
| 2022                | véris W.             | Cowslip           | △ or | ‡ mr.jn Y          | Britain           | m. pa.  | D | s.l |
| 2023                | farinósa W.          | Bird's-eye        | △ or | ‡ jn.jl R          | Britain           | m. pa.  | D | p.l |
| 2024                | davúrica Fisch.      | Siber. bird's-eye | △ or | ‡ my.jn R          | Siberia           | 1806.   | D | p.l |
| 2025                | cortusoides W.       | Cortusa-leaved    | △ or | ‡ 1 my.jl R        | Siberia           | 1794.   | D | p.l |
| 2026                | dentiflóra Andr.     | tooth-flowered    | △ or | ‡ 1 my.jl R        | Siberia           | 1794.   | D | p.l |
| 2027                | longifolia H. K.     | long-leaved       | △ or | ‡ ap.my Pu         | Levant            | 1790.   | D | p.l |
| 2028                | villósa W.           | villos-leaved     | △ or | ‡ ap.my Pu         | Switzerl.         | 1768.   | D | p.l |
|                     | β flore-alba         | white-flowered    | △ or | ‡ ap.my Pu         | Switzerl.         | 1768.   | D | p.l |
| 2029                | nivális W.           | snowy             | △ or | ‡ ap.my Pu         | Dauria            | 1790.   | D | s.l |
| 2030                | margináta W.         | silver-edged      | △ or | ‡ mr.ap Pk         | Switzerl.         | 1777.   | D | s.l |
| 2031                | Aurícula W.          | Auricula          | △ or | ‡ ap.my Y          | Switzerl.         | 1596.   | D | h.l |
| 2032                | Palinúria W. en.     | flat-flowered     | △ or | ‡ ap.my Y          | Naples            | 1816.   | D | h.l |
| 2033                | integrifolia W.      | entire-leaved     | △ or | ‡ jn.jl Pk         | Pyrenees          | 1792.   | D | p.l |
| 2034                | finmárchica W.       | Norwegian         | △ or | ‡ my.jn V          | Norway            | 1798.   | D | p.l |
| 2035                | minima L.            | least             | △ or | ‡ ap Pk            | S. Europe         | 1819.   | D | s.l |
| 2036                | sinénsis Lindl.      | Chinese           | △ or | ‡ 1 ja.d Pk        | China             | 1830.   | S | s.l |
| 2037                | stricta Horn.        | upright           | △ or | ‡ ap.my Pk         | Denmark           | 1822.   | D | s.l |
| 2038                | scótica Hook.        | Scotch            | △ or | ‡ jn.jl Pk         | Scotland          | al.hea. | D | s.l |
| 2039                | Pallásii Lehm.       | Pallas's          | △ or | ‡ ... Y            | Altai             | 1823.   | D | s.l |
| 2040                | pustilla Lehm.       | little            | △ or | ‡ jn. ... Pu       | N. Amer.          | 1822.   | D | s.l |
| 2041                | viscósa W.           | clammy            | △ or | ‡ ap P             | Piedmont          | 1792.   | D | p.l |
| 2042                | decúra B. M.         | comely            | △ or | ‡ ap P             | .....             | 1800.   | D | p.l |



History, Use, Propagation, Culture,

349. *Androsace*. From *ανη ανδρος*, a man, and *σασος*, a buckler; the large round hollowed leaf of the common *Androsace* has been compared to the buckler of the ancients. The *Androsace* of Pliny and others must have been something very different. These are elegant mountaineers which may be treated in all respects as *Arctia*.

350. *Primula*. is derived from *primus*, the first, — to flower; the delicate blossoms of many of the species appearing when all nature is otherwise inert. This genus consists of beautiful dwarf alpine plants, valuable in horticulture, on account of their flowering early in spring, and being prolific in variation.

*P. vulgaris* is a native of most parts of Europe in woods and hedges on a moist clayey soil. It is generally found with brimstone-colored flowers, and single; but in some places, though rarely, it is found of a white, and again, of a purple hue, and occasionally double. The leaves and roots, which smell of anise, when dried, ground, and used as snuff, act as a sternutatory, and, taken internally, as an emetic. The varieties and subvarieties of this plant are very numerous. Some consider *P. veris* and *elatiar* as sprung from it, and only more permanent varieties. The Hon. W. Herbert says, he raised from the seed of one umbel of a highly-manured red cowslip, a primrose, a cowslip, and oxlips, of the usual and other colors; a black polyanthus, a hose-in-hose cowslip, and a natural primrose bearing its flower on a polyanthus stalk; and from the seed of the hose-in-hose cowslip he raised a hose-in-hose primrose. (*Hort. Trans.* iv. 19). But this requires confirmation, as the circumstance was never before recorded. For distinction's sake we shall consider them as species or subspecies.

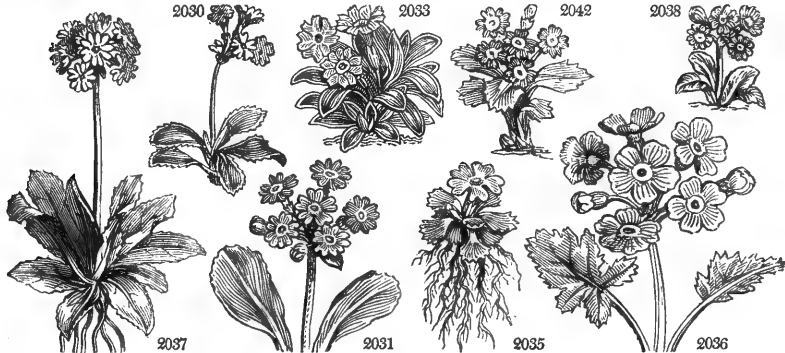
The varieties of *P. vulgaris* are arranged by florists in two classes; the first contains all those whose flowers are on separate pedicels, rising from the root upon a common stem, so short as not to be seen without separating the leaves of the plant, and are called primroses. The second class includes all those whose flowers are in umbels on a scape or flower-stalk rising from three to six inches or more, and are called polyanthus. Of the primroses there are about a dozen beautiful varieties in cultivation; and of the polyanthus an astonishing number, readily added to by propagation from seed. The names of the varieties, with the exception of the double sorts riven above, are entirely arbitrary. The rules for judging of the beauty or merits of a variety are also wholly artificial, and founded on an imaginary form far removed from ordinary nature. These rules or canons are

- 2010 All villous, Leaves ovate oblong and sepals toothed, Involucres very large, Flowers very small  
 2011 Much branched rough, Branches spreading, Leaves obl. somew. toothed, Sepals lanc. ent. Fl. very small  
 2012 Roughish erect, Lvs. lanc. tooth atten. at base, Prop. ped. elong. upright, Cor. longer than cal. Pet. ov. ent.  
 2013 Leaves lanceolate entire villous, Umb. few-flowered, Cor longer than the ovate campanulate calyx  
 2014 Smooth, Lvs. lanc. lin. tooth. at end, Ped. sprdg. elon. Cor. longer than cal. pet. obcord. (*A. coronopif.* B. M.)  
 2015 Pubescent, Leaves lanc. nearly entire ciliated, Umb. few-flowered, Cor. longer than the turb. calyx  
 2016 Caulesc. smooth, Lvs. lin. shining ent. cil. at end, Umb. few-fl. Stalks elong. Cor. longer than turb. calyx  
 2017 Caulesc. pubesc. Lvs. scattered lin. subulate ciliat. Umb. few-fl. Stalks short, Cor. longer than turb. calyx  
 2018 Leaves elliptical lanceolate smooth, Scape umbellate  
 2019 Lvs. ov. lanc. from middle to end acutely toothed, Scape lvs. and stalks rather long. than invol. Cor. shorter than angular cal. (*A. Bocconi* of Gardens.)

2020 Leaves obovate oblong toothed rugose villous beneath, Umb. radical, Flower-stalks as long as lvs. Cor. flat

- 2021 Leaves toothed rugose hairy on both sides, Umbel many-flowered with outer flowers nodding, Cor. flat  
 2022 Lvs. toothed rugose hairy beneath, Umb. many-flowered, Flowers all nodding, Cal. angular, Cor. concave  
 2023 Lvs. cuneate lanc. rug. cren. tooth. powdery, Umb. many-fl. Ped. spread. Tube gland. at end, Limb flat the  
 2024 Leaves sessile lanc. spatul. entire smooth on both sides, Outer fl. nodding [length of tube  
 2025 Lvs. cordate stalked doubly crenate smooth beneath hairy at the veins, Stalks villous, Umb. many-fl. erect  
 2026 Leaves cordate crenate-lobed very rugose, Corolla acutely toothed  
 2027 Leaves oblong spatulate toothed green on each side, Leaves of involucre auricled at base  
 2028 Leaves obl. oval serrulate villous pale green, Scape 2-3-fl. erect rounded, Cal. globose, Tube of cor. villous

- 2029 Leaves lanc. flat finely toothed smooth, Umb. many-fl. erect, Leaves of invol. connate at base  
 2030 Leaves smooth on each side crenate powdery at edge, Cal. very short (*P. crenata*, Lehm.)  
 2031 Leaves obov. ent. or serr. fleshy, Scape central as long as lvs. Umb. erect, Inv. with short lvs. Cal. powdery  
 2032 Leaves spatulate serrated smooth, Scape lateral, Umbel nodding, Involucre with large leaves  
 2033 Leaves elliptical nearly entire thickest cartilaginous at edge, Umb. 2-3-fl. erect, Cal. tubular obtuse  
 2034 Leaves ovate entire stalked smooth, Umb. erect 3-fl. Cal. campanulate, Cor. cyathiform  
 2035 Leaves wedge-shaped shining many-toothed at end, Scape about 1-fl. Petals half bifid like a Y  
 2036 Leaves stalked ovate cordate rugose, Umbel profliferous, Cal. inflated  
 2037 Lvs. lan. obov. tooth. stlk. beneath nearly naked, Umb. few-fl. erect, Lvs. of inv. lan. Pet. obov. short. than tube  
 2038 Resembles *P. farinosa*. Distinguished by its flat corolla, and more robust habit  
 2039 Leaves obovate oblong close toothed smooth somewhat wavy, Umb. pubesc. Cal. ovate gaping, Cor. flat  
 2040 Leaves obovate spatulate beneath and scape mealy, Segments obovate toothed  
 2041 Leaves obovate tongue-shaped entire vill. viscid, Umb. many-fl. erect, Leaves of inv. ovate short membr.  
 2042 Leaves flat coarsely serrated acute, Cal. viscid, Pedicels longer than scape



and Miscellaneous Particulars.

agreed on by the general consent of florists; they were first brought forward by the Dutch, and are now to be found in the treatises on florists' flowers of all countries: one of the best in this country is Maddocks's Florist's Directory.

The culture of *P. veris* as a border flower is abundantly simple, as it will grow any where, but best in a situation shaded from the mid-day sun, and in a loamy soil; but its culture as a florist's flower, the crossing to procure new varieties, and all the various cares of the florist involve details much too tedious for this work, if they were to be given at such length as to be of real use. We refer to Maddocks, Emerton, and Hogg, and to the Encyclopedia of Gardening.

*P. elatior* is found in the same situations as the primrose, but is much less common than either it or *P. veris*. It has little or no smell. Sir J. E. Smith considers it as probably a hybrid between the cowslip and primrose. There are two or three varieties of oxlip, but they are not considered as florists' flowers.

*P. veris* smells more strongly of anise than the primrose. Its leaves have been used as a pot-herb, and in salads, and are recommended for feeding silk-worms. The flowers make a pleasant wine, flavored like muscadell, but considered somniferous. Liquors and syrups are sometimes tinctured with the leaves. Having been less cultivated than the primrose, there are but few varieties of this plant in gardens. They may be raised from seed, however, to any extent, as Messrs. Gibbs, of the Brompton nursery, and others, have lately proved.

*P. auricula* is a well known favorite of the florist. It is a native of the alpine regions of Italy, Switzerland, and Germany, and found also about Astracan. The most common colors in its wild state are yellow and red, sometimes purple, and occasionally variegated or mealy. The cultivated are innumerable, and many of them of exquisite beauty and fragrance. The leaves in different varieties differ almost as much as the flowers, a circumstance which does not take place to the same extent in the variations of *P. vulgaris*, or *veris*. Near most of the manufacturing towns of England, and many in Scotland, the culture of this flower forms a favorite amusement of weavers and mechanics. Lancashire has been long famous for its auriculas: it is no uncommon thing there for a working man who earns, perhaps, from 18s. to 30s. per week, to give two guineas for a new variety of auricula, with a view to crossing it with some other, and raising seedlings of new properties.



|  |  |  |  |   |  |  |   |   |
|--|--|--|--|---|--|--|---|---|
| 351. <i>CORTUSA W.</i><br>2043 <i>Matthioli W.</i>   | BRAR'S-EAR SANTICLE.<br>common   | Δ or   | ½ ap, jn   | R   | <i>Primulaceae.</i><br>Austria   | Sp. 1.<br>1696.  | D s.l   | Bot. mag. 987   |
| 352. <i>SOLDANELLA W.</i><br>2044 <i>alpina W. em.</i><br>2045 <i>montana W. em.</i><br>S. <i>Clusii B. M.</i>   | SOLDANELLA.<br>Alpine<br>mountain  | Δ or<br>Δ or   | ½ ap<br>½ ap   | Fu<br>Pu  | <i>Primulaceae.</i><br>Switzerl.<br>Bohemia  | Sp. 2-3.<br>1656.<br>1816.   | D p.l<br>D p.l  | Bot. mag. 49<br>Bot. mag. 2163  |
| †353. <i>DODECA'THEON W.</i><br>2046 <i>Méadia W.</i>  | AMERICAN COWSLIP.<br>Mead's  | Δ or   | 1  | ap, jn<br>L. Pu   | <i>Primulaceae.</i><br>Virginia  | Sp. 1.<br>1744.  | D p.l   | Bot. mag. 12  |
| †354. <i>CYCLAMEN W.</i><br>2047 <i>cóum W.</i><br>2048 <i>europæum W.</i><br>2049 <i>périscum W.</i><br>2050 <i>hédéræfólium W.</i><br>2051 <i>ver'num Mill.</i>  | CYCLAMEN.<br>round-leaved<br>common<br>Persian<br>Ivy-leaved<br>spring   | Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or   | ½ ja, ap<br>½ au<br>½ f, ap<br>½ ap<br>½ mr  | L. R<br>L. R<br>R. W<br>W<br>Pu   | <i>Primulaceae.</i><br>S. Europe<br>Britain<br>Cyprus<br>Austria<br>.....  | Sp. 5.<br>1596.<br>1731.<br>1596.<br>.....   | S s.p<br>S s.p<br>S p.l<br>S s.p<br>S s.l   | Bot. mag. 4<br>Eng. bot. 548<br>Bot. mag. 44<br>Bot. mag. 1001<br>Sweet fl. gard. 9   |
| 355. <i>HOTTO'NIA W.</i><br>2052 <i>palóstris W.</i>   | WATER-VIOLET.<br>marsh   | Δ or   | 1  | jl, au  | <i>Primulaceae.</i><br>England   | Sp. 1-2.<br>dit.   | S aq  | Eng. bot. 364   |
| 356. <i>LYSIMA'CHIA W.</i><br>2053 <i>vulgáris W.</i><br>2054 <i>Ephémérum W.</i><br>2055 <i>angustifólia Mich.</i><br>2056 <i>dúbia W.</i><br>2057 <i>stricta W.</i><br>2058 <i>thyr'sifóra W.</i><br>2059 <i>capitáta Ph.</i><br>2060 <i>punctáta W.</i><br>2061 <i>vorticilláta Pall.</i><br>2062 <i>quadrifólia Ph.</i><br>2063 <i>ciliáta Ph.</i><br>2064 <i>longifólia Ph.</i><br>2065 <i>hýbrida Ph.</i><br>2066 <i>Linum-stellátum W.</i><br>2067 <i>némorum W.</i><br>2068 <i>Nummulária W.</i> | LOOSE-STRIPE.<br>common<br>Willow-leaved<br>narrow-leaved<br>purple-flowered<br>upright<br>tufted<br>headed<br>dotted<br>whorled<br>four-leaved<br>ciliated<br>four-flowered<br>hybrid<br>small<br>wood<br>Moneynort | Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or<br>Δ or | 3 jls<br>2 jls<br>1½ jls<br>1½ jls<br>1½ jl, au<br>1 my, jl<br>1 my, jl<br>1 jl, au<br>2 jl, au<br>2 jl, au<br>2 jl, au<br>1½ jl, au<br>½ jn<br>½ my, jl<br>½ jn, jl | Y<br>W<br>Y<br>Pu<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y<br>G<br>Y<br>Y | <i>Primulaceae.</i><br>Britain<br>Spain<br>N. Amer.<br>Levant<br>N. Amer.<br>England<br>N. Amer.<br>Holland<br>Crimea<br>N. Amer.<br>N. Amer.<br>N. Amer.<br>N. Amer.<br>Italy<br>Britain<br>Britain | Sp. 16-29.<br>1790.<br>1803.<br>1759.<br>1781.<br>bog. pl.<br>1813.<br>1658.<br>1820.<br>1794.<br>1732.<br>1738.<br>1806.<br>1658.<br>m. s. p.<br>m. m. e. | D co<br>D p.l<br>D p.l<br>D p.l<br>D p.l<br>D co<br>D co<br>D co<br>D m. s<br>D p.l<br>D p.l<br>D co<br>S s.l<br>D m. s<br>D m. s | Eng. bot. 761<br>Bot. mag. 2346<br>Bot. mag. 104<br>M. co. go. 1782. t. 1<br>Bot. mag. 104<br>Eng. bot. 176<br>Jac. aus. 4. t. 366<br>Bot. mag. 2295<br>Lm. ill. 1. t. 101. f. 2<br>Walth. hort. t. 12<br>Bot. mag. 660<br>Mag. h. mo. t. 162<br>Eng. bot. 527<br>Eng. bot. 528 |
| †357. <i>ANAGAL'LIS W.</i><br>2069 <i>arvén'sis W.</i><br>2070 <i>cerúleá E. R.</i><br>2071 <i>fruticósa H. K.</i><br>2072 <i>latifólia W.</i>   | PIMPERNEL.<br>common<br>blue<br>E. R.<br>large-flowered<br>broad-leaved  | ○ w<br>○ w<br>○ or<br>○ or   | ½ jns<br>½ jns<br>3 my, jl<br>1 my, jl   | S<br>B<br>Ve<br>Pu  | <i>Primulaceae.</i><br>Britain<br>Britain<br>Morocco<br>Spain  | Sp. 4-12.<br>cor. fl. S<br>cor. fl. S<br>1803.<br>1759.  | fl. S<br>co<br>L p.l<br>L p.l   | Eng. bot. 529<br>Eng. bot. 1823<br>Bot. mag. 831<br>Meerb. ic. 1. t. 22   |



History, Use, Propagation, Culture.

As to the soil proper for auriculas and polyanthuses, much has been written, and some highly artificial compositions of bullock's blood, sugar-baker's scum, night-soil, fuller's earth, &c. recommended. Many of the most successful growers, however, use nothing more than a loam from an old pasture or hedge-row, kept and turned over occasionally during a year, and then mixed with hot-bed dung rotten to a mould, or with leaf-mould, and some sand to keep it open. The soil and manure must be well mellowed by time before using, and not mixed till it is wanted, as that is said to generate worms. (See *Encyc. of Gard. art. Primula.*)

*P. auricula*, *helvetica*, *nivalis*, and *viscosa*, are considered by Herbert as only varieties of one original, for he says he raised a powdered auricula and a *P. helvetica* from *P. nivalis*, and a *P. helvetica* from *P. viscosa*. (*Hort. Trans.* iv. 20.) These, and the other species of this genus, are well adapted for being kept in pots of loam and leaf-mould, or loam and peat well drained, and in frosty or wet weather during winter, protected by a frame to imitate their natural covering of snow in alpine regions. Sweet says, "they require to be shifted and parted frequently, for if left too long without these being done, they will dwindle away and die." The best time for parting and shifting is after they have done flowering.

*P. scotica*, a pretty plant, resembling *P. farinosa*, has lately been discovered in Scotland by Dr. Hooker, professor of botany at Glasgow.

351. *Cortusa*. So named by Matthioli, in honor of his friend J. A. Cortusius, who first noticed it. This is a handsome little alpine, requiring a similar treatment to the Swiss *Primula*.

352. *Soldanella*. The diminutive of *solidus*, a shilling. The round leaves of these plants are very like pieces of money. They are among the least and most beautiful of alpine plants, and remarkable for the manner in which their corolla is cut or lacerated. Culture as in the Swiss *Primula*.

353. *Dodecatheon*. A name of the Romans, signifying 12 gods or divinities, applied with apparent inaptitude by Linnæus to a plant, native of a world the Romans did not know, and resembling in no particular that of their writers. It was originally named *Méadia* by Mark Catesby, in honor of Dr. Mead, but the name was continued only as a specific appellation by Linnæus. It is very ornamental when in flower; afterwards the leaves die away, and the root only remains till next season. It is not easily kept; but thrives better in a bed of light loamy soil, in a shady and rather moist situation, than in pots.

354. *Cyclamen*. Derived from *κύκλος*, a circle, on account of the numerous coils of the fruit-stalks. This genus consists of humble plants with very beautiful flowers. In the north of Italy wild swine feed on its

2043 The only species

2044 Cor. funnel-shaped spreading out beyond the middle, Calyx erect, Style shorter than corolla

2045 Cor. cylindrical bell-shaped not cut so far as the middle, Cal. spreading, Style longer than corolla

2046 The only species. Leaves radical flat on the ground, Scape bearing at top an umbel of drooping flowers

2047 Leaves orbicular cordate entire, Segments of cor. ovate

2048 Leaves orbicular cordate crenate or toothed, Segm. of cor. lanceolate

2049 Leaves oblong ovate cordate or reniform-cordate crenated, Segm. of cor. oblong obtuse

2050 Leaves cordate oblong acuminate angular toothed, Segm. of cor. oblong lanceolate rather acute

2051 Leaves cordate crenulate emarginate, with the base overlapping, Flower short, Style exserted

2052 Flowers vertical stalked, Leaves under water all finely cut

2053 Racemes terminal compound, Leaves opposite 3-4 together oblong lanceolate

2054 Racemes terminal, Petals obovate spreading, Leaves linear lanceolate sessile

2055 Smooth branching, Leaves opp. or whorled long linear spotted, Raceme terminating a short scape

2056 Racemes terminal, Petals conniving, Stam. shorter than corolla, Leaves lanceolate stalked

2057 Racemes terminal, Petals lanceolate spreading, Leaves lanceolate sessile

2058 Racemes axillary stalked ovate compact, Leaves opp. lanceolate

2059 Smooth, Stem simple spotted, Leaves opp. sess. lanc. acute spott. Flowers in close heads

2060 Leaves 3-4 together ovate lanc. stalked pub. beneath, Ped. axill. whorled, Pet. ovate fringed with glands

2061 Leaves whorled obl. lanc. stalked, Pet. ovate acute glandular, Stem pubescent

2062 Leaves subsessile 4-5 together oval acuminate dotted, Peduncles four, 1-flowered, Petals oval entire

2063 Pub. Lvs. opp. on long stalks cord. ovate, Fl. stalks axill. in pairs, Fl. cernuous, Petals rounded crenulate

2064 Smooth much branched, Leaves linear very long, Segments of cor. serrulate

2065 Smooth, Leaves opp. on long stalks lanc. Petioles ciliated, Fl. cernuous, Cor. shorter than cal. Pet. cren.

2066 Leaves lanc. sessile, Peduncles axillary opp. Stem much branched smooth, Cal. longer than corolla

2067 Leaves ovate acute, Flowers solitary, Stem procumbent, Stamens smooth

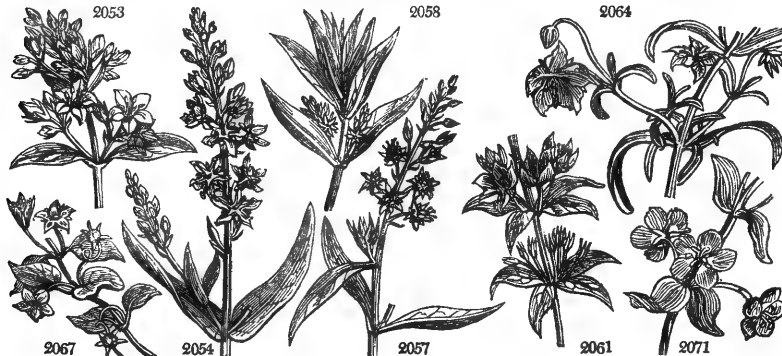
2068 Leaves opposite roundish cordate, Pedunc. axillary 1-flow. Stem smooth creeping, Stamens glandular

2069 Stem procumbent, Leaves 3-nerved ovate lanceolate petals dilated at end crenate with glands

2070 Leaves 5-nerved ovate lanceolate, Stem erect a little winged, Petals toothed at end

2071 Leaves lanceolate about 3 together sessile, Stem shrubby at base rounded, Branches diffuse angular

2072 Leaves cordate stem-clasping, Stem brachiately erect



and Miscellaneous Particulars.

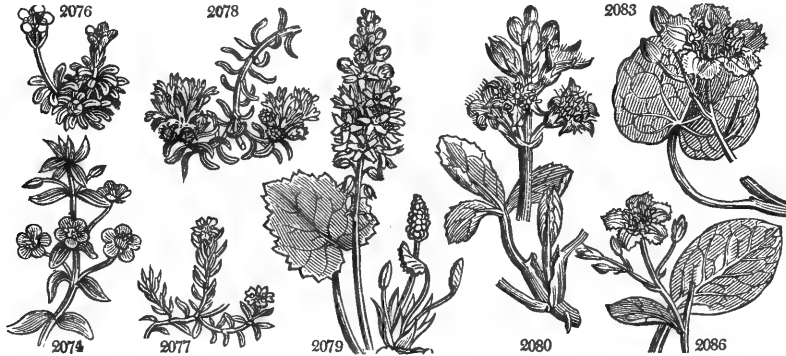
bulbs, which are round, flattened, and solid, and as large as pigeons' eggs. When the flowers fade the pedicels twist up like a screw, inclosing the germen in the centre, and, lying close to the ground among the leaves, remain in that position till the seeds ripen. The plant is peculiarly adapted for pots, and for chamber decoration in spring. *C. hederæfolium* is very scarce, and agreeably fragrant. *C. persicum* is tender; the others are quite hardy.

355. *Hottonia*. In honor of Peter Hotton, a professor in the university of Leyden, born in 1648, died in 1709. He wrote several academical dissertations, and published remarks upon medicinal plants, valuable in their day. *Plume d'eau*, Fr. *Wasserviole*, Ger., and *Miriofillo aquatica*, Ital. This singular aquatic has roots consisting of white capillary fibres, which strike deep into the mud. The leaves grow in tufts under the water, and only the upper part of the flowering stem rises above it, producing a showy spike of white and blue flowers. It affords refuge to the fresh-water periwinkle (*Turbo Litoralis*), and other small shellfish. The seeds being sown in a pond when ripe, the plants will rise in the water the spring following.

356. *Lysimachia*. From *λυσιμαχία*, of which the English name *Loose-strife* is a translation; it has been given to this plant from the quality absurdly ascribed to it by the ancients, of quieting restive oxen when put upon their yokes. Linnæus says it was named after king Lysimachus of Sicily, who first used it, which account is nearly the same as that of Pliny. Most of the species are bog or fen plants, of the easiest culture. *L. nummularia* is ornamental on moist rock-work or hanging from a pot in a northern exposure. Though one of the hardest natives, it seldom produces ripe seeds, like most plants which multiply themselves much by the roots or stem. The flowers of *L. thysiflora* come out in lateral bunches from the axils towards the top of the stem, which Linnæus notices as a singular circumstance in an upright plant. *L. stricta*, after flowering, throws out bulbs from the axils of the leaves, which, if allowed to lie on a moist surface, will produce young plants the following spring. *L. dubia* requires to be treated like a tender annual.

357. *Anagallis*. From *αναγγελαιον*, to laugh; the name expressing the medicinal qualities of the plant, which, by removing obstructions of the liver, removed a cause of low spirits and despondency; so at least say Pliny and Dioscorides. *A. arvensis* is a beautiful trailing weed, and one of the *Floræ horologica*, opening its flowers regularly about eight minutes past seven o'clock in our latitude, and closing about three minutes past two o'clock. It also serves as a hygrometer, for if rain fall, or there be much moisture in the atmosphere, the flowers either do not open, or close up again. Small birds are very fond of the seeds. *A. monelli* is a very

|                                  |                                 |          |    |       |    |                        |          |   |     |                          |
|----------------------------------|---------------------------------|----------|----|-------|----|------------------------|----------|---|-----|--------------------------|
| 2073 <i>Monelli W.</i>           | blue-Italian                    | ☿ (Δ) or | 1  | my.s  | B  | Italy                  | 1648.    | L | p.l | Bot. mag. 319            |
| 2074 <i>linifolia W.</i>         | Flax-leaved                     | ☿ (□) or | 1  | jn.jl | B  | Portugal               | 1796.    | C | s.l | Bot. mag. 2389           |
| 2075 <i>tenella W.</i>           | bog                             | ☿ Δ or   | ½  | au.s  | Pk | Britain                | bog. pl. | D | lp  | Eng. bot. 530            |
| 358. <i>DIAPEN'SIA. W.</i>       | <i>DIAPEN'SIA.</i>              |          |    |       |    | <i>Ericacæ. Sp. 1.</i> |          |   |     |                          |
| 2076 <i>lappónica W.</i>         | obtuse-leaved                   | ☿ Δ or   | ½  | f.mr  | W  | Lapland                | 1801.    | D | s.l | Bot. mag. 1108           |
| 359. <i>PYXIDANTH'ERA. Mi.</i>   | <i>PYXIDANTH'ERA.</i>           |          |    |       |    | <i>Ericacæ. Sp. 1.</i> |          |   |     |                          |
| 2077 <i>barbulata Mi.</i>        | bearded                         | ☿ or     | ½  | jl    | W  | Carolina               | 1806.    | D | lp  | Mich. amer. t.17         |
| 360. <i>CORIS. W.</i>            | <i>CORIS.</i>                   |          |    |       |    | <i>Primulacæe.</i>     |          |   |     |                          |
| 2078 <i>monspeleiensis W.</i>    | Montpellier                     | ☿ (□) or | ½  | jn.jl | Li | S. Europe              | 1640.    | S | sp  | Bot. mag. 2131           |
| 361. <i>GALAX. W.</i>            | <i>GALAX.</i>                   |          |    |       |    | <i>Saxifragæe.</i>     |          |   |     |                          |
| 2079 <i>aphylla W.</i>           | heart-leaved                    | ☿ Δ or   | ½  | jn.jl | W  | N. Amer.               | 1786.    | D | sp  | Bot. mag. 754            |
| 362. <i>MENYANTHES. W.</i>       | <i>BUCK-BEAN.</i>               |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2080 <i>trifoliata W.</i>        | common                          | ☿ Δ or   | 1  | jl    | W  | Britain                | moi.pl.  | C | p   | Eng. bot. 495            |
| 363. <i>VILLAR'SIA. R. Br.</i>   | <i>VILLAR'SIA.</i>              |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2081 <i>nymphoides W.</i>        | fringed                         | ☿ Δ or   | 1  | jn.jl | Y  | England rivers.        |          | S | p.l | Eng. bot. 217            |
| 2082 <i>lacunosa V.</i>          | smooth-flower.                  | ☿ Δ or   | 1  | jn.jl | W  | N. Amer.               | 1812.    | S | p.l | Vent. choix. 9           |
| 2083 <i>sarmentosa B. M.</i>     | running                         | ☿ Δ or   | 1  | jn.jl | Y  | N. Holl.               | 1806.    | S | p.l | Bot. mag. 1328           |
| 2084 <i>indica W.</i>            | Indian                          | ☿ Δ or   | 1  | my.au | W  | C. G. H.               | 1792.    | S | p.l | Bot. mag. 658            |
| 2085 <i>parnassifolia R. Br.</i> | tall                            | ☿ Δ or   | 2  | jn.o  | Y  | N. S. W.               | 1805.    | S | p.l | Bot. mag. 1029           |
| 2086 <i>ovata V.</i>             | oval-leaved                     | ☿ Δ or   | 1  | my.jl | O  | C. G. H.               | 1786.    | S | p.l | Bot. mag. 1909           |
| 364. <i>CHIRONIA. L.</i>         | <i>CHIRONIA.</i>                |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2087 <i>jasminoides Thunb.</i>   | Jasmine-leaved                  | ☿ or     | 2  | ap.jl | Pu | C. G. H.               | 1812.    | C | p.l | Bot. reg. 197            |
| 2088 <i>lychnoides Thunb.</i>    | Lychnis-flower.                 | ☿ or     | 2  | ...   | Pu | C. G. H.               | 1816.    | C | p.l | Bot. reg. 197            |
| 2089 <i>linoides W.</i>          | Flax-leaved                     | ☿ or     | 2  | jl.s  | R  | C. G. H.               | 1787.    | C | sp  | Bot. mag. 511            |
| 2090 <i>baccifera W.</i>         | berry-bearing                   | ☿ or     | 2  | jn.jl | Y  | C. G. H.               | 1759.    | S | sp  | Bot. mag. 233            |
| 2091 <i>angustifolia H. K.</i>   | narrow-leaved                   | ☿ or     | 1  | jn.au | R  | C. G. H.               | 1800.    | C | sp  | Bot. mag. 818            |
| 2092 <i>frutescens W.</i>        | shrubby                         | ☿ or     | 1½ | jn.s  | R  | C. G. H.               | 1756.    | C | sp  | Bot. mag. 37             |
| 2093 <i>decussata H. K.</i>      | cross-leaved                    | ☿ or     | 1½ | jn.s  | R  | C. G. H.               | 1789.    | C | sp  | Bot. mag. 707            |
| 365. <i>EUSTOMA. P. L.</i>       | <i>EUSTOMA.</i>                 |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2094 <i>silenefilium P. L.</i>   | silene-leaved                   | ○ or     | 1  | jl    | W  | I. Provid.             | 1804.    | S | s.l | Par. lond. 241           |
| 366. <i>ERYTHR'ÆA. P. S.</i>     | <i>ERYTHR'ÆA.</i>               |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2095 <i>Centadrium P. S.</i>     | common                          | ○ or     | ½  | jl.au | Pk | Britain                | heaths.  | S | s.l | Eng. bot. 417            |
| 2096 <i>pulchella E. B.</i>      | dwarf-branched                  | ○ or     | ½  | au.s  | Pk | England                | sea co.  | S | s.l | Eng. bot. 468            |
| 2097 <i>littoralis E. B.</i>     | dwarf-simple                    | ○ or     | ½  | jn.jl | Pk | Britain                | sea co.  | S | s.l | Eng. bot. 2305           |
| 2098 <i>maritima P. S.</i>       | procumbent                      | ☿ Δ or   | ½  | jl.au | Y  | S. Europe              | 1777.    | S | s.l | Cav. ic. 3. t. 296. f. 1 |
| 2099 <i>conferta Pers.</i>       | clustered                       | ☿ Δ or   | ½  | jl.au | Pk | Spain                  | 1821.    | S | s.l |                          |
| 367. <i>SABBAT'IA. P. L.</i>     | <i>SABBAT'IA.</i>               |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2100 <i>gracilis Ph.</i>         | slender                         | ☿ or     | 1  | jl    | Pu | N. Amer.               | ...      | C | co  | Par. lond. 32            |
| 2101 <i>calycosa Ph.</i>         | dichotomous                     | ☿ or     | 1  | jn.au | Pk | N. Amer.               | 1812.    | C | co  | Bot. mag. 1600           |
| 2102 <i>chloroides Ph.</i>       | chlorota-like                   | ☿ or     | ½  | jl.au | Pk | N. Amer.               | 1817.    | S | co  |                          |
| 2103 <i>paniculata Ph.</i>       | panicled                        | ☿ Δ or   | 1½ | my.jn | W  | N. Amer.               | 1817.    | C | co  |                          |
| 368. <i>LOGAN'IA. R. Br.</i>     | <i>LOGAN'IA.</i>                |          |    |       |    | <i>Gentianæe.</i>      |          |   |     |                          |
| 2104 <i>latifolia R. Br.</i>     | broad-leaved                    | ☿ or     | 3  | ...   | W  | N. Holl.               | 1816.    | C | lp  | Lb. nov. h. o. 1. t. 51  |
| 2105 <i>floribunda R. Br.</i>    | many-flowered                   | ☿ or     | 2  | ap.my | W  | N. S. W.               | 1777.    | C | lp  | Bot. rep. 520            |
|                                  | <i>Euosma albiflora B. Rep.</i> |          |    |       |    |                        |          |   |     |                          |



History, Use, Propagation, Culture,

beautiful small plant, and, with *A. latifolia* and *linifolia*, require the protection of a frame during winter. *A. tenella* is a delicate bog-plant, but not a very certain tenant of the genus. It is probably botanically distinct.

358. *Diapensia.* An ancient Greek name of the Sanicle, and signifying a plant which removes pain; the Sanicle being a vulnerary. Linnaeus applied the name to this plant, which is neither a Sanicle nor a vulnerary, but a pretty alpine species, requiring the same cultivation as similar things, and retaining its deep green leaves through the severest winters.

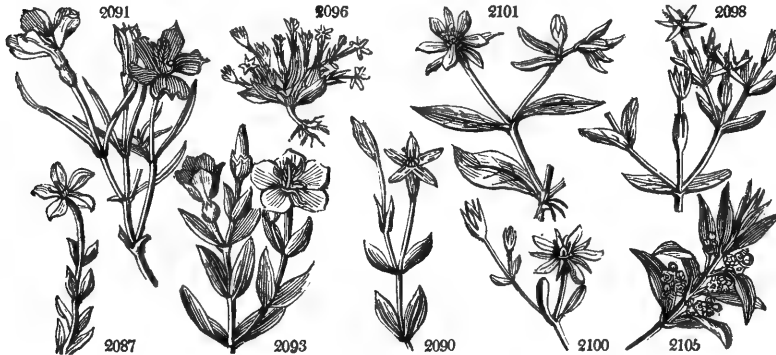
359. *Pyxidantha.* From *πυξίς*, a box, and *ἀνθήρα*, an anther, the anthers bursting across like a little box. A small plant resembling *Azalea procumbens*, with heath-like leaves and minute white flowers. It is found on the White-Mountains of New Hampshire, and in Pine-barrens in other parts of North America, but is very rare in cultivation.

360. *Coris.* A name of Dioscorides, for which even the etymological ingenuity of a Linnaeus or a De Théis have been unable to provide a meaning. It was given to a plant analogous to *Hypericum*, and resembling the heath. Tournefort applied the name to this plant, whose fine leaves, and purple or pink flowers, clothe, like the heath, the places where it grows wild.

361. *Galax.* From *γαλαξ*, milk, in allusion to its milk-white spikes of flowers. This is a neat little plant, and thrives best in a moist situation; where alone it flowers freely.

362. *Menyanthes.* From *μηνς*, a month, and *ανθος*, flower, in allusion to the power which the plant is supposed to possess of exciting menstruation. *Buck-bean* or *Bog-bean*, Eng., *Bachsohne*, Ger. An infusion of the leaves is bitter, and is frequently recommended in dropsy and rheumatism. In Sweden the plant is used

- 2073 Leaves linear lanceolate opp. or whorled, Stems ascending  
 2074 Leaves sessile opposite 3-4 together lanceolate 3-nerved, Sepals linear acute, Cor. twice as big as calyx  
 2075 Leaves ovate acute, Stem creeping, Stigma acute
- 2076 The only species. Plant growing in dense tufts
- 2077 A small plant resembling *Azalea procumbens*
- 2078 The only species
- 2079 The only species. Roots deep red. Flowers in long slender spikes
- 2080 Leaves ternate
- 2081 Leaves cordate orbicular floating, Flowers umbelled, Corollas fringed  
 2082 Leaves reniform subpellate beneath full of holes floating, Petioles flower-bearing, Corollas smooth  
 2083 Runners creeping, Leaves cordate roundish repand dotted beneath, Panic. opp. the leaves, Seeds smooth  
 2084 Leaves cordate roundish nerved floating, Petioles flower-bearing, Corolla hairy within  
 2085 Leaves radical cordate roundish spreading toothed, Stem long naked, Flowers paniced  
 2086 Leaves ovate erect, Flowers in paniced racemes fringed
- 2087 Leaves lanceolate smooth, Stem herbaceous 4-cornered cernuous  
 2088 Stem simple, Leaves linear-lanceolate  
 2089 Herbaceous, Leaves linear erect, Branches fastigiate, Peduncles elongated  
 2090 Leaves linear-lanceolate smooth spreading, Stem much branched shrubby, Fruit a berry  
 2091 Leaves linear spreading, Cal. ovate closed, Cor. clammy, Segm. cuneate pointed  
 2092 Shrubby, Leaves lanceolate subtomentose, Calyxes campanulate  
 2093 Shrubby subtomentose, Leaves close together decussate oblong obtuse, Cal. globose 5-parted
- 2094 The only species
- 2095 Stem herbaceous dichotomously paniced, Leaves ovate lanceolate, Cal. shorter than tube  
 2096 Flowers stalked, Segments of cal. shorter than tube, Style simple, Leaves ovate  
 2097 Stem nearly simple dwarf, Flowers clustered sessile, Cal. as long as tube of cor. Leaves lin. lanc.  
 2098 Herbaceous, Leaves oblong-lanceolate, Stem dichotomous corymbose rounded, Flowers stalked digynous  
 2099 Dwarf upright much branched, Lvs. oval obtuse, Fl. sessile fasc. clustered, Cal.  $\frac{1}{2}$  as long as tube of cor.
- 9100 Weak, Branches lax elongated 1-flowered, Leaves linear ellipt. Pet. obovate, Stem angular  
 9101 Erect leafy, Leaves oblong, Flowers solitary about 7-parted, Cal. leafy longer than cor.  
 9102 Weak, Leaves lanc. erect, Branches few 1-flowered, Flowers 7-13-parted, Sepals linear shorter than cor  
 9103 Erect, Leaves lanc. linear, Pan. many-flowered brachiate, Cal. subulate thrice as short as cor.
- 2104 Leaves obovate acute at each end, Flowers corymbose, Branches smooth, Stem erect  
 2105 Leaves lanceolate attenuate at each end smooth, Stipules lateral setaceous. Racemes axillary compound



and Miscellaneous Particulars.

as a substitute for hops, two ounces of the leaves being substituted for a pound of hops. The powdered roots are sometimes eaten in Lapland. The only species cultivated is the wild plant of our rivulets.

363. *Villarsia*. A genus divided from the last, and named after Villars, a French botanist of repute, who wrote the *Flora of Dauphiny*, in 1786, a work used even at the present day. This is an aquatic genus of easy culture, and increased by seeds or dividing at the root. *V. nymphoides* is one of the most elegant of British water-plants.

364. *Chironia*. Named after Chiron, one of the fathers of medicine, botany, and surgery. He is mythologically represented to have been the son of Saturn, or of Time and Experience. Many plants, the virtues of which he is believed to have first discovered, have borne his name. The genus, however, to which it is now applied, is probably not one of those. It consists of pretty plants of short duration, generally with pink flowers. The species are not long-lived plants, and therefore require to be frequently raised from cuttings. Peat mould suits them best, and a little loam mixed with it; and young cuttings planted in the same kind of soil, under hand-glasses, strike root readily.

365. *Eustoma*. From *eu*, well, and *stoma*, mouth or orifice, in allusion to the colored aperture of the tube of the flower. A pretty little plant rarely seen in gardens. It resembles a *Sabbatia*.

366. *Erythraea*. From *erythros*, red, in allusion to the color of the flowers. This is a pretty genus of herbaceous and annual flowers, but impatient of cultivation, and therefore rarely seen in gardens.

367. *Sabbatia*. Named after Liberatus Sabbati an Italian botanist, author of many works on botany. In 1772 he published the first volume of the *Hortus Romanus*, a fine work, in folio, of which the seventh and last volume appeared in 1784. A pretty N. American genus of plants resembling *Chironia*.

368. *Logania*. Named by Mr. Brown, after a Mr. James Logan, said to have been the author of some experi-

|                               |                               |                  |      |                      |       |                   |                       |
|-------------------------------|-------------------------------|------------------|------|----------------------|-------|-------------------|-----------------------|
| †369. PHLOX. <i>W.</i>        |                               | LYCHNIDEA.       |      | <i>Polemoniaceæ.</i> |       | <i>Sp. 18-24.</i> |                       |
| 2106                          | <i>paniculata W</i>           | panicked         | Δ or | 3                    | aus   | Pk                | N. Amer. 1752. D pl   |
|                               | <i>β alba</i>                 | white            | Δ or | 3                    | aus.  | W                 | N. Amer. 1813. D pl   |
| 2107                          | <i>undulata W.</i>            | waved-leaved     | Δ or | 3                    | jl.au | R                 | N. Amer. 1759. D pl   |
| 2108                          | <i>acuminata Ph.</i>          | Lyons's          | Δ or | 4                    | my.au | Pu                | N. Amer. 1812. D pl   |
| 2109                          | <i>suaveolens W.</i>          | white-flowered   | Δ or | 2                    | jl.au | W                 | N. Amer. 1760. D pl   |
| 2110                          | <i>maculata W.</i>            | spot-stalked     | Δ or | 4                    | jl.au | R                 | N. Amer. 1746. D pl   |
| 2111                          | <i>pyramidalis H. K.</i>      | pyramidal        | Δ or | 4                    | jn.au | F                 | N. Amer. 1800. D pl   |
| 2112                          | <i>pilosa W.</i>              | hairy-leaved     | Δ or | 1                    | my.jn | Pk                | N. Amer. 1759. D pl   |
| 2113                          | <i>amoena B. M.</i>           | Fraser's-hairy   | Δ or |                      | jn.jl | Pk                | N. Amer. 1809. D pl   |
| 2114                          | <i>Carolina W.</i>            | rough-stemmed    | Δ or | 1                    | jl.s  | D. Pu             | Carolina 1728. D pl   |
| 2115                          | <i>triflora M.</i>            | pubescent        | Δ or | 1                    | jl.s  | Pu                | Carolina .... D pl    |
| 2116                          | <i>suffruticosa Vent.</i>     | shining-leaved   | Δ or | 1½                   | jl.s  | D. Pu             | N. Amer. 1790. D pl   |
| 2117                          | <i>glaberrima W.</i>          | smooth           | Δ or | 3                    | jn.au | R                 | N. Amer. 1725. D pl   |
| 2118                          | <i>divaricata W.</i>          | early-flowering  | Δ or | 1                    | ap.jn | L.B               | N. Amer. 1746. D pl   |
| 2119                          | <i>stolonifera H. K.</i>      | creeping         | Δ or | ½                    | jn.s  | R                 | N. Amer. 1800. D pl   |
| 2120                          | <i>ovata W.</i>               | ovate-leaved     | Δ or | 1½                   | my.jl | Pu                | N. Amer. 1759. D pl   |
| 2121                          | <i>subulata W.</i>            | awl-leaved       | Δ or | ½                    | ap.jn | F                 | N. Amer. 1786. D pl   |
| 2122                          | <i>setacea W.</i>             | fine-leaved      | Δ or | ½                    | ap.my | F                 | N. Amer. 1786. D pl   |
|                               | <i>β nivatis</i>              | snow-white       | Δ or | ½                    | ap.my | W                 | N. Amer. 1820. D pl   |
| 2123                          | <i>carnea B. M.</i>           | flesh-colored    | Δ or | 1                    | aus.  | Pk                | N. Amer. 1816. D pl   |
| †370. POLEMONIUM. <i>W.</i>   |                               | GREEK-VALERIAN.  |      | <i>Polemoniaceæ.</i> |       | <i>Sp. 11-12.</i> |                       |
| 2124                          | <i>reptans W.</i>             | creeping         | Δ or | ½                    | ap.my | L.B               | N. Amer. 1758. D co   |
| 2125                          | <i>cæruleum W.</i>            | blue-flowered    | Δ or | 2                    | jn    | B                 | Britain bu. pl. D co  |
|                               | <i>β album</i>                | white-flowered   | Δ or | 2                    | jn    | W                 | ..... D co            |
|                               | <i>γ maculatum</i>            | spotted-flowered | Δ or | 2                    | jn    | St                | ..... D co            |
| 2126                          | <i>mexicanum Cav.</i>         | Mexican          | Δ or | 1                    | ap.my | B                 | Mexico 1817. D co     |
| 371.                          | <i>VES/TIA. W. en.</i>        | VESTIA.          |      | <i>Polemoniaceæ.</i> |       | <i>Sp. 1.</i>     |                       |
| 2127                          | <i>lycioides W. en.</i>       | Box-thorn-like   | Δ or | 3                    | jn    | Y                 | Chili 1815. C s.p     |
| 372. HYDROPHYL/LUM. <i>W.</i> |                               | WATER-LEAF.      |      | <i>Boraginææ.</i>    |       | <i>Sp. 3-6.</i>   |                       |
| 2128                          | <i>appendiculatum Ph.</i>     | appendaged       | Δ or | ½                    | my.jn | P.B               | N. Amer. 1813. D pl   |
| 2129                          | <i>virginicum W.</i>          | Virginian        | Δ or | ½                    | my.jn | W                 | N. Amer. 1739. D ms   |
| 2130                          | <i>canadense W.</i>           | Canadian         | Δ or | ½                    | my.jn | W                 | Canada 1759. D ms     |
| †373. PHACE/LIA. <i>Mich.</i> |                               | PHACELIA.        |      | <i>Boraginææ.</i>    |       | <i>Sp. 1-4.</i>   |                       |
| 2131                          | <i>bipinnatifida Mich.</i>    | bipinnatifid     | Δ or | 2                    | jn.jl | B                 | N. Amer. 1824. D co   |
| 374. RAMON'DA. <i>P. S.</i>   |                               | RAMONDA.         |      | <i>Solanææ.</i>      |       | <i>Sp. 1.</i>     |                       |
| 2132                          | <i>pyrenaica W. en.</i>       | Borage-leaved    | Δ or | ½                    | my    | Pu                | Pyrenees 1731. D s.l  |
|                               | <i>Verbascum Myconi Linn.</i> |                  |      |                      |       |                   |                       |
| 375. VERBASCUM. <i>W.</i>     |                               | MULLEIN.         |      | <i>Solanææ.</i>      |       | <i>Sp. 31-70.</i> |                       |
| 2133                          | <i>thapsus W.</i>             | Shepherd's-club  | Δ or | 6                    | jl.au | Y                 | Britain ra. sid. S co |
| 2134                          | <i>thapsiforme Schr.</i>      | bastard          | Δ or | 2                    | jl.au | L.Y               | Europe ... S co       |
| 2135                          | <i>phlomisoides W.</i>        | woolly           | Δ or | 3                    | jn.jl | Y                 | Italy 1739. S co      |
| 2136                          | <i>sinuatum W.</i>            | scollop-leaved   | Δ or | 2                    | jl.au | Y                 | S. Europe 1570. S co  |
| 2137                          | <i>bipinnatifidum B.M.</i>    | cut-leaved       | Δ or | 2                    | jl.au | Y                 | Tauria 1813. S pl     |
| 2138                          | <i>australe Schr.</i>         | southern         | Δ or | 4                    | jl.au | Y                 | S. Europe 1815. S co  |
| 2139                          | <i>condensatum Schr.</i>      | close-flowered   | Δ or | 4                    | jl.au | Y                 | Austria 1820. S co    |
| 2140                          | <i>niveum Ten.</i>            | snow-white       | Δ or | 3                    | jl.au | P.Y               | Naples 1823. S co     |
| 2141                          | <i>cuspidatum Schr.</i>       | pointed          | Δ or | 4                    | my.jn | Y                 | Vienna 1817. S co     |
| 2142                          | <i>macranthum Hgg.</i>        | large-flowered   | Δ or | 3                    | jn.jl | Y                 | Portugal 1820. S co   |



History, Use, Propagation, Culture,

ment upon the generation of plants. Small bushes or herbaceous plants with opposite entire leaves, and terminal or axillary bunches of white flowers. Eleven species, natives of New Holland, are described. Ripened cuttings may be struck in sand under a hand-glass.

369. *Phlox.* From φλόξ, flame. The plant so named by the ancients is supposed to have been an *Agrostemma*. The genus now so called is a native of North America only, and is one of the handsomest in cultivation. It consists of most elegant border flowers, valuable for blossoming late in the season, and for their lively colors of red, white, and purple, while the majority of plants that flower in autumn have yellow, and generally syngenesious blossoms. Most of the species delight in a rich moist soil, or loam and leaf mould or peat. The dwarf species are admirably adapted for pots, or a select rock-work: they require some protection in severe winters.

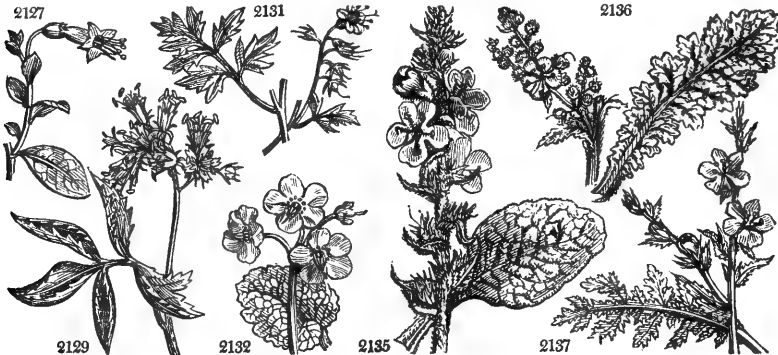
370. *Polemonium.* From πολέμιος, war. Pliny relates, that the plant which he called by this name received its appellation from having been the cause of a war between two kings, who could not agree which of them first discovered its virtues. It was also called *Chilodynamia* (from χίλον, a thousand, and δυναμις, power), on account of its extraordinary merit. The plant which possessed all these good qualities is now forgotten. Its name has descended to a flower which ornaments the garden, but which preserves nothing of the virtue of its progenitor, beyond a slight vulnerary quality. *P. cæruleum* is a border flower of long standing, and of the easiest culture.

371. *Vestia.* Named by Willdenow, in his *Enumeratio Plantarum*, in honor of his friend Dr. Vest of Clagen-

- 2106 Leaves lanc. flat rough at edge, Stem smooth, Corymbs paniced, Segments of cor. rounded  
 2107 Leaves obl. lanc. somewhat wavy rough at edge, Stem smooth, Corymbs paniced, Segm. of cor. blunt  
 2108 Erect pubescent, Leaves ovate acum. beneath pubescent decussate, Cor. panic. Segm. of Cor. rounded  
 2109 Erect, Stem smooth not spotted, Leaves ovate lanc. quite smooth, Raeceme panic. Teeth of cal. erect  
 2110 Erect, Stem rough spotted, Leaves obl. lanc. smooth rough at edge, Pan. obl. close, Teeth of cal. recurved  
 2111 Leaves cordate ovate acute smooth, Flowers densely pyramidal, Teeth of cal. upright, Stem spotted  
 2112 Hairy, Stem erect, Leaves linear-lanceolate, Sepals subulate, Tube of cor. curved pubescent  
 2113 Hairy, Stems assurgent, Leaves ovate lanceolate, Sepals subulate, Tube of cor. smooth straight  
 2114 Leaves lanceolate sessile smooth thick, Stem erect rough, Flowers whorled terminal  
 2115 Stems erect subpubescent, Leaves lanc. smooth, Branches of corymb 3-flowered, Teeth of cal. linear  
 2116 Leaves lanc. shining on both sides acute nearly without veins, Stem smooth trifid above shrubby at base  
 2117 Tufted assurgent smooth, Leaves linear lanceol. smooth, Corymb term. fastigiate, Teeth of cal. mucron.  
 2118 Dwarf diffuse pubescent, Leaves ovate lanc. chiefly alternate, Branches few-fl. lax, Cal. subul. Pet. cord.  
 2119 Stoloniferous pubescent, Fertile stems erect simple few-leaved, Leaves oval, Corymb few-flowered  
 2120 Leaves ovate, Flowers solitary  
 2121 Dwarf tufted pubescent, Leaves fascicled subulate pungent ciliated, Pedicels few terminal  
 2122 Leaves ciliated lowest setaceous upper lin. lanc. Branches 3-5-fl. at end, Cal. spreading hairy, Pet. retuse  
 2123 Stem erect rounded, Leaves lanc. smooth half stem-clasp. Cal. edged, Tube of cor. twice as long as limb  
 2124 Pinnae 7, Flowers terminal nodding  
 2125 Leaves pinnate, Flowers erect, Cal. longer than tube of corolla  
 2126 Pinnae many the terminal 3-lobed, Flowers nodding, Cal. viscid  
 2127 The only species  
 2128 Very hairy, Radical leaves subpinnatifid, cauline lobed angular, Sinus of calyx with reflexed appendages  
 2129 Leaves pinnate or pinnatifid, Segm. ovate lanceol. cut serrate, Fascicles of flowers clustered  
 2130 Smoothish, Leaves lobed angular, Fascicles of flowers close together  
 2131 Erect, Leaves pinnatifid, Segments cut lobed, Racemes generally bifid  
 2132 A stemless plant with hoary leaves and short scapes of purple flowers. The only species

*Leaves decurrent.*

- 2133 Lvs. cren. toment. upper acute, Raceme spiked dense, Cor. rotate with obl. obt. segm. Anth. nearly equal  
 2134 Lvs. cren. toment. upper acumini. Raceme spiked dense, Cor. rotate with obov. round segm. 2 of anth. obl.  
 2135 Lvs. cren. tom. radic. ell. stlkd. Caul. obl. ac. upper brd. ov. cusp. slightly decurr. Fasc. remotish, Two an. obl.  
 2136 Leaves toment. radical and lower cauline sinuated upper crenate slightly decurr. Spikes pan. Fl. clustered  
 2137 Leaves bipinnatifid [Fasc. of rac. remote, Two anth. obl.  
 2138 Leaves crenate tom. Radic. obl. lanc. narr. to stalk, Caul. obl. acute decurr. upper broad ov. cusp.  $\frac{1}{2}$  decurr.  
 2139 Leaves tom. radic. ellipt. narr. at base uneq. doubly crenate, Caul. obl. acute simply crenate upper round.  
 ovate cusp. slightly decurr. Racemes dense, Two anthers oblong  
 2140 Leaves  $\frac{1}{2}$  decurrent crenate snow-white, Raceme spiked dense, Anthers equal  
 2141 Leaves crenulate tomentose the upper cuspidate, Fascicles of raceme remote, Two anthers oblong  
 2142 Leaves cren. tom. rad. ellipt. obl. narr. at base caul. obl. acute  $\frac{1}{2}$  decurr. Fasc. of rac. rem. Two anth. obl.

*and Miscellaneous Particulars.*

furth. A native of Chili, with pale-green smooth leaves, and pale yellow flowers. It is very nearly related to *Lycium*.

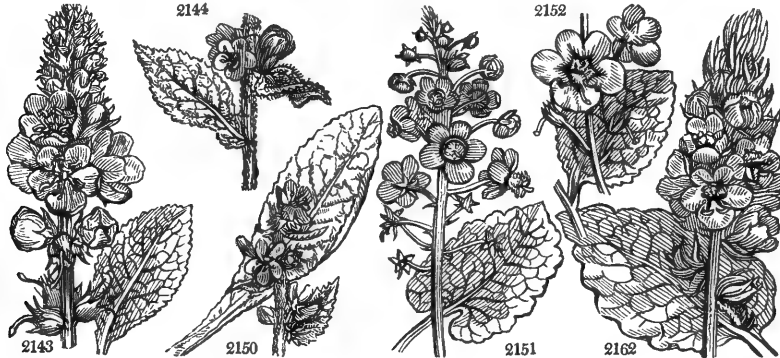
372. *Hydrophyllum*. From ὑδωρ, water, and φύλλον, a leaf. This plant grows in the marshes of North America, and in the spring time has a small quantity of water in the cavity of each leaf. The species are two only, both humble plants, with neat foliage, which protects the small white flowers. *H. virginicum* is used as a salad, under the name of Shawanese salad in North America.

373. *Phacelia*. From φακίλος, a bundle, the flowers being disposed in fascicled spikes.

374. *Ranonda*. Named after M. L. Ramond, a French botanist, who discovered many new plants in France. A very pretty dwarf plant, kept in a frame with other alpine plants. Formerly a species of *Verbascum*, (*V. myconi*.)

375. *Verbascum*. An alteration of *barbascum*, on account of the beard (barba) with which all the leaves and stems are closely covered. The species are all very fine looking plants, well calculated for shrubberies, among other tall plants. They have been well illustrated by M. Schrader in a learned Monograph. *V. thapsus* has been so called from its native place, the Isle of Thapsos. *V. blattaria* is said to have the power of driving away the blatta or cockroach. *V. pulverulentum* is one of the most magnificent of native herbaceous plants, sending up a stem a yard high, covered with many hundreds of gold colored flowers. Correa observes of this golden rod, that in still weather two or three blows with a stick will bring down all the corollas. The nap of

|   |                 |   |    |    |       |      |           |          |   |     |                      |
|---|-----------------|---|----|----|-------|------|-----------|----------|---|-----|----------------------|
| 2143 ovalifolium <i>H. K.</i>                                 | oval-leaved     | △ | or | 1  | jl.s  | O    | Caucasus  | 1804.    | D | p.l | Bot. mag. 1037       |
| 2144 Boerhaavii <i>W.</i>                                     | annual          | ○ | or | 2  | jl.au | Y.Pu | S. Europe | 1751.    | S | co  | Mill. ic. 2. t. 273  |
| 2145 elongatum <i>W. en.</i>                                  | horn-stalked    | ○ | or | 5  | jl.au | Y    | .....     | 1813.    | S | co  |                      |
| 2146 pyramidatum <i>W. en.</i>                                | pyramidal       | ○ | or | 3  | jl.au | Y    | Caucasus  | 1804.    | S | co  | Sweet fl. gard. 31   |
| 2147 hemorrhoidale <i>W.</i>                                  | Madeira         | ○ | or | 2  | jn.au | W.pu | Madeira   | 1777.    | S | co  |                      |
| 2148 floccosum <i>P. S.</i>                                   | wool-bearing    | ○ | or | 3  | jn.jl | Y    | Hungary   | 1805.    | S | co  | Pl.rar.hung.t.79     |
| 2149 Lychnitis <i>W.</i>                                      | white           | ○ | or | 3  | jn.au | C    | Britain   | ro.sid.  | S | co  | Eng. bot. 58         |
| 2150 pulverulentum <i>E. B.</i>                               | powdered        | ○ | or | 3  | jn.au | Y    | England   | bor. fl. | S | co  | Eng. bot. 487        |
| 2151 ferrugineum <i>W.</i>                                    | rusty           | △ | or | 3  | my.au | Br   | S. Europe | 1683.    | D | p.l | Bot. rep. 162        |
| 2152 cūpreum <i>B. M.</i>                                     | copper-colored  | △ | or | 3  | my.au | Br   | Caucasus  | 1798.    | D | p.l | Bot. mag. 1226       |
| 2153 nigrum <i>W.</i>   | black-rooted    | △ | or | 2  | my.au | Y    | England   | ch. so.  | D | p.l | Eng. bot. 59         |
| 2154 pheniceum <i>W.</i>                                      | purple-flowered | △ | or | 3  | my.au | Pu   | S. Europe | 1596.    | D | p.l | Bot. mag. 385        |
| 2155 virgatum <i>E. B.</i>                                    | slender         | ○ | or | 5  | au    | Y    | Britain   | gra.pl.  | S | co  | Eng. bot. 550        |
| 2156 Blattaria <i>W.</i>                                      | moth            | ○ | or | 4  | jl.au | Y    | Britain   | gra.pl.  | S | co  | Eng. bot. 393        |
| 2157 glābrum <i>W. en.</i>                                    | smooth          | ○ | or | 2  | jl.au | Y    | .....     | 1805.    | S | co  |                      |
| 2158 repāndum <i>W. en.</i>                                   | waved           | ○ | or | 3  | jl.au | Y    | .....     | 1813.    | S | co  |                      |
| 2159 pinnatifidum <i>W.</i>                                   | pinnatifid      | △ | or | 1  | my    | Y    | Archipel. | 1788.    | S | p.l |                      |
| 2160 Osbeckii <i>W.</i>                                       | Osbeck's        | △ | or | 1  | jl.au | G    | Spain     | 1752.    | S | p.l | Tourn. it. 2. t. 83  |
| 2161 orientale <i>M. B.</i>                                   | eastern         | △ | or | 2  | jn.jl | Y    | Caucasus  | 1821.    | S | co  |                      |
| 2162 spectabile <i>M. B.</i>                                  | shewy           | △ | or | 2  | jn.jl | Y.Pu | Tauria    | 1820.    | S | co  | Bot. rep. 558        |
| 2163 spinosum <i>L.</i>                                       | spiny           | △ | or | 1  | my.jn | Pu   | Crete     | 1824.    | S | co  | Alp. exot. t. 36     |
| <b>76. DATURA. W.</b> THORN-APPLE. <i>Solanææ. Sp. 7-10.</i>  |                 |   |    |    |       |      |           |          |   |     |                      |
| 2164 ferox <i>W.</i>  | Chinese         | ○ | or | 3  | jl.s  | W    | China     | 1731.    | S | a.l | Zano.h.212.t.162     |
| 2165 Stramonium <i>W.</i>                                     | common          | ○ | or | 3  | jl.s  | W    | England   | rub.     | S | a.l | Eng. bot. 1288       |
| 2166 Tātula <i>W.</i>   | blue            | ○ | or | 3  | jl.s  | B    | N. Amer.  | 1629.    | S | a.l | Meerb. ic. 2. t. 13  |
| 2167 fastuosa <i>W.</i>                                       | purple          | ○ | or | 3  | jl.s  | Pu   | Egypt     | 1629.    | S | r.m | Kno.the.1.t.8.II     |
| 2168 Métel <i>W.</i>  | downy           | ○ | or | 2  | jn.s  | W    | Asia      | 1596.    | S | r.m | Bot. mag. 1440       |
| 2169 lævis <i>W.</i>  | smooth-fruited  | ○ | or | 2  | jn.s  | W    | Africa    | 1780.    | S | r.m | Jac. vind. 3. t. 82  |
| 2170 ceratocaulon <i>Ort.</i>                                 | horn-stalked    | ○ | or | 2  | jl.s  | W    | S. Amer.  | 1805.    | S | r.m | Jac. sch. 3. t. 339  |
| <b>177. BRUGMAN'SIA. P. S. BRUGMANSIA. Solanææ. Sp. 2-3.</b>  |                 |   |    |    |       |      |           |          |   |     |                      |
| 2171 suaveolens <i>W. en.</i>                                 | smooth-stalked  | ○ | or | 15 | aus.  | W    | Peru      | 1733.    | C | l.p |                      |
| 2172 arborea <i>W. en.</i>                                    | downy-stalked   | ○ | or | 10 | aus.  | W    | Peru      | 1813.    | C | l.p | Fl. peruv. 2. t. 128 |
| <b>178. LISIAN'THUS. W. LISIAN'THUS. Gentianææ. Sp. 4-29.</b> |                 |   |    |    |       |      |           |          |   |     |                      |
| 2173 longifolius <i>W.</i>                                    | long-leaved     | ○ | or | 1½ | jn.jl | Y    | Jamaica   | 1793.    | C | l.p | Brow.jam.t.9.f.1     |
| 2174 glaucifolius <i>Jac.</i>                                 | glaucous-leaved | ○ | or | 2  | jn.jl | Pu   | .....     | .....    | C | l.p | Jac. ic. rar.1.t.33  |
| 2175 exsertus <i>W.</i>                                       | oval-leaved     | ○ | or | 12 | ...   | Y    | W. Indies | 1793.    | C | l.p | Bot. mag. 259        |
| 2176 cordifolius <i>W.</i>                                    | heart-leaved    | ○ | or | 2  | ...   | Y    | Jamaica   | 1816.    | C | l.p | Br. jam. t. 9. f. 2  |
| <b>79. SPIGELIA. W. WORM-GRASS. Gentianææ. Sp. 2-4.</b>       |                 |   |    |    |       |      |           |          |   |     |                      |
| 2177 Anthemia <i>W.</i>                                       | annual          | ○ | or | 1½ | jl    | G.R  | W. Indies | 1759.    | S | a.l | Bot. mag. 2359       |
| 2178 marilandica <i>W.</i>                                    | perennial       | △ | or | 1  | jl.au | S    | N. Amer.  | 1694.    | D | p.l | Bot. mag. 80         |
| <b>80. NICAN'DRA. J. NICANDRA. Solanææ. Sp. 1-2.</b>          |                 |   |    |    |       |      |           |          |   |     |                      |
| 2179 physalodes <i>P. S.</i>                                  | blue-flowered   | ○ | or | 2  | jl.s  | Pu   | Peru      | 1759.    | D | a.l | Bot. mag. 2458       |



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this species, of *V. lychnitis*, and of several others, may be used as tinder, and to make wicks for lamps; whence the name *Lychnitis* applied to one of the species, from *λυχνος*, a lamp. Several mules have been produced between the species of this genus; and it has been questioned whether those accounted species are not productions of this kind.

76. *Datura*. An alteration of the Arabic name *tâtbrah*, Forskahl. About Goa and Canara, it is called *Daturo*, Rumphius. *Stramonium* is an abbreviation of the Greek word *στραμονιον*, or mad-apple, on account of the dangerous effects of the fruit of that species. *Metel* or *Methel*, is an Arabic name employed by Serapion, ch. 375, and expresses the narcotic effect of the plant. *Tātula* is altered from *Datula*, a name given to the *Datura* by the Turks and Persians. *D. stramonium* is an instance of a South American plant, naturalized within a comparatively short time, the seeds having been introduced from Constantinople in Gerarde's time, and by him "dispersed through this land." Kalm says, that this plant and a species of *Phytolacca* are the worst weeds in America. Professor Martyn observes, that "in the earth brought with plants from various parts of that extensive country, we are sure to have the thorn-apple come up." At night, the leaves next the flowers rise up and enclose them. The whole plant smells strongly of bean meal. Every part of the plant is poisonous, bringing on delirium, tremors, &c. but under proper regulations it is a useful medicine in asthma, &c.

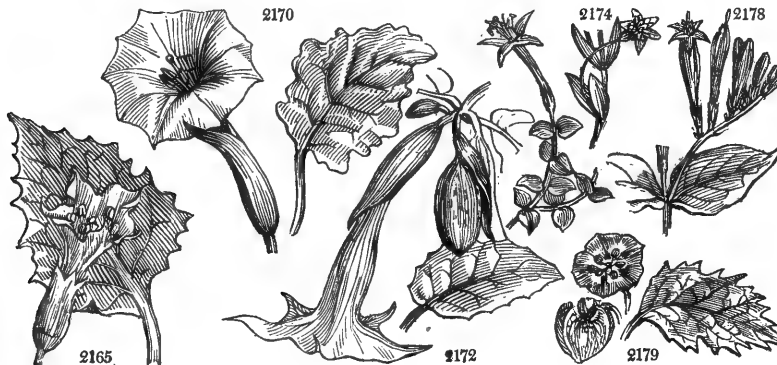
*D. fastuosa* has a fine polished purple stalk, varied with dots or lines; the leaves are large, the flowers of a beautiful purple outside, and a satiny white within; some are single, others semidouble. They have an agreeable odor at first, but if long smelt to become less agreeable, and are narcotic. *D. ceratocaulon* is a fine species; its seed will sometimes remain in the ground several years before it will vegetate.

77. *Brugmansia*. So named by Persoon, in honor of Professor S. J. Brugmans, author of some botanical works, and especially of a dissertation "De Plantis Inutilibus, et Venenatis," published at Groningen, in 1783.

*B. arborea* is one of the greatest ornaments of the gardens of Chili. The flowers which come out at the

*Leaves sessile.*

- 2143 Stem erect simple, Leaves oval sessile tooth-crenate smooth above, Flowers spiked  
 2144 Leaves sublyrate, Flowers sessile  
 2145 Leaves  $\frac{1}{2}$  decurrent tomentose on both sides, Stem branched, Three filaments hairy in the middle  
 2146 Leaves nearly naked lower oblong attenuated at base upper cord. acum. sess. Racemes panic. Stam. beard.  
 2147 Leaves ovate oblong at base atten. toment. obsolete cren. Racemes spiked elongate, Fl. without bractes  
 2148 Leaves ovate sessile beneath closely woolly, Stem branched, Filaments beard  
 2149 Leaves wedge-shaped oblong naked above, Stem angular panicle  
 2150 Leaves ovate oblong suberrate powdery on both sides, Stem rounded panicle, Hairs of stamens white  
 2151 Leaves subvillous rugose cauline subsessile equally crenate, Radical oblong cordate doubly crenate  
 2152 Stems virgate simple, Leaves cordate ovate rugose crenate woolly beneath, Pedunc. with 1 bract. solitary  
 2153 Leaves oblong cordate stalked wavy crenate subpubescent  
 2154 Leaves naked radical uneq. toothed, Caul. lanc. toothed wedge-shaped at base, Stem naked, Rac. elong.  
 2155 Leaves oblong lanc. toothed sessile radical sublyrate pubescent, Stem branched, Flowers aggreg. sessile  
 2156 Leaves stem-clasping oblong smooth doubly serrated, Peduncles 1-flowered solitary  
 2157 Leaves naked lower obl. stalked upper obl. lanc. Stem simple pub. Raceme term. Stalks altern. very short  
 2158 Leaves naked radical sinuated cauline oblong cordate stem-clasping coarsely toothed, Pedunc. alternate  
 2159 Leaves tomentose radical bipinnatifid cauline pinnatifid, Flowers clustered sessile  
 2160 Leaves cut naked, Stem leafy, Calyxes woolly, Pedunc. 2-flowered  
 2161 Leaves ovate oblong beneath hoary the lower narrowed at base upper subcordate, Racemes lax panicle  
 2162 Leaves cordate acuminate, Spike lax downy, Two lower stamens dechnate smooth  
 2163 Stem leafy prickly shrubby
- 2164 The upper spines very large converging at the top of the pericarp  
 2165 Leaves ovate smooth angular toothed, Pericarp prickly  
 2166 Leaves ovate subcordate smooth angular toothed, Stem spotted, Pericarp prickly  
 2167 Leaves ovate angular, Pericarps tuberculated nodding  
 2168 Leaves cordate nearly entire pubescent, Pericarps prickly globose nodding  
 2169 Leaves ovate angular toothed smooth, Stem hollow herbaceous, Pericarps smooth erect  
 2170 Leaves ovate lanceolate wavy beneath hoary, Stems dichotomous cornute, Pericarps obovate pendulous
- 2171 Leaves oblong entire smooth, Calyxes 5-toothed  
 2172 Leaves oblong entire powdery, Stalks and branches pubescent, Cal. spatheaceous acuminate
- 2173 Leaves lanceolate acute pubescent, Stem rounded  
 2174 Leaves ellipt. lanceolate obtuse smooth, Stem rounded, Peduncles long 1-flowered  
 2175 Leaves ovate lanc. pedunc. trichotomous, Genitals very long  
 2176 Leaves cordate
- 2177 Stem herbaceous the upper leaves 4 together  
 2178 Stem simple, All the leaves opposite sessile lanceolate oval
- 2179 Leaves sinuated, Calyxes closed acute-angled



and Miscellaneous Particulars.

divisions of the branches, have a loose tubular calyx nearly four inches long, which, opening like a spathe, a corolla is protruded, with a narrow trumpet-shaped tube, which spreads wide at the brim, where it is divided into five angles, which terminate in very long points: they are white within, pale yellow outside, and one tree will perfume the air of a large garden. It flowers freely in the bark-stove, in a moist heat.

378. *Lisianthus*. From *Λωϊς*, dissolution, and *ανθος*, a flower; a name given to the plant on account of the medical virtues possessed by it of dissolving humours. It is a powerful cathartic. The species are very handsome stove plants. Cuttings root readily in sand under a bell-glass.

379. *Spigelia*. So named by Linnaeus, in honor of Adrian Spigelius, born at Brussels in 1578; professor of anatomy and surgery at Padua; author of *Isagogæ*, a flower; a name given to the plant on account of the medical virtues possessed by it of dissolving humours. It is a powerful cathartic. The species are very handsome stove plants. Cuttings root readily in sand under a bell-glass.

*S. anthelmia* is so named from its peculiar efficacy in destroying worms, for which it has been long in use among the negroes in the West Indies. Dr. Browne, after a number of successful experiments, says it operates in so extraordinary a manner, that no other simple can be of equal efficacy in any other disease, as this is in those which proceed from these insects. (*Hist. of Jamaica*.) The same plant procures sleep almost as certainly, and in an equal degree with opium.

*S. marilandica* is used as a vermifuge in North America, and according to Dr. Garden, (*Letters to Dr. Hope*,) with very powerful effects. The annual plant may be treated like other tender annuals; but *S. marilandica* is rather difficult to preserve; according to Sweet, "it requires to be grown in a pot, that it may be protected from severe frosts, or too much wet: it will sometimes survive the winters when planted in the open ground in a bed of peat: the best soil for it is an equal mixture of loam and peat, and young cuttings, planted under a hand-glass, root readily." (*Bot. Cult.* 424.)

380. *Nicanandra*. Nicanor was a Greek physician, who lived about a century and half before Christ. The genus was formed by Adanson; it consists of the *Atropa physaloides* of Linnaeus. The Indians of Peru make use of the berries of this plant to bring away gravel, and to relieve persons who have a stoppage of urine.



| †*381. HYOSCYAMUS. W. HENBANE. |                 | Solanaceae. Sp. 13-14. |       |   |       |           |           |       |       |                          |  |
|--------------------------------|-----------------|------------------------|-------|---|-------|-----------|-----------|-------|-------|--------------------------|--|
| 2180 niger W.                  | common          | ♂                      | ○ p   | 1 | jn.jl | St        | Britain   | 1818  | S s.l | Eng. bot. 591            |  |
| β annuus                       | annual          |                        | ○ p   | 1 | jn.jl | St        | Europe    | 1818  | S s.l | Bot. mag. 2394           |  |
| 2181 albus W.                  | white           |                        | ○ w   | 2 | jl.au | Pa. W. S. | Europe    | 1570. | S co  | Blackw. t. 111           |  |
| 2182 reticulatus W.            | Egyptian        |                        | ○ w   | 1 | jl.au | R         | Egypt     | 1640. | S co  | Com. hort. 77. t. 22     |  |
| 2183 Senecioides W. en.        | yellow-flowered | ♂                      | △ w   | 1 | mr.o  | Y         | Egypt     | 1812. | C s.l |                          |  |
| 2184 aureus W.                 | golden          | ♂                      | △ w   | 1 | mr.o  | Y         | Levant    | 1640. | S r.m | Bot. mag. 87             |  |
| 2185 canariensis Ker.          | various-leaved  | ♂                      | △ cu  | 1 | ja.d  | Y         | Canaries  | 1816. | D s.l | Bot. reg. 180            |  |
| 2186 pusillus W.               | dwarf           |                        | ○ w   | 1 | jl    | Y         | Persia    | 1691. | D s.l | Pik. alm. t. 37. f. 5    |  |
| 2187 physaloides W.            | purple-flowered | ♂                      | △ w   | 1 | mr.ap | Pu        | Siberia   | 1777. | D p.l | Bot. mag. 852            |  |
| 2188 Scopélia W.               | Nightsh.-leav'd | ♂                      | △ w   | 1 | ap.my | D. Pu     | Carolina  | 1780. | D p.l | Bot. mag. 1126           |  |
| 2189 agræstis Kit.             | field           |                        | ○ w   | 1 | ap.my | Y. Vy     | Hungary   | 1820. | S p.l | Sweet fl. gard. 27       |  |
| 2190 pallidus W. & K.          | pale            |                        | ○ w   | 1 | mr.ap | Y. Pu     | Hungary   | 1815. | S p.l |                          |  |
| 2191 muticus L.                | blunt-calyxed   | ♂                      | ○ w   | 1 | mr.ap | Y. Pu     | Egypt     | 1822. | S p.l |                          |  |
| 2192 orientalis Bieb.          | eastern         | ♂                      | △ or  | 1 | ap    | Pu        | Iberia    | 1821. | D s.l | Bot. mag. 2414           |  |
| †382. NICOTIANA. W. TOBACCO.   |                 | Solanaceae. Sp. 14-26. |       |   |       |           |           |       |       |                          |  |
| 2193 Tabacum W.                | Virginian       |                        | ○ clt | 4 | jl.au | Pk        | America   | 1570. | S r.m | Blackw. t. 146           |  |
| 2194 macrophylla W. en.        | large-leaved    |                        | ○ or  | 6 | jl.au | Pk        | America   | ...   | S r.m |                          |  |
| 2195 frutescens W.             | shrubby         | ♂                      | ○ or  | 3 | jl.au | Pk        | China     | 1699. | C r.m |                          |  |
| 2196 undulata R. Br.           | sweet-scented   | ♂                      | △ clt | 2 | my.s  | W         | N. S. W.  | 1800. | D r.m | Bot. mag. 673            |  |
| 2197 rustica W.                | common-green    | ♂                      | ○ clt | 3 | jl.s  | G         | America   | 1570. | S co  | Blackw. t. 437           |  |
| 2198 paniculata W.             | panicked        |                        | ○ or  | 3 | jl.s  | G         | Peru      | 1752. | S co  | Flor. per. 2. t. 129     |  |
| 2199 glutinosa W.              | clammy          |                        | ○ or  | 4 | jl.s  | S         | Peru      | 1759. | S r.m | Bot. reg. 484            |  |
| 2200 plumbaginifolia W. en.    | curled-leaved   | ♂                      | △ or  | 2 | my.jn | W         | America   | 1816. | D r.m | Jacq. fragm. t. 84       |  |
| 2201 pusilla W.                | Primrose-leav'd | ♂                      | ○ or  | 3 | au    | W         | Vera Cruz | 1733. | S r.m | Mil. ic. 2. t. 175. f. 8 |  |
| 2202 quadrivalvis Ph.          | four-valved     |                        | ○ or  | 2 | jl.au | W         | N. Amer.  | 1811. | S r.m | Bot. mag. 188            |  |
| 2203 nana Lindl.               | Rocky-mount.    |                        | ○ cu  | 1 | jn    | W         | N. Amer.  | 1823. | S co  | Bot. reg. 833            |  |
| 2204 Langsdorffii W. en.       | Langsdorff's    |                        | ○ or  | 5 | au    | G         | Chili     | 1819. | S co  | Bot. mag. 2221           |  |
| 2205 cerinthoides Lehm.        | Honeywort       |                        | ○ or  | 2 | au    | G         | .....     | 1821. | S co  | Lehm. nic. t. 2          |  |
| 2206 repanda W.                | Havannah        |                        | ○ clt | 2 | jn.jl | W         | Havannah  | 1823. | S co  | Bot. mag. 2484           |  |



History, Use, Propagation, Culture,

381 *Hyoscyamus*. From *ὄσος*, a pig, and *κωμος*, a bean; the fruit has been thought to resemble a bean, and, although dangerous to other animals, is said to be eaten by pigs with safety. *H. niger* is a well-known fetid weed, which follows civilized man, growing on rubbish of old houses, dunghills, &c. It has a strong peculiar odor, greatly affecting the heads of some persons, and the whole plant is reputed poisonous. Sir J. E. Smith and Professor Martyn say they have often eaten the seeds without suffering inconvenience. Lightfoot, on the contrary, says, a few of them have been known to deprive a man of his reason and limbs. A species of bug (*Cimex*) and of beetle (*Chrysomela*) take their specific names from feeding on the plant; but no quadruped is known to eat it, unless the goat and sheep, and that very rarely and sparingly. As a medicine, henbane is of immemorial use, and is still continued in the Pharmacopœias. It is given with or without opium in coughs, epilepsy, convulsions, &c. Country people sometimes smoke the leaves for the toothach.

382. *Nicotiana*. So named from John Nicot of Nismes, in Languedoc, ambassador from the king of France to Portugal, who procured the seeds from a Dutchman who had received them from Florida. The first plant was said to have been presented to Catherine de Medicis, whence the French name *Herbe à la Reine*. The name tobacco, which has superseded all others, is the appellation of a district of Mexico. *Petum* or *Petume*, *Bras*, *Tabac*, *Fr.*, *Taback*, *Ger.*, and *Tabac*, *Ital.* The species grown as tobacco are the *N. tabacum* and *rustica*; the former greatly preferred. The popular narcotic which it furnishes is probably in more extensive use than any other, and its only rival is the betel of the east. According to Linnæus, tobacco was known in Europe from 1560. It was brought to England from Tobago in the West Indies, or Tobasco in Mexico, (and hence the name,) by Ralph Lane, in 1586, but only the herb for smoking. Afterwards, according to Hakluyt, seeds were introduced from the same quarter. Sir Walter Raleigh first introduced smoking; in the house in which he lived at Islington are his arms on a shield, with a tobacco plant on the top. Smoking has consequently been common in Europe for upwards of two centuries. It is a powerful narcotic, and also a strong stimulant with respect to the whole system; but especially to the stomach and intestines, to which, in small doses, it proves emetic and purgative. The smoke thrown up the anus acts as a glyster: an infusion of the leaves forms a powerful lotion for obstinate ulcers: the oil applied to a wound, is said by Redi to be as fatal as the poison of a viper. The decoction, powder, and smoke of tobacco, are used in gardening to destroy insects, and in agriculture for the same purpose, and to cure cutaneous eruptions in domestic animals.

Tobacco, as used by man, says Du Tour, (*Nonveau Cours d'Agriculture*, &c.) gives pleasure to the savage and the philosopher, to the inhabitant of the burning desert and frozen zone. In short, its use either in powder, to chew, or to smoke, is universal; and for no other reason than a sort of convulsive motion (sneezing) produced by the first, and a degree of intoxication by the two last modes of usage. A hundred volumes, he adds, have been written against it, of which a German has preserved the titles. Among these books is that of James Stuart, king of England, who violently opposed it. The Grand Duke of Moscow forbade its entrance into his territory under pain of the knout for the first offence, and death for the next. The emperor of the Turks, king of Persia, and Pope Urban VIII. issued similar prohibitions, all of which were as ridiculous as those which attended the introduction of coffee or Jesuit's bark. At present, all the sovereigns of Europe, and most of those of other parts of the world derive a considerable part of their revenue from tobacco.

Tobacco is cultivated in Europe as far north as Sweden, and is also grown in China, Japan, and other eastern

2180 Radic. leaves sinuated pinnatifid upper stem-clasping, Flowers nearly sess. Cor. netted

2181 Leaves stalked the lowest rounded entire the rest cordate ovate sinuate toothed, Fl. axill. sess. or stalked

2182 Cauline leaves stalked cordate sinuate acute, Flowers entire inflated

2183 Leaves stalked 3-lobed cut-toothed, Flowers stalked, Segm. of cor. equal flat

2184 Leaves stalked ovate acute angular toothed, Flowers stalked, Three upper segm. of cor. wavy

2185 Lower leaves cordate ovate angular obtuse, floral ovate entire

2186 Leaves stalked oblong lanc. toothed, Flowers stalked, Calyx teeth mucronate

2187 Leaves stalked ovate cordate entire, Flowers stalked axillary solitary terminal in umbels, Cal. inflated

2188 Leaves stalked ovate obl. entire, Flowers axillary stalked nothing, Cor. camp. trunc. (*Scopolina*, Schul.)

2189 Stem simple pubescent, Leaves sessile  $\frac{1}{2}$  decurrent sinuate toothed smoothish, Flowers sessile

2190 Leaves stem-clasping angular, radical angular toothed, Flowers sessile 1-colored

2191 Leaves stalked ovate acute angular, Cal. pointless, Bractes undivided

2192 Leaves deltoid ovate repand, Cal. of fruit tumid, Stamens exerted

2193 Leaves sessile obl. lanc. acumin. the lower decurr. Mouth of cor. inflated, Segm. acuminate

2194 Leaves stem-clasping ovate acute auricled at base, Mouth of cor. inflated, Segm. short acuminate

2195 Stem shrubby simple, Lvs. stalked lanc. obliquely acuminate, Coroll. inflated at mouth, Segm. acumin.

2196 Stem nearly sim. Lvs. somewhat stlkd. ov. lanc. wavy, Tube of cor. cyl. much longer than cal. Seg. uneq. round

2197 Stem roundl., Leaves stalked ovate entire, Tube of cor. cylind. longer than cal. Segment rounded obtuse

2198 Stem nearly sim. Lvs. stlkd. ov. subcord. entire, Tube of cor. clav. very sm. much longer than cal. Seg. obt.

2199 Leaves stalked cordate entire, Fl. racemose 1-sided, Cal. 2-lipp. upper lip longest, Cor. ringent, Segm. acute

2200 Leaves sessile lower obovate spatulate obtuse upper  $\frac{1}{2}$  stem-clasping wavy, Tube of cor. very long clavate

2201 Stem dichot. Lvs. sess. radic. obl. oval. Cal. very short, Tube of cor. cyl. thrice as long as cal. Segm. acute

2202 Stem herbac. branching, Lvs. stalked obl. Tube of cor. twice as long as cal. Segm. obt. Caps. 4-valv. round

2203 Leaves lanceolate hairy, radical longer than the solitary flowers, Petals obtuse

2204 Lower leaves ovate obtuse stalked upper sessile decurrent, Tube of cor. clavate long, Limb obtuse

2205 Stem trunc. at base, Lvs. stlkd. all cord. ent. Tube of cor. clav. pub. much long. than cal. Seg. very sh. acute

2206 Leaves stem-clasping cord. spat. roundish repand, Tube of cor. slender very long, Segm. ovate acute pluc.



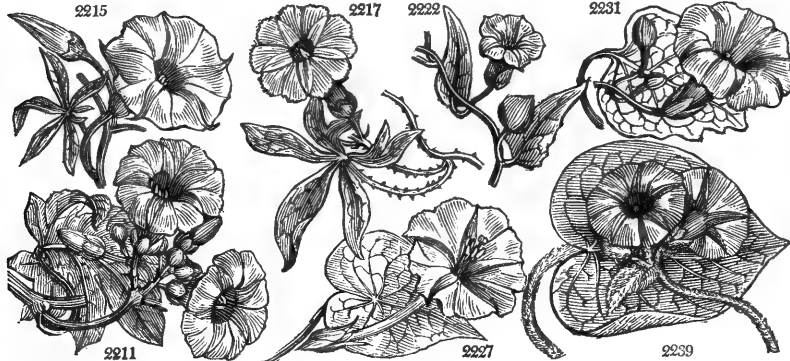
and Miscellaneous Particulars.

and hot countries. The sort preferred is the *N. tabacum*, which is an elegant plant, grown also in gardens as a border flower. *N. rustica*, *fausse tabac*, Fr., *Bauern taback*, Ger., and *Tabacca cimarosa*, Span., is also frequently cultivated, especially in Europe, it being considered harder than the Virginian sort. Parkinson says, he has known Sir Walter Raleigh, when prisoner in the Tower, prefer it to make good tobacco, "which he knew so rightly to cure." Tobacco has been successfully cultivated and cured in this country, but its growth is prohibited to encourage our commerce with America. It is now only grown for curiosity as a border flower, or by gardeners for the destruction of insects. In Germany and other northern countries, most families who have gardens grow enough of *N. rustica* for their own use; but as they do not know how to cure it, it is not much valued, and is never made into chewing tobacco or snuff.

In the culture of Tobacco in America, the plants are raised on beds early in spring, and when they have acquired four leaves, they are planted in the fields in well prepared earth, about three feet distance every way. Every morning and evening the plants require to be looked over, in order to destroy a worm which sometimes invades the bud. When four or five inches high they are moulded up. As soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker, by directing all the energies of the plant to them. After this, the buds which sprout from the joints of the leaves are all plucked, and not a day is suffered to pass without examining the leaves, to destroy a large caterpillar, which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground, and, after lying some time, are carried to the drying shed, where the plants are hung up by pairs upon lines, having a space between, that they may not touch one another. In this state they remain to sweat and dry. When perfectly dry, the leaves are stripped from the stalks and made into small bundles tied with one of the leaves. These bundles are laid in heaps, and covered with blankets. Care is taken not to over-heat them, for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the tobacco is then stowed in casks for exportation. (*Long. Jam.* iii. 719.)

In the manufacture of tobacco, the leaves are first cleansed of any earth, dirt, or decayed parts; next, they are gently moistened with salt and water, or water in which salt along with other ingredients has been dissolved, according to the taste of the fabricator. This liquor is called tobacco sauce. The next operation is to remove the midrib of the leaf; then the leaves are mixed together, in order to render the quality of whatever may be the final application equal: next, they are cut into pieces with a fixed knife, and crisped or curled before a fire; the succeeding operation is to spin them into cords, or twist them into rolls by winding them with a kind of mill round a stick. These operations are all performed by the grower, and in this state (rolls) the article is sent from America to other countries, where the tobaccoists cut it into chaff-like shreds for smoking, by a machine like a straw-cutter; form it into small cords for chewing; or dry and grind it for snuff. In manufacturing snuff, various matters are added for giving it an agreeable scent, and hence the numerous varieties of snuff. The three principal sorts are called *Reppes*, Scotch or Spanish, and Thirds. The first is only granulated, the second is reduced to a very fine powder, and the third is the siftings of the second sort. The best Havannah segars are made from the leaves of *N. repanda*. The Indians of the Rocky Mountains of N. America prepare their tobacco from *N. quadrivalvis* and *N. nana*.

| †*383. IPOMÆA. R. Br. |                          | IPOMÆA.         |       | Convulvulaceæ. Sp. 52—170. |      |           |                                  |
|-----------------------|--------------------------|-----------------|-------|----------------------------|------|-----------|----------------------------------|
| 2207                  | quamcôit W.              | wing-leaved     | or 6  | ils.                       | D.R  | E. Indies | 1629. S r.m Bot. mag. 244        |
| 2208                  | dissêcta Ph.             | cut-leaved      | or 10 | ins.                       | S    | Georgia   | 1813. C s.p Wil.phy.1.t.2.f.3    |
| 2209                  | carolina Ph.             | Carolina        | or 10 | il.au                      | Pu   | Carolina  | 1732. C r.m Dill. elt. t.84.f.98 |
| 2210                  | tuberôsa W.              | tuberous-rooted | or 10 | ...                        | Pa.Y | W. Indies | 1731. C s.p Bot. reg. 768        |
| 2211                  | paniculâta B. Reg.       | panicked        | or 20 | ins.                       | Pk   | E. Indies | 1799. C s.p Bot. reg. 62         |
| 2212                  | pentaphylla Jac.         | five-leaved     | or 20 | aus.                       | W    | W. Indies | 1739. S s.p Jac. ic. 2. t. 319   |
| 2213                  | umbellâta L.             | umbel-flowered  | or 20 | in.jl                      | S    | W. Indies | 1739. R r.m Plu. am.88. t.102    |
| 2214                  | tuberculâta B. Reg.      | tubercled       | or 10 | aus.                       | Pu   | E. Indies | 1815. C l.p Bot. reg. 86         |
| 2215                  | pendula R. Br.           | pendulous       | or 10 | my.o                       | Pk   | N. S. W.  | 1808. R l.p Bot. rep. 613        |
| 2216                  | Pes-tigridis W.          | palmated        | or 6  | au                         | R    | E. Indies | 1732. C s.p Dill.elt.t.318.f.411 |
| 2217                  | platênsis Ker.           | Plata           | or 10 | ins.                       | V    | S. Amer.  | 1817. S r.m Bot. reg. 333        |
| 2218                  | chrysêides Ker.          | Mr. Herbert's   | or 4  | ins.                       | Y    | China     | 1817. S r.m Bot. reg. 270        |
| 2219                  | carûlea Ker.             | pale-blue       | or 9  | ins.                       | L.B  | E. Indies | 1818. S r.m Bot. reg. 276        |
| 2220                  | setôsa Ker.              | bristly         | or 9  | au                         | Pu   | Brazil    | 1817. S r.m Bot. reg. 335        |
| 2221                  | scâbra Gm.               | rough           | or 10 | s                          | W    | S. Amer.  | 1804. S r.m                      |
| 2222                  | Turpêthum Br.            | square-stalked  | or 5  | ils.                       | W    | Ceylon    | 1759. S r.m Bot. mag. 2093       |
| 2223                  | lutêola W. en.           | crimson-scarlet | or 10 | ins.                       | S    | Carolina  | 1759. S r.m Bot. mag. 221        |
| 2224                  | coccinea W. en.          | bright-scarlet  | or 10 | ins.                       | D.R  | W. Indies | 1713. S r.m Bot. rep. 499        |
| 2225                  | lacunôsa W.              | starry          | or 10 | il.au                      | W    | N. Amer.  | 1640. C r.m Dill.elt.t.87.f.102  |
| 2226                  | gossypifolia W.          | splendid        | or 15 | ins.                       | Pu   | .....     | 2600. C s.p Bot. reg. 75         |
|                       | <i>I. insignis</i> B. R. |                 |       |                            |      |           |                                  |
| 2227                  | Bona-nox W.              | prickly         | or 10 | il.au                      | W    | W. Indies | 1773. S s.l Bot. mag. 752        |
| 2228                  | sanguinea Vahl.          | blood-flowered  | or 10 | in                         | D.R  | W. Indies | 1812. C s.l Bot. reg. 9          |
| 2229                  | mutabilis R. Reg.        | changeable      | or 10 | ins.                       | Pu   | S. Amer.  | 1812. C p.l Bot. reg. 39         |
| 2230                  | cândicans B. M.          | hoary           | or 15 | in.au                      | W    | N. Amer.  | 1776. R p.l Bot. mag. 1603       |
| 2231                  | Jâlapa Ph.               | Jalap           | or 10 | aus.                       | Li   | America   | 1733. C r.m Bot. mag. 1572       |
|                       | <i>β rosca</i>           | rose-colored    | or 10 | aus.                       | R    | .....     | C r.m Bot. reg. 621              |
| 2232                  | hepaticifolia W.         | Hepatica-leav'd | or 10 | aus.                       | Pu   | E. Indies | 1759. S co Bu. in.50.t.20.f.2    |
| 2233                  | solanifolia W.           | Nightshade-lvd. | or 8  | il.au                      | Pk   | America   | 1759. C s.p Plum. ic. t.94.f.1   |
| 2234                  | campanulata W.           | bell-flowered   | or 8  | aus.                       | Pu.W | E. Indies | 1800. S s.l Rhd. mal.11.t.56     |
| 2235                  | violacea W.              | purple-flowered | or 8  | aus.                       | Pu   | S. Amer.  | 1732. S s.l Plum. ic. t.93.f.1   |
| 2236                  | carnea W.                | flesh-colored   | or 10 | aus.                       | F    | S. Amer.  | 1799. S s.l Jac. am. 26. t. 18   |
| 2237                  | repanda W.               | scalloped       | or 10 | au                         | S    | W. Indies | 1779. C s.p Par. lond. 81        |
| 2238                  | sibirica P. S.           | Siberian        | or 8  | il.au                      | F    | Siberia   | 1793. S co Pa.it.3.p.753.t.K     |
| 2239                  | speciosa P. S.           | broad-leaved    | or 8  | il.au                      | Pu   | E. Indies | 1778. C p.l Bot. mag. 2443       |
| 2240                  | purpurea P. S.           | great-purple    | or 10 | ins.                       | D.Pu | America   | 1629. S co Bot. mag. 113         |
|                       | <i>β incarnata</i>       | flesh-colored   | or 10 | ins.                       | F    | America   | 1629. S co                       |
|                       | <i>γ varia</i>           | striped         | or 10 | ins.                       | St   | America   | 1629. S co Bot. mag. 1682        |
| 2241                  | discolor Jac.            | spotted         | or 20 | ins.                       | B.w  | .....     | S co Bot. mag. 1005              |
| 2242                  | triloba W.               | three-lobed     | or 10 | in.jl                      | V    | W. Indies | 1752. S s.l                      |
| 2243                  | hederifolia W.           | Ivy-leaved      | or 10 | jl                         | V    | S. Amer.  | 1773. S s.l Pl. ic.82. t.93. f.2 |
| 2244                  | Nil P. S.                | blue            | or 10 | ils.                       | L.B  | America   | 1597. S s.p Bot. mag. 188        |
| 2245                  | hederacea B. Reg.        | five-lobed      | or 10 | ils.                       | B    | N. Amer.  | 1729. S s.p Bot. reg. 85         |
| 2246                  | cuspidata P. S.          | sharp-pointed   | or 10 | in.jl                      | L.Pu | S. Amer.  | 1732. S co Fl.per.2. t.119.f.4   |
| 2247                  | tannifolia W.            | Tamnus-leaved   | or 10 | jl                         | B    | Carolina  | 1732. S co D. elt. t.318. f.410  |
| 2248                  | grandiflora B. Reg.      | great-flowered  | or 8  | s                          | W    | E. Indies | 1802. S s.l Bot. reg. 403        |
| 2249                  | muricata Jac.            | rough-stalked   | or 8  | il.au                      | Pu   | E. Indies | 1777. S co Jac. schœ.3. t.323    |
| 2250                  | obscura B. Reg.          | hairy           | or 8  | in.au                      | W    | E. Indies | 1732. S s.p Bot. reg. 239        |
| 2251                  | sagittifolia Ker.        | Catesby's       | or 3  | ins.                       | Pu   | Carolina  | 1819. S co Bot. reg. 437         |
| 2252                  | medium W.                | arrow-headed    | or 6  | il.au                      | Pa   | E. Indies | 1778. S co                       |
| 2253                  | denticulata R. Br.       | denticulate     | or 6  | il.au                      | Y    | E. Indies | 1778. S co Bot. reg. 317         |
| 2254                  | glaucofolia W.           | glaucous-leaved | or 6  | my.jl                      | Pk   | Mexico    | 1732. R s.p Dill. elt.t.87.f.101 |
| 2255                  | angustifolia Jac.        | narrow-leaved   | or 6  | il.au                      | Pk   | India     | 1800. S s.l Jac. ic. rar. t.317  |
| 2256                  | tridentata P. S.         | trifid          | or 10 | il.au                      | Y    | E. Indies | 1778. C s.p Rhd. mal.11.t.65     |
| 2257                  | maritima R. Br.          | thick-leaved    | or 10 | in.jl                      | Pu   | E. Indies | 1770. S s.p Bot. reg. 319        |
| 2258                  | brasiliensis L.          | Brazilian       | or 10 | in.jl                      | Pu   | S. Amer.  | 1736. R s.p Plu. am.89. t.104    |



History, Use, Propagation, Culture.

383. *Ipomœa*. From 1710, a bindweed, or something analogous, and *omios*, similar. This genus is nearly allied to *Convolvulus* and *Calystegia*. It consists chiefly of twining stove plants, free flowerers, and of the easiest culture. *I. tuberosa* is a plant of great beauty and fragrance. In Jamaica it is evergreen, thickly covered with leaves and large flowers, and much used to shade arbor. Browne says it may be carried over an arbor of 300 feet in length. Every part of the plant abounds with milk, and is purgative. Long thinks Scammony might be made from its tubers, and Loureiro affirms them to be edible.

§ 1. *Leaves pinnate, digitate, or palmate.*

- 2207 Leaves pinnate pinnæ filiform, Pedunc. a little longer than leaf 1-flowered  
 2208 Leaves palmate, Segments narrow pinnatifid toothed, Pedunc. about 2-flowered  
 2209 Leaves digitate, Leaflets stalked, Pedunc. 1-flowered  
 2210 Leaves palmate, Lobes 7 lanceolate acute entire, Pedunc. 3-flowered  
 2211 Smooth, Leaves palmate, Lobes 7 oblong lanc. entire, Cymes dichotomous, Cal. equal obtuse, Caps. erect  
 2212 Leaves digitate in 5s hairy entire, Seeds smooth  
 2213 Leaves digitate in 7, Peduncles umbelled very short  
 2214 Leaves digitate or nearly pedate 7-parted smooth, Stalks warted rough, Pedunc. 1-flowered  
 2215 Leaves palmate pedate, Lobes ciliate mucronate at end, Pedunc. 1-flowered  
 2216 Leaves palmate, Flowers aggregate  
 2217 Branches peduncles and petioles tubercled, Leaves palmate, Lobes 7 narrow oblong with a short point  
 § 2. *Leaves cordate, angular, or lobed.*  
 2218 Leaves obl. cordate rarely obsolete 3-lobed, Pedunc. 1-fl. shorter than leaf, Calyx very smooth  
 2219 Leaves cordate 3-lobed villous, Pedunc. 2-3-fl. Edge of cor. nearly entire, Stigmas 3-lobed  
 2220 Branches petioles peduncles and calyxes bristly, Leaves naked cordate 3-lobed, Lobes tooth sinuated  
 2221 Stem twining, Leaves cordate 3-lobed, Pedunc. longer than petiole, Fruit nodding  
 2222 Leaves cordate angular, Stem membranous square, Peduncles many-flowered  
 2223 Leaves cordate acuminate angular, Pedunc. first dichotomous afterwards branching  
 2224 Downy, Lvs. cord. acum. at base angular, Pedunc. 5-flowered, Cal. warted bearded, Lamb. of cor. entire  
 2225 Smooth, Lvs. cord. below obscurely repand or ang. Pedunc. short 1-fl. Cal. hairy ciliated, Cor. small short  
 2226 Leaves cordate at the end 5-lobed smooth, Peduncle many-flowered corymbose  
 2227 Very smooth, Leaves cordate entire or angular, Pedunc. 1-3-fl. Cal. aristate, Cor. undiv. Tube very long  
 2228 Pedunc. upwards cymes trichotomous longer than the 5-lobed cordate or hastate leaves  
 2229 Leaves cordate entire or 3-lobed acuminate above pubescent beneath villous, Flowers numerous in cymes  
 2230 Smooth, Leaves cordate acuminate entire, Peduncles many-flowered without bractæ  
 2231 Stem warted, Leaves cord. ovate rugose villous beneath entire or lobed, Pedunc. 1 many-fl. Seed woolly  
 2232 Leaves 3-lobed, Flowers aggregate

§ 3. *Leaves cordate entire.*

- 2233 Leaves cordate acute entire, Pedunc. 1-flowered solitary as long as leaves  
 2234 Leaves cordate, Pedunc. many-fl. Outer calyx orbicular, Cor. campanulate lobed  
 2235 Leaves cordate entire, Flowers close together, Cor. undivided  
 2236 Leaves roundish cordate smooth, Pedunc. many-flowered, Cor. edged  
 2237 Leaves cordate oblong repand acuminate, Peduncles branched cymose  
 2238 Leaves cordate acuminate smooth, Peduncles 2-flowered  
 2239 Leaves cordate ovate acute above hairy, beneath silky, Pedunc. longer than the stalks in umbels  
 2240 Leaves cordate undivided, Fruit cernuous, Stalks thick, Leaves cordate entire, Ped. many-fl. Cal. hispid

- 2241 Stem very tall, Leaves orbicular rounded, Flowers spotted with eyes  
 2242 Leaves 3-lobed cordate, Peduncles 3-flowered  
 2243 Leaves 3-lobed cordate, Peduncles many-flowered racemose  
 2244 Leaves cordate 3-lobed, Flowers half 5-cleft, Peduncles shorter than the petioles  
 2245 Hairy, Leaves cordate 3-lobed, lateral lobes acuminate intermediate acute, Pedunc. 1-fl. Cal. hairy  
 2246 Leaves cordate 3-lobed, Lobes cuspidate, Peduncles 1-fl. Sepals linear very hairy at base  
 2247 Leaves cordate acuminate hairy, Flowers aggregate  
 2248 Leaves cordate ovate obtuse entire, Pedunc. about 2-fl. Cal. coriaceous, Stem and petioles pubescent  
 2249 Leaves cordate roundish with a long point smooth, Pedunc. thick 3-fl. and cal. smooth, Stem mucronate  
 2250 Leaves cordate acuminate, Pedunc. filiform 1-fl. and cal. smooth, Stem very hairy

§ 4. *Leaves sagittate or hastate.*

- 2251 Very smooth, Leaves oblong sagittate with a very deep sinus, Auricles acuminate, Pedunc. 1-flowered  
 2252 Leaves linear hastate pointed, Auricles toothed, Flowers solitary, Cal. sagittate  
 2253 Smooth, Leaves hastate lanceol. or linear acute, Lobes toothed, Pedunc. 1-fl. Sepals oblong lanc. ovate  
 2254 Leaves sagittate truncate behind, Peduncles 2-flowered  
 2255 Leaves linear hastate obtuse mucronate smooth, Auricles nearly entire, Peduncles 1-flowered

§ 5. *Leaves oblong, entire, or lobed.*

- 2256 Leaves oblong 3-pointed dilated at base toothed, Pedunc. 1-fl. thick 4-cornered

§ 6. *Leaves rounded.*

- 2257 Creeping smooth, Lvs. roundish emarginate or 2-lobed thickish at base beneath with 2 glands, Cal. obt.  
 2258 Leaves emarginate with 2 glands at base, Peduncles 3-flowered

*and Miscellaneous Particulars.*

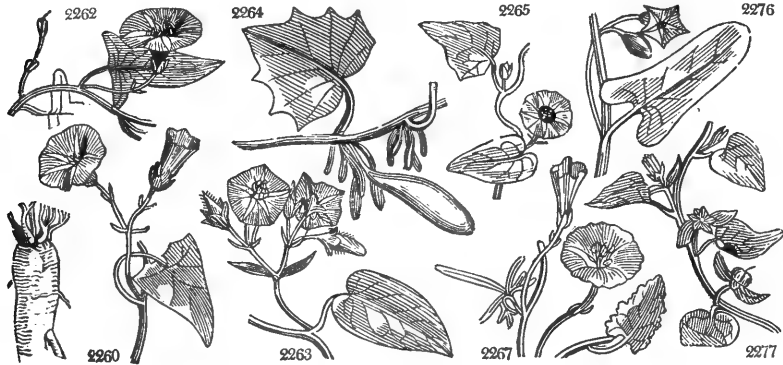
I. bona-nox, like most of the species of this genus and *Convolvulus*, varies much in the leaves, which it produces cordate, lobed, or panduriform.

I. nil is a highly beautiful plant, with the corollas of a clear blue color, whence its name of Anil or Nil (Indigo.)

I. quarnoclit is a most beautiful tender annual. Its name has been formed from *κναιμος*, a bean, and *κλιτες*, dwarf, because it resembles the kidney-bean in its climbing stem, but is less tall.

I. jalapa is found wild near Mexico, at Xalapa, whence probably the name of the drug which its root affords. It is said to have been first brought to Europe in 1610. Its virtue as a purge resides chiefly in the resin.

| 1384. CONVOL/VULUS. W. BIND-WEED. |                      | Convolvulaceae. Sp. 34-185. |       |    |       |                          |             |         |       |                          |
|-----------------------------------|----------------------|-----------------------------|-------|----|-------|--------------------------|-------------|---------|-------|--------------------------|
| 2259                              | arvensis W.          | small                       | Δ w   | 1½ | jn.s  | F                        | Britain     | cor. fl | R co  | Eng. bot. 312            |
| 2260                              | scammonia W.         | scammony                    | Δ m   | 2  | jl.au | W.pu                     | Levant      | 1596.   | R s.l | Mill. ic. 1. t. 102      |
| 2261                              | erubescens B. M.     | Maiden-blush                | Δ or  | 6  | jl.s  | Pk                       | N. S. W.    | 1803.   | C r.m | Bot. mag. 1067           |
| 2262                              | japonicus Vahl.      | Japanese                    | Δ or  | 6  | jl.au | Pu                       | China       | 1817.   | D co  | Bot. reg. 322            |
| 2263                              | pannifolius H. K.    | cloth-leaved                | Δ or  | 15 | jn.s  | B                        | .....       | 1805.   | R s.l | Bot. reg. 222            |
| 2264                              | Batatas W.           | tuberous                    | Δ clt | 12 | ...   | W.pu                     | India       | 1597.   | R r.m | Rhed. mal. 7. t. 50      |
| 2265                              | bicolor Vahl.        | involucrated                | Δ or  | 6  | jn.au | W.pu                     | Isl. France | 1818.   | R p.l | Bot. mag. 2205           |
| 2266                              | panduratus W.        | Virginian                   | Δ or  | 12 | jn.s  | W.pu                     | N. Amer.    | 1732.   | R p.l | Bot. mag. 1939           |
| 2267                              | althaeoides W.       | Althaea-leaved              | Δ or  | 1  | jn.s  | Pk                       | Levant      | 1597.   | R s.l | Bot. mag. 359            |
| 2268                              | bryoniaefolius B. M. | Bryony-leaved               | Δ or  | 1½ | jl.au | Pk                       | China       | 1802.   | R s.l | Bot. mag. 943            |
| 2269                              | macrocarpus W.       | long-fruited                | Δ or  | 10 | jl.au | Pu                       | S. Amer.    | 1752.   | S co  | Plum. ic. t. 91. f. 1    |
| 2270                              | glaber W.            | smooth                      | Δ or  | 12 | my.jn | W                        | Cayenne     | 1806.   | C p.l | Aub. gui. t. 53          |
| 2271                              | pentanthus B. M.     | five-flowered               | Δ or  | 6  | jl.s  | L.B                      | E. Indies   | 1808.   | C s.l | Bot. mag. 2151           |
| 2272                              | canariensis W.       | Canary                      | Δ or  | 20 | my.s  | Pu                       | Canaries    | 1690.   | R s.l | Bot. mag. 1228           |
| 2273                              | farinosus W.         | mealy-stalked               | Δ or  | 6  | my.jn | Pk                       | Madeira     | 1777.   | R s.l | Par. lond. 45            |
| 2274                              | ciliatus W. en.      | hairy                       | Δ or  | 6  | jl.s  | Pk                       | .....       | 1816.   | S co  |                          |
| 2275                              | maximus W.           | great-Ceylon                | Δ or  | 20 | jl    | Pk                       | Ceylon      | 1799.   | R r.m | Rhd. mal. 11. t. 53      |
| 2276                              | Hermanniae W.        | Peruvian                    | Δ or  | 5  | au.s  | W                        | Peru        | 1799.   | R r.m | Jac. ic. 2. t. 315       |
| 2277                              | siculus W.           | small-flowered              | Δ or  | 1  | jn.au | L.B                      | S. Europe   | 1640.   | S co  | Bot. reg. 445            |
| 2278                              | elongatus W. en.     | long-peduncled              | Δ or  | 1  | jl.au | W                        | Canaries    | 1815.   | S co  | Bot. reg. 498            |
| 2279                              | Imperati Vahl.       | Imperati's                  | Δ or  | 1  | ...   | Y                        | Naples      | 1824.   | D co  | Cyrril. fasc. 1. t. 5    |
| 2280                              | reptans W.           | creeping                    | Δ or  | 1  | ...   | Pu                       | E. Indies   | 1806.   | R p.l | Rum. 5. t. 155. f. 1     |
| 2281                              | hirtus W.            | hairy-stalked               | Δ or  | 3  | jn.au | B                        | E. Indies   | 1804.   | S s.l |                          |
| 2282                              | suffruticosus H. K.  | shrubby                     | Δ or  | 1  | jl    | Pk                       | Madeira     | 1788.   | R r.m | Bot. reg. 133            |
| 2283                              | pentapetaloides W.   | Majorca                     | Δ or  | ½  | jn    | L.B                      | Majorca     | 1789.   | S co  | Jac. col. 4. t. 22. f. 2 |
| 2284                              | lineatus W.          | dwarf                       | Δ or  | ½  | jn    | Pu                       | S. Europe   | 1714.   | R s.l | Tri. ob. 91. t. 91. f. 2 |
| 2285                              | saxatilis W.         | rock                        | Δ or  | ½  | jn    | W                        | S. Europe   | 1796.   | R s.l | Bo. mus. 138. t. 96      |
| 2286                              | Cneorum W.           | silvery-leaved              | Δ or  | 3  | my.s  | Pk                       | Levant      | 1640.   | C p.l | Bot. mag. 459            |
| 2287                              | linearis W.          | narrow-leaved               | Δ or  | 1½ | my.s  | Pk                       | .....       | 1770.   | C l.p | Bot. mag. 289            |
| 2288                              | cantabrica W.        | Flax-leaved                 | Δ or  | 1  | my.s  | F                        | S. Europe   | 1680.   | R s.l | Jac. aus. 3. t. 296      |
| 2289                              | Dorycnium W.         | silky-leaved                | Δ or  | 1½ | jn.jl | Pk                       | Levant      | 1806.   | C s.l |                          |
| 2290                              | scoparius W.         | Broom                       | Δ or  | 2  | au.s  | W                        | Canaries    | 1733    | C s.l | Vent. choix. 24          |
| 2291                              | floridus W.          | many-flowered               | Δ or  | 1½ | au.s  | Pk                       | Canaries    | 1779.   | C p.l | Jac. ic. 1. t. 34        |
| 2292                              | tricolor W.          | three-colored               | Δ or  | 3  | jl.au | St                       | S. Europe   | 1689.   | S co  | Bot. mag. 37             |
| 385.                              | ARGYREIA. Lour.      | SILVER-WEED.                |       |    |       | Convolvulaceae. Sp. 1-4. |             |         |       |                          |
| 2293                              | cuneata Ker.         | wedge-leaved                | Δ or  | 2  | au.s  | Pu                       | E. Indies   | 1822.   | C s.l | Bot. reg. 661            |
| 1386.                             | NEMOPHILA.           | NEMOPHILA.                  |       |    |       | Boraginaceae. Sp. 1.     |             |         |       |                          |
| 2294                              | phacelioides.        | shady                       | * cu  | 1  | jl.au | B                        | N. Amer.    | 1822.   | S co  | Bot. mag. 2373           |
| 337.                              | CALYSTEGIA. R. Br.   | BEARBIND.                   |       |    |       | Convolvulaceae. Sp. 3-7. |             |         |       |                          |
| 2295                              | sepium R. Br.        | great-hedge                 | Δ or  | 6  | jn.s  | W                        | Britain     | m. hed. | R s.l | Eng. bot. 313            |
|                                   | β incarnata          | red-flowered                | Δ or  | 6  | jn.s  | R                        | N. Amer     | ...     | R co  | Bot. mag. 732            |
| 2296                              | sylvestris W. en.    | wood                        | Δ or  | 18 | jn.s  | W                        | Hungary     | 1815.   | R co  |                          |
| 2297                              | spithamea Ph.        | small-upright               | Δ or  | 1  | jl    | W                        | N. Amer.    | 1796.   | R s.l | Hook. ex. fl. 97         |
| 2298                              | Soldanella R. Br.    | sea                         | Δ or  | 1  | jn.jl | F                        | Britain     | sea sh. | R co  | Eng. bot. 314            |



History, Use, Propagation, Culture,

384. *Convolvulus*. From *convolvere*, to entwine. This is an extensive genus of some beauty, and the *C. batatas* is of known utility as an edible root. The stems in the greater number of species are herbaceous and twining, a few are shrubby, and one or two very low herbs.

*C. arvensis* has white jointed worm-like roots, very difficult to eradicate in gardens or corn-fields: it is considered as a certain indication of a dry soil.

*C. scammonia*, named in Arabia *Scamunâ* (Forsk. *Golius*), affords the gummy resin of that name from the roots, which are three or four feet long, from nine to twelve inches in circumference, and contain a milky juice. The top of the root being bared of earth, it is cut through in a sloping direction, and a shell or cup placed close to the section for the juice to run into. This juice hardened is the true scammony, chiefly used as a stimulating cathartic.

*C. turpethum* is derived from *turbid*, its name in Arabia (*Golius*).

*C. batatas*, (*Batatas* is Malay according to Rumphius, Mexican according to Nieremberg) skirrets of Peru, or Spanish potatoes, is a native of both Indies and China. It came first to Spain from the West Indies, from thence it was imported here annually, and sold as a delicacy. It is the potatoe of Shakspeare and contemporary writers, the *Solanum tuberosum* being then scarcely known in Europe. The *batatas* is cultivated in all the tro-

§ 1. *Climbing; leaves sagittate or hastate.*

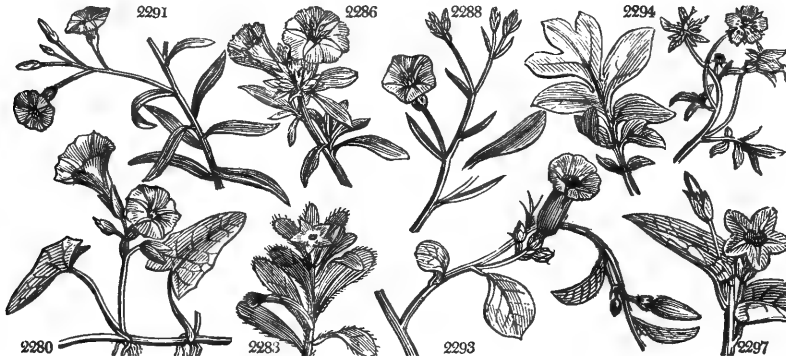
- 2259 Leaves sagittate acute at each end, Peduncles about 1-flowered  
 2260 Leaves sagittate truncate behind, Peduncles rounded 3-flowered  
 2261 Leaves cordate sagittate behind sinuate repand, Pedunc. axillary solitary about 2-flowered  
 2262 Leaves lanceolate hastate acute, Auricles 1-toothed behind, Stem simple, Peduncles 1-flowered
- § 2. *Climbing; leaves cordate hastate.*  
 2263 Leaves cordate hastate hirsute, Pedunc. about 3-flowered, Bract. linear remote from calyx  
 2264 Leaves cordate hastate angular lobed 5-nerved smoothish, Ped. long, Fl. fasc. Sepals lanc. acuminate
- § 3. *Climbing; leaves cordate lobea.*  
 2265 Leaves cordate villous at the base angular lobed, Peduncles 1-flowered, Outer sepals bract-like  
 2266 Pubescent, Leaves broad cordate entire or lobed fiddle-shaped, Pedunc. long, Flowers fasciated
- § 4. *Climbing; leaves quinate or palmate.*  
 2267 Leaves cordate sinuate silky lobes repand, Pedunc. 2-flowered  
 2268 Leaves 7-lobed palmate hispid middle lobe sinuated drawn out, Pedunc. axill. solitary very long jointed  
 2269 Leaves palmate pedate 5-parted, Pedunc. 1-flowered  
 2270 Very smooth, Leaves digitate quinate, Leaflets stalked acuminate entire, Pedunc. branched divaricating
- § 5. *Climbing; leaves cordate or subcordate.*  
 2271 Leaves oblong cordate acuminate subrepand smooth, Pedunc. umbelled 5-flowered, Flowers sessile  
 2272 Leaves cordate pubescent, Stem perennial villous, Pedunc. many-flowered  
 2273 Leaves cordate acuminate repand, Pedunc. 3-flowered, Stem mealy  
 2274 Leaves cordate ovate acuminate ciliated, Heads stalked very hairy with an involucrem  
 2275 Leaves cordate ovate acuminate entire smooth, Stem and leaf-stalks smooth  
 2276 Tomentose, Leaves cordate obtuse subrepand, Pedunc. longer than stalk, Limb acute
- § 6. *Prostrate; leaves cordate.*  
 2277 Leaves cord. ovate upper acute, Ped. 1-fl. shorter than leaves, Bractes obl. lanc. longer than ciliated cal.  
 2278 Leaves cordate ovate cusp. Ped. 2-fl. longer than leaves, Bractes lin. subul. shorter than parted peduncle
- § 7. *Prostrate; leaves cordate lobed or hastate.*  
 2279 Leaves panduriform or entire emarginate cordate at base, Peduncles 1-flowered, Stem creeping  
 2280 Leaves hastate lanceolate, Auricles rounded, Stem creeping, Peduncles 1-flowered  
 2281 Leaves cordate and somewhat hastate villous, Stem and leaf-stalks hairy, Peduncles many-flowered
- § 8. *Prostrate; leaves ovate or oblong and linear.*  
 2282 Leaves linear lanceolate, Stem ascending villous, Peduncles axillary 1-flowered 3 times as long as leaf  
 2283 Leaves lanceolate obtuse naked lined, Branches declinate, Flowers silky  $\frac{1}{2}$  5-cleft  
 2284 Leaves lanceolate silky lined stalked, Peduncles 2-fl. Cal. silky leafy  
 2285 Very hairy, Leaves linear, Flowers capitate, Calyxes acuminate  
 2286 Leaves lanceolate tomentose, Flowers capitate, Calyxes hairy, Stem nearly erect  
 2287 Stems erect shrubby, Leaves linear acute silky, Flowers terminal umbelled paniced, Cal. hairy  
 2288 Leaves linear lanc. acute, Stem branched nearly erect, Cal. hairy, Pedunc. 2-flowered  
 2289 Leaves nearly linear silky, Stem paniced, Cal. naked obtuse  
 2290 Leaves linear hairy, Peduncles about 3-flowered, Cal. silky ovate acute, Branches twiggy  
 2291 Prostrate hoary, Leaves linear lanceolate smooth, Thyrses terminal pyramidal compound  
 2292 Leaves lanceolate ovate smooth, Stem declinate, Flowers solitary

2293 Leaves wedge-shaped emarginate beneath silky, Peduncles 2-flowered

2294 The only species

2295 Leaves sagittate very acute, behind obtuse or trunc. entire, Bract. ac. longer than cal. twice as short as cor.

2296 Leaves cordate, Lobes angular truncated, Pedunc. rounded 1-fl. Bract. ovate obt. inflated, Sepals obtuse  
 2297 Leaves cordate pubescent, Stem erect, Peduncles 1-flowered  
 2298 Leaves reniform, Peduncles 1-flowered, the angles winged



and Miscellaneous Particulars.

pical climates much in the same manner as our potatoe, but with more room for its trailing stalks. Not only the tubers, but the young leaves and tender shoots are boiled and eaten; and, as is the case with all plants long in cultivation, there are several varieties.

*C. tricolor* is a well known border-annual, commonly called *C. minor*, with reference to another border-flower, *Ipomea purpurea*, which gardeners and seedsmen commonly call *C. major*.

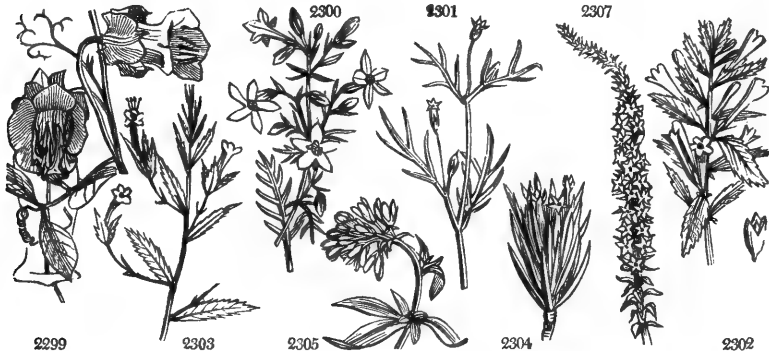
*C. reptans*, is a common potherb in the East Indies and in China.

385. *Argyria*. From *αργυρον*, silver, in allusion to the silvery texture of the leaves of the plant. A beautiful genus nearly related to *Convolvulus*.

386. *Nemophila*. From *νεμος*, a grove, and *φιλαω*, to love; the species growing in shady woods. A small hardy N. American plant, with bright blue flowers and divided leaves.

387. *Calyptegia*. From *καλος*, pretty, and *στυγη*, a covering, in allusion to the two bractea in which the calyx is inclosed. A very artificial genus, distinguished from *Convolvulus* and *Ipomea*, only by the presence of bractea, and by its capsule being one-celled. *C. sepium*, the *Convolvulus sepium* of Willdenow, has medical properties similar to Scammony, for which Withering thinks it may serve as a substitute. Swine, it is said, eat the roots in large quantities, and yet are not purged by them. *C. soldanella* is an acrid purge.

|                                 |                 |            |    |                                |       |   |     |                     |
|---------------------------------|-----------------|------------|----|--------------------------------|-------|---|-----|---------------------|
| †388. COBÆA <i>Can.</i>         | COBÆA.          |            |    | <i>Cobæaceæ. Sp. 1.</i>        |       |   |     |                     |
| 2299 scândens <i>Can.</i>       | climbing        | ▲   Δ   or | 20 | my.o Pu Mexico                 | 1792. | S | p l | Bot. mag. 871       |
| 389. CANTUA <i>W.</i>           | CANTUA.         |            |    | <i>Polemoniaceæ. Sp. 2-16.</i> |       |   |     |                     |
| 2300 coronopifolia <i>W.</i>    | scarlet         | ▲   □   or | 3  | au.s S Carolina                | 1796. | C | l p | Ex. bot. 1. t. 13   |
| 2301 inconspicua <i>H. K.</i>   | small-blue      | ○ or       | 2  | a.n B America                  | 1793. | S | co  | Ex. bot. 1. t. 14   |
| †390. HOITZIA <i>Can.</i>       | HOITZIA.        |            |    | <i>Polemoniaceæ. Sp. 2-5.</i>  |       |   |     |                     |
| 2302 coccinea <i>Can.</i>       | scarlet         | ▲   □   or | 3  | ... S Mexico                   | 1824. | C | r.m | Cav. ic. 6. t. 365  |
| 2303 cærulea <i>Can.</i>        | blue            | ▲   □   or | 1  | ... Pa.B Mexico                | 1824. | C | r.m | Cav. ic. 6. t. 366  |
| 391. RETZIA <i>Th.</i>          | RETZIA.         |            |    | <i>Convolvulaceæ. Sp. 1.</i>   |       |   |     |                     |
| 2304 spicata <i>Th.</i>         | spiked          | ▲   □   cu | 4  | my.jn Br C. G. H.              | ...   | C | l p | Lam. ill. t. 103    |
| 392. LUBINIA <i>Comm.</i>       | LUBINIA.        |            |    | <i>Primulaceæ. Sp. 1-8.</i>    |       |   |     |                     |
| 2305 atropurpurea <i>Lk.</i>    | dark-purple     | *   Δ   cu | 2  | ... Pu C. G. H.                | 1820. | C | l p | H. ber. 27          |
| †393. EPACRIS <i>R. Br.</i>     | EPACRIS.        |            |    | <i>Epacrideæ. Sp. 6-18.</i>    |       |   |     |                     |
| 2306 purpurascens <i>R. Br.</i> | rigid           | ▲   □   or | 3  | ja.mr Pu N. S. W.              | 1803. | C | a.p | Bot. mag. 844       |
| 2307 pulchella <i>R. Br.</i>    | sweet-scented   | ▲   □   or | 4  | ap.jn Pk N. S. W.              | 1804. | C | a.p | Bot. mag. 1170      |
| 2308 grandiflora <i>R. Br.</i>  | crimson         | ▲   □   or | 3  | ja.jn S N. S. W.               | 1803. | C | a.p | Bot. mag. 982       |
| 2309 obtusifolia <i>R. Br.</i>  | blunt-leaved    | ▲   □   or | 3  | ap.jn W N. S. W.               | 1804. | C | a.p | Ex. bot. 1. t. 40   |
| 2310 exserta <i>R. Br.</i>      | exserted        | ▲   □   or | 2  | ap.jn W V. Di. L.              | 1812. | C | l p |                     |
| 2311 microphylla <i>R. Br.</i>  | small-leaved    | ▲   □   or | 2  | ... W N. S. W.                 | 1822. | C | l p |                     |
| †394. STYPHETIA <i>R. Br.</i>   | STYPHETIA.      |            |    | <i>Epacrideæ. Sp. 4-8.</i>     |       |   |     |                     |
| 2312 longifolia <i>R. Br.</i>   | long-leaved     | ▲   □   or | 3  | ap.jn G N. S. W.               | 1807. | C | l p | Bot. reg. 24        |
| 2313 viridiflora <i>R. Br.</i>  | green-flowered  | ▲   □   or | 4  | ap.jn G N. S. W.               | 1791. | C | a.p | Bot. rep. 312       |
| 2314 triflora <i>R. Br.</i>     | three-flowered  | ▲   □   or | 6  | my.au Pk N. S. W.              | 1796. | C | a.p | Bot. mag. 1297      |
| 2315 tubiflora <i>R. Br.</i>    | crimson         | ▲   □   or | 6  | my.au C N. S. W.               | 1802. | S | a.p | Smith n. hol. t. 14 |
| 395. LISSANTHE <i>R. Br.</i>    | LISSANTHE.      |            |    | <i>Epacrideæ. Sp. 1-6.</i>     |       |   |     |                     |
| 2316 daphnoides <i>R. Br.</i>   | Daphne-leaved   | ▲   □   or | 3  | jn.jl W N. Holl.               | 1818. | C | s.p | Bot. cab. 466       |
| 396. ASTROLOMA <i>R. Br.</i>    | ASTROLOMA.      |            |    | <i>Epacrideæ. Sp. 1-6.</i>     |       |   |     |                     |
| 2317 humifusum <i>R. Br.</i>    | Juniper-leaved  | ▲   □   or | 2  | my.o S N. S. W.                | 1807. | C | s.p | Bot. mag. 1439      |
| 397. SPRENGELIA <i>R. Br.</i>   | SPRENGELIA.     |            |    | <i>Epacrideæ. Sp. 1-2.</i>     |       |   |     |                     |
| 2318 incarnata <i>R. Br.</i>    | flesh-colored   | ▲   □   or | 2  | ap.jn F N. S. W.               | 1793. | C | s.p | Bot. mag. 1719      |
| 398. ANDERSONIA <i>R. Br.</i>   | ANDERSONIA.     |            |    | <i>Epacrideæ. Sp. 1-6.</i>     |       |   |     |                     |
| 2319 sprenghoides <i>R. Br.</i> | Sprengelia-like | ▲   □   or | 2  | mr.jl Pk N. Holl.              | 1803. | C | s.p | Bot. mag. 1645      |
| †399. LYSINEMA <i>R. Br.</i>    | LYSINEMA.       |            |    | <i>Epacrideæ. Sp. 2-5.</i>     |       |   |     |                     |
| 2320 pungens <i>R. Br.</i>      | pungent         | ▲   □   or | 2  | f.ap W N. S. W.                | 1804. | C | l p | Bot. mag. 844       |
| β rubrum                        | red             | ▲   □   or | 2  | f.ap R N. S. W.                | 1804. | C | l p | Bot. mag. 1199      |
| 2321 attenuatum <i>Lk.</i>      | narrow-flowered | ▲   □   or | 2  | f.ap Pk N. S. W.               | 1812. | C | l p | Bot. cab. 38        |
| †400. MONOTOCA <i>R. Br.</i>    | MONOTOCA.       |            |    | <i>Epacrideæ. Sp. 2-5.</i>     |       |   |     |                     |
| 2322 elliptica <i>R. Br.</i>    | elliptic        | ▲   □   or | 8  | my.au W N. S. W.               | 1802. | C | l p |                     |
| 2323 lineata <i>R. Br.</i>      | lined           | ▲   □   or | 6  | my.au W V. Di. L.              | 1804. | C | s.p | L.nov.holl.1.t.61   |



History, Use, Propagation, Culture,

388. *Cobæa*. In honor of Barnadéz Cobo, a Spanish Jesuit, who wrote upon subjects of natural history about the middle of the 17th century. The name arose with Cavanilles. This is the most rapid growing greenhouse climber known, having been found to grow 200 feet in length in one summer in a conservatory. It will thrive almost equally well in the open air during summer, but is destroyed by frost; and its shoots are only of annual, or at most of biennial duration. It strikes in sand in moist heat, but it generally ripens seeds, which, sown early in spring, and forwarded in a stove, will flower in the greenhouse or open air the same season.

389. *Cantua*. From *Cantu*, the native name of the genus among the Peruvians. Pretty greenhouse plants, rarely seen in gardens.

390. *Hoitzia*. Hoitzit is the name of this plant in Mexico. A handsome plant with brilliant scarlet flowers. It is occasionally raised from Mexican seed, but is very rare in collections.

391. *Retzia*. Named after John Retzius, professor of botany at Lund, in Sweden. His *Observationes Botanicae* is a work of reputation. A small upright shrub with whorled lanceolate leaves, and clustered brown flowers, almost hidden among the leaves.

392. *Lubinia*. A genus dedicated by Commerson to M. de Saint Lubin, a French officer who travelled in the East Indies. A small plant with ascending stem and fleshy smooth leaves, of little merit.

393. *Epacris*. Named by Forster from *ερα*, upon, and *ακρος*, the top of a thing; because in New Zealand the species grow on the top of the mountains. A most ornamental genus, which Sweet observes, thrives "best in a sandy peat soil; the rougher and more turfy the soil is, the better the plants will thrive; these should always be shifted in fresh pots before they are turned out of doors in spring, as their roots are so very fine, and are generally matted round the pots, so that the hot sun coming against the pots destroys them, and they look brown all through the summer, and are very difficult to recover. Young cuttings planted in pots of sand under bell-glasses in autumn or winter, or early in spring, will strike root readily, but they will not strike so readily in summer: when rooted, they should be potted singly in small pots, and set in a close frame, and must be hardened to the air by degrees." (*Bot. Cult.* 186.)

394. *Styphelia*. A name derived from *στυγος*, dense, in allusion to the compact habit of the genus. Erect

2299 The only species

2300 Lobes of leaves linear entire oblong, Flowers paniced terminal, Cor. tubular twice as long as cal.  
2301 Plant smaller than the last, Leaves very narrow, Cor. short blue

2302 Stem half shrubby, Leaves sessile ovate acute pubescent  
2303 Stem half shrubby, Leaves subsessile linear toothed spinous

2304 Leaves in fours linear sessile erect, Flowers clustered hidden among the leaves

2305 Leaves fleshy dark-green glabrous obovate, Stem ascending

2306 Sepals acuminate as long as tube of cor. Leaves cucullate subsess. with a recurved end longer than base  
2307 Sepals acum. as long as tube of cor. Lvs. conc. their base longer than spreading point, Spike flow. at base  
2308 Cor. cylindrical 4 times as long as cal. Flowers pendulous, Leaves acuminate flat  
2309 Flowers nodding, Leaves lanceolate erect imbricated with a callous obtuse end, Stamens included  
2310 Leaves lanceolate acute erect above flat beneath convex. Cal. obtuse as long as tube, Stamens exerted  
2311 Sepals obtuse as long as tube of cor. Leaves cucullate acute spreading, Spike flowering at end

2312 Leaves long lanceolate attenuated at end, above concave smooth at edge, Branches pubescent  
2313 Leaves obovate oblong obtuse mucronate flat smooth above roughish at edge, Flowers spreading  
2314 Leaves oblong lanceolate flat glaucous smooth, Branches smooth, Flowers corymbose, Ped. 1-3-flowered  
2315 Leaves linear obovate mucronate rough above revolute at edge, Flowers nodding

2316 Leaves ellipt. lanceolate concave with a short callous point, Segm. of cor. smooth

2317 Prostrate much branched, Leaves lanceolate linear convex above ciliated at edge

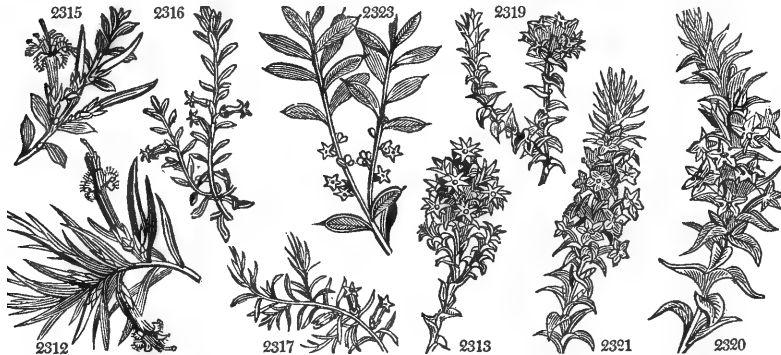
2318 Anthers connate bearded, Cal. colored, Leaves long acuminate

2319 Leaves spreading with a flat point

2320 Cor. monopetalous, Tube entire as long as cal. Leaves ovate acuminate spreading

2321 Leaves sessile cordate acuminate pungent recurved, Cal. imbric. as long as narrow tube of cor.

2322 Spikes erect subterminal aggregate or axillary solitary, Leaves ellipt. oblong 4 times broader than long  
2323 Spikes axillary few-flowered nodding stalked, Leaves oblong acute flat mucronate



and Miscellaneous Particulars.

branched shrubs, natives of New Holland, with scattered mucronate leaves, and axillary, nodding, very showy flowers. Culture as for *Andersonia*.

395. *Lissanthe*. A New Holland genus of shrubs with small white flowers, the segments of which are smooth, not bearded as in *Leucopogon*, to which the genus is next. From this difference its name has been contrived; *λίσσος*, smooth, and *ανθός*, a flower.

396. *Astriloma*. From *αστρον*, a star, and *λωμα*, a fringe, in allusion to the stellate disposition of the little bundles of hairs at the bottom of the tube. A genus of neat little bushes, with axillary erect flowers. Culture as for *Andersonia*.

397. *Sprengelia*. So called in honor of Curt Sprengel, professor at Halle, in Saxony, a learned man and respectable botanist. His *Historia Rei Herbariæ* is a monument of industry and information. This is a handsome half-hardy genus, delighting in a shady aspect, sandy peat soil, and dry bottom. They must be watered sparingly when not growing freely. Cuttings root in sand under a bell-glass.

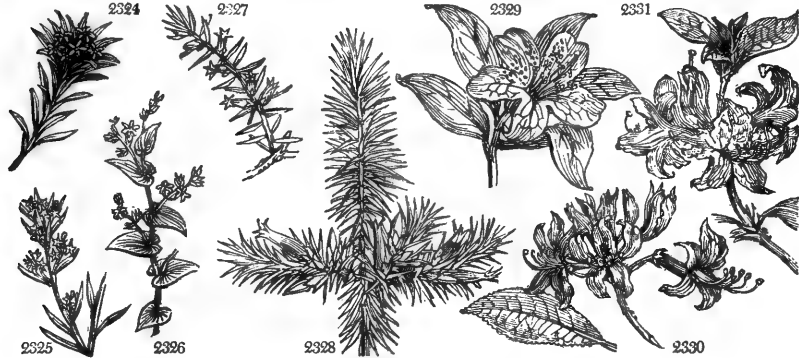
398. *Andersonia*. Named by Mr. Browne, first, after William Anderson, a navy surgeon, who died in Cook's last voyage; secondly, after Dr. Anderson, formerly director of the botanical garden, St. Vincents; and lastly, after William Anderson, the curator of the apothecaries' garden, Chelsea. According to Sweet, this genus "grows freely in a sandy peat soil with the pots well drained; and care should be taken not to over-water it, as they are very liable to get sodden, when they seldom recover. The very young tops put in for cuttings, under a bell-glass in sand, will root readily. When first potted off, they should be put singly in small thumb-pots, and kept close in a frame for a few days, and hardened to the air by degrees." (*Bot. Cult.* 133.)

399. *Lysinema*. Perhaps derived from *λυσίς*, a separation or solution, and *σπυμα*, a stamen; but the application of the name is not obvious. Shrubs with the habit of *Epacris*. They prefer rough turfy soil, and cuttings root readily in sand under a bell-glass.

400. *Monotoca*. From *μονος*, one, and *τοκος*, birth, because only one ovulum is borne by the ovarium, a remarkable circumstance in the natural order of the genus. The species are little shrubs, with axillary or terminal spikes of white flowers. They require well drained pots, and their cuttings must be taken off when very young, and planted in sand under a bell-glass.



|   |                     |            |           |                 |                                |
|---|---------------------|------------|-----------|-----------------|--------------------------------|
| 401. LEUCOPOGON. R. Br. LEUCOPOGON.     | <i>Epacridae.</i>   | Sp. 4-48.  |           |                 |                                |
| 2324 lancoloides R. Br. small-flowered  | ☞                   | or 12      | my.au W   | N. S. W. 1790.  | C s.p Bot rep. 287             |
| 2325 lanceolatus R. Br. Heath-leaved    | ☞                   | or 6       | ... Pk    | N. S. W. 1815.  | C l.p Cav. ic. 4. t. 347. f. 1 |
| 2326 amplexicaulis R. Br. stem-clasping | ☞                   | or 3       | ... W     | N. S. W. 1815.  | C l.p Linn. trans. 8. t. 8     |
| 2327 juniperinus R. Br. Juniper-leaved  | ☞                   | or 3       | ap.jn W   | N. S. W. 1804.  | C l.p Bot. cab. 447            |
| 402. STENANTHERA. R. Br. STENANTHERA.   | <i>Epacridae.</i>   | Sp. 1.     |           |                 |                                |
| 2328 pinifolia R. Br. Pine-leaved       | ☞                   | or 6       | my.jl S   | N. S. W. 1811.  | C s.p Bot. reg. 218            |
| 1403. AZALEA. W. AZALEA.                | <i>Rhodoraceae.</i> | Sp. 10-14. |           |                 |                                |
| 2329 indica W. Indian                   | ☞                   | or 4       | mr.my S   | China 1808.     | C p.l Bot. mag. 1490           |
| β purpurea plena double-purple          | ☞                   | or 4       | mr.my Pu  | China 1819.     | C p.l                          |
| γ variegata variegated                  | ☞                   | or 4       | mr.my St  | China 1824.     | C p.l                          |
| δ alba pure-white                       | ☞                   | or 4       | mr.my W   | China 1819.     | C p.l Bot. reg. 811            |
| ε aurantiaca orange                     | ☞                   | or 4       | mr.my O   | China 1822.     | C p.l Bot. cab. 1255           |
| 2330 pontica W. yellow                  | ☞                   | or 6       | my.jn Y   | Turkey 1793.    | L s.p Bot. mag. 433            |
| β glauca glaucous                       | ☞                   | or 6       | my.jn Y   | .....           | L s.p Bot. mag. 2383           |
| γ albiflora white-flowered              | ☞                   | or 6       | my.jn W   | .....           | L s.p                          |
| 2331 calendulacea Ph. orange            | ☞                   | or 4       | my.jn O   | N. Amer. 1806.  | L s.p Bot. mag. 1721           |
| β flammea flame-colored                 | ☞                   | or 4       | my.jn R   | N. Amer. 1812.  | L s.p Bot. reg. 145            |
| 2332 canescens Ph. downy                | ☞                   | or 3       | my.jn Pk  | N. Amer. 1812.  | L s.p                          |
| 2333 nudiflora W. naked-flowered        | ☞                   | or 3       | my.jn Pk  | N. Amer. 1734.  | L s.p                          |
| α coccinea small-scarlet                | ☞                   | or 4       | my.jn S   | N. Amer. 1734.  | L s.p Bot. mag. 180            |
| β speciosa large-scarlet                | ☞                   | or 4       | my.jn S   | N. Amer. 1734.  | L s.p Bot. cab. 624            |
| γ aurantiaca orange                     | ☞                   | or 3       | my.jn O   | N. Amer. 1734.  | L s.p                          |
| δ cuprea copper-colored                 | ☞                   | or 3       | my.jn Ful | N. Amer. 1734.  | L s.p                          |
| ε rubians deep-red                      | ☞                   | or 4       | my.jn D.R | N. Amer. 1734.  | L s.p                          |
| ζ carnea pale-red                       | ☞                   | or 3       | my.jn L.R | N. Amer. 1734.  | L s.p Bot. reg. 120            |
| η alba early-white                      | ☞                   | or 3       | my.jn W   | N. Amer. 1734.  | L s.p                          |
| θ papilionacea variegated               | ☞                   | or 4       | my.jn St  | N. Amer. 1734.  | L s.p                          |
| ι partita five-parted                   | ☞                   | or 4       | my.jn W   | N. Amer. 1734.  | L s.p                          |
| κ semiplena semi-double                 | ☞                   | or 4       | my.jn W   | N. Amer. 1734.  | L s.p                          |
| λ flore pleno double-flowered           | ☞                   | or 4       | my.jn W   | N. Amer. 1734.  | L s.p                          |
| 2334 bicolor Ph. two-colored            | ☞                   | or 4       | my.jn St  | N. Amer. 1734.  | L s.p Trew. ehret. t. 48       |
| 2335 viscosa Ph. viscid                 | ☞                   | or 2       | jl.au W   | N. Amer. 1734.  | L s.p Meerb. ic. 2. t. 9       |
| α odorata common-white                  | ☞                   | or 3       | jl.au W   | N. Amer. 1734.  | L s.p                          |
| β vittata striped-flowered              | ☞                   | or 3       | jl.au St  | N. Amer. 1734.  | C l.p                          |
| γ fissu narrow-petaled                  | ☞                   | or 3       | jl.au Pk  | N. Amer. 1734.  | L s.p                          |
| 2336 nitida Ph. shining-leaved          | ☞                   | or 4       | jl.au Pk  | N. Amer. 1812.  | C l.p                          |
| 2337 glauca Ph. dwarf-glaucous          | ☞                   | or 2       | jn W      | N. Amer. 1734.  | L s.p Bot. reg. 414            |
| 2338 hispida Ph. tall-glaucous          | ☞                   | or 15      | jn Pk     | N. Amer. 1734.  | L s.p Dend. brit. 6            |
| 404. CHAMÆLEDON. Lk. CHAMÆLEDON.        | <i>Rhodoraceae.</i> | Sp. 1.     |           |                 |                                |
| 2339 procumbens Lk. trailing            | ☞                   | or †       | ap.my Pk  | Britain sc. mo. | L s.p Eng. bot. 865            |
| 405. BREXIA. Nor. BREXIA.               | .....               | Sp. 1-3.   |           |                 |                                |
| 2340 madagascariensis P. s. Madagascar  | ☞                   | or 30      | jn G      | Mauritius 1812. | C s.p Bot. reg. 730            |
| 406. OPHIORHYZA. L. SNAKE-ROOT.         | <i>Rubiaceae.</i>   | Sp. 1.     |           |                 |                                |
| 2341 Mungos L. common                   | ☞                   | or 3       | my.d W    | E. Indies 1820. | C s.p                          |



History, Use, Propagation, Culture,

401. *Leucopogon*. From λευκος, white, and πογον, a beard, because the segments of the white flowers are bearded. A very extensive genus of small shrubs, with spiked axillary or terminal flowers. Culture as for Andersonia.

402. *Stenanthaera*. From στενος, narrow, and ανθηρα, an anther; the anther being in this genus not so broad as its filament. A bush with pine-like leaves, and erect large scarlet blossoms. Culture as in Andersonia.

403. *Azalea*. From αζαλιος, dry, arid; either in allusion to the places where the plant grows, or to the brittle dry nature of its wood. This is a very ornamental genus, from its abundance of flowers of almost all colors, and the fragrant smell of most of the species. *A. indica* is the most delicate, but flowers well in a moist heat in rough peat well drained. According to Sweet, "it thrives best in a sandy peat, and the pots to be well drained with small pieces of potsherd: it should be set in an airy part of the greenhouse in winter, and great care must be taken not to over-water it: in summer it should be exposed to the open air, but not in a very sunny situation. Young cuttings taken off close to the plant, and planted in pots of sand, will root readily, if plunged in heat under a bell-glass." (*Bot. Cult.* 144.) T. Blake keeps his plants "in peat and leaf-mould, always in the greenhouse till they are in a flowering state, and then he removes them to the hothouse, the sudden heat causing the blossom to open the better." (*Hort. Trans.* iv. 133.) J. Narn uses the most fibrous part of peat-earth and sand; he places them in a considerable heat, and always in the shade, and when the plants exhibit blossom buds in March, he then raises the temperature from 50° to 60°. This species strikes by cuttings of the young wood, taken off close to that which is ripened, planted in pots of sand, and plunged under a bell-glass.

The hardy *Azaleas* are best grown in compartments or groups by themselves, or with other American or European plants requiring a moist peat soil, and rather shady situation. Where peat is not to be had, the

- 2324 Spikes nodding aggregate, Ovaries 2-celled, Drupes oval, Leaves lanceolate flat 3-nerved  
 2325 Spikes axillary close together 3-4-flowered, Leaves obl. lin. moderately spreading mucronate  
 2326 Spikes axillary and terminal spreading stalked longer than the leaves, Leaves cordate stem clasping  
 2327 Flowers subsessile solitary or 2 together, Leaves divaricating lanceolate linear bristly pointed

2328 The only species. Leaves like those of a fir very close together

2329 Flowers nearly solitary, Calyx hairy

2330 Leaves oblong narrowed at the end shining ciliated smooth, Corymb. terminal, Tube of cor. glandular

2331 Nearly naked flowered, Leaves oblong pubescent on both sides, Flowers large not viscid, Cal. teeth obl.

2332 Leaves beneath thinly downy nerve not bristly, Flowers rose-colored not viscid, Cal. very minute

2333 Leaves oblong narrowed at the base ciliated smooth, Corymb terminal, Cor. hairy outside, Stam. exsert.

2334 Naked flowered, Leaves oblong slightly pubescent on both sides, Flowers small not viscid, One segment of corolla linear 4 times as long as the others

2335 Branches hispid, Leaves same color on both sides with the nerve hispid, Cal. teeth very short round

2336 Branches smooth, Leaves small oblanceolate mucronate coriaceous with a hispid nerve, Flowers viscid

2337 Branches hispid, Leaves acute smooth on both sides glauc. beneath with a hispid nerve, Fl. very viscid

2338 Branches upright very hispid, Leaves long lanceolate hispid above, Flowers very viscid

2339 The only species

2340 Leaves long narrow entire with a brown edge

2341 The only species



and Miscellaneous Particulars.

next best soil is a soft black sandy loam with leaf-mould, or mould from any decayed vegetable matter unmixed with animal remains, as the mould of decayed thatch, or the sweepings of stack-yards, wood-piles, &c. Seeds are obtained from many of the sorts, and should be sown in pans or shallow wide pots thinly covered, placed in a shady situation, and kept moderately moist. When fit to transplant, they should be pricked into other pots, and placed under a glass, and shaded till they have struck roots afresh. They may then be hardened by degrees, and, when their roots fill the pots, planted out in beds, or where they are finally to remain. Most of the hardy Azaleas are well adapted for growing in pots, and for forcing early in spring. The deciduous sorts flower better than those which are subevergreens.

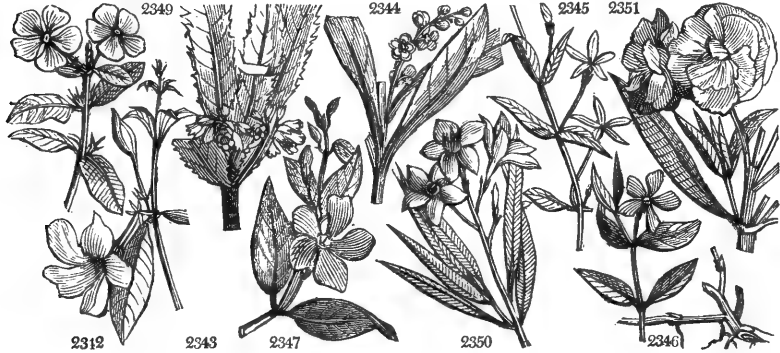
By intercrossing with Azaleas and Rhododendron, some new and curious varieties or hybrid species have been produced, especially in Colvill's nursery, under the direction of Mr. Sweet: and from some thousands of seedlings which have not yet flowered, many more are expected. (See *Encyc. of Gard.* part II. b. i. ch. viii. sect. 7. The juice in the bottom of the flower of *A. pontica* is poisonous, and communicates its bad properties to the unwholesome honey of Pontus. Several fine varieties of the *Azalea indica* have lately been brought to this country; but many of the best varieties are still among the desiderata of English cultivators.

404. *Chamaeledon*. From *χαμαίς*, dwarf, and *λεδον*, a kind of cistus. This has been formed from the well known *Azalea procumbens* of Linnæus, one of the most interesting of our northern plants.

405. *Brezia*. So named by Noronha, perhaps from *βρέξες*, rain, in allusion to the protection afforded by the fine large leaves of the genus against rain. Fine stove plants with firm, spiny, or entire leaves, and axillary green flowers. In the garden they are commonly called *Theophrastas*.

406. *Ophiorhiza*. From *οφίς*, a snake, and *ρίζα*, a root, from the use which is made of the roots in the East Indies for curing the bites of dangerous snakes. Mungos is an Indian name. A pretty stove plant, whose white flowers are well relieved by the dark red back ground of the calyxes and pedicels.

|  |           |            |    |       |      |                 |                                |
|--|-----------|------------|----|-------|------|-----------------|--------------------------------|
| 407. ALLAMAN'DA. W. ALLAMANDA.         | Apocynææ. | Sp. 1.     |    |       |      |                 |                                |
| 2342 cathartica W. willow-leaved       | ♣         | or         | 12 | ju.jl | Y    | Guiana          | 1785. C r.m Bot. mag. 338      |
| 408. THEOPHRASTA. L. THEOPHRASTA.      | Myrsinææ. | Sp. 1.     |    |       |      |                 |                                |
| 2343 Jusseu'i Lind. prickly            | ♣         | or         | 3  | ...   | W    | Hispanio.       | 1818. S r.m Lind. coll. 26     |
| 409. CLAVIJA. Fl. per. CLAVIJA.        | Myrsinææ. | Sp. 1-4.   |    |       |      |                 |                                |
| 2344 macrophylla Fl. per. long-leaved  | ♣         | or         | 30 | ...   | W    | S. Amer.        | 1816. C r.m                    |
| 410. VIN'CA. W. PERIWINKLE.            | Apocynææ. | Sp. 5-6.   |    |       |      |                 |                                |
| 2345 herbacea W.en. herbaceous         | ♣         | or         | 1½ | ju.jl | Pu   | Hungary         | 1816. D s.l Bot. mag. 2002     |
| 2346 minor W. lesser                   | ♣         | or         | 4  | mr.s  | V    | Britain         | bu. pl. S co Eng. bot. 91f     |
| β argenteo variegata silver-striped    | ♣         | or         | 4  | mr.s  | V    | Britain         | ... S co                       |
| γ aureo variegata gold-striped         | ♣         | or         | 4  | mr.s  | V    | Britain         | ... S co                       |
| δ flore pleno double                   | ♣         | or         | 4  | mr.s  | V    | Britain         | ... S co                       |
| 2347 maior W. greater                  | ♣         | or         | 6  | mr.s  | B    | England groves. | S co Eng. bot. 514             |
| β variegata variegated                 | ♣         | or         | 6  | mr.s  | B    | ...             | S co                           |
| 2348 parviflora W. small-flowered      | ♣         | or         | ½  | au    | B    | E. Indies       | 1778. S s.l M.cd.got. t.2. f.1 |
| 2349 rosea W. Madagascar               | ♣         | or         | 1  | mr.o  | R.W  | E. Indies       | 1756. C r.m Bot. mag. 248      |
| β alba white-flowered                  | ♣         | or         | 1  | mr.o  | W    | E. Indies       | ... C r.m                      |
| γ ocellata red-eyed                    | ♣         | or         | 1  | mr.o  | St   | E. Indies       | ... C r.m                      |
| 411. NERIUM. R. Br. OLEANDER.          | Apocynææ. | Sp. 2-5.   |    |       |      |                 |                                |
| 2350 oleander W. common                | ♣         | or         | 8  | ju.o  | R    | S. Europe       | 1596. L r.m Lam. ill. t. 174   |
| β album white-flowered                 | ♣         | or         | 8  | ju.o  | W    | S. Europe       | ... L r.m Bot. cab. 700        |
| γ splendens double-hybrid              | ♣         | or         | 7  | ju.o  | R    | .....           | 1814. L r.m                    |
| δ variegatum variegated                | ♣         | or         | 8  | ju.o  | St   | .....           | L r.m Bot. cab. 666            |
| 2351 odorum W. sweet-scented           | ♣         | or         | 6  | ju.au | Pa.R | E. Indies       | 1683. C r.m Rheed. mal.9.t.2   |
| β carneum flesh-colored                | ♣         | or         | 6  | ju.au | Pk   | E. Indies       | 1683. C r.m                    |
| γ plenum double-flowered               | ♣         | or         | 5  | ju.au | Pa.R | E. Indies       | 1683. C r.m Bot. reg. 74       |
| 412. WRIGHTIA. R. Br. WRIGHTIA.        | Apocynææ. | Sp. 3-5.   |    |       |      |                 |                                |
| 2352 antidysenterica R.br. oval-leaved | ♣         | or         | 10 | ...   | W    | E. Indies       | 1778. C r.m Rhed. mal.1.t.47   |
| 2353 zeylanica R. Br. spear-leaved     | ♣         | or         | 10 | ...   | W    | E. Indies       | ... C r.m Bur. zeyl.t.12.f.2   |
| 2354 tinctoria R. Br. dyer's           | ♣         | or         | 15 | ...   | W    | E. Indies       | 1812. L l.p Bot. reg. 933      |
| †*413. ECHITES. R. Br. ECHITES.        | Apocynææ. | Sp. 10-60. |    |       |      |                 |                                |
| 2355 biflora W. twin-flowered          | ♣         | or         | 20 | jl    | W    | W. Indies       | 1793. C pl Jac.amer.30.t.21    |
| 2356 suberecta W. Savanna-flower       | ♣         | or         | 10 | ju.au | Y    | Jamaica         | 1759. C pl Bot. mag. 1064      |
| 2357 torosa W. climbing                | ♣         | or         | 10 | ju.au | Y    | Jamaica         | 1778. C pl Jac.amer.33.t.27    |
| 2358 umbellata W. umbelled             | ♣         | or         | 15 | jl    | W    | Jamaica         | 1733. C pl Jac.amer.30.t.22    |
| 2359 difformis Ph. deformed            | ♣         | or         | 8  | jl    | P.y  | Carolina        | 1806. C pl                     |
| 2360 bispinosa W. twin-spined          | ♣         | or         | 1  | ju.n  | Pk   | C. G. H.        | 1795. C pl                     |
| 2361 caryophyllata Roxb. clove-leaved  | ♣         | or         | 6  | o     | Pa.Y | E. Indies       | 1812. C pl Bot. mag. 1919      |
| 2362 grandiflora Rth. large-flowered   | ♣         | or         | 8  | ...   | Pk   | E. Indies       | 1823. C pl                     |
| 2363 antidysenterica Rth. Medicinal    | ♣         | or         | 6  | ...   | Pk   | E. Indies       | 1821. C pl                     |
| ‡2364 sanguinolenta Tuss. red-veined   | ♣         | or         | 20 | ju.au | Y    | W. Indies       | 1821. C pl Bot. mag. 2473      |
| 414. ICHNOCARPUS. R. Br. ICHNOCARPUS.  | Apocynææ. | Sp. 1-2.   |    |       |      |                 |                                |
| 2365 frutescens H. K. shrubby          | ♣         | or         | 10 | ju.au | Pu   | E. Indies       | 1759. C pl Bur. zeyl.t.12.f.1  |



History, Use, Propagation, Culture,

407. *Allamanda*. In memory of Dr. Frederick Allamand, a professor of natural history in the university of Leyden, who went to Guiana about 1769, and to Russia about 1776, and sent descriptions, figures, and specimens of plants to Linnaeus. It is a milky shrub, of cathartic qualities; flowers freely, and strikes with ease in a moist heat.

408. *Theophrasta*. Theophrastus was born at Eresus in Lesbos, 310 years before Christ, and died at the age of 83. Linnaeus has justly termed him the prince of botanists. The genus which has been selected to commemorate his name, is a curious prickly-leaved, low plant, native of St. Domingo, where it is called by the negroes wild cocoa. In the collections of this country it is rare, and no means has yet been discovered of propagating it, except by seeds.

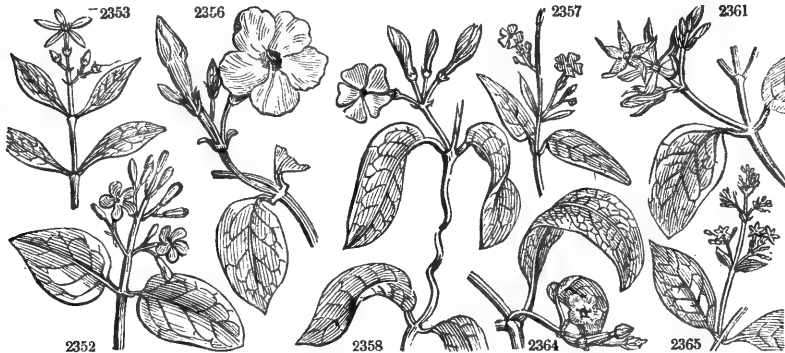
409. *Clavija*. Named in honor of Joseph Clavijo Faxardo, a Spanish naturalist, who translated into his own language the works of Buffon. A fine genus of plants, exceedingly rare both in gardens and herbaria.

410. *Vinca*. From *vinculum*, a bond, in allusion to its twining shoots. The origin of its English name is, however, quite unknown. The Anglo-Saxons called it *perunice*; the English, *periwinkle*; the French, *perceche*. This is a genus of well-known little shrubs, valued for their early and long continued flowering, and the hardy species as being evergreens which thrive under the shade and drip of trees. *V. minor* and *major*, like other plants which run much at the root, very rarely produce seeds. *V. rosea* is continually in flower, and is easily propagated by cuttings under a hand-glass.

411. *Nerium*. From *neges*, damp, the plant growing upon the borders of rivulets, in the southern parts of Europe. This is a genus of beautiful evergreen shrubs of easy culture and propagation, and free flowerers great part of the year. *N. tinctorium* affords a blue equal to that of indigo, and it is thought by Dr. Roxburgh might be cultivated for that purpose.

*N. oleander* is very common in the Levant, and especially in the Isle of Candia, and in Sicily, Magna Græcia,

- 2342 The only species. Leaves 4 together subsessile ovate oblong, Flowers in villous fascicles
- 2343 A small prickly-leaved bush without branches and with terminal clusters
- 2344 Leaves very long lanceolate retuse toothed spinous
- 2345 Stems herbaceous prostrate, Leaves oblong lanceolate smooth, Flowers stalked, Cal. ciliated
- 2346 Stems procumbent, Leaves ellipt. lanc. smooth at edge, Flowers stalked, Teeth of cal. lanceolate
- 2347 Stems nearly erect, Leaves ovate ciliated, Flowers stalked, Teeth of calyx setaceous elongated
- 2348 Stem herbaceous erect square, Leaves lanceolate, Flowers twin or solitary stalked
- 2349 Stem erect, Flowers twin sessile, Leaves ovate oblong, Stalks 2-toothed at the base
- 2350 Leaves lin. lanc. 3 together ribbed beneath, Sepals squarrose, Nect. flat 3-toothed
- 2351 Leaves linear lanc. 3 together, Corona filamentose, Anthers at end feathery
- 2352 Leaves ovate oblong shortly acuminate smooth, Corymbs terminal, Tube of cor. 6 times as long as calyx
- 2353 Leaves obl. lanceol. subacuminate smooth, Corymbs terminal, Tube of cor. 4 or 5 times as long as calyx
- 2354 Leaves ellipt. lanc. and ovate acum. smooth, Branches and corymbs divar. Tube of cor. twice as long as cal.
- 2355 Stems sarmentose, Leaves oblong, Pedunc. 2-flowered
- 2356 Pedunc. many-flowered, Cor. cylindrical hairy outside, Leaves ovate mucronate pubescent beneath
- 2357 Pedunc. racemose, Leaves lanceolate acuminate, Foliolles torulose very long
- 2358 Pedunc. umbelled, Leaves ovate obtuse mucronate
- 2359 Leaves oval lanceolate acute at base the lowest linear, Cor. hypocrateriform
- 2360 Prickles two extra-foliaceous, Leaves lanceolate smooth, Cor. hypocrateriform
- 2361 Panicle terminal, Cal. spreading as long as corolla, Leaves ovate mucronate
- 2362 Stem erect rounded, Leaves oval acuminate smooth, Flowers terminal in threes
- 2363 Stem erect angular, Leaves ovate lanceolate obsoletely crenate, Corymbs axillary dichotomous
- 2364 Leaves ovate lanceolate entire strongly marked with crimson veins
- 2365 Stem erect shrubby, Leaves lanceolate oval, Cor. acute, Throat villous



and Miscellaneous Particulars.

♂c. by rivers and torrents: the leaves are acrid and poisonous. Young cuttings planted under a hand-glass, and placed on a little heat, root freely.

N. odorum and its varieties, though treated as a greenhouse plant, requires a stove to make it flower freely.

412. *Wrightia*. Named after Dr. William Wright, a Scotch physician, who resided some years in the West Indies at the end of the last century, and the author of one or two botanical tracts. *W. antisynterica* is reputed to be a specific in the dysentery. The wood is well adapted for the turner, and to make cabinets and other elegant furniture. It is very white, and of a fine grain like ivory, only much lighter. It mixes admirably with ebony.

*W. zeylanica* is an elegant branched shrub, with whitish yellow flowers and an agreeable odor. Both species may be treated like *Nerium*.

413. *Echites*. A name employed by Pliny as the designation of a kind of *Clematis*; it is derived from  $\epsilon\chi\iota\varsigma$ , a viper, on account of the twisting nature of its shoots. This is a genus of plants somewhat singular in habit, with opposite, veined, shining leaves, and flowers in peduncles void of scent. They all flower freely, and root readily under a hand-glass in sand.

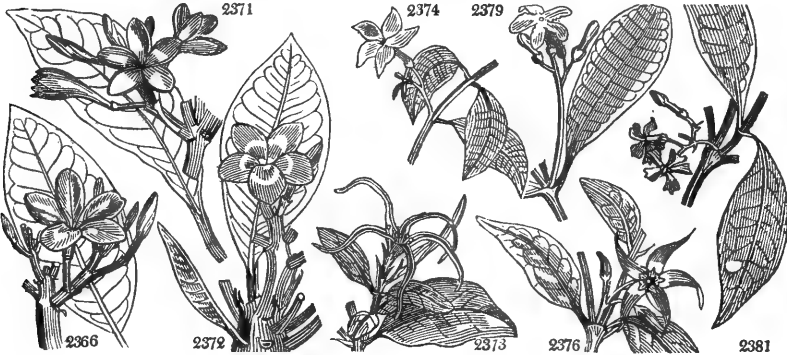
*E. biflora* supports itself partly by stems, and partly by twining on trees, hence frequently acquiring the air of a tree. It grows in salt marshes.

*E. suberecta* climbs: when it grows in savannahs it does not rise above three feet, and sometimes not more than one foot high.

*E. sanguinolenta* is remarkable for the beauty of its foliage, the veins of which are stained with crimson.

414. *Ichnocarpus*. From *ichnos*, a vestige, and *carpos*, fruit. Climbing shrubs of Sierra Leone and the East Indies, with long branches covered with smooth entire leaves, and white sweet-scented flowers. Cuttings root freely in sand under a hand-glass.

|   |                            |                     |      |                  |       |  |  |
|---|----------------------------|---------------------|------|------------------|-------|--|--|
| <b>145. PLUMIERIA. W. PLUMIERIA.</b>            |                            | <i>Apocynae.</i>    |      | <i>Sp. 7-14.</i> |       |  |  |
| 2366  | rúbra <i>W.</i>            | red                 | ☐ or | 15               | jl.au | R Jamaica 1690. C r.m Bot. mag. 279          |  |
| 2367  | acumináta <i>H. K.</i>     | acuminated          | ☐ or | 20               | jn.s  | R.v E. Indies 1790. C r.m Bot. reg. 114      |  |
| 2368  | álba <i>W.</i>             | white               | ☐ or | 15               | jl.au | W Jamaica 1733. C r.m Jac. an. t. 174. f. 2  |  |
| 2369  | obtusá <i>W.</i>           | blunt-leaved        | ☐ or | 10               | jl.au | W W. Indies 1733. C r.m Cat. car. 1. t. 93   |  |
| 2370  | putíca <i>Jac</i>          | wax-flowered        | ☐ or | 5                | jl.au | Y S. Amer. ... C r.m                         |  |
| 2371  | bicolor <i>Fl. per.</i>    | two-colored         | ☐ or | 15               | jl.o  | W.v S. Amer. 1815. C r.m Bot. reg. 490       |  |
| 2372  | tricolor <i>Fl. per.</i>   | three-colored       | ☐ or | 15               | jl.o  | Va W. Indies 1815. C r.m Bot. reg. 510       |  |
| <b>416. STROPHANTHUS. Dec. STROPHANTHUS.</b>    |                            | <i>Apocynae.</i>    |      | <i>Sp. 1-5.</i>  |       |  |  |
| 2373  | dichotómus <i>Dec.</i>     | yellow              | ☐ or | 3                | f.mr  | Y China 1818. C r.m Bot. reg. 409            |  |
| <b>417. CAMERARIA. W. BASTARD-MANCHINEEL.</b>   |                            | <i>Apocynae.</i>    |      | <i>Sp. 4-6.</i>  |       |  |  |
| 2374  | latifólia <i>W.</i>        | broad-leaved        | ☐ or | 30               | au    | W Havannah 1733. C r.m Bot. rep. 261         |  |
| 2375  | Tamaquárina <i>Aub.</i>    | yellow-flowered     | ☐ or | 4                | on    | Y Cayene 1793. C r.m Aub. gui. l. t. 102     |  |
| 2376  | dóbia <i>B. M.</i>         | doubtful            | ☐ or | 6                | my.au | Or E. Indies 1813. C r.m Bot. cab. 406       |  |
| 2377  | angustifólia <i>W.</i>     | narrow-leaved       | ☐ or | 8                | s     | W S. Amer. 1752. C r.m Plum. ic. t. 72. f. 2 |  |
| <b>†418. TABERNÆMONTANA. W. TABERNÆMONTANA.</b> |                            | <i>Apocynae.</i>    |      | <i>Sp. 4-34.</i> |       |  |  |
| 2378  | citrifólia <i>W.</i>       | Citron-leaved       | ☐ or | 15               | ...   | Y Jamaica 1734. C r.m Plum. ic. t. 248. f. 2 |  |
| 2379  | laurifólia <i>W.</i>       | Laurel-leaved       | ☐ or | 13               | my    | Y W. Indies 1768. C r.m Bot. reg. 716        |  |
| 2380  | coronária <i>H. K.</i>     | Rose-bay-like       | ☐ or | 4                | my.s  | W E. Indies 1770. C r.m Bot. mag. 1865       |  |
| 2381  | amygdalifólia <i>Jacq.</i> | almond-leaved       | ☐ or | 6                | my.s  | W S. Amer. 1780. C r.m Bot. reg. 338         |  |
| <b>419. AMSONIA. Mich. AMSONIA.</b>             |                            | <i>Apocynae.</i>    |      | <i>Sp. 3-4.</i>  |       |  |  |
| 2382  | latifólia <i>Ph.</i>       | broad-leaved        | △ or | 2                | my.jn | B N. Amer. 1759. D co Bot. reg. 151          |  |
| 2383  | salicifólia <i>Ph.</i>     | Willow-leaved       | △ or | 2                | my.jn | B N. Amer. 1812. D co Bot. mag. 1873         |  |
| 2384  | angustifólia <i>Ph.</i>    | hairy-stalked       | △ or | 2                | my.jn | B N. Amer. 1774. D co Vent. choix. 99        |  |
| <b>420. CERBERA. W. CERBERA.</b>                |                            | <i>Apocynae.</i>    |      | <i>Sp. 6-10.</i> |       |  |  |
| 2385  | Ahouai <i>W.</i>           | oval-leaved         | ☐ or | 20               | jn.jl | Y Brazil 1739. C r.m Bot. mag. 737           |  |
| 2386  | Manghas <i>W.</i>          | spear-leaved        | ☐ or | 20               | s     | W India 1759. C r.m Bot. rep. 655            |  |
| 2387  | maculáta <i>W.</i>         | waved-leaved        | ☐ or | 4                | jn.jl | W Bourbon 1782. C r.m Bot. rep. 130          |  |
| 2388  | ováta <i>Cav.</i>          | oval-leaved         | ☐ or | 3                | ...   | Y N. Spain ... C r.m Cav. ic. 3. t. 270      |  |
| 2389  | Thevétia <i>W.</i>         | linear-leaved       | ☐ or | 12               | jn.jl | Y S. Amer. 1735. C r.m Bot. mag. 2309        |  |
| 2390  | fruticósa <i>Rozb.</i>     | shrubby             | ☐ or | 4                | my    | R Pegu 1819. C r.m Bot. reg. 391             |  |
| <b>421. TECTONIA. W. TECTONIA.</b>              |                            | <i>Verbenaceae.</i> |      | <i>Sp. 1.</i>    |       |  |  |
| 2391  | grándis <i>W.</i>          | great               | ☐ or | tm               | 100   | ...  | W E. Indies 1777. S l.p Roxb. cor. 1. t. 6 |
| <b>422. CALDASIA. W. en. CALDASIA.</b>          |                            | <i>Verbenaceae.</i> |      | <i>Sp. 1.</i>    |       |  |  |
| 2392  | heterophýlla <i>W. en.</i> | various-leaved      | ☐ or | 2                | my.d  | B N. Spain 1813. S r.m Bot. reg. 92          |  |
| <b>423. BUMELIA. W. BUMELIA.</b>                |                            | <i>Sapotea.</i>     |      | <i>Sp. 8-26.</i> |       |  |  |
| 2393  | lycioides <i>Ph.</i>       | Boxthorn-leav.      | ☐ or | 10               | au    | W N. Amer. 1758. L s.l Duha. arb. 2. t. 68   |  |
| 2394  | ténax <i>W.</i>            | silvery-leaved      | ☐ or | tm               | 20    | jl.au  | W Carolina 1765. C p.l Jac. obs. 3. t. 54  |



History, Use, Propagation, Culture

415. *Plumieria*. So named by Tournefort, in honor of Charles Plumier of Marseilles, a Franciscan friar, who travelled into South America. He is distinguished for the accuracy of his observations, and for the fidelity of his drawings, which are the only representations of many of the most curious plants of the West Indies and South America. His drawings of flowers have seldom, even in these days of pictorial excellence, been equalled. He was the author of *Plantæ Americane*, 1693, and other excellent works. This is a fine flowering genus. "It succeeds best in a light loamy soil, and requires but little water. Large cuttings taken off and laid to dry for a considerable time, may be stuck in the tan in a moderate heat, or planted in pots, and they will root freely; they must not be covered with a glass, or it will rot them. To have the plants flower well, they should be kept very dry when not in a growing state, which will throw them into bloom." (*Bot. Cult.* 95.)

416. *Strophanthus*. From *στροφα*, to turn or twist, and *ανθη*, a flower; in allusion to the manner in which the segments of the corolla are twisted together before expansion. A most beautiful genus of tropical shrubs, with bright yellow flowers more or less spotted with red. They require the same treatment as *Echites*.

417. *Cameraria*. So named by Plumier, from Joachim Camerarius, a physician and botanist of Nuremberg, who was born in 1534, and died in 1598. He published an edition of Matthioli, in Latin and German, with new figures, and many observations; but the most celebrated man of the name was Ralph James Camerarius, a German botanist, who published in 1719, a tract, in which the first principles of the arrangement of plants by their seeds were propounded. This is a fine flowering genus, of easy culture, and cuttings root freely under a hand-glass in a pot of sand.

418. *Tabernæmontana*. So named by Plumier, in memory of James Theodore, surnamed Tabernæmontanus, from Berg-Zabern, the place where he was born. He published "Krauterbuch," and figures of plants in 1589-90; was physician to the Elector Palatine, and died in 1590. This is a genus of easy culture but little beauty. All the species root in sand under a hand-glass.

419. *Amsonia*. So named by Clayton in his *Flora Virginiana*; referred to Tabernæmontana by Linneus, now separated again. These are pretty plants, which grow in any soil; and may be propagated by cuttings under a hand-glass, or dividing at the root.

420. *Cerbera*. A poetical name formed in allusion to the mythological dog Cerberus, whose bite was poisonous, as is the juice of this genus. Ahouai and Manghas are vernacular names of the countries where the spe-

- 2366 Leaves ovate oblong flat, Leaf stalks with two glands  
 2367 Leaves scattered lanceolate acute, Flowers corymbose terminal  
 2368 Leaves lanceolate revolute, Peduncles tuberous above  
 2369 Leaves lanceolate stalked obtuse  
 2370 Flowers always with the limb closed very sweet-scented  
 2371 Leaves oblong acuminate flat at edge, Cor. white and yellow  
 2372 Leaves oblong acute, margins flat veiny, Cor. tube red, throat yellow, limb white
- 2373 Branches dichotomous, Leaves mucronate-acuminate, Cor. infundibuliform
- 2374 Leaves rounded ovate acuminate at the base transversely striated, Flowers terminal corymbose  
 2375 Leaves ovate oblong netted, Umbel stalked few-flowered, Flowers large yellow sweet (*C. lutea*).  
 2376 Leaves ovate lanceolate wavy, Corona 10-cleft: alternate segm. shorter obtuse  
 2377 Leaves linear
- 2378 Leaves ovate, Flowers lateral in clustered umbels  
 2379 Leaves ovate, Peduncles few-flowered, Stamens included  
 2380 Leaves lanceolate ovate, Branches divaricating  
 2381 Leaves oval lanceolate, Stamens longer than tube of corolla
- 2382 Stem smoothish, Leaves oval lanceolate the upper acuminate beneath a little hairy  
 2383 Stem smooth, Leaves linear lanceolate acute at each end quite smooth  
 2384 Leaves narrow lanceolate close erect pubescent, Stem obviously pubescent
- 2385 Leaves ovate acute  
 2386 Leaves lanceolate, Nerves transverse  
 2387 Leaves lanceolate attenuate at each end veiny spotted, Cymes axillary branched  
 2388 Leaves ovate scattered subsessile, Flowers terminal about 5  
 2389 Leaves linear very long, Flowers subsolitary axillary, Fruit roundish  
 2390 Dichotomous, Leaves broad lanceolate, Corymbs terminal, Drupes obliquely cup-shaped gaping
- 2391 Leaves obovate scabrous very large whitish beneath
- 2392 The only species. A pretty stove annual
- 2393 Prickly, Leaves lanceolate obtuse acute at base attenuate smooth  
 2394 Leaves obovate lanceolate beneath silky, Peduncles axillary clustered



and Miscellaneous Particulars.

cies so called are found. *Thevetia* is named after Andrew Thevet, a French monk, who travelled in Brazil about 1530. *C. Ahouai* has thick succulent leaves about three inches long, and near two broad, of a lucid green, smooth, and very full of a milky juice, as is every part of the shrub. The flowers are in loose bunches at the ends of the branches, and are succeeded by nuts, the kernels of which are a most deadly poison. The wood stinks abominably, and is not used even by the Indians for fuel. They put small stones into the empty nuts, string them, and fasten them about their legs when they dance.

*C. Manghas* is a milky tree with broad lanceolate leaves a foot in length; flowers in terminal racemes, and the drupe ovate, the size of a goose's egg, inclosing two seeds resembling two large chestnuts, poisonous and emetic.

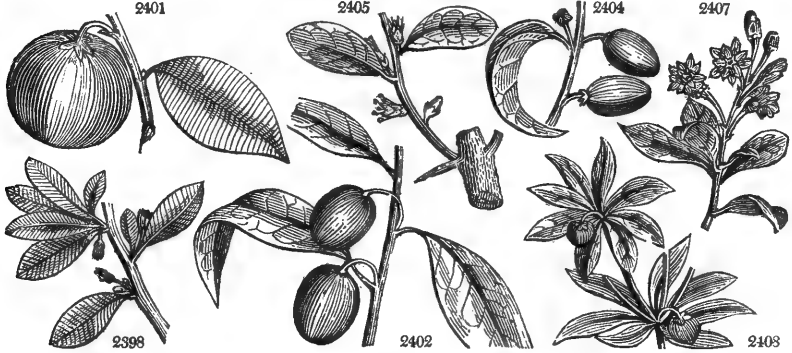
*C. Thevetia* is an elegant shrub or small tree, with acuminate leaves, and large, specios, nodding, yellow, sweet-smelling flowers. The fruit is a green drupe, containing a nut with a single kernel in it. Cuttings of all the species strike very readily in sand under a hand-glass.

421. *Tectona*. Altered by Linnaeus from *Tekka*, its name in Malabar. This is a timber-tree of immense size and great durability, and is justly called the oak of the east. The trunk is erect, and the bark ash-colored; the leaves are obovate, downy underneath, and on young trees from 12 to 24 inches long, and from 8 to 16 broad. The flowers are in panicles, small, white, and fragrant. The seeds are lens-shaped in 4-celled drupes. The tree abounds in the vast forests of Java and Ceylon, Malabar, Coromandel, &c., and especially in the empires of Birman and Pegu. The wood has, by long experience, been found to be the most useful in Asia. It is easily worked, and at the same time both strong and durable. It is considered superior to all others for ship-building. Calcutta and Madras draw all their supplies of wood for ship-building from the teak forests of Ava and Pegu. Some of the finest vessels that have ever arrived in the Thames have been of teak tree, built in Bengal. The tree was introduced to the British possessions by Lord Cornwallis, and is now planted with a view to timber in the mountainous parts of Bengal. In our stoves it thrives in loam and peat, and ripened cuttings root freely in sand under a hand-glass.

422. *Caldasia*. A pretty stove herbaceous plant, with handsome small blue flowers. It was named by Willdenow, after the MSS. of Baron Humboldt, in honor of Joseph Caldas, a meritorious Spanish botanist, residing at Popayan in South America. It may be propagated by cuttings.

423. *Bumelia*. A name given by the Greeks to our common ash. Swartz applied the name to this West Indian

|        |                          |                 |   |   |    |    |       |    |                 |                  |   |     |                      |
|--------|--------------------------|-----------------|---|---|----|----|-------|----|-----------------|------------------|---|-----|----------------------|
| 2395   | <i>salicifolia</i> W.    | Willow-leaved   | ♂ | □ | tm | 20 | ...   | W  | S. Amer.        | 1758.            | C | p.l | Cat. car. 2. t. 75   |
| 2396   | <i>nigra</i> W.          | black           | ♂ | □ | tm | 30 | ...   | W  | W. Indies       | 1806.            | C | r.m |                      |
| 2397   | <i>lanuginosa</i> Ph.    | woolly-leaved   | ♂ | □ | or | 6  | ...   | W  | Carolina        | 1806.            | C | r.m |                      |
| 2398   | <i>reclinata</i> Ph.     | reclinate       | ♂ | □ | or | 3  | jn    | W  | Carolina        | 1806.            | C | r.m | Vent. choix. 22      |
| 2399   | <i>serrata</i> Ph.       | serrated        | ♂ | □ | fr | 12 | ...   | W  | Missouri        | 1812.            | C | r.m |                      |
| 2400   | <i>rotundifolia</i> Swz. | round-leaved    | ♂ | □ | or | 12 | ...   | W  | Jamaica         | 1823.            | C | r.m |                      |
| †424.  | CHRYSPHYLL/LUM. W.       | STAR-APPLE.     |   |   |    |    |       |    | <i>Sapotææ.</i> | <i>Sp. 4—14.</i> |   |     |                      |
| 2401   | <i>Cainito</i> W.        | common          | ♂ | □ | fr | 50 | my,jn | W  | W. Indies       | 1737.            | C | r.m | Jc.am.51. t.37. f.1  |
| 2402   | <i>argenteum</i> W.      | narrow-leaved   | ♂ | □ | fr | 20 | ...   | W  | Martiniq.       | 1758.            | C | r.m | Jc.am.53. t.38. f.1  |
| 2403   | <i>monopyrenum</i> Swz.  | one-seeded      | ♂ | □ | fr | 30 | ...   | Br | W. Indies       | 1812.            | C | r.m | Burm.amer.6.69       |
| 2404   | <i>glabrum</i> Jacq.     | smooth          | ♂ | □ | fr | 15 | ...   | W  | Martiniq.       | 1823.            | C | r.m | Jacq.am.t.38. f.2    |
| 425.   | SIDEROXYLON. W.          | IRON-WOOD.      |   |   |    |    |       |    | <i>Sapotææ.</i> | <i>Sp. 1—8.</i>  |   |     |                      |
| 2405   | <i>inermis</i> W.        | smooth          | ♂ | □ | or | 5  | jl    | W  | C. G. H.        | 1692.            | L | p.l | Lam.ill.2.t.120. f.1 |
| 426.   | JACQUINIA A. W.          | JACQUINIA.      |   |   |    |    |       |    | <i>Sapotææ.</i> | <i>Sp. 3—8.</i>  |   |     |                      |
| 2406   | <i>armillaris</i> W.     | obtusely-leaved | ♂ | □ | or | 6  | jn,jl | W  | W. Indies       | 1768.            | C | p.l | Jac.amer.53. t.39    |
| 2407   | <i>aurantiaca</i> H. K.  | orange-flower'd | ♂ | □ | or | 4  | aps   | O  | Sandw. I.       | 1796.            | C | p.l | Bot. mag. 1639       |
| 2408   | <i>ruscifolia</i> W.     | prickly         | ♂ | □ | or | 3  | ...   | W  | S. Amer.        | 1739.            | C | p.l | Delt. t. 129. f.149  |
| *427.  | A'CHRAS. W.              | SAPOTA.         |   |   |    |    |       |    | <i>Sapotææ.</i> | <i>Sp. 3—4.</i>  |   |     |                      |
| 2409   | <i>mammosa</i> W.        | Mammee          | ♂ | □ | fr | 40 | ...   | W  | S. Amer.        | 1739.            | C | r.m | Jac.am.t.182. f.19   |
| 2410   | <i>Sapota</i> W.         | common          | ♂ | □ | fr | 30 | ...   | W  | S. Amer.        | 1731.            | C | r.m | Jc.am.51. t. 41      |
| 2411   | <i>Zapotilla</i>         | Naseberry-tree  | ♂ | □ | fr | 10 | ...   | W  | S. Amer.        | 1731.            | C | lp  | Jac.am.57. t.41.b    |
| †*428. | COR/DIA. W.              | CORDIA.         |   |   |    |    |       |    | <i>Cordiææ.</i> | <i>Sp. 9—60.</i> |   |     |                      |
| 2412   | <i>Mýxa</i> W.           | smooth-leaved   | ♂ | □ | or | 30 | ...   | W  | E. Indies       | 1640.            | C | p.l | Rhed.mal.4. t.37     |
| 2413   | <i>monota</i> Roxb.      | Birch-leaved    | ♂ | □ | or | 15 | mr.ap | W  | E. Indies       | 1799.            | C | p.l | Roxb. cor.1. t.58    |
| 2414   | <i>Sebestena</i> W.      | rough-leaved    | ♂ | □ | or | 15 | jn.au | O  | W. Indies       | 1728.            | C | p.l | Bot. mag. 794        |
| 2415   | <i>Geraschánthus</i> W.  | Spanish-elm     | ♂ | □ | tm | 30 | my    | Pk | W. Indies       | 1789.            | C | p.l | Bro. jam. t.29. f.3  |
| 2416   | <i>macrophylla</i> W.    | broad-leaved    | ♂ | □ | tm | 60 | ...   | W  | W. Indies       | 1752.            | C | p.l | Sljam.2. t.221. f.1  |
| 2417   | <i>Collococca</i> W.     | long-leaved     | ♂ | □ | tm | 30 | ...   | G  | Jamaica         | 1759.            | C | p.l | Sljam.2. t.203. f.2  |
| 2418   | <i>nodosa</i> Lam.       | hairy           | ♂ | □ | or | 6  | jn,jl | W  | Guiana          | 1803.            | C | p.l | Aub. guia.1. t.86    |
| 2419   | <i>elliptica</i> Sw.     | elliptic        | ♂ | □ | tm | 50 | ...   | W  | W. Indies       | 1804.            | C | s.l |                      |
| §2420  | <i>Patagánula</i> W.     | spear-leaved    | ♂ | □ | tm | 20 | jn.au | W  | S. Amer.        | 1732.            | C | p.l | Lam. ill. t. 96      |
| 429.   | VARRONIA. W.             | VARRONIA.       |   |   |    |    |       |    | <i>Cordiææ.</i> | <i>Sp. 4—30.</i> |   |     |                      |
| 2421   | <i>lineata</i> W.        | round-spiked    | ♂ | □ | or | 4  | ...   | W  | W. Indies       | 1793.            | C | s.l | Bro. jam. t.13. f.2  |
| 2422   | <i>mirabiloides</i> W.   | jointed         | ♂ | □ | or | 12 | s     | W  | Hispaniola      | 1798.            | C | s.l | Jacq. am.41. t.33    |



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genus. These are plants with good foliage, but no beauty of blossom. Some of the species are robust enough to bear our winters in the open air ; but they are rather tender, and require to be placed in a sheltered situation or against a warm wall, and covered with mats during winter. Cuttings root in sand under a hand-glass. The stove species are low West Indian trees, and known there under the name of Bully tree. They thrive well in loamy soil, or loam and peat, and cuttings will root, but, according to Sweet, "not freely, in sand under a hand-glass," being well ripened before they are taken off.

424. *Chrysophyllum*. From χρυσος, gold, and φλλον, a leaf; all the species having their leaves covered on the under surface with dense shining hairs of a bright yellow or white color. C. cainito has large elegant leaves, ferruginous underneath; it forms a tree of considerable size, with slender flexible branches. The leaves and fruit, like the *Achras*, to which the tree is very nearly allied, are full of milk, which the fruit retains even in the most perfect state. This milk is rough and astringent before the fruit ripens; but when it grows to full perfection, it becomes sweet and gelatinous, with an agreeable clamminess. Being mixed with a small quantity of orange juice, it binds the body extremely. The tree is of general and easy culture in Jamaica, and is here grown chiefly for its foliage. Sweet says, ripened shoots of all the species taken off and planted in sand, will root under a hand-glass with a strong moist heat.

425. *Sideroxylon*. From σιδερος, iron, and ξυλον, wood; in allusion to the hardness of the wood. The specific name melanophleum (μαλας φλοιος) means black-bark. The wood of this tree is very close and hard, and so heavy as to sink in water. It grows well in loam and peat; and cuttings somewhat ripened may be struck in sand under a hand-glass.

426. *Jacquinia*. So named by Linnæus, in honor of James Nic. Jos. de Jacquin, professor of botany at Vienna, born at Leyden, in 1727, author of many splendid works. A noble genus, well devoted to perpetuating the memory of one of the first of botanists. The name of one of the species *armillaris*, (from *armilla*, a garland,) has been applied in consequence of the shoots being used by women in America as garlands. This beautiful genus requires some care in propagation, but is of easy culture in the bark-stove, in loam and peat, and with a moist heat. "Cuttings," Sweet observes, "will strike root with ease in sand, under a hand-glass, in heat."

427. *Achras*. The Greek name of the wild pear. The root of the word has been thought to have been found in *ac*, the Celtic for a point, in allusion to the many stout spines with which the tree is covered. The word *Sapota*, applied to one of the species, is derived from its Mexican name *Cochit-zapotil*. This is a genus of fruit-bearing timber-trees, chiefly natives of the West Indies. A. *mammosa*, or American marmalade, grows in America to the height of 35 or 40 feet, having a straight trunk covered with an ash-colored bark. The branches form a regular head; the leaves a foot in length, and near three inches broad in the middle. The flowers are

- 2395 Leaves lanceolate ovate acuminate, Peduncles clustered axillary and lateral  
 2396 Leaves terminal oblong lanceolate smooth wavy at edge, Branches lax  
 2397 Spiny, Branches spreading pubescent, Leaves oval lanceolate smooth above beneath woolly  
 2398 Spiny bushy loosely reclinate, Sterile branches divaricate divided, Leaves small obovate smooth  
 2399 Unarmed, Leaves evergreen oblong lanceolate acute at each end prickly serrate, Berries large  
 2400 Leaves rounded edged veiny coriaceous smooth on both sides

- 2401 Leaves ovate with parallel veins beneath tomentose shining  
 2402 Leaves falcate ovate beneath downy shining  
 2403 Leaves oblong acuminate beneath downy gold color, Fruit ovate 1-seeded  
 2404 Leaves ovate oblong smooth on both sides, Fruit elliptical smooth

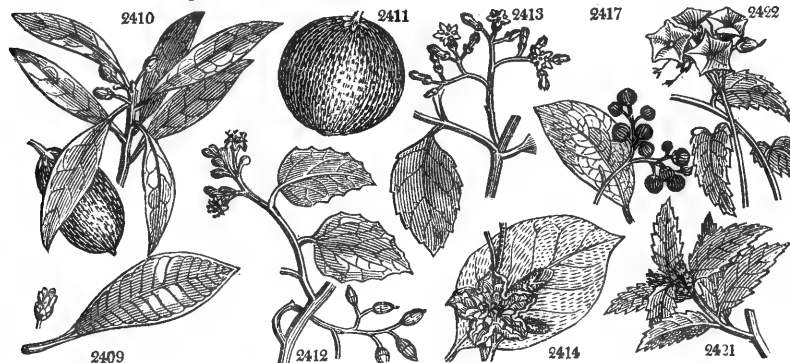
- 2405 Leaves oblong ovate obtuse, Flowers lateral and axillary

- 2406 Leaves wedge-shaped, Branches at the ramifications nodose whorled  
 2407 Leaves obovate lanceolate acuminate pungent  
 2408 Leaves lanceolate acuminate

- 2409 Flowers solitary, Leaves cuneiform lanceolate  
 2410 Flowers solitary, Leaves lanceolate ovate  
 2411 Brachiate diffuse, Fruit rounded with the mucro of the hilum shorter

- 2412 Leaves ovate smooth above, Corymbs lateral, Calyxes 10-striated  
 2413 Leaves roundish ovate toothed veiny scabrous, Corymbs axillary monœcious  
 2414 Leaves ovate subrenate subrepand rough, Cal. cylindrical shorter than the tube  
 2415 Leaves lanceolate ovate rough, Panicle terminal, Cal. tomentose 10-striated  
 2416 Leaves ovate villous a foot and half long  
 2417 Leaves oblong ovate entire, Flowers corymbose, Cal. downy inside  
 2418 Leaves in 3s ovate oblong acuminate, Branches nodose hispid, Cal. bearded  
 2419 Leaves oblong attenuated at the end entire coriaceous, Racemes comp. diffuse  
 2420 Leaves oblong lanceolate smooth on each side the upper serrate, Branches pilose

- 2421 Leaves lanceolate linear acuminate hoary beneath, Pedunc. lateral axillary naked  
 2422 Leaves ovate on long stalks, Stalk above the base bent inwards and jointed, Cor. hypocrateriform



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cream-colored, and are succeeded by large oval or top-shaped fruit, covered with a brownish skin, under which is a thick pulp of a russet-color, very luscious, called natural marmalade, from its likeness to marmalade of quinces. It is commonly planted in gardens for the fruit in Jamaica, Barbadoes, Cuba, and most of the West India islands. In this country it has been hitherto grown only as a part of botanic collections, but some attempts have been lately made to cultivate it as a stove fruit, and we have no doubt they will be attended with success. "Cuttings root readily in a pot of sand plunged in heat, under a common hand-glass. The cuttings should be taken off as near the stem of the plant as possible, not being so apt to rot as when cut off in the middle of the shoot. No leaves should be taken off or shortened above the sand." (*Sweet*.)

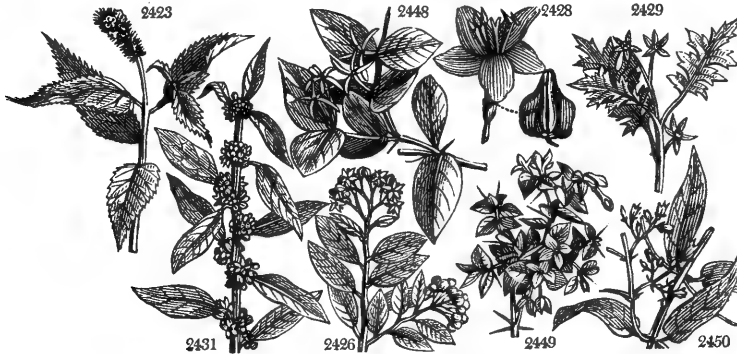
A. sapota is a large, tall, straight tree, without knots or branches, for twenty feet or more. The head spreads into many small branches; the bark is dark-grey and full of cracks; the fruit is bigger than a quince, round, and covered with a thick grey rind, yellow when ripe. The flesh is as yellow as a carrot, with two stones the size of almonds, of a rich smell and taste. The variety called the Naseberry has fruit as big as a bergamot pear, and similarly shaped. When it is green or first gathered, the juice is white and clammy, and will stick like glue; then the fruit is hard; but when it has been gathered two or three days, it grows soft and juicy, and then the juice is clear as spring-water and very sweet; in the midst of the fruit are two or three black stones or seeds, about the bigness of a pompon seed. It is esteemed an excellent fruit in the West Indies. In our stoves it is propagated like the mamee tree.

428. *Cordia*. So named by Plumier after E. Cordus, a German botanist of the 16th century. Valerius Cordus, his son, was born in 1515, and died in 1544. He left a History of Plants, and was the author of some Observations upon Dioscorides. *Sebestena*, the name of a species, is *sebestân* in Persian. *Myxa* is derived from  $\mu\upsilon\chi\eta$  a viscosity, on account of its viscid mucous juice, which is used for glue in the east. *Geracanthus*, from  $\gamma\epsilon\rho\alpha\kappa\eta$ , to grow old, and  $\alpha\gamma\theta\omicron\varsigma$ , a flower, is in allusion to the long duration of the flowers; *colloceca*, ( $\kappa\alpha\lambda\lambda\eta$ , glue, and  $\kappa\omicron\kappa\kappa\omicron\varsigma$ ; glutinous fruit) in allusion to the fruit. This is not a delicate genus, but flowers freely. The timber of *C. myxa* is tough and solid, and used in the east for procuring fire by friction. The leaves bruised with those of *Datura metel* are applied to the forehead in the headach; children eat the fruit, from which also a glue is prepared. *C. sebestena* is very ornamental, on account of its large, tubular, scarlet flowers; the most beautiful and agreeable, says Browne, of any I have seen in America. A small piece of the wood put on a pan of lighted coals, will perfume a whole house. From the juice of the leaves, with that of a species of fig, is prepared the fine red color with which they dye their clothes in Otahete. Poultry in the West Indies feed on the berries of *C. colloceca*, which is there called the clammy cherry, or Turkey berry-tree. All the species grow readily in loam and peat, and cuttings strike in sand, under a glass, in heat.

429. *Varronia*. Named after Marcus Terentius Varro, a most learned Roman, born 116 years before Christ,



|                         |                |         |        |        |                  |            |       |                         |
|-------------------------|----------------|---------|--------|--------|------------------|------------|-------|-------------------------|
| 2423 martinicensis W.   | Martinique     | ♂ or 6  | au.s   | W      | Martinico        | 1795.      | C s.l | Jacq. am. 41. t. 32     |
| 2424 angustifolia W.    | narrow-leaved  | ♀ or 15 | ...    | W      | S. Cruz          | 1808.      | C s.l |                         |
| 430. EHRETIA. W.        | EBRETIA.       |         |        |        | Cordiaaceae.     | Sp. 2—30.  |       |                         |
| 2425 tinifolia W.       | Tinus-leaved   | ♀ or 30 | jn. jl | W      | Jamaica          | 1734.      | C p.l | Trew. chr. 4. t. 25     |
| 2426 aspera Roxb.       | rough-leaved   | ♀ or 10 | ...    | W      | E. Indies        | 1795.      | C p.l | Roxb. cor. 1. t. 55     |
| 431. BOURREERIA. Gaert. | BOURREERIA.    |         |        |        | Cordiaaceae.     | Sp. 2.     |       |                         |
| 2427 succulenta Jac.    | fleshy-fruited | ♀ or 45 | ...    | W      | W. Indies        | 1758.      | C s.l | Ja. obs. 2. p. 2. t. 26 |
| 2428 exsiccata Jac.     | dry-crooked    | ♀ or 15 | ...    | W      | W. Indies        | 1804.      | C s.l | Jac. am. t. 173. f. 17  |
| 432. ELLISIA. W.        | ELLISIA.       |         |        |        | Hydrophyllaceae. | Sp. 1—2.   |       |                         |
| 2429 Nyctelea W.        | cut-leaved     | ♂ cu    | 2      | jl. au | W                | Virginia   | 1755. | S co                    |
| 433. SERSALISIA. R. Br. | SERSALISIA.    |         |        |        | Sapotaceae.      | Sp. 1—2.   |       |                         |
| 2430 sericea R. Br.     | silky-leaved   | ♂ or 6  | ...    | W      | N. Holl.         | 1772.      | C p.l |                         |
| 434. MANGLIILLA. Juss.  | MANGLIILLA.    |         |        |        | Sapotaceae.      | Sp. 1—11.  |       |                         |
| 2431 milleriana Pers.   | Miller's       | ♀ or 30 | jn. jl | W      | C. G. H.         | ...        | C co  | Bot. mag. 1858          |
| 435. ARDISIA. W.        | ARDISIA.       |         |        |        | Myrsinaceae.     | Sp. 13—23. |       |                         |
| 2432 acuminata W.       | acuminated     | ♂ or 7  | jl. au | R      | Guiana           | 1803.      | C p.l | Bot. mag. 1678          |
| 2433 solanacea Roxb.    | Nighth. like   | ♂ or 10 | jn. s  | R      | E. Indies        | 1798.      | S p.l | Bot. mag. 1677          |
| 2434 crenulata P. S.    | crenulated     | ♂ or 10 | jn. s  | R      | W. Indies        | 1809.      | S p.l | Vent. choix. t. 5       |
| 2435 lateriflora W.     | side-flowering | ♂ or 6  | ...    | W      | W. Indies        | 1793.      | S p.l |                         |
| 2436 littoralis B. R.   | sea-side       | ♂ or 4  | jl. au | R      | E. Indies        | 1809.      | C p.l | Bot. rep. 630           |
| 2437 elegans And.       | seagiant       | ♂ or 10 | jl. au | R      | E. Indies        | 1809.      | S p.l | Bot. rep. 49            |
| 2438 colorata Lk.       | red-flowered   | ♂ or 10 | jl. au | R      | E. Indies        | 1816.      | C s.l | Bot. cab. 465           |
| 2439 excelsa W.         | Laurel-leaved  | ♂ or 30 | jl. au | Rk     | Madeira          | 1784.      | C s.l | Geart. sem. 1. t. 77    |
| 2440 paniculata Roxb.   | panicked       | ♂ or 12 | jl. au | R      | E. Indies        | 1818.      | C s.l | Bot. reg. 638           |
| 2441 pyramidalis Rth.   | pyramidal      | ♂ or 25 | jl. au | R      | Santa Cruz       | 1818.      | C s.l | Bot. cab. 448           |
| 2442 lentiginosa Ker.   | dusty          | ♂ or 6  | ja. d  | W      | China            | 1814.      | C s.l | Bot. reg. 533           |
| 2443 punctata Lindl.    | dotted         | ♂ or 10 | jn. au | W      | China            | 1823.      | C s.l | Bot. reg. 827           |
| 2444 coriacea Suz.      | coriaceous     | ♂ or 7  | ...    | S      | Antilles         | 1824.      | C s.l |                         |
| 436. ARDUINA. W.        | ARDUINA.       |         |        |        | Apocynaceae.     | Sp. 1.     |       |                         |
| 2445 bispinosa W.       | two-spined     | ♂ cu    | 2      | mr. au | W                | C. G. H.   | 1760. | C p.l                   |
| 437. STRYCHNOS. W.      | STRYCHNOS.     |         |        |        | Apocynaceae.     | Sp. 2—9.   |       |                         |
| 2446 Nux-vomica W.      | Poison-nut     | ♂ p     | 15     | ...    | G. W             | E. Indies  | 1778. | S p.l                   |
| 2447 potatorum W.       | Clearing-nut   | ♀ m     | 15     | ...    | W                | E. Indies  | 1794. | S p.l                   |
| 438. CARISSA. W.        | CARISSA.       |         |        |        | Apocynaceae.     | Sp. 2—10.  |       |                         |
| 2448 Carandas W.        | Jasmine-flow   | ♂ fr    | 15     | jl     | W                | E. Indies  | 1790. | C s.p                   |
| 2449 spinarum W.        | spiny          | ♀ tm    | 20     | au. d  | W                | E. Indies  | 1809. | C s.p                   |
| 439. PÆDERIA. W.        | PÆDERIA.       |         |        |        | Rubiaceae.       | Sp. 1—3.   |       |                         |
| 2450 fetida W.          | stinking       | ♂ or 6  | ...    | Pu     | China            | 1806.      | C l.p | Icon. Kæmpf. 9          |



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and lived a hundred years. The work he left upon the agriculture of his time is invaluable. In French a species is called *Monjola*, (my beauty) on account of its beauty.

430. *Ehretia*. So named by Linnaeus in honor of D. G. Ehret, a famous French botanist and draughtsman. He made all the drawings for Patrick Browne's History of Jamaica; and a large collection of his drawings is now extant in the Banksian collection. Large trees of the Tropics, with handsome foliage and white flowers, which are not often produced in Europe.

431. *Bourreria*. A genus divided from *Ehretia*, with which it nearly agrees. It was named after one Bourer, an apothecary at Nuremberg.

432. *Ellisia*. Joseph Ellis was an English naturalist, fellow of the London Royal Society, and correspondent of Linnaeus. He published, besides his Natural History of Corallines, many papers in the Transactions of the Royal Society.

433. *Sersalisia*. Named after John Baptiste Sersalis, a Neapolitan clergyman, much praised by Fabius Columna. Culture the same as for *Sideroxylon*.

434. *Mangliilla*. This genus is called in Dombry's Manuscript Papers, from which M. de Jussieu obtained his knowledge of it, *Mangliille* de Perou. The original species was a Peruvian shrub, with alternate leaves and bunches of numerous axillary flowers.

435. *Ardisia*. A name derived from *ædis*, a point, on account of the acute segments of the corolla. An ornamental genus of plants, much valued by collectors for the beauty of their foliage, flowers, and berries. They are of easy culture: cuttings strike root freely in a pot of sand, plunged in a moist heat, under a hand-glass.

436. *Ardaina*. In honor of Pietro Arduini, curator of the economical garden of Padua. A genus scarcely distinct from *Carissa*. It is a pretty little plant not unlike the box, easily propagated by cuttings under a bell-glass in sand.

437. *Strychnos*. A name given by the Greeks to the Solanum. The root of the name has been found in the verb *spaw*, to strew, to throw down; the property of the original and modern plants being narcotic. *S. nux-vomica* is a middling sized tree with a crooked trunk and smooth ash-colored bark: the leaves round, shining, smooth,

- 2423 Leaves broad ovate serrate rugose, Spikes terminal, Flowers clustered, Cal. large inflated  
 2424 Leaves linear toothed obtuse revolute at edge rough above tomentose beneath, Spikes linear oblong
- 2425 Leaves oblong ovate entire smooth, Flowers paniced  
 2426 Leaves ovate roughish, Flowers corymbose spiked 1-sided
- 2427 Leaves ovate entire smooth, Flowers corymbose, Cal. smooth  
 2428 Leaves ovate very smooth reflexed at edge, Berry juiceless 4-cornered
- 2429 The only species, resembling a *Hydrophyllum*
- 2430 Leaves ovate obtuse downy beneath, Cor. villous outside, Barren filaments lanceolate
- 2431 Leaves oblong acute at each end, Flowers solitary lateral
- 2432 Panicles axillary and terminal, Leaves oblong acuminate narrowed at base  
 2433 Corymbs axillary 3-parted, Leaves oblong narrowed towards each end  
 2434 Panicles terminal, Leaves lanceolate ovate repand crenate acuminate attenuated at base  
 2435 Racemes lateral axillary compound, Leaves oblong acuminate entire  
 2436 Corymbs axillary simple, Leaves entire ovate elliptical coriaceous  
 2437 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals rounded, Cor. thrice as long as cal  
 2438 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals round, Cor. twice as long as calyx  
 2439 Racemes axillary simple, Leaves obovate at the edge cartiliginous serrated  
 2440 Leaves wedge-shaped oblong nearly sessile entire smooth reflexed, Panicles decomposed  
 2441 Raceme terminal pyramidal, Pedunc. altern. umbelliferous, Leaves oblong obtuse smooth entire  
 2442 Leaves lanc. crenate, Corymbs compound, Flowers spotted  
 2443 Leaves lanceolate coriaceous sinuate narrowed towards the base, Cor. campan. dotted : Lobes obtuse  
 2444 Flowers paniced, Leaves oblong entire veinless coriaceous
- 2445 Leaves cordate ovate mucronate subsessile, Spines bifid at end
- 2446 Unarmed, Leaves ovate stalked, Cymes subterminal  
 2447 Leaves opp. ovate acute 5-nerved veiny, Cymes axillary
- 5448 Leaves ovate mucronate netted veiny, Segm. of cor. lanceolate  
 2449 Leaves ovate acute veiny, Segments of cor. oblong
- 2450 Leaves cordate lanceolate, panicles short opp. few-flowered, Bracts very small



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entire; and the berry the size of a pretty large apple. The wood is hard, durable, and very bitter. The seeds, which form the official *nux-vomica*, are employed in the distillation of country spirits, to render them more intoxicating. The pulp of the fruit seems perfectly innocent, being eaten greedily by many sorts of birds. The seed consists chiefly of a gummy matter with a little resin, the latter intensely bitter. It is reckoned amongst the most powerful poisons of the narcotic kind. It proves fatal to dogs in a very short time, and to most other quadruped vermin, and even some birds, as crows and ducks. From dissections both of the human subject and of dogs that have been poisoned by it, no injury appears done to the stomach or intestines, which proves that it acts upon the nervous system, and destroys life by the virulence of its narcotic influence.

*S. potatorium* is a larger tree than the other. The pulp of the fruit when ripe is eaten by the natives: the ripe seeds are dried and sold in every market of the East Indies to clear muddy water. A precious quality in countries where the water is rarely of a good quality. Hence the English name of clearing-nuts. The natives never drink clear well-water, if they can get pond or river water, which is always more or less impure. One of the seeds is rubbed very hard for a minute or two round the inside of the vessel containing the water, which is generally an unglazed earthen one, and the water left to settle; in a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. These nuts are constantly carried about by the more provident part of our officers and soldiers in time of war, to enable them to purify their water; they are easier to be had than alum, and are probably less hurtful to the constitution.

438. *Cassia*. A word of no known meaning. *Carandas* is a slight alteration of *Caranda*, the Bengalese name of the tree. *C. Carandas* is a small tree, with dichotomous branches, and entire, glossy, ovate leaves, flowers like those of *Jasminum grandiflorum*, and berries black when ripe, eatable, and of a sweet acid flavor. Current-jelly is made of them in the East Indies.

*C. spinarium* is a dioecious plant with horizontal branches, coriaceous glossy leaves, and terminal peduncles of five or six small flowers. Neither of the species require much water, and the pots should be well drained to prevent their getting sodden. Cuttings strike root freely under a bell-glass in sand plunged in heat.

439. *Pederia*. From *pedor*, stink, in allusion to the fetid smell of the flowers. A climbing smooth shrub, with opposite stalked entire leaves, and dull purple flowers.

|   |   |    |    |                     |                  |          |           |                                     |
|---|---|----|----|---------------------|------------------|----------|-----------|-------------------------------------|
| 440. GELSEMIUM. J. GELSEMIUM.           |   |    |    | <i>Apocynaceae.</i> | <i>Sp. 1.</i>    |          |           |                                     |
| 2451 sempervirens H. K. evergreen.      | ♂ | or | 6  | ju, jl              | Y                | N. Amer. | 1640.     | C s p Cat. car. 1. t. 53            |
| 441. RAUWOLFIA. W. RAUWOLFIA.           |   |    |    | <i>Apocynaceae.</i> | <i>Sp. 4-12.</i> |          |           |                                     |
| 2452 nitida W. shining                  | ♀ | □  | cu | 12                  | ju, s            | W        | S. Amer.  | 1752. C s p Bot. cab. 339           |
| 2453 canescens W. hoary                 | ♂ | □  | cu | 7                   | ...              | Pk       | Jamaica   | 1759. C l p Plum. ic. t. 236. f. 2  |
| 2454 tomentosa W. downy                 | ♂ | □  | cu | 3                   | ap, o            | W        | W. Indies | 1823. C l p Bot. mag. 2440          |
| 2455 ternifolia Kunth. three-leaved     | ♂ | □  | cu | 3                   | my               | W        | W. Indies | 1823. C l p Bot. mag. 2440          |
| 442. VALLESIA. Fl. per. VALLESIA.       |   |    |    |                     |                  |          |           |                                     |
| 2456 glabra Lk. smooth                  | ♂ | □  | or | 3                   | my, ju           | W        | N. Spain  | 1822. C r m Cav. ic. 3. t. 237      |
| 443. BEOBOTRYIS. Vahl. BEOBOTRYIS.      |   |    |    |                     |                  |          |           |                                     |
| 2437 indica Roeb. Indian                | ♂ | □  | or | 3                   | n                | W        | E. Indies | 1817. C co Bot. mag. 2092           |
| † 444. SOLANDRA. W. SOLANDRA.           |   |    |    |                     |                  |          |           |                                     |
| 2458 grandiflora W. great-flowered      | ♀ | □  | or | 15                  | mr               | Pa. Y    | Jamaica   | 1813. C r m Jac. schen. 1. t. 45    |
| 2459 viridiflora B. M. green            | ♂ | □  | or | 3                   | my, jl           | G        | S. Amer.  | 1815. C r m Bot. mag. 1948          |
| 445. CESTRUM. W. CESTRUM.               |   |    |    |                     |                  |          |           |                                     |
| 2460 laurifolium W. Laurel-leaved       | ♂ | □  | p  | 7                   | my, au           | W        | W. Indies | 1691. C p l Smith spic. 2. t. 2     |
| 2461 macrophyllum Vent. large-leaved    | ♂ | □  | p  | 7                   | my, au           | W        | W. Indies | 1812. C p l Vent. choix. 18         |
| 2462 fetidissimum W. en. stinking       | ♂ | □  | p  | 10                  | my, au           | Y        | E. Indies | 1801. C p l Jac. schae. 3. t. 339   |
| 2463 nocturnum W. night-smelling        | ♂ | □  | p  | 7                   | n                | W        | E. Indies | 1732. C p l Di. elt. t. 153. f. 185 |
| 2464 Rarui W. Willow-leaved             | ♂ | □  | p  | 7                   | ju, jl           | Pa. Y    | Chili     | 1787. C p l Bot. mag. 1770          |
| 2465 auriculatum W. ear-leaved          | ♂ | □  | p  | 12                  | ju, jl           | G        | Peru      | 1779. C p l L'Her. s. n. 1. t. 35   |
| 2466 vespertinum Jacq. cluster-flower'd | ♂ | □  | p  | 12                  | my, jl           | G        | W. Indies | 1753. C p l Jac. schae. 3. t. 328   |
| 2467 fastigiatum Jacq. Honeysuckle      | ♂ | □  | p  | 4                   | n                | W        | W. Indies | 1759. C p l Bot. mag. 1789          |
| 2468 dirum W. day-smelling              | ♂ | □  | p  | 10                  | n                | W        | W. Indies | 1732. C p l Di. elt. t. 154. f. 186 |
| 2469 venenatum W. poisonous             | ♂ | □  | p  | 7                   | f, ap            | W        | C. G. H.  | 1787. S p l                         |
| 2470 salicifolium Jacq. willow-leaved   | ♂ | □  | p  | 5                   | ap, ju           | G. W.    | Caraccas  | 1790. C l p Jac. schae. 3. t. 326   |
| 2471 tomentosum W. downy                | ♂ | □  | p  | 6                   | ju, jl           | Y        | S. Amer.  | 1730. C p l                         |
| 2472 hirsutum Jacq. hairy               | ♂ | □  | p  | 8                   | ju, jl           | G        | .....     | 1818. C p l Jac. schae. 3. t. 324   |
| 2473 pendulinum Jacq. pendulous         | ♂ | □  | p  | 6                   | ju, jl           | G. W.    | Caraccas  | 1824. C p l Jac. schae. 3. t. 327   |
| 2474 odontospermum Jacq. tooth-seeded   | ♂ | □  | p  | 6                   | jl, au           | W        | W. Indies | 1793. C p l                         |
| 2475 tinctorium Jacq. dyer's            | ♂ | □  | dy | 4                   | ap, ju           | W        | Caraccas  | 1823. C p l Jac. sch. 3. t. 332     |
| 2476 undulatum Fl. per. wavy            | ♀ | □  | p  | 15                  | ...              | Y        | Peru      | 1822. C p l Fl. per. 2. t. 155      |
| 2477 cauliflorum Jacq. stem-flowering   | ♂ | □  | p  | 4                   | my, ju           | W        | .....     | 1821. C p l Jacq. sch. 3. t. 325    |
| 2478 citrifolium Retz. lemon-leaved     | ♂ | □  | p  | 6                   | ju, jl           | Y        | .....     | 1820. C p l                         |
| 446. ATROPA. W. ATROPA.                 |   |    |    |                     |                  |          |           |                                     |
| 2479 Belladonna W. Deadly-Nights.       | ♀ | △  | p  | 5                   | ju, jl           | V        | Britain   | rub. R co Eng. bot. 592             |
| 2480 frutescens W. shrubby              | ♂ | □  | p  | 5                   | ja, mr           | Y        | Spain     | 1757. C s l Cav. ic. 2. t. 102      |
| 2481 aristata Poir. bearded             | ♂ | □  | p  | 5                   | ...              | Y        | Canaries  | 1779. C s l                         |
| 2482 arborescens L. tree                | ♀ | □  | p  | 15                  | ju, au           | W        | Jamaica   | 1733. C s l Plum. ic. 46. f. 1      |
| 447. MANDRAGORA. W. en. MANDRAKE.       |   |    |    |                     |                  |          |           |                                     |
| 2483 officinalis W. en. officinal       | ♀ | △  | p  | 3                   | mr, ap           | W        | Levant    | 1548. R co Bull. herb. t. 145       |



History, Use, Propagation, Culture.

440. *Gelsemium*. One of the ancient names of the jasmine. A beautiful climbing evergreen shrub, rather too delicate to bear the cold of our winters; but with a little protection it produces in abundance its charming yellow flowers of delicious fragrance.

441. *Rauwolfia*. So named by Plumier, in honor of Leonhard Rauwolf, physician at Augsburg, who travelled through Palestine and other countries of the east, in 1753-5. His travels were translated into English, under the revision of Mr. Ray, and with additions by him. The species abound in a milky juice, which is considered more or less of a deleterious nature. They produce berries about the size and color of those of the privet. Cuttings root in sand under a hand-glass.

442. *Vallesia*. In honor of Fr. Vallesia, principal physician to Philip II., king of Spain. He wrote upon the plants of holy writ. Small Peruvian shrubs.

443. *Bœobotrys*. From *bœois*, small, and *botrys*, a bunch; the flowers growing in little bunches. An elegant shrub with white flowers, produced freely from the axillæ of the leaves.

444. *Solandra*. In honor of the celebrated and excellent Daniel Solander, whose botanical merits will never be forgotten in this country. He accompanied Sir Joseph Banks in his voyage with Captain Cook, and the information afforded by his manuscript notes made at that time has not yet been exhausted. The species are very beautiful, and remarkable for the extraordinary size of their flowers. Sweet observes, "if allowed plenty of room and moisture, they grow very rapidly, but produce no flowers. The best way is to plant them in a loamy soil, and allow them to grow fast at first, till they have made a great many shoots; then keep them very dry till their leaves drop off, and they will produce plenty of flowers. Cuttings taken off and stuck in a pot of mould, will root without any further care. The best way to have plants flower young, is to take the cuttings from the flowering shoots." (*Bot. Cult.* 107.)

445. *Cestrum*. A name given by the Greeks to the Betony, but having no relation whatever to the plant which bears the name now. *Cestreau*, Fr. This is a genus of easy cultivation, but of little beauty. The flowers are all white, and in some cases sweet-scented; the fruit of all poisonous.

446. *Atropa*. A mythological name. Atropos was one of the Fates, and it was her special duty to cut the thread of human life. The fruit of this genus is well adapted to fulfilling her office. A. belladonna (fine lady) has

2451 Scandent quite smooth, Leaves lanceolate, Flowers axillary subsolitary

2452 Leaves 3 or 4 together lanceolate acuminate shining, Flowers terminal

2453 Leaves 4 together oblong ovate acuminate pubescent, Flowers terminal and axillary

2454 Leaves 4 together oblong narrowed both ways tomentose, Flowers terminal and axillary

2455 Leaves 3 together oblong acuminate smooth, Flowers between the petioles corymbose

2456 Leaves lanceolate cymbiform incurved at end

2457 Leaves oblong ovate acuminate coarsely serrated

2458 Leaves smoothish stalked, Anthers of the same shape

2459 Flowers stalked, Segm. of flower long acuminate revolute

2460 Filaments toothed or naked, Leaves elliptical coriaceous shining, Flowers fasciated stalked

2461 Filam. toothed, Leaves ovate oblong acuminate smooth, Flowers fasciated sessile

2462 Filam. naked, Segm. of cor. emarginate, Flowers racemose, Leaves ovate and lanceolate

2463 Filam. toothed, Peduncles racemose as long as leaves

2464 Filam. toothed or naked, Flower-bearing stem panicled, Stipules linear

2465 Filam. naked, Stipules amplexicaule lunate, Leaves ovate, Flowers panicled terminal

2466 Filam. naked shorter than throat of cor. Flowers aggreg. sessile terminal and lateral, Leaves elliptical

2467 Filam. naked, Pedunc. elong. as long as leaves spiked at end, Leaves oblong, Stip. elliptical

2468 Filam. naked, Segm. of cor. rounded reflexed, Leaves lanceolate

2469 Leaves lanceolate oblong coriaceous, Flowers sessile

2470 Filam. toothed, Flowers racemose, Leaves linear lanceolate

2471 Flowers clustered sessile terminal, Branches linear and calyces downy

2472 Filam. toothletted, Spikes axillary longer than leafstalks, Leaves obl. pub. on both sides, Stip. falcate

2473 Filam. naked the length of the tube of the corolla, Flowers aggreg. sessile terminal, Leaves elliptical

2474 Filam. naked, Leaves lanceolate, Racemes short axillary and terminal, Cor. revolute

2475 Filam. naked, Leaves lanc. ovate, Racemes axillary and terminal, Flowers pedicellate, Cor. acum. reflex

2476 Filam. toothed, Leaves ovate acute wavy, Pedunc. axillary and terminal few flowered

2477 Filam. naked exserted, Flowers stalked clustered, Cor. campanulate, Leaves elliptical

2478 Leaves large ovate acute entire shining naked on both sides coriaceous nerved, Petioles black shining

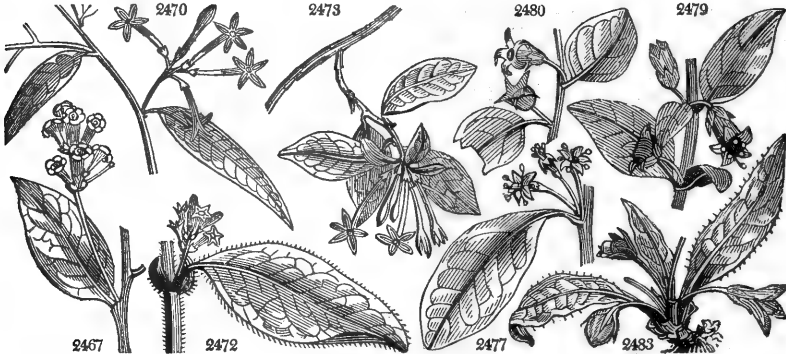
2479 Stem herbaceous, Leaves ovate entire

2480 Stem shrubby, Peduncles clustered, Leaves cordate ovate obtuse

2481 Stem shrubby, Leaves oblong entire smooth, Branches downy, Sepals aristate

2482 Stem shrubby, Peduncles clustered, Cor. revolute, Leaves oblong

2483 The only species

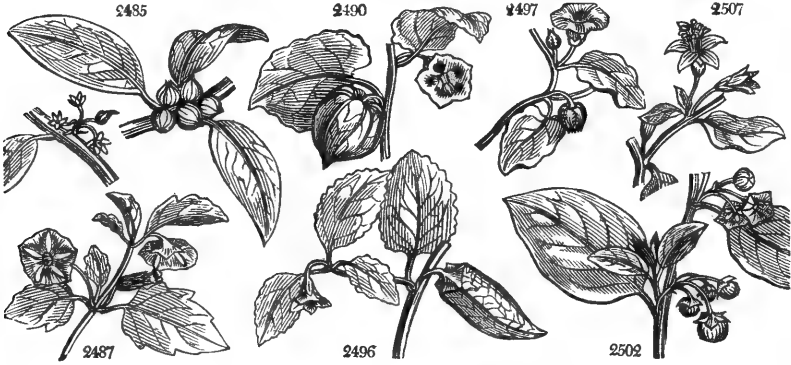


and Miscellaneous Particulars.

its specific name, according to some, from its being used as a wash among the ladies, to take off pimples or other excrescences from the skin; or, according to others, from its quality of representing phantasms of beautiful women to the disturbed imagination. The inspissated juice of the berries is used in the form of extract for anointing the eyelids in some ophthalmic complaints. Its effect in dilating the pupil is quite remarkable. It has branching stems with the root leaves often a foot long and five inches broad, and the whole plant is more or less tinged with purple. The flowers are void of scent; the berries are larger than cherries, at first green, but when ripe of a beautiful shining black color, full of purple juice, with roundish dotted channelled seeds. The whole plant, and especially the berries, is poisonous. Buchanan relates the destruction of the army of Sweno the Dane, when he invaded Scotland, by the berries of this plant, which were mixed with the drink which the Scots, according to tradition, were to supply the Danes with. The Danes became inebriated, and the faithless Scots fell on them in their sleep. Dr. Milne (*Indigenous Botany*) remarks, that nature has been more parsimonious in her warnings with respect to this plant, than to others of the same natural family. Neither the smell nor the taste is offensive; and if the color of the flowers proves in some degree a repellent, that of the fruit, on the other hand, is in an equal degree, at least, attractive and inviting.

447. *Mandragera*. From *mandra*, something relating to cattle, and *ageros*, hurtful: dangerous to cattle. It is a venomous plant, and was an important engine in the days of medical charlatany, from the roots being supposed to bear a resemblance to the human form. In old herbals the figures display the male mandrake with a long beard, and the female with a prolix head of hair. Miller says, "mountebanks carry about fictitious images, shaped from roots of bryony and other plants, cut into form or forced to grow through moulds of earthenware, as mandrake roots." Happily such mountebanks have ceased to exist in Britain. On the continent they are still common, and Box tells us (in 1810), that by means of a few cuts with a knife, they add the image of the exterior organs of generation, male or female, to mandrake roots, and then sell them to ensure boys or girls to pregnant women, procure happy births, &c. We have ourselves seen them exposed by mountebanks in sea-port towns of France. For an ingeniously indelicate figure of a mandrake root, see the *Flora Græca*, the plates for which have been all selected by Sir James Smith. The plant is of easy culture, but is the better for the protection of a frame or shelter of a south wall during winter.

| 448. PHY/SALIS. W.      |                      | WINTER CHERRY.  |       | Solaneæ. Sp. 18-37.  |       |      |           |       |       |
|-------------------------|----------------------|-----------------|-------|----------------------|-------|------|-----------|-------|-------|
| 2484                    | somnifera W.         | clustered       | △ w   | 2                    | jl.au | G.Y  | Mexico    | 1796. | C co  |
| 2485                    | flexuosa W.          | flexuose        | △ w   | 2                    | jl.au | G.Y  | E. Indies | 1759. | C co  |
| 2486                    | curassavica W.       | Curacao         | △ w   | 1 1/2                | jn.s  | St.Y | S. Amer.  | 1699. | D co  |
| 2487                    | viscosa W.           | clamy           | △ w   | 2                    | jl    | St.Y | America   | 1732. | D co  |
| 2488                    | pensylvanica W.      | Pensylvanian    | △ or  | 1                    | jl.s  | Y    | N. Amer.  | 1726. | D p.l |
| 2489                    | Alkekengi W.         | common          | △ or  | 1                    | jl.s  | W    | S. Europe | 1548. | D s.l |
| 2490                    | peruviana W.         | eatable         | △ fr  | 1 1/2                | ap.o  | W    | S. Amer.  | 1772. | S s.l |
| 2491                    | pubescens W.         | downy           | △ w   | 2                    | jl.au | Y    | America   | 1640. | S s.l |
| 2492                    | angulata W.          | angular-branch  | △ w   | 2                    | jn.s  | W    | India     | 1732. | S s.l |
| 2493                    | chenopodiifolia W    | Goose-foot-lvd. | △ w   | 2                    | jl.au | Y    | Peru      | 1798. | S s.l |
| 2494                    | barbadensis W.       | Barbadoes       | △ w   | 2                    | jl.au | Pa.Y | W. Indies | 1798. | S s.l |
| 2495                    | minima W.            | small           | △ w   | 1 1/2                | jl.au | Pa.Y | E. Indies | 1759. | S s.l |
| 2496                    | ruinosa W.           | half-yearly     | △ w   | 1                    | jl.au | Pa.Y | America   | 1796. | S s.l |
| 2497                    | prostrata W.         | trailing        | △ w   | 1                    | jl.au | L.B  | Peru      | 1812. | S s.p |
| 2498                    | tuberosa W. E.       | tuberous        | △ w   | 2                    | jl.au | W    | .....     | 1815. | D s.p |
| 2499                    | parviflora W. E.     | small-flowered  | △ w   | 1 1/2                | jl.au | Y    | .....     | 1820. | S s.p |
| 2500                    | dobia Lk.            | doubtful        | △ w   | 2                    | jl.au | Y    | Brazil    | 1821. | S s.p |
| 2501                    | fetidissima Lag.     | stinking        | △ w   | 2                    | jl.au | Y    | N. Spain  | 1820. | S s.p |
| 449. SA/RACHA. Fl. per. |                      | SARACHA.        |       | Solaneæ. Sp. 2.      |       |      |           |       |       |
| 2502                    | procumbens F. p.     | procumbent      | △ or  | 3                    | n.jl  | Pa.Y | Peru      | 1822. | D co  |
| 2503                    | umbellata Jacq.      | umbelled        | △ or  | 4                    | jn.jl | Pa.Y | Peru      | 1822. | D co  |
| 450. LY/CIUM. W.        |                      | BOX-THORN.      |       | Solaneæ. Sp. 12-28.  |       |      |           |       |       |
| 2504                    | afrum W.             | African         | △ or  | 10                   | jn.jl | V    | C. G. H.  | 1712. | C p.l |
| 2505                    | rigidum W.           | rigid           | △ or  | 4                    | ap.my | V    | C. G. H.  | 1795. | C p.l |
| 2506                    | ruthenicum W.        | Russian         | △ or  | 6                    | ..... | Pk   | Siberia   | 1804. | C p.l |
| 2507                    | barbarum P. S.       | Willow-leaved   | △ or  | 12                   | my.au | V    | Barbary   | 1696. | R co  |
| 2508                    | turbinatum P. S.     | top-shaped      | △ or  | 12                   | my.au | V    | China     | 1709. | C co  |
| 2509                    | europæum P. S.       | European        | △ or  | 12                   | my.au | Pk   | S. Europe | 1730. | C co  |
| 2510                    | lancoelatum Poir.    | spear-leaved    | △ or  | 12                   | my.au | Pk   | S. Europe | ..... | C co  |
| 2511                    | chinense Mill.       | Chinese         | △ or  | 6                    | my.au | Pu   | China     | ..... | C co  |
| 2512                    | horrimum W.          | succulent-lvd.  | △ or  | 3                    | jl.au | W    | C. G. H.  | 1791. | C p.l |
| 2513                    | boerhaaviaefolium W. | glaucous-leaved | △ or  | 6                    | ap.my | P.Pu | Peru      | 1780. | C p.l |
| 2514                    | carolinianum Ph.     | Carolina        | △ or  | 4                    | jl.s  | B    | Carolina  | 1806. | C p.l |
| 2515                    | trewianum Duh.       | Trew's          | △ or  | 15                   | my.au | Pu   | China     | 1818. | C co  |
| 451. SOLA/NUM. W.       |                      | NIGHTSHADE.     |       | Solaneæ. Sp. 79-360. |       |      |           |       |       |
| 2516                    | peruvianum L.        | Peruvian        | △ or  | 2                    | my.jn | Y    | Peru      | 1823. | D co  |
| 2517                    | Lycopersicum W.      | Love-apple      | △ or  | 3                    | jl.s  | G    | S. Amer.  | 1596. | S r.m |
| 2518                    | cerasiforme Dun.     | Cherry          | △ or  | 3                    | jl.s  | G    | .....     | 1800. | S r.m |
| 2519                    | Humboldtii W.        | Humboldt's      | △ or  | 2                    | jl.s  | Y    | S. Amer.  | 1822. | S co  |
| 2520                    | pyriforme Dun.       | Pear-shaped     | △ or  | 2                    | jl.s  | Y    | .....     | 1823. | S co  |
| 2521                    | tuberosum W.         | Potatoe         | △ ag  | 2                    | jn.au | W    | Peru      | 1597. | R r.m |
|                         | β Commersonii Poir.  | Wild-Potatoe    | △ cul | 2                    | my.o  | W    | S. Amer.  | 1822. | R co  |
| 2522                    | Seafortianum And.    | Seafort's       | △ or  | 20                   | jl.s  | Pk   | Barbadoes | 1804. | C l.p |
| 2523                    | betaceum P. S.       | Beet-leaved     | △ or  | 4                    | jn.jl | Pk   | S. Amer.  | 1803. | C l.p |
| 2524                    | muricatum W.         | warted          | △ or  | 3                    | jl.au | V    | Peru      | 1785. | C l.p |
| 2525                    | laciniatum W.        | cut-leaved      | △ or  | 3                    | jl.au | V    | N. Hoil.  | 1772. | S s.p |
| 2526                    | quercifolium W.      | Oak-leaved      | △ or  | 2                    | jn.jl | V    | Peru      | 1787. | C r.m |
| 2527                    | radicans W.          | rooting         | △ or  | 3                    | jl.au | Pu   | Peru      | 1771. | D s.p |



History, Use, Propagation, Culture,

448. *Physalis*. From *φωσις*, a bladder. The fruit is enclosed in an inflated calyx. The berries of *P. alkekengi* are acidulous and slightly bitter; they were esteemed detergent and aperient by the ancients. In Spain, Germany, and Switzerland, they are eaten as a common fruit. *Phys. peruviana* produces a pleasant fruit for tarts, and is in some countries, and even English gardens, cultivated for that purpose.

449. *Sarcacha*. A plant resembling *Atropa*, or *Physalis*, to which it is too nearly related. It was named by the authors of the *Flora Peruviana* after Isidore Sarcacha, a country of Asia Minor. Some of the Cape species of this genus have elegant flowers and merit cultivation, and *L. barbarum* is valuable for covering naked walls, arbors, &c. It grows four or six feet in a season, flowers freely, and is readily propagated by cuttings at any season of the year. *L. europæum* is used for hedges in Tuscany, being armed with small thorns. Cusius says they eat the small shoots in Spain with oil and vinegar. *L. ruthenicum* is an ornamental shrub from its very white bark. The greenhouse species root readily in sand under a hand-glass.

451. *Solanum*. By some ingenious commentators this word has been derived from *solaris*, to comfort. The derivation may be possible, but the application is not evident. This extensive genus, which belongs to the Lauride of Linneus's system of natural orders, does not contain many handsome plants; but it includes, besides the Tomato and egg plant, celebrated in cookery, the potatoe, whose tubers, as a human food, if equalled, are not surpassed by those of any other plant. Some of the species are singular on account of their leaves and

- 2484 Stem shrubby rounded, Branches upright, Flowers clustered  
 2485 Stem shrubby, Branches flexuose, Flowers clustered  
 2486 Stem shrubby, Leaves ovate tomentose  
 2487 Leaves in pairs repand obtuse subtomentose, Stem herbaceous paniced above  
 2488 Leaves ovate subrepand obtuse nearly naked, Flowers in pairs, Stem herbaceous  
 2489 Leaves in pairs entire acute, Stem herbaceous branching below  
 2490 Pubescent, Leaves cordate entire  
 2491 Pubescent, Stem angular, Leaves in pairs cordate nearly entire soft, Teeth of cal. acuminate  
 2492 Much branched, Branches angular smooth, Leaves ovate toothed  
 2493 Pubescent, Stem erect  $\frac{1}{2}$  shrubby, Leaves subcordate toothed angular, Petioles decurrent  
 2494 Much branched, Leaves ovate cordate pub. Flowers pendulous, Calyx in fruit ovate acuminate angular  
 2495 Much branched, stalk of fruit much longer than the villous leaf  
 2496 Much branched, Leaves villous, Peduncles erect  
 2497 Much branched, Stem procumbent rounded hairy. Leaves rather fleshy  
 2498 Pubescent, Leaves ovate angular, Stem herbaceous, Berries viscid, Root tuberous  
 2499 Hairy, Leaves cordate acute toothed, Pedunc. at length reflexed, Cal. with segm. twice as short as cor.  
 2500 Leaves oval unequal acute toothed smoothish, Flowers solitary, Calyx powdered, Cor. tomentose  
 2501 Leaves in pairs toothed repand tomentose-viscid oval, Stem herbaceous paniced above

- 2502 Leaves in pairs unequal ovate smooth. Flowers in umbels  
 2503 Stem erect hairy, Umbels axillary stalked cernuous, Flowers plaited

- 2504 Branches diffuse spiny, Leaves linear fleshy attenuated at base fascicled, Pedunc. longer than cal.  
 2505 Branches upright spiny, Leaves linear fascicled, Pedunc. shorter than calyx, Stam. as long as tube of cor.  
 2506 Branches droop. spiny, Lvs. lin. lanc. atten. at base fasc. Ped. longer than cal. Stam. as long as limb of cor.  
 2507 Branches drooping, Buds spiny, Cal. trifid, Stam. as long as limb of cor.  
 2508 Branches drooping spiny rounded, Leaves sessile lanceolate acuminate, Cal. trifid, Berry turbinate  
 2509 Branches lax spiny, Leaves oblong lanc. obtuse obliquely bent, Stam. shorter than limb of cor.  
 2510 Branches erect flexuose at end recurved rounded much spreading spiny, Leaves sessile lanc. acute  
 2511 Stem and branc. droop. striated rarely spiny, Lvs. stalked ov. obt. Cal. 5-toothed, Style longer than stam.  
 2512 Spiny, Leaves obovate fleshy smooth, Peduncles very short  
 2513 Spiny, Leaves ovate entire acute glaucous, Flowers paniced  
 2514 Unarmed, Leaves narrow spatulate oblong, Flowers 4-cleft tetrandrous  
 2515 Erect spiny, Branc. dif. angular, Lvs. stalked lanc. acute, Cal. 2 or 3-fid, Style scarcely longer than stam.

§ 1. *Lycopersicon* (*Love Apples*). Anthers conical, joined at end. Berry many-celled.

- 2516 Villous hoary, Leaves stipulaceous unequally pinnatifid, Segm. obtuse, Pedunc. and pedicel bracteated  
 2517 Hairy, Leaves unequally pinnatifid, Segments cut glaucous beneath, Berries torulose furrowed smooth  
 2518 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Sepals as long as cor. Berries round rather hairy  
 2519 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Pedunc. with bract. Sepals twice as long as cor.  
 2520 Hairy, Lvs. unequally pinnatifid, Segm. cut glaucous beneath, Pedunc. without bract. Berries obconical

§ 2. *Unarmed*. Leaves pinnate, pinnatifid, or entire.

- 2521 Root tuberous, Stem herbac. Segm. of lvs. unequal, the altern. ones minute, Pedicels stalked, cor. 5-ang.  
 β Root tuberous, Stem herbaceous, Leaves pinnate sublyrate pilose, Pedic. jointed, Cor. 5-cleft  
 2522 Leaves pinnate waved, upper simple lanc. Racemes in paniced cymes sometimes longer than petioles  
 2523 Leaves cordate ovate oblong hairy on each side waved at edge, Racemes pendulous as long as petioles  
 2524 Stem half shrubby rooting ascending runners mucricated, Lvs. obl. lanc. pubescent simple, Racemes 2-fid  
 2525 Smooth, Leaves pinnatifid segments linear lanceolate terminal elongated, Racemes lateral corymbose  
 2526 Stem angular wavy rough, Leaves pinnatifid, Racemes cymose  
 2527 Stem rounded prostrate rooting, Lvs. deeply pinnat. Sinuses obtuse, Racemes cymose as long as petioles



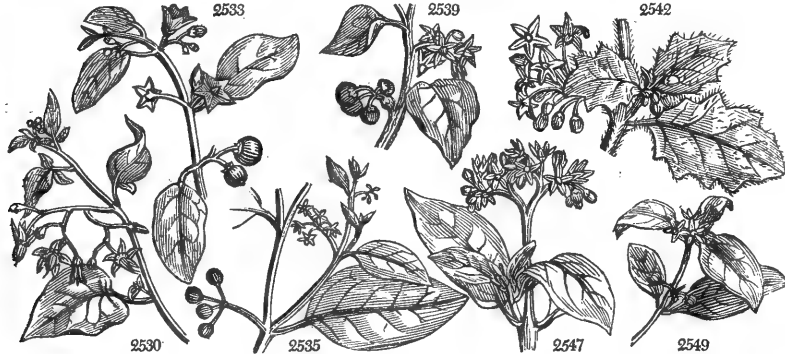
and Miscellaneous Particulars.

spines; and others retain their fruit in our stoves during winter, which may be a recommendation to some to admit them in collections.

*S. dulcamara* has roots which smell like the potatoe; being chewed, a sensation of bitterness is first felt, and then of sweetness, whence the specific name. The berries excite vomiting and purging, and the twigs and leaves have been used in rheumatic and scorbutic cases with good effect.

*S. tuberosum*, *Pomme de Terre*, Fr., *Kartaffel*, Ger., *Pomo de Terra*, Ital., *Patates*, Span., &c. is supposed to be a native of South America, and to be found in a wild state in elevated places in the tropical regions, and in the more temperate districts of the western coasts of that country. Some tubers, said to be of the wild potatoe, have been received from these parts by the Horticultural Society, and cultivated by them; their produce differs very little, if at all, from that of the common cultivated sort; they are small, roundish, and pink and white colored. (*Hort. Trans.* 5. 257.) It appears probable that the potatoe was first brought into Europe from the mountainous parts of South America in the neighbourhood of Quito, where they were called *patapas*, to Spain, early in the 16th century. From Spain, where they were called *battatas*, they found their way to Italy, and there received the same name as the truffle, *taratouffi*. From Italy they went to Vienna, through the governor of Mons in Hainault, who sent some to Clusius in 1598. To England the potatoe found its way from North America, being brought from Virginia by the colonists sent out by Sir Walter Raleigh in 1584, and who returned in July 1586; and, "probably," says Sir Joseph Banks, "brought with them the potatoe." Gerard,

|      |                             |                 |      |    |       |      |           |       |       |                        |
|------|-----------------------------|-----------------|------|----|-------|------|-----------|-------|-------|------------------------|
| 2528 | <i>corymbosum W.</i>        | corymbed        | ☐ or | 2  | jlau  | V    | Peru      | 1786. | D co  | Jac. ic. 1. t. 40      |
| 2529 | <i>oliganthum Lk.</i>       | few-flowered    | ☐ or | 3  | ...   | W    | .....     | 1824. | C co  |                        |
| 2530 | <i>Dulcamára W.</i>         | Bitter-sweet    | ☐ p  | 3  | jn.jl | V    | Britain   | hed.  | C s.l | Eng. bot. 565          |
| 2531 | <i>macrocarpon W.</i>       | large-fruited   | ☐ or | 1  | my.s  | B    | Peru      | 1759. | C s.p | Mill. ic. 2. t. 294    |
| 2532 | <i>æthiopicum W.</i>        | Ethiopian       | ☐ or | 1½ | jl.s  | W    | Ethiopia  | 1597. | C l.p | Jac. vind. 1. t. 12    |
| 2533 | <i>Zuccagnianum Dum.</i>    | scabrous        | ☐ or | 1½ | jn.jl | W    | .....     | 1823. | S co  | Dun. sol. t. 11        |
| 2534 | <i>Pseudo-cápicum Jacq.</i> | Winter-cherry   | ☐ or | 4  | jn.s  | W    | Madeira   | 1596. | S r.m | Sabb. rom. t. 59       |
| 2535 | <i>nodiflorum Jacq.</i>     | thick-jointed   | ☐ w  | 10 | jn.jl | W    | I. France | 1822. | S co  | Jacq. ic. 2. t. 326    |
| 2536 | <i>guineense W. en.</i>     | large-berried   | ☐ p  | 4  | jn.s  | G    | Guinea    | ...   | S s.l | Di.elt. t. 274. f. 354 |
| 2537 | <i>melanocerasum W. en.</i> | small-berried   | ☐ p  | 2  | jn.s  | W    | Virginia  | ...   | S s.l | Di.elt. t. 275. f. 356 |
| 2538 | <i>suffruticosum W. en.</i> | fringed-leaved  | ☐ or | 4  | my.s  | W    | Barbary   | 1804. | C l.p | Di.elt. t. 275. f. 356 |
| 2539 | <i>nigrum W.</i>            | black-berried   | ☐ or | 3  | jn.s  | W    | Britain   | rub.  | S s.l | Eng. bot. 566          |
| 2540 | <i>miniatum Bern.</i>       | red-berried     | ☐ w  | 4  | jn.jl | W    | S. Europe | 1823. | S co  |                        |
| 2541 | <i>húmile Bern.</i>         | green-berried   | ☐ w  | 1  | jn.jl | W    | S. Europe | 1823. | S co  |                        |
| 2542 | <i>villósium W. en.</i>     | orange-berried  | ☐ w  | 5  | jn.s  | W    | Barbadoes | ...   | S s.l | Di.elt. t. 274. f. 353 |
| 2543 | <i>pátulum W.</i>           | spreading       | ☐ or | 4  | jn.s  | V    | India     | ...   | S s.l | Di.elt. t. 275. f. 355 |
| 2544 | <i>crispum Fl. per.</i>     | Natre           | ☐ or | 18 | jn.jl | W    | Chili     | 1824. | C co  | Fl. per. 2. t. 158     |
| 2545 | <i>bombense Jacq.</i>       | Bomba           | ☐ or | 12 | jn.jl | W    | Mexico    | 1822. | C co  |                        |
| 2546 | <i>Cervantesii Lag.</i>     | Cervantes's     | ☐ or | 4  | my.jn | W    | Mexico    | 1818. | C co  |                        |
| 2547 | <i>verbascifolium W.</i>    | Mullein-leaved  | ☐ or | 7  | jn.jl | W    | W. Indies | 1749. | S p.l | Jac. vind. 1. t. 13    |
| 2548 | <i>auriculatum W.</i>       | ear-leaved      | ☐ or | 4  | ...   | V    | Madagasc. | 1773. | S p.l | Scop. insub. 3. t. 8   |
| 2549 | <i>diphýllum W.</i>         | two-leaved      | ☐ or | 3  | jn.jl | W    | W. Indies | 1699. | C s.l | Jac. ic. 2. t. 322     |
| 2550 | <i>havanense W.</i>         | Havannah        | ☐ or | 5  | jlau  | B    | W. Indies | 1793. | C co  | Jac. amer. 49. t. 35   |
| 2551 | <i>lycoides W.</i>          | spiny           | ☐ or | 4  | my.jn | Pa.B | Peru      | 1791. | C s.p | Jac. ic. 1. t. 46      |
| 2552 | <i>uniiflorum Lag.</i>      | one-flowered    | ☐ or | 3  | my.jn | B    | N. Spain  | 1820. | D co  |                        |
| 2553 | <i>stellatum Jacq.</i>      | stellate        | ☐ or | 6  | jn.jl | B    | .....     | 1822. | C co  | Jac. ic. 2. t. 325     |
| 2554 | <i>elaagnifolium Cav.</i>   | Oleaster-leaved | ☐ or | 6  | jn.jl | B    | Chili     | 1823. | C co  | Cav. ic. 3. t. 243     |
| 2555 | <i>racemosum W.</i>         | wave-leaved     | ☐ or | 4  | jlau  | W    | W. Indies | 1781. | C co  | Jac. amer. 50. t. 36   |
| 2556 | <i>igneum W.</i>            | red-spined      | ☐ or | 3  | mr.n  | W    | S. Amer.  | 1714. | C s.p | Jac. vind. 1. t. 14    |
| 2557 | <i>subarmátum W.</i>        | half-armed      | ☐ or | 6  | my.jn | W    | .....     | 1820. | C co  |                        |
| 2558 | <i>bahamense W.</i>         | Bahama          | ☐ or | 6  | jn.jl | V    | Bahama    | 1739. | S p.l | Di.elt. t. 271. f. 350 |
| 2559 | <i>tomentosum W.</i>        | woolly          | ☐ or | 2  | jn.jl | B    | C. G. H.  | 1662. | C p.l | Bocc. sic. 8. t. 5     |
| 2560 | <i>lanceafolium Jacq.</i>   | lance-leaved    | ☐ or | 10 | jlau  | W    | W. Indies | ...   | C co  | Jacq. ic. 2. t. 239    |
| 2561 | <i>bonariense W.</i>        | Buenos Ayres    | ☐ or | 10 | jn.s  | W    | B. Ayres  | 1727. | C s.l | D. e. 364. t. 272. 351 |
| 2562 | <i>subinérme W.</i>         | spear-leaved    | ☐ or | 7  | jlau  | B    | W. Indies | 1752. | C l.p | Jac. amer. 4. 40. f. 3 |
| 2563 | <i>lanceolátum Cav.</i>     | lanceolate      | ☐ or | 7  | jn.jl | Pa.B | Mexico    | ...   | C s.l | Bot. mag. 2173         |
| 2564 | <i>gigantéum W.</i>         | tall            | ☐ or | 15 | jn.jl | V    | C. G. H.  | 1792. | C s.p | Bot. mag. 1921         |



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in his Herbal, published in 1597, gives a figure of the potatoe, under the name of Potatoe of Virginia, whence he says he received the roots; and this appellation it appears to have retained, in order to distinguish it from the battatas or sweet potatoe (*Convolvulus battatas*) till the year 1640, if not longer. "The sweet potatoe," Sir Joseph Banks observes, "was used in England as a delicacy long before the introduction of our potatoes; it was imported in considerable quantities from Spain and the Canaries, and was supposed to possess the power of restoring decayed vigor. The kissing comfits of Falstaff, and other confections of similar imaginary qualities, with which our ancestors were duped, were principally made of these and of eringo roots." Gough says the potatoe was first planted by Sir Walter Raleigh on his estate of Youghall near Cork, and that they were soon after carried into Lancashire. Gerrarde and Parkinson, however, mention them as delicacies for the confectioner, and not as common food. Even so late as Bradley's time they are spoken of as inferior to skirrets and radishes.

The use of potatoes, however, became more and more known after the middle of the 18th century, and has greatly increased in all parts of Britain within the last thirty years. It is also very general in Holland, and many parts of France and Germany, and is increasing rapidly in Russia. In Spain, and the East and West Indies they are not much cultivated, owing to the heat of the climate; but in all the temperate parts of North America, Australasia, and South America they are grown by the colonists. In China they are cultivated, but not extensively, owing to the slow progress which every thing new makes in that country. Indeed, no root hitherto discovered is so well adapted for universal use as the tubers of the potatoe; for, having no peculiarity of taste, and consisting chiefly of starch, their farina is nearly the same as that of grain. Hence, with the flower of potatoes, puddings, and such preparations as do not call the gluten of wheat-flower into action, may be made equal to those of millet or rice, and excellent bread with a moderate proportion of good wheat-flour. Potatoe starch, independently of its use in the laundry, and as a hair powder, is considered an equally delicate food as sago or arrow-root. As starch and sugar are so nearly the same, that the former is easily converted into the latter, the potatoe yields a spirit equal to that of malt by distillation, and a wine or beer by the fermentative process.

The varieties of the potatoe are very numerous, differing in earliness, lateness, form, size, color, and quality. The names for these are quite arbitrary or local. In general, every district has its peculiar or favorite varieties. Some of these degenerate, and others improve when removed from one district to another. New varieties

§ 3. *Unarmed. Leaves lobed, sinuate, angular, toothed, or entire.*

- 2528 Leaves ovate lanceolate entire or lobed, Racemes cymose opp. to the leaves, Cor. 5-parted  
 2529 Leaves lanceolate sinuate tomentose bright-green, Pedunc. few-flowered, Sepals ovate acute  
 2530 Stem wavy, Leaves ovate cordate upper lanceolate, Corymbs opposite the leaves  
 2531 Stem smooth, Leaves cuneate at the base sinuate smooth, Peduncles few-flowered short  
 2532 Leaves ovate repand angular smooth, Peduncles 1-flowered cernuous, Berries torulose  
 2533 Leaves ovate angular repand smooth unequal at base, Pedunc. 1-flowered cernuous, Berries round  
 2534 Leaves oblong lanceolate subrepand, Peduncles 1-flowered outside the leaves.  
 2535 Branches rounded, and leaves smooth ovate entire, Flowers umbelled  
 2536 Branches smooth angular toothed, Leaves ovate smooth entire, Flowers numerous umbelled  
 2537 Stem and branches angular toothed, Leaves subovate sinuate angular, Flowers umbelled  
 2538 Leaves ovate toothed angular ciliated, Umbels extrafoliaceous stalked  
 2539 Stem angular, Leaves ovate toothed naked, Flowers in umbels  
 2540 Branches strigose pubescent angular winged, Wings toothed, Leaves ov. rep. smooth, Flowers in umbels  
 2541 Branches angular toothed pubescent, Leaves ovate repand upper entire, Flowers in umbels  
 2542 Stem rounded villous, Leaves ovate angular toothed villous hoary, Flowers in umbels

§ 4. *Unarmed. Leaves quite entire.*

- 2543 Stem shrubby, Branches powdery, Leaves oblong lanceolate powdery on both sides, Racemes spreading  
 2544 Leaves ovate and subcordate waved curled acuminate, Flowers corymbosose  
 2545 Leaves oval pointed at each end smooth, Racemes cymose  
 2546 Stem erect, Leaves ovate lanceolate attenuated at each end pubescent, Racemes 2 and 3-chotomous  
 2547 Leaves ov. obl. acuminate entire downy, Surface discol. Axils leafless, Corymbs terminal dichotomous  
 2548 Leaves ovate oblong acuminate woolly axillary, Leaflets semicircular, Corymbs di-trichotomous  
 2549 Lvs. in pairs one obl. narrow. towards each end obt. other smaller obov. ellipt. Cymes stalk opp. the lvs  
 2550 Leaves ovate lanceolate acute shining smooth, Peduncles 1-flowered, Berries oval  
 2551 Branches spiny, Leaves elliptical, Peduncles filiform 1-flowered  
 2552 Stalks axillary 1-flowered, Cal. 10-cleft, Leaves mostly in pairs subsessile elliptical  
 2553 Stem climbing flexuose, Lvs. ovate lanc. smooth acuminate, Pedunc. in pairs, Cal. unequally toothed

§ 5. *Prickly. Leaves entire or sinuate-angular.*

- 2554 Leaves discolored the lower sinuate prickly upper entire unarmed, Pedunc. few-flowered  
 2555 Stem unarmed, Leaves lanceolate repand undulated acute  
 2556 Leaves lanceolate acuminate revolute on both sides at the base  
 2557 Stem prickly, Leaves lanceolate pubescent beneath entire edge revolute at base  
 2558 Leaves lanceolate repand obtuse reflexed at edge  
 2559 Stem prickly, Prickles acroese, Leaves cordate unarmed repand wavy, the young ones purple  
 2560 Leaves lanceolate oblong attenuated at each end roughish beneath prickly, Raceme short unarmed  
 2561 Stem nearly unarmed, Leaves ovate oblong sinuate repand rough, Corymb extrafoliaceous stalked  
 2562 Stem nearly unarmed, Leaves lanceolate ellipt. entire above smooth beneath tomentose, Cymes mealy  
 2563 Stem downy, Leaves lanceolate long entire hoary beneath, Racemes terminal, Sepals subulate  
 2564 Stem with downy prickles, Leaves lanceolate acute unarmed above smooth beneath hoary



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are readily procured by sowing the seeds, which, with care, will produce tubers the third year, and a full crop the fourth. As few of the early sorts produce blossoms, to procure seeds from them deprive the plant of its tubers as they appear, and keep the runners from which they proceed above ground, by not earthing up the plant, and blossoms and seeds will soon be produced. This Mr. Knight completely proved, and the rationale is developed in the Philosophical Transactions for 1806. It appears that the same sap gives existence both to the tuber and blossom, and that whenever a plant of the potatoe affords either seeds or blossoms, a diminution of the crop of tubers, or an increased expenditure of the richness of the soil, must necessarily take place. This led Mr. Knight to attempt the practice adopted by the Dutch florists with their bulbous flowers, viz. to pinch off the flowers to strengthen the bulbs. This, in the potatoe, Mr. Knight thinks may add an ounce in weight to the tubers of each plant, or considerably above a ton per acre. The practice is now general among scientific cultivators even in field culture.

The curl is a well known disease of potatoes, which frequently disappoints the cultivator of a crop, or renders that produced of little value. A great variety of opinions exist as to this disease: without enumerating these, we may state, as the general result of experiments by different persons, that the curl arises in most, or at least in many cases, from using over ripe tubers as seed stock, or from the employment of seed stock which has been injured or improperly kept during the winter; that is, kept exposed to the light and air instead of being covered with earth, or sand, or straw, so as to preserve their juices. The experiments of various farmers and gardeners, as recorded in the Farmer's Magazine and Caledonian Hort. Mem., lead to the above conclusions.

The culture of the potatoe, both in the field and garden, is universally known. It may be forced in pots or on dung or tan beds; and, for this purpose, using sets from tubers that have been retarded a year in an ice-house or cold place, is found a great advantage. Thus, in planting in December 1823, use tubers of crop 1822. These, from the long period of repose which they have had, will be found highly excitable by heat, and of much more rapid growth than sets of the preceding crop. As matter of curiosity, boxes containing alternate layers of light earth and potatoes of the last season but one may be placed in any dry covered place, free from frost, in November, and they will produce a brood of young tubers in contact with the old ones on the December following, without either leaves, roots, or runners. (*Hort. Trans.* i. 225.)

Potatoes are best preserved by burying in pits in dry ground, so deep as to be under the influence of surface temperature, or so enveloped with thatch as to produce the same effect. At a certain depth, they will keep



|                                 |                |   |     |    |       |      |             |       |   |     |                     |
|---------------------------------|----------------|---|-----|----|-------|------|-------------|-------|---|-----|---------------------|
| 2565 Melongéna <i>W.</i>        | Egg-plant      | □ | cul | 2  | jn.jl | B    | Africa, &c. | 1597. | C | lp  | Pluk.phy.266.f.2    |
| 2566 insânnum <i>P. S.</i>      | Mad-apple      | ○ | or  | 2  | aus   | B    | E. Indies   | 1815. | S | lp  | Plu.alm.t.226.f.3   |
| 2567 ovigerum <i>Dun.</i>       | oval-egg-plant | □ | or  | 2  | jn.jl | B    | Arabia      | 1597. | S | co  |                     |
| 2568 sodebumeum <i>W.</i>       | black-spined   | ■ | or  | 3  | jn.jl | V    | Africa      | 1688. | C | rm  | Her. lugd. t. 575   |
| 2569 indicum <i>W.</i>          | Indian         | ■ | or  | 6  | jl    | Pu   | India       | 1732. | S | pl  | Di.elt.t.270.f.349  |
| 2570 coégulans <i>W.</i>        | scollop-leaved | ■ | or  | 3  | jl    | W    | Arabia Fe.  | 1802. | C | sp  | Jac. sch.6.4. t.469 |
| 2571 marginátum <i>W.</i>       | white-edged    | ■ | or  | 4  | jn.s  | Pu   | Africa      | 1775. | C | sp  | Bot. mag. 1928      |
| 2572 campechiense <i>W.</i>     | purple-spined  | ■ | w   | 2  | jl    | V    | America     | 1732. | C | sp  | Di.elt.t.268.f.347  |
| 2573 aculeatissimum <i>Jac.</i> | most-prickly   | ■ | or  | 3  | ap.jl | Pa.B | S. Amer.    | 1816. | C | co  | Jacq. ic. 1. t. 41  |
| 2574 mammosum <i>W.</i>         | nipple         | ■ | or  | 4  | jl.au | Pa.B | W. Indies   | 1689. | S | sp  | Plu.alm.t.226.f.1   |
| 2575 stramonifólium <i>W.</i>   | broad-leaved   | ■ | or  | 6  | jn.s  | Pu   | W. Indies   | 1778. | C | ap  | Jac. ic. 1. t. 44   |
| 2576 férox <i>W.</i>            | Malabar        | ■ | w   | 2  | aus   | Pu   | E. Indies   | 1795. | C | lp  |                     |
| 2577 Milléri <i>W.</i>          | Miller's       | ■ | w   | 3  | jl.au | W    | C. G. H.    | 1762. | C | sl  | Jac. ic. 2. t. 330  |
| 2578 trilobátum <i>W.</i>       | three-lobed    | ■ | or  | 12 | au    | V    | India       | 1759. | C | sp  | Bu. in.57.t.22.f.2  |
| 2579 carolinense <i>W.</i>      | Carolina       | ■ | w   | 2  | jl.s  | Pa.B | Carolina    | 1732. | S | p.l | Jac. ic. 2. t. 331  |
| 2580 Pyracántha <i>Sm.</i>      | orange-thorned | ■ | or  | 4  | aus   | Pu   | Madagasc.   | 1789. | C | rm  | Ex. bot. 2. t. 64   |
| 2581 virginianum <i>W.</i>      | Virginian      | ■ | w   | 1  | my.au | V    | Virgínia    | 1662. | S | sp  | Di.elt.t.267.f.346  |
| 2582 Jacquiní <i>W.</i>         | Jacquin's      | □ | w   | 2  | sn    | Pu   | E. Indies   | 1804. | S | sp  | Jac. ic. 2. t. 332  |

|                          |           |   |    |   |      |   |          |       |   |    |                    |
|--------------------------|-----------|---|----|---|------|---|----------|-------|---|----|--------------------|
| 2583 Balsái <i>Dun.</i>  | decurrent | ■ | or | 4 | ap.s | W | S. Amer. | 1816. | C | co | Bot. reg. 140      |
| 2584 téctum <i>P. S.</i> | covered   | ■ | or | 3 | ap.s | Y | Mexico   | 1824. | C | co | Cav. ic. 4. t. 309 |

452. NYCTERIUM. Vent. NYCTERIUM.

|                                |               |   |    |   |       |    |           |       |   |    |                    |
|--------------------------------|---------------|---|----|---|-------|----|-----------|-------|---|----|--------------------|
| 2585 cordifólium <i>Vent.</i>  | heart-leaved  | ■ | or | 2 | ap.my | Pu | Can. Isl. | 1779. | C | co | Vent. malm. 85     |
| 2586 amazonium                 | purple        | ■ | or | 3 | jn.au | Pu | Mexico    | 1800. | C | co | Bot. reg. 71       |
| 2587 lobátum <i>Nutt.</i>      | yellow        | ○ | or | 2 | jl.au | Y  | Louisiana | 1813. | S | co | Fursh. am. 2. t. 7 |
| 2588 fontanesianum <i>Dun.</i> | Desfontaines' | ○ | or | 2 | jl.s  | Y  | Brazil    | 1813. | S | co | Bot. reg. 177      |

*Solanec. Sp. 4-7.*

453. CAPSICUM. *W.*

CAPSICUM.

*Solanec. Sp. 18-24.*

|                               |                  |   |     |   |       |      |           |       |   |     |                          |
|-------------------------------|------------------|---|-----|---|-------|------|-----------|-------|---|-----|--------------------------|
| 2589 ánnuum <i>W.</i>         | common           | ○ | cul | 1 | jn.jl | W    | India     | 1548. | S | r.m | Knor. th. 2. t. c. 6     |
| 2590 spha'ricum <i>W. en.</i> | globular-fruited | ■ | cul | 2 | ap.jl | W    | .....     | 1807. | C | r.m |                          |
| 2591 baccátum <i>W.</i>       | Bird-pepper      | ■ | cul | 3 | jn.s  | W    | .....     | 1731. | C | r.m | SL ja. 1. t. 146. f. 2   |
| 2592 sinense <i>W.</i>        | oval-fruited     | ■ | cul | 2 | jn.s  | W    | China     | 1807. | C | r.m | Jac. vind. 3. t. 67      |
| 2593 gróssum <i>W.</i>        | large            | ■ | cul | 1 | jl    | W    | India     | 1759. | S | r.m | B. ey. a. 1. t. 11. f. 1 |
| 2594 frutésceus <i>W.</i>     | shrubby          | ■ | cul | 1 | jn.s  | Pa.Y | India     | 1656. | C | r.m | Ru. amb. 5. t. 88        |
| 2595 bicolor <i>Jacq.</i>     | dark-fruited     | ■ | cul | 4 | jn.s  | Pu   | W. Indies | 1804. | S | r.m | Bot. mag. 1835           |
| 2596 cerasifórmé <i>W.</i>    | Cherry-pepper    | ○ | cul | 1 | jn.s  | Pa.Y | W. Indies | 1732. | C | r.m |                          |
| 2597 péndulum <i>W. en.</i>   | pendulous        | ■ | cul | 2 | ap.jl | W    | .....     | 1804. | C | r.m |                          |
| 2598 lóngum <i>Dec.</i>       | long-fruited     | ○ | cul | 1 | jn.jl | W    | India     | 1548. | S | r.m |                          |
| 2599 cordifórmé <i>Mill.</i>  | heart-fruited    | ○ | cul | 1 | jn.jl | W    | India     | ..... | S | r.m |                          |
| 2600 tetragónum <i>Mill.</i>  | quince-fruited   | ○ | cul | 1 | jn.jl | W    | India     | ..... | S | r.m |                          |
| 2601 angulósum <i>Mill.</i>   | angular-fruited  | ○ | cul | 1 | jn.jl | W    | India     | ..... | S | r.m |                          |
| 2602 conoídes <i>Mill.</i>    | conical          | ■ | cul | 2 | ap.jl | W    | India     | 1750. | C | r.m |                          |
| 2603 pyramidalé <i>Mill.</i>  | pyramidal        | ■ | cul | 2 | ap.jl | W    | Egypt     | 1750. | C | r.m |                          |
| 2604 microcárpum <i>Dec.</i>  | small-fruited    | ■ | cul | 2 | ap.jl | W    | .....     | 1820. | C | r.m |                          |
| 2605 cerasifórum <i>Lk.</i>   | cherry-flowered  | ■ | cul | 2 | jn.s  | W    | .....     | 1823. | C | r.m |                          |
| 2606 micránthum <i>Lk.</i>    | small-flowered   | ■ | cul | 3 | my.jn | W    | Brazil    | 1824. | C | r.m |                          |



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for years without vegetation. Where there is an ice-house, they may, when taken out of the pits, be kept in small quantities in it till wanted for use.

*S. lycopersicum.* (From *λυκος*, a wolf, and *persica*, a peach, in poetical allusion to the beautiful appearance and deceitful value of the fruit.) *Tomate*, Fr., and *Pomo d'oro*, Ital., is cultivated extensively about Naples and Rome for the use of the berry in sauces, stewing, and soups. It is one of the most common articles used in Italian cookery, and makes an excellent sauce for fish, meat, and general purposes. Its use for sauce in this country is greatly on the increase, and it is cultivated to considerable extent near London, against walls and artificial banks, being raised on a hot-bed, and transplanted like other tender annuals.

*S. nigrum*, a very common plant on dunghills, is narcotic and poisonous like *S. dulcamara* and *Atropa belladonna*. A Spanish cure for the consumption is burying up to the chin in garden earth, and afterwards rubbing the body over with an ointment made from the leaves of this plant.

*S. eschiopicum* is cultivated in China for the fruit, which is served at the tables of mandarins like our cherries.

*S. melongena*, (M. from *byendendjân*, its Arabic name, according to Forskahl) is cultivated both in Europe and the East and West Indies for its fruit, which is used boiled, stewed in sauces, &c. like that of the love-apple. The plant is more tender, and in this country requires to be matured under glass, like the balsam and other tender annuals. *S. muricatum* resembles it in habit, and may be cultivated for the same purpose.

452. *Nycterium.* From *νύκτωρ*, night. A small tribe of plants cut off from their ancient genus *Solanum*. *N. amazonium* is quite a beautiful shrub, growing well in pots in a moderate stove.

453. *Capsicum.* From *καπις*, mordeo, to bite, on account of the biting heat of the seed and pericarp. *Poivre d'Inde* ou de *Guinée*, Fr. The fruit of *C. baccatum*, commonly called bird pepper, is gathered when

§ 6. *Prickly. Leaves sinuate, angular and lobed.*

- 2565 Stem prickly, Leaves ovate subsinate downy prickly, Flowers many-parted, Seeds naked  
 2566 Stem prickly, Leaves ovate tomentose, Pedunc. pendulous thick, Cal. prickly  
 2567 Stem nearly unarmed, Leaves ovate subrepand tomentose unarmed, Berries ovate oblong, Seeds pulpy  
 2568 Stem diffuse, Prickles straight dilated at base, Lvs. obl. sinuate pinnatifid, Pedunc. 2-fid, Berries globose  
 2569 Stem prickly, Leaves oblong tomentose sinuate angular, Segm. sinuate toothed, Sepals reflexed  
 2570 Leaves ovate oblong sinuate repand downy white beneath, middle nerve beneath with smooth prickles  
 2571 Leaves subcordate sinuate lobed beneath hoary above white at edges, Berries 3-celled globose  
 2572 Stem very prickly hairy, Lvs. cord. obl. lob. Lobes tooth. Fertile cal. very prickly, Berries cher.-shaped  
 2573 Stem very prickly, Lvs. cordate lob. Lobes acute toothed villous and prickly on both sides, Berries round  
 2574 Stem vil. with scat. prickl. Lvs. subcord. lob. prickly on both sides very vil. Ber. like the teat of an animal  
 2575 Stem prickly, Lvs. cordate sinuate acutely lob. vil. and prickly on both sides, Pedunc. and cal. unarmed  
 2576 Stem prickly, Lvs. cord. angular toment. with the racemes and calyxes prickly, Ber. hairy cov. by calyx  
 2577 Stem prickly, Leaves smoothish lobed obtuse prickly, Peduncles in pairs  
 2578 Stem prickly, Leaves 3-lobed obtuse smooth, Flowers racemose violet  
 2579 Stem prickly, Leaves ovate oblong tomentose sinuate angular acuminate, Racemes simple ax  
 2780 Stem prickly, Leaves oblong acute sinuate pinnatifid downy, Prickles straight scarlet  
 2581 Stem erect prickly, Lvs. pinnat. sinuated prickly on both sides, Segm. sinuate obtuse, Racemes prickly  
 2582 Stem decumbent diffuse prickly, Leaves sinuate pinnatifid prickly on both sides smooth, Calyxes prickly

§ 7. *Prickly. Leaves pinnatifid or bipinnatifid, Berries covered by the enlarged and prickly calyx.*

- 2583 Stem villous prickly, Lvs. pinnatifid, Segm. acute sinuate toothed, Racemes cymose lateral and terminal  
 2584 Stem shrubby rounded prickly, Leaves bipinnatifid prickly on both sides villous

- 2585 Leaves cordate entire, Racemes divided, Cal. unarmed  
 2586 Leaves elliptical sinuate tomentose, Flowers several large terminal  
 2587 Stem and leaves prickly, Leaves ovate pinnatifid hairy on both sides  
 2588 Stem woody prickly hairy, Leaves deeply pinnatifid, Anthers small

- 2589 Fruit oblong pendulous and erect their stalks smooth, Stem herbaceous  
 2590 Fruit globose pendulous, Stalks smooth, Stem shrubby  
 2591 Fruit globose ovate erect in pairs, Stalks smooth, Stem shrubby  
 2592 Fruit ovate pendulous in pairs, Stalks pubescent, Stem shrubby  
 2593 Fruit oblong ovate subcompressed erect, Stalks smooth, Stem herbaceous  
 2594 Fruit oblong obtuse, Stalks smooth, Stem erect  
 2595 Fruit oblong mucronate, Stalks smooth, Stem shrubby  
 2596 Fruit globose, Stalks smooth, Stem shrubby  
 2597 Fruit oblong, Stalks pubescent, Stem shrubby  
 2598 Fruit oblong acuminate incurved, Stalks smooth, Stem herbaceous  
 2599 Fruit heart-shaped, Stem herbaceous  
 2600 Fruit very large angular obtuse, Stem herbaceous  
 2601 Fruit heart-shaped angular, Stem herbaceous  
 2602 Fruit ovate conical erect, Stem half shrubby  
 2603 Leaves linear lanceolate, Fruit pyramidal erect yellow, Stem shrubby  
 2604 Fruit ovate erect, Footstalks and leaves pubescent, Teeth of the calyx 5 subulate spreading  
 2605 Young stalks ciliated, Berries erect globose  
 2606 Leaves ovate acuminate, Stalks ciliated, Cal. obtuse



and Miscellaneous Particulars.

ripe, dried in the sun, pounded and mixed with salt: it is then kept stopt in bottles, and is commonly known by the name of Cayenne-pepper. A mixture of sliced cucumbers, shallots or onions cut very small, a little lime juice and Madeira wine, with a few pods of bird pepper, well mashed and mixed with the liquor, seldom fails to provoke the most languid appetite in the West Indies. It is there called Man-dram. Gathered fresh from the plant, the pods of all the species are liberally used both in the East and West Indies, to assist digestion and correct flatulencies.

*C. frutescens* and *minimum*, the latter by many considered only a variety of the former, low shrubs with an oval red berry more sharp and biting than any of the others, furnish the Cayenne pepper of the shops. The ripe pods are dried in the sun, and then in an oven after bread is baked, in an earthen or stone pot, with flour between the strata of pods. When quite dry they are cleaned from the flour, and beaten or ground to fine powder. To every ounce of this, a pound of wheat flour is added, and it is made into small cakes with leaven; these are baked, cut into small pieces, baked again that they may be as dry and hard as biscuit, and then are beaten into powder and sifted. It is then fit for use as a pepper, or for being packed up, in a compressed state, and so as to exclude air, for exportation.

*C. annuum*, *Piment*, Fr., *Spanischer Pfeffer*, Ger., *Peberone*, Ital., is cultivated for its fruit, which is used in a green state for pickling, and ripe for mixing with other ingredients, as Tomatos, &c. to form sauces. They are also dried and ground, and used like Cayenne pepper. The seed is sown in the end of March or beginning of April on a moderate hot-bed, and covered a quarter of an inch. When the plants are two or three inches in growth, some are transplanted into a new slight hot-bed to forward them for final planting; or in default of such a hot-bed, they are placed in a bed of light rich earth, from twelve to eighteen inches apart, where they are finally to remain in the end of May, and protected during night by mats. They will flower in July, and

|                            |                               |    |     |       |                       |             |         |       |                          |
|----------------------------|-------------------------------|----|-----|-------|-----------------------|-------------|---------|-------|--------------------------|
| 454. LEEA W.               | LEEA.                         |    |     |       | <i>Meliaceae.</i>     | Sp. 4—6.    |         |       |                          |
| 2607 sambucina W.          | Elder-leaved shrubby          | cu | 10  | ...   | W                     | E. Indies   | 1790.   | C 1p  | Cav. dis. 7. t. 218      |
| 2608 aquata W.             | curled                        | cu | 10  | ...   | G                     | E. Indies   | 1777.   | C 1p  |                          |
| 2609 crispa L.             | long-leaved                   | cu | 3   | o     | W                     | C. G. H.    | 1767.   | C 1p  | Bot. rep. 355            |
| 2610 macrophylla Roxb.     | long-leaved                   | cu | 4   | o     | G                     | E. Indies   | 1806.   | C 1p  |                          |
| †455. SPERMADICTYON. Roxb. | SPERMADICTYON.                |    |     |       | <i>Rubiaceae.</i>     | Sp. 1—2.    |         |       |                          |
| 2611 suaveolens Roxb.      | sweet-scented                 | cu | 4   | o     | W                     | E. Indies   | 1818.   | C 1p  | Bot. reg. 348            |
| 456. DENTELLA W.           | DENTELLA.                     |    |     |       | <i>Rubiaceae.</i>     | Sp. 1.      |         |       |                          |
| 2612 repens W.             | creeping                      | or | 1/2 | jl    | W                     | N. Holl.    | 1802.   | S co  | Lam. ill. t. 118         |
| 457. MACROCNE/MUM W.       | MACROCNE/MUM.                 |    |     |       | <i>Rubiaceae.</i>     | Sp. 2—6.    |         |       |                          |
| 2613 jamaicensis W.        | Jamaica upright               | or | 14  | ...   | W                     | Jamaica     | 1806.   | C p.1 | Sw. obs. 68. t. 3. f. 1  |
| 2614 strictum Roxb.        | upright                       | or | 10  | ...   | W                     | E. Indies   | 1804.   | C p.1 |                          |
| 458. EXOSTEMMA Rich.       | EXOSTEMMA.                    |    |     |       | <i>Rubiaceae.</i>     | Sp. 2—12.   |         |       |                          |
| 2615 caribæum W.           | caribæan                      | or | 20  | jn.s  | W                     | W. Indies   | 1780.   | C 1p  | Bot. rep. 481            |
| 2616 floribundum W.        | many-flowered                 | tm | 40  | ...   | W                     | W. Indies   | 1794.   | C 1p  | Lamb. cin. 27. t. 7      |
| 459. BURCHEL/LIA R. Br.    | BURCHEL/LIA.                  |    |     |       | <i>Rubiaceae.</i>     | Sp. 1.      |         |       |                          |
| 2617 bubalina R. Br.       | Cape                          | or | 3   | my.jn | S                     | C. G. H.    | 1818.   | C r.m | Bot. mag. 2339           |
| †460. RONDELETIA W.        | RONDELETIA.                   |    |     |       | <i>Rubiaceae.</i>     | Sp. 3—18.   |         |       |                          |
| 2618 americana W.          | American                      | or | 10  | au    | W                     | W. Indies   | 1752.   | C s.p | Plu. ic. t. 242. f. 1    |
| 2619 lævigata H. K.        | smooth-leaved                 | or | 12  | jl.au | W                     | W. Indies   | 1790.   | C s.p |                          |
| 2620 hirta H. K.           | hairy                         | or | 10  | jn.au | Pk                    | Jamaica     | 1776.   | C s.p | Bot. cab. 350            |
| 461. COUTAREA Aub.         | COUTAREA.                     |    |     |       | <i>Rubiaceae.</i>     | Sp. 1.      |         |       |                          |
| 2621 speciosa Aub.         | laurel-leaved                 | or | 12  | ...   | Pu                    | Guiana      | 1803.   | C s.p | Aub. gui. t. 122         |
|                            | <i>Portlandia hexandra</i> W. |    |     |       |                       |             |         |       |                          |
| †462. PORTLANDIA W.        | PORTLANDIA.                   |    |     |       | <i>Rubiaceae.</i>     | Sp. 2.      |         |       |                          |
| 2622 grandiflora W.        | great-flowered                | or | 12  | jn.au | W                     | Jamaica     | 1775.   | C s.p | Bot. mag. 286            |
| 2623 coccinea P. S.        | scarlet                       | or | 3   | ...   | S                     | Jamaica     | 1812.   | C s.p |                          |
| *463. CAMPANULA W.         | BELL-FLOWER.                  |    |     |       | <i>Campanulaceae.</i> | Sp. 75—240. |         |       |                          |
| 2624 cenisia W.            | ciliated                      | or | 1/2 | jn.jl | B                     | Switzerl.   | 1775.   | R co  | All. ped. 1. t. 6. f. 2  |
| 2625 microphylla Kth.      | small-leaved                  | or | 1/2 | jn.jl | B                     | Hungary     | 1820.   | R co  |                          |
| 2626 Bellardi ALL.         | Bellardi's                    | or | 1/2 | jn.jl | B                     | Italy       | 1813.   | R co  | All. ped. 1. t. 85. f. 5 |
| 2627 púlla W.              | russet                        | or | 1/2 | jn.jl | B                     | Austria     | 1779.   | R co  | Bot. cab. 554            |
| 2628 Zoysii W.             | blunt-leaved                  | or | 1/2 | jn.au | D.B                   | Carniola    | 1813.   | D co  | Jac. ic. 2. t. 334       |
| 2629 carpática W.          | Carpathian                    | or | 1/2 | jn.au | B                     | Carp. Alps  | 1774.   | D p.1 | Bot. mag. 117            |
| 2630 rotundifolia E. B.    | round-leaved                  | or | 1/2 | jn.au | B                     | Britain     | heav.   | D p.1 | Eng. bot. 866            |
| 2631 pusilla Hånke.        | diminutive                    | or | 1/2 | jn.jl | Pa.B                  | Switzerl.   | 1821.   | R co  | Bauh. pr. 34. t. 34      |
| 2632 púmila B. M.          | dwarf                         | or | 1/2 | jn.au | B                     | Switzerl.   | ...     | D p.1 | Bot. mag. 512            |
| 2633 pubescens W.          | pubescent                     | or | 1   | jn.au | B                     | Bohemia     | 1813.   | D co  |                          |
| 2634 grácilis R. Br.       | slender                       | or | 1   | ap.au | B                     | N. S. W.    | 1794.   | R co  | Bot. mag. 691            |
| 2635 Scheuchzeri Vül.      | Scheuchzer's                  | or | 1   | jn.au | B                     | Europe      | 1813.   | D co  | Bot. cab. 485            |
| 2636 pátula W.             | spreading                     | or | 1   | jl.au | V                     | Britain     | past.   | S p.1 | Eng. bot. 42             |
| 2637 Rapínculus W.         | Rampion                       | or | 3   | jl.au | Pu                    | Britain     | hed. b. | S r.m | Eng. bot. 283            |
| 2638 persicifolia W.       | Peach-leaved                  | or | 3   | jl.s  | B                     | Europe      | 1596.   | D p.1 | Fl. dan. 1067            |
|                            | <i>large-peach-leaf.</i>      | or | 3   | jl.s  | B                     | Europe      | 1596.   | D p.1 | Bot. mag. 397            |
| 2639 pyramidális W.        | pyramidal                     | or | 4   | jl.s  | Pa.B                  | Carniola    | 1596.   | D p.1 |                          |
| 2640 oblqua W. en.         | oblique                       | or | 3   | jn.jl | B                     | .....       | 1813.   | D p.1 | Jac. sch. 3. t. 336      |
| 2641 americana W.          | American                      | or | 1   | jl    | B                     | Pensylv.    | 1763.   | C s.1 |                          |



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produce plenty of pods from August till the end of September. They may be also raised under hand-glasses, and in very warm situations treated as common annuals. C. cerasiforme is sometimes cultivated for the same purposes as the common capsicum.

454. *Leea*. Named after the first James Lee, of the Hammersmith Nursery, an excellent cultivator and most worthy man. The plants have little more beauty than a hemlock. Cuttings root easily under a hand-glass in heat.

455. *Spermadictyon*. From *σπερμα*, seed, and *δικτυον*, a net, on account of the manner in which the seeds cover the placenta. A pretty stove plant with sweet white flowers.

456. *Dentella*. A diminution of *dens*, a tooth; the divisions of the corolla having each three little teeth.

457. *Macrocne/mum*. From *μακρος*, long, and *νημα*, a stamen.

458. *Exostemma*. From *εξ*, out, and *στυμμα*, a crown, in allusion to the protrusion of the stamens; one of the characters on account of which the genus has been separated from *Cinchona*.

The genus *Cinchona*, which was so named after the Countess of Cinchona, who being cured by the use of this plant, first brought it into notice, is very nearly related to this, and is a most important genus, as furnishing the Peruvian or Jesuit's bark. The bark is taken from various species; but that which produces the best is said to be *C. officinalis*, a native of Peru, and not yet introduced to this country. The Jesuit's bark tree of Jamaica is the *Exostemma caribæum*, but land there is too valuable for its culture. Our species are not very common in collections, being of slow growth, and not very easily propagated. Sweet

- 2607 Stem furrowed angular smooth, Leaves nearly bipinnate  
 2608 Stem rounded pubescent, Leaves pinnate  
 2609 Stem angular fringed, Leaves pinnate  
 2610 Stem angular, Stalks smooth, Leaves broad ovate serrated

2611 Leaves opposite ellipt. Flowers terminal in umbels

2612 Stem creeping much branched smooth, Leaves stalked opposite oval flat entire

- 2613 Corymbs axillary long naked  
 2614 Leaves elliptical acute opposite, Flowers whorled sessile

- 2615 Peduncles axillary and terminal 1-flowered, Leaves ovate lanceolate  
 2616 Flowers terminal paniced smooth, Caps. terminal smooth, Leaves elliptical acuminate smooth

2617 The only species. A fine plant with tubular red flowers like a honeysuckle

- 2618 Leaves sessile, Panicle dichotomous  
 2619 Leaves stalked elliptical acute smooth  
 2620 Leaves oblong acuminate hairy rigid nerved beneath, Stalks axillary erect

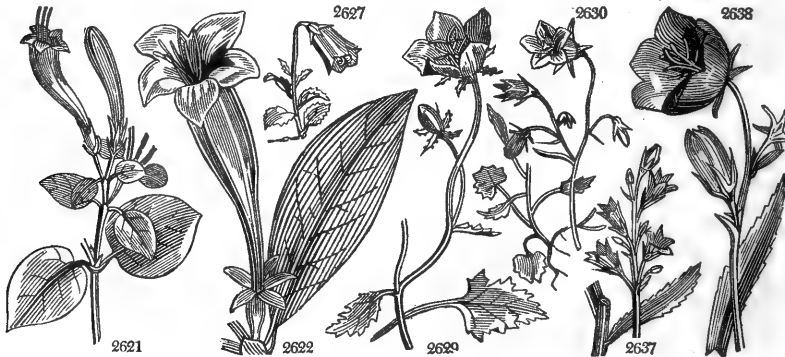
2621 The only species. An hexandrous plant

- 2622 Flowers pentandrous, Leaves lanceolate elliptical  
 2623 Flowers pentandrous, Leaves ovate coriaceous

§ 1. *Leaves smooth.*

- 2624 Stems 1-flowered, Leaves ovate smooth subciliated  
 2625 Lower leaves obovate wedge-shaped crenate, Upper linear entire, Stem simple 1-flowered  
 2626 Stem 1-flowered naked, Leaves stalked elliptical lanceolate deeply toothed  
 2627 Little stems 1-flowered, Radical and cauline leaves ovate subrenate, Cal. cernuous  
 2628 Stems about 3-ft. Lvs. entire, the rad. ov. on long stalks, the cauline obl. ov. sessile obtuse, Fls. nodding  
 2629 Lvs. all cordate serrate stalked smooth, Branches filiform 1-flow. Cal. reflex. glutinous, Cor. spreading  
 2630 Smooth, Radical leaves oblong and kidney-shaped serrate : cauline linear entire  
 2631 Smooth, Leaves all serrate : radical cordate ovate firm shining ; cauline linear alternate remote  
 2632 Radical leaves ovate crenate with flattened stalks, Flowers racemose 1-sided cernuous  
 2633 Stem hairy decumb. angular, Lvs. stalk. ser. smooth, rad. cordate, lower cauline ovate, Cor. short large  
 2634 Stem filiform angular striated, Branches about 1-flowered, Leaves lanceolate or linear, Flowers 5-cleft  
 2635 Pubescent, Lvs. rather hairy : rad. obov. rounded serrated ; cauline clustered lin. entire, Sepals setaceous  
 2636 Leaves upright : radical lanceolate-oval, Panicle spreading  
 2637 Leaves wavy : radical lanceolate-oval, Panicle contracted  
 2638 Stem angular, Lvs. stiff obsoletely crenate serrate : rad. obl. obovate ; cauline lanc. lin. Flow. large

- 2639 Lvs. smooth ov. cord. cartilaginous-serrated, the caul. lanc. Stem upright elong. branch. Lower ped. 3-ft.  
 2640 Lvs. obl. lanc. point. at each end serr. with veins hairy beneath, Stem erect, Rac. term. Seg. of cor. obliq.  
 2641 Lvs. cord. and lanc. serr. lower stalks ciliated, Fls. axill. sessile, Cor. 5-parted flat, Style longer than cor.



and *Miscellaneous Particulars.*

advises cuttings to be "taken off when ripe, planted in a pot of sand, plunged in moist heat, and covered with a bell-glass"

459. *Burchellia*. Named by Mr. Robert Brown, after William Burchell, a traveller in the southern part of Africa, from whom we have two volumes of travels, and the promise of other works hereafter. The species is a beautiful dwarf shrub with scarlet flowers in terminal clusters.

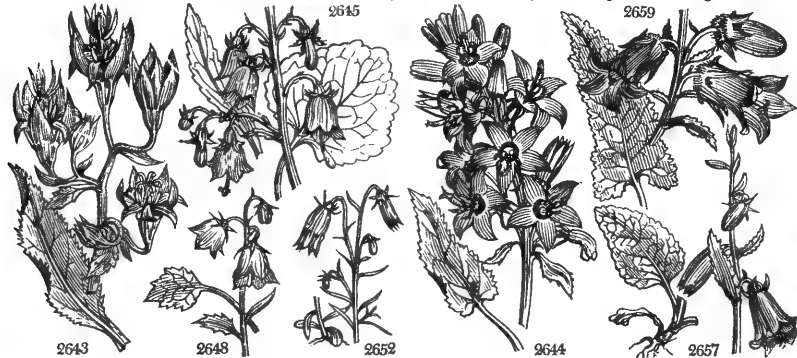
460. *Rondeletia*. Plumier established this genus in memory of William Rondelet, a scientific physician, whose attention was chiefly occupied by fishes and algae. He was born in 1507, and died in 1566. *Rabelais ridicules him under the name of Rondibilis.* He is said to have given a disgusting proof of his fondness for anatomy by dissecting his own son.

461. *Coutarea*. So named by Aublet from its vernacular name in Guiana, *Coutari*. A most beautiful plant, requiring the utmost heat of the stove; but very rare in gardens, if it indeed exists in cultivation at all now.

462. *Portlandia*. In honor of the Duchess of Portland, once a famous patroness of botany. Splendid plants of the natural order Rubiaceae. *Portlandia grandiflora* is common and easily grown. *P. coccinea* is perhaps not in the country, although stated to have been introduced in 1775.

463. *Campanula*. A diminution of *campana*, a bell; on account of the form of the corolla, which resembles a little bell. *Rapunculus* is a diminution of *rapa*, a radish, in allusion to the nature of its root. *C. speculum* is so called because the corolla in its form resembles a little round and elegant mirror (*speculum*), whence in

|                          |                 |      |    |       |      |                |           |     |     |                            |
|--------------------------|-----------------|------|----|-------|------|----------------|-----------|-----|-----|----------------------------|
| 2642 nitida W.           | smooth-leaved   | Δ or | 4  | jl    | W    | N. Amer.       | 1731.     | D   | p.1 | Dod. me. 4. t. 111         |
| 2643 aërea W.            | golden-flowered | Δ or | 3  | jl.s  | Y    | Madeira        | 1777.     | S   | s.p | Bot. reg. 57               |
| 2644 versicolor H. K.    | various-colored | Δ or | 4  | jl.s  | St   | Greece         | 1738.     | D   | s.1 | Bot. rep. 386              |
| 2645 lilifolia W.        | Lily-leaved     | Δ or | 2  | my.s  | Pa.B | Siberia        | 1784.     | D   | p.1 | Bot. reg. 236              |
| 2646 stylösa Lam.        | long-styled     | Δ or | 1½ | my.jn | Pa.B | Siberia        | 1820.     | R   | co  | Gmel. sib. 3. t. 27        |
| 2647 grandiflora W.      | great-flowered  | Δ or | 1  | jn.au | B    | Siberia        | 1782.     | D   | p.1 | Bot. mag. 252              |
| 2648 rhomboidea W.       | Germander-ldv.  | Δ or | 2  | jl    | Pa.B | Switzerl.      | 1775.     | D   | p.1 | Bot. cab. 603              |
| 2649 verticillata W.     | whorled         | Δ or | 2  | jn    | L.B  | Siberia        | 1783.     | D   | s.1 | Pal. it. 3. t. G. f. 1     |
| 2650 marsupiflora Fisch. | carneous        | Δ or | 1½ | jn.jl | Pa.B | .....          | 1818.     | R   | co  |                            |
| 2651 Lobeloides W.       | small-flowered  | Δ or | 1  | jl.au | W.F  | Madeira        | 1777.     | S   | s.1 |                            |
| 2652 excisa Scht.        | bitten          | Δ or | ½  | my.jn | B    | Switzerl.      | 1820.     | R   | co  | Bot. cab. 561              |
| 2653 latifolia W.        | giant           | Δ or | 4  | jl    | Pu   | Britain        | s. m. p.  | S   | p.1 | Eng. bot. 302              |
| 2654 eriocarpa Bieb.     | woolly-fruited  | Δ or | 2  | jn.jl | B    | Caucasus       | 1823.     | R   | co  |                            |
| 2655 urticifolia W.      | Nettle-leaved   | Δ or | 3  | au    | Pu   | Germany        | 1800.     | D   | co  |                            |
| 2656 Trachelium W.       | Throatwort      | Δ or | 4  | jn.au | V    | Britain woods. |           | D   | p.1 | Eng. bot. 12               |
| 2657 Ranunculoides W.    | creeping        | Δ or | 3  | jn.jl | B    | England woods. |           | D   | p.1 | Eng. bot. 1369             |
| 2658 macrostachya Panz.  | large-spiked    | Δ or | 1½ | jn.jl | Pa.B | Hungary        | 1814.     | S   | co  |                            |
| 2659 sarmatica B. Reg.   | Betony-leaved   | Δ or | 2  | au.s  | B    | Siberia        | 1803.     | D   | co  | Bot. reg. 237              |
| 2660 bononiensis W.      | panicle         | Δ or | 2  | jn.au | B    | Italy          | 1773.     | D   | co  | M. h. 2. s. 5. t. 4. f. 38 |
| 2661 ruthenica W. en.    | Russian         | Δ or | 2  | jn.au | B    | Caucasus       | 1815.     | D   | co  | Bot. mag. 2653             |
| 2662 glomerata W.        | clustered       | Δ or | 2  | my.s  | V    | Britain        | ch. pl. D | p.1 |     | Eng. bot. 90               |
| 2663 speciosa Horn.      | showy           | Δ or | 2  | my.jn | Pu   | Siberia        | 1824.     | R   | co  |                            |
| 2664 Cervicaria W.       | wave-leaved     | Δ or | 3  | jl    | L.P  | Germany        | 1768.     | S   | s.p | Bot. cab. 452              |
| 2665 collina B. M.       | Sage-leaved     | Δ or | 1  | jl.au | B    | Caucasus       | 1803.     | D   | p.1 | Bot. mag. 927              |
| 2666 azurea B. M.        | azure           | Δ or | 1½ | jn.jl | L.B  | Switzerl.      | 1778.     | D   | p.1 | Bot. mag. 551              |
| 2667 lactiflora Bieb.    | milk-colored    | Δ or | 2  | jl.s  | W    | Siberia        | 1814.     | C   | s.p | Bot. reg. 241              |
| 2668 aggregata W. en.    | crowded-flower. | Δ or | 2  | jl.s  | Pa.B | Bavaria        | 1817.     | C   | s.p | Bot. cab. 505              |
| 2669 thyrsoides W.       | long-spiked     | Δ or | 2  | jn.au | B    | Switzerl.      | 1785.     | S   | s.p | Bot. mag. 1290             |
| 2670 peregrina W.        | rough-leaved    | Δ or | 2  | jn.au | B    | C. G. H.       | 1794.     | S   | p.1 | Bot. mag. 1257.            |
| 2671 cœrusa Th.          | nodd.-flowered  | Δ or | ½  | jn.au | W    | C. G. H.       | 1804.     | S   | p.1 |                            |
| 2672 capensis W.         | Cape            | Δ or | 1  | jn.au | B    | C. G. H.       | 1803.     | S   | s.p | Bot. mag. 782              |
| 2673 barbata W.          | bearded         | Δ or | 1½ | jn.jl | L.B  | Italy          | 1752.     | R   | p.1 | Bot. mag. 1258             |
| 2674 punctata W.         | dotted-flowered | Δ or | 1  | my.jn | W    | Siberia        | 1813.     | D   | co  | Bot. mag. 1723             |
| 2675 Mœdium W.           | Canterb.-bells  | Δ or | 4  | jn.s  | B    | Germany        | 1597.     | S   | co  | Knor. th. 1. t. G. 2       |
| 2676 longifolia La Peyr. | long-leaved     | Δ or | 4  | jn.s  | D.B  | Byzance        | 1820.     | R   | co  | La. peyr. pyr. t. 6        |
| 2677 spicata W.          | spiked          | Δ or | 1  | jl    | L.B  | Switzerl.      | 1783.     | S   | s.p | All. p. 1. t. 46. f. 2     |
| 2678 alpina W.           | alpine          | Δ or | 1½ | jl    | B    | Switzerl.      | 1779.     | D   | p.1 | Bot. mag. 337              |
| 2679 mollis W.           | soft            | Δ or | 1  | my.au | Pu   | Sicily         | 1788.     | C   | s.1 | Bot. mag. 404              |
| 2680 saxatilis W.        | rock            | Δ or | 1  | my.au | B    | Candia         | 1768.     | D   | p.1 | Barr. ic. 79. t. 813       |
| 2681 alliariaefolia W.   | Alliaria-leaved | Δ or | 1  | jl.s  | B    | Caucasus       | 1803.     | C   | p.1 | Bot. mag. 912              |
| 2682 lamifolia Bieb.     | Nettle-leaved   | Δ or | 3  | jn.jl | Pa.Y | Iberia         | 1823.     | R   | co  | Buxb. cen. 5. t. 18        |
| 2683 sibirica W.         | Siberian        | Δ or | 1  | jl.s  | B    | Siberia        | 1783.     | C   | s.p | Bot. mag. 659              |
| 2684 divergens W. en.    | spreading       | Δ or | 1½ | jn.jl | B    | Hungary        | 1814.     | S   | s.1 | Sweet fl. g. 256           |
| 2685 lingulata W. en.    | tongue-leaved   | Δ or | 1  | jl.au | V    | Hungary        | 1804.     | D   | co  | Pl. rar. hun. t. 64        |
| 2686 caucásica Bieb.     | Caucasian       | Δ or | ½  | jl.au | V    | Caucasus       | 1804.     | D   | co  |                            |
| 2687 laciniata W.        | jagged-leaved   | Δ or | 2  | my.au | S.B  | Greece         | 1788.     | D   | p.1 | Bot. rep. 385              |
| 2688 coronata B. Reg.    | crowned         | Δ or | 2  | jl    | B    | Siberia        | 1815.     | D   | s.1 | Bot. reg. 149              |
| 2689 eichorœcea Sibb.    | headed          | Δ or | 2  | jn.jl | B    | Greece         | 1768.     | D   | co  | Bot. mag. 811              |
| 2690 lanuginosa W. en.   | woolly-leaved   | Δ or | 2  | my.au | B    | .....          | 1814.     | S   | s.1 |                            |
| 2691 Erinus W. en.       | forked          | Δ or | ½  | jl.au | Pa.B | S. Europe      | 1768.     | S   | s.1 | M. h. s. 5. t. 3. f. 25    |
| 2692 hederœcea W.        | Ivy-leaved      | Δ or | ½  | my.jn | B    | England        | m.s.p.    | D   | co  | Eng. bot. 73               |



History, Use, Propagation, Culture,

English it is called Venus' looking-glass. Ancient mirrors were always round, on which account the astrological sign of Venus was ♀, or a figure of the antique mirror and its handle. This is a shewy genus; some of the species are beautiful, and all of them of easy culture in the borders of the flower garden or shrubbery. One or two species are used in dietetics, and probably the roots of the whole might be eaten. Almost all the species have long thick white roots, which abound in an acrid milky juice.

C. rapunculus is much cultivated in France and Italy, and sometimes in Britain, for the roots, which are boiled tender and eaten hot with sauce, or cold with vinegar and pepper. It is sown in Spring on deep light soil in drills, and will be ready for use by the autumn of the same year. C. persicifolia and Rapunculoides may also be cultivated for the same purpose.

C. pyramidalis was a very fashionable plant thirty years ago, and is still cultivated, but has given way to Lobelia splendens and fulgens. It is still in demand in Holland as an ornament to halls, staircases, and for being placed before fire-places in the summer season; for which purpose it is planted in large pots, and trained in the fan manner, so as to cover a large surface. In the shade it will continue in flower for two or three

- 2642 Leaves oblong crenulate rigid sessile, Flowers erect flat  
 2643 Caps. 5-celled, Leaves elliptical serrate smooth, Flowers panicled 5-parted, Stems shrubby fleshy  
 2644 Leaves cordate serrate smooth, Thyse terminal, Sepals subulate, Corolla rotate spreading  
 2645 Leaves lanceolate: cauline acutely serrated, Flowers panicled nodding  
 2646 Leaves stalked subcordate acutely serrated, Flowers small nodding, Style exserted  
 2647 Leaves ternate oblong finely serrated, Stem 1-flowered, Flower spreading  
 2648 Leaves rhomboidal serrated, Spike one-sided, Cal. toothed  
 2649 Leaves about 6 lanceolate toothed, Flowers whorled [very long  
 2650 Stem erect, Lvs. altern. opp. and ternate lin. lanc. entire, Pan. pyram. Flowers cernu. glob. trunc. Style  
 2651 Stem branched upright twiggly, Lvs. lin. lanc. toothed, Pedunc. filiform long, Cor. funnel-shaped 3-4-cleft  
 2652 Smooth, Stem. 1-fl. Lower lvs. obl. cauline lin. subsetaceous, Cor. cernuous with the bott. of seg. cut out
- § 2. *Leaves rough.*
- 2653 Stem rounded striated smooth, Lvs. ovate lanc. doubly serrated, Pedunc. axillary 1-fl. erect, Cal. smooth  
 2654 Stem furrowed pubescent, Leaves ovate-lanceolate doubly serrate, Pedunc. axillary solitary, Cal. woolly  
 2655 Stem angular hispid, Lvs. ov. lanc. coarsely serrated, Pedunc. axillary 1-flowered cernuous, Cal. hispid  
 2656 Stem angular, Leaves stalked, Cal. ciliated, Peduncles trifid  
 2657 Leaves cordate-lanceolate, Stem branched, Flowers one-sided scattered nodding, Cal. reflexed  
 2658 Leaves oblong unequally toothed rough beneath, Stem panicled, Bractes and calyx ciliated  
 2659 Leaves downy: lower cord. lanc. stalked, Flower nodding, Germens woolly  
 2660 Leaves ovate lanceolate beneath scabrous sessile, Stem panicled [very long  
 2661 Stem rounded and lvs. beneath tomentose, Lower lvs. cordate lanc. stalked, upper sessile, Raceme term.  
 2662 Stem angular simple smooth, Leaves scabrous oblong lanceolate cordate sessile, Head clustered  
 2663 Stem angular subsimple hispid, Rad. lvs. ovate cordate stalked: cauline cordate sessile, Flowers clustered  
 2664 Hispid, Flowers sessile, Head terminal, Leaves lanceolate linear wavy  
 2665 Stem simp. few-fl. Lvs. hairy, lower cord. lanc. stalked, upper obl. sessile, Flowers nodding, Cal. hispid  
 2666 Leaves ovate-oblong sessile serrated, Stem simple angular, Flowers panicled  
 2667 Leaves lanc. twin serr. and branched stem hispid, Flowers panicled, Calyxes hispid, Seg. dilated serrated  
 2668 Stem angular smooth, Caul. leaves sessile equally toothed wavy lanceolate, Floral cordate, Cor. tubular  
 2669 Hispid, Raceme ovate oblong terminal, Stem quite simple, Leaves linear lanceolate  
 2670 Leaves ovate rugose, Leafstalks with a dilated and serrated edge, Stem simple hispid, Flowers spreading  
 2671 Leaves oblong wavy hairy, Flowers terminal cernuous, Cal. smooth  
 2672 Leaves lanceolate toothed hispid, Pedunc. very long 1-flowered with strigose capsules
- § 3. *Capsules covered by the reflexed recesses of the calyx.* Medium.
- 2673 Stem simple erect pubescent, Lvs. lanc. crenate, Racemes simple with nodd. flowers, Cor. bearded inside  
 2674 Hairy, Radical leaves stalked ovate acute serrate, Flowers cernuous dotted inside villous  
 2675 Stem undivided erect hispid, Leaves lanceolate obtusely serrated sessile 3-nerved at base, Flowers erect  
 2676 Hispid, Caps. 5-celled, Branches pyramidal, Peduncles axillary, Flowers erect solitary  
 2677 Hispid, Spike lax, Flowers alternate, Leaves linear entire  
 2678 Stem simple, Pedunc. axillary 1-flowered 2-leaved  
 2679 Caps. 5-celled covered stalked, Stem prostrate, Leaves very soft nearly round  
 2680 Caps. 5-keeled covered, Flowers alternate nodding, Leaves obovate crenate  
 2681 Radical leaves reniform coarsely doubly serrate: cauline ovate toothed sessile  
 2682 Leaves reniform cordate doubly crenate stalked tomentose beneath, Flowers one-sided reflexed  
 2683 Stem panicled pubescent, Leaves lanceolate obtuse wavy  
 2684 Stem simple diverging pubes. Lvs. lanc. obtusely serrated sessile veiny, Pedunc. axill. 3-fl. and terminal  
 2685 Hispid, Stem simple, Flowers capitate terminal, Leaves lanceolate obtuse crenate  
 2686 Lvs. obovate wavy rough, Stem creeping, Branches erect few-flow. Segm. of the hispid cal. nearly equal  
 2687 Caps. stalked, Leaves serrated: radical lyrate; cauline lanceolate nearly wedge shaped  
 2688 Radical leaves stalked cord. doubly serr. Raceme few-flowered lax  
 2689 Caps. covered, Leaves oblong wavy hispid; radical sinuated, Flowers clustered sessile terminal

- 2690 Leaves woolly: radical lyrate; cauline rounded ovate serrate, Flowers cernuous
- § 4. *Corolla in some degree unequal, Stigma nearly simple, Capsule opening at the end.*
- 2691 Stem dichotomous, Leaves sessile, the upper opp. 3-toothed  
 2692 Leaves cordate 5-lobed stalked smooth, Stem lax



and Miscellaneous Particulars.

months. The art of producing a very large plant is to begin with pots of a small size, and shift frequently during two years, till at last the plant occupies a pot of a foot or more in diameter. Rich light soil should be used, but no animal manures or recent dung, as these are found very injurious. Cuttings of the roots flower the second, and seedlings the third year. *C. carpatica* and *grandiflora* may be treated in a similar manner.

*C. lilifolia* has a singular anomaly in the leaves, which before the panicle is produced come out in a kind of rose on the summit of the stem, but are, through its prolongation, afterwards dispersed. The flowers vary much both in size and color, and the roots are eaten in China both raw and boiled.

*C. glomerata* is a handsome rock or pot plant; it requires a dry lean soil, otherwise, as in most plants, the flowers lose the intensity of their color in that which is very rich.

*C. hederacea* is a very small plant, with the leaves so much resembling those of *Veronica hederifolia*, that *Linnaeus* suspected it to be a hybrid.

*C. medium* is a very ornamental border flower of the easiest culture, and with varieties, double and single,

|                           |                  |    |   |    |   |          |      |             |             |   |    |                        |
|---------------------------|------------------|----|---|----|---|----------|------|-------------|-------------|---|----|------------------------|
| §2693 fruticosa W.        | shrubby          | as | □ | or | 1 | au       | B    | C. G. H.    | 1787.       | S | pl |                        |
| §2694 Primatocarpus W.    | shining          | ✱  | ○ | or | ½ | my.au    | B    | C. G. H.    | 1787.       | S | sl | L'Her. s.an.2.t.3      |
| §2695 Spéculum W.         | Venus' Look.-gl. | ✱  | ○ | or | 1 | my.au    | Pu   | S. Europe   | 1596.       | S | sl | Bot. mag. 102          |
| β alba                    | white            | ✱  | ○ | or | 1 | my.au    | W    |             |             |   |    |                        |
| §2696 hýbrida W.          | corn             | ✱  | ○ | or | 1 | my.au    | Pu   | England     | cha. fl.    | S | sl | Eng. bot. 375          |
| §2697 pentagónia W.       | five-angled      | ✱  | ○ | or | 1 | my.au    | B.P  | Turkey      | 1686.       | S | sl | Bot. reg. 56           |
| §2698 perfoliáta P. S.    | perfoliate       | ✱  | ○ | or | 1 | my.au    | Pu   | N. Amer.    | 1680.       | S | sl | M.h.2.s.5.t.2.f.23     |
| †*46. LOBELIA. W.         | LOBELIA.         |    |   |    |   |          |      | Campanulac. | Sp. 46—170. |   |    |                        |
| 2699 simplex W.           | simple-stalked   | ✱  | □ | or | ½ | my.au    | B    | C. G. H.    | 1794.       | C | lp |                        |
| 2700 lineáris W. ca.      | linear-leaved    | ✱  | □ | or | 1 | my.au    | B    | C. G. H.    | 1791.       | C | lp |                        |
| 2701 pinifolia W.         | Pine-leaved      | ✱  | □ | or | 1 | my.au    | V    | C. G. H.    | 1752.       | S | sp | Bot. rep. 273          |
| 2702 unidentáta H. K.     | single-toothed   | ✱  | △ | or | 1 | my.au    | V    | C. G. H.    | 1794.       | R | lp | Bot. mag. 1484         |
| 2703 Dortmánnia W.        | water            | ✱  | △ | or | 1 | jl.au    | B    | Britain     | lakes.      | R | lp | Eng. bot. 140          |
| 2704 salicifolia          | willow-leaved    | ✱  | △ | p  | 6 | jn.au    | S    | Chili       | 1794.       | R | sp | Bot. mag. 1325         |
| Tépa H. K. gigantéa B. M. |                  |    |   |    |   |          |      |             |             |   |    |                        |
| 2705 Kálmii L.            | Kalm's           | ✱  | ○ | or | 1 | jl.au    | B    | Carolina    | 1820.       | S | co | Bot. mag. 2238         |
| 2706 racemósa B. M.       | racemose         | ✱  | ○ | or | 5 | jl.au    | G    | W. Indies   | 1818.       | C | co | Bot. mag. 2137         |
| 2707 bellidifolia W.      | Daisy-leaved     | ✱  | △ | or | 1 | my.au    | B    | C. G. H.    | 1790.       | C | sp |                        |
| 2708 triquetra W.         | triangular       | ✱  | △ | or | 1 | my.au    | B    | C. G. H.    | 1774.       | C | sp |                        |
| 2709 longiflóra W.        | long-flowered    | ✱  | △ | or | 1 | my.au    | W    | Jamaica     | 1752.       | S | sp | Jac. vind. 1. t. 27    |
| 2710 secúnda W.           | side-flowering   | ✱  | △ | or | ½ | my.au    | W    | C. G. H.    | 1790.       | S | sp |                        |
| 2711 goodenioides H. K.   | Goodenia-like    | ✱  | △ | or | 1 | jn.au    | Pa.B | N. Amer.    | 1759.       | D | sl | Will. hor. ber. 30     |
| 2712 asur'gens W.         | purple           | ✱  | △ | or | 3 | jn.o     | S    | W. Indies   | 1787.       | C | sp | Bot. rep. 563          |
| 2713 fulgens W. ca.       | fulgent          | ✱  | △ | or | 3 | mys.s    | S    | Mexico      | 1809.       | C | sp | Bot. rep. 659          |
| 2714 verbasifolia Sm.     | Mullein-leaved   | ✱  | △ | or | 6 | my.jn    | R    | Nepal       | 1822.       | D | rm |                        |
| 2715 cardinális W.        | Cardinal-flower  | ✱  | △ | or | 3 | mys.s    | S    | Virginia    | 1629.       | C | sp | Bot. mag. 230          |
| 2716 spléndens W. ca.     | splendid         | ✱  | △ | or | 3 | mys.s    | S    | Mexico      | 1814.       | C | sp | Bot. reg. 60           |
| 2717 débilis W.           | feeble           | ✱  | □ | or | 1 | jl.au    | B    | C. G. H.    | 1774.       | S | sp |                        |
| 2718 atáta R. Br.         | winged-stalked   | ✱  | △ | or | 1 | my.au    | B    | N. S. W.    | 1804.       | S | sp | La. no.hol. 1.t.72     |
| 2719 siphilitica W.       | blue-cardinal    | ✱  | △ | or | 2 | au.o     | L.B  | Virginia    | 1665.       | C | sp | Bot. reg. 537          |
| 2720 surinaménsis W.      | shrubby          | ✱  | △ | or | 2 | ja.jl    | O    | W. Indies   | 1786.       | C | sp | Bot. mag. 225          |
| β rubra                   | red              | ✱  | △ | or | 2 | ja.jl    | R    | W. Indies   | 1800.       | C | sp | Bot. cab. 749          |
| 2721 grácilis R. Br.      | slender          | ✱  | □ | or | 1 | jl.o     | D.B  | N. S. W.    | 1801.       | S | sp | Bot. mag. 741          |
| 2722 purpurásces R. Br.   | purplish         | ✱  | △ | or | 1 | jn.au    | B    | N. S. W.    | 1809.       | D | sp |                        |
| 2723 infáta W.            | bladder-podded   | ✱  | △ | or | 1 | jl.au    | Pa.B | N. Amer.    | 1759.       | S | sp | Li. ac. up. 1741. t. 1 |
| 2724 cliffortiána W.      | purple-flowered  | ✱  | ○ | or | 1 | jl.au    | Pk   | N. Amer.    | 1733.       | S | sp | Li. h. cl. 423. t. 36  |
| 2725 micrántlia Hook.     | small-flowered   | ✱  | ○ | or | 3 | jn.au    | B    | Nepal       | 1822.       | S | sp | Hook. ex. fl. 44       |
| 2726 árens W.             | acid             | ✱  | △ | or | 3 | jn.jl    | B    | England     | hea.        | S | sl | Eng. bot. 953          |
| 2727 amé'na Mich.         | beautiful-blue   | ✱  | △ | or | 3 | jn.au    | B    | N. Amer.    | 1812.       | D | sl | Ann. mus. 18. t. 1     |
| 2728 minúta W.            | small            | ✱  | △ | or | 1 | lin.jn.s | W    | C. G. H.    | 1772.       | R | sp | Bot. mag. 2077         |
| 2729 Lauréntia W.         | Italian          | ✱  | □ | or | ½ | jl       | B    | Italy       | 1778.       | S | sp | Mich. ge. 18. t. 14    |
| 2730 tenéllia Biv.        | slender          | ✱  | □ | or | ½ | my.jl    | P.v  | Sicily      | 1821.       | D | co |                        |
| 2731 campanuloides Th.    | chinese          | ✱  | △ | or | ½ | my.au    | W    | China       | 1820.       | D | co | Bot. reg. 733          |
| 2732 Erinus W.            | ascending        | ✱  | △ | or | ½ | jn.s     | B    | C. G. H.    | 1752.       | S | sp | Bot. mag. 901          |
| 2733 erinoides W.         | trailing         | ✱  | △ | or | ½ | jn.au    | B    | C. G. H.    | 1759.       | R | sp | Her. lugd. t. 109      |
| 2734 bicolor H. K.        | spotted          | ✱  | □ | or | ½ | jn.au    | Pa.B | C. G. H.    | 1795.       | C | sp | Bot. mag. 514          |
| 2735 ilicifolia B. M.     | Holly-leaved     | ✱  | △ | or | ½ | mys.s    | Pk   | C. G. H.    | 1815.       | D | sp | Bot. mag. 1886         |
| 2736 pubescens W.         | dowly-leaved     | ✱  | △ | or | ½ | jn.au    | B    | C. G. H.    | 1790.       | R | sp | Jac. sch. 2. t. 178    |
| 2737 lítea W.             | yellow           | ✱  | △ | or | ½ | jn.jl    | Y    | C. G. H.    | 1774.       | S | sp | Bot. mag. 1319         |
| 2738 hirsúta W.           | hairy            | ✱  | △ | or | ½ | mys.s    | B    | C. G. H.    | 1759.       | C | sp | Bot. rep. 444          |



History, Use, Propagation, Culture,

of blue, red, purple, and white flowers. Like other biennials, it may either be sown where it is to remain in any time after midsummer, or sown in beds in spring for transplantation.

C. speculum and hybrida are annual border flowers of considerable beauty.  
 464. *Lobelia*. In honor of M. Lobel, author of various works, and particularly of that called *Icones Plantarum*; he was born at Lisle in 1538, became physician and botanist to James I., and died in London in 1616. This genus furnishes some of our most splendid herbaceous plants, as *L. cardinalis*, *fulgens*, and *splendens*. The predominant color of the corollas is red.

*L. Dortmannia* (from Dortmann, an apothecary, who first sent it to Clusius), is a beautiful aquatic with leaves reflected into an elegant curve at the end, and the flowers in loose spikes.

*L. longiflora*, which grows by moist places and rivulets in the West Indies, is a very poisonous plant. Taken internally it brings on an invincible purging. If the plant be handled, and the hand be unawares applied to the eyes or lips, it brings on an inflammation. In the Spanish West Indies it is called *Reventacavallos*, because horses are reported to burst with eating it.

*L. fulgens*, *splendens*, and *cardinalis*, are the three grand ornaments of the genus. They are readily multiplied by cuttings or slips, or by seeds when they ripen, and grow well in light rich soil. The culture of *L. cardinalis* is given at length by Justice, who designates it "a flower of most handsome appearance, and which should not be wanting in curious gardens, on account of the rich color of its flowers." The culture of *L.*

§ 5. *Capsules prismatical.* Prismaticocarpus.

2693 Caps. columnar 5-celled, Stem shrubby, Leaves linear subulate, Peduncles very long, Panicles terminal  
 2694 Caps. linear 2-celled, Leaves lanceolat, coarsely serrated smooth, Stem decumbent  
 2695 Stem very much branched diffuse, Leaves oblong crenate, Flowers solitary

2696 Stem branched at base upright, Leaves oblong crenate, Cal. aggregated longer than corolla  
 2697 Branching diffuse, Lower leaves oblong obtuse, Upper lanceolate, Flower solitary, Cor. longer than calyx  
 2698 Stem simple, Leaves cordate toothed stem-clasping, Flowers sessile clustered

2699 Leaves linear villous, Stem erect  
 2700 Leaves linear smooth, Stem erect  
 2701 Shrubby, Leaves linear erect close together  
 2702 Leaves linear one toothed on each side  
 2703 Leaves linear 2-celled, Scape simple naked racemose  
 2704 Leaves lanceolate, Raceme spiked

2705 Stem erect, Leaves lin. lanc. obtuse alternate entire, Raceme terminal  
 2706 Stem half shrubby erect, Leaves lanc. ovate serrate toothed, Rac. term. Pedic. as long as flowers  
 2707 Leaves ovate toothed hairy, Stem simple  
 2708 Leaves lanceolate pinnatifid toothed, Raceme terminal  
 2709 Leaves lanceolate toothed, Peduncles very short lateral, Tube of cor. filiform very long  
 2710 Smooth, Lower leaves oblong toothed, upper lanceolate entire, Peduncles racemose 1-sided  
 2711 Erect simple slightly pubescent, Lvs. obl. obt. almost entire, the lower spatulate, Spike naked small flow.  
 2712 Leaves broad lanceolate serrate below toothed decurrent, Racemes compound terminal  
 2713 Leaves narrow lanceolate toothed revolute at edge and stem pubescent, Raceme terminal  
 2714 A tall plant with rugose coarse leaves, and a long spike of fine red flowers  
 2715 Leaves oblong lanceolate cartilaginous-toothed and erect stem smooth, Raceme terminal 1-sided leafy  
 2716 Leaves narrow lanceolate toothletted flat at edge and stem quite smooth, Raceme terminal  
 2717 Leaves lanceolate serrated smooth, Peduncles lateral longer than the leaf  
 2718 Flowers axillary, Stem winged, Radical leaves ovate lanceolate with glandular reflexed teeth  
 2719 Lvs. ovate-obl. acute at each end unequally serrated, Flowers axillary solitary, Recesses of calyx reflexed  
 2720 Lvs. obl. acuminate serrated smooth, Pedunc. axill. 1-fl. Sepals linear lanc. spreading, Anthers bearded

2721 Leaves ovate cut, Stem divided, Racemes terminal naked, Upper lip of cor. bearded  
 2722 Smooth, Stem ascending 4-cornered, Leaves ovate-lanceolate cut serrate twice as short as leafstalk  
 2723 Stem hairy, Lvs. toothed serrate, the lower ov. obl. the upper ovate, Pedunc. axillary 1-fl. Caps. inflate  
 2724 Stem erect, Leaves cordate obsoletely toothed stalked, Corymb terminal  
 2725 Smooth erect, Stem 3-cornered, Leaves ovate round repand, Pedunc. longer than leaves  
 2726 Stem erect, Lower leaves obovate toothletted, upper lanceolate serrate, Raceme terminal 1-sided  
 2727 Quite smooth, Lvs. broad lanc. serr. Spike many-flowered 1-sided, Sepals entire, Lower petals ov. acute  
 2728 Radical leaves ovate, Scares capillary  
 2729 Stem prostrate, Leaves lanceolate oval-crenate, Stem branched, Peduncles solitary 1-flowered very long  
 2730 Radical leaves spatulate repand, Cauline setaceous, Stems simple 1-flowered erect  
 2731 Leaves somewhat stalked lanceolate oblong toothed, Stems decumbent, Peduncles elongated  
 2732 Stem spreading, Lvs. toothed, lower ellipt. stalked, upper sess. narrow lanc. Pedunc. longer than leaves  
 2733 Stems prostrate filiform, Leaves stalked oblong toothed  
 2734 Stems spreading, Lower leaves oblong toothed pubescent subsessile, Upper lip of cor. reflexed  
 2735 Leaves ovate lanceolate deeply toothed, Peduncles axillary 2 or 3 times as long as leaves  
 2736 Stems angular prostrate and leaves lanceolate toothed hairy, Peduncles axillary 1-flowered  
 2737 Stems procumbent, Leaves lanceolate serrated, Flowers sessile spiked  
 2738 Shrubby hairy prostrate. Leaves ovate toothed, Flowers lateral with very long stalks 2 or 3-flowered



and Miscellaneous Particulars.

fulgens is given by J. B. Van Mons, and W. Hedges, in the Hort. Trans. Both confess that very little art is required. Hedges, to procure strong flower stalks, keeps the plants in pots, shifts very frequently from a smaller to a larger size, places them first in cucumber frames, and when they begin to flower in a stove. The pots in which they are allowed to flower are nine inches in diameter, and, in order to supply abundant moisture, pans are placed under the pots constantly filled with water. The soil used is equal parts of loam and leaf-mould, with a third of the whole of sand. They begin to flower in July, and continue flowering through the autumn. One plant so treated produced a flower-stalk which measured six inches in circumference at the base; the height of the centre spike of flowers was five feet and a half; the shoots from the bottom and sides of the main stem were in number seventeen, and rising four and a half feet.

*L. splendens* and *cardinalis* may either be treated as above, or as a tender border, or as frame plants. Van Mons observes, that *L. cardinalis* perishes in sandy soil, but becomes strong and multiplies in loam, while, at the same time, it produces the most brilliant colors in the former. The same thing may doubtless be predicted of the other species; it being a well known law of nature as to living beings, that their energies are concentrated in proportion to the obstacles thrown in the way of their expansion.

*L. siphilitica* has its specific name from its supposed efficacy in the cure of syphilis, among the North American Indians. Sir William Johnston purchased the secret from them, but Woodville says, its virtues have not been confirmed by any instances of European practice.



|                                    |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
|------------------------------------|-----------------|---|---|-----|----|------|----|-------|-----------|---------|-----|-----|-------------------------|
| 2739 <i>varifolia</i> B. M.        | various-leaved  | Δ | Δ | or  | 1  | jn.  | l  | Y     | C. G. H.  | 1812.   | C   | s p | Bot. mag. 1692          |
| 2740 <i>coronopifolia</i> W.       | Buck's-horn     | Δ | Δ | or  | 2  | jl.  | au | B     | C. G. H.  | 1752.   | S   | s p | Bot. mag. 644           |
| 2741 <i>crenata</i> W.             | notched-leaved  | Δ | Δ | or  | 2  | ap.  | my | B     | C. G. H.  | 1794.   | C   | s p | Bot. mag. 644           |
| 2742 <i>speculum</i> B. M.         | Looking-glass   | Δ | Δ | or  | 2  | jl.  | au | Pu    | C. G. H.  | 1812.   | S   | s p | Bot. mag. 1499          |
| 2743 <i>pedunculata</i> B. M.      | long-stalked    | Δ | Δ | or  | 1  | o.n. | B  | B     | C. G. H.  | 1819.   | D   | co  | Bot. mag. 2251          |
| 2744 <i>decumbens</i> B. M.        | decumbent       | Δ | Δ | or  | 2  | o.n. | B  | Pu    | C. G. H.  | 1820.   | D   | co  | Bot. mag. 2277          |
| 2745 <i>pyramidalis</i> B. M.      | pyramidal       | Δ | Δ | or  | 4  | s    | B  | B     | Nepal     | 1822.   | D   | co  | Bot. mag. 2367          |
| <b>*465. PHYTEUMA. W.</b>          |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2746 <i>pauciflorum</i> L.         | few-flowered    | Δ | Δ | pr  | 2  | my.  | jn | B     | Switzerl. | 1823.   | D   | p.l | Bot. mag. 1797          |
| 2747 <i>Scheuchzeri</i> W.         | Scheuchzer's    | Δ | Δ | pr  | 1  | jl.  | au | B     | Switzerl. | 1813.   | co  |     | Bot. mag. 2271          |
| 2748 <i>scorzonerifolium</i> Vill. | scorzonera-ldv. | Δ | Δ | pr  | 2  | jl.  | au | B     | Alps      | 1819.   | D   | p.l | Bot. mag. 2251          |
| 2749 <i>Michelii</i> All.          | Micheli's       | Δ | Δ | pr  | 1  | jl.  | jl | B     | Switzerl. | 1822.   | D   | p.l | All. ped. i. t. 7. L. 5 |
| 2750 <i>hemisphaericum</i> W.      | linear-leaved   | Δ | Δ | pr  | 1  | jl.  | B  | B     | Switzerl. | 1752.   | p.l |     | Jac. ic. 2. 333         |
| 2751 <i>comosum</i> Wulf.          | tufted          | Δ | Δ | pr  | 1  | jn.  | jl | B     | Austria   | 1752.   | S   | a.l | Jac. au. 5. tap. 50     |
| 2752 <i>orbiculare</i> W.          | round-headed    | Δ | Δ | pr  | 1  | jn.  | au | V     | England   | ch. pa. | D   | p.l | Eng. bot. 142           |
| 2753 <i>cordatum</i> B. M.         | heart-leaved    | Δ | Δ | pr  | 2  | jl.  | au | B     | Hungary   | 1804.   | co  |     | Eng. bot. 1466          |
| 2754 <i>betonicifolium</i> Vill.   | Betony-leaved   | Δ | Δ | pr  | 2  | jn.  | jl | Pa. B | S. Europe | 1818.   | D   | p.l | Vill. del. 2. 12. 3     |
| 2755 <i>spicatum</i> W.            | spiked          | Δ | Δ | pr  | 2  | jn.  | au | B     | Europe    | 1597.   | D   | p.l | Bot. mag. 2347          |
| 2756 <i>ovatum</i> W.              | oval-spiked     | Δ | Δ | pr  | 2  | jn.  | au | D. V  | Europe    | 1814.   | D   | p.l |                         |
| <b>2757 <i>virgatum</i> W.</b>     |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2758 <i>campanuloidesum</i> Hk.    | Campanula-fl.   | Δ | Δ | pr  | 1  | jn.  | au | B     | Caucasus  | 1804.   | D   | p.l | Bot. cab. 1015          |
| 2759 <i>canescens</i> W. en.       | hoary           | Δ | Δ | pr  | 2  | jn.  | au | Li    | Hungary   | 1804.   | D   | p.l | Pl. rar. hu. t. 14      |
| 2760 <i>pinnatum</i> W.            | winged-leaved   | Δ | Δ | pr  | 2  | jn.  | au | B     | Candia    | 1640.   | D   | p.l | Vent. cels. 52          |
| 2761 <i>strictum</i> B. M.         | upright         | Δ | Δ | pr  | 2  | jn.  | jl | B     | S. Europe | 1819.   | D   | p.l | Bot. mag. 2145          |
| <b>466. TRACHELIUM. W.</b>         |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2762 <i>caruleum</i> W.            | blue            | Δ | Δ | or  | 2  | jl.  | s  | B     | Italy     | 1640.   | S   | r.m | Bot. reg. 72            |
| 2763 <i>diffusum</i> W.            | spreading       | Δ | Δ | cul | 2  | jl.  | s  | B     | C. G. H.  | 1787.   | S   | r.m |                         |
| <b>*467. ROELLA. LA. W.</b>        |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2764 <i>ciliata</i> W.             | ciliated        | Δ | Δ | or  | 1  | jn.  | s  | Pu    | C. G. H.  | 1774.   | S   | s p | Bot. mag. 378           |
| 2765 <i>squarrosa</i> W.           | trailing        | Δ | Δ | or  | 2  | jl.  | B  | B     | C. G. H.  | 1787.   | S   | s p |                         |
| 2766 <i>decurrens</i> W.           | decurrent       | Δ | Δ | or  | 1  | jl.  | s  | B     | C. G. H.  | 1787.   | S   | l.p | L'He. se. an. 4. t. 6   |
| 2767 <i>muscosa</i> W.             | Moss-like       | Δ | Δ | cu  | 2  | jl.  | s  | B     | C. G. H.  | 1802.   | S   |     |                         |
| <b>468. GOODENIA. R. Br.</b>       |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2768 <i>ovata</i> R. Br.           | oval-leaved     | Δ | Δ | or  | 2  | jn.  | o  | Y     | N. S. W.  | 1793.   | S   | s p | Bot. rep. 63            |
| 2769 <i>grandiflora</i> R. Br.     | large-flowered  | Δ | Δ | or  | 4  | jn.  | au | Y     | N. S. W.  | 1803.   | S   | s p | Bot. mag. 890           |
| <b>469. EU'THALES. R. Br.</b>      |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2770 <i>trinervis</i> R. Br.       | three-nerved    | Δ | Δ | or  | 1  | my.  | s  | P. Y  | N. Holl.  | 1803.   | C   | l.p | Bot. mag. 1157          |
| <b>*470. DAMPIERA. R. Br.</b>      |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2771 <i>stricta</i> R. Br.         | upright         | Δ | Δ | or  | 1  | jn.  | au | B     | N. S. W.  | 1814.   | C   | l.p | Ann. mus. 18. t. 2      |
| <b>471. SAMOLUS. W.</b>            |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2772 <i>Valerandi</i> R. Br.       | common          | Δ | Δ | pr  | 2  | jn.  | au | W     | Britain   | marc.   | D   | co  | Eng. bot. 703           |
| 2773 <i>litoralis</i> R. Br.       | sea-side        | Δ | Δ | pr  | 2  | jl.  | s  | W     | N. S. W.  | 1806.   | D   | a.l | Bot. cab. 435           |
| <b>472. VELLEIA. Sm.</b>           |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2774 <i>lyrata</i> R. Br.          | lyrate          | Δ | Δ | or  | 2  | ap   | Y  | Y     | N. Holl.  | 1819.   | D   | s p | Bot. reg. 551           |
| <b>473. SCÆVOLEA. R. Br.</b>       |                 |   |   |     |    |      |    |       |           |         |     |     |                         |
| 2775 <i>Lobelia</i> H. K.          | Purflane-ldv.   | Δ | Δ | or  | 2  | ...  | W  | W     | Indies    | 1724.   | C   | l.p | Plu. ic. t. 165. f. 1   |
| 2776 <i>crassifolia</i> R. Br.     | thick-leaved    | Δ | Δ | or  | 3  | au.  | o  | W     | N. Holl.  | 1805.   | C   | s p | La. no. hol. i. t. 79   |
| 2777 <i>microcarpa</i> R. Br.      | small-fruited   | Δ | Δ | or  | 14 | my.  | s  | P. V  | N. S. W.  | 1790.   | D   | s p | Bot. mag. 287           |
| 2778 <i>suaveolens</i> R. Br.      | sweet-scented   | Δ | Δ | or  | 2  | aus  | B  | B     | N. S. W.  | 1793.   | D   | s p | Bot. rep. 22            |



History, Use, Propagation, Culture,

465. *Phyteuma*. Φυτιμμα, was the name of a plant much used among the ancients for aphrodisiacal purposes. No qualities of such a kind have been ascribed to the modern plant. This is a handsome genus, and with *Roella* is well adapted for rock-work or pots. The roots of *P. spicatum* are edible, and used in Switzerland like those of the rampion.

466. *Trachelium*. From τραχὺς, rough, which its leaf is in a high degree. A pretty little favorite of the flower border, easily cultivated and preserved.

467. *Roella*. Named after G. Roelle, professor of anatomy at Amsterdam. He procured this plant for Clifford. A pretty little leafy bush, with beautiful flowers of blue and white.

468. *Goodenia*. So named by Sir J. E. Smith, in honor of his friend Dr. Goodenough, Bishop of Carlisle, and a lover of natural history. Herbs or small shrubs, with alternate leaves, and terminal or axillary flowers, which are generally yellow, sometimes blue.

469. *Euthales*. From εὖ, well, and σάλλω, to push or sprout. Very like the last in all external characters.

- 2739 Stems erect, Leaves linear entire and toothed, Flowers solitary terminal  
 2740 Leaves lanceolate toothed, Peduncles very long  
 2741 Leaves lanceolate crenate smooth, Stem twining  
 2742 Stem prostrate, Ped. axillary solitary 1-flow. very long, Cor. hypocrateriform  
 2743 Leaves stalked recurved pinnatifid, Pedunc. elong. lat. solitary 2-flowered  
 2744 Leaves obovate toothed shorter than the axillary solitary peduncles  
 2745 Leaves lanc. serrulate with long points, Racemes leafy paniced, Cal. as long as cor.

§ 1. *Flowers in heads.*

- 2746 Head leafy, Leaves all lanceolate  
 2747 Head rather leafy shorter than the linear bractes, Leaves lanceolate toothed  
 2748 Spike elongated cylindrical, Lower flowers remote, Leaves lanceolate crenated, Upper linear  
 2749 Head roundish, Bractes oblong lanceolate, Leaves linear rigid nearly entire  
 2750 Head roundish, Bractes ovate, Leaves linear nearly entire scarcely shorter than stem  
 2751 Head terminal sessile, Leaves toothed: radical cordate  
 2752 Head roundish longer than bractes, Radical leaves ovate cordate bluntly serrated, Cauline lin. lanceolate  
 2753 Bractes cordate acum. shorter than the roundish head. Rad. lvs. obl. cord. crenate, Caul.  $\frac{1}{2}$  stem-clasping  
 2754 Spike oblong, Leaves simply crenate: radical lanceolate cordate; cauline lanceolate  
 2755 Spike oblong lengthened, Styles downy trifid, Radical leaves cordate doubly toothed  
 2756 Spike ovate, Styles hairy longer than the flower bifid, Radical leaves cordate doubly toothed

§ 2. *Flowers axillary scattered.*

- 2757 Branches twiggy, Lvs. lanc. acute at each end uneq. toothed roughish, Flowers deeply divided in pairs  
 2758 Lvs. ovate acute sessile serrated rough, Stem angular quite simple, FL racemose sessile, lower clustered  
 2759 Leaves sessile, Lower obovate crenate-serrate, Upper lanceolate entire, Flowers racemose  
 2760 Leaves pinnate, Flowers very large in cymes  
 2761 Rad. leaves lin. spatulate entire, Flowers  $\frac{1}{2}$ -whorled in 3-flowered alternate parcels

- 2762 Branches erect, Leaves ovate serrated flat  
 2763 Much branched diffuse, Branches divaricating recurved, Leaves subulate

- 2764 Leaves linear ciliated upright, Flowers sessile  
 2765 Diffuse, Leaves ovate recurved toothed, Flowers terminal aggregate  
 2766 Leaves lanceolate ciliated entire decurrent, Flowers solitary terminal  
 2767 Leaves ovate toothed reflexed smooth, Flowers terminal solitary

- 2768 Erect smooth, Leaves ovate acute toothed serrated, Axillæ bearded, Sepals subulate filiform  
 2769 Erect pubescent, Branches angular, Lower leaves lyrate, Upper obovate acute

2770 A small herbaceous plant with large entire radical leaves

2771 Leaves lanceolate entire or toothed fleshy smooth, Cor. hairy outside

- 2772 Stems diffuse branching, Racemes axillary and terminal  
 2773 Stem rounded branched leafy, Radical leaves spatulate: cauline lanceolate

2774 Smooth, Bractes of the dichotomies distinct, Leaves lyrate or toothed-cut at base

- 2775 Leaves obovate smooth entire  
 2776 Spikes terminal and axillary, Leaves fleshy obovate toothed  
 2777 Leaves alternate obovate toothed smooth, Fruit very small  
 2778 Leaves entire obovate thick rough, Drupe berried (*Goodenia calendulacea*.)



and *Miscellaneous Particulars.*

470. *Dampiera*. Named by Mr. Robert Brown, in honor of Captain William Dampier, a famous voyager, whose knowledge and attention, in matters connected with botany, are attested by the remains of the collections made during his voyages, and now preserved in the Sherardian Herbarium at Oxford.

471. *Samolus*. Derived from two Celtic words, *san*, salutary, and *mos*, pig; a plant which is salutary to pigs. Pliny says, it was considered among the Gauls as a specific in all maladies of swine. The plant was collected with mystic ceremonies. S. Valerandi was named after Dourez Valerand, a botanist of the 16th century, mentioned by Bauhin. Small marsh-plants with white flowers.

472. *Velleia*. Named by Sir James Smith, after Major Velley, a gentleman who paid much attention to marine algae. The genus resembles *Goodenia* in appearance.

473. *Scævola*. So named from *scæva*, the Latin word to express the left hand, the flower having the appearance of being defective of one half of its corolla. An extensive New Holland genus resembling *Goodenia*.

| 1474. CAPRIFOLIUM. R. S. HONEY-SUCKLE. |                | <i>Caprifoliaceæ.</i> Sp. 11. |           |           |        |   |     |                     |
|--|----------------|-------------------------------|-----------|-----------|--------|---|-----|---------------------|
| 2779 italicum R. S.                    | white-Italian  | or 10                         | my.jn P.Y | England   | woods. | C | co  | Eng. bot. 799       |
| β rubrum                               | red-Italian    | or 10                         | my.jn R   | S. Europe | ...    | C | co  | Schm. arb. t. 106   |
| 2780 etruscum R. S.                    | Roman          | or 15                         | my.jn O   | Italy     | ...    | C | co  |                     |
| 2781 diocum R. S.                      | small-flowered | or 6                          | jn.jl Pu  | N. Amer.  | 1766.  | C | co  | Bot. reg. 138       |
| 2782 sempervirens R. S.                | trumpet        | or 15                         | my.au S   | N. Amer.  | 1656.  | C | sp  | Bot. mag. 781       |
| β minus                                | small-trumpet  | or 15                         | my.au S   | Carolina  | 1656.  | C | sp  | Bot. mag. 1753      |
| 2783 gratum R. S.                      | evergreen      | or 20                         | jn.au R   | N. Amer.  | 1730.  | C | al  | H. an. 15.n.10.t.8  |
| 2784 flavum B. M.                      | bright-yellow  | or 10                         | my.jn Y   | Carolina  | 1810.  | C | al  | Bot. mag. 1318      |
| 2785 pubescens Hook.                   | hairy-yellow   | or 20                         | my.jn Y   | Canada    | 1822.  | C | co  | Hook. ex. fl. 27    |
| 2786 implexum R. S.                    | Minorca        | or 8                          | jn.s R.Y  | Minorca   | 1772.  | C | co  | Bot. mag. 640       |
| 2787 Periclymenum R. S.                | Woodbine       | or 20                         | my.jl Y   | Britain   | hedg.  | C | co  | Eng. bot. 800       |
| β serotinum                            | late-red       | or 20                         | my.jl Y.R | .....     | ...    | C | co  | Schm. arb. t. 108   |
| β belgicum                             | Dutch          | or 20                         | my.jl Y.R | .....     | ...    | C | co  | Ho. an. 15.n.15.t.6 |
| β quercifolium                         | Oak-leaved     | or 20                         | my.jl Y.R | .....     | ...    | C | co  |                     |
| 2788 japonicum R. S.                   | Japanese       | or 15                         | jl.s O    | China     | 1806.  | C | p.l | Bot. reg. 70        |
| 2789 flexuosum Ker.                    | flexuose       | or 15                         | jl.s O    | China     | 1806.  | C | p.l | Bot. reg. 712       |

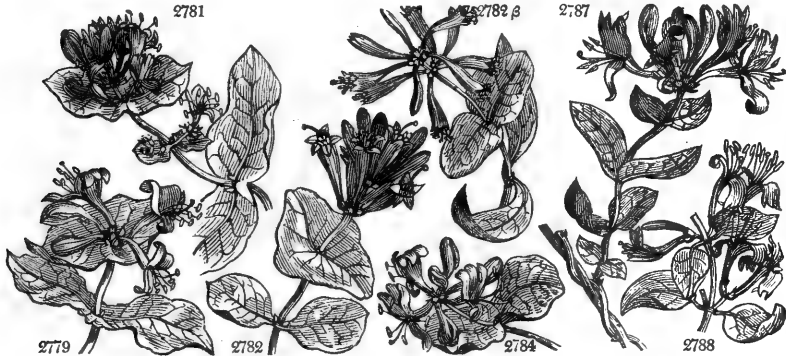
| 475. LONICERA. R. S. LONICERA. |               | <i>Caprifoliaceæ.</i> Sp. 8-19. |           |           |        |   |    |                   |
|--------------------------------|---------------|---------------------------------|-----------|-----------|--------|---|----|-------------------|
| 2790 Xylöstema W.              | Fly           | or 8                            | jn.jl Y   | England   | woods. | C | co | Eng. bot. 916     |
| 2791 pyrenaica W.              | Pyrenean      | or 4                            | my W      | Pyrenees  | 1739.  | C | co | Magn. hort. 209   |
| 2792 alpigena W.               | red-berried   | or 6                            | ap.my Y   | Switzerl. | 1696.  | C | al | Schm. arb. t. 112 |
| 2793 caerulea W.               | blue-berried  | or 4                            | mr.ap Y   | Switzerl. | 1622.  | C | co | Bot. mag. 1905    |
| 2794 nigra L.                  | black         | or 4                            | mr Pa.Y   | Switzerl. | 1597.  | C | co | Schm. arb. 110    |
| 2795 tatarica L.               | Tartarian     | or 10                           | ap.my Pk  | Russia    | 1752.  | C | co | Bot. reg. 31      |
| β rubra                        | red           | or 10                           | ap.my R   | Russia    | 1752.  | C | co |                   |
| 2796 ciliata Psh.              | Ciliated      | or 4                            | ap.my W.R | N. Amer.  | 1824.  | C | co |                   |
| β alba                         | white-berried | or 4                            | ap.my W.R | N. Amer.  | 1824.  | C | co |                   |
| 2797 ibérica Bieb.             | Iberian       | or 6                            | ap.my O   | Iberia    | 1824.  | C | co |                   |

| 476. SYMPHORIA. Ph. ST. PETER'S WORT. |            | <i>Caprifoliaceæ.</i> Sp. 3. |         |          |       |   |    |                   |
|---------------------------------------|------------|------------------------------|---------|----------|-------|---|----|-------------------|
| 2798 glomerata Ph.                    | common     | or 4                         | au.s Pk | N. Amer. | 1730. | C | al | Schm. arb. t. 115 |
| 2799 racemosa Ph.                     | Snow-berry | or 4                         | jl.s Pk | N. Amer. | 1817. | C | al | Bot. mag. 2211    |
| 2800 punicea Sims.                    | crimson    | or 4                         | jl.s R  | N. Amer. | 1815. | C | al | Bot. mag. 2469    |

| 477. DIERVILLA. L. DIERVILLA. |                 | <i>Caprifoliaceæ.</i> Sp. 1. |         |          |       |   |    |                |
|-------------------------------|-----------------|------------------------------|---------|----------|-------|---|----|----------------|
| 2801 humilis P. S.            | yellow-flowered | or 3                         | jn.jl Y | N. Amer. | 1739. | C | al | Bot. mag. 1796 |

| 1478. TRIOSTEUM. W. FAVERB WORT. |               | <i>Caprifoliaceæ.</i> Sp. 2-3. |             |          |       |   |     |                      |
|----------------------------------|---------------|--------------------------------|-------------|----------|-------|---|-----|----------------------|
| 2802 perfoliatum W.              | perfoliate    | m                              | 2 jn.jl D.R | N. Amer. | 1730. | D | p.l | Sch. ha. i. t. 41    |
| 2803 angustifolium W.            | narrow-leaved | cu                             | 1 jn.jl Y   | Virginia | 1639. | D | p.l | Plu. al. t. 104. f.2 |

| *479. COFFEA. A. W. COFFEE-TREE. |         | <i>Rubiaceæ.</i> Sp. 2-28. |               |           |       |   |     |                  |
|----------------------------------|---------|----------------------------|---------------|-----------|-------|---|-----|------------------|
| 2804 arabica W.                  | Arabian | ♂                          | clt 20 au.n W | Yemen     | 1696. | S | r.m | Bot. mag. 1303   |
| 2805 occidentalis W.             | western | ♀                          | or 6 ... W    | W. Indies | 1793. | C | l.p | Jac. amer. t. 47 |



History, Use, Propagation, Culture,

474. *Caprifolium*. A poetical name, signifying goat-leaf; that is to say, a leaf which climbs like a goat. *Chevrefeuille*, Fr., *Goisblatt* or *Baumtute*, Ger., and *Caprefoglio*, Ital. This is a beautiful genus of flowering odoriferous mostly twining shrubs, valuable in the flower garden, shrubbery, and against walls, arbors, or trunks of trees. Like most British twiners, the honeysuckle follows the sun. Like other twiners, it bears pruning well, for, as Professor Martyn observes, "those plants which in a state of nature cannot ascend without the assistance of others, are often liable to lose large branches; they have therefore a proportionate vigor of growth to restore accidental damages." Against a wall, the climbing kinds are very liable to attacks from aphides, and the caterpillar of *Phalœna tortrix*; and the sphinges, or hawkmoths, according to Withering, extract the honey from the very bottom of the tubular flowers with their long tongues.

In raising the honeysuckle from seeds, they should be sown the autumn after they are ripe, otherwise they will not come up the first year. Cuttings are sometimes apt to rot, owing to water lodging in their tubular stems above the last joint. To obviate this inconvenience, some make the cuttings of double the usual length, and insert both ends in the ground, leaving the part above ground in the form of a semicircle. Commonly, however, such cuttings root only at one end; or if at both, but very weakly at what was the top end.

475. *Lonicera*. Named after Adam Lonicer, a German, who was born in 1528, and died in 1586. There was another Lonicer, John, who wrote commentaries upon Dioscorides. A section of what was formerly called *Lonicera*, comprising the species with a shrubby upright stem, neither climbing nor prostrate plants. All hardy and easily increased by layers or cuttings.

476. *Symphoria*. Is a syncope of *symphoricarpos*, from *συν*, together, *καρπος*, to bear, and *σακκος*, fruit; a plant which bears its fruit together in clusters. A small genus of low branching shrubs, formerly constituting part of *Lonicera*.

477. *Diervilla*. Dierville, a French surgeon, travelled in Acadia, whence he sent this plant to his friend Tournefort, who named it after him. A pretty low shrub, with yellow flowers appearing in the spring.

478. *Triosteum*. From *τρεῖς*, three, and *στέον*, bone, three bones, on account of its three hard seeds. The roots of this genus and of *Diervilla* are used indiscriminately in N. America for *Ipecacuanã*. (*Viola Ipec.*)

479. *Coffea*. An alteration of the Arabic name *gahoue*, which is the name for the liquor of coffee; the grain is called *boun*. *Cahwa*, Pers., *Cahvey*, Turk., and *Eleave*, Egypt.

2779 Flowers whorled terminal, Leaves deciduous, the upper perfoliate

2780 Heads term. generally 3 together, Lvs. decid. pubes. opp. upper perfo. smooth, lower with stalks only conn.  
 2781 Whorls in heads with bractæe, Lvs. deciduous glaucous beneath, Upper perfoliate, Cor. gibbous at base  
 2782 Spikes nearly naked terminal, Lvs. oblong evergreen, the upper perfoliate, Tube of cor. ventricose above

2783 Flowers whorled terminal, Leaves evergreen obovate glaucous beneath, Upper perfoliate  
 2784 Whorls in heads, Cor. ringent, Segm. obl. obt. Lvs. deciduous ovate glaucous beneath, Upper perfoliate  
 2785 Whorls terminal capitate glandular, Leaves pubescent the upper connate perfoliate  
 2786 Flowers capitate terminal, Leaves evergreen all distinct  
 2787 Flowers capitate terminal, Leaves deciduous all distinct

2788 Flowers in pairs terminal sessile, Leaves evergreen all distinct

2789 Flowers sessile with distinct berries, Leaves ovate entire smooth, Stem wavy

2790 Pedunc. 2-flowered longer than flowers, Leaves entire ovate-elliptical pubescent

2791 Pedunc. 2-flowered, Leaves obovate lanceolate smooth glaucous beneath

2792 Berries united, Leaves oval-lanceolate

2793 Berries globose united, Styles undivided

2794 Leaves elliptical entire

2795 Leaves cordate obtuse

2796 Leaves ovate and cordate ciliated, Cor. with an evident spur

2797 Pedunc. 2-flowered shorter than flowers, Berries twin, Leaves cordate roundish tomentose

2798 Flowers axillary capitate clustered

2799 Raceme terminal, Cor. bearded inside

2800 Leaves cordate ovate, Berries distinct, Pedunc. axillary 2-flowered shorter than leaf

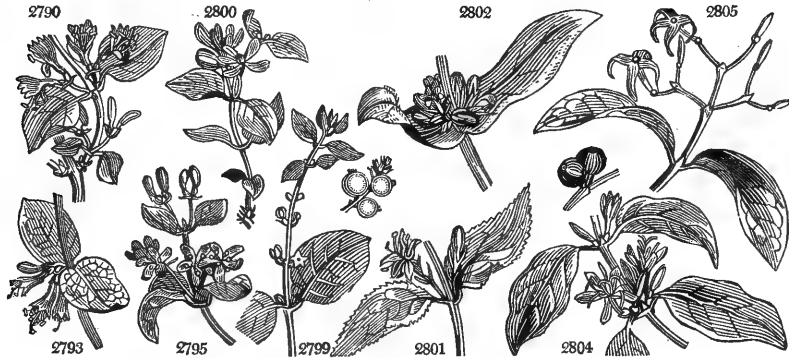
2801 The only species. Racemes terminal, Leaves serrated

2802 Leaves oval acuminate, Leaves abruptly narrowed at base, Axillæ 1-many-flowered

2803 Stem hispid, Leaves oval-lanceolate somewhat connate, Axillæ 1-flowered

2804 Leaves oblong ovate acuminate, Peduncles axillary aggregate, Cor. 5-cleft

2805 Leaves oblong lanceolate acuminate, Panicle few-flowered trifid terminal, Cor. 4-cleft



and Miscellaneous Particulars.

*C. arabica* is an erect, conical-shaped, low tree, with a light brown bark, and opposite, oblong, wavy, shining, light green leaves; flowers in clusters at the base of the leaves, white, of a grateful odor, but of short duration; berries green, red when fully grown, and black when ripe. A decoction of this berry forms the well known beverage which is said to have been drank in Ethiopia from time immemorial. It was introduced into Arabia from Persia about the middle of the 15th century, and proceeded by Mecca, Medina, and Grand Cairo, Damascus, and Aleppo to Constantinople, where two coffee-houses were opened in 1554. It is thought to have been introduced to Venice soon after 1615: it was known at Marseilles in 1644, and Thevenot, a French traveller, brought it to Paris in 1657. Till 1660, it was drank by such only as had been accustomed to it in the Levant. About the end of the 17th century a coffee-house was opened at Paris, by one Pascal, an Armenian, who, not succeeding, came to London, where coffee had been previously introduced by Daniel Edwards, a Turkey merchant, who brought home with him a Greek servant, Pasqua Roffee, who understood the roasting and making of coffee, and afterwards set up a coffee-shed, which he was enabled in time to turn to a house in the churchyard of St. Michael's, Cornhill. In 1688 Ray affirms that London might rival Grand Cairo in the number of its coffee-houses.

The coffee-tree was first introduced to Europe through the Dutch, who procured some berries at Mocha to be sown at Batavia; which being done in the year 1690, Governor Witsen presented a plant to the botanic garden of Amsterdam, where it bore fruit and produced many young plants. From these the East Indies and most of the gardens of Europe have been furnished. Coffee was afterwards cultivated by the Dutch in Surinam in 1718, and by the French in Cayenne and the Mauritius soon afterwards. It was next grown in Martinique, and so spread to the neighbouring islands and to Jamaica in 1730, or earlier. The plants are raised from seeds, then transplanted into nursery lines. Plantations are made chiefly on hills and the skirts of mountains, and, if possible, where the soil is moist and shaded. The trees are planted from five to ten feet apart, according to the goodness of the soil and situation. They produce fruit the next year after planting; and the produce of a good tree is from 1½ to 2 lbs. of berries. The berries are gathered when they begin to fall, and in this state their pulpy bark begins to shrivel. They are further dried under sheds, and there passed between wooden rollers to separate the husk from the kernel; and afterwards sifted, winnowed, and put into casks for sale. In Arabia the plant and berries are much smaller than in the West Indies, and the flavor in

|   |  |   |   |   |   |  |   |
|---|--|---|---|---|---|--|---|
| 480. CHIOCOC'CA. <i>W.</i><br>2806 racemosa <i>W.</i>   | SNOW-BERRY.<br>cluster-flower'd  | <input type="checkbox"/> or <input type="checkbox"/>            | 6 f   | <i>Rubiaceae.</i><br>Sp. 1-7.<br>W        | Jamaica<br>1729.  | C p.l  | Hook. ex. fl. 93  |
| 481. SERISSA. <i>W.</i><br>2807 foetida <i>W.</i><br><i>β flore-pleno</i>   | SERISSA.<br>Japanese<br>double-flowered  | <input checked="" type="checkbox"/> or <input type="checkbox"/> | 2 my.s  | <i>Rubiaceae.</i><br>Sp. 1.<br>W          | Japan<br>1787.  | L r.m  | Bot. mag. 361   |
| 482. CANTHIUM. <i>Pers.</i><br>2808 chinense <i>Pers.</i><br>2809 dumetorum <i>Roxb.</i>  | CANTHIUM.<br>spiny<br>thicket  | <input checked="" type="checkbox"/> or <input type="checkbox"/> | 3 jls   | <i>Rubiaceae.</i><br>Sp. 2-4.<br>W        | China<br>E. Indies<br>1804.<br>1777.  | C r.m<br>C r.m   | Thun. G. t. 2. f. 4<br>Roxb. cor. t. 136  |
| *483. PSYCHOTRIA. <i>W.</i><br>2810 asiatica <i>W.</i><br>2811 citrifolia <i>W.</i><br>2812 parasitica <i>W.</i><br>2813 brachiata <i>W.</i><br>2814 herbacea <i>W.</i><br>2815 pubescens <i>W.</i><br>2816 undata <i>Jacq.</i><br>2817 elliptica <i>B. R.</i>  | PSYCHOTRIA.<br>Indian<br>Citron-leaved<br>parasitic<br>cross-branched<br>herbaceous<br>pubescent<br>wavy<br>elliptical   | <input checked="" type="checkbox"/> or <input type="checkbox"/> | 4 ...   | <i>Rubiaceae.</i><br>Sp. 8-100.<br>W      | W. Indies<br>W. Indies<br>W. Indies<br>W. Indies<br>Jamaica<br>Jamaica<br>Bahamas<br>Brazilis<br>1806.<br>1793.<br>1802.<br>1793.<br>1793.<br>1812.<br>1823.<br>1821.   | C l.p<br>C r.m<br>C l.p<br>C l.p<br>C l.p<br>C l.p<br>C l.p<br>C l.p   | Lam. ill. t. 161<br>Jac. amer. t. 46<br>Jac. sch. 3. t. 260<br>Bot. reg. 607  |
| 484. HAMELLIA. <i>W.</i><br>2818 patens <i>W.</i><br>2819 sphaerocarpa <i>P. S.</i><br>2820 ventricosa <i>Suz.</i><br>2821 chrysantha <i>Suz.</i>   | HAMELLIA.<br>spreading<br>round-fruited<br>large-flowered<br>yellow  | <input checked="" type="checkbox"/> or <input type="checkbox"/> | 5 jlat<br>10 jlat<br>8 an<br>8 od   | <i>Rubiaceae.</i><br>Sp. 4-7.<br>W        | Hispaniola<br>Mexico<br>W. Indies<br>Jamaica<br>1752.<br>1811.<br>1778.<br>1822.  | C p.l<br>C p.l<br>C p.l<br>C p.l   | Ex. bot. 1. t. 24<br>Fl. per. 2. t. 221<br>Bot. mag. 1894<br>Jacq. ic. 2. t. 335  |
| 485. POSOQUERIA. <i>Aub.</i><br>2822 longiflora <i>Aub.</i>   | POSOQUERIA.<br>long-flowered   | <input type="checkbox"/> or <input type="checkbox"/>            | 6 ...   | <i>Rubiaceae.</i><br>Sp. 1-3.<br>W        | Guiana<br>1822.   | C p.l  | Aubl. gui. t. 51  |
| 486. VANGUIERA. <i>W.</i><br>2823 edulis <i>W.</i><br>2824 spinosa <i>Hort.</i>   | VANGUIERA.<br>eatable<br>prickly   | <input type="checkbox"/> or <input type="checkbox"/>            | 15 ...<br>4 jn.jl   | <i>Rubiaceae.</i><br>Sp. 2.<br>G          | India<br>Madagas.<br>1809.<br>1816.   | C p.l<br>C p.l   | Lam. ill. t. 159  |
| 487. GARDE'NIA. <i>P. S.</i><br>2825 radicans <i>W.</i><br>2826 florida <i>W.</i><br><i>β flore pleno</i><br>2827 Thunbergia <i>W.</i><br>2828 latifolia <i>W.</i><br>2829 Rothmannia <i>W.</i><br>2830 uliginosa <i>W.</i><br>2831 armata <i>Suz.</i><br>2832 micrantha <i>W.</i><br>2833 amœna <i>B. M.</i><br>2834 hexandra <i>W.</i><br>2835 campanulata <i>Roxb.</i><br>2836 angustifolia <i>Lodd.</i> | GARDE'NIA.<br>rooting<br>Cape Jasmine<br>double<br>starry<br>broad-leaved<br>spotted-flower.<br>marsh<br>armed<br>small-flowered<br>crimson-tipped<br>hexandrous<br>bell-flowered<br>narrow-leaved | <input checked="" type="checkbox"/> or <input type="checkbox"/> | 1 mr.jn<br>5 jlo<br>5 jlo<br>6 ja.mr<br>7 ...<br>10 jl<br>3 jls<br>10 ...<br>4 ...<br>4 jn.au<br>6 jls<br>...<br>3 jl | <i>Rubiaceae.</i><br>Sp. 12-41.<br>W      | China<br>China<br>China<br>C. G. H.<br>E. Indies<br>C. G. H.<br>E. Indies<br>W. Indies<br>China<br>China<br>S. Amer.<br>E. Indies<br>.....<br>1804.<br>1754.<br>1754.<br>1773.<br>1787.<br>1774.<br>1802.<br>1813.<br>1806.<br>...<br>1803.<br>1815.<br>1823. | C r.m<br>C l.p<br>C l.p<br>C l.p<br>r.m<br>l.p<br>C l.p<br>C l.p<br>C r.m<br>C r.m<br>C r.m<br>C r.m<br>C r.m<br>C r.m | Bot. reg. 73<br>Bot. reg. 449<br>Ehret. pict. t. 15<br>Bot. mag. 1004<br>Rox. cor. 2. t. 134<br>Th. ac. et. 1776. t. 2<br>Roxb. cor. 2. t. 135<br>Th. g. n. 8. t. f. f. 1<br>Bot. mag. 1904<br>S. Amer. 1803.<br>E. Indies 1815.<br>..... 1823. |
| 488. GENI'PA. <i>P. S.</i><br>2837 americana <i>P. S.</i><br>2838 Meriana <i>P. S.</i>  | GENIP-TREE.<br>American<br>hairy   | <input type="checkbox"/> or <input type="checkbox"/>            | 30 ...<br>10 ...  | <i>Rubiaceae.</i><br>Sp. 2-5.<br>P.Y<br>W | S. Amer.<br>Cayenne<br>1779.<br>1800.   | C l.p<br>C l.p   | Pl. ic. 127. t. 136   |
| 489. OXYANTHUS. <i>Dec.</i><br>2839 speciosus <i>H. K.</i>  | OXYANTHUS.<br>tube-flowered  | <input type="checkbox"/> or <input type="checkbox"/>            | 3 jl  | <i>Rubiaceae.</i><br>Sp. 1.<br>W          | S. Leone<br>1789.   | C p.l  | Lind. coll. 13  |



History, Use, Propagation, Culture,

consequence greater; bulk being, in these richer soils and more humid climates, obtained at the expence of flavor. In our stoves the coffee-tree is raised from the berry, which must be sown soon after being gathered; otherwise if kept six weeks it loses its vital powers. Cuttings of ripened wood root in sand under a glass in moist heat: transplanted, and furnished with plenty of water and pot room, they flower and fruit abundantly.

480. *Chiococca*. Snowberry, (*χίος*, snow, and *κακός*, berry). Its berries are of a bright whiteness.

481. *Serissa*. A name of Commerson's, the meaning of which is not known. The genus is remarkable for the trifid segments of corolla.

482. *Canthium*. From *canti*, the Malabar name of the plant. Spiny rigid plants with small opposite leaves, and solitary, sessile, usually fragrant, white flowers.

483. *Psychotria*. From *ψυχον*, life; in allusion to the powerful medicinal effects of one of the species, *P. emetica*; or, as others say, from *ψυχροεισος*, an ancient name for an herb loving shade. The genus consists of a great number of stove plants, nearly all bearing white flowers. Some of them are very beautiful on account of their foliage: one species, *P. parasitica*, is parasitical upon trees in the West Indies.

484. *Hamellia*. In honor of the celebrated Henry Louis Du Hamel Du Monceau, born in 1700, died in 1782, author of numerous works on vegetable physiology. The genus consists of handsome shrubs of the West Indies, with tubular yellow or orange-colored flowers.

485. *Posoqueria*. The Galibis in French Guiana call this plant *aymara-posoqueri*. A fine shrub, with white flowers more than a foot long, and an eatable yellow berry as big as a hen's egg.

- 2806 Leaves ovate acuminate, Racemes subdivided axillary 1-sided nodding
- 2807 Leaves opposite ovate lanceolate, Stipules spiny, Flowers axillary sessile
- 2808 Spiny, Flowers sessile hairy
- 2809 Spiny, Leaves ovate wedge-shaped obtuse, Sepals leafy, Berries crowned
- 2810 Stipules emarginate, Leaves lanceolate ovate
- 2811 Stipules ovate persistent, Leaves elliptical acuminate subcoriaceous, Berries ribbed
- 2812 Stipules stem-clasping retuse, Leaves ovate acuminate succulent veinless, Cymes stalked as long as leaves
- 2813 Stipules ovate oblong bifid, Raceme terminal compound, Flowers clustered sessile.
- 2814 Stem herbaceous creeping, Leaves cordate stalked
- 2815 Stipules 2-toothed, Leaves lanceolate ovate acuminate pubescent, Panicles cymose spreading
- 2816 Stipules connate entire deciduous, Leaves oblong ribbed wavy acuminate
- 2817 Leaves ellipt. narrowed each way, Panicles term. erect lax brachiate shorter than the leaves
- 2818 Racemes terminal colored, Leaves 3 together villous pubescent
- 2819 Branches rounded, Leaves ternate oblong hairy on both sides, Flowers corymbose
- 2820 Racemes terminal and axillary, Cor. campanulate ventricose, Leaves ternate
- 2821 Racemes terminal, Leaves oblong wedge-shaped acuminate smooth, Flowers stalked
- 2822 Stipules and leaves oblong-acuminate, Corymbs terminal about 6-flowered, Tube of cor. much curved
- 2823 Stem unarmed, Leaves large ovate stalked
- 2824 Stem spiny, Leaves small nearly sessile
- 2825 Leaves lanceolate, Cor. hypocrateriform, Cal. angular, Stem rooting
- 2826 Leaves elliptical, Cor. hypocrateriform, Sepals subulate lanceolate vertical
- 2827 Leaves elliptical, Cor. hypocrateriform, Calyx bursting at side, Sepals dilated at end
- 2828 Leaves obovate roundish, Cor. hypocrateriform, Sepals subulate bluntly keeled
- 2829 Leaves oblong, Stipules subulate. Sepals subulate rounded, Tube smooth dilated short
- 2830 Branches scarred with two spines at the end, Leaves oblong ovate obtuse, mouth of cor. villous
- 2831 Terminal spines of the branches 4, Sepals linear wedge-shaped, Flowers clustered
- 2832 Leaves elliptical acute at each end longer than the spines, Flowers sessile smooth
- 2833 Spines axillary straight shorter than the oval smooth leaf, Flowers terminal solitary
- 2834 Unarmed, Lvs. ovate pubescent beneath, Fls. usually hexandrous, Cor. hairy on each side, Tube short
- 2835 A fine species, of which no detailed character has yet been given
- 2836 Very like *G. florida*, from which it chiefly differs in being smaller with narrower leaves
- 2837 Leaves oblong lanceolate, Peduncles axillary many-flowered, Tube short
- 2838 All over hairs, Leaves oblong-obovate, Flowers clustered on the summit, Fruit rounded flat
- 2839 The only species, with very long white flowers



and Miscellaneous Particulars.

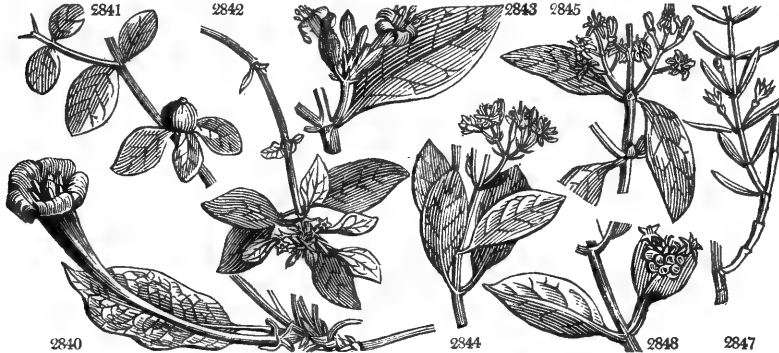
486. *Vanguiera*. An abbreviation of the Madagascar name of one species, *Voa-vanguier*. A fine looking bush, with broad, green, entire leaves. It is said to bear a fine fruit as big as an orange.

487. *Gardenia*. So named by Ellis, in honor of his friend and correspondent A. Garden, M. D. of Charleston, in Carolina, who sent home many new species of plants. This is a beautiful genus, and most of the species are highly odoriferous, and free flowerers. *G. florida*, on the first approach, smells like the flower of the orange, but on being more closely smelled to, like *Narcissus*. According to Thunberg, there are hedges of it in Japan, and the Japanese are very fond of it near their houses, and in the walks of their gardens. The fruit and seeds are used there to dye yellow. *G. Rothmannia* smells most during night: it bears an ovate, fleshy, angular berry, black when ripe, and about the size of a small pear. Almost all the species are spiny in their wild state; but lose their spines at an advanced age, or under high culture and keeping. In the stove they require a moist heat to make them flower freely, as do the cuttings to make them strike. According to Sweet, the best way to flower the greenhouse species is to set them in a close frame on a little bottom heat, but not to plunge the pots.

488. *Genipa*. A name contrived by Plumier from the name, *Genepepo*, it bears in Guiana and Brazil. *G. americana* is an exceedingly rare plant in collections. It bears an excellent fruit, in much request in Dutch Guiana, where it is called Marmalade-box.

489. *Oryanthus*. From *ὄρα*, acute, and *ανθή*, a flower, on account of the acute segments of the corolla. A genus divided from *Gardenia*, from which it is readily distinguished by the long tube of the flower.

|                         |                              |        |                     |           |       |       |                     |
|-------------------------|------------------------------|--------|---------------------|-----------|-------|-------|---------------------|
| 490. RAN'DIA. P. S.     | RAN'DIA.                     | ☼ □ or | Rubiaceæ. Sp. 2-10. |           |       |       |                     |
| 2840 longiflora P. L.   | long-flowered                | ♀ □ or | 4 aults W           | E. Indies | 1796. | C 1p  | Par. lond. 93       |
| 2841 latifolia P. S.    | round-leaved                 | ♀ □ or | 12 my.jn W          | W. Indies | 1733. | C 1p  | Br. ja. 143.t.8.f.1 |
| †491. MUSS'EN'DA. W.    | MUSS'EN'DA.                  | ☼ □ or | Rubiaceæ. Sp. 1-18. |           |       |       |                     |
| 2842 pubescens H. K.    | pubescent                    | ☼ □ or | 3 my.s Y            | China     | 1805. | C p1  | Bot. mag. 2099      |
| 492. PINCKNEY'A. Mi.    | PINCKNEYA.                   | ♀ □ tm | Rubiaceæ. Sp. 1.    |           |       |       |                     |
| 2843 pubens Mi.         | downy                        | ♀ □ tm | 20 jn.jl            | Georgia   | 1786. | L p1  | Mich. amer.t.13     |
| 493. ER'THALIS. W.      | ERITHALIS.                   | ☼ □ fr | Rubiaceæ. Sp. 1-4.  |           |       |       |                     |
| 2844 fruticosa W.       | shrubby                      | ☼ □ fr | 15 jl.au W          | Jamaica   | 1793. | C p1  | Br. jam. t. 17.f.3  |
| 494. WEB'E'RA. W.       | WEB'E'RA.                    | ☼ □ or | Rubiaceæ. Sp. 2-4.  |           |       |       |                     |
| 2845 corymbosa W.       | corymbose                    | ☼ □ or | 6 ... W             | E. Indies | 1759. | C 1p  | Rh. mal. 2. t. 23   |
| 2846 cymosa W.          | cymose                       | ☼ □ or | 20 ... W            | E. Indies | 1811. | C 1p  |                     |
| 495. PLO'CAMA. W.       | PLO'CAMA.                    | ☼ □ or | Rubiaceæ. Sp. 1-3.  |           |       |       |                     |
| 2847 pendula W.         | pendulous                    | ☼ □ or | 2 ... W             | Canaries  | 1779. | C 1p  |                     |
| †496. MORIN'DA. W.      | MORINDA.                     | ☼ □ or | Rubiaceæ. Sp. 3-8.  |           |       |       |                     |
| 2848 umbellata W.       | umbelled                     | ☼ □ or | 6 ... W             | E. Indies | 1809. | C 1p  |                     |
| 2849 citrifolia W.      | broad-leaved                 | ☼ □ or | 8 ... W             | E. Indies | 1793. | C 1p  | Rhe. mal. 1. t. 52  |
| 2850 Róyc W.            | Laurel-leaved                | ☼ □ or | 10 jl.o W           | W. Indies | 1793. | C r.m | Jac. vind. 1. t. 16 |
| 497. CEPHAE'LIS. W.     | CEPHAE'LIS.                  | ☼ □ or | Rubiaceæ. Sp. 3-24. |           |       |       |                     |
| 2851 elata W.           | tall                         | ☼ □ or | 15 ... Pu           | Jamaica   | 1793. | C 1p  |                     |
| 2852 pedunculata P. L.  | long-peduncled               | ☼ □ or | 2 f W               | S. Leone  | ...   | C 1p  | Par. lond. 99       |
| 2853 calycina Lindl.    | calycine                     | ☼ □ or | 4 ap.my W           | Brazil    | 1816. | C 1p  | Lind. coll. 21      |
| 498. SARCOCEPHALUS Afz. | GUINEA-PEACH.                | ☼ □ fr | Rubiaceæ. Sp. 1.    |           |       |       |                     |
| 2854 esculentus Afz.    | common                       | ☼ □ fr | 15 ... Pk           | S. Leone  | 1822. | C p1  | Hor.trans.5.t.18    |
| 499. HIRTEL'LA. W.      | HIRTELLA.                    | ♀ □ tm | Rosaceæ. Sp. 1-13.  |           |       |       |                     |
| 2855 americana W.       | American                     | ♀ □ tm | 25 ... V            | W. Indies | 1782. | C 1p  | Aub. gui. 1. t. 98  |
| 500. TRIPHA'SIA. Lour.  | TRIPHASIA.                   | ☼ □ fr | Aurantiaceæ. Sp. 1. |           |       |       |                     |
| 2856 Aurantiola Lour.   | three-leaved                 | ☼ □ fr | 2 jn.jl W           | China     | 1798. | C r.m | Bot. rep. 143       |
|                         | <i>Limonia trifoliata</i> W. |        |                     |           |       |       |                     |
| 501. VITIS. P. S.       | VINE.                        |        | Viniferæ. Sp. 9-24. |           |       |       |                     |
| 2857 vinifera W.        | common Grape                 | ♀ □ fr | 30 jn.jl G          | Various   | ...   | C r.m | Jac. ic. 1. t. 50   |
| 2858 indica W.          | Indian                       | ♀ □ or | 20 ... G            | Indies    | 1692. | C s.1 | Rhed. mal. 7. t. 6  |
| 2859 Labrusca W.        | downy-leaved                 | ♀ □ fr | 10 ... G            | N. Amer.  | 1656. | L s.p | Jac. schen. 426     |
|                         | <i>Bacis albis</i>           | ♀ □ fr | 10 ... G            | N. Amer.  | 1805. | L s.p |                     |
| 2860 vulpina W.         | Fox-grape                    | ♀ □ or | 20 ... G            | N. Amer.  | 1656. | C s.p | Jac. schen. 425     |



History, Use, Propagation, Culture,

490. *Randia*. So named in honor of Isaac Rand, F.R.S., who published the first catalogue of the Apothecaries' Garden at Chelsea.

491. *Mussenda*. A name by which Burmann designates a plant of this genus. *V. fl. Zeyl. t. 76*. The species are all of singular beauty, and especially distinguished by the large colored segment of the calyx, which is either white or purple, and very remarkable.

492. *Pinckneya*. So named by Michaux, after some American gentleman of the name of Pinckney, who is now forgotten. The genus is nearly the same as *Mussenda*. It thrives best, according to Sweet, when turned out against a south wall, and protected by a mat in frosty weather.

493. *Erithalis*. A name given by Pliny to a plant remarkable for the verdure of its foliage; *εἶ*, a particle signifying augmentation, and *ῥαλλω*, to be green. It is now applied to a pretty genus of South American plants.

494. *Webera*. In honor of G. Henry Weber, a German botanist, who published *Flora Göttingensis*, in 1778, and other works of merit. He is chiefly known for the attention he bestowed upon muscology. Small plants with bunches of white flowers.

495. *Plocama*. From *πλοκαμος* intertwined hair, on account of its pendulous twisted branches. A little bush with the habit of some kind of Galium. The flowers are very small, and not much longer than the calyx.

496. *Morinda*. *Morus indica*, Indian mulberry; so named by Vaillant, from the shape and color of its fruit. The bark of the roots of this genus is used in the E. Indies to dye yellow.

497. *Cephaelis*. From *κεφαλη*, a head, on account of the flowers being united in heads, remarkable for the large, often colored, involucre in which they are enveloped. Species are very rare in collections; and require a high temperature.

498. *Sarcocephalus*. From *σαρκος* flesh, and *κεφαλη*, a head, in allusion to the large fleshy fruit of the genus. This is like a pine-apple without its crown, of a dull uniform color, and consisting of a solid fleshy mass containing many minute seeds. The flavor is said to be excellent. A plant now common in gardens near London, but it has not yet fruited.

499. *Hirteella*. Derived from *hirtus*, hairy. Its branches are covered with fine hair. Some of these are tall trees of the tropics, usually supporting themselves upon other plants. Flowers, which are generally blue or purple, are rarely seen in this country. Cuttings root in sand under a hand-glass.

2840 Leaves ovate stalked, Spines curved, Flowers in terminal umbelled cymes  
2841 Spines of the branches terminal in pairs, Leaves ovate roundish, Cor. hypocrateriform

2842 Branches and leaves pubescent, Tube of corolla much longer than calyx

2843 A large tree with downy long leaves dividing but little into branches

2844 Leaves obovate, Cymes compound stalked terminal

2845 Leaves oblong acute, Corymb terminal

2846 Leaves ovate acuminate, Cymes many-flowered axillary stalked

2847 A small shrub with the appearance of Galium

2848 Erect, Leaves lanceolate ovate, Flowers clustered

2849 Leaves ovate acuminate smooth on both sides, Flowers solitary

2850 A long trailing plant with ovate entire smooth leaves

2851 Heads globose terminal, Peduncles elongated, Involucre 2-leaved, Leaves smooth

2852 Leaves coriaceous lanceolate smooth, Heads on very long stalks

2853 Heads not in an involucre so long as the flowers, Leaves lanceolate wavy

2854 The only species

2855 Racemes simple axillary solitary, Common peduncle villous, Leaves oblong, acuminate

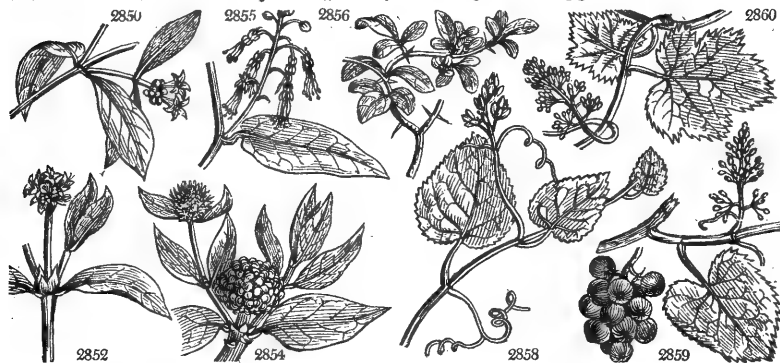
2856 Leaves 3-leaved

2857 Leaves sinuated naked

2858 Leaves cordate toothed villous beneath, Tendrils bearing the fruit

2859 Leaves cordate angular 3-lobed toothed, beneath downy clear white

2860 Leaves cordate 3-lobed coarsely toothed smooth, Teeth unequal with long-pointed divisions



and Miscellaneous Particulars.

500. *Triphasia*. A name of Loureiro, derived from *triphaseos*, triple, on account of the triple divisions of its flowers, and ternary disposition of its leaves. It is the *Limonia trifoliata* of gardens, a common bush, sometimes covered over with the little orange berries, which have an agreeable orange-like taste.

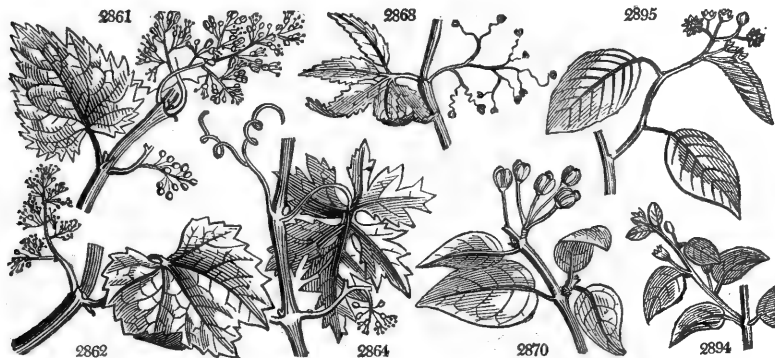
501. *Vitis*. From the Celtic *gwyd*, a tree or shrub. The *G* being suppressed in the pronunciation, according to the usage of Celtic nations, the Latins have made of it *vitis*; the Spaniards *vid*; the French *vigne*; and the English *vine*. The term *muscat*, applied to particular kinds of grape, is not derived from the perfumed or musky flavor of those varieties, but from the berries attracting flies, *musca*, for which reason the Latins call the kind *vitis apiaria*.

*V. vinifera* is universally known for its fruit, and for producing the first liquor in the world; a liquor which, notwithstanding all that is said of its dangerous qualities, is yet eagerly drunk by all who can procure it, and preferred before all others by those who are unlimited in their means and choice. The grape vine is among fruits what wheat is among the cereal grasses, or the potatoe among the farinaceous roots; and, like them, in every country where it will grow, it is cultivated with pre-eminent care. In Britain, its culture is now confined to the garden as a dessert fruit; though formerly grown in many places for the wine-press. Besides the *V. vinifera*, the *V. labrusca* (from *buseca*, the Hebrew for grape) and *laciniosa* are all cultivated, and both are now so intermingled with the first species by hybrid products, that for all practical purposes they may be considered as only varieties.

The varieties of the grape in countries where it is grown for the wine-press, are almost as numerous as the vineyards; for as these for the most part differ in soil, aspect, elevation, or otherwise, and as the vine is greatly the child of local circumstances, its habits soon become adapted to those in which it is placed. When it is considered that a vineyard once planted will last two or three centuries, it will readily be conceived that the nature of a variety may be totally changed during only a part of that time. The varieties most in esteem for wine making, are small berries, and bunches with an austere taste. The Burgundy, as modified by different soils and situations, may be considered the most general vineyard grape of France, from Champagne or Marne to Marseilles and Bourdeaux. The best wine in Italy and Spain is also made from grapes of this description; but in both countries many of the larger berried sorts are grown as being more productive of liquor. The sweet vines, as the Malmsey, Madeira, Constantia, Tokay, &c. are made from sweet-berried grapes allowed to remain on the plants till over ripe. That wine is the strongest, and has most flavor, in which both the skins and stones are bruised and fermented. The same thing is the case in making cider; but in both processes bruising the stones or kernels is often neglected.



|  |                  |   |    |    |       |     |                |       |    |               |                     |
|--|------------------|---|----|----|-------|-----|----------------|-------|----|---------------|---------------------|
| 2861 cordifolia Ph.  | Winter-grape     | ♂ | or | 10 | ...   | G   | N. Amer.       | 1806. | C  | s p           | Jac. schen. 497     |
| 2862 riparia Ph.   | sweet-scented    | ♂ | or | 20 | my.jn | G   | N. Amer.       | 1806. | C  | s p           | Bot. mag. 2429      |
| 2863 rotundifolia Ph.  | Bull-grape       | ♂ | or | 20 | ...   | G   | N. Amer.       | 1806. | C  | s p           |                     |
| 2864 laciniata W.  | Parsley-leaved   | ♂ | fr | 20 | jn.jl | G   | .....          | 1648. | C  | s p           | Schm. ic. 34 t. 8   |
| 2865 ca'sia Sab.   | Sierra-Leone     | ♂ | or | 10 | ...   | G   | S. Leone       | 1822. | C  | s p           |                     |
| 502. AMPELOP'SIS. Mich. AMPELOP'SIS. <i>Vinifera. Sp. 4-6.</i> |                  |   |    |    |       |     |                |       |    |               |                     |
| 2866 cordata Mich.   | heart-leaved     | ♂ | or | 20 | ap.my | P.G | N. Amer.       | 1803. | C  | co            |                     |
| 2867 bipinnata Mich.   | Pepper-vine      | ♂ | or | 15 | jl.au | P.G | N. Amer.       | 1700. | C  | co            | Act. bon. 3. t. 24  |
| 2868 quinquefolia Mich.  | Virgin-creeper   | ♂ | or | 60 | jn.jl | P.G | N. Amer.       | 1629. | C  | co            | Corn. can. t. 100   |
| 2869 hirsuta Donn.   | hairy            | ♂ | or | 60 | ap.my | P.G | N. Amer.       | 1806. | C  | co            |                     |
| *503. RHAM'NUS. W. BUCK-THORN. <i>Rhamni. Sp. 24-70.</i>       |                  |   |    |    |       |     |                |       |    |               |                     |
| 2870 colubrina L.  | Bahama red wd.   | ♂ | or | 20 | jn    | G   | Bahamas        | 1762. | L  | co            | Jac. vind. 3. t. 50 |
| 2871 elliptica H. K.   | oval-leaved      | ♂ | or | 5  | au    | G   | Jamaica        | 1758. | L  | co            | Brow. jam. t. 29    |
| 2872 erythroxyloides Pall.                                     | Red-wood         | ♂ | or | 6  | jl.au | Y.G | Siberia        | 1823. | L  | co            | Pall. ross. t. 63   |
| 2873 longifolia Desf.  | long-leaved      | ♂ | or | 6  | ...   | G   | .....          | 1823. | L  | co            |                     |
| 2874 cathartica W.   | purging          | ♂ | or | 15 | my.jn | G   | England        | hed.  | L  | co            | Eng. bot. 1629      |
| 2875 infectoria W.   | yellow-berried   | ♂ | or | 6  | jn.jl | G   | S. Europe      | 1683. | L  | co            | Arg. me. 78. t. 14  |
| 2876 lycioides W.  | Boxthorn-like    | ♂ | or | 6  | a.d   | G   | Spain          | 1752. | L  | co            | Cav. ic. 2. t. 182  |
| 2877 oleoides W.   | Olive-leaved     | ♂ | or | 4  | jn.jl | G   | Spain          | 1752. | L  | co            |                     |
| 2878 crenulata W.  | Teneriffe        | ♂ | or | 8  | mr    | G   | Teneriffe      | 1778. | L  | p l           |                     |
| 2879 saxatilis W.  | rock             | ♂ | or | 1  | my.jn | G   | Europe         | 1775. | C  | co            | Jac. aust. 1. t. 53 |
| 2880 Theezans W.   | Tea              | ♂ | or | 3  | my.jn | G   | China          | ...   | C  | p l           |                     |
| 2881 tetragona W.  | square-branch.   | ♂ | or | 6  | ...   | G   | C. G. H.       | 1816. | C  | p l           |                     |
| 2882 lanceolata Ph.  | spear-leaved     | ♂ | or | 12 | ...   | G   | N. Amer.       | 1812. | C  | p l           |                     |
| 2883 alpina W.   | Alpine           | ♂ | or | 3  | my.jn | G   | Switzerl.      | 1752. | L  | co            | Hall. his. 1. t. 40 |
| 2884 pumila W.   | dwarf            | ♂ | or | 1  | jl    | G   | Carniola       | 1752. | L  | co            | Jac. coll. 2. t. 11 |
| 2885 Frangula W.   | berry-bearing    | ♂ | or | 12 | ap.my | W   | Britain woods. | S     | co | Eng. bot. 250 |                     |
| 2886 latifolia W.  | broad-leaved     | ♂ | or | 4  | jl    | G   | Azores         | 1778. | L  | co            | Dend. brit. 11      |
| 2887 glandulosa W.   | Madeira          | ♂ | or | 15 | jn.jl | G   | Canaries       | 1785. | C  | p l           | Vent. malm. 34      |
| 2888 prinosides W.   | Winter-ber.-lv.  | ♂ | or | 15 | aus   | W   | C. G. H.       | 1778. | C  | p l           | L'Her. sert. t. 9   |
| 2889 mystacina W.  | wiry             | ♂ | or | 13 | n     | W.G | Africa         | 1775. | S  | p l           |                     |
| 2890 alniifolia W.   | Alder-leaved     | ♂ | or | 4  | my    | G   | N. Amer.       | 1778. | L  | co            |                     |
| 2891 hybrida P. S.   | hybrid           | ♂ | or | 12 | my.jn | G   | .....          | ...   | L  | co            | L'Her. sert. t. 5   |
| 2892 Alaternus W. en.  | bd.-lvd.-Alater. | ♂ | or | 40 | ap.jn | G   | S. Europe      | 1629. | L  | co            | Duh. arb. 3. t. 14  |
| 2893 Clusii W.   | narrow-leaved    | ♂ | or | 30 | ap.jn | G   | S. Europe      | 1629. | L  | co            |                     |
| *504. GENOP'LIA. Mich. CENOPLIA. <i>Rhamni. Sp. 2.</i>         |                  |   |    |    |       |     |                |       |    |               |                     |
| 2894 lineata W.  | lined            | ♂ | or | 8  | ...   | G   | China          | 1804. | C  | L p           | Osborne. it. t. 7   |
| 2895 volubilis W.  | twining          | ♂ | or | 15 | jn.jl | G   | Carolina       | 1714. | S  | s p           | Jac. ic. 2. t. 336  |



History, Use, Propagation, Culture,

The varieties of dessert grapes on the continent are few : the best they have, as the Muscats and Frontignacs, have been obtained from this country. The Chasselas or frame grape (our Muscadine), is almost the only eating grape known in the Paris fruit market. In Britain, we have not only the best varieties, but we grow the fruit to a larger size and of a higher flavor than is done any where else in the world. This is owing to the perfection of our artificial climates, and the great attention paid to soil and subsoil, and other points of culture.

The vine is universally propagated by cuttings, either a foot or more long, with a portion of two year old wood, or short with only one bud, or one bud and half a joint, &c. Varieties without end are raised from seed; and it is thought that by propagating from the seeds of successive generations some sorts may ultimately be procured better adapted for ripening their fruit in the open air than now known. A seedling vine carefully treated will show blossoms in its fourth or fifth year; say that it produces a fair specimen of its fruit in the sixth year, then a new generation may be obtained every sixth year.

The vine will thrive in any dry soil, or in any soil with a dry subsoil; but it produces the best flavored fruit among granitic and calcareous fragments, and loamy soil in thin strata, with little manure, and when the vine is old and the berry and bunch small : on the contrary, the most luxuriant crops, large bunches and berries, in a good depth of friable loam, dry below and richly manured with the strongest of animal manures.

There are three methods of pruning the vine in hot-houses; the fruit tree method, in which the plant is spread out in the fan manner, and treated like a common fruit tree; the long or young wood method, in which all the wood above a year old is cut out down to the stool or stock; and the spurting-in method, in which the fruit is produced from young wood grown annually from the sides of a main shoot or shoots of old wood. The two last methods are the best.

*Vitis vulpina*, the foxgrape, (so called from the foxy flavor of its berries) is cultivated much in North America, of which country it is a native. Many improved varieties have been raised by the American gardeners, and have been sent to Europe under the name of the Bland, the Isabella, the Oswego Tokay, &c. &c.; but they are all tainted with the bad taste peculiar to the species, and can be in no estimation when even an early July grape is to be procured.

502. *Ampelopsis*. From *αμπελος*, a vine, and *οψις*, resemblance. The genus resembles the vine in habit, leaves, and flowers; is commonly employed for covering old walls, for which the rapidity of its growth renders it very suitable.

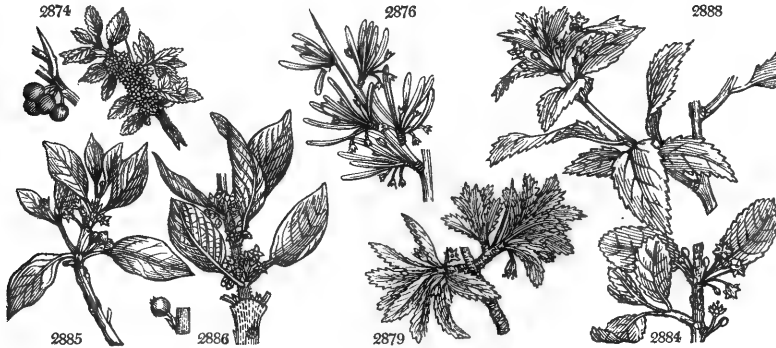
503. *Rhamnus*. From the Celtic *ram*, signifying branching. From this word the Greeks have gained *ρῆμος*, the Latin *ramus*, and the French *rame*, or in old French *reim*; for which reason the arms of the

- 2861 Leaves cordate acuminate nearly equally toothed smooth on both sides, Racemes loosely many-fruited  
 2862 Leaves unequally cut toothed shortly trifid, Stalk nerves and edge pubescent  
 2863 Leaves shining on both sides reniform cordate equally toothed, Flowers in many little heads  
 2864 Leaves quinately, Leaflets many-cleft  
 2865 Shoots very caesious, Leaves cordate angular

- 2866 Leaves cordate acute toothed 3-lobed, Nerves villous beneath, Racemes twin bifid  
 2867 Leaves bipinnate smooth, Leaflets cut-lobed, Racemes stalked twin bifid  
 2868 Leaves palmate 3-5-leaved smooth on both sides, Leaflets stalked oblong acuminate  
 2869 Leaves palmate 3-5-leaved on each side pubescent, Leaflets ovate acuminate coarsely toothed

- 2870 Flowers monogynous hermaphrodite erect, Caps. 3-coccous, Stalks rusty tomentose  
 2871 Flowers hermaphrodite trigynous axillary in umbels, Leaves elliptical acute entire villous beneath  
 2872 Spines terminal, Leaves linear-lanceolate serrate acute  
 2873 Unarmed, Leaves lanc. acute at each end serrated with hairs at the axillæ, Flowers axillary clustered  
 2874 Spines terminal, Flowers 4-cleft dioecious, Leaves ovate, Stem erect, Berry 4-seeded  
 2875 Spines terminal, Flowers 4-cleft dioecious, Stems procumbent  
 2876 Spines terminal, Leaves linear entire obtuse  
 2877 Spines terminal, Leaves oblong entire  
 2878 Branches spiny, Flowers 4-cleft or trifid dioecious, Leaves oblong obtuse evergreen  
 2879 Spines terminal, Flowers 4-cleft hermaphrodite  
 2880 Spines terminal, Leaves ovate serrulate, Branches divaricating  
 2881 Leaves ovate entire smooth sessile, Branches square  
 2882 Unarmed, Leaves lanceolate serrulate acute at each end pubescent beneath  
 2883 Flowers dioecious, Leaves ovate-lanceolate glandular crenulate  
 2884 Creeping, Flowers hermaphrodite, Leaves stalked ovate crenate  
 2885 Flowers monogynous hermaphrodite, Leaves entire smooth, Berry 2-seeded  
 2886 Flowers monogynous hermaphrodite, Cal. villous, Leaves elliptical entire acuminate rounded at base  
 2887 Flowers hermaphrodite racemose, Leaves ovate bluntly serrated smooth at the base glandular  
 2888 Flowers polygamous, Style triple, Leaves ovate serrated  
 2889 Flowers hermaphrodite, Stigma triple, Leaves cordate, Branches with tendrils  
 2890 Flowers hermaphrodite, Leaves oval acuminate serrated veiny beneath  
 2891 Flowers hermaphrodite, Leaves oblong acuminate scarcely perennial  
 2892 Flowers dioecious, Stigma triple, Leaves evergreen elliptical serrated acute at the base obtuse  
 2893 Flowers dioecious, Stigma triple, Leaves evergreen lanceolate acute at each end mucronate toothed

- 2894 Leaves ovate ribbed veiny repand, Flower-stalks one flowered, Stem erect  
 2895 Dioecious unarmed, Stem twining, Leaves ovate mucronate repand subcrenate striated



and Miscellaneous Particulars.

town of Rheims are two branches intertwined. *R. catharticus* was formerly used in medicine, and is still employed in color-making, and sometimes in dyeing. The juice of the unripe berries has the color of saffron, and is used for staining maps or paper. They are sold under the name of French berries, as those of *R. Clusii* are, under the name of Avignon berries. The juice of the French berries when ripe, and mixed with alum, is the sap green of the painters; but if the berries be gathered late in the autumn, the juice is purple. The bark affords a beautiful yellow dye. The inner bark, like that of elder, is said to be a strong cathartic, and to excite vomiting. The berries operate briskly with stool, but occasion thirst and griping. It is said by Woodville that the flesh of birds which feed on them is purgative.

*R. lycioides* furnishes the wood of which the Monguls make their images, on account of its hardness and orange red color.

*R. saxatilis* greatly resembles *R. catharticus*. The berries are used to dye the Maroquin or Morocco leather yellow.

*R. theezans* has leaves like the common tea, which are used as such by the poor of China, and called *Tia*. (*Osbeck*.)

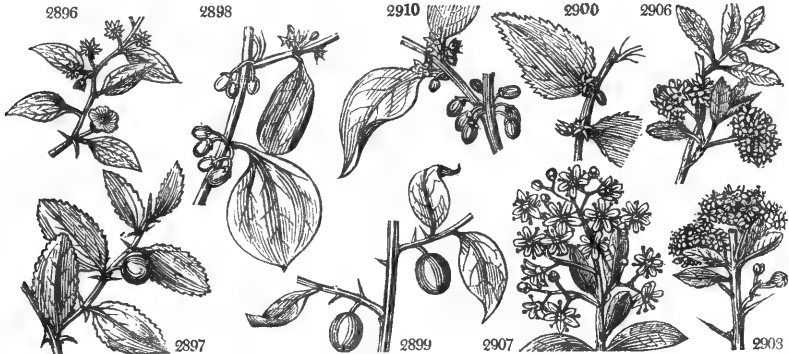
*R. frangula* has dark purple berries, which are purgative, like those of the common buckthorn. Gathered before they are ripe they dye wool green and yellow; when ripe, blue-gray, blue, and green. The bark dyes yellow, and with preparations of iron, black. From a quarter to half an ounce of the inner bark boiled in small beer, is a sharp purge. In dropsies or constipations of the bowels in cattle, it is a very certain purgative. The flowers are particularly grateful to bees. Goats devour the leaves voraciously; and sheep will eat them. Charcoal prepared from the wood is used by the makers of gunpowder. The berries of this species, and also of the cornus, are said to be brought to market and sold for those of the buckthorn; but they are easily distinguished, the true buckthorn having four seeds, this two, and the cornus one.

*R. hybridus* is the offspring of *R. alpinus* and *alaternus*, first procured by L'Heritier about 1778.

*R. alaternus* is an ornamental evergreen, with mellifluous blossoms, much frequented by bees. It is sometimes confounded with the *Phillyrea*; but they may be easily distinguished by the position of their leaves, which are alternate in these, but placed opposite by pairs in that. It is a rapid growing shrub, and useful for thickening screens, clothing walls, &c.

504. *Ænophla*. From *αενωφλῆ*, vinous. Its little fruit, full of juice, resembles the berry of a grape. The *Rhamnus volubilis* and *lineatus* belong to this genus, and are beautiful little climbing plants, but rather impatient of cold.

|                               |                 |   |    |                         |          |           |            |   |     |                          |
|-------------------------------|-----------------|---|----|-------------------------|----------|-----------|------------|---|-----|--------------------------|
| †505. PALIURUS. <i>G.ert.</i> | CHRIST'S-THORN. |   |    | <i>Rhamn.</i> Sp. 1-4.  |          |           |            |   |     |                          |
| 2896 australis <i>Gart.</i>   | European        | ♂ | or | 4 jn.jl                 | P.G.     | S. Europe | 1596.      | S | co  | Lam. illus. t.210        |
| 506. ZIZYPHUS. <i>W.</i>      | ZIZYPHUS.       |   |    | <i>Rhamn.</i> Sp. 4-38. |          |           |            |   |     |                          |
| 2897 Lotus <i>W.</i>          | Lotus-tree      | ♂ | fr | 4 ...                   | P.Y.     | Africa    | 1731.      | S | p.l | De.ac.s.1788.t.21        |
| 2898 Napéca <i>W.</i>         | oblique-leaved  | ♂ | or | 15 ...                  | W        | Ceylon    | 1816.      | C | l.p | Rum. amb.2.t.37          |
| 2899 Jújuba <i>W.</i>         | blunt-leaved    | ♂ | fr | 6 ap.my                 | P.G      | E. Indies | 1759.      | C | l.p | Rum. amb.2.t.36          |
| 2900 vulgaris <i>W.</i>       | common          | ♂ | fr | 6 aus.                  | P.G      | S. Europe | 1640.      | C | p.l | Pall.ross. 2. t.59       |
| 507. CELASTRUS. <i>W.</i>     | SHIFF-TREE.     |   |    | <i>Rhamn.</i> Sp. 8-55. |          |           |            |   |     |                          |
| 2901 lucida <i>W.</i>         | shining         | ♂ | or | 2 aps.                  | W        | C. G. H.  | 1722.      | C | p.l | Meerb. ic. 1. t.12       |
| 2902 bulláta <i>W.</i>        | Virginian       | ♂ | or | 20 jl                   | W        | Virginia  | 1759.      | L | s.l | Plu. alm. t.28.f.5       |
| 2903 scádens <i>W.</i>        | climbing        | ♂ | or | 15 my.jn                | W        | N. Amer.  | 1736.      | L | s.l | Sch. handb.1.t.47        |
| 2904 cassinoides <i>W.</i>    | crenated        | ♂ | or | 4 aus.                  | W        | Canaries  | 1779.      | C | p.l | L'Her.ser.6.t.10         |
| 2905 tetragóna <i>P. S.</i>   | four-sided      | ♂ | or | 6 ...                   | W        | C. G. H.  | 1816.      | C | p.l |                          |
| 2906 buxifolia <i>W.</i>      | Box-leaved      | ♂ | or | 4 my.jn                 | W        | C. G. H.  | 1752.      | C | p.l | Bot. mag. 2114           |
| 2907 pyracantha <i>W.</i>     | Pyracantha-lvd. | ♂ | or | 2 my.jn                 | W        | C. G. H.  | 1742.      | C | p.l | Bot. mag. 1167           |
| 2908 cymósa <i>B.M.</i>       | cymose          | ♂ | or | 3 jl                    | W        | C. G. H.  | 1815.      | C | p.l | Bot. mag. 2070           |
| 508. SENA' CIA. <i>Lam.</i>   | SENACIA.        |   |    | <i>Pittosporae.</i>     | Sp. 2-4. |           |            |   |     |                          |
| 2909 unduláta <i>Lam.</i>     | wave-leaved     | ♂ | or | 12 ...                  | W        | Bourbon   | 1785.      | C | l.p |                          |
| 2910 octogóna <i>Lam.</i>     | angular-leaved  | ♂ | or | 6 on                    | G        | Peru      | 1786.      | C | l.p | Fl. per. 3. t. 229       |
| †509. EUONYMUS. <i>W.</i>     | SPINDLE-TREE.   |   |    | <i>Rhamn.</i> Sp. 7.    |          |           |            |   |     |                          |
| 2911 japónica <i>W.</i>       | Japan           | ♂ | or | 6 jn.au                 | G        | Japan     | 1804.      | C | p.l | Kæmpf. ic. t. 8          |
| 2912 europæa <i>W.</i>        | European        | ♂ | or | 15 my.jl                | G        | Britain   | hed. s. l. | S | s.l | Eng. bot. 362            |
| β <i>pumila</i>               | dwarf           | ♂ | or | 4 my.jl                 | G        | .....     | .....      | S | s.l |                          |
| 2913 verrucósa <i>W.</i>      | warted          | ♂ | or | 6 my.jn                 | G        | Austria   | 1763.      | L | p.l | Schm. arb. t. 72         |
| 2914 latifolia <i>W.</i>      | broad-leaved    | ♂ | or | 10 jn.jl                | G        | Austria   | 1730.      | L | s.l | Bot. mag. 2384           |
| 2915 atropurpúrea <i>W.</i>   | purple          | ♂ | or | 6 jn.jl                 | Pu       | N. Amer.  | 1756.      | L | p.l | Schm. arb. t. 73         |
| 2916 americana <i>W.</i>      | evergreen       | ♂ | or | 6 jn.jl                 | Pk       | N. Amer.  | 1683.      | L | s.p | Schm. arb. t. 75         |
| 2917 angustifolia <i>Ph.</i>  | narrow-leaved   | ♂ | or | 6 jn.jl                 | G        | N. Amer.  | 1806.      | L | p.l |                          |
| †510. CEANO'THUS. <i>W.</i>   | CEANO'THUS.     |   |    | <i>Rhamn.</i> Sp. 8-20. |          |           |            |   |     |                          |
| 2918 americana <i>W.</i>      | New Jersey Tea  | ♂ | or | 2 jl                    | W        | N. Amer.  | 1713.      | S | p.l | Bot. mag. 1479           |
| 2919 intermedia <i>Ph.</i>    | intermediate    | ♂ | or | 2 jn.jl                 | W        | N. Amer.  | 1812.      | C | l.p | Pl. alm. t. 28. f. 6     |
| 2920 sanguinea <i>Ph.</i>     | red-stalked     | ♂ | or | 2 my.jl                 | W        | Missouri  | 1812.      | C | l.p |                          |
| 2921 microphylla <i>Ph.</i>   | small-leaved    | ♂ | or | 1½ jn.jl                | W        | N. Amer.  | 1806.      | L | p.l |                          |
| §2922 asiática <i>W.</i>      | Asiatic         | ♂ | or | 12 jl.au                | Pa. Y.   | Ceylon    | 1691.      | C | p.l | Cav. ic. 5. t. 440. f. 1 |
| §2923 africána <i>W.</i>      | African         | ♂ | or | 6 mr.ap                 | W        | C. G. H.  | 1712.      | C | p.l | Bot. mag. 2384           |
| 2924 globulosa <i>H. K.</i>   | round-headed    | ♂ | or | 6 ap.my                 | Co       | N. Holl.  | 1803.      | C | p.l | Lab. no. h. 1. 85        |
| 2925 azúrea <i>Desf.</i>      | blue            | ♂ | or | 10 ap                   | Pa. B.   | Mexico    | 1818.      | C | p.l | Bot. reg. 291            |
| 511. STA'AVIA. <i>W.</i>      | STA'AVIA.       |   |    | <i>Rhamn?</i> Sp. 2.    |          |           |            |   |     |                          |
| 2926 radiáta <i>W.</i>        | rayed           | ♂ | or | 2 my.jn                 | W        | C. G. H.  | 1787.      | C | p.l | Br. cen. 165. t. 82      |
| 2927 glutinosa <i>W.</i>      | clammy          | ♂ | or | 3 ap.my                 | Y        | C. G. H.  | 1793.      | C | p.l | Wend. coll. t. 22        |



#### History, Use, Propagation, Culture,

505. *Paliurus*. Παλιμεος is the Greek name of a place. The city of Paliurus was situated on the coast of Africa over against Candia. *Paliurus australis* is a handsome free flowering, but very prickly shrub: it has broad roundish buckler-shaped seed-vessels, which have borders like the brims of a hat, the footstalks being fastened to the middle. From this singular appearance of the fruit, like a head with a broad-brimmed hat on, the French call it *porte chapeau*. This shrub is by many persons supposed to be that from which the crown of thorns which was put upon the head of Jesus Christ was composed; the truth of which is supported by many travellers of credit, who affirm that this is one of the most common shrubs in the country of Judea; and from the pliability of its branches, which may easily be wrought into any figure, it may afford a probability. Hasselquist, however, is of opinion, that it was a species of *Rhamnus*, called therefore by Linnaeus R. Spina Christi.

506. *Zizyphus*. A name altered by the Greeks from *asafsa*, its name in the East. Vide *Shaw's Voyage*, 47. Suppl. It is called *Zizwif* in Arabic, *Golius*. Z. Lotus, is the true Lotus of the Lotophagi. It is a prickly branching shrub, with alternate, small, blunt, three-nerved leaves, solitary flowers, and the fruit a spherical drupe, the size of a wild plum, sweet and harmless; inclosing a small, round, bony, two-celled nucleus; first green, but when ripe tinged with saffron-color. It is found on the eastern as well as the western extremity of the African desert; and Major Rennel thinks he has seen it on the Ganges. Dr. Shaw found the fruit common in Barbary; it was sold in the markets, cattle fed with it, and a liquor drawn from it. Mr. Park found it very common in all the kingdoms which he visited: he describes the fruit as small farinaceous berries, of a yellow color and delicious taste. The natives, he says, convert them into a sort of bread, by exposing them some days to the sun, and afterwards pounding them gently in a wooden mortar, until the farinaceous part is separated from the stone. This meal is then mixed with a little water, and formed into cakes, which, when dried in the sun, resemble in color and flavor the sweetest gingerbread. A gruel is next made from the meal which still adheres to the stones. The Greeks supposed the people who ate the lotus to be confined to an extent of sea-coast on the north of Africa, including the gulphs of Syrtis. The plant grows readily in our greenhouses, and might be fruited if thought desirable. It is propagated by ripened cuttings planted in sand under a hand-glass.

2896 Prickles stipulary twin, one straight one recurved, Leaves ovate crenulate smooth stalked

2897 Prickles twin, one recurved, Leaves ovate oblong obsolete crenate

2898 Prickles in pairs recurved, Pedunc. corym. Fls. half digynous, Leaves ov. oblique smooth on both sides

2899 Prickles solitary recurved, Leaves rounded ovate obtuse downy beneath, Peduncles aggregate

2900 Prickles in pairs, one recurved, Leaves ovate retuse toothed smooth

2901 Leaves oval acute shining margined smooth, Flowers axillary

2902 Leaves ovate acute, Panicles terminal

2903 Leaves oblong acuminate serrated, Racemes terminal, Stem twining

2904 Leaves ovate acute at each end serrated evergreen, Flowers axillary

2905 Leaves ovate serrated, Branches square

2906 Spines axillary, the larger leafy, Leaves lanceolate obovate serrated obtuse, the younger acute

2907 Spines naked, Branches rounded acute

2908 Spines naked, Branches angular, Leaves obovate serrate toothed, Cymes axillary

2909 Leaves lanceolate stalked wavy at edge, Cymes umbelled terminal, Caps. 2-celled 2-seeded

2910 Leaves elliptical angular nerveless evergreen, Caps. 1-seeded

2911 Flowers 4-cleft, Leaves rounded ovate toothed

2912 Flower-stalks compressed 3-flowered, Flower usually tetrandrous, Leaves oblong-lanceolate smooth

2913 Flower-stalks filiform rounded, Leaves ovate acuminate smooth, Branches warted

2914 Flower-stalks filiform rounded many-fl. Lvs. ovate oblong acuminate, Branches smooth, Petals roundish

2915 Flower-stalks compressed many-flowered, Stigmas square truncated, Lvs. obl. acuminate pubes. beneath

2916 Flower-stalks rounded 3-flowered, Fl. pentan. Lvs. obl. lanc. smooth subsess. acute serr. Branches square

2917 Branches square, Leaves subsessile long linear elliptical subfalcate entire, Fruit warted

2918 Leaves ovate oblong acute subcordate serrate 3-nerved beneath soft with hairs, Corymbs contracted

2919 Leaves oblong acuminate mucronate serrulate 3-nerved, Corymbs loose

2920 Leaves obovate serrated pubescent beneath, Panicles on very short stalks, Branches deep red

2921 Decumbent smooth, Leaves very small in bundles oblong entire, Corymbs of the branches terminal

2922 Leaves ovate acuminate veiny, Cymes axillary

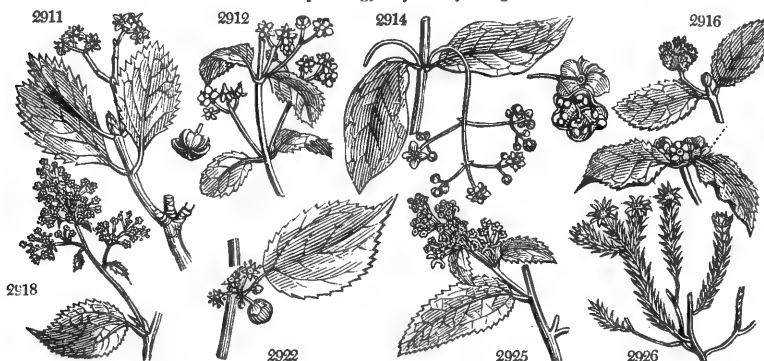
2923 Leaves lanceolate obtuse netted with veins, Panicle terminal

2924 Leaves obovate tomentose beneath, Heads of flowers in panicles

2925 Leaves oblong somewhat cordate serrate tomentose beneath, Racemes compound stalked

2926 Leaves lanceolate 3-cornered spreading, Ray of calyx shorter than the head

2927 Leaves linear lanceolate 3-cornered spreading, Ray of calyx longer than the head



and Miscellaneous Particulars.

*Z. jujuba* is a middle-sized tree, with ovate leaves, pale yellowish flowers, and red oval fruit, about the size of olives, inclosing a stone of the same shape. They are sweet, and eaten in the East Indies and China.

*Z. vulgaris* is a middle-sized branching tree, bearing a saffron-colored drupe shaped like an olive, but smaller. The plant grows wild in Calabria, and is cultivated in other parts of Italy, and in Spain. The fruit is eaten green or dried as a sweetmeat. It is common in China, Japan, Syria, &c. and is said to have been first introduced into Italy from the latter country in the time of Augustus. All the species are readily increased by ripened cuttings planted under a hand-glass.

507. *Celastrus*. From *κλασος*, the latter season. The ancients considered the holly, the Genista, and the *Celastrus*, the trees which ripened their fruit latest. The *Celastrus* of the ancients is thought to have been a kind of *Euonymus*, to which this genus is nearly allied. It consists of shrubs or small trees, with alternate leaves, and numerous small flowers. The plants are of easy culture, but of no great beauty.

508. *Senecia*. A genus divided by M. de Lamarck from *Celastrus*, and founded upon the *Celastrus undulatus* of L'Heritier.

509. *Euonymus*. From *eu*, well, and *ονυμος*, a name, well named. The application of the name is, however, obscure to us. *Euonymus* was also a Heathen divinity; according to Epimenides she was the mother of the Furies by Saturn. *Fusain*, or *Bonnet de Prêtre*, Fr., *Spindelbaum*, Ger., and *Fusaggine*, Ital. The species form neat little trees of no great beauty or use. *E. europæa* is called prick-wood, from the use of the wood formerly as skewers. *E. americana* best merits culture, and next, *E. latifolia*. They are easily increased by seed or ripened cuttings.

510. *Ceanothus*. *Κεανωθος* is a name used by Theophrastus to designate a prickly plant, from *κωα*, to prick. This is a genus of North American plants, one species of which, *C. americana*, is very common in gardens. The leaves are dried in Carolina and used as tea, and the root to dye wool a Nankeen cinnamon color. The species are of the easiest culture, but of very little beauty.

511. *Staavia*. Named after Martin Staaf, a correspondent of Linnaeus. Little Cape shrubs, with heads of flowers resembling those of some compound plant. Young cuttings in sand, and covered with a bell, soon strike root.

|  |                            |                               |    |    |                       |       |                               |
|--|----------------------------|-------------------------------|----|----|-----------------------|-------|-------------------------------|
| <b>512. POMADER/RIS. Lab. POMADERRIS.</b>    |                            | <i>Rhamn. Sp. 4.</i>          |    |    |                       |       |                               |
| 2928   | <i>apétala H. K.</i>       | apetalous                     | or | 7  | my.jn Pa. Y. N. Holl. | 1803. | C s.p. Lab. no. h. 1. t. 87   |
| 2929   | <i>elliptica H. K.</i>     | oval-leaved                   | or | 10 | my.jl Pa. Y. N. Holl. | 1805. | C s.p. Bot. mag. 1510         |
| 2930   | <i>lanigera B. M.</i>      | woolly                        | or | 3  | ap.jn Pa. Y. N. Holl. | 1806. | C s.p. Bot. mag. 1823         |
| 2931   | <i>phyllicifolia Lodd.</i> | Phylla-leaved                 | or | 2  | ap.jn Pa. Y. N. Holl. | 1819. | C s.p. Bot. cab. 120          |
| <b>513. MANGI/FERA. W. MANGO-TREE.</b>       |                            | <i>Terebintaceæ. Sp. 1-3.</i> |    |    |                       |       |                               |
| 2932   | <i>indica W.</i>           | Indian                        | ↑  | 20 | jn.s R.G. E. Indies   | 1690. | S r.m. Bot. rep. 425          |
| <b>514. SCHRE/BERA. Retz. SCHREBERA.</b>     |                            | <i>Celastrineæ. Sp. 1.</i>    |    |    |                       |       |                               |
| 2933   | <i>álbens Retz.</i>        | whitish                       | or | 6  | ... G Ceylon          | 1824. | C pl. N. ac. h. 2. t. 4. f. 1 |
| <b>†515. BILLARDI/E/RA. Sm. APPLE-BERRY.</b> |                            | <i>Pittosporæ. Sp. 4.</i>     |    |    |                       |       |                               |
| 2934   | <i>scândens W.</i>         | climber                       | or | 12 | jn.au G N. S. W.      | 1790. | S s.p. Bot. mag. 801          |
| 2935   | <i>mutábilis H. K.</i>     | changeable                    | or | 8  | jn.s Pu N. S. W.      | 1795. | S s.p. Bot. mag. 1313         |
| 2936   | <i>longiflóra Lab.</i>     | blue-berried                  | or | 20 | jn.s G V. Di. L.      | 1810. | S s.p. Bot. mag. 1507         |
| 2937   | <i>fusifórmis Lab.</i>     | spindle-fruited               | or | 8  | jn.au B V. Di. L.     | 1823. | S s.p. Lab. n. h. 1. t. 90    |
| <b>*516. EL/RODEN/DRUM. W. OLIVE-WOOD.</b>   |                            | <i>Rhamn. Sp. 3-6.</i>        |    |    |                       |       |                               |
| 2938   | <i>A'rgam W.</i>           | spiny                         | or | 15 | jl G.y Morocco        | 1711. | C l.p. Com. hor. 1. t. 83     |
| 2939   | <i>orientále W.</i>        | oriental                      | or | 12 | ... W Mauritius       | 1771. | C pl. Jac. ic. 1. t. 48       |
| 2940   | <i>austrále H. K.</i>      | thick-leaved                  | or | 3  | jn.au W N. S. W.      | 1796. | C s.l. Vent. malm. 117        |
| <b>*517. DIOS/MA. W. en.</b>                 |                            | <i>Diosmeæ. Sp. 9-36.</i>     |    |    |                       |       |                               |
| 2941   | <i>oppositifólia W.</i>    | opposite-leaved               | or | 3  | mr.jl W C. G. H.      | 1752. | C pl. Com. rar. 1. t. 1       |
| 2942   | <i>lineáris W.</i>         | linear-leaved                 | or | 1  | mr.jl W C. G. H.      | 1800. | C pl. Bot. mag. 1271          |
| 2943   | <i>hirsúta W.</i>          | hairy-leaved                  | or | 4  | mr.jl Pk C. G. H.     | 1751. | C pl. Com. rar. 3. t. 3       |
| 2944   | <i>pectináta W. en.</i>    | pectinated                    | or | 1  | ap.jn W C. G. H.      | 1812. | C l.p. We. co. pl. 1. t. 8    |
| 2945   | <i>ericoides W.</i>        | Heath-leaved                  | or | 2  | mr.jl W C. G. H.      | 1756. | C pl. Bot. mag. 2332          |
| 2946   | <i>cupressina W.</i>       | Cypress-leaved                | or | 1½ | jn.jl Pk C. G. H.     | 1790. | C pl. Pl. al. t. 273. f. 2    |
| 2947   | <i>tenuifólia W. en.</i>   | slender-leaved                | or | 2  | ap.jn W C. G. H.      | ...   | C pl. Bot. cab. 860           |
| 2948   | <i>succulénta W. en.</i>   | succulent-ldv.                | or | 2  | ap.jn W C. G. H.      | ...   | C pl. We. co. pl. 1. t. 1     |
| 2949   | <i>capitáta W.</i>         | pale-purple                   | or | 2  | my.jn Pu C. G. H.     | 1790. | C pl. Bot. cab. 860           |
| <b>†518. ADENAN/DRA. W. en. ADENANDRA.</b>   |                            | <i>Diosmeæ. Sp. 5-8.</i>      |    |    |                       |       |                               |
| 2950   | <i>uniifóra W. en.</i>     | one-flowered                  | or | 1  | ap.jl Pk C. G. H.     | 1775. | C pl. Bot. mag. 273           |
| 2951   | <i>umbelláta W. en.</i>    | umbel-flowered                | or | 2  | ap.jl Pk C. G. H.     | 1789. | C pl. Bot. mag. 1271          |
| 2952   | <i>frágrans B. M.</i>      | red-flowered                  | or | 3  | my.jl Pk C. G. H.     | 1812. | C pl. Bot. mag. 1519          |
| 2953   | <i>álba Th.</i>            | white-flowered                | or | 2  | mr.jl W C. G. H.      | 1800. | C pl. Bot. mag. 2332          |
| 2954   | <i>margináta Th.</i>       | margined                      | or | 2  | mr.jl Pk C. G. H.     | 1806. | C pl. Pl. al. t. 411. f. 3    |
| <b>519. BARYOS/MA. W. en. BARYOSMA.</b>      |                            | <i>Diosmeæ. Sp. 2-3.</i>      |    |    |                       |       |                               |
| 2955   | <i>serratifólia W.</i>     | saw-leaved                    | or | 3  | mr.jn Pk C. G. H.     | 1789. | C pl. Bot. mag. 456           |
| 2956   | <i>latifólia W.</i>        | broad-leaved                  | or | 2  | jl.au W C. G. H.      | 1789. | C pl. Bot. rep. 37            |



History, Use, Propagation, Culture,

512. *Pomaderris*. From *süme*, a lid, and *dehke*, a skin, on account of the membranous lid with which the cells of the capsule are covered. New Holland shrubs, with the habit of *Ceanothus*, from which they are distinguishable only by their fruit. Cuttings root freely in sand under a hand-glass.

513. *Mangifera*. From *Manga* or *Manghos*, the vernacular name of the fruit, and *fero*, to bear. This is a large spreading tree, bearing a fruit in great estimation in the East. The wood is brittle, brown, and used only for indifferent works. The leaves are seven or eight inches long, and two or more broad, lanceolate, entire, of a shining green, and sweet resinous smell. The flowers are produced in loose bunches at the ends of the branches. The fruit is a berried drupe, large, flattened like a lens, kidney-shaped; the flesh soft and pulpy, like a damascene plum; the shell almost kidney-shaped, of a leathery crustaceous substance, and one-celled. This fruit, when fully ripe, is yellow and reddish, replete with a fine agreeable juice; some are full of fibres, and the juice runs out of these on cutting, or with a little handling; but those which have few or no fibres are much the finest; they cut like an apple, but are more juicy, and some are as big as a large man's fist. It is esteemed a very wholesome fruit, and, except very fine pine-apples, is preferable to any fruit in India; gentlemen there eat little other fruit in the hot months; but if no wine be drank with it, the Mango is apt to throw out troublesome boils, at least with new comers, which are, however, conducive to health. In Europe we have only the unripe fruit brought over in pickle.

Loureiro remarks, that there are many varieties, differing chiefly in the figure, size, color, and taste of the fruit, as apples and pears do in Europe. Retzius, on the contrary, affirms, that there are certainly several distinct species; the number of stamens in some being double; the racemes in others compound; the fruit kidney-shaped, globular, fleshy, almost juiceless, &c.

According to Sweet, "the Mango ripens fruit in this country, when the plants are of a good size. Sandy loam, or a mixture of loam and peat, is most suitable to it, and the pots should be well drained, as the plants are apt to get sodden with too much water. Fresh seeds from the West Indies vegetate freely. The plant may also be increased from cuttings, which root best in sand under a hand-glass." (*Bot. Cult.* 77.)

Knight, Hallet, and some other horticulturists are at present cultivating this tree with a view to its fruit. Knight recommends for such trees, training the shoots downwards, and at no great distance from the glass. There are trees in the garden of Earl Powis which must bear very soon.

514. *Schrebera*. Named after John Chr. Daniel Schreber, a German botanist, chiefly known by an edition of

- 2928 Leaves ovate-oblong doubly-serrated tomentose beneath, Flowers apetalous in racemes  
 2929 Leaves oval tomentose beneath, Heads of flowers in umbels paniced  
 2930 Cymes paniced terminal, Leaves ovate lanceolate entire coriaceous rusty beneath  
 2931 Leaves linear, Flowers in axillary clusters as long as leaves

2932 Leaves lanceolate wavy, Panicles terminal many-flowered, Stamen 1

2933 The only species

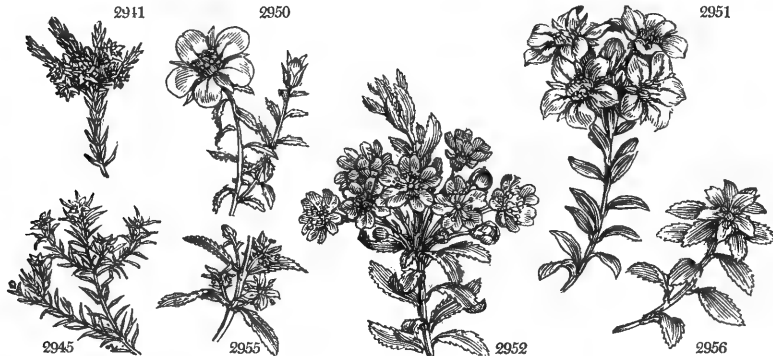
- 2934 Peduncles solitary 1-flowered, Leaves somewhat hairy  
 2935 Leaves lanceolate linear, Peduncles solitary 1-flowered smooth, Fruit smooth  
 2936 Leaves smooth, Cor. cylindrical, Peduncles solitary 1-fl. Petals very long rolled inwards at edge  
 2937 Panicles few-flowered, Leaves somewhat hairy, Anthers connivent

- 2938 Branches spiny, Leaves ovate obtuse  
 2939 Leaves lanceolate acute with red veins  
 2940 Leaves elliptical coriaceous toothletted, Petals and stamens four

- 2941 Leaves 3-cornered obtuse ciliated, Flowers terminal  
 2942 Leaves linear obtuse smooth spreading, Flowers terminal solitary  
 2943 Leaves linear carinate mucronate villous, Peduncles 1-flowered terminal corymbose  
 2944 Leaves 3-cornered acute dotted ciliated  
 2945 Leaves 3-cornered obtuse smooth, Flowers terminal solitary  
 2946 Leaves oblong lanceolate carinate appressed rough at edge, Flower terminal nearly solitary  
 2947 Leaves linear carinate mucronate ciliated upright, Peduncles 1-2 flowered corymbose terminal  
 2948 Leaves linear carinate acute thickish fringed upright, Flowers terminal subsessile solitary or 4 together  
 2949 Leaves 3-cornered villous-hispid imbricated, Flowers in spiked heads

- 2950 Leaves lanceolate smooth, Flowers terminal solitary, Calyxes fringed  
 2951 Leaves oblong smooth ciliated, Flowers terminal in umbels, Calyxes smooth  
 2952 Leaves ovate oblong glandular scattered, Peduncle glutinous aggregate terminal twice as long as leaves  
 2953 Leaves linear carinate mucronate at the edge cartilaginous and rough, Flowers axillary and solitary  
 2954 Leaves cordate, Lower ovate, Upper lanceolate, Umbels terminal

- 2955 Leaves linear lanceolate serrulate  
 2956 Leaves ovate crenate pubescent, Peduncles lateral 1-flowered, Branches downy



and Miscellaneous Particulars.

Linnaeus's Genera Plantarum, which he published in 1789, in which he unadvisedly altered all the names of Aublet, without ever having seen the plants.

515. *Billaràdera*. Named in honor of Jacques Julien Labillardière, a French botanist, who visited Syria, and afterwards New Holland, in D'Entrecasteaux's expedition. His reputation as a botanist was almost annihilated by the *Prodromus Novae Hollandiae* of Brown. The species of this genus are desirable as climbers for a conservatory, especially *B. longiflora*, which is a fast grower and an abundant flowerer; and when in fruit, its fine blue berries make a handsome appearance. They thrive well in an equal portion of loam and peat; and cuttings root readily in sand under a bell-glass: they may also be raised from seeds, which are produced in abundance. (*Bot. Cult.* 149.)

516. *Eleodendrum*. From *ελαια*, an olive, and *δένδρον*, a tree; a tree resembling an olive. E. argam furnishes an oil by expression from the fruit as in the common olive: it is used at table by the Moors, and in various works by Europeans. The tree is rather tender, and requires protection during winter.

E. australe, and the stove species, "grow freely in a mixture of loam and peat; and ripened cuttings will soon root in sand under a hand-glass." (*Sweet.*)

517. *Diosma*. From *διος*, divine, and *σμυμ*, smell; that is to say, a smell divine among the Hottentots, who rub their greasy bodies with the powdered leaves of all the species, which they call *Bucku*. To Europeans the smell is unpleasant. This is a genus of handsome shrubs, bearing a general resemblance to heaths, but with larger leaves. The flowers are in corymbs at the ends of the branches. *D. ericoides*, and other species, are the kinds chiefly used by the Hottentots to scent the ointments with which they anoint their skin. Young cuttings root freely in sand under a bell-glass.

518. *Adenandra*. From *ἀνδρ*, a gland, and *ανηρ ανδρως*, a male; or, in composition of botanical names, a stamen; on account of the appendage of the stamens. This is a very natural genus, easily recognized by its glandular anthers. Sweet "found it succeed best in sandy peat, but some prefer mixing a little sandy loam with it. The young tender tops strike best, made into cuttings, and planted in a pot of sand under a bell-glass: it does not require to be plunged in heat." (*Bot. Cult.* 127.)

519. *Baryosma*. From *βαρυς*, strong, and *σμυμ*, smell, in allusion to its fetid leaves. Plants with the habit of *Diosma*. Cuttings root readily, taken off in ripened wood, and planted in sand under a bell-glass.

|   |                              |                             |    |       |      |           |  |
|---|------------------------------|-----------------------------|----|-------|------|-----------|--|
| 520. AGATHOS'MA. <i>W. en.</i> AGATHOSMA.       |                              | <i>Diosmeæ.</i> Sp. 12.     |    |       |      |           |  |
| 2957 hispidum <i>W.</i>                         | rough-leaved                 | <input type="checkbox"/> or | 1  | ja.au | V    | C. G. H.  | 1786. C p.l                                      |
| 2958 ciliatum <i>W.</i>                         | ciliated                     | <input type="checkbox"/> or | 2  | ap.my | W    | C. G. H.  | 1774. C p.l                                      |
| 2959 villisum <i>W.</i>                         | shaggy                       | <input type="checkbox"/> or | 14 | ja.au | V    | C. G. H.  | 1786. C p.l                                      |
| 2960 imbricatum <i>W.</i>                       | imbricated                   | <input type="checkbox"/> or | 3  | ap.jn | Pk   | C. G. H.  | 1774. C p.l                                      |
| 2961 acuminatum <i>W. en.</i>                   | acuminate                    | <input type="checkbox"/> or | 5  | ap.jn | V    | C. G. H.  | 1812. C p.l                                      |
| 2962 cerefolium <i>Ven.</i>                     | Chervil-scented              | <input type="checkbox"/> or | 2  | ap.jn | W    | C. G. H.  | 1790. C p.l                                      |
| 2963 pubescens <i>W. en.</i>                    | pubescent                    | <input type="checkbox"/> or | 1  | my.au | W    | C. G. H.  | 1798. C p.l                                      |
| 2964 crenatum <i>W.</i>                         | crenated                     | <input type="checkbox"/> or | 2  | ja.mr | W    | C. G. H.  | 1774. C p.l                                      |
| 2965 ovatum <i>W.</i>                           | oval-leaved                  | <input type="checkbox"/> or | 2  | fs    | W    | C. G. H.  | 1790. C p.l                                      |
| 2966 pulchellum <i>W.</i>                       | blunt-leaved                 | <input type="checkbox"/> or | 3  | fs    | Fu   | C. G. H.  | 1787. C p.l                                      |
| 2967 rubrum <i>W.</i>                           | red                          | <input type="checkbox"/> or | 1  | fl.y  | R    | C. G. H.  | 1782. C p.l                                      |
| 2968 tetragonum <i>W.</i>                       | square-branch.               | <input type="checkbox"/> or | 1  | fl.au | W    | C. G. H.  | 1789. C p.l                                      |
| 521. NAU'CLEA. <i>W.</i> NAUCLEA.               | oriental                     | <input type="checkbox"/> or | 30 | ...   | Y    | E. Indies | 1800. L r.m                                      |
| 2969 orientalis <i>W.</i>                       |                              |                             |    |       |      |           | Rhe. mal. 3. t. 33                               |
| 522. PITTOS'FORUM. <i>W.</i> PITTOSPORUM.       | thick-leaved                 | <input type="checkbox"/> or | 10 | my    | B    | Madeira   | 1787. L p.l                                      |
| 2970 coriaceum <i>W.</i>                        | green-flowered               | <input type="checkbox"/> or | 6  | my.jn | G    | C. G. H.  | 1806. C p.l                                      |
| 2971 viridiflorum <i>B. M.</i>                  | glossy-leaved                | <input type="checkbox"/> or | 6  | mr.au | W    | China     | 1804. C p.l                                      |
| 2972 Tobira <i>H. K.</i>                        | wave-leaved                  | <input type="checkbox"/> or | 3  | f.jn  | W.Y  | N. S. W.  | 1789. C s.p                                      |
| 2973 undulatum <i>H. K.</i>                     | downy-leaved                 | <input type="checkbox"/> or | 6  | f.ap  | Y    | N. S. W.  | 1795. G s.p                                      |
| 2974 revolutum <i>H. K.</i>                     | rusty-leaved                 | <input type="checkbox"/> or | 6  | f.my  | Y    | Guinea    | 1787. G s.p                                      |
| 2975 ferrugineum <i>H. K.</i>                   |                              |                             |    |       |      |           | Bot. mag. 2075                                   |
| 523. LASIOPE'TALUM. <i>Smith.</i> LASIOPETALUM. | small-flowered               | <input type="checkbox"/> or | 3  | ap.jl | Br   | N. Holl.  | 1810. C l.p                                      |
| 2976 parviflorum <i>L. T.</i>                   | rusty                        | <input type="checkbox"/> or | 4  | ap.jl | Y    | N. Holl.  | 1791. C s.p                                      |
| 2977 ferrugineum <i>B. R.</i>                   |                              |                             |    |       |      |           | L. t. v. 10. t. 19. f. 2<br>Bot. mag. 1766       |
| 524. THOMA'SIA. <i>Gay.</i> THOMASIA.           | purple                       | <input type="checkbox"/> or | 3  | ap.jl | Pu   | N. Holl.  | 1803. C s.p                                      |
| 2978 purpurea <i>Gay.</i>                       | Solanum-like                 | <input type="checkbox"/> or | 3  | ap.jl | Pu   | N. Holl.  | 1803. C s.p                                      |
| 2979 solanacea <i>Gay.</i>                      | oak-leaved                   | <input type="checkbox"/> or | 3  | ap.jl | Br   | N. Holl.  | 1803. C s.p                                      |
| 2980 quercifolia <i>Gay.</i>                    |                              |                             |    |       |      |           | Bot. mag. 1485                                   |
| 525. SERIN'GIA. <i>Gay.</i> SERINGIA.           | Nettle-tree-lvd.             | <input type="checkbox"/> or | 12 | ap.jl | W    | N. Holl.  | 1802. C s.p                                      |
| 2981 platyphyla <i>Gay.</i>                     |                              |                             |    |       |      |           | Mem. mu. vol. 7                                  |
| 526. BUTTNERIA. <i>W.</i> BUTTNERIA.            | rough-leaved                 | <input type="checkbox"/> or | 6  | jl    | Pu   | W. Indies | 1793. C p.l                                      |
| 2982 scabra <i>W.</i>                           | small-leaved                 | <input type="checkbox"/> or | 5  | ...   | W.pu | S. Amer.  | 1816. C l.p                                      |
| 2983 microplyla <i>W.</i>                       |                              |                             |    |       |      |           | Ca. d. 5. t. 148. f. 1<br>Ca. d. 5. t. 148. f. 2 |
| 527. AYE'NIA. <i>W.</i> AYENIA.                 | small                        | <input type="checkbox"/> or | 1  | jl.s  | Pu   | Jamaica   | 1756. C r.m                                      |
| 2984 pusilla <i>W.</i>                          | smooth                       | <input type="checkbox"/> or | 2  | ...   | S    | Jamaica   | ... C r.m  |
| 2985 levigata <i>P. S.</i>                      |                              |                             |    |       |      |           | Mill. ic. 79. t. 118                             |
| 528. CALODEND'RUM. <i>W.</i> CALODENDRUM.       | Cape                         | <input type="checkbox"/> or | 40 | ...   | Pk   | C. G. H.  | 1789. C l.p                                      |
| 2986 capense <i>W.</i>                          |                              |                             |    |       |      |           | H. na. h. 4. t. 22                               |
| 1529. TODD'A'LIA. <i>Lam.</i> TODDALLIA.        | prickly                      | <input type="checkbox"/> or | 6  | ...   | W    | E. Indies | 1790. C s.p                                      |
| 2987 asiatica <i>Lam.</i>                       |                              |                             |    |       |      |           | Lam. ill. t. 139                                 |
|   | <i>Scopolia aculeata</i> Sm. |                             |    |       |      |           |  |
| 530. BURSA'RIA. <i>Cav.</i> BURSARIA.           | thorny                       | <input type="checkbox"/> or | 10 | au.d  | W    | N. S. W.  | 1793. C s.p                                      |
| 2988 spinosa <i>Cav.</i>                        |                              |                             |    |       |      |           | Bot. mag. 1767                                   |
| 531. CEDRE'LA. <i>W.</i> BASTARD-CEDAR.         | Barbadoes                    | <input type="checkbox"/> or | 50 | ...   | Pk   | W. Indies | 1739. C l.p                                      |
| 2989 odorata <i>W.</i>                          | E. Indian                    | <input type="checkbox"/> or | 50 | ...   | Pk   | E. Indies | 1823. C l.p                                      |
| 2990 Toona <i>Roxb.</i>                         |                              |                             |    |       |      |           | Br. ja. 158. t. 10. f. 1                         |



History, Use, Propagation, Culture,

520. *Agathosma*. From *αγθος*, good, and *οσµν*, smell; to be understood as *Diosma*. This genus resembles that, and requires the same culture. The Hottentots use the leaves of *A. pulchella* dried and powdered, under the name of *Bucku*, to mix with the grease with which they anoint themselves. It gives them so rank an odor, that Thunberg says, he sometimes could not bear the smell of the men who drove his waggon.

521. *Nauclea*. A noble genus of Rubiaceae plants, bearing their flowers in round heads. The meaning of the name is nowhere explained. One species, *N. Gambir*, is said to yield the gamboge gum of the shops.

522. *Pittosporum*. From *πιττος*, resin, and *σπορος*, a seed. The capsule is resinous. These are handsome shrubs, with good foliage and pretty flowers. *P. tobira*, a native of Japan, is nearly hardy. Ripened cuttings root freely in sand under a hand-glass, or one species may be grafted on another.

523. *Lasiopetalum*. From *λασιος*, woolly, and *πτελον*, a petal; in allusion to the flowers. Ripened cuttings planted in sand under a hand-glass will root freely.

524. *Thomasia*. Named by M. Gay, after M. Thomas, an industrious collector of Swiss plants. Divided lately from *Lasiopetalum*.

525. *Seringia*. Also named by M. Gay, in honor of M. Seringe, an ingenious Swiss botanist, author of *Melanges de Botanique*, and other useful works. Divided from *Lasiopetalum*, with which it agrees in habit and appearance.

526. *Büttneria*. David Sigismund Augustus Büttner, was a professor of botany at Gottingen, who published,

- 2957 Leaves 3-conned blunt villous hispid spreading, Umbels terminal  
 2958 Leaves lanceolate carinated ciliated, Umbels terminal  
 2959 Lvs. aggregate linear lanceolate channelled glandular villous imbricated, Heads of branches terminal  
 2960 Leaves aggregate ovate acuminate imbricated dotted fringed, Heads of branches terminal umbelled  
 2961 Leaves alternate aggregate subcordate acuminate pubesc. dotted, Flowers in terminal umbelled branches  
 2962 Leaves imbricate spreading lanceolate ciliated, Heads terminal, Five stamens sterile  
 2963 Leaves aggregate oval obtuse glandular ciliated spreading, Heads of branches terminal  
 2964 Leaves ovate crenate dotted beneath, Flowers axillary solitary  
 2965 Leaves opposite smooth ovate entire revolute at edge beneath rusty with dots  
 2966 Leaves ovate glandular-crenate smooth, Flowers axillary in pairs  
 2967 Leaves 3-cornered mucronate smooth below dotted in two rows, Segments of calyx smooth  
 2968 Leaves ovate carinate ciliated imbricated 4 ways, Flowers terminal solitary

2969 Leaves oblong acute, Peduncles equal, Stamens the length of corolla

- 2970 Leaves obovate obtuse smooth coriaceous, Capsules 2-valved  
 2971 Leaves obovate blunt shining netted beneath, Panicle globose terminal  
 2972 Leaves obovate obtuse smooth coriaceous, Capsules 3-valved  
 2973 Leaves oval lanceolate narrowed at each end and stalks smooth, Peduncles of the branches terminal  
 2974 Leaves elliptical obtuse pubescent beneath revolute at the edge  
 2975 Leaves elliptical acuminate smooth, Leafstalks rusty with down

2976 Sepals smooth inside  
 2977 Sepals hoary on both sides

- 2978 Leaves linear elliptical entire, Stipules leafy, Petals 5, Stamens 5  
 2979 Petals 5, Stamens 10  
 2980 Leaves 3-lobed beneath hispid downy, Petals 0

2981 Leaves ovate lanceolate coarsely toothed

- 2982 Leaves lanceolate toothed hastate at base, Rachis stem and leafstalks angular prickly  
 2983 Leaves elliptical entire emarginate, Prickles stipulary, Branches wavy smooth

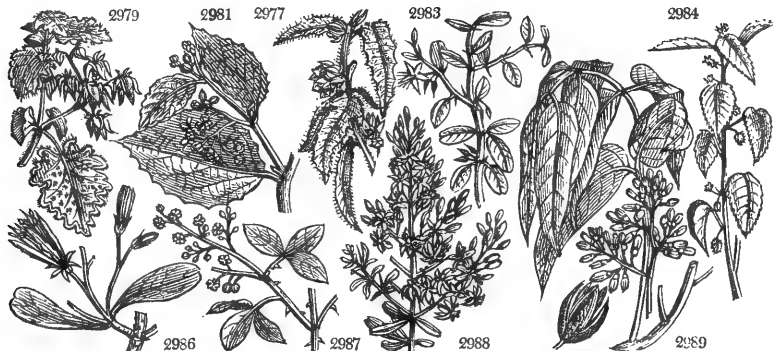
2984 Leaves cordate smooth  
 2985 Leaves ovate entire smooth, Ovary stalked, Nectary 10 cleft rayed

2986 Leaves ovate obtuse entire with parallel veins, Flowers terminal panicle

2987 Stem branches and leaves prickly, Leaflets ovate lanceolate subserrated

2988 Stem spiny, Leaves emarginate, Flowers racemose

2989 Cal. and cor. naked  
 2990 Cal. and cor. fringed



and Miscellaneous Particulars.

in 1750, a catalogue of the plants in the garden of an amateur named Cunon. Ripened cuttings planted in sand under a hand-glass will root freely.

527. *Ayenia*. In honor of the Duke D'Ayen, of the house of Noailles. He was a great patron of botany. Cuttings root freely in sand in a moist heat.

528. *Catodendrum*. From *κατος*, fine, and *δενδρον*, a tree. Fine indeed, with its beautiful foliage and splendid flowers. This is a Cape genus, and is generally supposed to be one of the finest trees known there; its fruit bears great resemblance to a chestnut, but seldom arrives here perfect. It grows freely in an equal mixture of loam and peat; and ripened cuttings root readily in pots of sand under a hand-glass. (*Bot. Cult.* 159.)

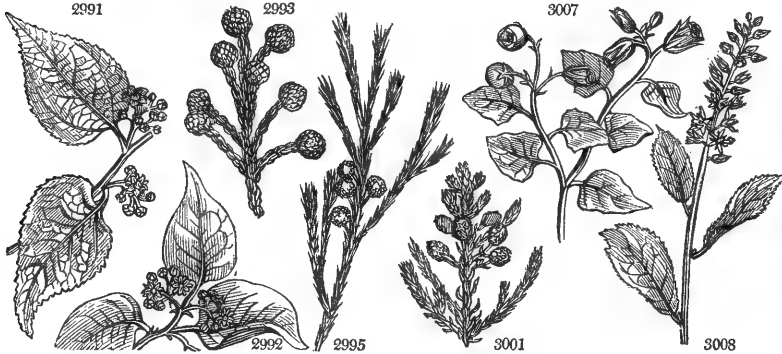
529. *Toddalia*. Kaka Toddali is the Malabar name of the shrub. Cuttings root readily in sand under a bell-glass.

530. *Bursarja*. From *bursa*, a pouch; the capsules resemble those of *Thlaspi Bursa Pastoris* so much, that Labillardiere fancied he had found a cruciferous tree when he discovered the plant in New Holland. "This is a pretty plant. It is very desirable for a greenhouse or conservatory, being an abundant flowerer, and very showy when covered all over with its elegant little white flowers; an equal mixture of sandy loam and peat is the best soil for it; and young cuttings are not difficult to root in sand under a bell-glass." (*Bot. Cult.* 155.)

531. *Cedrela*. From *cedrus*, the cedar-tree. The wood of plants of this genus is one of the kinds of cedar of commerce. All that comes from New Holland in the form of packing cases, is supposed to be the wood of a spe-



|                               |                   |   |    |                             |    |       |     |                |                                |
|-------------------------------|-------------------|---|----|-----------------------------|----|-------|-----|----------------|--------------------------------|
| <b>532. HOVENIA. Th.</b>      | <b>HOVENIA.</b>   |   |    | <i>Rhamnii. Sp. 2.</i>      |    |       |     |                |                                |
| §901 <i>dúlcis Don.</i>       | sweet             | ♀ | □  | fr                          | 8  | jl.au | W   | Japan          | 1812. C p.l                    |
| §902 <i>acerba Lindl.</i>     | sour              | ♀ | □  | or                          | 8  | jl.au | W   | Nepal          | ... C p.l                      |
| <b>*533. BRUNIA. W.</b>       | <b>BRUNIA.</b>    |   |    | <i>Rhamnii. Sp. 14-24.</i>  |    |       |     |                |                                |
| §993 <i>nodiflora W.</i>      | imbricated        | ♂ | □  | or                          | 6  | jl.au | W   | C. G. H. 1786. | C p.l Bre. cent. 22. t. 10     |
| §994 <i>palaeca W.</i>        | chafly            | ♂ | □  | or                          | 2  | jn.au | W   | C. G. H. 1791. | C p.l Wendl. coll. t. 21       |
| §995 <i>lanuginosa W.</i>     | woolly            | ♂ | □  | or                          | 3  | jn.au | W   | C. G. H. 1774. | C p.l Bot. cab. 572            |
| §996 <i>verticillata W.</i>   | worled            | ♂ | □  | or                          | 3  | jn.au | W   | C. G. H. 1794. | C p.l                          |
| §997 <i>deusta Th.</i>        | black-tipped      | ♂ | □  | or                          | 1  | jn.au | W   | C. G. H. 1804. | C p.l                          |
| §998 <i>microphylla Th.</i>   | small-leaved      | ♂ | □  | or                          | 1  | jn.au | W   | C. G. H. 1804. | C p.l                          |
| §999 <i>láxa Th.</i>          | spiked            | ♂ | □  | or                          | 2  | jn.au | W   | C. G. H. 1805. | C p.l                          |
| §000 <i>alopucuroides Th.</i> | Fox-tail          | ♂ | □  | or                          | 1  | ...   | ... | C. G. H. 1816. | C p.l                          |
| §001 <i>abrotanoides W.</i>   | Thyme-leaved      | ♂ | □  | or                          | 1½ | my.jl | W   | C. G. H. 1787. | C p.l Bot. cab. 355            |
| §002 <i>superba Donn.</i>     | superb            | ♂ | □  | or                          | 4  | my.jl | W   | C. G. H. 1791. | C p.l                          |
| §003 <i>fragarioides W.</i>   | Strawberry-like   | ♂ | □  | or                          | 1  | my.jl | W   | C. G. H. 1794. | C p.l                          |
| §004 <i>ciliata L.</i>        | ciliated          | ♂ | □  | or                          | 1  | my.jl | W   | C. G. H. 1812. | C p.l                          |
| §005 <i>ericoides Wendl.</i>  | heathy            | ♂ | □  | or                          | 3  | jl.au | W   | C. G. H. 1804. | C p.l Wend. coll. 2. t. 57     |
| §006 <i>phycoides Th.</i>     | Phylla-like       | ♂ | □  | or                          | 2  | jn.au | W   | C. G. H. 1805. | C p.l                          |
| <b>534. BROSSÉA. L.</b>       | <b>BROSSEA.</b>   |   |    | <i>Ericæ. Sp. 1.</i>        |    |       |     |                |                                |
| §607 <i>coccinea L.</i>       | scarlet           | ♂ | □  | or                          | 4  | ...   | S   | S. Amer.       | ... C lp Plum. ic. 64. f. 2    |
| <b>535. ITEA. L.</b>          | <b>ITEA.</b>      |   |    | <i>Ericæ. Sp. 1.</i>        |    |       |     |                |                                |
| §008 <i>virginica W.</i>      | Virginian         | ♂ | or |                             | 6  | jn.au | W   | N. Amer.       | 1744. L sp Bot. mag. 2409      |
| <b>536. CYRIL/ÁA. L.</b>      | <b>CYRILLA.</b>   |   |    | <i>Ericæ. Sp. 1.</i>        |    |       |     |                |                                |
| §009 <i>caroliniana Ph.</i>   | Carolina          | ♂ | □  | or                          | 6  | jn.au | W   | Carolina       | 1765. C lp Bot. mag. 2456      |
| <b>537. CLAYTONIA. W.</b>     | <b>CLAYTONIA.</b> |   |    | <i>Portulacæ. Sp. 6-11.</i> |    |       |     |                |                                |
| §010 <i>virginica Ph.</i>     | Virginian         | ♂ | △  | pr                          | ½  | mr.my | St. | N. Amer.       | 1748. D sp Bot. mag. 941       |
| §011 <i>caroliniana H. K.</i> | spatula-leaved    | ♂ | △  | pr                          | ½  | mr.my | Pk  | N. Amer.       | 1789. D sp Par. lond. 71       |
| §012 <i>lanceolata Ph.</i>    | spear-leaved      | ♂ | △  | pr                          | ½  | mr.my | W   | N. Amer.       | 1812. D p.l Pursh. am. 1. t. 3 |
| §013 <i>sibirica W.</i>       | Siberian          | ○ | □  | or                          | ½  | my.au | R   | Siberia        | 1768. S p.l Bot. mag. 2943     |
| §014 <i>alsinoides Ph.</i>    | Chickweed-like    | ○ | cu |                             | ½  | mr.jn | W   | Nootk. Sd.     | 1794. S p.l Bot. mag. 1309     |
| §015 <i>perfoliata Donn.</i>  | small-flowered    | ○ | cu |                             | ½  | my.au | W   | N. Amer.       | 1794. S s.p Bot. mag. 1336     |
| <b>*538. IMPATIENS. W.</b>    | <b>BALSAM.</b>    |   |    | <i>Balsaminæ. Sp. 4-16.</i> |    |       |     |                |                                |
| §016 <i>Balsamina W.</i>      | garden.           | □ | □  | or                          | 3  | il.o  | R   | E. Indies      | 1596. S r.m Blackw. t. 583     |
| §017 <i>coccinea H. K.</i>    | glandular-leav.   | ○ | □  | or                          | 2  | ins   | R   | E. Indies      | 1808. S r.m Bot. mag. 1256     |
| §018 <i>biflora Ph.</i>       | two-flowered      | ○ | □  | or                          | 2  | jns   | O   | N. Amer.       | ... S r.m Sweet fl. g. 43      |
| §019 <i>Nolitánere W.</i>     | Touch-me-not      | ○ | □  | or                          | 2  | jns   | Y   | England        | w.s.pl. S s.p Eng. bot. 937    |



History, Use, Propagation, Culture,

cies of Cedrela. This tree shoots out many side branches towards the top, which are furnished with winged leaves, composed of 16 or 18 pair of leaflets, so that they are sometimes near three feet long. The flowers are on a branching raceme, and the fruit a woody capsule about the size of a pigeon's egg. The bark, leaves, and fruit have, when fresh, a smell like assafoetida, but the timber has a pleasant smell. In the British West India islands the tree has the common name of cedar. The trunk is so large as to be hollowed out into canoes and periaguas, for which purpose it is extremely well adapted; the wood being soft, it may be cut out with great facility, and being light, it will carry a great weight on the water. There are canoes in the West Indies which have been formed out of these trunks forty feet long and six broad: the wood is of a brown color, and has a fragrant odor, whence the title of cedar has been given to it. It is frequently cut into shingles for covering houses, and is found very durable; but as the worms are apt to eat this wood, it is not proper for building ships, though it is often used for that purpose, as also for sheathing of ships. It is often used for wainscoting of rooms, and to make chests, because vermin do not so frequently breed in it, as in many other sorts of wood; this having a very bitter taste, which is communicated to whatever is put into the chests, especially when the wood is fresh: for which reason it is never made into casks, because spirituous liquors will dissolve part of the resin, and thereby acquire a very bitter taste. Cuttings of Cedrela strike root under a hand-glass in sand.

532. *Hovenia*. Named after David Hoven, a Dutch commissary in Japan, who gave facilities and encouragement to Thunberg while in that country. A small tree, nearly hardy. Its fruit is eaten in China and Japan, and is said to resemble a Bergamot pear in taste.

533. *Brunia*. So named after Cornelius Brun, a traveller into the Levant and Russia at the end of the last and beginning of the present century. This, Sweet observes, "is a pretty Cape genus; its species are pretty bushy shrubs, with heath-like leaves, and are handsomest while young. The flowers are not so showy as in many other genera, but some of them are very elegant. A sandy peat soil suits them best, with a moderate supply of water; and young cuttings planted in sand under a bell-glass will strike root freely." (*Bot. Cult.* 153.)

534. *Brossæa*. Gui de la Brosse was physician to Louis XIII, and in 1626 procured the establishment at Paris of the Jardin des Plantes, of which he was the first director. A very doubtful plant. It is said to be a shrub like a *Cistus*, with scarlet flowers half an inch long.

535. *Itea*. From *itea*, the Greek name of the willow. The name *Salix* having been given to the modern willow, that of *Itea* has been applied to a plant resembling the willow in leaves and place of growth. This is a handsome plant which thrives well either in peat-soil or sandy loam, and is increased by layers.

2991 Fruit sweet fleshy, Leaves glabrous a little shining  
 2992 Fruit austere, Leaves downy quite opaque

2993 Leaves 3-cornered incurved acute, Flowers terminal on the lateral branches  
 2994 Leaves 3-cornered brown at end, Chaff of the heads exerted colored  
 2995 Leaves half round erect-spreading withered at end at the base and branches hairy, Heads round lateral  
 2996 Leaves 3-cornered obtuse smooth, Heads terminal, Branches whorled clustered  
 2997 Leaves 3-cornered black at the end smooth, Heads terminal  
 2998 Leaves ovate 3-cornered fleshy smooth, Heads terminal, Branches divaricating  
 2999 Leaves 3-cornered and spiked, Flowers smooth  
 3000 Leaves 3-cornered acute smooth, Heads lateral globose smooth  
 3001 Leaves linear-lanceolate reflexed spreading : their edge fringed at base, Heads terminal corymbose  
 3002 Leaves half rounded spreading incurved hairy at the end with a withered beard  
 3003 Leaves 3-cornered appressed ciliated at edge  
 3004 Leaves ovate acuminate ciliated. A very doubtful species  
 3005 Leaves half acute 3-cornered at the end spreading fuscous and callous, Heads round at end of branches  
 3006 Leaves ovate convex imbricated, Heads terminal hairy

3007 A little shrub like a Cistus, with ovate stalked alternate pale-green leaves

3008 Leaves ovate acute serrated, Spikes pubescent

3009 Leaves wedge-lanceolate acute membranous nerved, Spikes slender

3010 Leaves very long linear, Petals entire  
 3011 Leaves short oval abruptly narrowed into the stalk  
 3012 Leaves lanceolate, Raceme solitary elongated, Root tuberous  
 3013 Leaves nerved : radical and cauline ovate, Raceme 1-sided, Petals bifid  
 3014 Radical leaves spatulate ovate : cauline ovate distinct, Root fibrous  
 3015 Radical leaves spatulate rhomb-shaped : cauline perfoliate

3016 Flower-stalks clustered, Leaves lanceolate : the upper alternate, Spur shorter than flower  
 3017 Leaves alternate oblong oval serrated, Leafstalks with many glands, Spur incurved as long as flower  
 3018 Flower-stalks generally 2-flowered, Leaves ovate serrated, Flowers orange-brown spotted inside  
 3019 Flower-stalks clustered, Leaves ovate, Points of stem tumid



and Miscellaneous Particulars.

536. *Cyrilla*. In honor of Dominico Cyrilli, professor of medicine at Naples, and a fellow of the Royal Society of London. He published, in 1783, a work upon the rare plants of Naples, which is now one of the rarest of botanical works. This is a pretty shrub. Young cuttings will root under a bell-glass in sand, but not very freely.

537. *Claytonia*. In memory of Mr. John Clayton, who collected plants chiefly in Virginia, and sent them to Gronovius, who published them in his *Flora Virginica*. *C. perfoliata* is very hardy, and is not easily eradicated where once introduced. It grows on the poorest soil, vegetates early, and the whole of the herbage gathered and boiled makes a very tender spinach.

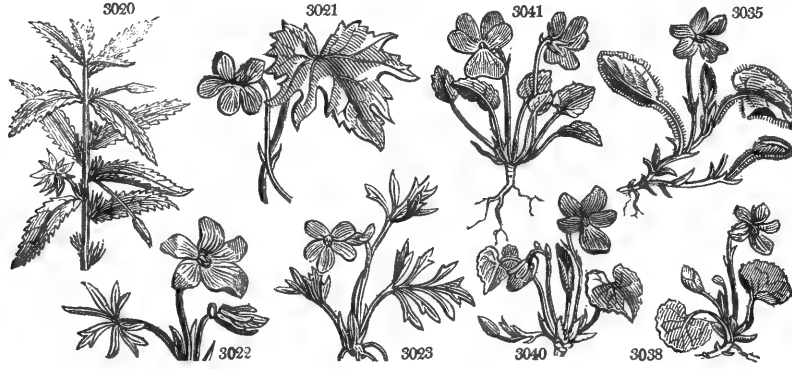
538. *Impatiens*. A metaphorical name given to these plants on account of the elastic force with which their capsules burst, and scatter their seeds upon the slightest touch. *I. Balsamina* is one of the most beautiful of popular annuals, forming a shewy cone of finely variegated carnation-like flowers. The prevailing colors of the petals are red and white, the former extending to every shade of orange, purple, scarlet, lilac, pink, and especially carnation or flesh color. Those are esteemed the most beautiful varieties which have the flowers double, and striped in the manner of a flake or bizarre carnation : but none of the varieties are permanent or can be continued by seeds, and the plant does not root readily by cuttings. The way to procure very large plants is to sow early in the season, as in March, to commence transplanting into 3-inch pots as soon as the plants have two proper leaves, and to shift every week or ten days into pots a size larger every time, till at last they are in pots of the largest or of a very large size, and in the richest light mould. The plants should be kept all the time in a hot-bed or pit, plunged, and with abundance of room and air, and the heat of the melon or pine. Fairweather, by transplanting only three or four times from No. 48. pots to those of eight inches diameter raised, produced balsams "four feet high, and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these covered with large double flowers." (*Hort. Trans.* iii. 406.)

The juice of the balsam, prepared with alum, is used by the Japanese to dye their nails red. (*Thunberg*.)

*I. Nolitangere*, *Ne me touches pas*, Fr., *Springsame*, Ger., and *Erba Impatiens*, Ital., is the only species found wild in Europe. When the seeds are ripe, upon touching the capsules, they are thrown out with considerable force : hence the names *Impatiens* and *Nolitangere*. In the day-time the leaves are expanded, but at night they hang pendent, contrary to what is observed in plants, which from a deficiency of moisture, or a too great perspiration from heat, commonly droop their leaves during the day. Only the goat is said to eat this plant.

*I. biflora*, the American *Noll-me-tangere*, resembles this plant, but is handsomer.

| 539. SAUVAGESIA. Jacq. SAUVAGESIA. |                 | Violacea. Sp. 1—6. |    | Sp. 50—120. |       | S. Amer. 1830. |             | S. co    |   | Jacq.am. t.51. f.3 |                       |
|------------------------------------|-----------------|--------------------|----|-------------|-------|----------------|-------------|----------|---|--------------------|-----------------------|
| 3020 <i>erecta</i> L.              | erect           | □                  | cu | 1           | ny.jn | Pk             |             |          |   |                    |                       |
| †*540. <i>VIOLA</i> W.             | VIOLET.         |                    |    |             |       |                |             |          |   |                    |                       |
| 3021 <i>palmata</i> W.             | palmated        | Δ                  | or | ½           | my.jn | Pu             | N. Amer.    | 1752.    | D | p.l                | Bot. mag. 535         |
| 3022 <i>pedata</i> W.              | cut-leaved      | Δ                  | or | ½           | my.jn | B              | N. Amer.    | 1759.    | D | p.l                | Bot. mag. 89          |
| 3023 <i>pinnata</i> W.             | wing-leaved     | Δ                  | or | ½           | my.jn | V              | S. Europe   | 1752.    | D | p.l                | Gm.sib.4. t.49. f.4   |
| 3024 <i>sagittata</i> W.           | arrow-leaved    | Δ                  | or | ½           | jl    | W.B            | N. Amer.    | 1775.    | D | p.l                | Bot. cab. 1471        |
| 3025 <i>lanceolata</i> W.          | spear-leaved    | Δ                  | or | ½           | jn.jl | W              | N. Amer.    | 1759.    | D | p.l                | Gm.sib.4. t.49. f.2   |
| 3026 <i>obliqua</i> W.             | oblique-flower. | Δ                  | or | ½           | my.jl | Y.B            | N. Amer.    | 1762.    | D | p.l                |                       |
| 3027 <i> cucullata</i> W.          | hollow-leaved   | Δ                  | or | ½           | my.jl | B              | N. Amer.    | 1772.    | D | p.l                | Bot. mag. 1795        |
| 3028 <i>sororia</i> Ph.            | white-rooted    | Δ                  | or | ½           | ap.jn | B              | N. Amer.    | 1802.    | D | p.l                | Will.hort.ber.72      |
| 3029 <i>papilionacea</i> Ph.       | variegated      | Δ                  | or | ½           | my.jn | B              | N. Amer.    | 1800.    | D | p.l                |                       |
| 3030 <i>ambigua</i> W. K.          | doubtful        | Δ                  | or | ½           | ap.my | P.V            | Hungary     | 1823.    | D | co                 | W.K.hung.t.190        |
| 3031 <i>uliginosa</i> Schr.        | swamp           | Δ                  | or | ½           | ap.my | Pu             | Carinthia   | 1823.    | D | co                 |                       |
| 3032 <i>clandestina</i> Ph.        | small-flowered  | Δ                  | or | ½           | my    | Br             | Pensylv.    | 1800.    | D | p.l                |                       |
| 3033 <i>blanda</i> Ph.             | white-flowered  | Δ                  | or | ½           | my.jl | W              | N. Amer.    | 1802.    | D | p.l                | Will.hort.ber.24      |
| 3034 <i>primulifolia</i> Ph.       | Primrose-leav.  | Δ                  | or | ½           | ap.jn | P.B            | N. Amer.    | 1783.    | D | p.l                |                       |
| 3035 <i>hirta</i> W.               | hairy           | Δ                  | or | ½           | ap.my | B              | England     | ch. so.  | D | p.l                | Eng. bot. 894         |
| 3036 <i>collina</i> Bess.          | hill            | Δ                  | or | ½           | mr.my | B              | Poland      | 1822.    | D | co                 |                       |
| 3037 <i>campestris</i> Bieb.       | field           | Δ                  | or | ½           | ap.my | Pu             | Tauria      | 1824.    | D | co                 |                       |
| 3038 <i>palustris</i> Sm.          | marsh           | Δ                  | or | ½           | my.jn | B              | Britain     | mos.b.   | D | p.l                | Eng. bot. 444         |
| 3039 <i>Schmidtiana</i> Sch.       | Austrian        | Δ                  | or | ½           | my.jn | B              | Austria     | 1821.    | D | co                 |                       |
| 3040 <i>odorata</i> W.             | sweet           | Δ                  | or | ½           | my.jn | B              | Britain     | sha. pl. | D | p.l                | Eng. bot. 619         |
| <i>α purpurea</i>                  | purple-flowered | Δ                  | or | ½           | mr.my | Pu             | Britain     | gard.    | D | p.l                |                       |
| <i>β alba</i>                      | white-flowered  | Δ                  | or | ½           | mr.my | W              | Britain     | gard.    | D | p.l                |                       |
| <i>γ caerulea</i>                  | blue-flowered   | Δ                  | or | ½           | mr.my | B              | Britain     | gard.    | D | p.l                |                       |
| <i>δ purpurea plena</i>            | double-purple   | Δ                  | or | ½           | mr.my | Pu             | Britain     | gard.    | D | p.l                |                       |
| <i>ε alba plena</i>                | double-white    | Δ                  | or | ½           | mr.my | W              | Britain     | gard.    | D | p.l                |                       |
| <i>ζ caerulea plena</i>            | double-blue     | Δ                  | or | ½           | mr.my | B              | Britain     | gard.    | D | p.l                |                       |
| <i>η pallida plena</i>             | Neapolitan      | Δ                  | or | ½           | mr.my | Pa.B           | Britain     | gard.    | D | p.l                |                       |
| 3041 <i>alpina</i> Jacq.           | Alpine          | Δ                  | or | ½           | my.jn | D.Pu           | Austria     | 1823.    | D | co                 | Jac. aust. t. 242     |
| 3042 <i>canina</i> W.              | dog's           | Δ                  | w  | ½           | ap.jn | B              | Britain     | hea.     | D | p.l                | Eng. bot. 620         |
| 3043 <i>sylvestris</i> Kit.        | wood            | Δ                  | or | ½           | my.jn | B              | Hungary     | 1820.    | D | co                 |                       |
| 3044 <i>neglecta</i> Schm          | neglected       | Δ                  | or | ½           | my.jn | P.B            | Crimea      | 1821.    | D | co                 |                       |
| 3045 <i>glauca</i> Bieb.           | glaucous        | Δ                  | or | ½           | my.jn | P.B            | Poland      | 1822.    | D | co                 |                       |
| 3046 <i>lactea</i> E. B.           | cream-colored   | Δ                  | or | ½           | my    | Cr             | England     | moi.h.   | D | p.l                | Eng. bot. 445         |
| 3047 <i>mortana</i> W.             | mountain        | Δ                  | or | 1           | my.jn | L.B            | Al. of Eur. | 1683.    | D | p.l                | Bot. mag. 1595        |
| 3048 <i>Nuttallii</i> Ph.          | Nuttall's       | Δ                  | or | ½           | my.jn | B              | Missouri    | 1812.    | D | co                 |                       |
| 3049 <i>débilis</i> Mich.          | weak            | Δ                  | or | ½           | ap.my | W              | N. Amer.    | 1820.    | D | co                 | Bot. cab. 1378        |
| 3050 <i>valéria</i> W. en.         | fringed-leaved  | Δ                  | or | ½           | my.jn | P              | Mt. Cenis   | 1805.    | D | p.l                | Al. p. 2. t. 24. f.3  |
| 3051 <i>cenisia</i> W.             | Alpine          | Δ                  | or | ½           | jn.jl | B              | Mt. Cenis   | 1759.    | D | p.l                | Al. p. 2. t. 22. f. 6 |
| 3052 <i>canadensis</i> W.          | Canadian        | Δ                  | or | ½           | my.jn | L.B            | N. Amer.    | 1783.    | D | p.l                |                       |
| 3053 <i>striata</i> W.             | streaked        | Δ                  | or | ½           | jn.jl | St             | N. Amer.    | 1772.    | D | p.l                |                       |
| 3054 <i>pubescens</i> W.           | downy           | Δ                  | or | ½           | jn.jl | B              | N. Amer.    | 1772.    | D | p.l                | Bot. reg. 390         |
| 3055 <i>cóncora</i> L. T.          | green-flowered  | Δ                  | or | 1           | jn.jl | G              | N. Amer.    | 1788.    | D | co                 | Linn. tr. 6. t. 28    |
| 3056 <i>mirabilis</i> W.           | broad-leaved    | Δ                  | or | ½           | jn.au | L.B            | Germany     | 1792.    | D | p.l                | Flor. dan. 1045       |
| 3057 <i>biiflora</i> W.            | two-flowered    | Δ                  | or | ½           | ap.my | Y              | Al. of Eur. | 1752.    | D | p.l                | Bot. mag. 9069        |
| 3058 <i>uniflora</i> W.            | Siberian        | Δ                  | or | ½           | jn.jl | Y              | Siberia     | 1774.    | D | co                 | Gm. si.4. t. 48. f.5  |
| 3059 <i>arborescens</i> W.         | shrubby         | Δ                  | or | 1½          | ap.my | P.B            | Spain       | 1779.    | L | r.m                | Barr. ic. 568         |
| 3060 <i>tricolor</i> L.            | Heart's-ease    | ○                  | or | ½           | aps   | Y.Pu           | Britain     | co. fi.  | S | co                 | Eng. bot. 1287        |
| 3061 <i>banatica</i> Kit.          | Banatian        | ○                  | or | ½           | aps   | Y.Pu           | Germany     | 1820.    | S | co                 |                       |
| 3062 <i>arvensis</i> Murr.         | corn            | ○                  | or | ½           | aps   | Y              | Britain     | ...      | S | co                 |                       |
| 3063 <i>altáica</i> Pall.          | Tartarian       | Δ                  | or | ½           | mr.jn | P.Y            | Siberia     | 1805.    | D | co                 | Bot. reg. 54          |
| 3064 <i>rothomagensis</i> P. S.    | Rouen           | Δ                  | or | ½           | my.au | B              | France      | 1783.    | D | co                 | Bot. mag. 1498        |
| 3065 <i>sudética</i> W. en.        | tooth-flowered  | Δ                  | or | ½           | my.au | Y              | Germany     | 1805.    | D | co                 |                       |
| 3066 <i>lútea</i> E. B.            | yellow-flowered | Δ                  | or | ½           | my.au | Y              | Britain     | m.pas.   | D | p.l                | Eng. bot. 721         |
| 3067 <i>grandiflora</i> L.         | great-flowered  | Δ                  | or | ½           | my.au | D.B            | Switzerl.   | ...      | D | p.l                | Ha. hel. 566. t.17    |
| 3068 <i>Zóysi</i> W.               | crenated        | Δ                  | or | ½           | jl.s  | Y              | Carinthia   | ...      | D | co                 | Jac. co. 4. t.11. f.1 |



History, Use, Propagation, Culture,

539. *Sauvagesia*. In honor of Jacques Boissier de Sauvages, a French botanist, who died in 1767. He published a *Flora of Montpellier*, and other works. A genus of small herbaceous plants, more singular than beautiful.

540. *Viola*. The ancients feigned that violets were the first food of the cow *Io*, one of Jupiter's mistresses. This is an extensive genus of low herbs, mostly with violet and white flowers, and well adapted for the flower-border, rock-work, or for growing in pots. *V. odorata* is a favorite flower, on account of its fragrance and early appearance. It is a native of every part of Europe, in woods, amongst bushes, in hedges, and on warm banks.

3020 Stem simple, Leaves narrow lanceolate, Stipules very long

§ 1. *Stemless, Stipules membranous.*

3021 Pubescent, Leaves palmated 5-lobed toothed and undivided

3022 Leaves pedate 7-parted

3023 Leaves many-cleft, Segments lobed

3024 Leaves obl. acute cord. sagittate serr. cut at base, Flowers inverted, Three lower petals bearded at base

3025 Smooth, Leaves shining lanceolate obsoletely toothed or crenulate, Flowers whitish [middle

3026 Smth. Lvs. cord. ac. cren. serr. flattish, Fls. erect, Pet. obliquely turned : lateral lower bearded below the

3027 Smooth, Leaves cordate serrate smooth hooded at base, Petals obliquely turned : lateral bearded

3028 Leaves cordate crenated pubesc. beneath, Lower petal bearded at base, Flower-stalks shorter than leaves

3029 Lvs. triang. cord. ac. cren. somewhat hood. Pet. obov. : 3 low. beard. below mid. conniv. : 2 upper reflexed

3030 Leaves oblong cordate obtuse crenate naked at the base with unequal inflexed hooded lobes

3031 Stemless, Leaves cordate smooth, Peduncles bracted above the middle

3032 Smoothish, Lvs. roundish obt. at base cord. cren. serrate, Runners flowering, Pet. lin. not longer than cal.

3033 Leaves cordate obtuse acutish flat smooth, Petals not bearded, Flower-stalks as long as leaves

3034 Leaves oblong subcordate, Stalks membranous

3035 Leaves cordate and stalks hispid with hairs, Cal. obtuse

3036 Subhirsute, Runners none, Leaves cordate, Calyxes obtuse, Flowers sweet-scented

3037 Leaves cordate vertilinear at base pubescent, Runners none

3038 Leaves reniform smooth, Root creeping, Calyx obtuse

3039 Leaves cordate acuminate subcordate smooth, Bractes close under the flower, Lower petal truncate

3040 Creeping runners and stalks smoothish, Cal. obtuse

3041 Nearly stemless, Leaves roundish elliptical crenate stalked, Stipules lin. serrated, Spur as long as calyx

§ 2. *Caulcescent, Stipules membranous.*

3042 Old stem ascending, Leaves oblong cordate obt. dotted, Stipules setaceous toothed, Cal. lanceolate acute

3043 Stem square erect, Radical leaves cordate reniform, Flower-stalks longer than the leaves

3044 Stem erect angular, Lvs. cord. toothed crenat. smooth, Stip. tooth. on one side, Bract. above midd. of stalk

3045 Stem spread, compressed, Lower lvs. cord. ovate : upper ovate-lanceol. crenul. Stip. toothed on each side

3046 Stem ascending rounded, Leaves ovate lanceolate, Stipules cut serrated

3047 Stem erect, Leaves cordate oblong, Stipules toothed on one side, Anthers free

3048 Pubescent, Stem simple erect, Leaves ovate obl. acute, Petals lanc. entire, Flower-stalks length of leaves

3049 Caulcescent weak, Stipules membranous lanceolate slightly torn, Leaves shortly cordate toothed

3050 Stems erect and procumbent, Leaves oblong entire sinuated ciliated hispid, Stipules undiv. Calyxes acute

3051 Stems filiform undiv. procumb. Leaves ovate stalked : their edge at the base ciliated, Stipules undivided

3052 Smoothish, Leaves subcordate acuminate serrated, Flower-stalks length of leaves, Stipules short entire

3053 Leaves cordate acuminate serrated flattish, Stipules lanceolate serrated ciliated

3054 Villous pubescent, Stem erect leafy at top, Leaves broad cordate, Stipules oblong serrated at end

3055 Erect, Leaves broad lanceolate, Stipules linear lanc. entire, Flower-stalks axillary in pairs very short

3056 Stem erect and leaf-stks. 3-corner. Rad. fl. with cor. but sterile : caul. apt. fertile, Lvs. reniform cord. cren.

3057 Stem weak about 2-flowered, Leaves reniform serrate, Calyxes acute, Stipules entire

3058 Stem 1-flowered, Leaves cordate toothed

3059 Leaves linear lanc. toothed, Stipules linear entire, Spur very obtuse much shorter than calyx

§ 3. *Stipules pinnatifid, Stigma cup-shaped.*

3060 Stem ang. diffuse, Leaves oblong toothed crenate, Stipules lyrate pinnat. Cor. twice as long as smooth cal.

3061 Stem ang. dec. diffuse, Lower lvs. cord. upper ovate obl. toothed cren. Cor. scarcely longer than smooth cal.

3062 Stem angular decumb. diffuse, Leaves ovate oblong toothed crenate, Cor. scarcely longer than hairy cal.

3063 Caulces. smooth, Leaves thickish ovate and oval cren. Flowers inverted wavy, Petals rounded broad renif.

3064 Stem angular diffuse and leaves oblong serrated hairy, Stipules lyrate pinnatifid, Cor. twice as long as cal.

3065 Stem 3-cornered simple, Lvs. obl. toothed, Stipules palm. many-cleft, Petals crenate, Spur as long as cal.

3066 Stem 3-cornered simple, Leaves ovate oblong crenated ciliated, Stipules palmate cut

3067 Stem 3-cornered simple, Leaves oblong, Stipules pinnatifid

3068 Stem very short erect, Leaves roundish crenate, Stipules entire, Flower-stalks 3-cornered

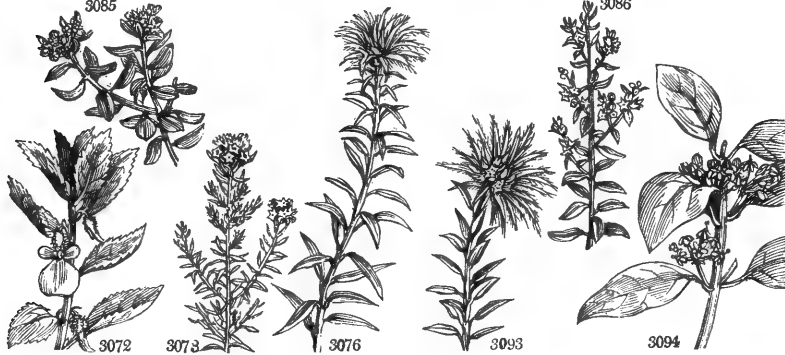


and Miscellaneous *Laticulars.*

Desfontaines says it is frequent about Cassa and Tozzer, in Barbary, in the palm groves; the blue and white growing promiscuously and flowering in winter. Hasselquist found it in Palestine, Thunberg in Japan, and Loureiro in China, near Canton. The double purple and the Neapolitan are the most esteemed varieties: the latter forces well, and where there is a stove or warm pit, may be had from Christmas to April, when others are in flower in the open air.

In medicine, the flowers of violets act as a laxative, and the syrup is used by chemists to detect an acid or an alkali: for this purpose the *V. odorata* is cultivated to some extent at Stratford upon Avon. (*Withering.*)

|                           |                   |          |    |       |      |                        |           |   |     |                       |
|---------------------------|-------------------|----------|----|-------|------|------------------------|-----------|---|-----|-----------------------|
| 3069 calcarata W.         | spurred           | ♂ Δ or   | ♂  | mr.jn | L.B  | Switzerl.              | 1752.     | D | p.l |                       |
| 3070 cornuta W.           | horned            | ♂ Δ or   | ♂  | tn.jn | B    | Pyrenees               | 1776.     | D | p.l | Bot. mag. 791         |
| †*541. IONIDIUM. Vent.    | IONIDIUM.         |          |    |       |      | <i>Violaceae.</i>      | Sp. 2—30. |   |     |                       |
| 3071 polygalifolium V.    | whorl-leaved      | ♂ □ or   | 1  | ap.au | G.Y  | S. Amer.               | 1797.     | C | l.p | Vent. malm. 27        |
| §3072 Ipeacacuanha Vent.  | New Ipeacac       | ♂ □ m    | 1½ | jl    | W    | S. Amer.               | 1822.     | C | l.p | Bot. mag. 2453        |
| *542. PHYLLICA. W.        | PHYLLICA.         |          |    |       |      | <i>Rhamni.</i>         | Sp. 21—   |   |     |                       |
| 3073 ericoides W.         | Heath-leaved      | ♂ □ or   | 3  | ap.s  | W    | C. G. H.               | 1731.     | C | p.l | Bot. mag. 224         |
| 3074 parviflora W.        | small-flowered    | ♂ □ or   | 2  | ap.jl | W    | C. G. H.               | 1790.     | C | p.l |                       |
| 3075 lanceolata W.        | lance-leaved      | ♂ □ or   | 3  | ap.my | W    | C. G. H.               | 1790.     | C | p.l |                       |
| 3076 capitata W. en.      | headed            | ♂ □ or   | 1  | my.au | W    | C. G. H.               | 1800.     | C | p.l | Bot. reg. 711         |
| 3077 pubescens W.         | downy             | ♂ □ or   | 2  | f.ap  | W    | C. G. H.               | 1774.     | C | p.l | Bot. cab. 695         |
| 3078 eriophora W.         | pale-flowered     | ♂ □ or   | 3  | n     | W    | C. G. H.               | 1774.     | C | p.l | Pl. am. t. 445. f. 1  |
| 3079 rosmarinifolia P. S. | Rosemary-lvd.     | ♂ □ or   | 3  | ...   | W    | C. G. H.               | 1815.     | C | p.l | Bot. cab. 849         |
| §3080 axillaris P. S.     | axillary-flower.  | ♂ □ or   | 2  | my.jn | W    | C. G. H.               | 1812.     | C | p.l |                       |
| 3081 plumosa W.           | feathered         | ♂ □ or   | 2  | mr.my | W    | C. G. H.               | 1752.     | C | p.l | Bot. cab. 253         |
| 3082 villosa W.           | villous           | ♂ □ or   | 2  | my    | W    | C. G. H.               | 1790.     | C | p.l |                       |
| 3083 stipularis W.        | horned            | ♂ □ or   | 3  | my.s  | W    | C. G. H.               | 1786.     | C | p.l | Bur. afr. t. 43. f. 2 |
| §3084 cordata W.          | heart-leaved      | ♂ □ or   | 2  | my.jn | P.Y  | C. G. H.               | 1789.     | C | p.l | Com. rar. 62. t. 12   |
| §3085 buxifolia W.        | Box-leaved        | ♂ □ or   | 2  | my.s  | W    | C. G. H.               | 1759.     | C | p.l | Bot. cab. 848         |
| 3086 spicata L.           | spiked            | ♂ □ or   | 2  | n.d   | W    | C. G. H.               | 1774.     | C | p.l | Bot. mag. 2704        |
| §3087 myrtifolia P. S.    | Myrtle-leaved     | ♂ □ or   | 3  | ...   | D.Y  | C. G. H.               | 1816.     | C | p.l |                       |
| 3088 callosa W.           | callos-leaved     | ♂ □ or   | 1  | mr.ap | W    | C. G. H.               | 1774.     | C | p.l |                       |
| 3089 imbricata W.         | imbricated        | ♂ □ or   | 1  | aun   | W    | C. G. H.               | 1801.     | C | p.l |                       |
| 3090 cylindrica W. en.    | cylindrical       | ♂ □ or   | 2  | ap.au | W    | C. G. H.               | ...       | C | p.l | Wendl. coll. t.       |
| 3091 racemosa W.          | cluster-flower.   | ♂ □ or   | 5  | my.s  | W    | C. G. H.               | 1790.     | C | p.l |                       |
| 3092 piniifolia W.        | Pine-leaved       | ♂ □ or   | 6  | my    | W    | C. G. H.               | 1789.     | C | p.l |                       |
| 3093 squarrosa W.         | squarrose         | ♂ □ or   | 2  | aun   | W    | C. G. H.               | 1800.     | C | p.l | Bot. cab. 36          |
| 543. PLECTRONIA. W.       | PLECTRONIA.       |          |    |       |      | <i>Rhamni.</i>         | Sp. 1—2.  |   |     |                       |
| 3094 corymbosa P. S.      | corymbed          | ♂ □ or   | 20 | ...   | W.G  | C. G. H.               | 1816.     | C | p.l | Burm. afr. t. 94      |
| 544. CONOCARPUS. W.       | BUTTON-TREE.      |          |    |       |      | <i>Combretaceae.</i>   | Sp. 2—4.  |   |     |                       |
| 3095 erecta W.            | upright           | ♂ □ tm   | 30 | ...   | Pa.Y | Jamaica                | 1752.     | C | p.l | Cat. car. 2. t. 33    |
| 3096 procumbens W.        | procumbent        | ♂ □ or   | 6  | ...   | Pa.Y | Cuba                   | 1730.     | C | p.l | Jac. am. t. 52. f. 2  |
| 545. CYPHIA. W.           | CYPHIA.           |          |    |       |      | <i>Campanulaceae.</i>  | Sp. 3—8.  |   |     |                       |
| 3097 volubilis W.         | twining           | ♂ □ or   | 1  | ...   | P.B  | C. G. H.               | 1795.     | D | l.p |                       |
| 3098 bulbosa W.           | bulbous           | ♂ □ or   | 1  | au.s  | P.B  | C. G. H.               | 1791.     | D | l.p | Bur. afr. t. 38. f. 1 |
| 3099 Phyteuma             | Rampion           | ♂ □ Δ or | 1  | f     | Pk   | C. G. H.               | 1822.     | D | l.p | Bot. reg. 625         |
| 546. LIGHTFOOTIA. L'Her.  | LIGHTFOOTIA.      |          |    |       |      | <i>Campanulaceae.</i>  | Sp. 2.    |   |     |                       |
| 3100 oxycoccoides W.      | lance-leaved      | ♂ □ or   | 1  | jl    | B.w  | C. G. H.               | 1787.     | C | s.l | Ex. bot. 2. t. 69     |
| 3101 subulata W.          | awl-leaved        | ♂ □ or   | 1  | au    | B    | C. G. H.               | 1787.     | D | s.l | L'He. s. an. 4. t. 5  |
| 547. JASIONE. W.          | SHEEP'S SCABIOUS. |          |    |       |      | <i>Campanulaceae.</i>  | Sp. 2—5.  |   |     |                       |
| 3102 montana W.           | mountain          | ♂ pr     | 1  | jn.jl | B    | Britain                | sa. pa.   | S | co  | Eng. bot. 882         |
| 3103 perennis W.          | perennial         | ♂ Δ pr   | 1  | jn.jl | B    | France                 | 1787.     | D | co  | Bot. mag. 2198        |
| 548. LAGECIA. W.          | CUMIN.            |          |    |       |      | <i>Umbelliferae.</i>   | Sp. 1.    |   |     |                       |
| 3104 cuminoidea W.        | wild              | ♂ cu     | 1  | jn.jl | G.r  | Levant                 | 1640.     | S | co  | Lam. ill. t. 142      |
| 549. HE'DERA. W.          | IVY.              |          |    |       |      | <i>Caprifoliaceae.</i> | Sp. 2—8.  |   |     |                       |
| 3105 Hélix W.             | common            | ♂ or     | 40 | o.n   | G    | Britain                | woods.    | L | co  | Eng. bot. 1267        |
| β poetica                 | poet's            | ♂ or     | 20 | o.n   | G    | .....                  | ...       | L | co  |                       |
| γ vegeta                  | Irish             | ♂ or     | 50 | o.n   | G    | Madeira                | ...       | L | co  |                       |
| δ arborea                 | tree              | ♂ or     | 8  | o.n   | G    | .....                  | ...       | L | co  |                       |
| ε chrysocarpa             | yellow-berried    | ♂ or     | 30 | o.n   | G    | Greece                 | 1815.     | L | co  |                       |
| 3106 capitata Swz.        | capitate          | ♂ □ or   | 12 | o.n   | G    | W. Indies              | 1823.     | C | p.l | Jac. am. t. 61        |



History, Use, Propagation, Culture.

V. hirta and canina bear a considerable resemblance to V. odorata; but the first may be distinguished by its hairy petioles, and the last by its flowers being inodorous.

V. arborensis is readily propagated by young cuttings planted under a hand-glass.

541. Ionidium. From *ion*, a violet, and *idos*, similar, on account of its resemblance to a violet, from which it is by some thought not to be generically distinct.

542. Phyllica; in Greek φιλικα, and should therefore be written *Philyca*. The plant of the ancients is not known. Some think it was the Holly. P. ericoides occupies large tracts of ground about Lisbon, in the same manner as heath occupies many lands in England. Young cuttings of all the species root readily in sand under a bell-glass.

543. Plectronia. From πλεκτρον, a spur. The tree is furnished with stiff spines like the spurs of a cock.

544. Conocarpus. From *conos*, a cone, and *καρος*, a fruit: its fruit resembles the cone of an alder. Tropical trees, with alternate entire leaves and small heads of yellowish flowers.

545. Cyphia. From *κυρος*, curved, on account of its curved stigma. Small Cape plants resembling Lobelia.

- 3069 Stem short, Spur subulate longer than petals, Leaves somewhat ovate, Stipules toothed  
 3070 Stem ascending 3-cornered, Leaves cordate crenate, Spur subulate longer than calyx, Upper petal acum.
- 3071 Stem ascending, Leaves opposite sessile and stipules lanceolate, Flowers nodding longer than leaves  
 3072 Leaves ovate obl. Pedunc. axillary solitary drooping, Lower lip very large emarginate
- 3073 Leaves linear lanceolate obtuse revolute at edge smooth, Branches umbelled, Heads round downy  
 3074 Leaves subulate acute rough somewhat hairy, Branches paniced many-flowered  
 3075 Leaves scattered linear lanceolate hoary beneath, Heads terminal hairy  
 3076 Leaves linear lanceolate villous, Bractes woolly, Heads terminal  
 3077 Leaves linear lanceolate acute spreading villous hoary beneath, Bractes colored villous very long  
 3078 Leaves linear hairy tomentose beneath revolute at edge, Heads terminal, Flowers downy  
 3079 Leaves linear flattish hoary beneath erect, Heads ovate downy  
 3080 Leaves linear lanceolate revolute at edge hoary beneath, Flowers axillary solitary racemose  
 3081 Leaves linear subulate very villous, Flowers terminal axillary, Cor. spreading  
 3082 Leaves linear upper villous, Flowers racemose  
 3083 Leaves linear revolute at edge rough hoary beneath, Stipules filiform colored, Bractes bifid naked  
 3084 Leaves cordate ovate spreading, Stem proliferous  
 3085 Leaves ovate scattered opposite and three together beneath netted veiny tomentose  
 3086 Leaves oblong cordate acuminate beneath hoary, Spikes cylindrical, Flowers length of bractes  
 3087 Leaves ovate mucronate smooth above and shining beneath hoary, Racemes leafy paniced  
 3088 Leaves oblong cordate acuminate hairy beneath white, Flowers in heads  
 3089 Leaves cordate ovate smooth, Flowers racemose  
 3090 Leaves linear lanc. revolute at edge villous hairy beneath, Flowers cylind. Bractes as long as flowers  
 3091 Leaves ovate smooth, Flowers simple paniced racemose  
 3092 Leaves acreose flat on each side very smooth, Flowers paniced racemose  
 3093 Leaves linear ciliated arcuate spreading, Head terminal

3094 Branches square, Leaves opposite stalked lanceolate ovate entire smooth

3095 Erect, Leaves lanceolate  
 3096 Procumbent, Leaves obovate

3097 Leaves entire and toothed linear, Stem twining  
 3098 Leaves digitate, Leaflets pinnatifid, Stem erect  
 3099 Leaves oblong crenated ciliated, Scape erect

3100 Leaves and petals lanceolate  
 3101 Leaves subulate, Petals linear

3102 Leaves linear lanceolate narrow at the base hispid wavy curled  
 3103 Leaves linear smoothish flat obtuse

3104 The only species

3105 Leaves ovate 3-5-angular and 3-5-lobed floral ovate acuminate veiny, Umbels erect

3106 Leaves elliptical entire, Racemes compound terminal, Flowers sessile in small heads



and Miscellaneous Particulars.

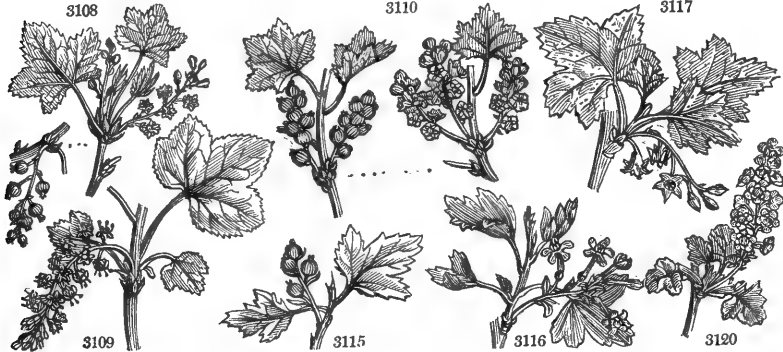
546. *Lightfootia*. Named after the Rev. John Lightfoot, an English clergyman, and author of the first *Flora Scotica*. The genus is very nearly related to *Campanula*, from which it is by some thought not different.

547. *Jasione*. A name applied by Pliny to an eatable plant. *J. montana* so resembles *Scabiosa*, as to be often mistaken for a plant of that genus. Linnaeus gives a curious account of the process of fecundation in this plant, from which may be observed its affinity to *Syngenesia*, where it was first placed.

548. *Lagotis*. From *λαγος*, a hare, and *οικος*, a residence. The little seeds enveloped in the downy involucre have been likened to young leverets in a hare's form. The seeds should be sown in autumn soon after they are ripe, otherwise, if this is deferred till spring, they commonly remain a year, and sometimes two or three years, before they grow.

549. *Hedera*. A name for which many etymologies have been offered. The best explanation is, that it has been derived from *hedra*, cord, in Celtic. *Lierre*, Fr. *H. helix* is a valuable ornamental evergreen for covering naked buildings or trees, for training into fanciful shapes, as of human figures, &c. on skeletons of wire-work, or trained up a stake so as to form a standard. Flowering so late in the season, it is much resorted to by

|                               |                 |    |       |       |                      |                       |           |     |                          |
|-------------------------------|-----------------|----|-------|-------|----------------------|-----------------------|-----------|-----|--------------------------|
| 150. RIBES. <i>W.</i>         | CURRENT.        |    |       |       | <i>Grossulaceae.</i> | Sp. 25—49.            |           |     |                          |
| 3107 rubrum <i>W.</i>         | red             | fr | 4     | ap.my | G                    | Britain riv. ba.      | C         | r.m | Eng. bot. 1289           |
| <i>β album</i>                | white           | fr | 4     | ap.my | G                    | Britain ...           | C         | r.m |                          |
| <i>γ sylvestre</i>            | wild            | or | 4     | ap.my | G                    | Britain ...           | C         | r.m |                          |
| 3108 petraeum <i>W.</i>       | rock            | or | 4     | my    | R                    | England moun.         | C         | co  | Eng. bot. 705            |
| 3109 multiflorum <i>Kth.</i>  | many-flowered   | or | 5     | ap.my | Gr                   | Hungary 1822.         | C         | co  | Bot. mag. 2368           |
| 3110 spicatum <i>Sm.</i>      | acid            | or | 4     | ap.my | G                    | England m. wo.        | C         | co  | Eng. bot. 1280           |
| 3111 trifidum <i>Mich.</i>    | trifid          | or | 4     | ap.my | Pu                   | Quebec 1823.          | C         | co  |                          |
| 3112 procumbens <i>Pall.</i>  | trailing        | fr | 1/2   | my.jn | Pu                   | Dahuria 1804.         | L         | m.s | Pall. ross. 2. t. 65     |
| 3113 rigens <i>Mich.</i>      | stiff           | or | 6     | ap.my | G                    | N. Amer. 1812.        | C         | co  |                          |
| 3114 prostratum <i>Ph.</i>    | glandulous      | or | 1 1/2 | ap.my | Pu                   | N. Amer. 1777.        | L         | s.l | L'Her. st. 1. t. 2       |
| 3115 alpinum <i>W.</i>        | Alpine          | or | 3     | ap.my | G                    | Britain woods.        | C         | co  | Eng. bot. 704            |
| 3116 adreum <i>Ph.</i>        | golden          | or | 8     | ap.my | Y                    | Missouri 1812.        | C         | r.m | Bot. reg. 125            |
| 3117 nigrum <i>W.</i>         | black           | fr | 5     | ap.my | G                    | Britain m. hed.       | C         | r.m | Eng. bot. 1291           |
| 3118 floridum <i>W.</i>       | Pennsylvanian   | or | 4     | ap.my | G                    | N. Amer. 1729.        | C         | co  | Dil. et. 244. f. 315     |
| 3119 laxiflorum <i>Ph.</i>    | loose-flowered  | or | 4     | ap.my | Y.G                  | N. Amer. 1812.        | C         | co  |                          |
| 3120 resinosum <i>Ph.</i>     | clammy          | or | 3     | ap.my | Y.G                  | N. Amer. 1800.        | L         | co  | Bot. mag. 1583           |
| 3121 hirtellum <i>Ph.</i>     | hairy           | or | 3     | ap.my | Y.G                  | N. Amer. 1812.        | L         | s.l |                          |
| 3122 gracile <i>Ph.</i>       | slender         | or | 4     | ap.my | Y.G                  | N. Amer. 1812.        | L         | s.l |                          |
| 3123 triflorum <i>Ph.</i>     | three-flowered  | or | 4     | ap.my | G                    | N. Amer. 1812.        | L         | r.l | W. ho. be. 1. t. 61      |
| 3124 orientale <i>Desf.</i>   | eastern         | or | 4     | my.jn | G.v                  | Syria 1823.           | C         | co  |                          |
| 3125 diacantha <i>W.</i>      | two-spined      | or | 4     | my.jn | G.v                  | Siberia 1781.         | L         | r.l | Schm. arb. t. 97         |
| 3126 reclinatum <i>W.</i>     | procumbent      | or | 2     | ap.my | P.G                  | Germany 1683.         | L         | co  |                          |
| 3127 Grossularia <i>W.</i>    | rough-Gooseb.   | fr | 4     | mr.ap | G                    | England hed.          | C         | r.m | Eng. bot. 1292           |
| 3128 Uva-crispa <i>W.</i>     | smth.-Gooseb.   | fr | 4     | mr.ap | G                    | England hed.          | C         | r.m | Eng. bot. 2057           |
| 3129 oxyacanthoides <i>W.</i> | Hawthorn-ld.    | or | 3     | ap.my | W.Y                  | N. Amer. 1705.        | L         | co  | D. el. t. 139. f. 166    |
| 3130 lacustre <i>Ph.</i>      | swamp           | or | 4     | ap.my | Y.G                  | N. Amer. 1812.        | C         | p.l |                          |
| 3131 Cynobati <i>W.</i>       | prickly-fruited | or | 4     | ap    | G                    | Canada 1759.          | C         | s.l | Schmidt. arb. 98         |
| 551. GRONOVIA. <i>W.</i>      | GRONOVIA.       |    |       |       |                      | <i>Cucurbitaceae.</i> | Sp. 1—2.  |     |                          |
| 3132 scandens <i>W.</i>       | climbing        | fr | 6     | jn.jl | G.v                  | Jamaica 1731.         | C         | p.i | Jac. ic. 2. t. 336       |
| 552. ACHYRANTHES. <i>W.</i>   | ACHYRANTHES.    |    |       |       |                      | <i>Amaranthaceae.</i> | Sp. 6—28. |     |                          |
| 3133 argentea <i>W.</i>       | upright         | fr | 1     | my.o  | W                    | Sicily 1713.          | C         | l.s | Bocc. sic. 16. t. 9      |
| 3134 aspera <i>W.</i>         | rough           | fr | 3     | my.o  | Pk                   | India 1751.           | C         | l.s | Mill. ic. 1. t. 11. f. 2 |
| 3135 pterigens <i>H. K.</i>   | crimson-flower. | fr | 2     | ap.au | Pu                   | ..... 1802.           | C         | r.m | Bot. mag. 830            |
| 3136 nivea <i>W.</i>          | white           | fr | 2     | my.jl | W                    | Canaries 1783.        | C         | r.m |                          |
| 3137 frutescens <i>Lam.</i>   | shrubby         | fr | 6     | my.jl | Pu                   | E. Indies 1820.       | C         | r.m |                          |
| 3138 pubescens <i>Roth.</i>   | pubescent       | fr | 1 1/2 | ap.jl | Pk                   | ..... 1821.           | C         | r.m |                          |



History, Use, Propagation, Culture,

bees and flies, when little other food is to be had. The berries increase during the winter, are full formed in February, and ripen in April; furnishing food for wild pigeons, blackbirds, thrushes, &c. in the spring. Blackbirds, and several other birds, build their nests in the stumps of ivy tufts. Sheep are fond of the leaves, especially during severe weather. The ancients held ivy in great esteem, and Bacchus is represented crowned with it to prevent intoxication.

*H. Helix vegeta*, the giant or Irish ivy, perhaps a distinct species, is a native of the island of Madeira. 550. *Ribes*. The name of an acid plant mentioned by the Arab physicians, and supposed to be the plant now called Rheum Ribes. *R. grossularia* is so called because its berries resemble little half-ripe figs,—*grossi*. This is a genus of well known shrubs; some of them much cultivated for their fruit. *R. rubrum*, the common red currant, is the *Grosselles en grappes*, or *Grosselles d'outre mer*, Fr., *Gemeine Johannsdorfer*, Ger., and *Uvella*, Ital. The English name currant is evidently from the similitude of the fruit to that of the grape of Zante, which dried forms the corinths or currants of the shops. The fruit has an agreeable sub-acid taste, and is generally relished both at the dessert and in pies and tarts. Equal weights of fruit and pure sugar, put over the fire, yield a liquor which forms a most agreeable jelly, used as a sweetmeat to eat with hare, venison, and Welch mutton, to flavor punch, and as a medicine. It is also much used for making wine, and is grown to a considerable extent for that purpose in Essex, Kent, and about Pershore in Worcestershire. The principal varieties are the white, and pale or Champagne; but any number of varieties may be procured from sowing the seeds; from which, however, none superior to those in general use have been hitherto originated.

The culture of the red currant is known to every countryman. It grows freely by cuttings of last year's wood, which should be of sufficient length to form a handsome plant, with a clean stem, ten inches high. It grows in any soil, but prospers best in one loamy and rich. The best flavored fruit is produced from plants in an open free situation, but they will grow under the shade of walls or trees, and either as low bushes or trained against walls or espaliers. They bear chiefly from spurs, and therefore, in pruning, most of the young wood is cut to within two or three buds of that where it originated.

*R. nigrum*, the black currant, is common in moist woods in Russia and Siberia, where a wine is made of the berries alone, or fermented with honey, and with or without spirits. In Siberia they make a drink of the leaves: these tincture common spirits so as to resemble brandy; and a few of them dried and mixed with black tea, answer all the purposes of the green material. Many persons dislike the very peculiar flavor of the berries

1. *Unarmed.* CURRANTS.

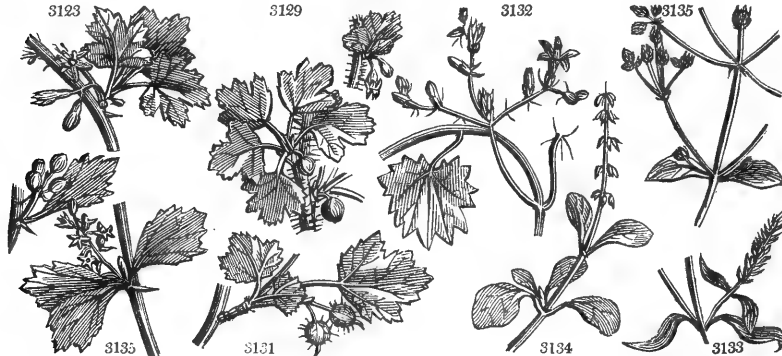
- 3107 Leaves smooth pendulous, Flowers flattish, Petals obovate, Leaves obtuse 5-lobed, Stem erect  
 β Berries yellow  
 γ Lobes of leaves shortish, Leaf-stalks, Flower-stalks, and Flowers pubescent [Stem erect  
 3108 Rac. rather hairy when in flow. erect afterw. pendul. Brac. shorter than flow. Lvs. acum. lob. cut toothed,  
 3109 Racemes spiked pendulous, Petals oblong, Bractes shorter than flowers  
 3110 Spikes erect, Petals oblong, Bractes shorter than flower  
 3111 Leaves moderately lobed smoothish above pub. beneath, Flowers small, Sepals trifid, Berries red hairy  
 3112 Racemes erect, Flowers flat, Leaves obtusely lobed, Stem procumb. [fruit stiffly upr. Ber. rough red  
 3113 Branc. upr. Leaves smooth above beneath pub. nett. Lob. and teeth acute, Rac. loosely many-fl. always in  
 3114 Stems prost. Lvs. lobed smoothish younger pub. Rac. nearly erect, Petals deltoid, Bract. min. Ber. hispid  
 3115 Racemes erect, Bractes as long as flowers or longer, Peduncles hairy with glands, Lvs. shining beneath  
 3116 Very smooth, Lvs. 3-lobed, Lobes spreading with a few teeth, Bract. lin. as long as fl. stalks, Berries smooth  
 3117 Lvs. dotted beneath, Racemes hairy loose, Flow. campan. Brac. shorter than fl.-stalks, Ped. simple at base  
 3118 Leaves dotted on each side, Racemes pendulous, Flowers cylindrical, Bractes longer than germen  
 3119 Leaves cordate 5-lobed cut-toothed smooth, Stalks slender, Racemes loose erect the length of leaves  
 3120 Glandular hairy, Rac. erect, Lvs. 5-lobed obtuse cren. roundish, Bractes linguulate longer than fl.-stalk

2. *Prickly.* GOOSEBERRIES.

- 3121 Spine one under the axilla, Branches hispid, Lvs. small 3-trifid: lobes toothed, Ber. solitary smooth red  
 3122 Spine under axillary very short, Lvs. on slender stalks pub. on both sides: lobes acute cut and toothed, Ped.  
 3123 Prickles solitary, Peduncles 2 or 3-flowered, Berries polished [capillary  
 3124 Somewhat prickly, Leaves round cut-lobed hairy, Racemes short, Berries rough with hairs  
 3125 Prickles twin or solitary, Leaves wedge-shaped 3-parted and obsoletely 3-lobed toothed, Fl. racemose erect  
 3126 Branches somewhat prickly reclinate, Bract. of the peduncle 3-leaved  
 3127 Leaf-stalks hairy, Peduncles 1-flowered, Bractes 2, Fruit hairy  
 3128 Peduncles 1-flowered, Bractes connate-tubular, Fruit smooth  
 3129 Branches prickly all over  
 3130 Spine sub-axillary compound, Stem hispid all over, Leaves lobed beyond middle, Berries racemose hispid  
 3131 Prickles sub-axillary, Berries prickly racemose dull brown

3132 Leaves like those of the vine stinging cirrhose

- 3133 Leaves roundish ovate acuminate, Calyxes reflexed pressed close to the spike  
 3134 Leaves obovate acute narrowed at base, Calyxes reflexed pressed close to the spike  
 3135 Leaves ovate lanceolate opposite, Spikes elliptical corymbose on long stalks, Stem shrubby  
 3136 Leaves whorled ovate downy, Corymbs compact dichotomous, Flowers with corollas  
 3137 Stem erect, Ovate leaves and calyxes smooth  
 3138 Stem erect rounded and elliptical oblong leaves pubescent, Spikes axillary and terminal stalked



## and Miscellaneous Particulars.

of the black currant, which are therefore not much used in the kitchen or dessert, and seldom in wine making. They make a jelly or jam in estimation as a gargle for inflammatory sore throats.

The culture of the black currant is similar to that of the red; but as it is less apt to bear on spurs than on young wood, the shoots are not so much shortened in this as in the other. It is singular that no varieties have been raised of this species, nor will it produce hybrids, as far at least as has been tried with the other cultivated sorts of Ribes.

R. Grossularia and R. uva crisa are the rough and smooth gooseberries; *Groseille*, Fr., *Johannisbeere*, Ger., and *Uvaosquina*, Ital.; in universal culture and estimation in Britain, but not much known or esteemed in any other country. The climate of France, Italy, and Spain is too warm; and the summers of many parts of the north of Europe too rapid for their attaining a good size. They are, however, more in vogue now in the latter countries than they have ever been before; but as the quality of the fruit soon degenerates when the plants are not kept in high cultivation, it can never become very popular in countries where the pear, vine, fig, and olive grow freely, and which being planted and once established in the soil, grow and bear for ages with very little care.

The varieties of the gooseberry are very numerous, and yearly increasing in Lancashire and other counties where the fruit is grown for prizes, by raising from the seed. These new varieties, however, are valued more according to the size of the berry, than its flavor, or the prolificacy of the plant; so that few so originated are fit to be added to the list of table or kitchen fruit. Twenty-five pennyweights is considered a great weight for a gooseberry, but some have been raised a few dwts. heavier. (See the *Manchester Gooseberry Book*, pub. annually.)

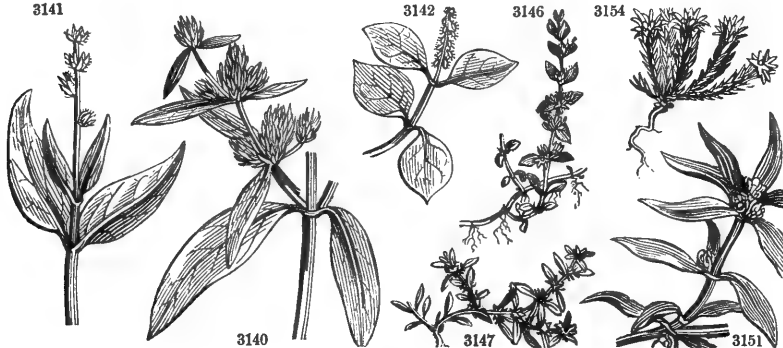
The gooseberry is generally propagated by cuttings, and trained as a dwarf bush, or sometimes on espalier rails: one variety, the green-gage, makes very neat half-standards, and bears better in that state than as a bush. They require a loamy soil, an open airy situation, and yearly attention to pruning, and refreshing their roots with manure and stirring the surface.

551. *Gronovia*. In honor of John Frederick Gronovius, a learned botanist at Leyden. This is a trailing plant like the cucumber, with broad hairy leaves, which sting like the nettle. Treated like the melon, it will produce ripe seeds, but is a plant of neither beauty nor use.

552. *Achyranthes*. From *αχνη*, chaff, and *ανθος*, a flower, in allusion to the chaffy nature of the floral envelopes. This genus is of easy culture, but little beauty. All root freely by cuttings. A. porrigens is the only handsome species.



|   |   |                                 |  |
|---|---|---------------------------------|--|
| 553. PHILOXERUS <i>R. Br.</i> PHILOXERUS.       |   | <i>Amaranthaceae. Sp. 2-6.</i>  |  |
| 3139  | vermiculatus <i>R. Br.</i> creeping         | ☒ △ cu                          | 2 jlo. Pk S. Amer. ... C r m Her. parad. t. 15             |
| 3140  | brasiliensis <i>R. Br.</i> upright          | ☒ △ cu                          | 3 jlo. W Brazil 1790. C r m Jac. ic. 2. t. 346             |
| *554. DESMOCHÆTA <i>D. C.</i> DESMOCHÆTA.       |   | <i>Amaranthaceae. Sp. 5-12.</i> |  |
| 3141  | lappacea <i>J.</i> Bur.                     | ☒ □ or                          | 1 au.o Pu E. Indies 1759. C l p Rhd. mal. 10. t. 59        |
| 3142  | prostrata <i>D. C.</i> prostrate            | ☒ □ or                          | 2 jl. au. G. Pu E. Indies 1793. D l p Rumph. 6. t. 25      |
| 3143  | muricata <i>D. C.</i> prickly               | ☒ □ or                          | 3 au.n G India 1777. C l p Rumph. 5. t. 83                 |
| 3144  | alternifolia <i>D. C.</i> alternate-leaf'd  | ☒ □ or                          | 2 jl. au. P E. Indies 1789. S l p Plk. alm. t. 260. f. 1   |
| 3145  | pátula <i>R. S.</i> spreading               | ☒ △ cu                          | 3 au.o W E. Indies 1823. C l p                             |
| 555. ILLECEBRUM <i>Juss.</i> KNOT-GRASS.        |   | <i>Amaranthaceae. Sp. 3-15.</i> |  |
| 3146  | verticillatum <i>W.</i> whorled             | ☒ △ w                           | 1/2 jl W England bog. pl. S p. l Eng. bot. 895             |
| 3147  | cymosum <i>Vill.</i> cymose                 | ☒ △ w                           | 1/2 jl W S. Europe 1820. S p. l Fl. græc. t. 245           |
| 3148  | echinatum <i>Poir.</i> prickly              | ☒ □ w                           | 1/2 jl G Barbary 1821. S p. l Bocc. sic. t. 20. f. 3       |
| 556. ALTERNANTHERA <i>R. Br.</i> ALTERNANTHERA. |   | <i>Amaranthaceae. Sp. 5-25.</i> |  |
| 3149  | Achyrantha <i>R. Br.</i> creeping           | ☒ △ cu                          | 1 jn. au. W Buenos A. 1732. D l p Dill. elt. 8. t. 7. f. 7 |
| 3150  | polygonoides <i>R. Br.</i> Persicaria-leav. | ☒ △ cu                          | 1 jn. au. W America 1731. C r m Herm. par. 17              |
| 3151  | sessilis <i>R. Br.</i> sessile-flowered     | ☒ □ cu                          | 1/2 jlo. Br E. Indies 1778. S r m Rhd. mal. 10. t. 11      |
| 3152  | fictodes <i>R. Br.</i> fleshy-leaved        | ☒ △ cu                          | 1 jn. jl G S. Amer. 1821. S r m Jacq. am. t. 60. f. 4      |
| 3153  | spinosa <i>Horn.</i> spiny                  | ☒ □ cu                          | 1 my. jn Y ..... 1823. S r m                               |
| 557. PARONYCHIA <i>Juss.</i> PARONYCHIA.        |   | <i>Amaranthaceae. Sp. 4-18.</i> |  |
| 3154  | capitata <i>Juss.</i> capitate              | ☒ △ w                           | 1/2 jn. au. W Spain 1683. D p. l Lobel. ic. 420. f. 1      |
| 3155  | nivea <i>D. C.</i> villous                  | ☒ △ w                           | 1 jn. au. W Spain 1812. D s. l                             |
| 3156  | alsinifolia <i>J.</i> Chickweed-lvd.        | ☒ □ w                           | 3 jn. au. W Spain ... D s. l Scop. del. ins. t. 13         |
| 3157  | hispanica <i>D. C.</i> Spanish              | ☒ △ w                           | 1 jn. au. W Spain 1683. D s. l                             |
| 558. CHENO'LEA <i>W.</i> CHENOLEA.              |   | <i>Chenopodeae. Sp. 1.</i>      |  |
| 3158  | diffusa <i>W.</i> silky                     | ☒ □ w                           | 1 au. s G C. G. H. 1758. C r m                             |
| 559. ANYCHIA <i>Mich.</i> ANYCHIA.              |   | <i>Amaranthaceae. Sp. 1-3.</i>  |  |
| 3159  | dichotoma <i>Mich.</i> forked               | ☒ □ w                           | 1/2 my. au. G N. Amer. 1806. S l p Ort. dec. t. 1          |
| 560. ERUA <i>Juss.</i> ERUA.                    |   | <i>Amaranthaceae. Sp. 2.</i>    |  |
| 3160  | lanata <i>J.</i> woolly                     | ☒ □ cu                          | 1 ap. au. W E. Indies 1691. C r m Mill. ic. 1. t. 11. f. 1 |
| 3161  | javanica <i>J.</i> spear-leaved             | ☒ □ cu                          | 2 ap. au. W E. Indies 1768. C r m Bur. ind. t. 65. f. 2    |
| 561. LESTIBUDE'SIA <i>R. Br.</i> LESTIBUDESIA.  |   | <i>Amaranthaceae. Sp. 3-5.</i>  |  |
| 3162  | paniculata <i>R. Br.</i> panicked           | ☒ □ cu                          | 3 jn. s P. Y Jamaica 1783. C r m Slo. jam. 1. t. 91. f. 1  |
| 3163  | trigyna <i>R. Br.</i> oval-leaved           | ☒ □ cu                          | 1 1/2 au. o W Senegal 1777. C r m Jac. vind. 3. t. 15      |
| 3164  | virgata <i>R. Br.</i> wave-leaved           | ☒ □ cu                          | 4 au. o G ..... 1815. C r m Jac. ic. 2. t. 339             |
| 562. RHAGODIA <i>R. Br.</i> RHAGODIA.           |   | <i>Chenopodeae. Sp. 2-7.</i>    |  |
| 3165  | hastata <i>R. Br.</i> spear-leaved          | ☒ □ cu                          | 1 jn. jl G N. Holl. 1823. C co                             |
| 3166  | Billardiæri <i>R. Br.</i> Labillardiere's   | ☒ □ cu                          | 5 jn. jl G N. Holl. 1823. C co Lab. n. holl. 1. t. 96      |
| 563. DEERIN'GIA <i>R. Br.</i> DEERINGIA.        |   | <i>Amaranthaceae. Sp. 1.</i>    |  |
| 3167  | celosioides <i>R. Br.</i> Berry-bearing     | ☒ □ cu                          | 6 au. o W E. Indies 1804. S a. l Bot. mag. 2717            |
| 564. TRIAN'THEMA <i>L.</i> TRIANTHEMA.          |   | <i>Portulacae. Sp. 1-6.</i>     |  |
| 3168  | monogyna <i>L.</i> monogynous               | ☒ □ w                           | 1 my. jn P. G Jamaica 1820. S co Her. para. 2. t. 213      |
| 1585. CELO'SIA <i>R. Br.</i> COOK'S-COMB.       |   | <i>Amaranthaceae. Sp. 8-22.</i> |  |
| 3169  | argentea <i>W.</i> silvery-spiked           | ☒ or                            | 1 jn. s L. F. China 1714. S r m Mart. dec. 1. t. 7         |
| 3170  | cristata <i>W.</i> common                   | ☒ or                            | 2 jn. s D. R. Asia 1570. S r m Lam. ill. t. 168. f. 1      |
| 3171  | comosa <i>W.</i> tufted                     | ☒ or                            | 1 jn. s Pk E. Indies 1802. S r m                           |
| 3172  | coccinea <i>W.</i> scarlet                  | ☒ or                            | 5 jn. s Pu China 1597. S r m                               |
| 3173  | cérnea <i>B. Rep.</i> drooping              | ☒ or                            | 3 jl. au. Pu E. Indies 1809. S r m Bot. rep. 635           |
| 3174  | castrénsis <i>W.</i> branched               | ☒ or                            | 2 jn. s Pu E. Indies 1739. S r m Bar. rar. t. 1195         |
| 3175  | Monsóniæ <i>W.</i> downy                    | ☒ or                            | 3 jls W E. Indies 1778. S r m Pl. al. 11. t. 334. f. 4     |
| 3176  | nodiiflora <i>W.</i> knotted                | ☒ or                            | 2 jls Gr E. Indies 1780. S r m Jac. vind. 1. t. 96         |



History, Use, Propagation, Culture.

553. *Philoxerus*. From φιλος, a lover, and ξερος, arid; a plant delighting in sandy soil. The species resemble *Gomphrena* or *Achyranthes*.  
 554. *Desmochæta*. From δεσμος, a bond, and χαιρα, a sheath, in allusion to the coherence of the flowers in their heads. It was called *Pupalia* by Jussieu, from its Malabar appellation. Plants nearly related to *Achyranthes*, in which they were included by Linneus.  
 555. *Illecebrum*. A name of Pliny, designating a kind of wild purslane. It is now applied to singular little weed-like plants, with white scarios stipules to their leaves.  
 556. *Alternanthera*; that is to say, alternate anthers, those organs being by turns fertile and barren.  
 557. *Paronychia*. Something which cures whitlows, or maladies of the finger nails, called by the Greeks *paronychia*. These are dwarf plants which grow in light soil, and are well adapted for pots or rock-work.  
 558. *Chenolea*. From χην, a goose, and ολεα, an olive. The leaves are silvery, like those of the olive; the plant humble like the Goosefoot. This plant is noticed for its silvery leaves: it is propagated by young cuttings planted under a hand-glass.  
 559. *Anychia*. A word with the same meaning as *Paronychia* (in No. 557.), and a genus with similar habita,

- 3139 Stems creeping, Leaves rounded fleshy, Heads solitary terminal oblong  
 3140 Stem erect shrubby, Leaves ovate oblong acuminate, Heads round stalked leafless
- 3141 Stem ½-shrubby spreading smooth, Leaves opp. ovate acum. roughish, Flowers with long purple bristles  
 3142 Stems shrubby prostrate, Leaves opposite ovate, Fascicles of flowers remote spreading at length reflexed  
 3143 Stem shrubby spreading, Leaves alternate ovate naked, Fasc. of flowers remote ovate, Bristles callous  
 3144 Stem erect, Leaves alternate ovate smooth, Racemes many, Fascicles ovate remote, Bristles callous  
 3145 Stem shrubby spreading pubescent, Flowers in round prickly spikes
- 3146 Stems filiform smooth, Leaves roundish, Calyxes 5-cornered bearded  
 3147 Stem branched erect, Leaves rounded smooth bearded, Flowers cymose, Bractes very short  
 3148 Stem branched prostrate, Flowers clustered axillary naked, Calyxes ventricose beneath hairy
- 3149 Heads sessile, Flowers smooth three times as long as utricle, Leaves ovate mucronate unequal  
 3150 Stems creeping hairy, Leaves broad lanceolate stalked, Heads round naked  
 3151 Heads subsessile, Calyx ovate acuminate nearly as short again as utricle, Leaves ovate lanceolate  
 3152 Stems creeping smooth, Leaves broad lanceolate stalked, Heads round pubescent  
 3153 Leaves ovate lanceolate deflexed, Flowers axillary clustered, Cal. spiny, Stem tomentose dichotomous
- 3154 Stems rising, Leaves carinate oblong ciliated at base, Flowers terminal mixed among the bractes  
 3155 Stems sub-erect much branched, Leaves spreading villous, Bractes very large concealing the flowers  
 3156 Stems diffuse, Leaves ovate, Flowers heaped, Bractes shining  
 3157 Flowers surrounded by shining bractes, Stems procumbent, Leaves smooth
- 3158 The only species
- 3159 Stem dichotomous, Leaves lanceolate: of the stem opposite, of the branches altern. Flowers sol. axillary
- 3160 Stem herbaceous erect, Flowers lateral woolly, Leaves alternate ovate  
 3161 Leaves lanceolate downy, Spikes cylindrical numerous terminal
- 3162 Leaves ovate oblong, Stem rising panicled, Spikes alternate terminal remote  
 3163 Leaves ovate acuminate flat, Raceme loose, Bractes scarious, Pistil trifid  
 3164 Shrubby smooth, Cauline leaves spatulate, Stem leaves lanceolate, Flowers heaped spiked
- 3165 Half shrubby erect, Branches diffuse, Leaves nearly opp. hastate entire smooth  
 3166 Shrubby erect, Branches unarmed, Leaves entire linear oblong and lanceolate flat beneath powdery
- 3167 Leaves cordate acuminate, Raceme spiked loose, Flowers trigynous
- 3168 Stems depressed jointed smooth, Leaves oval obtuse entire red at edge
- 3169 Leaves linear lanceolate, Stipules falcate, Peduncles angular, Spikes scarious ovate cylindrical  
 3170 Leaves ovate acuminate, Stipules falcate, Common peduncle striated, Spike oblong compressed  
 3171 Spikes cylindrical comose, Leaves lanceolate  
 3172 Leaves ovate upright without auricles, Stem furrowed, Spikes multiple crested  
 3173 Flowers panicled nodding, Leaves lanceolate, Stem ribbed  
 3174 Leaves lanceolate ovate lined very much acuminate, Spikes crested, Stipules falcate  
 3175 Leaves subulate whorled, Stem branched straggling, Spikes compact cylindrical  
 3176 Leaves wedge-shaped acutish, Spikes globose lateral



## and Miscellaneous Particulars.

560. *Ærua*. From its Arabic name *êrouâ*. Little weeds like *Illecebrum*.  
 561. *Lentibudesia*. Named by M. du Petit Thouars, after Fr. Jos. Lestiboudois, a Flemish botanist, author of a work called *Botanographie Belgique*, published in 1781. The species are readily increased either by seeds or cuttings.  
 562. *Rhagodia*. From *ῥαγώδης*, bearing berries. The fruit is a small berry, by which character the genus is chiefly distinguished from *Chenopodium*.  
 563. *Deeringia*. Named by Mr. Brown, in memory of Dr. Charles Deering, author of a *Flora of Nottingham*, and a skilful botanist of his day. Weak shrubs, with terminal spikes of flowers, and a berried inflated pericarp.  
 564. *Trianthema*. From *τριάνθη*, three, and *ανθή*, flowers. The flowers are frequently placed in threes in the axille of the leaves. Little tropical weeds.  
 565. *Celosia*. From *κελσός*, burnt, because the flowers of some species appear as if were singed. *C. cristata* is a well known tender annual, of which there are many varieties, as in the balsam, and which, like that plant, will attain a large size and singular beauty by repeated shiftings. Thunberg states that the flowers or crests are frequently a foot in length and breadth in Japan. O. T. A. Knight sent a flower to the Horticultural Society

|                          |                    |  |           |       |     |           |         |       |                        |
|--------------------------|--------------------|--|-----------|-------|-----|-----------|---------|-------|------------------------|
| 568. GOMPHRE'NA. R. Br.  | GLOBE AMARANTH.    | <i>Amaranthaceæ.</i>                   | Sp. 4—25. |       |     |           |         |       |                        |
| 3177 globosa W.          | annual             | <input type="checkbox"/> or            | 14        | my.o  | P.W | India     | 1714    | S r.m | Rhd.mal.10. t.57       |
| 3178 perennis W.         | perennial          | <input checked="" type="checkbox"/> or | 2         | jlo   | P.Y | S. Amer.  | 1732    | C r.m | Di.el.24. t.90. f.92   |
| 3179 arboræscens W.      | tree               | <input type="checkbox"/> or            | 3         | jlo   | W   | S. Amer.  | 1802.   | C r.m |                        |
| 3180 interrupta W.       | trailing           | <input checked="" type="checkbox"/> or | 2         | jlau  | Gr  | W. Indies | 1733.   | C r.m | Jac. ic. 1. t. 51      |
| *567. MOL'LIA. W.        | MOLLIA.            |  |           |       |     |           |         |       |                        |
| 3181 diffusa H. K.       | forked             | <input type="checkbox"/> w             | 1         | jlau  | W   | Canaries  | 1779.   | S lp  | Will.hort.ber.11       |
| 3182 aristata H. K.      | bearded            | <input type="checkbox"/> w             | 1         | jnjl  | W   | Canaries  | 1780.   | C lp  |                        |
| 568. GLA'UX. W.          | BLACK SALTWORT.    |  |           |       |     |           |         |       |                        |
| 3183 maritima W.         | sea                | <input checked="" type="checkbox"/> cu | 1         | my.jn | F   | Britain   | salt m. | S al  | Eng. bot. 13           |
| 569. THE'SIUM. W.        | BASTARD TOAD FLAX. |  |           |       |     |           |         |       |                        |
| 3184 tinophyllum W.      | common             | <input checked="" type="checkbox"/> cu | 1         | jn.jl | W   | England   | ch.pa.  | D pl  | Eng. bot. 247          |
| 3185 alpinum Hayne.      | Alpine             | <input checked="" type="checkbox"/> cu | 1         | jn.jl | W   | Germany   | 1814.   | D pl  | Jac. sust. 5. t. 416   |
| 3186 abreactestum Hayne. | obtusely-leaved    | <input checked="" type="checkbox"/> cu | 1         | jn.jl | W   | Germany   | 1814.   | D pl  | Sch.bo.j.1800. t.7     |
| 3187 umbellatum W.       | umbelled           | <input checked="" type="checkbox"/> cu | 1         | jn    | G   | N. Amer.  | 1782.   | D pl  | Pl. man. t. 342. f. 1  |
| 3188 alexicacaule W.     | heart-leaved       | <input type="checkbox"/> cu            | 4         | ...   | W   | C. G. H.  | 1787.   | C al  |                        |
| 1570. HELICONIA. W.      | HELICONIA.         |  |           |       |     |           |         |       |                        |
| 3189 Bihai W.            | Plantain-leav'd    | <input checked="" type="checkbox"/> or | 12        | jlau  | O   | W. Indies | 1786.   | S s.p | Sw. ob.96. t.5. f.2    |
| 3190 hómilis W.          | dwarf              | <input checked="" type="checkbox"/> or | 6         | jlau  | S   | Caracacs  | 1798.   | D s.p | Jac. sch. 1. t. 48, 49 |
| 3191 Psittacorum W.      | Parrot-beaked      | <input checked="" type="checkbox"/> or | 8         | aus   | O   | W. Indies | 1797.   | S s.p | Bot. rep. 124          |
| 571. STRELIT'ZIA. H. K.  | STRELITZIA.        |  |           |       |     |           |         |       |                        |
| 3192 augusta H. K.       | august             | <input type="checkbox"/> or            | 18        | f.my  | W   | C. G. H.  | 1791.   | S pl  |                        |
| 3193 reginae H. K.       | Canna-leaved       | <input checked="" type="checkbox"/> or | 8         | ap.my | Y   | C. G. H.  | 1773.   | S pl  | Red. lil. 77, 78       |
| 3194 ovata H. K.         | ovate-leaved       | <input checked="" type="checkbox"/> or | 8         | fap   | Y   | C. G. H.  | 1777.   | S pl  | Bot. mag. 119, 120     |
| 3195 farinosa H. K.      | mealy-stalked      | <input checked="" type="checkbox"/> or | 5         | fmr   | Y   | C. G. H.  | 1795.   | S pl  |                        |
| 3196 angustifolia H. K.  | narrow-leaved      | <input checked="" type="checkbox"/> or | 6         | my.jn | Y   | C. G. H.  | 1778.   | S pl  |                        |
| 3197 parvifolia H. K.    | small-leaved       | <input checked="" type="checkbox"/> or | 6         | my.jl | Y   | C. G. H.  | 1796.   | S pl  | Bot. reg. 516          |
| 3198 hómilis Lk.         | dwarf              | <input checked="" type="checkbox"/> or | 6         | my.jn | Y   | C. G. H.  | ...     | S pl  |                        |
| 3199 júncea Lk.          | rush-leaved        | <input checked="" type="checkbox"/> or | 6         | my.jn | Y   | C. G. H.  | ...     | S pl  |                        |

DIGYNIA.

|                         |               |  |    |       |     |             |       |       |                         |
|-------------------------|---------------|--|----|-------|-----|-------------|-------|-------|-------------------------|
| 572. APOCYNUM. R. Br.   | DOG'S-BANE.   |  |    |       |     |             |       |       |                         |
| 3200 androsæmifolium W. | Tutsan-leaved | <input checked="" type="checkbox"/> or | 2  | jls   | Str | N. Amer.    | 1688. | S pl  | Bot. mag. 290           |
| 3201 cannabinum W.      | Hemp-like     | <input checked="" type="checkbox"/> or | 3  | jls   | W   | N. Amer.    | 1699. | S co  | Mor. h. 15. t. 3. f. 14 |
| 3202 hypericifolium W.  | Hyperic.-lvd. | <input checked="" type="checkbox"/> or | 2  | jn.jl | W   | N. Amer.    | 1758. | S co  | Jac. vind. 3. t. 66     |
| 3203 venetum W.         | Venetian      | <input checked="" type="checkbox"/> or | 2  | jn.jl | W   | Adriat. Ia. | 1690. | S co  | Lobel. ic. t. 372       |
| 573. MELODI'NUS. Forst. | MELODINUS.    |  |    |       |     |             |       |       |                         |
| 3204 scandens W.        | climbing      | <input type="checkbox"/> or            | 15 | jlau  | W   | N. Caled.   | 1775. | C s.p | Lam. ill. t. 179        |
| 3205 monogynus Rozb.    | East Indian   | <input type="checkbox"/> or            | 10 | jl    | W   | E. Indies   | 1820. | C r.m | Bot. reg. 834           |
| 574. PERIPLO'CA. R. Br. | PERIFLOCA.    |  |    |       |     |             |       |       |                         |
| 3206 graeca W.          | common        | <input checked="" type="checkbox"/> or | 10 | jlau  | Br  | Syria       | 1597. | R s.l | Bot. reg. 803           |
| 3207 lævigata W.        | smooth        | <input type="checkbox"/> or            | 6  | ...   | G.y | Canaries    | 1779. | C pl  | Cav. ic. 3. t. 217      |



History, Use, Propagation, Culture,

which measured eighteen inches in width, and seven inches in height from the top of the stalk, thick, full, and of the most intense purplish red. (*Hort. Trans.* iv. 322.) To produce this, the great object was to retard the protrusion of the flower-stalk. Hence, a rich compost was employed, the plants put first into pots of four inches diameter, and then transplanted to others a foot in diameter; the object being not to compress the roots, as that has a tendency to accelerate the flowering of all vegetables. The plants were placed close to the glass in a heat of from 70 to 100 degrees, all side branches removed, and pigeon-dung water used in watering. Had the shiftings from pot to pot been more frequent, it appears probable the size might have been still greater.

566. *Gomphrena*. *Gomphrena* is a name applied by the ancients to a plant bearing red and green leaves on the same stem; probably our *Amaranthus tricolor*. *G. globosa* is a popular tender annual, valued for its heads of flowers, which, if gathered before they are too far advanced, will retain their beauty several years. The other species propagate readily by cuttings under a glass.

567. *Mollia*. So called from its softness. The species are small weeds.

568. *Glaux*. From *γλαυκός*, a name under which Dioscorides describes a maritime plant with glaucous leaves. This plant is maritime, and has glaucous leaves. A pretty little plant, and well adapted for pots and rock work. It will grow at a considerable distance from the sea in sand kept moist.

569. *Thesium*. Athenæus says, on the authority of Timachides, that this plant was called *Ἰησιόριον*, because it formed part of the garland presented by Theseus to Ariadne. If this be so, the accent should be placed on the penultimate and not on the antepenultimate syllable. It is, however, very certain that the *Theesion* of the ancients had no resemblance to that of the moderns, which is a genus of little obscure plants or weeds.

570. *Heliconia*. A name given to this plant in an ingenious sense, as indicating its affinity with *Musa*. *H. Bihai* is a large herbaceous plant, bearing considerable resemblance to *Strelitzia*. It grows in rich well

- 3177 Stem erect hairy, Leaves oblong pubescent, Heads globose solitary 2-leaved, Keels of bractæ winged  
 3178 Leaves lanceolate, Heads 2-leaved, Florets distinguished by a peculiar perianthium  
 3179 Hairy twining  
 3180 Stem ascending, Leaves oblong silky beneath, Spikes clustered paniced terminal interrupted

- 3181 Stem branched diffuse, Leaves spatulate whorled about 7, Calyxes with a membranous margin  
 3182 Stem branched diffuse, Leaves lanceolate silky bearded

3183 The only species

- 3184 Spike branched, Bractes 3, Leaves linear lanceolate with a very short tube to the calyx  
 3185 Stems prostrate simple, Raceme terminal leafy 1-sided, Flowers sessile surrounded by bractæ  
 3186 Stem erect simple, Raceme leafy, Flowers stalked without smaller bractes  
 3187 Leaves obovate mucronate, Flowers racemose  
 3188 Leaves cordate stem-clasping, Racemes terminal

- 3189 Leaves at the base and end acute, Spadix erect radical, Spathes 2-ranked many-flowered  
 3190 Leaves narrowed at base at end acuminate, Spadix erect flexuose radical, Spathes 2-ranked many-flowered  
 3191 Leaves very smooth nerved rounded at base, Inflorescence very smooth, Spadix erect without bractæ

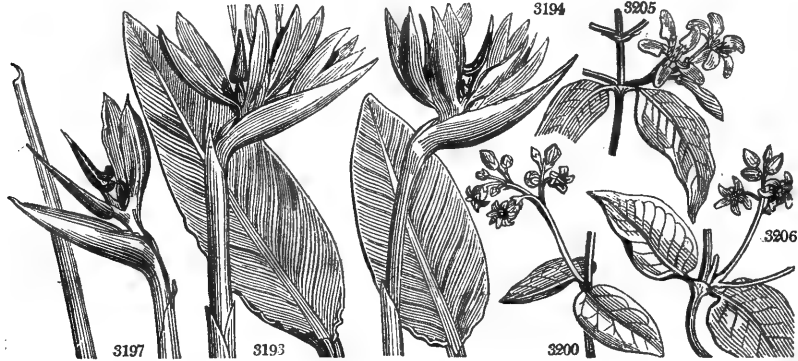
- 3192 Scape half as short as leaf-stalks which are hardly twice as long as the 6 feet leaf  
 3193 Scape scarcely longer than the leaf-stalks which are three times as long as the oval leaf  
 3194 Scape longer than leaf-stalk and leaves, Leaf-stalk twice as long as the ovate oblong leaf  
 3195 Scape a little longer than the leaf-stalks which are half as long again as the obl. leaf unequal at the base  
 3196 Scape as long as leaf-stalk which is 7 times longer than the lanceolate leaf  
 3197 Scape the length of the leaf-stalk which is 20 times longer than the linear lanceolate leaf  
 3198 Scape as long as leaf-stalk which is twice as long as the ovate concave leaf  
 3199 Leaf-stalk very long with no leaf

### DIGYNIA.

- 3200 Stem upright herbaceous, Leaves ovate smooth on each side, Cymes terminal smooth  
 3201 Stem upright herbaceous, Leaves oblong tomentose beneath, Cymes lateral longer than the leaves  
 3202 Stem erect herbaceous, Leaves oblong cordate smooth, Cymes shorter than the leaves  
 3203 Stem erect herbaceous, Leaves elliptical lanceolate mucronate at the edge rough with little teeth

- 3204 Leaves oblong ovate thick at edge, Panicle downy  
 3205 Leaves oval lanceolate acuminate, Panicle smooth

- 3206 Flowers terminal hairy inside  
 3207 Flowers smooth, Segments obtuse, Cymes trichotomous. Leaves oblong lanceolate veiny smooth



and Miscellaneous Particulars.

shaded gullies in moist woods. The berries are small and succulent, and each contain three hard rugged seeds.

H. Peitacorum bears a great resemblance to Canna: it grows in the wet parts of woods, and on the highest mountains. All the species require a strong heat to make them flower freely.

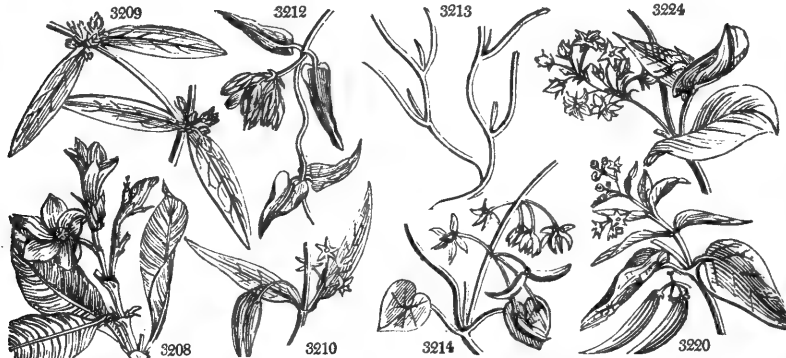
571. *Strelitzia*. So named by Sir Joseph Banks, in honor of Charlotte, queen of George III., of the family of Mecklenburgh Strelitz, and said to have patronized botany. This is a splendid genus, generally kept in the stove; but which, Sweet observes, "will thrive, and flower as well in the greenhouse or conservatory. A light sandy loam is the best soil for the species, and they may be increased, but slowly, by suckers. By rubbing the pollen on the stigma, when the plants are in bloom, perfect seeds are readily obtained." (*Bot. Cult.* 111.)

572. *Apocynum*. From *απο*, away, and *κυν*, a dog; that is to say, a plant from which dogs must be driven. Pliny says his *Apocynum* is mortal to them. This is a genus of plants of little beauty, but of easy culture in any soil. The first species is acrid and blisters the skin. From the stalks of *A. cannabinum* the Indians of North America prepare a substitute for hemp, of which they make twine, bags, fishing-nets and lines, and linen for their own wear.

573. *Melodinus*. So named by Forster, from *μηλον*, an apple, and *δινω*, to turn round; this plant bearing a round fruit like an apple, and having a twining stem by which it climbs trees. It is a very smooth shrub, with oblong-ovate leaves, and nearly allied to *Rauwolfia*. Cuttings root readily in sand under a hand-glass. This, and the succeeding genera, as far as No. 592, are all Asclepiadous plants, and require nearly similar management.

574. *Periploca*. From *περιπλαση*, intertwining, in allusion to the habit of the plants. *P. græca* is a handsome climber, and grows freely in common garden soil, and is propagated by cuttings under a glass, or by layers.

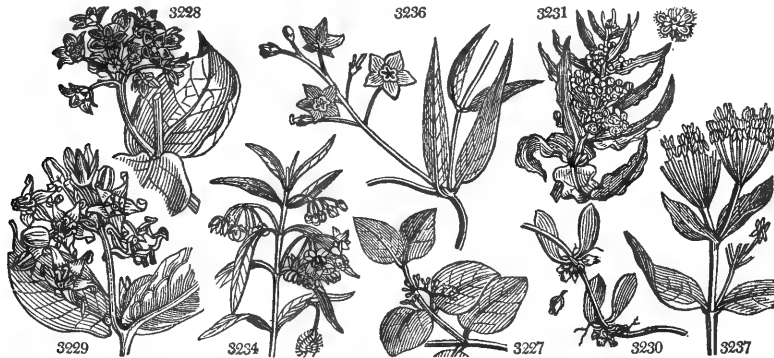
|   |              |            |           |                |         |                       |
|---|--------------|------------|-----------|----------------|---------|-----------------------|
| 575. CRYPTOSTEGIA. R. Br. CRYPTOSTEGIA. | Asclepiadeæ. | Sp. 1.     | India     | 1818.          | C r.m   | Bot. reg. 435         |
| 3208 grandiflora R. Br. large-flowered  | 6 jn.jl      | Pk         |           |                |         |                       |
| 576. HEMIDESMUS. R. Br. HEMIDESMUS.     | Asclepiadeæ. | Sp. 1-2.   | Ceylon    | 1796.          | C l.p   | Bur.zeyl.t.83. f.1    |
| 3209 indicus H. K. Indian               | 6            | ...        | G         |                |         |                       |
| 577. SECAMONE. R. Br. SECAMONE.         | Asclepiadeæ. | Sp. 2-4.   | Egypt     | 1752.          | C s.l   | Alp.æg. t. 134        |
| 3210 ægyptiaca H. K. Egyptian           | 6 jl         | W          |           |                |         |                       |
| 3211 emetica R. Br. narrow-leaved       | 6            | ...        | W         | 1816.          | C s.l.p | Wil. ph. i. t.5. f.2  |
| 1578. MICROLOMA. R. Br. MICROLOMA.      | Asclepiadeæ. | Sp. 1-2.   | C. G. H.  | 1775.          | C s.l   | Jac. sch. i. t. 38    |
| 3212 sagittatum H. K. arrow-leaved      | 3 jl.au      | G.P        |           |                |         |                       |
| 1579. SARCOSTEMMA. R. Br. SARCOSTEMMA.  | Asclepiadeæ. | Sp. 1-12.  | E. Indies | 1731.          | C r.m   | Alp.æg. t. 190        |
| 3213 viminalis H. K. twisting           | 6 jl         | W          |           |                |         |                       |
| 580. DÆMIA. R. Br. DÆMIA.               | Asclepiadeæ. | Sp. 1-4.   | E. Indies | 1777.          | C p.l   | Jac. ic. i. t. 54     |
| 3214 extensa H. K. smooth-leaved        | 3 jl.au      | W          |           |                |         |                       |
| 581. CYNANCHUM. R. Br. CYNANCHUM.       | Asclepiadeæ. | Sp. 11-50. | Spain     | 1596.          | D co    | Tre. eh. 44. t. 82    |
| 3215 acutum R. Br. acute-leaved         | 3 jl         | W          |           |                |         |                       |
| 3216 monspeliacum R. Br. Montpellier    | 3 aus.       | Pk         | S. Europe | 1596.          | D co    | Jac. ic. 2. t. 340    |
| 3217 crassifolium R. Br. obtuse-leaved  | 3            | ...        | G         | C. G. H. 1816. | C co    |                       |
| 3218 pilosum R. Br. hairy               | 2 jn.s       | W          | C. G. H.  | 1726.          | C p.l   | Bot. reg. 111         |
| 3219 vineetoxicum R. Br. officinal      | 2 my.au      | W          | Europe    | 1596.          | D s.l   | Flor. dan. 849        |
| β luteum yellow-flowered                | 2 my.au      | Y          | Europe    | 1596.          | D s.l   |                       |
| 3220 nigrum R. Br. black                | 3 jn.au      | W          | S. Europe | 1596.          | D s.l   | Bot. mag. 2390        |
| 3221 sibiricum R. Br. Siberian          | 3 jl.au      | G          | Siberia   | 1775.          | D co    | Mur. gott. 2. t. 7    |
| 3222 medium R. Br. intermediate         | 3 my.au      | W          | .....     | .....          | D co    |                       |
| 3223 undatum B. Rep. wave-leaved        | 6 jl.au      | G          | W. Indies | 1803.          | C p     | Bot. rep. 410         |
| 3224 mucronatum B. Rep. sharp-pointed   | 6 jl.au      | G          | Trinidad  | 1804.          | C l.p   | Bot. rep. 515         |
| 3225 viridiflorum B. M. green-flowered  | 6 o.d        | G          | E. Indies | 1814.          | C l.p   | Bot. mag. 1929        |
| 582. OXYSTELMA. R. Br. OXYSTELMA.       | Asclepiadeæ. | Sp. 1-2.   | E. Indies | 1816.          | D s.l   | Rox. cor. i. t. 11    |
| 3226 esculentum R. Br. esculent         | 4            | ...        | Y         |                |         |                       |
| 583. GYMNEMA. R. Br. GYMNEMA.           | Asclepiadeæ. | Sp. 1-4.   | Ceylon    | 1816.          | C l.p   | Wil. ph. i. t.5. f.3  |
| 3227 sylvestre R. Br. nettled-leaved    | 8            | ...        | Gr        |                |         |                       |
| 584. CALOTROPIS. R. Br. CALOTROPIS.     | Asclepiadeæ. | Sp. 2.     | Persia    | 1714.          | C s.l   | Bot. rep. 271         |
| 3228 procera H. K. bell-flowered        | 6 jls        | W.P        |           |                |         |                       |
| 3229 gigantea H. K. curled-flowered     | 6 jls        | W.P        | E. Indies | 1690.          | C r.m   | Bot. reg. 58          |
| 585. DISCHYDIA. R. Br. DISCHYDIA.       | Asclepiadeæ. | Sp. 1-2.   | India     | 1818.          | C s.l   | Lin.trans.12.t.15     |
| 3230 bengalensis Coleb. Bengal          | 1            | ...        | W         |                |         |                       |
| 586. XYSMALOBIUM. R. Br. XYSMALOBIUM.   | Asclepiadeæ. | Sp. 1-2.   | Gr        | C. G. H. 1783. | C p.l   | Comm. rar. t. 16      |
| 3231 undulatum H. K. waved-leaved       | 1 jl         | Gr         |           |                |         |                       |
| 587. GOMPHOCARPUS. R. Br. GOMPHOCARPUS. | Asclepiadeæ. | Sp. 3-4.   | C. G. H.  | 1714.          | C l.p   | Jac. sch. i. t. 50    |
| 3232 arborescens H. K. broad-leaved     | 5 d          | W          | C. G. H.  | 1774.          | C p.l   | Comm. rar. t. 17      |
| 3233 crispus H. K. curled-leaved        | 1 jl         | Y          | C. G. H.  | 1774.          | C p.l   | Bot. mag. 1628        |
| 3234 fruticosus H. K. Willow-leaved     | 5 jn.s       | W          | C. G. H.  | 1714.          | C p.l   |                       |
| 588. ASCLEPIAS. R. Br. SWALLOW-WORT.    | Asclepiadeæ. | Sp. 15-65. | N. Amer.  | 1629.          | D co    | Blackw. t. 521        |
| 3235 syriaca W. Virginian               | 4 jl.au      | Pu         |           |                |         |                       |
| 3236 phytolaccoides Ph. Phytolacca-like | 3 jl.au      | Pu         | N. Amer.  | 1812.          | D co    |                       |
| 3237 amœna W. oval-leaved               | 3 jl.au      | Pu         | N. Amer.  | 1732.          | D p.l   | Dil. el. t. 27. f. 30 |



History, Use, Propagation, Culture,

575. *Cryptostegia*. From *κρυπτός*, concealed, and *στέγη*, a covering. The name was suggested to Mr. Brown by the circumstance of the enclosure of the corona within the tube of the corolla, and its not being exposed to view, as in the other neighbouring genera.
576. *Hemidesmus*. From *ἡμίς*, half, and *δέσμος*, a bandage; in allusion to the incomplete coherence of the anthers with the stigma, by which the genus is principally distinguished from *Periploca*. Cuttings root readily in sand in heat.
577. *Secamone*. The meaning of this word is very obscure. None of the explanations which have been offered of it are even tolerable. Culture as in *Periploca*.
578. *Microloma*. From *μικρός*, small, and *λόμα*, a fringe; but the application is unexplained by the author of the name. Small climbing shrubs, with opposite leaves and interpetiolar umbels.
579. *Sarcostemma*. From *σάρκα*, flesh, and *στέμμα*, a crown; on account of the thick succulent nature of the coronal processes.
580. *Dæmia*. *Dæmia* appears to be an Arabic name. It has been applied by Forskåhl to a species of *Asclepias* referred hither. A genus of twining plants.
581. *Gynanchum*. From *γυνή*, a dog, and *αγκυλόν*, to strangle. A word having the same meaning and application as *Apocynum*. This is a genus of low shrubs and herbaceous plants, for the most part twining, and all of easy culture and propagation.
582. *Oxystelma*. From *ὄξύς*, sharp, and *στέμμα*, a crown; the corona being very much pointed.
583. *Gymnema*. From *γυμνός*, naked, and *νῆμα*, a thread, or, in botanical language, 'stamen; in allusion to

- 3208 The only known species
- 3209 Spikes axillary imbricated, Leaves elliptical obtuse mucronate, Stem smooth
- 3210 Flowers hairy inside panicked, Leaves lanceolate elliptical
- 3211 Flowers smooth, Corymbs few-flowered axillary, Leaves linear lanceolate without veins
- 3212 Leaves sagittate pubescent, Limb of the corolla acute
- 3213 Stem twining perennial leafless
- 3214 Stem twining shrubby, Leaves cordate acute, Flowers hairy at edge
- 3215 Leaves oblong ovate cordate acute, Segments of cor. oblong obtuse
- 3216 Leaves reniform contracted at end  $\frac{1}{2}$  lanceolate, Segm. of cor. lanceolate obtuse
- 3217 Leaves cordate ovate obtuse fleshy with a little point smooth, Crown 10-cleft as long as corolla
- 3218 Leaves ovate acute and calyxes hairy, Crown 10-cleft as long as corolla
- 3219 Stem erect, Flowers beardless, Partial stalks of umbel twice as long as common stalks, Crown 5-lobed
- 3220 Stem climbing upwards, Fl. bearded, Partial stalks of simple umbel scarcely longer than common stalk
- 3221 Leaves lanceolate linear opposite and three together, Stem decumbent
- 3222 Stem twining upwards, Corollas beardless, Stalks of umbel divided, Corona 5-lobed
- 3223 Leaves oblong cordate acuminate wavy, Umbels axillary proliferous
- 3224 Stem hairy, Leaves heart-shaped mucronate, Umbels axillary proliferous
- 3225 Leaves cordate ovate acuminate, Umbels simple solitary, Partial flower-stalks longer than common one
- 3226 Cor. smooth rotate, Racemes axillary, Leaves linear lanceolate veiny
- 3227 Leaves rounded ovate netted pubescent beneath, Flowers in umbels
- 3228 Segments of cor. spreading
- 3229 Segments of cor. reflexed involute
- 3230 Leaves thick fleshy ovate
- 3231 Leaves sessile oblong lanceolate wavy smooth, Umbels lateral, Petals ciliated
- 3232 Leaves ovate oblong smooth obtuse with a point
- 3233 Leaves cordate lanceolate wavy hispid
- 3234 Leaves linear lanceolate smooth
- 3235 Leaves oval downy beneath, Stem simple, Umbels nodding
- 3236 Stem erect simple, Leaves broad ovate acute smooth paler beneath, Umbels nodding
- 3237 Stem simple downy in two rows, Leaves subsessile oblong oval downy beneath



and Miscellaneous Particulars.

the peculiar structure of the stamens. The milk of *Gymnema lactiferum* is used instead of the *Vaccine* ichor, and the leaves are employed in sauces in the room of cream.

584. *Calotropis*. From *καλος*, beautiful, and *τροπω*, to turn, in allusion to the beauty of the flowers, which continually turn towards the sun. This is a handsome free-flowering genus. Young cuttings root freely in sand under a hand-glass, but not crowded, as, if the leaves are injured, they are very apt to damp and get mouldy.

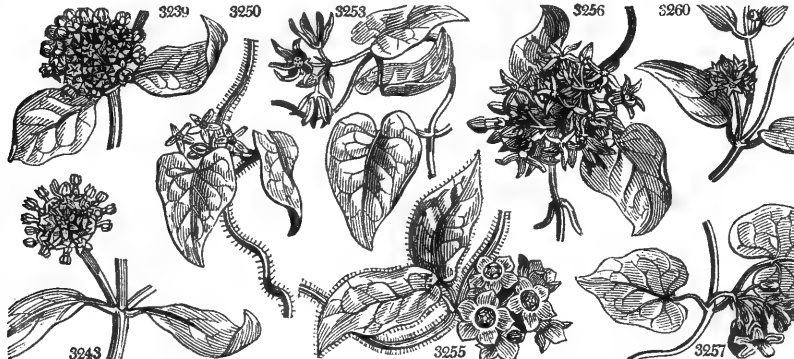
585. *Dischidia*. From *δις*, twice, and *σχιζω*, to split; but the application is unexplained. Little trailing plants with small opposite fleshy leaves.

586. *Xysmalobium*. From *ξυσμα*, a fragment of a thing, and *λοβος*, a division, on account of the minute alternate divisions of the corona. The flowers of this genus are very large; those of *X. grandiflorum* are of the size and color of *Fritillaria meleagris*.

587. *Gomphocarpus*. From *γομος*, a club, and *καρπος*, fruit. A genus resembling *Asclepias* in habit, but well distinguished by the inflated club-like fruit.

588. *Asclepias*. The name of many ancient physicians. It is the Greek name of the *Æsculapius* of the Latins. This is a genus of tall-growing herbaceous plants, which thrive best in peat or any very light soil. They require a good deal of room to show their characters, and are readily propagated by seeds or dividing the roots. *A. syriaca* is very odoriferous, and in Canada, when in flower, charms the traveller, especially when passing through woods in the evening. The French there eat the tender shoots in spring as we do asparagus. The natives make a sugar of the flowers, gathering them in the morning when they are covered with dew, and collect the cotton from the pods to fill their beds. On account of the silkiness of this cotton, Parkinson calls the plant *Virginian silk*. *A. nivea* has jointed fleshy roots, the juice of which is very effective in bringing away worms. The root

|       |                            |                           |   |    |     |       |      |                     |                |   |     |                       |
|-------|----------------------------|---------------------------|---|----|-----|-------|------|---------------------|----------------|---|-----|-----------------------|
| 3238  | <i>purpurascens W.</i>     | purple                    | Δ | or | 3   | jlau  | P.g  | N. Amer.            | 1792.          | D | p.l | Dil. el. t. 28. f. 31 |
| 3239  | <i>variegata W.</i>        | variegated                | Δ | or | 4   | jlau  | W    | N. Amer.            | 1897.          | D | p.l | Bot. mag. 1182        |
| 3240  | <i>curassavica W.</i>      | Curassavian               | Δ | or | 3   | jn.s  | S    | S. Amer.            | 1692.          | S | r.m | Bot. reg. 81          |
|       | <i>β alba</i>              | white                     | Δ | or | 3   | jn.s  | W    | S. Amer.            | ...            | S | r.m |                       |
| 3241  | <i>nivea W.</i>            | Almond-leaved             | Δ | or | 3   | jl.s  | W    | N. Amer.            | 1730.          | D | p.l | Bot. mag. 1181        |
| 3242  | <i>parviflora W.</i>       | small-flowered            | Δ | or | 3   | jl.o  | W    | N. Amer.            | 1774.          | C | r.m | Jacq. ecl. t. 28      |
| 3243  | <i>incarnata W.</i>        | flesh-colored             | Δ | or | 2   | jlau  | Pu   | N. Amer.            | 1710.          | D | p.l | Bot. reg. 250         |
| 3244  | <i>púlchra W. en.</i>      | hairy                     | Δ | or | 2   | jlau  | Pu   | N. Amer.            | ...            | D | p.l |                       |
| 3245  | <i>decumbens W.</i>        | decumbent                 | Δ | or | 2   | jlau  | O    | N. Amer.            | 1731.          | D | p.l |                       |
| 3246  | <i>verticillata W.</i>     | whorl-leaved              | Δ | or | 3   | jlau  | W.g  | N. Amer.            | 1759.          | D | p.l | Pl. ma. t. 336. f. 3  |
| 3247  | <i>longifolia Ph.</i>      | long-leaved               | Δ | or | 2   | jlau  | P.Pu | N. Amer.            | 1816.          | D | p.l |                       |
| 3248  | <i>tuberosa W.</i>         | tuberous-rooted           | Δ | or | 2   | jl.s  | O    | N. Amer.            | 1690.          | D | s.l | Bot. reg. 76          |
| 3249  | <i>Linária W.</i>          | Flax-leaved               | Δ | or | 2   | ...   | W    | Mexico              | 1802.          | D | s.l | Cav. ic. t. 1. s. 7   |
| 589.  | <b>GONOLOBUS.</b>          | <i>R. Br.</i> GONOLOBUS.  |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 6—</i>  |   |     |                       |
| 3250  | <i>hirsátus Mich.</i>      | hairy                     | Δ | or | 6   | jn    | P    | N. Amer.            | 1806.          | C | l.p | Bot. cab. 365         |
| 3251  | <i>lævis Mich.</i>         | smooth                    | Δ | or | 6   | jn    | G    | N. Amer.            | 1806.          | C | l.p |                       |
| 3252  | <i>suberosus H. K.</i>     | Cork-barked               | Δ | or | 6   | jl.s  | G    | America             | 1732.          | C | p.l | D. el. t. 229. f. 296 |
| 3253  | <i>discolor B. M.</i>      | Virginian                 | Δ | or | 8   | jlau  | G    | N. Amer.            | 1809.          | C | s.p | Bot. mag. 1273        |
| 3254  | <i>crispiflorus H. K.</i>  | curled-flower             | Δ | or | 2   | jlau  | W.g  | S. Amer.            | 1741.          | C | s.p | Pl. ic. t. 216. f. 1  |
| 3255  | <i>diademátus Ker.</i>     | red-crowned               | Δ | or | 12  | so    | G    | Mexico              | 1812.          | C | s.p | Bot. reg. 252         |
| †590. | <b>PERGULARIA.</b>         | <i>R. Br.</i> PERGULARIA. |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 5—</i>  |   |     |                       |
| 3256  | <i>odoratissima H. K.</i>  | large                     | Δ | ft | 15  | jn.jl | G    | E. Indies           | 1794.          | C | r.m | Bot. rep. 185         |
| 3257  | <i>minor H. K.</i>         | small                     | Δ | ft | 8   | my.au | Y    | E. Indies           | 1780.          | C | r.m | Bot. mag. 755         |
| 3258  | <i>sanguinolenta Lind.</i> | bloody                    | Δ | cu | 6   | jlau  | G.y  | S. Leone            | 1822.          | C | r.m | Bot. mag. 2532        |
| 591.  | <b>MARSDENIA.</b>          | <i>R. Br.</i> MARSDENIA.  |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 2—</i>  |   |     |                       |
| 3259  | <i>erecta R. Br.</i>       | upright                   | Δ | ft | 2   | jlau  | W    | Syria               | 1597.          | C | s.l | Jac. vind. 1. t. 38   |
| 3260  | <i>suavéolens R. Br.</i>   | sweet-scented             | Δ | ft | 3   | jlau  | W    | N. S. W.            | 1816.          | C | s.l | Bot. reg. 489         |
| †592. | <b>HO'YA.</b>              | <i>R. Br.</i> HOYA.       |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 5—</i>  |   |     |                       |
| 3261  | <i>carnosa R. Br.</i>      | fleshy-leaved             | Δ | or | 10  | jlau  | Pk   | Asia                | 1802.          | L | r.m | Bot. mag. 788         |
| 3262  | <i>lanceolata Hort.</i>    | lanceolate                | Δ | or | 2   | ...   | ...  | E. Indies           | 1815.          | C | r.m |                       |
| 3263  | <i>crassifolia Haw.</i>    | thick-leaved              | Δ | or | 10  | ...   | ...  | China               | 1821.          | C | r.m |                       |
| 3264  | <i>Pottsil Hort.</i>       | cordate                   | Δ | or | 10  | ...   | ...  | China               | 1824.          | C | r.m | Bot. cab. 1969        |
| 3265  | <i>trinervis Hort.</i>     | three-nerved              | Δ | or | 10  | ...   | ...  | China               | 1824.          | C | r.m |                       |
| 593.  | <b>CEROPE'GIA.</b>         | <i>Roeb.</i> CEROPEGIA.   |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 3—</i>  |   |     |                       |
| 3266  | <i>dichotoma Haw.</i>      | dichotomous               | Δ | cu | 1   | jl.s  | Y    | E. Indies           | 1804.          | C | s.l | Roxb. cor. 1. t. 10   |
| 3267  | <i>juincea Roeb.</i>       | rushy                     | Δ | cu | 1   | ...   | Y    | E. Indies           | 1822.          | C | s.l | Bot. reg. 626         |
| 3268  | <i>africana Hort.</i>      | African                   | Δ | cu | 6   | ...   | Y    | E. Indies           | 1823.          | C | s.l | Bot. cab. 906         |
| *594. | <b>STAPELIA.</b>           | <i>R. Br.</i> STAPELIA.   |   |    |     |       |      | <i>Asclepiadeæ.</i> | <i>Sp. 65—</i> |   |     |                       |
| 3269  | <i>grandiflora Mass.</i>   | great-flowered            | Δ | cu | 1   | sd    | D.Pu | C. G. H.            | 1795.          | C | s.l | Mass. stap. t. 11     |
| 3270  | <i>spectabilis Haw.</i>    | snowy                     | Δ | cu | 1   | n.ja  | D.Pu | C. G. H.            | 1802.          | C | s.l | Bot. mag. 585         |
|       | <i>grandiflora B. M.</i>   |                           |   |    |     |       |      |                     |                |   |     |                       |
| 3271  | <i>ambigua W.</i>          | ambiguous                 | Δ | cu | 2   | jn.n  | P.Br | C. G. H.            | 1795.          | C | s.l | Mass. stap. t. 12     |
| 3272  | <i>sorória W. en.</i>      | sister                    | Δ | cu | 1   | jn.au | D.Pu | C. G. H.            | 1797.          | C | s.l | Bot. cab. 94          |
| 3273  | <i>pátula W. en.</i>       | spreading                 | Δ | cu | 1   | jn.au | O    | C. G. H.            | ...            | C | s.l | Jac. stap. c. ic.     |
| 3274  | <i>refléxa Haw.</i>        | reflexed                  | Δ | cu | ½   | jn.au | G.P  | C. G. H.            | ...            | C | s.l | Bot. mag. 1890        |
| 3275  | <i>lúcida D. C.</i>        | shining                   | Δ | cu | 1   | jn.au | P    | C. G. H.            | 1812.          | C | s.l |                       |
| 3276  | <i>Juvénula W. en.</i>     | short-flowered            | Δ | cu | 1   | jn.au | Br.P | C. G. H.            | ...            | C | s.l | Jac. stap. c. ic.     |
| 3277  | <i>Massónii Haw.</i>       | Masson's                  | Δ | cu | 2   | ...   | ...  | C. G. H.            | ...            | C | s.l |                       |
| 3278  | <i>Astérias W.</i>         | Star-fish                 | Δ | cu | ½   | my.n  | P.St | C. G. H.            | 1795.          | C | s.l | Bot. mag. 536         |
| 3279  | <i>stelláris Haw.</i>      | starry                    | Δ | cu | ... | ...   | ...  | C. G. H.            | ...            | C | s.l | Bot. cab. 1312        |
| 3280  | <i>hirsáta W.</i>          | hairy                     | Δ | cu | ½   | jn.au | P    | C. G. H.            | 1710.          | C | s.l | Jac. misc. 1. t. 3    |
|       | <i>β atra Jacq.</i>        | dark-flowered             |   |    |     |       |      |                     |                |   |     |                       |
| 3281  | <i>hamáta Jacq.</i>        | hooked                    | Δ | cu | ½   | jlau  | Bd.R | C. G. H.            | 1820.          | C | s.l | Bot. cab. 242         |
| 3282  | <i>comáta Jacq.</i>        | shaggy                    | Δ | cu | 1   | s     | Y.Br | C. G. H.            | 1819.          | C | s.l |                       |
|       | <i>β multiflora D. C.</i>  | many-flowered             |   |    |     |       |      |                     |                |   |     |                       |
| 3283  | <i>rúta W.</i>             | rusty-brown               | Δ | cu | 1   | g     | V.Br | C. G. H.            | 1817.          | C | s.l |                       |
| 3284  | <i>pulvínáta W.</i>        | cushy-down                | Δ | cu | ½   | jn.n  | Br   | C. G. H.            | 1795.          | C | s.l | Bot. cab. 239         |
|       |                            | rushed                    | Δ | cu | ½   | jn.n  | D.V  | C. G. H.            | 1795.          | C | s.l | Bot. cab. 1240        |



History, Use, Propagation, Culture,

dried and reduced to powder, is frequently used by the negroes as a vomit, and hence its name of wild or bastard Ipecacuanha.

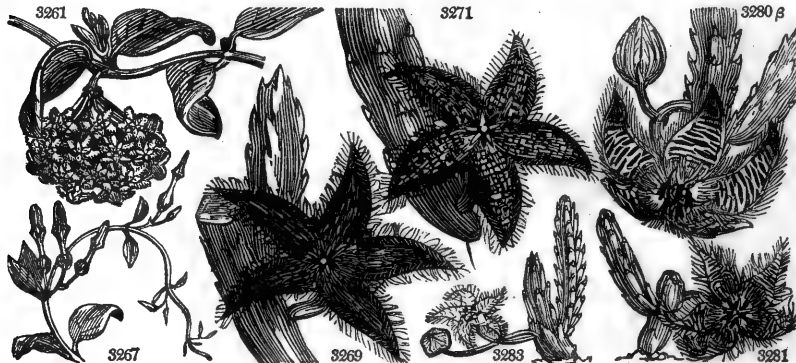
*A. vincetoxicum* (tame-poison) is so named because it was formerly esteemed an alexipharmick; and it is called swallow-wort from the fancied resemblance of the follicles or seeds to a swallow flying.

589. *Gonolobus*. The derivation and meaning of this word have not been explained. The genus consists chiefly of climbers of little beauty but easy culture.

590. *Pergularia*. From *Pergula*, trellis-work, which the plants are very proper for covering. This is a climbing genus, much valued for the fragrance of its flowers. It grows well in loam and peat, and cuttings root freely in sand under a hand-glass.

591. *Marsdenia*. So named by Mr. R. Brown, after William Marsden, Esq. the author of the excellent

- 3238 Stem simple, Leaves ovate villous beneath, Umbels erect, Nect. resupinate  
 3239 Leaves ovate rugose naked, Stem simple, Umbels subsessile, Flower-stalks downy  
 3240 Leaves stalked lanceolate smooth shining, Stem simple, Umbels erect solitary lateral
- 3241 Leaves ovate-lanceolate smooth, Stem simple, Umbels erect lateral solitary  
 3242 Leaves lanceolate acuminate smooth narrowed at base, Stem half shrubby erect, Umbels lateral solitary  
 3243 Leaves lanceolate smooth, Stem divided upwards, Umbels erect in pairs  
 3244 Leaves lanceolate pubescent beneath, Stem divided upwards, Umbels erect in pairs  
 3245 Leaves villous, Stem decumbent  
 3246 Stem erect simple downy in lines, Leaves very narrow linear mostly whorled  
 3247 Stem decumbent and leaves very long linear pubescent, Appendages of crown without horns  
 3248 Stem erect hairy with spreading branches at end, Leaves scattered lanceolate hairy  
 3249 Leaves linear subulate channelled, Umbels stalked nodding: lateral many-flowered
- 3250 Runners and leafstalks very hairy, Lvs. acum. by degrees perceptibly hairy on both sides, Foll. muricated  
 3251 Runners smoothish, Leaves conical cordate acute by degrees, Flowers and follicles smooth  
 3252 Leaves cordate acuminate with the sinus open  
 3253 Leaves cordate, Corymbs axillary, Common flower-stalk longer than the leafstalks Cor. discolored  
 3254 Leaves oblong cordate with the sinus closed, Petals crisp at end  
 3255 Villous, Leaves oblong elliptical lanceolate cordate, Crown at bottom of tube
- 3256 Leaves cordate acuminate, Cal. shorter than tube of cor.  
 3257 Leaves cordate obtuse with a point, Cal. as long as tube of cor.  
 3258 Leaves ovate lanc. very smooth, Cymes shorter than leaves, Sap blood-colored
- 3259 Stem erect, Leaves cordate ovate acute, Cymes umbellate, Flowers not bearded  
 3260 Stem somewhat erect, Leaves oval-lanceolate smooth veinless, Tube inflated, Orifice bearded
- 3261 Leaves ovate, Flowers bearded  
 3262 Leaves ovate-lanceolate acute small  
 3263 Leaves obovate obtuse very thick  
 3264 Leaves cordate  
 3265 Leaves oblong slightly cordate at base with 3 distinct nerves
- 3266 Stems upright jointed rounded, Leaves linear acute  
 3267 Leaves lanceolate sessile, Peduncles 2-flowered, Stem fleshy  
 3268 Leaves smooth with an edge, Peduncles simple, Calyx very smooth
- § 1. *Cor. 5-cleft with no ball. Crown double: the outer with the ligules united at base; inner with the appendages united upwards into a beak, downwards expanded into a wing.* (TRUE STAPELIA.)
- 3269 Branches quadrangular clavate: angles with remote incurved teeth, Seg. of cor. lanc. acute fringed at edge  
 3270 Segments of cor. fringed with white covered at base with very close long red hairs black at end, beyond mid. striped with pale
- 3271 Branches erect 4-ang. clav. Angles toothed rem. incurv. Cor. large flat with lanc. hisp. seg. fring. at edge  
 3272 Branches spreading 4-ang. Angles toothed, Teeth remote acute incurved, Cor. whole color. vil. in middle  
 3273 Cor. flat cil. rugose above in mid. hairy otherwise smooth, Beak sub. ac. Wings obl. obt. 1-tooth. inside  
 3274 Stam. deltoid with inner process recurved unguiculate, Top of style impressed with the mark of a cross  
 3275 Branches sq. erect velvety, Teeth erect, Disc. of fis. shining hairy with ovate-acum. revolute ciliated seg.  
 3276 Fls. flat smooth rugose crosswise, Beaks subul. gibb. Ligules lanc. acum. Bran. fl.-bearing about the mid.  
 3277 Branches four together large equal sided with flat pubescent angles  
 3278 Branches several erect square toothed, Teeth short erect, Fl. large, Segm. lanc. ciliated revolute at edge  
 3279 An obscure species said to be cultivated in the gardens, but of which nothing is known  
 3280 Flowers flat ciliated hairy all over the disk, Beaks subulate acute with a broad acute wing at the back
- 3281 Fls. flat cil. rugose above hairy in centre. One or more of teeth hooked, Wings parallel with erect beaks  
 3282 Fl. cil. Disk flat shaggy in mid. Segm. at first deflexed afterwards spreading, Wings obl. trunc. crenulate  
 β Differs chiefly in the dark color of the flowers which are clustered and not solitary
- 3283 Segm. of fl. lanc. acum. Ligules linear lanc. wavy, Branches erect square with erect teeth  
 3284 Branches reclinate, Segm. of fl. rounded rugose acuminate ciliated: the bottom elevated closely hairy



and Miscellaneous Particulars.

History of Sumatra, in which one species, used as Indigo in the island is figured. Little neat shrubs, with axillary bunches of small white sweet-scented flowers.

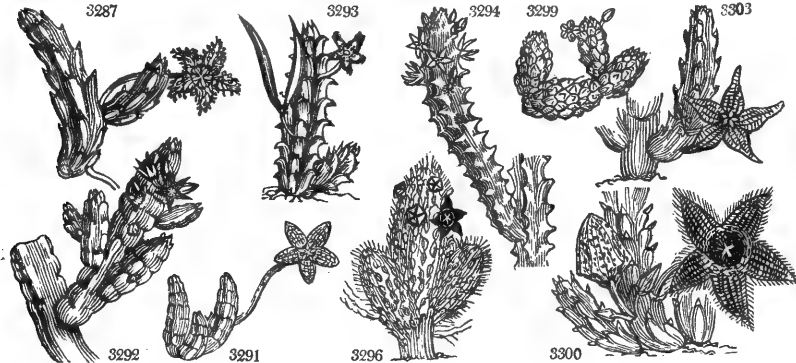
592. *Hoya*. Named after Mr. Thomas Hoy, for many years gardener to the Duke of Northumberland. He died about 1821. *H. carnea* is of easy culture, flowers freely, and is propagated by cuttings in a moist heat. Its flowers are very mellifluous, and it has been said that one or two plants, placed when in flower in a viney of ripe grapes, will entice the wasps from eating the fruit.

593. *Ceropegia*. From *κερως*, wax, and *πηγη*, a fountain; literally, a fountain of wax, poetically, a candelabre; on account of the umbels of bright yellow flowers. Curious naked plants with tumid fleshy stems. Same culture as *Hoya*.

594. *Stapelia*. So named by Linnæus, in memory of Bodeus à Stapel, a physician of Amsterdam, com.



|      |                            |                  |                  |                       |          |          |       |       |                     |
|------|----------------------------|------------------|------------------|-----------------------|----------|----------|-------|-------|---------------------|
| 3285 | <i>ásirgetris Jacq.</i>    | split-beaked     | $\frac{1}{2}$ cu | 2 $\frac{1}{2}$ ...   | Y.G      | C. G. H. | 1823. | C a.l | Jac. stap. c. ic.   |
| 3286 | <i>concinna W.</i>         | spruce           | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.au   | Gr       | C. G. H. | 1795. | C a.l | Mass. stap. t. 18   |
| 3287 | <i>glandulifóra W.</i>     | gland-flowered   | $\frac{1}{2}$ cu | $\frac{1}{2}$ au.n    | Br       | C. G. H. | 1795. | C a.l | Mass. stap. t. 19   |
| 3288 | <i>glandulifera Haw.</i>   | hairy-glanded    | $\frac{1}{2}$ cu | $\frac{1}{2}$ au.n    | Br       | C. G. H. | ...   | C a.l |                     |
| 3289 | <i>acumináta W.</i>        | acuminated       | $\frac{1}{2}$ cu | $\frac{1}{2}$ ls      | P.St     | C. G. H. | 1795. | C a.l | Mass. st. 15. t. 17 |
| 3290 | <i>hispidula Horn.</i>     | hispid           | $\frac{1}{2}$ cu | $\frac{1}{2}$ jl.au   | Gr       | C. G. H. | 1824. | C a.l |                     |
| 3291 | <i>apérta W.</i>           | open-flowered    | $\frac{1}{2}$ cu | 2 jl.au               | Y.P      | C. G. H. | 1795. | C a.l | Mass. stap. t. 57   |
| 3292 | <i>ramósa W.</i>           | branched         | $\frac{1}{2}$ cu | 1 $\frac{1}{2}$ jn.jl | D.P      | C. G. H. | 1795. | C a.l | Mass. stap. t. 32   |
| 3293 | <i>árida W.</i>            | dry              | $\frac{1}{2}$ cu | $\frac{1}{2}$ au      | Y        | C. G. H. | 1795. | C a.l | Mass. stap. t. 33   |
| 3294 | <i>incarnáta W.</i>        | flesh-colored    | $\frac{1}{2}$ cu | 1 ap.au               | F        | C. G. H. | 1793. | C a.l | Mass. stap. t. 34   |
| 3295 | <i>parvióbra W.</i>        | small-flowered   | $\frac{1}{2}$ cu | 1 jn.au               | Y.Gr     | C. G. H. | 1795. | C a.l | Mass. stap. t. 35   |
| 3296 | <i>pilifera W.</i>         | hairy-tubercled  | $\frac{1}{2}$ cu | 1 jn.au               | D.P      | C. G. H. | 1790. | C a.l | Mass. stap. t. 23   |
| 3297 | <i>Gordonii Mass.</i>      | Gordon's         | $\frac{1}{2}$ cu | 1 ...                 | Y.Br     | C. G. H. | ...   | C a.l | Mass. stap. t. 40   |
| 3298 | <i>mammillaris W.</i>      | prickly          | $\frac{1}{2}$ cu | 1 jn.jl               | Br       | C. G. H. | 1774. | C a.l | Bur. afr. 27. t. 11 |
| 3299 | <i>articuláta W.</i>       | jointed          | $\frac{1}{2}$ cu | $\frac{1}{2}$ jln     | D.P      | C. G. H. | 1774. | C a.l | Mass. stap. t. 30   |
| 3300 | <i>gemmióbra Mass.</i>     | gem-flowered     | $\frac{1}{2}$ cu | $\frac{1}{2}$ on      | D.P      | C. G. H. | 1795. | C a.l | Mass. stap. t. 15   |
| 3301 | <i>stýgia Haw.</i>         | Stygian          | $\frac{1}{2}$ cu | $\frac{1}{2}$ jls     | D.P      | C. G. H. | 1810. | C a.l |                     |
|      | <i>β moschata Haw.</i>     | musky            | $\frac{1}{2}$ cu | ... ..                | C. G. H. | ...      | C a.l |       |                     |
| 3302 | <i>hircósa W. en.</i>      | stinking         | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.au   | Br.Pu    | C. G. H. | ...   | C a.l | Jac. stap. c. ic.   |
| 3303 | <i>vétula W.</i>           | pur. smooth.-fl. | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.n    | D.Pu     | C. G. H. | 1793. | C a.l | Mass. stap. t. 16   |
| 3304 | <i>Simsii Haw.</i>         | Sims's           | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.n    | D.Pu     | C. G. H. | 1800. | C a.l | Bot. mag. 1234      |
|      | <i>vétula B. M.</i>        |                  |                  |                       |          |          |       |       |                     |
| 3305 | <i>rugósa W. en.</i>       | wrinkled         | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.au   | P.St     | C. G. H. | 1805. | C a.l | Jac. stap. c. ic.   |
| 3306 | <i>paniculáta W. en.</i>   | paniced          | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.s    | V        | C. G. H. | 1805. | C a.l |                     |
| 3307 | <i>divaricáta W.</i>       | straddling       | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.n    | D.F      | C. G. H. | 1793. | C a.l | Bot. mag. 1007      |
| 3308 | <i>pólchra Haw.</i>        | beautiful Sulph. | $\frac{1}{2}$ cu | $\frac{1}{2}$ au.s    | Y.St     | C. G. H. | 1800. | C a.l | Bot. mag. 786       |
| 3309 | <i>irroráta W.</i>         | dewy             | $\frac{1}{2}$ cu | $\frac{1}{2}$ jls     | Y.St     | C. G. H. | 1795. | C a.l | Bot. cab. 127       |
| 3310 | <i>verrucósa W.</i>        | wart-flowered    | $\frac{1}{2}$ cu | $\frac{1}{2}$ au.o    | Y.St     | C. G. H. | 1795. | C a.l | Mass. stap. t. 8    |
| 3311 | <i>roritua W. en.</i>      | dew-bearing      | $\frac{1}{2}$ cu | $\frac{1}{2}$ jls     | Y.St     | C. G. H. | 1802. | C a.l | Jac. stap. c. ic.   |
| 3312 | <i>pulchrálla W.</i>       | beautiful        | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.n    | Y.St     | C. G. H. | 1795. | C a.l | Mass. stap. t. 36   |
| 3313 | <i>lépida W. en.</i>       | pretty           | $\frac{1}{2}$ cu | $\frac{1}{2}$ jl.au   | G.St     | C. G. H. | ...   | C a.l | Jac. stap. c. ic.   |
| 3314 | <i>ciliáta W.</i>          | ciliated         | $\frac{1}{2}$ cu | $\frac{1}{2}$ o.d     | G.St     | C. G. H. | 1795. | C a.l | Mass. stap. t. 1    |
| 3315 | <i>revolúta W.</i>         | revolute-flower. | $\frac{1}{2}$ cu | 1 jn.s                | Pu       | C. G. H. | 1790. | C a.l | Bot. mag. 724       |
| 3316 | <i>glauca W. en.</i>       | glaucous         | $\frac{1}{2}$ cu | 2 jn.n                | R.Pu     | C. G. H. | 1799. | C a.l | Jac. stap. c. ic.   |
| 3317 | <i>pruinósa W.</i>         | frosted          | $\frac{1}{2}$ cu | 1 $\frac{1}{2}$ jn.jl | D.Br     | C. G. H. | 1795. | C a.l | Mass. stap. t. 41   |
| 3318 | <i>obliqua W. en.</i>      | oblique-flower.  | $\frac{1}{2}$ cu | 1 jn.s                | Pa.V     | C. G. H. | 1805. | C a.l |                     |
| 3319 | <i>maculósa Jacq.</i>      | spotted          | $\frac{1}{2}$ cu | 1 jn.s                | Br.v     | C. G. H. | 1804. | C a.l | Bot. mag. 1833      |
| 3320 | <i>bisulea Donn.</i>       | two-furrowed     | $\frac{1}{2}$ cu | 1 jn.s                | Y.St     | C. G. H. | 1805. | C a.l |                     |
| 3321 | <i>variegáta Haw.</i>      | variegated       | $\frac{1}{2}$ cu | 1 jn.s                | Y.St     | C. G. H. | 1727. | C a.l | Jac. stap. t. 3     |
| 3322 | <i>Curtisii Haw.</i>       | Curtis's         | $\frac{1}{2}$ cu | 1 jn.s                | Y.St     | C. G. H. | 1690. | C a.l | Bot. mag. 26        |
|      | <i>variegáta B. M.</i>     |                  |                  |                       |          |          |       |       |                     |
| 3323 | <i>planifóra W. en.</i>    | plain-flowered   | $\frac{1}{2}$ cu | $\frac{1}{2}$ jln     | P.v      | C. G. H. | 1805. | C a.l | Bot. cab. 191       |
| 3324 | <i>margináta W. en.</i>    | red-edged        | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.s    | Y.St     | C. G. H. | 1805. | C a.l |                     |
| 3325 | <i>conspurcáta W. en.</i>  | white-edged      | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.o    | Y.St     | C. G. H. | 1795. | C a.l | Jac. stap. c. ic.   |
| 3326 | <i>normalis Jacq.</i>      | regular-spotted  | $\frac{1}{2}$ cu | $\frac{1}{2}$ jl.au   | Y.St     | C. G. H. | 1821. | C a.l | Bot. reg. 755       |
| 3327 | <i>orbiculáris B. Rep.</i> | orbicular        | $\frac{1}{2}$ cu | $\frac{1}{2}$ jln     | Y.St     | C. G. H. | 1799. | C a.l | Bot. cab. 311       |
| 3328 | <i>bufónia W. en.</i>      | toad             | $\frac{1}{2}$ cu | 1 jn.s                | Y.St     | C. G. H. | 1806. | C a.l | Bot. mag. 1876      |
| 3329 | <i>anguina Haw.</i>        | snake-speckled   | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.jl   | Y.St     | C. G. H. | 1812. | C a.l | Bot. cab. 828       |
| 3330 | <i>pícta H. K.</i>         | painted          | $\frac{1}{2}$ cu | $\frac{1}{2}$ jn.s    | Y.Ss     | C. G. H. | 1799. | C a.l | Bot. mag. 1169      |
| 3331 | <i>gemináta W.</i>         | twin-flowered    | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.n    | P.St     | C. G. H. | 1795. | C a.l | Bot. mag. 1326      |
| 3332 | <i>decóra W.</i>           | neat             | $\frac{1}{2}$ cu | $\frac{1}{2}$ my.n    | Y.St     | C. G. H. | 1795. | C a.l | Mass. stap. t. 26   |
| 3333 | <i>reclináta W</i>         | reclining        | $\frac{1}{2}$ cu | $\frac{1}{2}$ jls     | Pu       | C. G. H. | 1795. | C a.l | Mass. stap. t. 28   |



History, Use, Propagation, Culture.

mentator on Theophrastus, 1644. This is a genus of singular plants, without leaves, diminutive, very succulent, and some of them with flowers large in proportion to the plant, curious, and often smelling very disagreeably. They are mostly natives of the deserts of Africa, and have been chiefly discovered by Masson,

- 3285 Flowers cuspidate rugose scabrous ciliated, Beaks half split  
 3286 Branches and branchlets upright square quite smooth, Angles toothed, Teeth erect, Flower flat hispid  
 3287 Branches many erect square, Angles toothed, Teeth erect acute, Cor. covered with clavate glands  
 3288 Cor. very villous with white spatulate hairs, Ligules minute rhomboid-oblong entire  
 3289 Branches several suberect 4-cornered toothed, Flower flat smooth rugose, Segments caudate  
 3290 Pedunc. aggreg. rad. much longer than cor. Segm. acum. hispid with clavate hairs, Beaks subul. conniving  
 3291 Branches many divaricating square toothed, Flower flat with ovate obtuse rugose segments  
 3292 Branches many erect square toothed, Flowers clustered sessile, Segm. lanc. acute folded back  
 3293 Branches many erect square with spreading acute teeth, Flowers solitary stalked, Segm. setaceous  
 3294 Branches erect square toothed, Teeth spreading acute, Flowers sessile, Segm. lanc. flat  
 3295 Branches several square toothed recurved, Flower small, Segm. narrow flat spreading fringed at edge  
 3296 Branches several rounded furrowed tubercled hairy, Flower solitary sessile  
 3297 Branches and branchlets rounded tubercled spiny, Flowers solitary large 10-cleft  
 3298 Cor. smooth, Seg. lanc. Fl. stalks shorter than cor. Branches flowering in mid. 6-sid. with prickly tuber.  
 3299 Joints of branches obl. round. nett. obscurely warted, Spines sin. Cor. wart. above with triangular segm.  
 3300 Branches several erect sq. with nearly upright acute teeth, Fl. flat rough 5-cleft with ov. lanc. ciliate seg.  
 3301 Cor. rugose dark with pink hairs, Branches thick short yellowish green

- 3302 Cor. ciliated rough above dotted beneath, Ligules erect 3-parted: middle lanceol. longer than sides  
 3303 Branches many erect square smooth, Cor. flat smooth with lanceolate obtuse segments  
 3304 Teeth of branches rounded, Fls. closed ventricose with 5-nerved ov. acum. seg. Beaks split open

- 3305 Ball spurious depressed 5 crenate in the circumference, Beaks and wings rounded obtuse, Tube of cor. O.  
 3306 Cor. 5-parted flat hairy warted across, Appendages obtuse obscurely toothed, Beaks subulate conniving

§ 2. Cor. 5-cleft with no ball. Ligules not connate at base spreading. Appendages lengthened into incurved beaks, gibbous, but not winged at back. (GONOSTEMON. Haw.)

- 3307 Branches several sq. divaricat. smooth tooth. narr. by deg. Cor. very smooth 5-cleft, Seg. lanc. spreading  
 § 3. Cor. 5-cleft with a ball. Ligules connate spreading. Appendages lengthened into incurved beaks, not winged. (PODANTHES. Haw.)

- 3308 Much branched weak, Flowers in pairs wrinkled minutely hairy at bottom

- 3309 Branches many suberect toothed, Teeth spreading acute crossing, Cor. flat rugose, Segm. lanc. acute  
 3310 Branches many erect with furrowed tubercled hairy, Cor. flat wart. elevated in the middle into a rough table  
 3311 Cor. 5-cleft camp. smooth dotted even at bottom, Segm. of outer crown ob. emarg. Inner hooked 2-lobed  
 3312 Branches several reclinate with acute teeth, Fl. clustered, Segm. triangular acute with a round centre  
 3313 Rim obsolete, Beaks rounded obtuse, Wings conical subulate acute spreading, Ligules retuse  
 3314 Stem square with spreading teeth, Flower stalked, Segm. ovate scaly ciliated

§ 4. Cor. 5-cleft reflexed with no ball. Ligules connate at base. Appendages lengthened into long beaks with short wings. (TROMOTRICHE. Haw.)

- 3315 Branches square erect with spreading teeth, Cor. smooth, Segments ciliated acute revolute  
 3316 Segm. of cor. ovate acute fringed revolute, Beaks clavate, Branches square with rounded angles  
 3317 Branches square toothed, Teeth recurved, Segm. of cor. flat ovate hairy

§ 5. Cor. 5-cleft, with a large ball in the middle. Ligules connate at base. Appendages produced into long beaks, and subulate or filiform wings. (ORBESIA. Haw.)

- 3318 Cor. 5-cleft rugose smooth, Segm. ovate-acumin. bent obliquely, Marginal fringe clavate white and violet  
 3319 Ball solid, Beaks and wings rounded obtuse, Ligules trifid, Cor. flat beneath fringed at mouth  
 3320 Cor. 5-cleft, Ligules oblong emarginate, Sepals broad ovate acuminate, Branches thick green not spotted  
 3321 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid acute  
 3322 Cor. sulphur colored with entire ligules

- 3323 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid, Cor. flat beneath  
 3324 Ball 5 angular, Ligules 2-toothed obt. Appendages diverging the inner clavate the outer subulate obtuse

- 3325 Cor. fringed at edge with clavate hairs, Ball tumid, Appendages bifid diverging  
 3326 Cor. rugose across flat dotted in a regular manner, Inner horns hooked obtuse, Ball round tumid

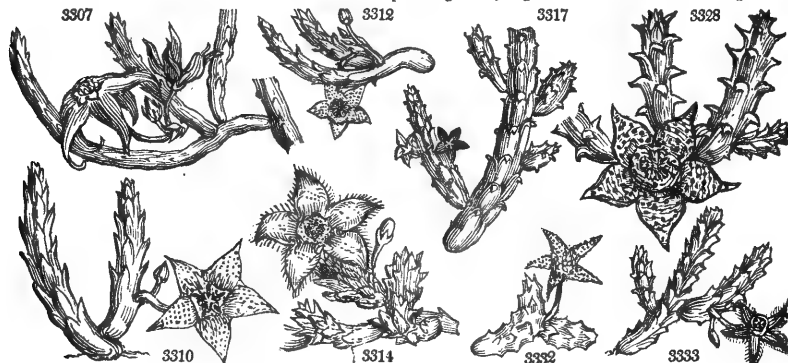
- 3327 Branches several erect spreading 4-cornered toothed, Ball closely dotted, Segm. rugose cordate striated  
 3328 Ball spurious, Beaks round obt. Wings filiform obt. spreading, Ligules bifid obt. Cor. flat with no tube  
 3329 Ball large, Ligules half divided, Speckles of flower wavy tortuous

- 3330 Branches simple 4-furrowed tortulose, Seg. ov. acum. rugose, Ball elevated rugose depressed in middle  
 § 6 Cor. 5-cleft flat with no ball. Ligules none. Appendages produced into a short beak and a longer incumbent wing. (OBESIA. Haw.)

- 3331 Cor. 5-cleft strigose, Seg. revolute at edge, Wings hooked incumbent on their beak, Shield 5-lobed fleshy  
 3332 Joints of stem obl. rounded, Fls. in pairs, Seg. of cor. lanceolate acuminate rough above revolute at edge

§ 7 Cor. 5-cleft, with the segments folded back. Ligules none. Appendages or beaks simple, with no wings. (DUVALIA. Haw.)

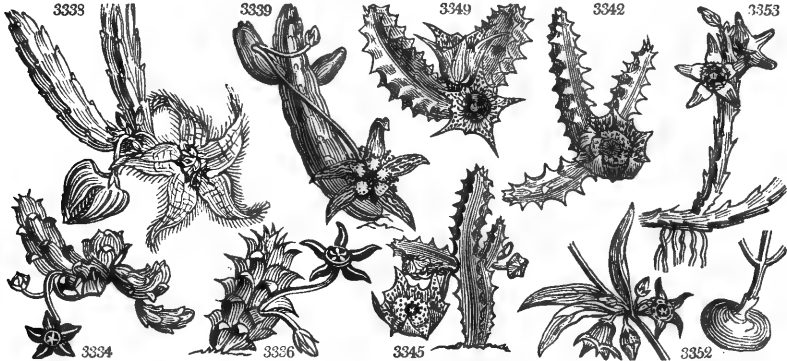
- 3333 Branches several 4-cornered reclinate with acute spreading teeth, Segm. of flower folded back fringed



and Miscellaneous Particulars.

a collector for Kew gardens about the end of the last century, and who published a monograph of the genus. They have been divided into several genera by Haworth, who has not been followed by other writers. Some of the species, as *S. pilifera* and *articulata*, are eaten by the Hottentots and by the Dutch settled at the Cape

|                              |                  |    |      |     |        |       |             |          |        |                         |
|------------------------------|------------------|----|------|-----|--------|-------|-------------|----------|--------|-------------------------|
| 3334 <i>élegans W.</i>       | elegant          | xx | cu   | ½   | jl.s   | Pu    | C. G. H.    | 1795.    | C. s.l | Bot. mag. 1184          |
| 3335 <i>caespitosa W.</i>    | tufted           | xx | cu   | ½   | any.au | Pu    | C. G. H.    | 1790.    | C. s.l | Mass. stap. t. 39       |
| 3336 <i>hirtella W. en.</i>  | small hairy      | xx | cu   | ½   | jl.s   | Pu    | C. G. H.    | 1805.    | C. s.l | Jac. stap. c. ic.       |
| 3337 <i>radiata H. K.</i>    | starry           | xx | cu   | ½   | jl.s   | Pu    | C. G. H.    | 1795.    | C. s.l | Bot. mag. 619           |
| 3337 <i>Jacquini</i>         | Jacquini's       | xx | cu   | ½   | jl.s   | Pu    | C. G. H.    | 1802.    | C. s.l | Jac. stap. c. ic.       |
| 3338 <i>radiata J. S.</i>    |                  |    |      |     |        |       |             |          |        |                         |
| 3338 <i>deflexa J. S.</i>    | deflexed         | xx | cu   | 1   | jn.au  | Y     | C. G. H.    | 1806.    | C. s.l | Bot. mag. 1890          |
| §3339 <i>pedunculata W.</i>  | long-peduncled   | xx | cu   | ½   | jn.n   | Br.P  | C. G. H.    | 1790.    | C. s.l | Bot. mag. 793           |
| 3340 <i>serrulata W. en.</i> | sawed            | xx | cu   | ½   | jn.au  | P     | C. G. H.    | 1805.    | C. s.l | Jac. stap. c. ic.       |
| 595. PIARAN'THUS. R. Br.     | PIRANTHUS.       |    |      |     |        |       |             |          |        |                         |
| 3341 <i>póllus R. Br.</i>    | many-flowered    | xx | cu   | ½   | au.s   | D.Pu  | C. G. H.    | 1774.    | C. s.l | Bot. mag. 1648          |
| 3342 <i>punctátus R. Br.</i> | dotted           | xx | cu   | ½   | jl.n   | D.Pu  | C. G. H.    | 1795.    | C. s.l | Mass. stap. t. 24       |
| 596. HUER'NIA. R. Br.        | HUER'NIA.        |    |      |     |        |       |             |          |        |                         |
| 3343 <i>reticulata Haw.</i>  | netted           | xx | cu   | ½   | jl.au  | Pu.St | C. G. H.    | 1793.    | C. s.l | Bot. mag. 1662          |
| 3344 <i>campanulata Haw.</i> | bell-shaped      | xx | cu   | ½   | jl.o   | Y.St  | C. G. H.    | 1795.    | C. s.l | Bot. mag. 1227          |
| 3345 <i>venósa Haw.</i>      | handsome         | xx | cu   | ½   | jn.jl  | Y.St  | C. G. H.    | 1795.    | C. s.l | Mass. stap. t. 3        |
| 3346 <i>lentiginósa Haw.</i> | freckled         | xx | cu   | ½   | jl.n   | Y.St  | C. G. H.    | 1795.    | C. s.l | Bot. mag. 506           |
| 3347 <i>guttáta Haw.</i>     | red-spotted      | xx | cu   | ½   | au.n   | Y.St  | C. G. H.    | 1795.    | C. s.l | Mass. stap. t. 4        |
| 3348 <i>húmilis Haw.</i>     | humble           | xx | cu   | ½   | au.n   | Y.St  | C. G. H.    | 1795.    | C. s.l | Mass. stap. t. 5        |
| 3349 <i>tubáta W. en.</i>    | tube-flowered    | xx | cu   | ½   | au.n   | Y.St  | C. G. H.    | 1805.    | C. s.l | Bot. cab. 225           |
| 3350 <i>barbáta Haw.</i>     | bearded          | xx | cu   | ½   | au.n   | W.St  | C. G. H.    | 1795.    | C. s.l | Mass. stap. t. 7        |
| 3351 <i>clavigera Haw.</i>   | clubbed          | xx | cu   | ½   | jl.n   | Y.St  | C. G. H.    | 1795.    | C. s.l | Jac. stap. c. ic.       |
| 597. BRACHYSTEL'MA. R. Br.   | BRACHYSTELMA.    |    |      |     |        |       |             |          |        |                         |
| 3352 <i>tuberósum R. Br.</i> | tuberous         | xx | cu   | 1½  | jn.jl  | Pu    | C. G. H.    | 1821.    | C. s.l | Bot. reg. 722           |
| 598. CARALLU'MA. R. Br.      | CARALLUMA.       |    |      |     |        |       |             |          |        |                         |
| 3353 <i>ascéndens R. Br.</i> | ascending        | xx | cu   | 2   | jl     | Y     | E. Indies   | 1804.    | C. s.l | Roxb. cor.1. t. 30      |
| 3354 <i>umbelláta R. Br.</i> | umbelled         | xx | cu   | ... | ...    | ...   | E. Indies   | 1804.    | C. s.l |                         |
| 599. SWERT'IA. W.            | FELWORT.         |    |      |     |        |       |             |          |        |                         |
| 3355 <i>perénnis W.</i>      | marsh            | xx | △ or | 1   | jl.au  | Pu    | England     | al.ma.   | D. m.s | Eng. bot. 1441          |
| 1600. GENTIA'NA. W.          | GENTIAN.         |    |      |     |        |       |             |          |        |                         |
| 3356 <i>lútea W.</i>         | yellow           | xx | △ or | 4   | jn.jl  | Y     | Al. of Eur. | 1596.    | D. p.l | Mill. ic. t. 139        |
| 3357 <i>purpúrea W.</i>      | purple           | xx | △ or | 3   | jn.jl  | B     | Al. of Eur. | 1768.    | D. p.l | Bot. rep. 117           |
| 3358 <i>pannónica W.</i>     | round-petalled   | xx | △ or | 1   | jn.jl  | Pu    | Al. of Eur. | ...      | D. p.l | Jac. aus. 2. t. 136     |
| 3359 <i>punctáta W.</i>      | spotted-flower'd | xx | △ or | 3   | jn.jl  | Y     | Al. of Eur. | 1775.    | D. p.l | J. aus. 5. t. app. 28   |
| 3360 <i>septémfida Pall.</i> | crested          | xx | △ or | ½   | jn.jl  | L.B   | Persia      | 1804.    | D. p.l | Bot. mag. 1329          |
| 3361 <i>asclepiáda W.</i>    | Swallow-wort-l.  | xx | △ or | 1   | jl.au  | B     | Austria     | 1623.    | D. p.l | Bot. mag. 1078          |
| 3362 <i>macrophýlla W.</i>   | long-leaved      | xx | △ or | 1   | jl.au  | D.B   | Siberia     | 1796.    | D. p.l | Pall. ross. 2. t. 96    |
| 3363 <i>cruciáta W.</i>      | Cross-wort       | xx | △ or | 1   | jn.jl  | D.B   | Austria     | 1596.    | D. p.l | Jac. aus. 4. t. 372     |
| 3364 <i>ochroleuca Fról.</i> | pale-flowered    | xx | △ or | 2   | au.s   | P.Y   | N. Amer.    | 1803.    | D. p.l | Bot. mag. 1551          |
| 3365 <i>incarnáta B. M.</i>  | flesh-colored    | xx | △ or | 2   | o      | Pk    | N. Amer.    | 1812.    | D. p.l | Bot. mag. 1856          |
| 3366 <i>Saponária W.</i>     | barrel-flowered  | xx | △ or | 2   | au.s   | B     | N. Amer.    | 1776.    | D. p.l | Bot. mag. 1039          |
| 3367 <i>Catesbe'i H. K.</i>  | Catesby's        | xx | △ or | 1½  | jn.jl  | B     | N. Amer.    | 1803.    | D. p.l | Bot. rep. 418           |
| 3368 <i>Pneumonánthe W.</i>  | Calathian Violet | xx | △ or | ½   | au.s   | B     | England     | moi.h.   | D. p.l | Eng. bot. 20            |
| 3369 <i>caucásica H. K.</i>  | Caucasian        | xx | △ or | ½   | jl     | V     | Caucasus    | 1804.    | D. p.l | Bot. mag. 1038          |
| 3370 <i>ascéndens W.</i>     | porcelain-flow.  | xx | △ or | ½   | jn.jl  | B     | Siberia     | 1799.    | D. p.l | B. mag. 705. & 723      |
| 3371 <i>triflóra Pall.</i>   | three-flowered   | xx | △ or | ½   | jn.jl  | B     | Siberia     | 1807.    | D. p.l | Pall. ross. t. 93. f. 1 |
| 3372 <i>álgida Pall.</i>     | narrow-leaved    | xx | △ or | ½   | jn.jl  | W     | Siberia     | 1808.    | D. p.l | Pall. ross. 2. t. 95    |
| 3373 <i>acáthís W.</i>       | dwarf            | xx | △ or | ½   | mr.my  | B     | Wales       | walls.   | D. p.l | Eng. bot. 1594          |
| 3374 <i>vérna W.</i>         | spring           | xx | △ or | ½   | sp.my  | B     | England     | mount.   | D. p.l | Eng. bot. 493           |
| 3375 <i>bavárica W.</i>      | Bavarian         | xx | △ or | ½   | jl     | B     | Germany     | 1775.    | D. p.l | Vill. delph. 2. t. 10   |
| 3376 <i>nivalís W.</i>       | small Alpine     | xx | △ or | ½   | au     | B     | Scotland    | sc. alp. | D. p.l | Eng. bot. 896           |
| 3377 <i>viscósá H. K.</i>    | clammy           | xx | △ or | ½   | jn.au  | Y     | Canary Isl. | ...      | S. s.l | Bot. mag. 2135          |



History, Use, Propagation, Culture,

pickled in vinegar; but in general they are without use. According to Sweet, "the best soil for them is a sandy loam, mixed with old lime or brick rubbish; if planted in a richer soil, they will thrive better for a time, and produce larger flowers; but then they are very apt to rot off, particularly if they chance to get a little too much water: a very little water serves them, except when in flower, when it may be given more freely. They are readily increased by cuttings, which should be laid to dry in the stove, till they begin to shrivel; then planted in pots they will root immediately. If planted as soon as taken off, when full of juice, they are likely to rot. (Bot. Cult. 109.)

595. *Piранthus*. From *παρεος*, fat, and *ανδρος*, a flower, on account of the fleshy nature of the corolla. The species are only artificially distinguished from *Stapelia*.

596. *Huernia*. Named after Justus Huernius, an obscure botanist. The species have the same appearance

- 3334 Branches several clustered oblong toothed, Segm. of cor. 3-angular hispid fringed at edge  
 3335 Branches clustered procumbent 4-cornered with spreading acute teeth, Seg. of cor. folded back fringed
- 3336 Branches clustered short with conical acute teeth, Segm. of cor. distant folded back naked  
 3337 Cor. with seg. refl. at edge and fringed with simple hairs, Bottom rounded elevated, Lig. falcate hooked  
 3338 Cor. rugose ciliat. pubes. in midd. Seg. revolute at edge all bent down, Beaks subul. Wings scarcely any
- § 8. Cor. 5-cleft with no ball. Ligules not connate at base, spreading. Appendages elongated into a bifid rostrum, with globose fungous tips. (CARUNCULARIA. Haw.)
- 3339 Branches several divar. 4-corn. toothed, Ped. very long, Seg. of cor. lanc. rev. at edge with fringed angles  
 3340 Branches oblong jointed, Peduncles twin, Cor. revolute at edge with wings and lobes serrated at end
- 3341 Six-cornered erect with spreading prickles, Flower sessile clustered, Segm. of cor. lanceolate silky above  
 3342 Joints 4-cornered toothed, Flowers fascicled, Segm. of cor. lanceolate papillose
- 3343 Branches 5-cornered toothletted, Cor. with 10 angles, Tube bearded inside and elevated into a ball  
 3344 Cor. campanulate closed at bottom by clavate horizontal hairs, Ligules spreading truncate dark  
 3345 Branches 4 and 5-cornered, Young branches very much spreading, Cor. 10-cleft, Tube smooth  
 3346 Cor. 10-toothed, Alternate segments obsolete, Branches 5-cornered spreading with hooked tubercles  
 3347 Cor. concave at bottom, Stems simple above glaucous, The teeth of the branches horizontal  
 3348 Branches several 4-5 angular spreading, Cor. rounded 10-cleft, Segm. alternately longer, Flowers solitary  
 3349 Branches simple very thick 4-5-cornered with very large teeth  
 3350 Branches several 4-5-cor. clust. nearly erect, Teeth of branches acute spreading, Cor. campanul. 10-cleft
- 3351 Cor. campanulate dotted inside; not dotted outside, Beaks gibbous, Shield low with 5 emarginate lobes
- 3352 The only species
- 3353 Branches distant 4-cornered long slender ascending, Flowers with segments tipped with purple  
 3354 Branches clustered 4-cornered short thick erect, Flowers in close terminal heads
- 3355 Cor. 5-cleft, Peduncle 4-cornered, Stem undivided, Radical leaves oval

- 3356 Cor. 5-cleft rotate whorled, Whorls cymose, Calyxes spathaceous, Leaves broad ovate  
 3357 Cor. 5-cleft campanulate dotted in streaks whorled, Cal. membranous spathaceous  
 3358 Cor. 6-cleft campanulate much dotted whorled, Cal. coriaceous truncate  
 3359 Cor. 6-cleft caelul. much dotted whorled, Cal. membr. truncated, Lobes shorter than tube of cal. uneq.  
 3360 Cor. hypocrateriform 5-7-cleft, Intermediate segments torn, Leaves cruciate 3-nerved  
 3361 Cor. 5-cleft campanulate opp. axillary subsessile, Leaves stem-clasping ovate-lanceolate  
 3362 Cor. 4-5-cleft sessile whorled, Radical leaves as long as stem which is naked beneath  
 3363 Cor. 4-cleft naked hypocrateriform whorled subsessile, Stem two edge narrowed at base  
 3364 Flowers terminal sessile, Cor. 10-cleft ventricose acute, Alt. segm. shorter entire, Leaves lanceolate  
 3365 Flowers clustered terminal tub-shaped with an unequal lacerated mouth, Leaves oval  
 3366 Flowers in whorled heads sessile, Cor. 10-cleft ventric. closed, Alt. s-gm. fringed smaller, Lvs. ovate lanc.  
 3367 Flowers whorled ventricose 10-cleft, Segm. altern. unequally bifid and torn, Lvs. remote oppos. and ternate  
 3368 Cor. 5-cleft campanulate acuminate terminal and axillary stalked, Leaves linear obtuse  
 3369 Cor. 5-cleft hypocrat. beard. Seg. ovate, Cal. trunc. with eq. subul. teeth, Lvs. ov. lanc. as long as branches  
 3370 Cor. campanulate 5-cleft toothed between the segments, Cal. 3-toothed opening on one side, Lvs. lanceolate  
 3371 Cor. campanulate 5-cleft clustered sessile, Leaves linear: floral alternate lengthened  
 3372 Cor. campanulate 5-cleft terminal stalked 3 together, Segm. acute, Leaves lanceolate 3-nerved  
 3373 Cor. 5-cleft campanulate as long as the square stalk  
 3374 Cor. 5-cleft funnel-shaped, Leaves ovate acute: radical spreading larger than the cauline  
 3375 Cor. 5-cleft funnel-shaped, Leaves ovate obtuse: radical clustered imbricated less than the cauline  
 3376 Cor. 5-cleft funnel-shaped, Branches alternate 1-flowered, Cauline leaves lanceolate  
 3377 Cor. 5-cleft monogynous, Panic trichotomous, Bractes perfoliate, Leaves oblong 3-nerved



and Miscellaneous Particulars.

as *Stapelia*, require the same culture, and are natives of the barren blowing sands of the Cape of Good Hope.

597. *Brachystelma*. From *βραχυς*, short, and *στειμα*, a crown, in allusion to the shortness of the coronal processes in the flower of this plant.

598. *Caralluma*. The Indian name of this plant, which exactly resembles *Stapelia* in appearance.

599. *Swertia*. So named by Linnæus, in honor of Eman. Sweet, a cultivator of bulbs and flowers in Holland, and author of *Florilegium*, 1612. Pretty herbaceous plants, with blue flowers.

600. *Gentiana*. From *Gentius*, King of Illyria, who, according to Pliny, first discovered the tonic virtues of plants of this genus. "This is a very handsome genus of herbaceous plants: most of the species succeed well in a light rich soil, but a few require peat, and some must be grown in pots to be protected by frames in winter.

|                               |                    |        |          |      |           |         |   |     |                          |
|-------------------------------|--------------------|--------|----------|------|-----------|---------|---|-----|--------------------------|
| 3378 <i>intermedia</i> E. M.  | clavate            | Δ or   | ♀ o      | Pu   | N. Amer.  | 1820.   | D | p.l | Bot. mag. 2303           |
| 3379 <i>gélida</i> Bieb.      | pale-flowered      | Δ or   | 1 jn.jl  | P.Y  | Siberia   | 1807.   | D | p.l |                          |
| 3380 <i>Amarélla</i> W.       | autumnal           | ○ or   | ½ au     | Pu   | Britain   | ch.pa.  | S | co  | Eng. bot. 236            |
| 3381 <i>campéstris</i> W.     | field              | ○ or   | ½ au     | Pu   | Britain   | gra.pa. | S | co  | Eng. bot. 237            |
| 3382 <i>ciliáta</i> W.        | fringed            | Δ or   | ¾ au.s   | L.B  | Germany   | 1759.   | D | p.l | Bot. mag. 639            |
| 3383 <i>crinita</i> Ph.       | jagged             | Δ or   | ½ jn.jl  | L.B  | N. Amer.  | 1804.   | S | p.l | Bot. mag. 2031           |
| 601. <i>HYDROLEA</i> W.       | <i>HYDROLEA</i> .  |        |          |      |           |         |   |     |                          |
| 3384 <i>spinósa</i> W.        | thorny             | ≡ □ or | 1 jn.jl  | P.B  | S. Amer.  | 1791.   | C | l.p | Bot. reg. 566            |
| 602. <i>FALKIA</i> L.         | <i>FALKIA</i> .    |        |          |      |           |         |   |     |                          |
| 3385 <i>répens</i> W.         | creeping           | Δ or   | ½ my.au  | Pk   | C. G. H.  | 1774.   | C | p.l | Bot. rep. 257            |
| 603. <i>DICHONDRA</i> W.      | <i>DICHONDRA</i> . |        |          |      |           |         |   |     |                          |
| 3386 <i>répens</i> R. Br.     | creeping           | Δ cu   | 1½ jn.au | W    | N. S. W.  | 1803.   | C | s.p | Smith. ined. 1. t. 8     |
| 3387 <i>sericea</i> W.        | silky              | Δ cu   | 1½ jn.au | W    | Jamaica   | 1793.   | C | s.p |                          |
| 604. <i>VELEZIA</i> W.        | <i>VELEZIA</i> .   |        |          |      |           |         |   |     |                          |
| 3388 <i>rigida</i> W.         | rigid              | ○ cu   | ½ jl     | W.P  | Spain     | 1683.   | S | co  | Barr. rar. t. 1018       |
| 605. <i>BUMALDA</i> Th.       | <i>BUMALDA</i> .   |        |          |      |           |         |   |     |                          |
| 3389 <i>trifólia</i> Th.      | three-leaved       | ≡ □ cu | 2 jn.s   | ...  | Japan     | 1812.   | S | co  |                          |
| †606. <i>HEUCHERA</i> W.      | <i>HEUCHERA</i> .  |        |          |      |           |         |   |     |                          |
| 3390 <i>americana</i> W.      | viscid             | Δ or   | 1 my.jl  | Pu   | N. Amer.  | 1656.   | D | s.l | Plk. alm. t. 58. f. 3    |
| 3391 <i>pubescens</i> Ph.     | pubescent          | Δ or   | 1 my.jl  | Pk.v | N. Amer.  | 1812.   | D | l.p |                          |
| 3392 <i>villosa</i> Ph.       | villos             | Δ or   | ¾ my.jl  | Pk   | N. Amer.  | 1812.   | D | l.p |                          |
| 3393 <i>caulescens</i> Ph.    | caulescent         | Δ or   | 1 my.jl  | W    | N. Amer.  | 1812.   | D | l.p |                          |
| 607. <i>CUSSONIA</i> L.       | <i>CUSSONIA</i> .  |        |          |      |           |         |   |     |                          |
| 3394 <i>thyrsiflóra</i> W.    | thyrs-flower.      | ≡ □ or | 6 ...    | Gr   | C. G. H.  | 1795.   | C | l.p | Thun. ups. 3. t. 12      |
| 3395 <i>spicáta</i> L.        | spike-flowered     | ≡ □ or | 6 ...    | Gr   | C. G. H.  | 1789.   | C | s.l | Thun. ups. 3. t. 13      |
| 608. <i>ANABASIS</i> W.       | <i>ANABASIS</i> .  |        |          |      |           |         |   |     |                          |
| 3396 <i>tamariscifólia</i> W. | Tamarisk-leav.     | ≡ □ w  | 2 jn.jl  | G    | Spain     | 1752.   | C | l.p | Cav. ic. 3. t. 283       |
| 609. <i>SALSO'LA</i> W.       | <i>SALTWORT</i> .  |        |          |      |           |         |   |     |                          |
| 3397 <i>Káli</i> W.           | prickly            | ○ ec   | 1 jl.au  | F    | Britain   | seash.  | S | s.l | Eng. bot. 634            |
| 3398 <i>rosácea</i> W.        | rose-colored       | ○ cu   | ½ jl.au  | Pk   | Asia      | 1759.   | S | s.l | Schk. ban. 1. t. 57      |
| 3399 <i>Sóda</i> W.           | long fleshy-ldv.   | ○ ec   | 3 jl.au  | W    | S. Europe | 1683.   | S | s.l | Jac. vind. 1. t. 68      |
| 3400 <i>sativa</i> W.         | cultivated         | Δ ec   | 1 jl.au  | Pk   | Spain     | 1783.   | D | s.l | Cav. ic. 3. t. 291       |
| 3401 <i>hirsúta</i> W.        | hairy              | ○ w    | 1 jl.au  | Gr   | Denmark   | 1791.   | D | s.l | Fl. dan. 187             |
| 3402 <i>laniflóra</i> W.      | woolly             | ○ cu   | 2 jn.au  | Y    | Siberia   | 1797.   | D | s.l | Pa. it. 2. p. 736. t. P. |
| 3403 <i>vermiculáta</i> W.    | small-leaved       | ○ w    | 1½ jl.au | Gr   | Siberia   | 1759.   | S | s.l | Cav. ic. 3. t. 287       |
| 3404 <i>muricáta</i> W.       | Egyptian           | ○ w    | 1 jl.au  | Gr   | Egypt     | 1773.   | S | s.l | All. taur. 3. t. 4. f. 2 |
| 610. <i>KO'CHIA</i> Roth.     | <i>KOCHIA</i> .    |        |          |      |           |         |   |     |                          |
| 3405 <i>hyssopifólia</i> R.   | Hyssop-leaved      | ○ w    | 1½ jn.au | G    | Siberia   | 1801.   | S | co  | P. it. 1. p. 491. t. H.  |
| 3406 <i>dentáta</i> Ph.       | tooth-leaved       | ○ w    | 2 jn.au  | G    | N. Amer.  | 1803.   | S | co  | Wi. ho. ber. 1. t. 23    |
| 3407 <i>trigyna</i> Link.     | slender-leaved     | ○ w    | 3 jl.au  | G    | Spain     | 1804.   | S | s.l | Cav. ic. 3. t. 289       |



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Some of them may be increased by dividing at the root, but most of them seed freely; the seeds should be sown as soon as ripe, they will then quickly vegetate, but if left till spring before they are sown, they will not come up till the second year. (*Bot. Cult.* 371.)

*G. lutea* has a thick root of a yellowish brown color, and very bitter taste. In Switzerland and Germany it occupies extensive tracts of ground untouched by any cattle. It was formerly used as hops in brewing, and is at present the principal European bitter used in medicine. The root of *G. purpurea* is as thick as a man's arm and two feet long; it is extremely bitter, and used as a substitute for *G. lutea*.

*G. acualis* and *verna* are two beautiful edging plants, and answer well in pots.

601. *Hydrolea*. From *ὑδω*, water, and *ελεω*, oil. It is a water plant, and its leaves are viscid, as if they were smeared with old oil. A very pretty plant with bright blue flowers.

602. *Falkia*. Named after John Falk, a Swede, born in 1725, died in 1774. He was professor of botany in the apothecaries' garden at St. Petersburg, and followed Pallas during a part of his journey in Siberia. Upon his return he committed suicide; perhaps the only instance upon record of suicide among naturalists.

603. *Dichondra*. From *δι*, double, and *κροδος*, grain; on account of the double nature of the capsule. Little inconspicuous trailing plants, seldom seen or desired in collections.

604. *Velexia*. So named by Linnaeus, in memory of Christoval Velexius, examiner, first physician, and demonstrator of botany in the college of apothecaries at Madrid. A small weed, native of the south of France, resembling a dried up *Gentiana*.

605. *Bumalda*. Named after Ovide Montalban, better known under the name of Jean Antoine de Bumalda, born at Bologna, published in 1657 a *Bibliotheca Botanica*, and in 1668 a *Dendrologia*.

606. *Heuchera*. In memory of Jean Henry de Heucher, archiater, and professor of medicine at Witteberg,

3378 Leaves obovate oblong 3-nerved, Flowers terminal clustered, Cor. ventricose not opening  
 3379 Cor. campanulate 5-cleft terminal and axillary clustered, Internod. segm. torn, Leaves lanc. 3-nerved  
 3380 Cor. 5-cleft hypocrateriform bearded, Segm. lanc. acute, Leaves lanc. Branches shorter than joints  
 3381 Cor. 4-cleft hypocrateriform obtuse, Orifice bearded, Two outer sepals very large  
 3382 Cor. 4-cleft, Segm. serrated finely cut in the middle, Leaves lanceolate and linear, Stem flexuose angular  
 3383 Cor. 4-cleft, Segm. finely cut, Leaves lanceolate acute, Stem erect rounded

3384 Leaves lanceolate, Flowers terminal corymbose, Capsules a little hairy

3385 A creeping plant with cordate obtuse stalked leaves

3386 Pubescent, Leaves reniform retuse and emarginate  
 3387 Leaves reniform emarginate pubescent beneath

3388 The only species

3389 A slender branched purple shrub

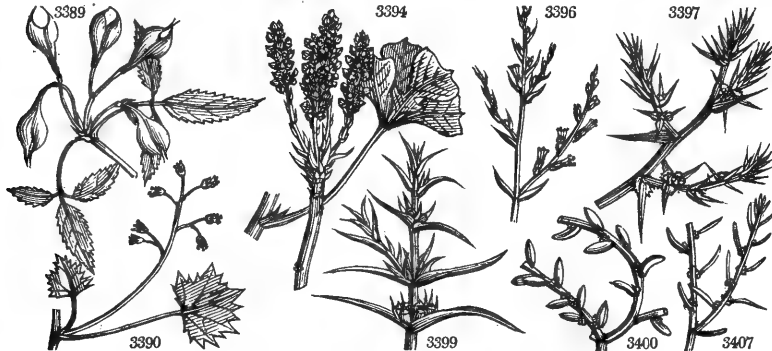
3390 Viscid, Scape and leaves roughish, Leaves rounded lobed toothed, Pet. lanc. Stam. much exerted  
 3391 Powdery, Scape and lvs. below smooth, Lvs. acutely lobed toothed, Pet. spatulate, Stam. scarcely exerted  
 3392 Very villous, Leaves acutely lobed, Pet. shorter than calyx, Stamens exerted  
 3393 Shrubby at base, Lvs. smooth above acutely lobed toothed, Cal. short villous, Pet. linear, Stam. exerted

3394 Leaves digitate, Leaflets sessile wedge-shaped truncate 3-toothed, Flowers racemose  
 3395 Leaves digitate, Leaflets 7-3-parted wedge-shaped acuminate serrated at end, Flowers spiked

3396 Leaves subulate, Pericarps not juicy

3397 Spreading hairy, Leaves subulate mucronate, Calyxes solitary, Appendages opened out colored  
 3398 Leaves subulate mucronate, Calyxes opened out  
 3399 Smooth, Branches ascending, Lvs. half round acute, Cal. in fruit keeled across the middle membranous  
 3400 Herbaceous, Leaves rounded smooth, Flowers clustered  
 3401 Erect spreading hairy, Leaves oblong half round obtuse, Flowers twin axillary  
 3402 Leaves rounded pubescent, Flowers axillary, Anthers colored  
 3403 Pubescent, Branches paniced, Leaves filiform with an axillary tuft, Floral very short, Cal. solitary  
 3404 Tomentose, Cal. with 5 angles and 5 awns, Leaves lanceolate flat

3405 Pubescent, Leaves linear flat, Cal. clustered woolly with a hooked dorsal spine  
 3406 Leaves broad lanceolate toothed, Cal. surrounded by a toothed crown, Seed round emarginate on one side  
 3407 Erect, Leaves filiform obtuse fleshy, Flowers axillary sessile 3 together, Style trifid



and Miscellaneous Particulars.

author of *Hortus Wittebergensis*, 1711-13. Very neat North American plants, requiring the culture of alpine plants.

607. *Cussonia*. In memory of Cusson, a celebrated botanist, who after laboring to complete the order of umbellate plants, had all his labor annihilated by his wife, who in his absence used the paper upon which his plants had been glued for household purposes. It is a genus of easy culture, and readily increased by cuttings planted in sand and placed under a hand-glass.

608. *Anabasis*. One of the names given by the Greeks to the Equisetum. A small plant, quite similar to some species of *Chenopodium*.

609. *Salsola*. From *salsus*, salt. From these plants, which are chiefly maritime, is obtained the kelp of our shores. This is a genus of plants producing the alkaline salts called barilla, soda, potash, and kelp. Most of them are herbaceous and annual, but some have shrubby stems.

*S. kali* (*Qaly* or *alqaly*, Arabic. *Bochart*.) is found on the sandy shores of most parts of the world, and is very generally burned for soda for the glass manufacture.

*S. soda* is cultivated in Languedoc and also in Spain for making barilla; but is reckoned inferior to *S. sativa*, which grows on the Spanish shores of the Mediterranean, and affords all the best soda consumed in Europe. It is called by us Spanish or Alicante soda. In September, the crop is cut and laid in small heaps to dry. These heaps are then collected and burned, forty or fifty of them in a hole, in the ground.

Soda is in common use in the manufacture of glass and soap; with sulphuric acid, it forms Glauber's salts; with marine acid, common salt; with the salt of Homberg, borax; and with cream of tartar, Rochelle salt.

610. *Kochia*. A genus divided from *Salsola* by Roth, and named by him after his friend Koch, a German botanist.

|   |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
|---|---------------------------------------|-----------------|---|-----|----|----------|---------|----|-----------|----------|---|------|--------------------------|
| 3408                                    | <i>prostrata</i> <i>Schrad.</i>       | trailing        | ♂ | l   | w  | 2        | jn.au   | G  | S. Europe | 1780.    | C | s.l  | Jac. aust. 3. t. 294     |
| 3409                                    | <i>arenaria</i> <i>Roth.</i>          | sand            | ○ | w   | 1  | my.jn    | W.o     | G  | Hungary   | 1822.    | S | s.l  |                          |
| 3410                                    | <i>sedoides</i> <i>Schr.</i>          | stonecrop       | ○ | cu  | 2  | jn       | G       | G  | Crimea    | 1821.    | S | s.l  | Pall. ill. t. 35         |
| 3411                                    | <i>eriphora</i> <i>Schr.</i>          | woolly          | ○ | w   | 1  | jn.jl    | G       | G  | Spain     | 1823.    | S | s.l  | Schr. hal. t. 3          |
| 3412                                    | <i>sericea</i> <i>Schr.</i>           | silky           | ♂ | cu  | 1  | jl       | G       | G  | C. G. H.  | 1824.    | C | s.l  | Schr. hal. t. 2          |
| 3413                                    | <i>scaparia</i> <i>Schr.</i>          | summer Cypress  | ○ | or  | 3  | jn.s     | G       | G  | Greece    | 1629.    | S | co   | Schr. hal. t. l. f. 1    |
| 611. CHENOPODIUM. <i>W.</i> Goose-foot. |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| <i>Chenopodeae.</i>                     |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| 3414                                    | <i>Bégnus-Henricus</i> <i>W.</i>      | Engl. Mercury   | ♂ | △   | cu | 1        | my.au   | G  | Britain   | rub.     | D | co   | Eng. bot. 1033           |
| 3415                                    | <i>arbiticum</i> <i>W.</i>            | upright         | ○ | w   | 1  | au       | G       | G  | Britain   | dungh.   | S | co   | Eng. bot. 717            |
| 3416                                    | <i>Atriplicis</i> <i>W.</i>           | purple          | ○ | w   | 3  | aus.     | S       | G  | China     | 1780.    | S | co   | Jac. vind. 3. t. 80      |
| 3417                                    | <i>rúbrum</i> <i>W.</i>               | red             | ○ | w   | 2  | aus.     | R       | G  | Britain   | dungh.   | S | co   | Eng. bot. 1721           |
| 3418                                    | <i>guineense</i> <i>W.</i>            | Guinea          | ○ | w   | 2  | aus.     | G       | G  | Guinea    | 1790.    | S | co   | Jac. ic. rar. 2. t. 345  |
| 3419                                    | <i>murale</i> <i>W.</i>               | nettle-leaved   | ○ | w   | 1  | jl. aus. | G       | G  | Britain   | rub.     | S | co   | Eng. bot. 1722           |
| 3420                                    | <i>Quinoa</i> <i>W.</i>               | green Quinoa    | ○ | cul | 3  | jl       | G       | G  | Peru      | 1822.    | S | co   |                          |
|   | <i>β rubrum</i>                       | red Quinoa      | ○ | cul | 3  | jl       | G       | G  | Peru      | 1822.    | S | co   | Feuill. per. t. 10       |
| 3421                                    | <i>rhubifolium</i> <i>W. en.</i>      | angular-leaved  | ○ | w   | 1  | jl. s.   | G       | G  | N. Amer.  | 1807.    | S | co   |                          |
| 3422                                    | <i>serotinum</i> <i>L.</i>            | late            | ○ | w   | 2  | jl. s.   | G       | G  | Spain     | 1821.    | S | co   |                          |
| 3423                                    | <i>ficifolium</i> <i>H. K.</i>        | Fig-leaved      | ○ | w   | 2  | aus.     | G       | G  | England   | dungh.   | S | co   | Eng. bot. 1724           |
| 3424                                    | <i>album</i> <i>W.</i>                | white           | ○ | w   | 1  | jl. s.   | G       | G  | Britain   | rub.     | S | co   | Eng. bot. 1723           |
| 3425                                    | <i>hybridum</i> <i>W.</i>             | Maple-leaved    | ○ | w   | 1  | jl. s.   | G       | G  | Britain   | rub.     | S | co   | Eng. bot. 1919           |
| 3426                                    | <i>Bótrys</i> <i>S.</i>               | cut-leaved      | ○ | fr  | 1  | jn. s.   | G       | G  | S. Europe | 1548.    | S | co   | Fl. grac. t. 263         |
| 3427                                    | <i>botryoides</i> <i>Sm.</i>          | many-clustered  | ○ | w   | 1  | jn. au.  | R       | G  | Britain   | sea sh.  | S | co   | Eng. bot. 2247           |
| 3428                                    | <i>foetidum</i> <i>Schr.</i>          | fetid           | ○ | w   | 4  | jn. au.  | G       | G  | .....     | 1823.    | S | co   |                          |
| 3429                                    | <i>multifidum</i> <i>W.</i>           | Buenos Ayres    | ♂ | △   | w  | 2        | jn. o   | G  | Buenos A. | 1732.    | D | co   | Dill. elt. t. 66. f. 77  |
| 3430                                    | <i>ambrosioides</i> <i>W.</i>         | Mexican         | ○ | fr  | 1  | jn. o    | G       | G  | Mexico    | 1640.    | S | co   | Moris. a. 5. t. 35. f. 8 |
|   | <i>β suffruticosum</i>                | half shrubby    |   |     |    |          |         |    |           |          |   |      |                          |
| 3431                                    | <i>anthelmin'ticum</i> <i>W.</i>      | American        | ♂ | l   | w  | 3        | jl. au. | G  | America   | 1732.    | C | co   | Dill. elt. t. 66. f. 76  |
| 3432                                    | <i>grävcolens</i> <i>W.</i>           | strong-smelling | ○ | w   | 4  | jl. au.  | G       | G  | Mexico    | 1823.    | S | co   |                          |
| 3433                                    | <i>gláucum</i> <i>W.</i>              | Oak-leaved      | ○ | w   | 1  | jl. au.  | G       | G  | England   | rub.     | S | co   | Eng. bot. 1454           |
| 3434                                    | <i>crassifolium</i> <i>H. Par.</i>    | thick-leaved    | ○ | w   | 2  | jl       | G       | G  | .....     | 1809.    | S | co   |                          |
| 3435                                    | <i>glidum</i> <i>Sm.</i>              | stinking        | ○ | w   | 1  | jl. au.  | G       | G  | Britain   | rub.     | S | co   | Eng. bot. 1034           |
| 3436                                    | <i>polyspérmum</i> <i>W.</i>          | Allseed         | ○ | w   | 1  | jl. au.  | G       | G  | Britain   | rub.     | S | co   | Eng. bot. 1490           |
| 3437                                    | <i>caudatum</i> <i>W.</i>             | oval-leaved     | ○ | w   | 2  | jl. au.  | G       | G  | Guinea    | 1805.    | S | co   | Jac. ic. 2. t. 344       |
| 3438                                    | <i>laterale</i> <i>W.</i>             | oblong-leaved   | ○ | w   | 1  | au. s.   | G       | G  | .....     | 1781.    | S | co   |                          |
| 3439                                    | <i>lanceolatum</i> <i>W. en.</i>      | spear-leaved    | ○ | w   | 2  | jl       | G       | G  | Pensylva. | 1809.    | S | co   |                          |
| 3440                                    | <i>aristatum</i> <i>W.</i>            | bearded         | ○ | w   | 1  | jn. s.   | G       | G  | Virginia  | 1771.    | S | co   | Gm. sib. 3. t. 15. f. 1  |
| 3441                                    | <i>sépium</i> <i>Mayer.</i>           | hedge           | ○ | w   | 2  | jn. jl   | G       | G  | Moravia   | 1823.    | S | co   |                          |
| 3442                                    | <i>acutifolium</i> <i>E. B.</i>       | acute-leaved    | ○ | w   | 1  | jl. au.  | G       | G  | Britain   | unc. gr. | S | co   | Eng. bot. 1481           |
| 3443                                    | <i>maritimum</i> <i>W.</i>            | Sea Blite       | ○ | w   | 3  | au       | G       | G  | Britain   | sal. m.  | S | co   | Eng. bot. 633            |
| 3444                                    | <i>fruticosum</i> <i>W. en.</i>       | shrubby         | ♂ | ec  | 2  | aus.     | G       | G  | England   | sea sh.  | C | co   | Eng. bot. 685            |
|   | <i>Salsola fruticosá</i> <i>E. B.</i> |                 |   |     |    |          |         |    |           |          |   |      |                          |
| 3445                                    | <i>altissimum</i> <i>W. en.</i>       | grass-leaved    | ○ | w   | 6  | jl. au.  | G       | G  | Italy     | 1775.    | S | co   | Schr. halop. 1. f. 3     |
| 3446                                    | <i>sálsuum</i> <i>R. Br.</i>          | Saltwort        | ○ | w   | 1  | aus.     | G       | G  | Astracan  | 1782.    | S | co   | Jac. vind. 3. t. 83      |
| 3447                                    | <i>setigerum</i> <i>D. C.</i>         | bristly         | ○ | w   | 2  | jn. jl   | G       | G  | S. Europe | 1822.    | S | co   |                          |
| 612. BE'TA. <i>W.</i>                   |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| <i>Chenopodeae.</i>                     |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| 3448                                    | <i>vulgáris</i> <i>W.</i>             | common          | ♂ | l   | cu | 4        | au      | G  | S. Europe | 1548.    | S | r. m | Schk. han. 1. t. 56      |
| 3449                                    | <i>pátula</i> <i>W.</i>               | spreading       | ♂ | l   | cu | 1        | au      | G  | Madeira   | 1778.    | C | r. m |                          |
| 3450                                    | <i>cicla</i> <i>W.</i>                | white           | ♂ | l   | cu | 6        | au      | G  | Portugal  | 1570.    | S | r. m |                          |
| 3451                                    | <i>trigyna</i> <i>H. K.</i>           | Hungarian       | ♂ | l   | w  | 3        | jl. au. | G  | Hungary   | 1796.    | S | r. m | P. rar. hun. 1. t. 35    |
| 3452                                    | <i>maritima</i> <i>W.</i>             | sea             | ♂ | l   | cu | 1        | au      | G  | Britain   | sea co.  | S | s. l | Eng. bot. 385            |
| 613. BO'SEA. <i>W.</i>                  |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| <i>GOLDEN ROD. Chenopodeae.</i>         |                                       |                 |   |     |    |          |         |    |           |          |   |      |                          |
| 3453                                    | <i>Yervamóra</i> <i>W.</i>            | tree            | ♂ | l   | or | 6        | ...     | Ru | Canaries  | 1728.    | C | p l  | Wal. hor. 24. t. 10      |



*History, Use, Propagation, Culture,*

611. *Chenopodium*. From *χην*, a goose, and *πους*, foot; many species having large angular leaves extremely similar to the webbed feet of a water-fowl. This is a genus of succulent herbs, with their leaves for the most part covered with powdery granules; the whole plant of no beauty, but generally edible as a pot-herb.

*C. Bonus Henricus* is cultivated in some gardens as a perennial spinage, it being hardy and of early growth. The leaves are sometimes applied to wounds, and for cleansing old ulcers.

*C. album* is the most common of the species, and used to be boiled and eaten as greens; but *C. maritimum* is preferred to all the species for this purpose. The foreign species are of the easiest culture, and increased either by seeds or cuttings.

*C. maritimum*, where it abounds, is burned with *Salsola kali* and other marine plants, to produce soda.

612. *Beta*. From *βητα*, red, in Celtic. *B. vulgaris*, *Betterave*, or beet-radish, Fr.; *Rothe Rübe*, Ger.; and *Barba Brettola*, Ital., is a well known culinary root, used in salads either raw or boiled; forming a beautiful varnish; very much used as a pickle; preserved as a confiture; made a substitute for coffee; and yielding a

- 3408 Hoary, Leaves linear flat. Calyxes about 3 downy with opened obovate appendages
- 3409 Leaves linear somewhat fleshy pubescent. Flowers axillary about 3 together, Cal. with blunt appendages
- 3410 Herbaceous very hairy, Leaves linear fleshy. Dorsal spine of cal. straight
- 3411 All woolly, Leaves linear fleshy spreading, Cal. in fruit stellate with 5 prickles hooked at end
- 3412 Branches diffuse, Leaves lanceolate silky, Calyxes not prickly
- 3413 Pubescent, Leaves linear lanceolate ciliated, Cal. in pairs, Appendages very short acute

§ 1. *Leaves flat angular.*

- 3414 Leaves triangular hastate entire, Spikes compound clustered leafless axillary and terminal
- 3415 Leaves triangular toothed, Racemes clustered very upright close to the stem very long and leafless
- 3416 Leaves rhomboid-ovate and lanceolate: the lower sinuate toothed, Pan. axillary branched, Stem erect
- 3417 Leaves cordate triangular rather obtuse toothed, Racemes erect compound leafy shorter than the stem
- 3418 Leaves ovate unequally toothed acute, Racemes branched naked and simple stem erect
- 3419 Lvs. ov. uneq. tooth. acute shining, Race. corym. naked shorter than the leaf, Stem branched spreading
- 3420 Lvs. triangular ovate obsoletely toothed the younger powdery, Racemes clustered shorter than leafstalk
- 3421 Leaves triangular acute repand toothed, Racemes axillary erect nearly leafless, Bractes minute inflexed
- 3422 Leaves deltoid sinuate toothed rugose smooth uniform, Racemes terminal
- 3423 Leaves hastate sinuate eroded entire behind, Upper oblong entire, Seeds dotted
- 3424 Leaves rhomboid ovate eroded entire behind, Upper oblong entire, Seeds smooth
- 3425 Leaves ovate-acuminata subcordate angular toothed, Racemes paniced naked terminal and axillary
- 3426 Leaves oblong sinuated, Racemes naked multifid, Upper bractes entire lanceolate
- 3427 Leaves ovate acute entire, Stem erect, Racemes cymose elongated nearly leafless
- 3428 Leaves oblong sinuated, Racemes naked many-cleft, Upper bractes 3-lobed at end
- 3429 Leaves pinnatifid, Segm. linear the lower toothed, Clusters of flowers axillary sessile
- 3430 Leaves lanceolate remotely toothed, Racemes leafy simple

- 3431 Leaves ovate lanceolate sparingly toothed, Spikes simple slender long leafless, Flowers trigynous
- 3432 Leaves oblong sinuate-toothed wedge-shaped at base, Clusters of flowers axillary
- 3433 Leaves oblong repand glaucous beneath, Spikes clustered simple naked axillary and terminal
- 3434 Leaves thick rhomboid-angular somewhat sinuated entire behind, Racemes erect compound leafy

§ 2. *Leaves flat entire.*

- 3435 Leaves rhomb-ovate, Flowers clustered axillary
- 3436 Leaves ovate, Stem decumbent, Cymes dichotomous leafless axillary
- 3437 Leaves ovate obtuse entire, Panicle terminal naked elongated, Stem simple erect
- 3438 Cauline leaves lanceolate obtuse, Branch-leaves oblong, Peduncles lateral solitary 1-flowered
- 3439 Leaves ovate lanceolate acute entire, Racemes axillary compound naked, Stem divaricating
- 3440 Leaves lanceolate fleshy entire, Corymbs dichotomous aristate axillary
- 3441 Leaves ovate sinuate, Racemes leafy simple
- 3442 Leaves wavy half-round, Flowers axillary sessile

§ 3. *Leaves rounded.*

- 3443 Stems diffuse, Leaves oblong  $\frac{1}{2}$  rounded, Flowers axillary clustered
- 3444 Erect shrubby, Leaves semicylindrical obtuse blunt
- 3445 Quite smooth, Branches paniced erect, Leaves filiform acutish, Flowers in threes stalked
- 3446 Herbaceous nearly erect, Leaves linear fleshy unarmed, Cal. succulent transparent
- 3447 Leaves rounded thick smooth terminated by a straight long bristle

- 3448 Flowers clustered, Lower leaves ovate, Root fleshy
- 3449 Flowers clustered, All the leaves linear-lanceolate, Branches divaricating
- 3450 Leaves with very thick ribs, Flowers three together, Root scarcely any
- 3451 Racemes erect paniced leafless, Flowers trigynous twin and solitary, Lvs. cordate acute unequal at base
- 3452 Flowers in pairs, Stem diffuse, The branches much interwoven, Root scarcely any

3453 Leaves alternate stalked ovate acute with the veins and nerves purple



sugar equal to that of the cane. There are several varieties; those most esteemed for salads are the small red and Castelnaudary, and for extracting sugar, the green-topped. The seed is sown in March or April, on deep well comminuted soil. When the plants show two or three proper leaves they are thinned out, so as that each plant may occupy or be allowed a square foot of surface. By September or October the roots are fit for use, and may either be taken up as wanted, or taken up and buried in sand in the root-cellar.

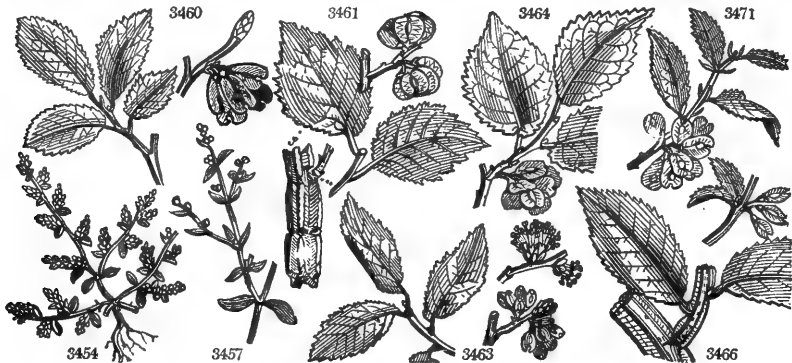
B. *Cicla*, [*Cicla* is said by De Théis, to be a corruption of *sicula*, under which name it is spoken of by Catullus,] *Bette*, or *Poirée à cardes*, Fr.; *Mangold Kraut*, Ger.; and *Bieltola*, Ital., is employed in horticulture as a spinage plant, and for being used as chard or asparagus; and in foreign agriculture for the production of sugar. It is much grown in the south of Germany and Switzerland, where the lamina of the leaves is used as spinage or put in soups, and the midrib is boiled and eaten with melted butter or gravy as chard. The culture is the same as for the red beet; but, as the leaves are larger, the space allowed each plant is proportionally increased.

B. *maritima* is or may be used as a spinage plant or as greens.

613. *Bosea*. Ernest Gottlieb Bose, a German, published at Leipzig, in 1775, a work upon the secretions of



|                                     |                     |   |     |                       |     |           |         |           |                       |
|-------------------------------------|---------------------|---|-----|-----------------------|-----|-----------|---------|-----------|-----------------------|
| 614. HERNIARIA. W.                  | RUPTURE-WORT.       |   |     | <i>Amaranthaceae.</i> |     | Sp. 6—11. |         |           |                       |
| 3454 glabra W.                      | smooth              | Δ | w   | ↓ j                   | l   | G         | England | sa. gr.   | S co                  |
| 3455 hirsuta W.                     | hairy               | Δ | w   | ↓ j                   | l   | au        | G       | England   | sa. gr. S co          |
| 3456 fruticosa L.                   | shrubby             | Δ | w   | ↓ j                   | l   | my        | au      | G         | Spain 1814. C l p     |
| 3457 polygonosa Cav.                | Knot-grass          | Δ | w   | ↓ j                   | l   | my        | au      | G         | S. Europe 1752. C l p |
| 3458 incana Desb.                   | hoary               | Δ | w   | ↓ j                   | l   | au        | G       | S. Europe | 1822. C l p           |
| 3459 alpina Vill.                   | alpine              | Δ | w   | ↓ j                   | l   | my        | au      | G         | S. Europe 1822. C l p |
| † 615. ULMUS. L.                    | ELM-TREE.           |   |     | <i>Ulmaceae.</i>      |     | Sp. 13.   |         |           |                       |
| 3460 campestris L.                  | comm. English       | ♀ | tm  | 80                    | ap  | my        | Br      | Britain   | hed. L co             |
| 3461 suberosa Münch                 | cork-barked         | ♀ | tm  | 40                    | ap  | my        | Br      | Britain   | hed. L co             |
| 3462 fruticosa W.                   | shrubby             | ♀ | tm  | 8                     | ap  | my        | Br      | Europe    | ... G co              |
| 3463 glabra E. B.                   | smooth              | ♀ | tm  | 60                    | ap  | my        | Br      | Britain   | hed. L co             |
| 3464 montana E. B.                  | Wych                | ♀ | tm  | 40                    | ap  | my        | Br      | Britain   | hed. S co             |
| 3465 americana Ph.                  | white Amer.         | ♀ | tm  | 40                    | ap  | my        | Br      | N. Amer.  | 1752. G co            |
| 3466 alata Mich.                    | winged              | ♀ | tm  | 30                    | ap  | my        | Br      | N. Amer.  | 1820. G co            |
| 3467 alba Kit.                      | white Hungar.       | ♀ | tm  | 30                    | ap  | my        | Br      | Hungary   | 1824. G co            |
| 3468 humilis Amm.                   | low                 | ♀ | or  | 6                     | ap  | my        | Br      | Siberia   | ... G co              |
| 3469 crispata W.                    | curled              | ♀ | or  | 20                    | ap  | my        | Br      | N. Amer.  | ... G co              |
| 3470 fulva Ph.                      | slippery            | ♀ | tm  | 60                    | ap  | my        | Br      | N. Amer.  | ... G co              |
| U. pendula W.                       | dwarf               | ♂ | or  | 2                     | ap  | ny        | Br      | Siberia   | 1771. L p l           |
| 3471 pumila Pall.                   | China               | ♂ | or  | 3                     | ... | ...       | China   | ...       | C l p                 |
| 3472 chinensis P. S.                | China               | ♂ | or  | 3                     | ... | ...       | China   | ...       | C l p                 |
| 616. PLANERA. Mich.                 | PLANERA.            |   |     | <i>Ulmaceae.</i>      |     | Sp. 2.    |         |           |                       |
| 3473 Richardi Mich.                 | Hornbeam-lvd.       | ♂ | or  | 12                    | ap  | my        | Br      | N. Amer.  | 1760. G co            |
| Ulm. nemoralis W.                   | small-leaved        | ♂ | or  | 12                    | my  | Br        | .....   | 1822.     | G co                  |
| 3474 parvifolia U. parvifolia Jacq. | small-leaved        | ♂ | or  | 12                    | my  | Br        | .....   | 1822.     | G co                  |
| 617. PHYLLIS. W.                    | BASTARD HARE'S EAR. |   |     | <i>Rubiaceae.</i>     |     | Sp. 1.    |         |           |                       |
| 3475 Nöbla W.                       | Canary              | ♂ | cu  | 3                     | jn  | l         | G       | Canaries  | 1699. C r m           |
| * 618. CORIANDRUM. P. S.            | CORIANDER.          |   |     | <i>Umbelliferae.</i>  |     | Sp. 2—3.  |         |           |                       |
| 3476 sativum W.                     | common              | ○ | clt | 2                     | jn  | W         | England | fields.   | S co                  |
| 3477 testiculatum W.                | twin-fruited        | ○ | w   | 2                     | jn  | l         | W       | S. Europe | 1640. S co            |
| 619. SCANDIX. P. S.                 | SCANDIX.            |   |     | <i>Umbelliferae.</i>  |     | Sp. 3—10. |         |           |                       |
| 3478 pecten W.                      | Venus's Comb        | ○ | w   | ↓ j                   | jn  | l         | W       | Britain   | co. fi. S co          |
| 3479 australis W.                   | radiated            | ○ | w   | 1                     | my  | jn        | W       | S. Europe | 1713. S co            |
| 3480 pinnatifida Vent.              | cut-leaved          | ○ | w   | 1½                    | my  | jn        | W       | Persia    | 1805. S co            |
| 620. ANTHRISCUS. P. S.              | ROUGH CHERVIL.      |   |     | <i>Umbelliferae.</i>  |     | Sp. 2—9.  |         |           |                       |
| 3481 vulgaris P. S.                 | common              | ○ | w   | 1                     | my  | jn        | W       | Britain   | he. ba. S co          |
| 3482 nodosa P. S.                   | Knotted             | Δ | w   | 1                     | my  | jn        | W       | Sicily    | 1656. D co            |
| * 621. CHEROPHYLLUM. P. S.          | CHERVIL.            |   |     | <i>Umbelliferae.</i>  |     | Sp. 11—8. |         |           |                       |
| 3483 sylvestris W.                  | smooth garden       | Δ | w   | 3                     | my  | jn        | W       | Britain   | hed. D co             |
| 3484 sativum P. S.                  | garden              | Δ | w   | 1½                    | my  | jn        | W       | England   | he. ba. D co          |
| Sc. cerefolium Ph.                  | procumbent          | ♂ | o   | w                     | 1   | jn        | l       | W         | Virginia 1699. D co   |
| 3485 procumbens Ph.                 | procumbent          | ♂ | o   | w                     | 1   | jn        | l       | W         | Virginia 1699. D co   |



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plants. Another Bose (Caspar) was a professor of botany at Leipsig, where he published, in 1728, a dissertation upon the motions of plants. Ripened cuttings root freely in sand under a hand-glass, without heat.

614. *Herniaria*. From *hernia*, a rupture, for which disorder it was formerly imagined to be a cure, but has long since been rejected even by the herbalists. *H. fruticosa* is well adapted for growing in pots or for rock-work, and is readily increased by seeds or cuttings; cuttings of the greenhouse species root freely under a hand-glass.

615. *Ulmus*. From *Elm*, its name in Anglo-Saxon, Teutonic, Gothic, and nearly all the dialects of Celtic. This is a genus of hardy trees, most of them valued for their timber. The species, like those of the genus *Salix*, are so nearly related as to be often confounded. Linnæus considered all the European elms as forming only one species. The *U. campestris* and *glabra* are those most generally cultivated in Europe. *U. campestris* grows also in Palestine, and Dr. Walker conjectures that it was originally brought from that country by the Crusaders. It is a tall elegant tree, but produces much less valuable timber than the *U. glabra*. *U. suberosa*, often called the Dutch elm, is frequently grafted on the *U. glabra*, as is also the *U. campestris* in the Scotch nurseries.

616. *Planera*. In honor of John James Planer, a German botanist, who published in 1788 an Index Plantarum Agri Erfordiensis, in one volume 8vo. A genus closely related to *Ulmus*, from which it is perhaps scarcely distinct.

617. *Phyllis*. From *φυλλον*, a leaf: the plant is remarkable for the beauty of its leaves. *Phyllis*, who was

- 3454 Smooth, Clusters many-flowered  
 3455 Hairy, Clusters few-flowered  
 3456 Leaves obovate acute hairy, Flowers clustered 4-cleft hispid, Stem shrubby  
 3457 Smooth, Stem erect dichotomous, Leaves ovate cuspidate, Flowers terminal and axillary  
 3458 Half shrubby, Leaves ovate oblong hoary, Calyxes hairy  
 3459 Clusters few-flowered hairy, Root thick woody
- 3460 Leaves doubly serrate unequal at base, Flowers subsessile clustered 5-andr. Fruit smooth  
 3461 Lvs. doubly serr. nearly equal at base, Fl. subsessile clustered 4-andr. Fruit smooth, Bark corky winged  
 3462 The branches only corky not the stem, Stature little more than that of a man, otherwise like the last  
 3463 Leaves doubly serrate smooth unequal at base, Flowers nearly sessile 5-cleft, Fruit obovate naked  
 3464 Leaves doubly serrated unequal at base, Flowers 6-8-andr. stalked, Fruit fringed at edge [at edge  
 3465 Lvs. nearly doubly serr. uneq. at base, Axil. of veins ben. unit. by a membr. Fls. 5-8-andr. stalked, Fruit vil.  
 3466 Br. with cork. wing here and there on each side, Lvs. obl. ov. by deg. ac. nrly eq. at base, Fr. hairy closely frin.  
 3467 Leaves doubly serrated unequal at base acuminate pubescent beneath  
 3468 Leaves equally serrated equal at base  
 3469 Leaves irregularly doubly serrated equal at base with a long point rough above beneath soft downy  
 3470 Lvs. doubly serr. uneq. at base, Axil. of veins bearded beneath, Fl. clust. 5-andr. Fruit pubes. not fringed
- 3471 Decumbent, Branches smooth, Leaves very small equal at base  
 3472 Leaves small coriaceous shining shortly serrated ovate oblique at base
- 3473 Leaves subsessile oblong-cordate subcrenately coarsely toothed emarginate at base, Caps. short  
 3474 Leaves lanc. equally serrate equal at base shining, Flowers stalked tetrandrous, Fruit smooth
- 3475 The only species. Leaves lanceolate entire opp. 4 inches long, Corymbs axillary
- 3476 Fruit globose  
 3477 Fruit twin
- 3478 Seeds with a very long beak, Leaflets many-cut  
 3479 Seeds subulate hispid, Flowers radiant, Cauline leaves smooth  
 3480 Stem scabrous, Leaves decompose smooth, Umbels fascicled with a single leaf
- 3481 Seeds ovate hispid, Cor. of one shape, Stem smooth  
 3482 Seeds cylindrical hispid, Stem hispid, Joints tumid
- 3483 Stem striated with tumid joints  
 3484 Seeds shining ovate subulate, Umbels lateral sessile
- 3485 Stem hairy decumbent, Leaves bipinnatifid, Umbel simple few-flowered



and Miscellaneous Particulars.

turned to a bare tree by the gods for having hung herself for love of the absent Demophoon, became a tree covered with verdure upon receiving in that form the embraces of her lover returned.

618. *Coriandrum*. From *κοριανδρον*, a bug, in allusion to the smell of the leaves of the plant. *C. sativum* has been long cultivated, chiefly in Essex, and is considered as naturalized. The leaves are strongly scented; the seeds, which are slightly aromatic, are used to cover the taste of senna, and in spices as currie powder, and seasoning for black puddings: also, covered with sugar, as a sweetmeat; formerly they were steeped in wine or vinegar, and then dried, to render them milder.

619. *Scandix*. A name given by the Greeks to a plant used as an eatable, which appears to be that now called *Scandix pecten*. It is derived from *σκανδα*, to prick, on account of the sharp points of the seeds.

620. *Anthriscus*. The name of a plant resembling *Scandix*, described by Pliny. *A. vulgaris* bears a near resemblance to the common chervil (*Cherophyllum sativum*), and being gathered as such, and put into soups, by the Dutch soldiers who were in England in 1745, some of them were poisoned by it.

621. *Cherophyllum*. An ancient Greek name of the Chervil, derived from *χαιρα*, to rejoice, and *φυλλον*, leaf, that is to say a plant whose leaves have an agreeable smell. *C. sylvestre* has poisonous roots; though the leaves are occasionally used as a pot-herb, and are much liked by cows. The stems and leaves dye a beautiful green, and the umbels a yellow: the plant in a wild state is found only on fertile soils.

*C. sativum* is cultivated in gardens for the leaves, which are used in soups and salads. To have a successful supply, sow in February and August in shallow drills from six to nine inches apart.

|                                    |                |          |                             |      |                                 |            |       |                        |
|------------------------------------|----------------|----------|-----------------------------|------|---------------------------------|------------|-------|------------------------|
| 3486 bulbosum <i>W.</i>            | bulbous-rooted | ♂ ○ w    | 1½ jn.jl                    | W    | Europe                          | 1726.      | D co  | Jac. aust. 1. t. 63    |
| 3487 ténulum <i>W.</i>             | rough          | ♂ ○ w    | 3 jl.au                     | W    | Britain                         | 1759.      | D co  | Eng. bot. 1521         |
| 3488 hirsútum <i>W.</i>            | hairy-leaved   | ♂ △ w    | 1½ jn.jl                    | W    | Switzerl.                       | hed.       | D co  | Jac. au. 2. t. 148     |
| 3489 aromáticum <i>W.</i>          | aromatic       | ♂ △ or   | 3 jn.au                     | W    | Germany                         | 1726.      | D co  | Jac. au. 2. t. 148     |
| 3490 canadense <i>Ph.</i>          | three-leaved   | ♂ △ w    | 1½ jl.au                    | W    | N. Amer.                        | 1799.      | D co  | Mor. h. s. 9. t. 11    |
| <i>Sison canadense W.</i>          |                |          |                             |      |                                 |            |       |                        |
| 3491 Claytóni <i>Ph.</i>           | sweet-rooted   | ♂ △ cu   | 2 jl.au                     | W    | N. Amer.                        | 1806.      | D co  | Spr. umb. t. 3. f. 6   |
| 3492 colorátum <i>W.</i>           | yellow         | ♂ △ cu   | 1 jl.au                     | Y    | Illyria                         | 1806.      | D co  | Mor. s. 9. t. 10. f. 6 |
| 3493 áureum <i>W.</i>              | golden         | ♂ △ cu   | 1 jl.au                     | Pk   | Scotland                        | b. off. f. | D co  | Eng. bot. 2103         |
| <b>622. ERYNGIUM. <i>W.</i></b>    |                |          |                             |      |                                 |            |       |                        |
|                                    |                |          | ERYNGO.                     |      | <i>Umbelliferae. Sp. 16—55.</i> |            |       |                        |
| 3494 fe'tídum <i>W.</i>            | stinking       | ♀ [X] or | 1 au.o                      | W    | W. Indies                       | 1714.      | D s.l | Her. lugd. t. 237      |
| 3495 aquátium <i>W.</i>            | marsh          | ♀ △ or   | 4 jls.                      | W    | N. Amer.                        | 1699.      | D s.l | Bot. reg. 372          |
| 3496 virginíanium <i>Ph.</i>       | Virginian      | ♀ △ or   | 2 jls.                      | G    | N. Amer.                        | ....       | D s.l | Del. eryng. t. 19      |
| 3497 virgátum <i>Ph.</i>           | oval-leaved    | ♀ △ or   | 1 jn.jl                     | L.B  | N. Amer.                        | 1810.      | D s.l | Del. eryng. t. 20      |
| 3498 plánum <i>W.</i>              | flat-leaved    | ♀ △ or   | 3 jls.                      | L.B  | Europe                          | 1596.      | D s.l | Jac. aus. 4. t. 391    |
| 3499 pusillum <i>W.</i>            | dwarf          | ♀ △ or   | ¾ jn.au                     | G    | Spain                           | 1640.      | D s.l | Del. eryng. t. 16      |
| 3500 tricuspidátum <i>W.</i>       | trifid         | ♀ ○ or   | 2 s                         | G    | Spain                           | 1699.      | D s.l | Del. eryng. t. 9       |
| 3501 corniculátum <i>H. M.</i>     | horned         | ♀ △ or   | 1 jn.au                     | G    | Portugal                        | 1803.      | D s.l | Bot. mag. 1427         |
| 3502 marítimum <i>W.</i>           | sea-holly      | ♀ △ ec   | 1½ jl.o                     | B    | Britain                         | seash.     | D s.l | Eng. bot. 718          |
| 3503 campéstre <i>W.</i>           | field          | ♀ △ ec   | 2 jl.au                     | B    | Britain                         | pas.       | D s.l | Eng. bot. 57           |
| 3504 gallioides <i>P. S.</i>       | Galium-leaved  | ♀ △ or   | ¾ jl.au                     | G    | Portugal                        | 1810.      | D s.l | Mo. s. 7. t. 35. f. 2  |
| 3505 amethístinum <i>W.</i>        | amethystine    | ♀ △ or   | 3 jl.au                     | G    | Styria                          | 1648.      | D s.l | M. s. 7. t. 37. f. 13  |
| 3506 cardíleum <i>P. S.</i>        | blue-flowered  | ♀ △ or   | 2 jl.au                     | B    | Caspian                         | 1816.      | D s.l | Vill. delph. t. 17     |
| 3507 rigidum <i>P. S.</i>          | stiff          | ♀ △ or   | ¾ jl.au                     | B    | France                          | 1816.      | D s.l | Bot. mag. 922          |
| 3508 alpínum <i>W.</i>             | Alpine         | ♀ △ or   | 2 jl.au                     | B    | Switzerl.                       | 1597.      | D s.l | Gouan. ill. 7. t. 3    |
| 3509 Bourgáti <i>W.</i>            | cut-leaved     | ♀ △ or   | 2 jn.au                     | Pa.B | S. France                       | 1731.      | D s.l |                        |
| <b>623. SANICULA. <i>W.</i></b>    |                |          |                             |      |                                 |            |       |                        |
|                                    |                |          | SANICLE.                    |      | <i>Umbelliferae. Sp. 3—2.</i>   |            |       |                        |
| 3510 europæa <i>W.</i>             | wood           | ♂ △ w    | 1 jn.jl                     | W    | Britain                         | woods.     | D s.l | Eng. bot. 98           |
| 3511 canadensis <i>W.</i>          | Canadian       | ♂ △ w    | 2 jn.jl                     | W    | Canada                          | 1800.      | D s.l |                        |
| 3512 marilándica <i>W.</i>         | Maryland       | ♂ △ w    | 1½ jn.jl                    | W.G  | N. Amer.                        | 1765.      | D s.l | Jac. ic. 2. t. 348     |
| <b>624. ECHINOPHORA. <i>W.</i></b> |                |          |                             |      |                                 |            |       |                        |
|                                    |                |          | SEA-PARSNEP.                |      | <i>Umbelliferae. Sp. 2—3.</i>   |            |       |                        |
| 3513 spinósa <i>W.</i>             | prickly        | ♀ △ w    | ¾ jl                        | W    | England                         | sea co.    | D s   | Eng. bot. 2413         |
| 3514 tenuifólia <i>W.</i>          | fine-leaved    | ♀ △ w    | 1 jl.au                     | W    | Apulia                          | 1731.      | D s.l | Mor. s. 9. t. 1. f. 2  |
| <b>*625. DAUCUS. <i>W.</i></b>     |                |          |                             |      |                                 |            |       |                        |
|                                    |                |          | CARROT.                     |      | <i>Umbelliferae. Sp. 8—17.</i>  |            |       |                        |
| 3515 Caróta <i>W.</i>              | wild           | ♂ ○ m    | 3 jn.jl                     | W    | Britain                         | b. off. f. | S s.l | Eng. bot. 1174         |
|                                    |                |          | Garden                      |      |                                 |            |       |                        |
| 3516 marítimus <i>P. S.</i>        | sea-side       | ♂ ○ w    | 1½ jn.jl                    | W    | Britain                         | Cornw.     | S s.l | Eng. bot. 2560         |
| 3517 mauritánicus <i>W.</i>        | fine-leaved    | ♂ ○ w    | 3 jn.jl                     | W    | Spain                           | 1768.      | S s.l | Al. pe. 2. t. 61. f. 1 |
| 3518 lúcidus <i>W.</i>             | shining        | ♂ ○ w    | 2 jl.au                     | W    | S. Europe                       | 1807.      | S s.l | Mo. s. 9. t. 13. f. 4  |
| 3519 crínitus <i>Desf.</i>         | whorl-leaved   | ♂ △ w    | 2 jn.jl                     | W    | Barbary                         | 1804.      | S s.l | Desf. atl. t. 62       |
| 3520 Gingídium <i>W.</i>           | shining-leaved | ♂ ○ w    | 2 jn.jl                     | W    | France                          | 1722.      | S s.l | Mo. s. 9. t. 14. f. 5  |
| 3521 muricátus <i>P. S.</i>        | prickly-seeded | ♂ ○ w    | 2 jn.jl                     | Pk   | Barbary                         | 1683.      | S s.l | Mo. s. 9. t. 14. f. 4  |
| 3522 hispídus <i>P. S.</i>         | hispid         | ♂ ○ w    | 1½ jn.jl                    | Pk   | Barbary                         | 1804.      | S s.l | Desf. atl. t. 63       |
| <b>*626. CAUCALIS. <i>W.</i></b>   |                |          |                             |      |                                 |            |       |                        |
|                                    |                |          | BUR-PARSLEY.                |      | <i>Umbelliferae. Sp. 7—27.</i>  |            |       |                        |
| 3523 grandifóra <i>W.</i>          | great-flowered | ○ w      | 1½ jl.au                    | W    | S. Europe                       | 1648.      | S co  | Jac. aus. 1. t. 54     |
| 3524 daucoides <i>W.</i>           | small          | ○ w      | 1½ jn                       | R    | England                         | ch. fi.    | S co  | Eng. bot. 197          |
| 3525 latifólia <i>W.</i>           | broad-leaved   | ○ w      | 3 jl.au                     | R    | England                         | ch. fi.    | S co  | Eng. bot. 198          |
| 3526 pámila <i>W.</i>              | dwarf          | ○ w      | 1½ jl.au                    | Pk   | S. Europe                       | 1640.      | S co  | Cav. ic. 2. t. 101     |
| 3527 orientális <i>W.</i>          | oriental       | ♂ ○ w    | 4 jn.jl                     | W    | Levant                          | 1699.      | S co  | Mo. s. 9. t. 14. f. 5  |
|                                    |                |          | β pulcherrima <i>W. en.</i> |      | <i>beautiful</i>                |            |       |                        |
| 3528 platycarpus <i>Spr.</i>       | broad-seeded   | ○ w      | 2 jn.jl                     | W    | Caucasus                        | 1816.      | S co  | Bux. cen. 3. t. 33     |
| 3529 leptophýlla <i>W.</i>         | fine-leaved    | ○ w      | 1 jl.au                     | Pk   | S. Europe                       | 1800.      | S co  | Mo. s. 9. t. 14. f. 2  |
|                                    |                | ○ w      | 1 jl.au                     | Pk   | Europe                          | 1739.      | S co  | Sch. han. 1. t. 61     |



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622. *Eryngium*. From the Greek verb *εργυσιω*, to belch. Dioscorides positively declares that the plant is a specific for all complaints arising from flatulence. These are singular plants, somewhat like thistles in general appearance: they are generally of a bluish hue, prickly, and with large involucres, and dry crustaceous leaves. *E. maritimum* has long been in esteem as an aphrodisiac; the roots were formerly and are now, in some cases, kept in the shops candied, and formed in Shakspeare's time the kissing comfits of Falstaff. The Arabs regard the plant as an excellent restorative, and English grooms often mix the dried plant with the corn they give to stallions in the covering season. The virtue is said to reside chiefly in the roots: the tops, Linnaeus says, are eaten like asparagus in Sweden.

623. *Sanicula*. From *sanare*, to cure. This a vulnerary, to which marvellous virtues were formerly ascribed. *S. europæa* used to be considered a powerful vulnerary, but is now wholly rejected in medicine. Sir J. Smith says it partakes of that virose acrimony which is found in most umbelliferous plants growing in a moist fat soil.

624. *Echinophora*. From *εχινος*, a hedgehog, and *φορος*, to bear. In allusion to the strong rigid spines of the

- 3486 Stem smooth with tumid joints, hairy at base  
 3487 Stem scabrous, joints tumid  
 3488 Stem equal, Leaflets cut acute, Fruit with two awns  
 3489 Stem equal, Leaflets cordate serrate entire, Fruit with two awns  
 3490 Leaves ternate smooth, Radical leaflets about 3-lobed, Cauline rhomb. ovate cut finely serrate  
 3491 Stem above smooth, Joints tumid, Leaves biternate pubescent, Styles persistent  
 3492 Stem equal, Leaves supra-decompound, Involucres colored  
 3493 Stem equal, Leaflets cut, Seeds furrowed colored awnless  
 3494 Radical leaves lanceolate serrate, floral many cut, Stem dichotomous  
 3495 Leaves gladiate serrate spiny, Flowers undivided, Stem simple  
 3496 Leaves linear-lanceolate ensiform very long, Leaflets reflexed and paleæ trifid, Heads panicled  
 3497 Leaves all ovate cordate on very short stalks toothed, Stem virgate colored upwards  
 3498 Radical leaves oval flat crenate, Heads stalked  
 3499 Radical leaves oblong cut, Stem dichotomous, Heads sessile  
 3500 Radical leaves cordate: cauline palmate with the auricles reflexed, Paleæ tricuspidate  
 3501 Rad. lvs. obl. lanc. toothed spiny, Stem trichotomous, Lvs. of involucre entire larger than the heads spiny  
 3502 Radical leaves roundish plaited spiny, Heads stalked, Paleæ 3-toothed  
 3503 Radical leaves stem-clasping pinnate lanceolate  
 3504 Leaves sessile digitate spiny very small, Stem slender and weak dichotomous, Heads sessile  
 3505 Radical leaves trifid at the base somewhat pinnate  
 3506 Rad. lvs. cordate obl. obt. cren. lobed, Branches col. Lvs. of the involucre very long stiff pungent entire  
 3507 Leaves palmate cut, Bractes stiff pinnatifid pungent, Stem thick  
 3508 Radical leaves cordate: cauline ternate cut, Involucres spiny pinnated ciliated  
 3509 Radical and cauline leaves alternate 3-parted twice trifid, Involucres subulate many-leaved spiny  
 3510 Lower leaves palmate, Lobes trifid cut-serrate, Florets all sessile  
 3511 Leaves all compound subternate, Leaflets ovate attenuate at base mucronate serrate, Florets all sessile  
 3512 Leaves all digitate, Leaflets oblong cut-serrate, Male flowers numerous stalked

- 3513 Leaflets subulate prickly entire  
 3514 Leaflets cut unarmed

- 3515 Seeds hispid, Stalks nerved beneath

- 3516 Fruit hispid with compressed bristles, Leaflets dilated rounded fleshy hairy, Umbels in fruit convex  
 3517 Seeds hispid, Central floret sterile fleshy, Common receptacle hemispherical  
 3518 Leaves shining, Stem hairy, Leafstalks smooth, No sterile central floret  
 3519 Stem rough simple, Lvs. bipinn. Leaflets rather whorled many-cleft rigid, Bristles of fruit hairy purple  
 3520 Rays of the involucre flat, Segments recurved  
 3521 Fruit large very prickly  
 3522 Stem and lvs. bipinn. vil. Leaf. ovate lobed toothed, Involucres very broad, Prickles of fruit dilated at base

- 3523 Involucres each 5-leaved, One leaflet twice as large as the others  
 3524 Umbels trifid leafless, Umbellules 3-leaved 3-seeded  
 3525 Universal umbel trifid, partial 5-seeded, Leaves pinnated serrated  
 3526 Universal umbel about 5-cleft, partial 3-seeded, Leaves supra-decompound, and decumbent stem villous  
 3527 Umbels spreading, Partial leaflets supra-decompound cut with linear segments, Fruit woolly  
 β Fruit bristly  
 3528 Universal involucre about 3-leaved, Umbel trifid, Involucels 3-leaved  
 3529 Common involucre scarcely any, Umbel bifid, Involucres 5-leaved



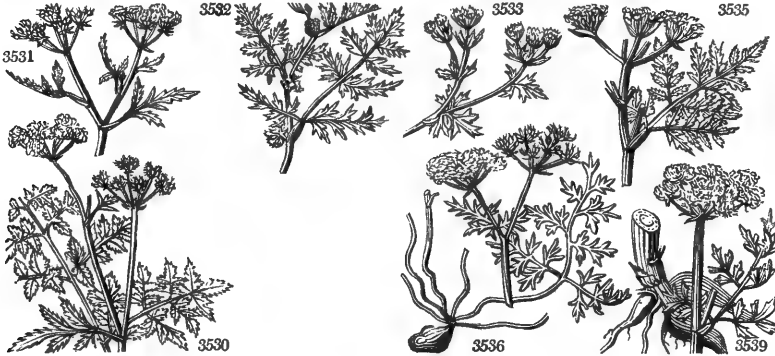
and Miscellaneous Particulars.

involucre, and indeed of the whole plant. Very much like an Ervngium, once said to have been found in England.

625. *Daucus*. From *δαίω*, to make hot; on account of its effects in medicine. *D. Carota* (from *Kar*, red, in Celtic), is well known for its esculent root. There are several varieties: the largest, and that best adapted for field culture, is called the Altrincham, from a village of that name in Cheshire. The early horn and orange are the best garden sorts. The seeds do not retain their vegetative powers more than a year, for which reason the cautious cultivator ought to prove them before sowing. The last week of March and first of April is the best season for sowing for a main crop. On farms where a deep sandy loam occurs, few crops of the root kind afford a more valuable return. In Norfolk and Suffolk they are a good deal in use as a field crop, and especially near Lowestoft in the latter county.

626. *Caucalis*. According to Linnæus, derived from *καίω*, to trail along; on account of the low habit of the plants. It is supposed that Pliny's *Caucalis* was the same as the *Caucalis grandiflora* of the present day.

|                                      |                         |       |          |                      |           |           |       |                          |  |
|--------------------------------------|-------------------------|-------|----------|----------------------|-----------|-----------|-------|--------------------------|--|
| 627. TORILIS. <i>Gærtn.</i>          | TORILIS.                |       |          | <i>Umbelliferae.</i> | Sp. 3-9.  |           |       |                          |  |
| 3530 <i>Anthriscus W.</i>            | upright spreading       | ○ w   | 2½ jl.au | R                    | Britain   | hed. S    | co    | Eng. bot. 987            |  |
| 3531 <i>infesta H.K. arvensis W.</i> | knotted                 | ○ w   | 1 jl.au  | Y                    | Britain   | co. fi. S | co    | Eng. bot. 1314           |  |
| 3532 <i>nodosa W.</i>                | knotted                 | ○ w   | 1½ my.jl | W                    | Britain   | co. fi. S | co    | Eng. bot. 199            |  |
| 628. OLIVERIA. <i>Vent.</i>          | OLIVERIA.               |       |          | <i>Umbelliferae.</i> | Sp. 1.    |           |       |                          |  |
| 3533 <i>decumbens Vent.</i>          | Thyme-scented           | ○ cu  | 1 my.jl  | Pu                   | Bagdad    | 1816.     | S co  | Vent. cels. 21           |  |
| 629. LEDEBURIA. <i>Lk.</i>           | LEDEBURIA.              |       |          | <i>Umbelliferae.</i> | Sp. 1.    |           |       |                          |  |
| 3534 <i>pimpinelloides Lk.</i>       | bristly                 | △ w   | 2 jn.jl  | W                    | .....     | 1823.     | S co  |                          |  |
| 630. MYRRHIS. <i>P. S.</i>           | MYRRH.                  |       |          | <i>Umbelliferae.</i> | Sp. 1-20. |           |       |                          |  |
| 3535 <i>odorata P. S.</i>            | sweet-scented           | △ ec  | 1½ my.jn | W                    | Britain   | m.pas.    | D co  | Eng. bot. 697            |  |
| 631. BUNNIUM. <i>W.</i>              | EARTH-NUT.              |       |          | <i>Umbelliferae.</i> | Sp. 2-    |           |       |                          |  |
| 3536 <i>Bulbocastanum W.</i>         | great                   | △ w   | 2 my.jn  | W                    | Britain   | past.     | D co  | Eng. bot. 988            |  |
|                                      | <i>B. Ficuosum Sm.</i>  |       |          |                      |           |           |       |                          |  |
| 3537 <i>rigens Spr.</i>              | fine-leaved             | △ w   | 1 jn.jl  | W                    | C. G. H.  | 1787.     | C co  |                          |  |
|                                      | <i>Conium rigens W.</i> |       |          |                      |           |           |       |                          |  |
| 632. CENANTHE. <i>W.</i>             | WATER-DROPPORT.         |       |          | <i>Umbelliferae.</i> | Sp. 8-20. |           |       |                          |  |
| 3538 <i>fistulosa W.</i>             | common                  | △ p   | 2 jn.au  | F                    | Britain   | dit.      | D m.s | Eng. bot. 363            |  |
| 3539 <i>crocata W.</i>               | Hemlock                 | △ p   | 2 jn.au  | W                    | Britain   | dit.      | D m.s | Eng. bot. 2313           |  |
| 3540 <i>prolifera W.</i>             | proliferous             | △ w   | 1½ jn.au | W                    | Italy     | 1739.     | S co  | Jac. vind. 3. t. 62      |  |
| 3541 <i>globulosa W.</i>             | globe-headed            | ○ w   | 1½ jn.au | W                    | Portugal  | 1710.     | D co  | Gouan. ill. 18. t. 9     |  |
| 3542 <i>apifolia Brot.</i>           | Parsley-leaved          | △ w   | 2 jn.au  | W                    | Portugal  | 1806.     | D co  | Sabb. rom. t. 84         |  |
| 3543 <i>peucedanifolia W.</i>        | Sulphurwort             | △ w   | 1½ jn.au | W                    | England   | dit.      | D co  | Eng. bot. 348            |  |
| 3544 <i>pimpinelloides W.</i>        | Burnet-Saxifr.          | △ w   | 1½ jn.au | W                    | England   | sal.m.    | D m.s | Eng. bot. 347            |  |
| 3545 <i>inebrans W.</i>              | various-leaved          | △ p   | 1 au.s   | W                    | C. G. H.  | 1816.     | D co  |                          |  |
| 633. CRITHMUM. <i>W.</i>             | SAMPHIRE.               |       |          | <i>Umbelliferae.</i> | Sp. 2-4.  |           |       |                          |  |
| 3546 <i>maritimum W.</i>             | sea                     | △ cul | 1 jls    | W                    | Britain   | s.cliffs. | D r.m | Eng. bot. 819            |  |
| 3547 <i>latifolium W.</i>            | wedge-leaved            | △ cu  | 1½ jl    | Y                    | Canaries  | 1780.     | D r.m |                          |  |
| 634. ATHAMANTA. <i>W.</i>            | SPIGNELL.               |       |          | <i>Umbelliferae.</i> | Sp. 9-14. |           |       |                          |  |
| 3548 <i>Libanotis W.</i>             | mountain                | △ w   | 2 jn.jl  | W                    | England   | ch.pa.    | D co  | Eng. bot. 138            |  |
| 3549 <i>Cervaria W.</i>              | broad-leaved            | △ w   | 4 jl.au  | P.Pu                 | Europe    | 1597.     | D co  | Jac. aust. 1. t. 69      |  |
| 3550 <i>sibirica W.</i>              | Siberian                | △ w   | 2 jl.au  | W                    | Siberia   | 1771.     | D co  | G.sib. 1. t. 40. f. 1, 2 |  |
| 3551 <i>condensata W.</i>            | close-headed            | △ w   | 1 jls    | W                    | Siberia   | 1773.     | D co  | Gouan. ill. 83. t. 26    |  |
| 3552 <i>incana W.</i>                | hoary                   | △ w   | 2 jl.au  | W                    | Siberia   | 1802.     | D co  |                          |  |
| 3553 <i>Oreoselinum W.</i>           | divaricated             | △ w   | 2 jl.au  | W                    | Germany   | 1768.     | D co  | Jac. aust. 1. t. 68      |  |
| 3554 <i>scula W.</i>                 | Flixweed-leav.          | △ w   | 3 jn.jl  | W                    | Sicily    | 1686.     | D co  | Zano. his. 70. t. 48     |  |
| 3555 <i>Mattholi W.</i>              | fine-leaved             | △ w   | 2 jn.jl  | W                    | Carniola  | 1802.     | D co  | Jac. ic. rar. 1. t. 57   |  |
| 3556 <i>cretensis W.</i>             | Candy-carrot            | △ w   | 1 jn.jl  | W                    | Austria   | 1596.     | D co  | Jac. aust. 1. t. 62      |  |
|                                      | <i>β annua W.</i>       | △ w   | 1 jn.jl  | W                    | Candia    | 1731.     | D co  |                          |  |
| *635. PIMPINEL/LA. <i>W.</i>         | BURNET-SAXIFRAGE.       |       |          | <i>Umbelliferae.</i> | Sp. 7-9.  |           |       |                          |  |
| 3557 <i>Saxifraga W.</i>             | common                  | △ cu  | 1 jn.au  | W                    | Britain   | drypa.    | D co  | Eng. bot. 407            |  |
| 3558 <i>nigra W.</i>                 | black-rooted            | △ w   | 1 jn.au  | W                    | Germany   | 1683.     | D co  |                          |  |
| 3559 <i>magna W.</i>                 | great                   | △ w   | 2 jn.au  | W                    | England   | woods.    | D co  | Eng. bot. 408            |  |
| 3560 <i>dissecta W.</i>              | cut-leaved              | △ w   | 1½ jn.au | W                    | France    | ...       | D co  | Retz. obs. 3. t. 2       |  |
| 3561 <i>peregrina W.</i>             | nodding                 | △ w   | 2 jn.au  | W                    | Italy     | 1640.     | D co  | Jac. vind. 2. t. 131     |  |
| 3562 <i>A'nisum W.</i>               | Anise                   | △ ec  | 1 jn.au  | W                    | Egypt     | 1551.     | D co  | Woodville. t. 180        |  |
| 3563 <i>dichotoma W.</i>             | dichotomous             | △ w   | ½ jn.au  | W                    | Spain     | 1798.     | D co  |                          |  |



History, Use, Propagation, Culture,

627. *Torilis.* A name contrived by Adanson and adopted by Gærtner, and other botanists. It probably, like many of Adanson's words, has no meaning.

628. *Oliveria.* Named in honor of G. A. Olivier, a French botanist, who travelled in the East. He published a splendid work on insects, by which he is better known than by his botanical merits.

629. *Ledeburia.* So named by Professor Link, after M. Ledebure, the author of a Catalogue Horti Dorpatensis, published in 1819; in which work this plant stands as *Tragium tauricum*.

630. *Myrrhis.* This plant has been long in cultivation. Formerly the young leaves were put into salads; and the roots were boiled and eaten cold, or in tarts, and in a variety of sauces, or candied. The seeds are put into soups in Germany, and in the north of England employed in polishing and perfuming oak floors and furniture.

631. *Bunium.* From *Bunio*, a hill, because the plant grows in dry and elevated situations. *Terre Nois*, Fr., *Erdnuss*, Ger., *Castagno di terra*, Ital. The roots of *B. Bulbocastanum* are or used to be dug up and eaten raw by the poorer classes. They are farinaceous, sweet, and supposed to be very nourishing. Swine are very fond of them, and will soon become fat by feeding on them.

632. *Cenanthe.* From *ανθη*, a vine, and *αβος*, a flower. The *Cenanthe*, says Pliny, smells like the vine in flower, and it is from that that it takes its name. This genus, like most of the aquatic umbelliferae, is chiefly poisonous. *C. crocata* is considered eminently so. The juice of the root or an infusion of the leaves is very efficacious in cutaneous diseases: in large doses it produces a fatal tetanus. The herb is applied in poultices to those ulcers that form in the cleft of the hoof of kine.

3530 Involucres many-leaved, Seeds ovate, Styles reflexed, Leaves decomposed, Outer leaflet lin. lanceolate  
3531 Universal involucre scarcely any, Seeds ov. Styles reflexed, Leaves decomposed, Stem much branched

3532 Umbels simple subsessile, Leaves supra-decomposed

3533 Leaves pinnate, Leaflets sessile 3-5-cleft, Segm. 3-fid ciliated, Flowers fascicled villous

3534 Radical leaves pinnate, Pinnæ ovate serrated cut, The upper 3-pinnatifid with linear 3-forked segments

3535 Villous, Leaves ternate decomposed, Leaves ovate lanceolate pinnatifid, Central fl. male

3536 Leaves uniform, Involucre many-leaved

3537 Seeds somewhat muricated, Peduncles furrowed, Leaflets channelled obtuse

3538 Stoliferous, Cauline leaves with filiform fistulose pinnæ

3539 All the leaves many cut obtuse nearly equal

3540 Outside stalks of the umbels longest branched male

3541 Leaves bipinnate, Fruit globose

3542 Leaves bi-tripinnate; the upper pinnate, Leaflets wedge-shaped cut serrate striated

3543 Cauline leaves pinnate; radical bipinnate, Leaflets linear

3544 Radical leaves caudate split : cauline entire very long simple

3545 Lower pinnæ of the leaves ovate; upper linear, Stalks angular

3546 Leaflets lanceolate fleshy

3547 Leaflets wedge-shaped split (*Tenoria*, Spr.)

3548 Leaves bipinnate flat, Umbel hemispherical, Seeds hairy

3549 Leaves pinnate decussate cut angular, Seeds naked

3550 Leaves pinnate cut angular

3551 Leaves subpinnate, Leaflets imbricated downwards, Umbel lens-shaped

3552 Pubes. hoary, Lvs. supra-decomposed, Leaflets wedge-shaped 4-toothed, Umbel with many rays globose

3553 Leaflets divaricating, Leaves thrice pinnate

3554 Lower leaves shining, First umbels subsessile, Seeds hairy

3555 Leaves capillary, Styles persistent erect, Seeds oblong hairy

3556 Leaflets linear flat hairy, Petals divided, Seeds oblong hairy

β Leaves many-parted, Segm. linear rounded acuminate

3557 Stem furrowed smooth, Leaves pinnated smooth : radical roundish finely toothed; cauline linear

3558 Stem furrowed pubescent, Leaves pinnate pubescent : radical cordate cut obtuse toothed; cauline linear

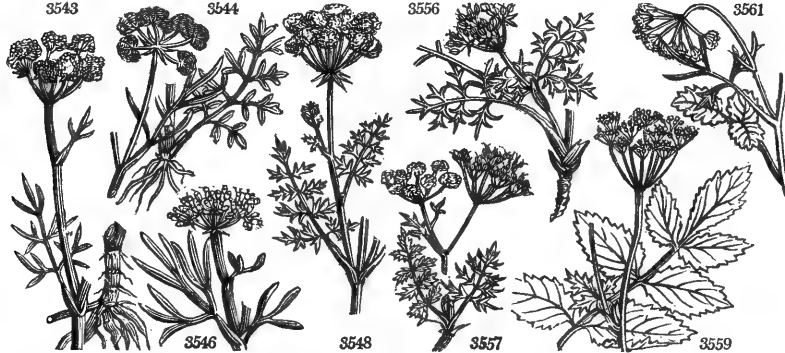
3559 Leaves all alike pinnate, Leaflets lobed, the odd one 3-lobed

3560 Leaves pinnate, Pinnæ many-parted, Segments falcate acute

3561 Radical leaves pinnate crenate; upper wedge-shaped cut, Umbels nodding

3562 Radical leaves trifid cut

3563 Peduncles opp. the leaves, Flower leaves bifid or trifid, Leaf-stalks winged membranous



and Miscellaneous Particulars.

633. *Crithmum*. From  $\alpha\epsilon\iota\beta\gamma$ , barley. Its seed is very similar to a grain of barley. *Saint Pierre*, Fr., *Mezefouchet*, Ger., and *Finochio marino*, Ital. The *C. maritimum* is found on stone walls, as well as by the sea shore. The inhabitants, where it abounds, not only use it as a pickle, but as an ingredient in salads, and as a pot-herb. In the garden it may be grown on beds of sand and rubbish, or in pots. *Braddick*, an ingenious horticulturist, cultivated it at Thames Ditton, in a sheltered dry situation screened from the morning sun: he protected it by litter during winter, and in spring sprinkled the soil with a little powdered barilla. "This I do," says he, "to furnish the plant with a supply of soda, since in its native place of growth it possesses the power of decomposing sea water, from which it takes the fossil alkali, and rejects the muriatic acid." With this treatment it flourished abundantly, producing an ample supply of leaves and shoots, which were cut twice in the season. (*Hort. Trans.* ii. 232.)

634. *Athamania*. A plant found upon Mount Athamas in Thessaly, as some say; others, however, believe it to have been named after King Athamas, a king of Thebes, who first brought it into use.

635. *Pimpinella*. According to Linnæus, this name has been altered from *bipennula*, twice pinnate, in allusion to the leaves. *P. saxifraga* differs surprisingly in size and foliage in different situations, insomuch that some make several species, as *P. minor*, major, and dissecta. The root is acrid, and used as a masticatory in tooth-ache, also externally to take away freckles, and in gargles to dissolve viscid mucus.

*P. anisum* (*Anisum*, Arabic; *Golius*) is cultivated in Malta and Spain, whence the seeds are annually imported into England for their use in medicine. They are aromatic and carminative, and yield an oil both by distillation and expression, which is much used in flatulencies, as are the seeds in substance. The oil is also

|                                       |                   |                      |            |       |     |           |                                     |
|---------------------------------------|-------------------|----------------------|------------|-------|-----|-----------|-------------------------------------|
| 636. PHELLANDRIUM <i>W.</i>           | WATER-HEMLOCK.    | <i>Umbelliferae.</i> | Sp. 1.     |       |     |           |                                     |
| 3564 aquaticum <i>W.</i>              | common            | ☉ p                  | 3          | jn.jl | W   | Britain   | rivul. C aq Eng. bot. 684           |
| 637. DON'DIA <i>Spreng.</i>           | DONDIA.           | <i>Umbelliferae.</i> | Sp. 1.     |       |     |           |                                     |
| 3565 Epipactis <i>Spr.</i>            | yellow            | ☉ Δ pr               | 1          | mr.ap | Y   | Alps      | 1823. D p1 Jacq. aust. 5. t.11      |
| 638. TRACHYSPERMUM <i>Lk.</i>         | TRACHYSPERMUM.    | <i>Umbelliferae.</i> | Sp. 1.     |       |     |           |                                     |
| 3566 cop'ticum <i>Spr.</i>            | Egyptian          | ○ w                  | 2          | jn.jl | W   | Egypt     | 1773. D co Jac. vind. 2. t.196      |
| 639. AMMI <i>W.</i>                   | AMMI.             | <i>Umbelliferae.</i> | Sp. 4-8.   |       |     |           |                                     |
| 3567 Visnaga <i>W.</i>                | Carrot-like       | ○ w                  | 2          | jn.au | W   | S. Europe | 1596. S co Ga. de.fr. 1. t.107      |
| 3568 māsus <i>W.</i>                  | great             | ○ w w                | 2          | jn.jl | W   | S. Europe | 1551. D co Blackw. t. 447           |
| 3569 glaucifolium <i>W.</i>           | glaucous-leaf'd   | ☉ Δ w                | 1½         | jn.jl | W   | France    | 1816. D co                          |
| 3570 daucifolium <i>W.</i>            | Carrot-leaved     | ☉ Δ w                | 2          | jl.au | P.Y | Pyrenees  | 1734. D co Scop. carn. t. 10        |
| 640. BU'BON <i>W.</i>                 | BUBON.            | <i>Umbelliferae.</i> | Sp. 5-7.   |       |     |           |                                     |
| 3571 macedonicum <i>W.</i>            | Macedonian        | ☉ cu                 | 2          | jn.au | P.Y | Greece    | 1596. S co Blackw. t. 382           |
| 3572 rigidum <i>W.</i>                | stiff-leaved      | ☉ cu                 | 3          | jn.au | Pk  | Sicily    | 1710. S co Bocc. mus. 2. t.76       |
| β gummi'ferum <i>Sm.</i>              | gummy             | ☉ cu                 | 3          | jl.s  | Pk  | Crimea    | 1804. S co Ex. bot. 120             |
| 3573 Gal'banum <i>W.</i>              | Lovage-leaved     | ☉ m                  | 6          | jl.au | Y.g | C. G. H.  | 1596. S s1 Bot. mag. 2489           |
| 3574 laevigatum <i>W.</i>             | smooth            | ☉ cu                 | 4          | mr.d  | Y   | C. G. H.  | 1774. S s1                          |
| 3575 gummi'ferum <i>W.</i>            | gum-bearing       | ☉ ec                 | 7          | jl    | P.Y | C. G. H.  | 1731. S s1 Com. hort. 2. t.58       |
| 641. CU'MINUM <i>W.</i>               | CUMIN.            | <i>Umbelliferae.</i> | Sp. 1.     |       |     |           |                                     |
| 3576 Cýminum <i>W.</i>                | common            | ○ clt                | 1          | jn.jl | W   | Egypt     | 1594. S co Cav. ic. 4. t. 360       |
| *642. SE'SELI <i>W.</i>               | MEADOW SAXIFRAGE. | <i>Umbelliferae.</i> | Sp. 10-14. |       |     |           |                                     |
| 3577 pimpinelloides <i>W.</i>         | nodding-flow.     | ☉ Δ w                | 1          | jl    | W   | S. Europe | 1796. D co                          |
| 3578 leucospermum <i>W. et K.</i>     | woolly-headed     | ☉ Δ w                | 1½         | jl    | W   | Hungary   | 1805. D co Pl. rar. hung. 80        |
| 3579 montanum <i>W.</i>               | mountain          | ☉ Δ w                | 1          | jn.jl | W   | Italy     | 1658. D co Jac. vind. 2. t.129      |
| 3580 glaucum <i>W.</i>                | glaucous          | ☉ Δ w                | 2          | jl.au | W   | France    | 1759. D co Jac. aust. 1. t. 144     |
| 3581 ammoides <i>W.</i>               | Mitfol-leaved     | ☉ Δ w                | 1          | jn.jl | W   | S. Europe | 1759. S co Jac. vind. 1. t. 52      |
| 3582 tortuosum <i>W.</i>              | crooked           | ☉ Δ w                | 1          | o     | W   | S. Europe | 1597. D co Bau. h. 3. 2. 16. f. 2   |
| 3583 divaricatum <i>Ph.</i>           | shining-leaved    | ☉ Δ or               | 1          | jn.jl | Y   | N. Amer.  | 1812. D co Bot. mag. 1742           |
| 3584 Hippomarathrum <i>W.</i>         | various-leaved    | ☉ Δ w                | 2          | jl    | Pu  | Austria   | 1656. D co Jac. aust. 2. t.143      |
| 3585 grácilis <i>W. en.</i>           | slender           | ☉ Δ w                | 1½         | jn.jl | Y   | Hungary   | 1805. D co P. ra. hun. 2. t.117     |
| 3586 elátum <i>W.</i>                 | tall              | ☉ Δ w                | 1½         | jl.au | W   | Austria   | 1710. D co Gouan. ill. 16. t. 8     |
| 643. THAP'SIA <i>W.</i>               | DEADLY CARROT.    | <i>Umbelliferae.</i> | Sp. 4-9.   |       |     |           |                                     |
| 3587 villósa <i>W.</i>                | villous           | ☉ Δ p                | 2          | jn.jl | Y   | S. Europe | 1596. D s1 Moris. s. 9. t. 18. f. 3 |
| 3588 fo'etida <i>W.</i>               | stinking          | ☉ Δ p                | 2          | jl.au | Y   | Spain     | 1596. D s1 Moris. s. 9. t. 18. f. 7 |
| 3589 Asclepium <i>W.</i>              | oriental          | ☉ Δ cu               | 2          | jl.au | Y   | Levant    | ... D s1 Moris. s. 9. t. 18. f. 9   |
| 3590 gargaríca <i>W.</i>              | Garganian         | ☉ Δ cu               | 2          | jl.au | L.Y | Barbary   | 1683. D s1 Gouan. ill. 18. t. 10    |
| 644. ACTINOTUS <i>Lab.</i>            | ACTINOTUS.        | <i>Umbelliferae.</i> | Sp. 1.     |       |     |           |                                     |
| 3591 Helian'thi <i>Lab.</i>           | Sun-flower        | ☉ Δ cu               | 2          | jn    | W   | N. Holl.  | 1821. D s1 Bot. reg. 654            |
| 645. TRI'NIA <i>Hoffm.</i>            | TRINIA.           | <i>Umbelliferae.</i> | Sp. 2.     |       |     |           |                                     |
| 3592 Hoffmann'i <i>Bieb.</i>          | Hoffmann's        | ☉ Δ w                | 1          | my.jn | W   | England   | rocks. D co Eng. bot. 1209          |
| 3593 Pimpinella dioica <i>E. Bot.</i> | Hoffmann's        | ☉ Δ w                | 1          | o     | W   | England   | rocks. D co Eng. bot. 1209          |
| 3593 Hennin'gii <i>Bieb.</i>          | Hennig's          | ☉ Δ w                | 1          | jn.au | W   | Hungary   | 1803. Pl. rar. hung. t. 27          |
| *646. SI'UM <i>W.</i>                 | WATER-PARSNIP.    | <i>Umbelliferae.</i> | Sp. 8-28.  |       |     |           |                                     |
| 3594 latifolium <i>W.</i>             | broad-leaved      | ☉ Δ p                | 3          | jl.au | W   | Britain   | rivul. D aq Eng. bot. 204           |
| 3595 angustifolium <i>W.</i>          | narrow-leaved     | ☉ Δ w                | 1          | jl.au | W   | Britain   | rivul. D aq Eng. bot. 139           |
| 3596 nodifolium <i>W.</i>             | procumbent        | ☉ Δ w                | 1          | jl.au | W   | Britain   | rivul. D aq Eng. bot. 639           |
| 3597 repens <i>W.</i>                 | creeping          | ☉ Δ w                | 1          | jn    | W   | Britain   | mou. gr. D m.s. Eng. bot. 1431      |
| 3598 Sisarum <i>W.</i>                | Skirret           | ☉ Δ cul              | 1          | jl.au | W   | China     | 1548. D r.m. Schk. han. 1. t. 69    |



#### History, Use, Propagation, Culture,

used by vermin-killers to scent poisonous baits, or to neutralize or obliterate other smells. Anise is sometimes sown in gardens for the leaves, to be used as a garnish, or for seasoning, like fennel.

636. *Phellandrium*. A name under which Pliny describes an umbelliferous plant, of similar nature to the one now so called. In running streams the leaves of this plant become divided, like those of *Ranunculus aquatilis* in the same situation. When the plant grows in an angle, out of the rapid course of the stream, it produces its flowers; but it flowers best on the muddy banks of ditches and ponds. According to Linneus it renders horses paralytic, the disease being brought on by a Coleopterous insect, the *Curculio paraplecticus*, which breeds in the stalks, and is cured by pigs' dung. The seeds are sometimes used in agues.

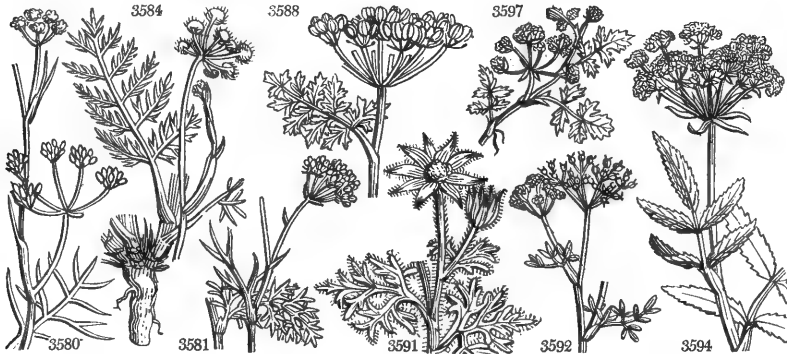
637. *Dondia*. A curious little plant resembling *Astrantia*, and named from Dondie Duprée, a French botanist.

638. *Trachyspermum*. From *τραχυσ*, rough, and *σπέρμα*, seed; on account of the roughness of the seeds. Nearly related to *Ammi*, with which it agrees in habit.

639. *Ammi*. From *αμμος*, sand; because it grows in sandy places. Plants with a delicate habit, very finely cut leaves, and white flowers.

640. *Bubon*. *Bubonium* is a name of Pliny's, now applied to this plant; as Pliny's was used in medicine, so is this, and there the resemblance ceases. *B. macedonicum* is put among clothes to scent them, in some parts of the East. From *B. Galbanum* (derivation obscure) the drug of that name is obtained, though it is not clear that it may not also be got from other species. It is collected from the spontaneous exudation of the

- 3564 Ramifications of leaves divaricating
- 3565 Leaves stalked digitate 3-lobed, Scape angular with only one umbel
- 3566 Leaves supra-decompound, Leaflets filiform, Umbels opp. the leaves, Leaves of involucre unequal
- 3567 Universal umbel united at base
- 3568 Lower leaves pinnate lanceolate serrate; upper multifid linear
- 3569 Segments of all the leaves lanceolate
- 3570 Leaves supra-decompound, Leaflets 3-parted pinnatifid
- 3571 Leaves rhomb-ovate cut-toothed, Teeth acuminate, Umbels numerous, Seeds hairy
- 3572 Leaflets linear
- 3573 Leaflets ovate wedge-shaped acute finely serrate, Umbels few, Seeds smooth, Stem glaucous
- 3574 Leaflets lanceolate very obtusely and obscurely crenate, Seeds smooth
- 3575 Leaflets cut acuminate: lower broadest, Seeds smooth
- 3576 The only species. Lower leaves broad, Upper capillary
- 3577 Stem declinate, Umbels nodding
- 3578 Stem erect flexuose, Leaves decompound very fine, Umbels dense very downy
- 3579 Leaf-stalks branch-bearing membranous oblong entire, Cauline leaves very narrow
- 3580 Leaf-stalks branch-bearing membranous obl. entire, Leaflets single and two together channelled smooth
- 3581 Radical leaves with imbricated leaflets
- 3582 Stem tall rigid, Leaflets linear fascicled
- 3583 Stem procumbent branched, Leaves bipinnatifid shining, Involucels halved
- 3584 Involucels connate one-leaved
- 3585 Stem ascending, Leaves triternate very fine, Umbel nodding with long rays
- 3586 Stem elongated with callous points, Leaves bipinnate, Pinnæ linear distant
- 3587 Leaflets toothed villous united at base
- 3588 Leaflets many-cut narrowed at base
- 3589 Leaves digitate, Leaflets bipinnate finely many-cut
- 3590 Leaves bipinnate, Leaflets pinnatifid, Segm. lanceolate
- 3591 Downy, Leaves decursively pinnated, Invol. soft long with 10-18 rays
- 3592 Seeds rough with sharp ribs
- 3593 Seeds smooth with blunt ribs
- 3594 Leaves pinnate, Umbel terminal
- 3595 Leaves pinnate, Umbels axillary stalked, Common invol. pinnatifid
- 3596 Leaves pinnate, Umbels axillary sessile
- 3597 Stem creeping, Leaflets roundish toothed angular
- 3598 Leaves pinnate: floral ternate



and Miscellaneous Particulars.

stem, or by an incision in the stalk a little above the root, from which it immediately flows, and soon becomes sufficiently concreted for gathering. Medicinally considered, this gum-resin is said to hold a middle place between *Asafœtida* and *Ammoniacum*; but it is far less fetid than the former.

641. *Cuminum*. From the Arabic name of the plant *qamôn*. (*Golius*.) This is a dwarf fennel-looking plant, cultivated in the south of Europe and lesser Asia for its seeds, which are hot and aromatic, and used like those of Anise, Caraway, &c.

642. *Seseli*. *Golius* (p. 167.) says, a plant related to this is called *Seycelyous* in Arabic. There is also a Greek *arseli*.

643. *Thapsia*. The *Thapsia*, says Dioscorides, derives its name from the isle Thapsus, where it was first discovered. Plants resembling *Smyrniun* in habit.

644. *Actinotus*. From *ακτιν*, a ray, in allusion to the ray-like appearance of the involucre. Curious New Holland plants with the habit of *Astrantia*.

645. *Trinia*. Named by Hoffmann after Dr. Trinius, a celebrated Russian botanist, who has published some works upon grasses. Plants resembling *Pimpinella* in appearance.

646. *Sium*. *Sium* signifies water in Celtic. This is a genus of aquatic plants. *S. nodiflorum* bears a good deal of resemblance to the water-cress (*Nasturtium officinale*), and, unless when in flower, is not very easily distinguished from it by the inexperienced. It is commonly considered poisonous, though, according to Dr.



|                               |                |         |    |       |      |                     |                  |      |     |                      |
|-------------------------------|----------------|---------|----|-------|------|---------------------|------------------|------|-----|----------------------|
| §3599 rigidum W.              | Virginian      | ♂ Δ w   | 2  | jl.au | W    | Virginia            | 1774.            | D    | a.p | Moris.e.9 t.7. f.1   |
| §3600 Falcária W.             | decurrent      | ♂ Δ p   | 2  | jl.au | W    | Europe              | 1786.            | D    | a.p | Jac. aust. 3. t.357  |
| §3601 scitulum W.             | Sicilian       | ♂ Δ w   | 1  | jl.au | Y    | Sicily              | 1686.            | D    | a.p | Jac. vind. 2. t.133  |
| *647. SISON. W.               | HONEWORT.      |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 5-16.</i> |      |     |                      |
| 3602 Amómum W.                | hedge          | ○ w     | 3  | jl.au | W    | Britain             | 1774.            | h6d. | S   | m.s Eng. bot. 954    |
| 3603 sēgetum W.               | corn           | ○ w     | 2  | jl.au | W    | England             | ch.f.            | S    | m.s | Eng. bot. 228        |
| §3604 inundátum W.            | water          | ○ w     | 1  | my.jn | W    | Britain             | dit.             | S    | a.q | Eng. bot. 227        |
| 3605 verticillátum W.         | whorl-leaved   | ♂ Δ w   | 1  | jl.au | W    | Britain             | m. me.           | D    | m.s | Eng. bot. 395        |
| 3606 salsum W.                | fine-leaved    | ♂ Δ w   | 1  | jl.au | P.Y  | Siberia             | 1804.            | D    | co  | P.a.p.17793.f.13     |
| 648. CICUTA. W.               | COWBANE.       |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 2-5.</i>  |      |     |                      |
| 3607 virósa W.                | long-leaved    | ♂ Δ m   | 3  | jl    | W    | Britain             | ditch.           | D    | m.s | Eng. bot. 479        |
| 3608 maculáta W.              | spotted        | ♂ Δ p   | 1½ | jl.au | W    | N. Amer.            | 1759.            | D    | co  | Pl. alm. t. 76. f. 1 |
| *649. CONIUM. W.              | HEMLOCK.       |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 2-3.</i>  |      |     |                      |
| 3609 maculátum W.             | common         | ♂ ○ m   | 5  | jn.jl | W    | Britain             | hed.             | S    | co  | Eng. bot. 1191       |
| §3610 africánum W.            | Rue-leaved     | ○ w     | 3  | jn.s  | W    | C. G. H.            | 1759.            | C    | a.l | Jac. vin. 2. t. 194  |
| *650. SMYRNIUM. W.            | ALEXANDERS.    |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 6-7.</i>  |      |     |                      |
| 3611 perfoliátum W.           | perfoliate     | ♂ Δ cul | 3  | my    | Y    | Italy               | 1596.            | D    | a.l | Pl. rar. h. 1. t. 23 |
| 3612 Olusatrum W.             | common         | ♂ Δ cul | 4  | my.jn | G    | Britain             | sea.co.          | S    | a.l | Eng. bot. 230        |
| 3613 apiifólium W.            | Smallage-ldv.  | ♂ Δ cu  | 1  | my.jl | P.Y  | Candia              | 1731.            | D    | a.l |                      |
| 3614 cordátum Ph.             | heart-leaved   | ♂ Δ or  | 1½ | jn.jl | D.Pu | N. Amer.            | 1597.            | D    | s.l |                      |
| <i>Thápsia trifoliáta</i> W.  |                |         |    |       |      |                     |                  |      |     |                      |
| §3615 aureum W.               | golden         | ♂ Δ cu  | 1  | my.jn | Y    | N. Amer.            | 1699.            | D    | r.m |                      |
| 3616 integerrimum W.          | entire-leaved  | ♂ Δ w   | 1½ | jn    | Y    | N. Amer.            | 1759.            | D    | r.m |                      |
| *651. APIUM. W.               | PARSLEY.       |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 2-5.</i>  |      |     |                      |
| 3617 Petroselinum W.          | garden         | ♂ ○ cul | 3  | jn.jl | L.Y  | Sardinia            | 1548.            | S    | r.m |                      |
| 3618 graveolens W.            | alpine         | ♂ ○ cul | 4  | jn.au | W    | Britain             | ditch.           | S    | m.s | Eng. bot. 1210       |
| 652. EGOPODIUM. W.            | GOUT-WEED.     |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 1.</i>    |      |     |                      |
| 3619 Podagraria W.            | common         | ♂ Δ w   | 2  | my.jl | W    | Britain             | sh. pl.          | D    | m.s | Eng. bot. 940        |
| 653. MEVUM. Jacq.             | BAWD-MONEY.    |         |    |       |      | <i>Umbellifera.</i> | <i>Sp. 3-7.</i>  |      |     |                      |
| 3620 Bónius Jacq.             | Coriander-ldv. | ○ w     | 1  | jl    | W    | Pyrenees            | 1778.            | S    | co  | Jac. vin. 2. t. 198  |
| 3621 Mutellina P. S.          | alpine         | ♂ Δ or  | 1  | jl.au | Pu   | Austria             | 1774.            | D    | co  | All. pe. t. 60. f. 1 |
| 3622 athamánticum Jac. common | common         | ♂ Δ w   | 1½ | ap.jn | P.Y  | Britain             | me.pa.           | D    | m.s | Jac. aust. 4. t.303  |



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Withering, the juice, in doses of from two to four ounces, either alone or with milk, every morning, is an excellent alterative in cutaneous diseases.

*S. sisarum* (from *Dgizer*, its Arabic name, in which language it signifies *carrot*), *Cheruis*, Fr., *Zuckerwürtzel*, Ger., and *Sísaro*, Ital., is cultivated for its roots or tubers, which, boiled and eaten with butter, are sweet and agreeable. A crop may either be raised from seed or offsets; if from the former, sow in March or the beginning of April, and when the plants come up, whether in rows or broadcast, thin them, so as nine or ten square inches may be allowed to each plant. With the usual summer culture the roots will have attained their full size in September, and may be taken up as wanted for use. In growing from offsets, allow about the same distance planting about the end of April, and giving the usual culture afterwards.

647. *Sison*. From the Celtic *sizun*, which signifies a running stream. Many of the plants grow in such situations. This genus is called *Honewort*, from its being used formerly to cure a swelling in the cheek called the Hone.

648. *Cicuta*. A word used by Virgil (*Ecl.* 2 and 5.), but of unknown meaning. *C. virosa* is poisonous to mankind and kine, but not to horses, sheep, or goats; the smell being weak in the spring, cows are apt to be killed by it, but afterwards the odour enables them to avoid it. *C. maculata* is used in medicine like *Conium maculatum*.

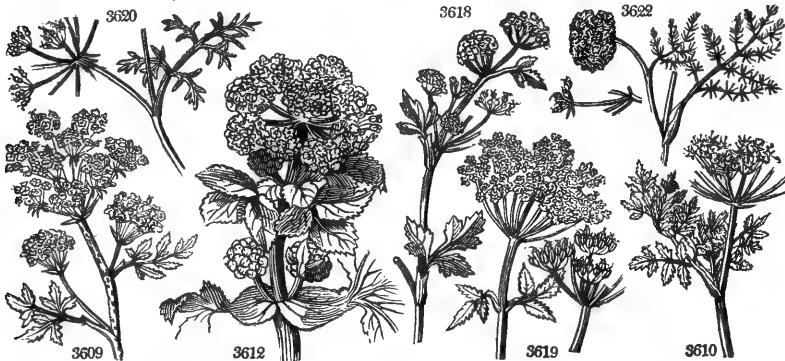
649. *Conium*. Said by Linnæus to be derived from *noxius*, powder, dust; but the application of the term is not evident. *C. maculatum* is a well known poisonous plant, lately admitted into the *Materia Medica*. According to Linnæus, sheep eat the leaves, but horses, cows, and goats refuse them. Ray informs us, that the thrush will feed upon the seeds, even when corn is to be had. Curtius says hemlock is eaten by few or no insects. The dried fistulous stalks of this and several other umbelliferous plants are called by the country people *kecksies*. As a medicine, hemlock seems to act on the constitution in a great measure like opium.

650. *Smyrniium*. *Συμεν*, is a synonym of *μυσα*, myrrh. Its juice smells like myrrh, saith Pliny. *Maceron*, Fr., *Smyrnerkraut*, Ger., and *Maccrone*, Ital. *S. perfoliatum* and *olusatrum* are or may be cultivated as Asparaginous and salad plants, though they are now almost entirely supplanted by the celery, which they somewhat resemble in flavour. The seeds are sown in March in rows two feet apart, and afterwards thinned out to six inches. As the plants advance, they are earthed up like celery, and, like it, are ready for use during autumn and winter. *Olusatrum* is from *olus*, pot-herb, and *atrum*, black, from the dark colour of its foliage. Our English name, *Alexanders*, is certainly a mere corruption of *Olusatrum*.

651. *Apium*. From *apon*, water, in Celtic; from the place where the plant grows. *A. Petroselinum*, (*πυρρα*, stone, and *selinum* — Stone Selinum) *Perail*, Fr., *Petersilie*, Ger., and *Petroselina*, Ital., is a well known seasoning herb, and it is also sown among pasture grasses as likely to counteract the liver rot in sheep. There is a variety called the *Hamburg* or large rooted parsley, which is cultivated for its roots, which, as well as the

- 3599 Leaves pinnate, Leaflets lanceolate nearly entire  
 3600 Leaves linear decurrent connate  
 3601 Radical leaves ternate; cauline bipinnate
- 3602 Leaves pinnate, Umbels erect  
 3603 Leaves pinnate, Umbels cernuous  
 3604 Creeping, Umbels bifid  
 3605 Leaflets whorled capillary  
 3606 Rad. lvs. compound, Leaflets whorled fascicled lanc. Stem leafless, Umbellif. branches dichotomous
- 3607 Umbels opp. to the leaves, Leaf-stalks edged obtuse  
 3608 Serratures of leaves mucronate, Leaf-stalks membranous two-lobed at end
- 3609 Seeds unarmed, Stem branched shining spotted  
 3610 Seeds mucronate, Petioles and peduncles smooth
- 3611 Cauline leaves simple stem-clasping  
 3612 Cauline leaves ternate stalked serrate  
 3613 Cauline leaves wedge-shaped obtuse trifid toothed  
 3614 Radical leaves simple cordate crenate; cauline ternate serrate, Umbels terminal
- 3615 Leaves pinnate serrate, All the florets fertile  
 3616 Cauline leaves doubly ternate entire
- 3617 Cauline leaves linear with minute involucre  
 3618 Cauline leaves wedge-shaped
- 3619 Upper leaves ternate, Lower biternate sessile

- 3620 Stem diffuse branching, Radical leaves broad; cauline very narrow  
 3621 Stem simple, Sheaths of leafstalks dilated membranous, Leaflets multifid pinnatifid  
 3622 All the leaves very finely cut



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roots of the other varieties, communicate an agreeable flavor to soups and stews. The curled thick-leaved variety is that most esteemed for soups and as a garnish: it is sown in drills, and should be thinned out when it is so far advanced as to shew the finer curls of the leaves. It is too commonly left to grow as it came up which makes it but a very inferior article for garnishes. The Hamburg sort should be thinned so as each plant may occupy ten or twelve square inches of surface.

*A. graveolens* is one of our most valuable salad plants, and is a remarkable instance of the effect of cultivation, being in its wild state, rank, coarse, and unfit to eat; and blanched in the garden, sweet, crisp, juicy, and of a most agreeable flavor. The green leaves are used in soups, and in Italy and the Levant, where the plant is grown, but not blanched, this is its principal application. Here both the leaves and seeds are used in soups and stews, and the blanched stalks in that way and also as a salad, either alone or in composition. One variety, the Celeric, is grown entirely for the root or base of the leaves, which assumes a bulbous form, is solid and white, and used either in soups or as a salad.

In order to produce excellent celery, a deep rich light soil is required, and especially a soil on a dry bottom. The seed in the main crop is commonly sown in the beginning of April on a bed for transplantation; the plants so raised are commonly pricked out into other beds, and placed four or six inches asunder. At eight or twelve inches height the plants so brought forward are transplanted into trenches for blanching. These trenches are small open ditches of from six inches to a foot deep, and they are dug from two and a half to three feet apart from each other, in order to admit of earthing up the plants to the height of two feet or more above the natural surface. The excavated earth is laid in the intervals, and some dung is dug into the bottom of the trenches. Along these plants are inserted at four or five inches apart, and as they grow, the earth from the sides of the trenches and from the wide intervals between them is applied to the plants in small layers at a time, till at the end of the autumn the ditches have become banks two or three feet high. The celery is now fit to use, and by earlier and later crops this salad is had in perfection from August or September till May following. Celery is grown to great perfection in Lancashire, where blanched stalks have been dug up four feet six inches long, and weighing nine or more pounds, of the best quality. A variety of modes of cultivating the celery are brought together in the Encyclopædia of Gardening, which well deserve the perusal of those who aim at growing this root in the best manner.

652. *Agopodium*. From *αιξ* *αγρος*, a goat, and *πους*, a foot. Each of the parts of the leaf is split so as to resemble the cloven foot of a goat. The leaves of *E. Podagraria* smell like those of *Angelica*, and may be eaten in spring salads.

653. *Meum*. From *μυον*, very small, in allusion to the extreme delicacy of the leaves, which are as fine as hairs.

| 654. ANETHUM. W.     |                   | DILL.           |   |     | <i>Umbelliferae.</i> |     | <i>Sp. 4-5.</i> |      |                      |         |    |                |
|----------------------|-------------------|-----------------|---|-----|----------------------|-----|-----------------|------|----------------------|---------|----|----------------|
| 3623                 | gravolens W.      | common          | ✓ | ○   | cul                  | 3   | in.jl           | Y    | Spain                | 1570.   | S  | r m            |
| 3624                 | segetum W.        | Portugal        | ✓ | ○   | w                    | ½   | in.jl           | Y    | Portugal             | 1796.   | S  | co             |
| 3625                 | Sowa Rob.         | Indian          | ✓ | ○   | m                    | ... | in.jl           | ...  | E. Indies            | 1810.   | S  | co             |
| 3626                 | Foeniculum W.     | Fennel          | ✓ | △   | cul                  | 6   | jl.au           | Y    | England ch. pl.      | S       | co | Eng. bot. 1208 |
|                      | β dulce           | Finochio        | ✓ | △   | cul                  | 4   | jl.au           | Y    | Italy                | ...     | S  | sl             |
| 655. CARUM. W.       |                   | CARAWAY.        |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3627                 | Carui W.          | common          | ✓ | ○   | clt                  | 2   | my.jn           | W    | Britain              | me. pa. | S  | sl             |
| 3628                 | simplex W.        | simple-stalked  | ✓ | ○   | w                    | 1   | my.jn           | W    | Siberia              | 1816.   | S  | sl             |
| *656.                | CNIDIUM. Cuss.    | CNIDIUM.        |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3629                 | Monniéri W.       | annual          | ✓ | ○   | w                    | 1½  | jl.au           | W    | S. Europe            | 1771.   | S  | co             |
| 3630                 | Silfús W.         | meadow          | ✓ | △   | w                    | 2   | in.au           | Y    | England              | mea.    | D  | co             |
| 3631                 | alsaticum W.      | small-headed    | ✓ | △   | w                    | 6   | in.au           | L. Y | Austria              | 1774.   | D  | co             |
| 3632                 | aristatum W.      | bearded         | ✓ | △   | w                    | 1½  | in.jl           | W    | Pyrenees             | 1789.   | D  | co             |
| 3633                 | pyrenaicum W.     | Pyrenean        | ✓ | △   | w                    | 1   | in.jl           | W    | Pyrenees             | 1731.   | D  | co             |
| †657.                | BUPLEURUM. W.     | HARE'S-EAR.     |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3634                 | rotundifolium W.  | Thorough-wax    | ✓ | ○   | pr                   | 2   | in.jl           | Y    | England              | co. fl. | S  | co             |
| 3635                 | stellatum W.      | starry          | ✓ | △   | pr                   | 1   | my.jl           | G    | Switzerl.            | 1778.   | D  | co             |
| 3636                 | petraeum W.       | rock            | ✓ | △   | pr                   | 1½  | my.jl           | G    | Switzerl.            | 1769.   | D  | co             |
| 3637                 | graminifolium W.  | Grass-leaved    | ✓ | △   | pr                   | ½   | my.jl           | G    | Switzerl.            | 1769.   | D  | co             |
| 3638                 | angulosum W.      | angular-leaved  | ✓ | △   | pr                   | 1½  | my.jl           | G    | Switzerl.            | 1759.   | D  | co             |
| 3639                 | pyrenaicum W.     | Pyrenean        | ✓ | △   | pr                   | 1   | my.jl           | G    | Pyrenees             | 1814.   | D  | co             |
| 3640                 | longifolium W.    | long-leaved     | ✓ | △   | pr                   | 3   | my.jl           | G    | Switzerl.            | 1713.   | D  | co             |
| 3641                 | falcatum W.       | twisted-stalked | ✓ | △   | pr                   | ½   | mys             | G    | Germany              | 1739.   | D  | co             |
| 3642                 | exaltatum Bieb.   | tall            | ✓ | △   | pr                   | 2   | jl              | G    | Tauria               | 1807.   | D  | s.l            |
| 3643                 | odontites W.      | narrow-leaved   | ✓ | ○   | pr                   | ½   | in.au           | G    | Italy                | 1749.   | S  | co             |
| 3644                 | semicompositum W. | dwarf           | ✓ | △   | pr                   | ½   | in.au           | G    | Spain                | 1778.   | S  | co             |
| 3645                 | ranunculoides W.  | Crowfoot-like   | ✓ | △   | pr                   | ½   | jl.au           | G    | Pyrenees             | 1730.   | D  | lp             |
| 3646                 | tenuissimum W.    | slender         | ✓ | ○   | pr                   | ½   | jl.au           | G    | England              | sea sh. | S  | co             |
| 3647                 | Gerardi W.        | branching       | ✓ | ○   | pr                   | 1   | jl.au           | G    | S. Europe            | 1804.   | S  | co             |
| 3648                 | nónceum W.        | linear-leaved   | ✓ | ○   | pr                   | 1   | jl.au           | G    | S. Europe            | 1722.   | S  | co             |
| 3649                 | juncum W.         | naked-stalked   | ✓ | △   | pr                   | 1½  | o               | G    | C. G. H.             | 1778.   | C  | lp             |
| 3650                 | fruticosum W.     | shrubby         | ✓ | △   | pr                   | 3   | jl.au           | G    | S. Europe            | 1596.   | C  | co             |
| 3651                 | coriaceum W.      | thick-leaved    | ✓ | ... | pr                   | ... | ...             | G    | Gibraltar            | 1784.   | C  | ls             |
| 3652                 | frutescens W.     | Grass-lyd.-shr. | ✓ | ... | pr                   | 1½  | aus             | G    | Spain                | 1752.   | C  | ls             |
| 3653                 | canescens P. S.   | hoary           | ✓ | ... | pr                   | 5   | aus             | G    | Barbary              | 1809.   | C  | ls             |
| 3654                 | spinosum W.       | thorny          | ✓ | ... | pr                   | 1   | aus             | G    | Spain                | 1752.   | C  | ls             |
| 3655                 | difforme W.       | various-leaved  | ✓ | ... | pr                   | 1   | aus             | G    | C. G. H.             | 1752.   | C  | ls             |
| 658. HYDROCOTYLE. W. |                   | PENNYWORT.      |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3656                 | vulgaris W.       | marsh           | ✓ | △   | w                    | ½   | my.jn           | R    | Britain              | wa. pl. | D  | c.p            |
| 3657                 | nitidula Rich.    | shining         | ✓ | △   | w                    | ½   | my              | G    | Java                 | 1830.   | D  | co             |
| 3658                 | nepalensis Hook.  | Nepal           | ✓ | △   | w                    | ½   | jl              | G    | Nepal                | 1830.   | D  | co             |
| 3659                 | americana Ph.     | tuberous        | ✓ | △   | w                    | ½   | my.au           | R    | N. Amer.             | 1790.   | D  | p              |
| 3660                 | umbellata Ph.     | umbelled        | ✓ | △   | w                    | ½   | jl.au           | G    | N. Amer.             | 1795.   | D  | p              |
| 3661                 | asiatica W.       | thick-leaved    | ✓ | △   | w                    | 1   | in.jl           | G    | C. G. H.             | 1690.   | D  | p              |
| 3662                 | repanda Ph.       | Pilewort-leaved | ✓ | △   | w                    | 1   | in.jl           | G    | N. Amer.             | 1806.   | D  | p              |
| 3663                 | villosa W.        | hairy-leaved    | ✓ | △   | w                    | 1   | au              | G    | C. G. H.             | 1795.   | D  | p              |
| 659. SPANANTHE. Jac. |                   | SPANANTHE.      |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3664                 | paniculata Jacq.  | panicked        | ✓ | □   | w                    | 2   | jl.au           | W    | Caracas              | 1795.   | D  | sl             |
| 660. ULOSPERMUM. Lk. |                   | BROAD-SEED.     |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3665                 | dichotomum Lk.    | dichotomous     | ✓ | ○   | cu                   | 1½  | in.jl           | W    | Barbary              | 1800.   | S  | co             |
| 661. ETHUSA. W.      |                   | FOOL'S-PARSLEY. |   |     |                      |     |                 |      | <i>Umbelliferae.</i> |         |    |                |
| 3666                 | Cynapium W.       | common          | ✓ | ○   | p                    | 2   | jls             | W    | Britain              | co. fl. | S  | co             |
| 3667                 | fátua W.          | fine-leaved     | ✓ | △   | p                    | 2   | jls             | W    | .....                | 1781.   | D  | co             |



History, Use, Propagation, Culture.

654. *Anethum*. From *αιθος*, to burn, the plant being very heating. Large quantities of the seeds are yearly imported into this country from the south of France. They are used in medicine as carminatives, and, as it is said, in the manufacture of the British gin. No one has succeeded in growing the plant for a crop in this country.

655. *Carum*. A native of Caria, according to Pliny, b. xix. c. 8. *Carvi*, Fr., *Kümmel*, Ger., and *Carvi*, Ital. *C. Carvi* is cultivated both in agriculture and horticulture: in the former for its seeds, which are used to flavor cakes, to form sugar plums, to flavor spirits, and form a carminative distilled water. In the culinary art the leaves are sometimes used as an ingredient in salads, or as a pot herb, like parsley; and the roots are said to be superior in flavor to those of the parsnip.

656. *Cnidium*. The ancient name of an herb, supposed to have been an Orach, and certainly having no affinity to the plants now called *Cnidium*.

657. *Bupleurum*. From *βυε*, an ox, and *πλευρον*, a rib. How applied is not apparent. These are plants remarkable among the Umbelliferous tribes for having simple leaves.

- 3623 Fruit compressed  
 3624 Cauline leaves three, Fruit oval  
 3625 Leaves supra-decompound, Umbel with 5-15 rays, Fruit obl. flat with three ribs at base  
 3626 Fruit ovate

- 3627 Stem branched, Sheaths of leaves ventricose, Common involucre O.  
 3628 Stem quite simple, Sheaths of leaves appressed, Common invol. many-leaved

- 3629 Umbels close, Comm. invol. reflexed, Seeds with 5 membranous ribs  
 3630 Leaves thrice pinnated, Pinnules distinct with a nerve lanceolate 3-lobed with an odd one  
 3631 Leaflets pinnatifid, Segm. trifid bluntish  
 3632 Leafstalks of the branches somewhat membranous loose entire, Lvs. supra-decom. Leaflets lanc. awned  
 3633 Leaves doubly pinnate Leaflets cut acute, Involucels bristly longer than the umbel

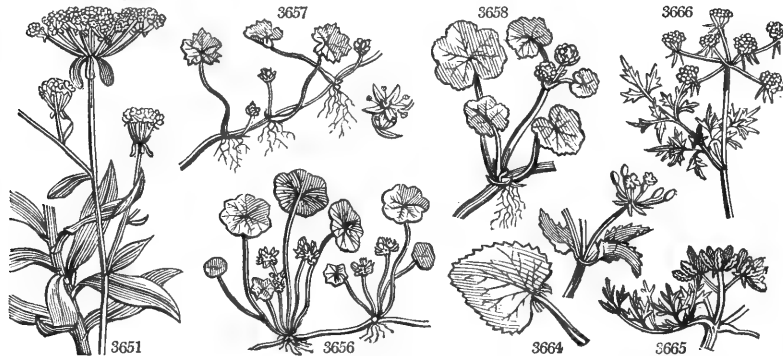
- 3634 Common involucre none, Leaves perfoliate  
 3635 Involucels joined together: the universal three-leaved  
 3636 Involucels about 5-leaved joined together, universal 5-leaved, Caul. leaves cord. lanc. stem-clasping  
 3637 Involucels 7-leaved; universal about 3-leaved, Radical leaves linear, Scape one-leaved  
 3638 Involucels 5-leaved orbicular; universal 3-leaved ovate, Leaves cord. lanc. stem-clasping  
 3639 Invol. 5-leaved roundish emarginate con.; universal 3-leaved cut at base, Lvs. lanc. cordate stem-clasping  
 3640 Involucels 5-leaved ovate; universal about 5-leaved, Leaves stem-clasping  
 3641 Involucels 5-leaved acute; universal about 5-leaved, Leaves lanceolate, Stem flexuose  
 3642 Stem branched leafy, Lvs. lin. lanc. chan. nerved, Invol. 4-leaved uneq. very narrow shorter than umbel  
 3643 Involucels 5-leaved acute, universal 3-leaved, Central florets tallest, Branches divaricating  
 3644 Leaves lanceolate, Umbels terminal and axillary, Seeds rough  
 3645 Involucels 5-leaved lanceolate longer; universal 3-leaved, Leaves cauline lanceolate  
 3646 Umbels simple alternate 5-leaved about 3-flowered  
 3647 Stem erect branching, Lvs. lin. acum. Invol. 5-leaved, Involucels 5-leaved lia. subul. longer than umbel  
 3648 Stem erect panicled, Leaves linear, Involuc. 3-leaved as long as umbel, Involucels 5-leaved  
 3649 Stem branched leafless, Radical leaves decompound flat cut, Involucels and involucels lanceolate-oblong  
 3650 Leaves lanceolate obovate entire sessile  
 3651 Leaves lanceolate narrowed each way entire sessile  
 3652 Leaves linear, Involucre common and partial  
 3653 Lvs. peren. lanc. mucronate nerved, Flowering branches branched striated, Involuc. subulate appressed  
 3654 Branches of panicle sessile naked spiny, Leaves linear  
 3655 Vernal leaves decompound flat cut, Summer leaves filiform angular trifid

- 3656 Leaves peltate, Umbels 5-flowered  
 3657 Leaves orbicular reniform 5-7-lobed, Flowers capitate sessile, Peduncle shorter than petiole  
 3658 Leaves orbicular reniform 7-lobed crenated, Flowers in numerous heads on short stalks  
 3659 Root tuberous, Leaves peltate roundish lobed unequally crenate, Clusters subsessile few-flowered  
 3660 Leaves crenate peltate emarginate at base, Umbels many-flowered and flowers stalked  
 3661 Leaves cordate reniform equal toothed crenate smooth, Umbels axillary sessile many-flowered  
 3662 Lvs. rounded cordate repand toothed beneath and stalks hairy, Umbels capitate about 3-fl. Fruit netted  
 3663 Stem decumbent and erect branches villous, Lvs. ov. cordate cuspidate 3-nerved, Umbels axillary sessile

- 3664 Stem erect smooth, Leaves triangular acuminate crenate bearded at base, Umbels axillary spreading

- 3665 The only species

- 3666 Leaves all of one shape  
 3667 Leaflets very fine whorled, Stem very leafy, Comm. invol. many-leaved



and Miscellaneous Particulars.

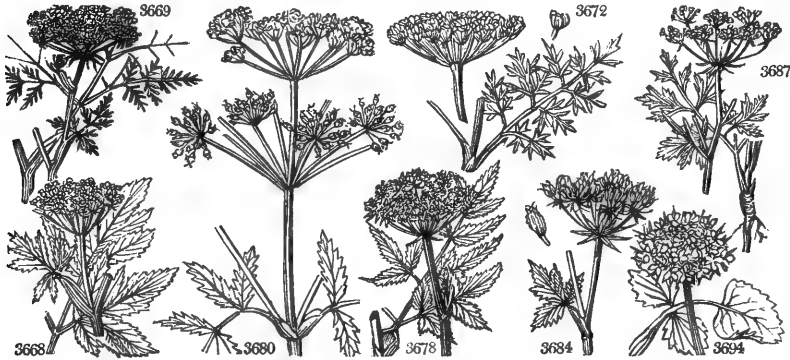
658. *Hydrocotyle*. From ὕδωρ, water, and κοτυλή, vessel; its leaf is round and a little depressed in the centre, so as to hold a drop of water. This is a genus of aquatics and marsh plants of no great beauty, their flowers being obscure and of dull colors. H. vulgaris, the *Wassernabel* of the Germans, has been supposed to communicate the liver rot to sheep. This is a vulgar error, arising from the circumstance of the fluke or flounder insect (*Fasciola hepatica*) being found in marshes where this plant, and also the *Drosera* and *Pinguicula*, abound, as well as in sheep's livers. It is a known fact, however, that sheep never feed on any of these plants.

659. *Spananthe*. From σπανος, rare, and ανθος, a flower, in allusion to the small number of flowers in the umbel.

660. *Ulosperrnum*. From ὕλος, curled, and σπείρωμα, seed, on account of the membranous curled ribs of the seed. A plant referred to Conium by Desfontaines, and to Cachrys by Sprengel, but very distinct from both.

661. *Aithusa*. From αἶθος, to burn, on account of its dangerous acidity. Æ. Cynapium (κυνος κωνιον, dog-parsley) is a common weed in gardens, and sometimes mistaken for parsley; from which, however, it is easily

|                               |                |   |     |    |                      |                   |           |          |   |     |                      |
|-------------------------------|----------------|---|-----|----|----------------------|-------------------|-----------|----------|---|-----|----------------------|
| 662. IMPERATORIA. <i>W.</i>   | MASTERWORT.    |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 1.</i>     | Scotland  | m.a.l.p. | D | co  | Eng. bot. 1380       |
| 3668 <i>Ostrúthium W.</i>     | common         | Δ | cu  | 2  | my.jl                | Pk                |           |          |   |     |                      |
| *663. SELINUM. <i>W.</i>      | MILK-PARSLEY   |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 8—15.</i>  |           |          |   |     |                      |
| 3669 palástre <i>W.</i>       | marsh          | Δ | w   | 4  | jl.au                | W                 | Britain   | mar.     | D | c.1 | Eng. bot. 229        |
| 3670 montánium <i>W. en.</i>  | mountain       | Δ | w   | 2  | jl.au                | W                 | Switzerl. | 1816.    | D | co  |                      |
| 3671 austrácium <i>W.</i>     | Austrian       | Δ | w   | 2  | jl.au                | W                 | Austria   | 1804.    | D | co  | Jac. aust. 1. t. 71  |
| 3672 Carvifólia <i>W.</i>     | Caraway-leaved | Δ | w   | 2  | jl.au                | W                 | Austria   | 1774.    | D | co  | Jac. aust. 1. t. 71  |
| 3673 Chabræ'i <i>W.</i>       | fine-leaved    | Δ | w   | 1  | jl.au                | W                 | Austria   | 1791.    | D | co  | Jac. aust. 1. t. 72  |
| 3674 Seguérii <i>W.</i>       | Fennel-leaved  | Δ | w   | 4  | jl.au                | W                 | Italy     | 1774.    | D | a.1 | Jac. vind. 1. t. 61  |
| 3675 latifólium <i>Bieb.</i>  | broad-leaved   | Δ | w   | 2  | jl.au                | W                 | Caucasus  | 1816.    | D | s.1 |                      |
| 3676 decipiens <i>W.</i>      | shrubby        | Δ | w   | 2  | jn.jl                | W                 | Madeira   | 1785.    | C | s.1 | Sch. seh.3.t.1.13    |
| *664. ANGE'LICA. <i>W.</i>    | ANGELICA.      |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 6—10.</i>  |           |          |   |     |                      |
| 3667 Archangélica <i>W.</i>   | garden         | ○ | cul | 4  | jn.au                | G                 | England   | wa. pl.  | 8 | m.s | Flor. dan. t. 906    |
| 3678 sylvéstris <i>W.</i>     | wild           | Δ | w   | 6  | jn.au                | F                 | Britain   | m. wo.   | D | m.s | Eng. bot. 1128       |
| 3679 Razoúlii <i>W.</i>       | decurrent-ld.  | Δ | w   | 2  | jn.au                | P.Pu              | Pyrenees  | 1816.    | D | co  | Gou. ill. 13. t. 6   |
| 3680 verticilláris <i>W.</i>  | whorled-flower | Δ | w   | 6  | jl                   | G                 | Italy     | 1683.    | D | co  | Jac. vin. t. 130     |
| 3681 atropurpúrea <i>W.</i>   | dark-purple    | Δ | w   | 6  | jl.au                | Pu                | Canada    | 1759.    | D | co  | Cor. can. t. 199     |
| 3682 lícida <i>W.</i>         | shining        | Δ | w   | 2  | jl.au                | P.y               | Canada    | 1640.    | S | co  | Jac. vind. 3. t. 24  |
| 665. LIGUSTICUM. <i>W.</i>    | LOVAGE.        |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 10—20.</i> |           |          |   |     |                      |
| 3683 Levisticum <i>W.</i>     | common         | Δ | cul | 6  | jn.jl                | P.y               | Italy     | 1596.    | D | co  | Blackw. t. 275       |
| 3684 scóticum <i>W.</i>       | Scotch         | Δ | w   | 2  | jn.jl                | W                 | Britain   | sc. sh.  | S | co  | Eng. bot. 1207       |
| 3685 peloponéne <i>W.</i>     | Hemlock-ld.    | Δ | w   | 4  | my.jl                | P.y               | Switzerl. | 1596.    | D | co  | J. au. 5. t. ap. 13  |
| 3686 austrácium <i>W.</i>     | Austrian       | Δ | w   | 2  | jn.au                | W                 | Austria   | 1596.    | S | co  | Jac. aust. 2. t. 151 |
| 3687 cornubiéne <i>W.</i>     | Cornish        | Δ | w   | 1½ | jl.au                | W                 | England   | bu. fl.  | S | co  | Eng. bot. 683        |
| 3688 pyrenáicum <i>W.</i>     | Pyrenean       | Δ | w   | 3  | jl.au                | W                 | Pyrenees  | 1804.    | S | co  | Go. il. p. 14. t. 10 |
| 3689 cándicans <i>W.</i>      | pale           | Δ | w   | 2  | jn.jl                | P.y               | .....     | 1780.    | S | co  |                      |
| 3690 peregrínium <i>W.</i>    | Parsley-leaved | Δ | w   | 2  | jn.jl                | L.Y               | Portugal  | 1633.    | S | co  |                      |
| 3691 baléáricum <i>W.</i>     | Minorca        | Δ | cu  | 1  | jn.jl                | Y                 | Minorca   | 1804.    | D | co  | Jac. vin. 3. t. 18   |
| 3692 longifólium <i>W.</i>    | long-leaved    | Δ | w   | 3  | jn.jl                | P.Pu              | Siberia   | 1804.    | D | co  | M. s. 9. t. 15. f. 1 |
| 666. HASSELQUISTIA. <i>W.</i> | HASSELQUISTIA. |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 2.</i>     |           |          |   |     |                      |
| 3693 aegyptiaca <i>W.</i>     | Egyptian       | ○ | w   | 1½ | jl                   | W                 | Egypt     | 1768.    | S | co  |                      |
| 3694 cordáta <i>W.</i>        | heart-leaved   | ○ | w   | 1½ | jl                   | W                 | .....     | 1787.    | S | co  | Jac. vind. 2. t. 193 |
| 667. ARTE'DIA. <i>W.</i>      | ARTE'DIA.      |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 1.</i>     |           |          |   |     |                      |
| 3695 squamáta <i>W.</i>       | Fennel-leaved  | ○ | w   | 1½ | jl                   | W                 | Levant    | 1740.    | S | co  | Lam. ill. t. 193     |
| *668. FE'RULA. <i>W.</i>      | GIANT-FENNEL.  |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 7—26.</i>  |           |          |   |     |                      |
| 3696 comunáris <i>W.</i>      | common         | Δ | or  | 10 | jn.jl                | Y                 | S. Europe | 1597.    | D | s.1 | Moris.s.9.t.15.f.3   |
| 3697 sibírica <i>W.</i>       | Siberian       | Δ | w   | 4  | jn.jl                | Y                 | Siberia   | 1816.    | D | s.1 | Pall.it.2.app.t.N    |
| 3698 gláucia <i>W.</i>        | glaucous       | Δ | w   | 8  | jn.jl                | P.Y               | Italy     | 1596.    | D | s.1 | Mor. ox. 9. 151      |
| 3699 tingitána <i>W.</i>      | Tangier        | ○ | w   | 8  | jn.jl                | Y                 | Barbary   | 1680.    | S | s.1 | Herm. par. t. 165    |
| 3700 orientális <i>W.</i>     | eastern        | Δ | w   | 3  | jl.au                | Y                 | Levant    | 1759.    | D | a.p | Tourn.it.3.t.239     |
| 3701 nodifóra <i>W.</i>       | knotted        | Δ | w   | 3  | jn.jl                | Y                 | S. Europe | 1596.    | D | s.1 | Jac.aust.5.t.ap.5    |
| 3702 pérsica <i>W.</i>        | Assa-fetida    | Δ | m   | 2  | jl.au                | Y                 | Persia    | 1782.    | D | a.1 | Bot. mag. 2096       |
| *669. LASERPITIUM. <i>W.</i>  | LASERWORT.     |   |     |    | <i>Umbelliferae.</i> | <i>Sp. 14—17.</i> |           |          |   |     |                      |
| 3703 latifólium <i>W.</i>     | broad-leaved   | Δ | w   | 3  | jn.jl                | W                 | Europe    | 1640.    | D | co  | Jac. aust. 2. t. 146 |
| 3704 trilobium <i>W.</i>      | three-lobed    | Δ | w   | 3  | my.jl                | W                 | Levant    | 1640.    | D | co  |                      |
| 3705 aquilegifólium <i>W.</i> | Columbine-ld.  | Δ | w   | 5  | my.jl                | W                 | Austria   | 1796.    | D | co  | Jac. aust. 2. t. 147 |
| 3706 gallicum <i>W.</i>       | French         | Δ | w   | 3  | jn.jl                | Y                 | S. Europe | 1683.    | D | co  | Plu.phy.t.198.f.6    |
| 3707 triquetrum <i>P. S.</i>  | winged         | Δ | w   | 3  | jn.jl                | P.Y               | Constant. | 1816.    | D | co  | Vent. cels. t. 97    |
| 3708 angustifólium <i>W.</i>  | narrow-leaved  | Δ | w   | 2  | jn.jl                | Pk                | S. Europe | 1738.    | D | co  | Moris.s.9.t.19.f.9   |
| 3709 pruténicum <i>W.</i>     | Prussian       | Δ | w   | 3  | jl.au                | W                 | Germany   | 1759.    | D | co  | Jac. aust. 2. t. 153 |



History, Use, Propagation, Culture,

distinguished by being of a darker green, a different shape, flat, and not curled, and of a disagreeable smell. When eaten in mistake for parsley it occasions vomiting, which may be stopped by a very large dose of brandy. It is deleterious to geese.

662. *Imperatoria*. A metaphorical name given to this plant to express its many virtues. For the same reason the English call it Masterwort. The root, which is very acrid, is sometimes used in toothache, and an infusion of it in wine instead of bark in quartan agues.

663. *Selinum*. From *σελίνον*, a name of the moon, in allusion to the crescent-like form of the seeds when cut across. The Greeks seem to have used the word *selinum*, with reference to the same plants as we call umbelliferous.

664. *Angelica*. So called, in allusion to its agreeable smell and medicinal qualities. A *archangelica* (from *αγγερον*, superior, an augmentative prefix), is sometimes cultivated in gardens for its leaf-stalks, to be blanched and eaten as celery, or candied with sugar. It is considered stimulant and anti-pestilential.

665. *Ligusticum*. This plant, says Dioscorides, grows in great abundance in Liguria, near Mount Appennine, from which circumstance it derives its name. *L. levisticum* and *scoticum* are sometimes used as pot-herbs or ingredients in salads, and are accounted emmenagogue. The root is carminative; and an infusion of the leaves is used as a purgative to calves in the Isle of Sky.

666. *Hasselquistia*. So named by Linnaeus, in memory of his pupil, Frederick Hasselquist, M. D., who

## 3668 The only species

- 3669 Stem striated, Root fusiform divided, Rays of umbel hispid  
 3670 Leaves 3-parted thrice sinuated. A doubtful species, scarcely distinct from the next  
 3671 Stem furrowed, Common involucre many-leaved, Leaflets wedge-shaped cut  
 3672 Stem furrowed with acute angles, Comm. invol. O, Leaflets lanceolate cut at the end with a callous point  
 3673 Stem rounded striated, Comm. invol. O, Sheaths of leaves loose, Leaflets filiform linear  
 3674 Stem rounded striated, Comm. invol. O, Leaflets trifid linear mucronate  
 3675 Stem striated, Lvs. pinnat. subcor. Leaflets ov.-obl. at base cartil. serrate, Upper sheaths enlarged leafless  
 3676 Stem woody naked beneath, Lower leaves bipinnate, Pinnæ lanceolate entire and cut serrate

- 3677 Leaves doubly pinnate ovate lanc. serrated with the odd leaflet lobed  
 3678 Leaflets equal ovate lanceolate serrated  
 3679 Leaflets lanceolate serrated decurrent  
 3680 Leaves very much divaricating, Leaflets ovate serrate, Stem with the peduncles whorled  
 3681 Outer pair of leaflets united together; terminal leaflet stalked  
 3682 Leaflets equal ovate cut serrate

- 3683 Leaves multiple, Leaflets cut upwards  
 3684 Leaves biternate  
 3685 Leaves many times pinnate, Leaflets pinnately cut  
 3686 Leaves bipinnate, Leaflets confluent cut entire  
 3687 Leaves decomposed cut: cauline ternate lanceolate entire, Furrows of seed obsolete  
 3688 Lvs. supra-decomposed, Leaflets pinnatifid, Seg. linear mucronate, Comm. invol. scarcely any deciduous  
 3689 Lvs. supra-decom. Leaflets wedge-shaped cut smooth, Comm. invol. 2-leav. leafy, Ribs of seed mem. smooth  
 3690 Invol. of the 1st umbel scarcely any: of the lateral umbels membranous at base, Rays branched  
 3691 Leaves pinnate, Lower leaflets acute with a smaller one  
 3692 Leaves biternate; radical decomposed, Leaflets lin. lanc. entire

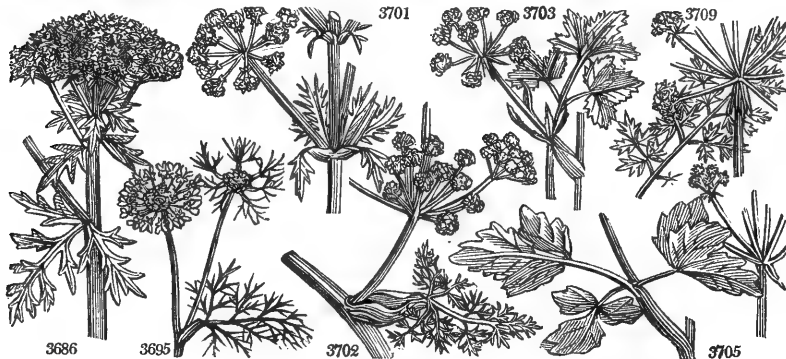
3693 Leaves pinnate, Leaflets pinnatifid

3694 Leaves cordate

3695 Seeds scaly

- 3696 Leaflets linear very long simple  
 3697 Leaflets linear subulate rounded, Comm. invol. O  
 3698 Leaves supra-decomposed, Leaflets lanc. linear flat  
 3699 Leaves cut, Segm. 3-toothed unequal shining  
 3700 Pinne of leaves naked at base, Leaflets setaceous  
 3701 Leaflets with appendages, Umbels nearly sessile  
 3702 Leaves supra-decomposed many cut acute decurrent, First umbel sessile

- 3703 Leaves obliquely cordate toothed, Teeth mucronate, Wings of seeds crisp  
 3704 Leaflets 3-lobed cut  
 3705 Leaves obtuse ovate at base lobed  
 3706 Leaflets wedge-shaped trifid, Segm. oblong bluntish with a callous point at end  
 3707 Stem naked 3-cornered, Branches angular, Leaflets obl. toothed crenate, Involucres many-leaved short  
 3708 Leaflets lanceolate obtuse mucronate entire sessile  
 3709 Leaves lanceolate entire: the outer joined together



## and Miscellaneous Particulars.

travelled into the Holy Land, &c. and died at Smyrna in 1752. Author of Travels in Palestine. A remarkable genus, supposed with some reason to be a monstrous alteration of a species of *Tordylium*.

667. *Arteria*. So named by Linnæus, in honor of Peter Artedi, a Swedish naturalist, one of the first who attempted to divide umbelliferous plants into genera. His method was followed by Linnaeus, and was, perhaps, not more defective than many of those which have been proposed in modern days. He died in 1735.

668. *Ferula*. From *ferire*, to strike. The stalks were used as a rod for children, because they made more noise than harm. *F. communis* is one of the tallest of herbaceous plants. The flower-stalk soon becomes dry after the seeds ripen, and then the Sicilians take out the pith and use it for tinder. It is very abundant in Apulia, where it is eaten by buffaloes. Gerarde says, it grew to the height of fifteen feet in his garden in Holborn. The drug *asafetida* is obtained from one or more species of this genus natives of Persia; and one species, the *F. asafetida*, though introduced to our gardens in 1782, is now lost. The drug is the inspissated juice of the root, which being bared of earth and cut across at the top, it oozes out, and when dry, is scraped off as opium is from the capsule of the poppy. The plant grows three feet high, with yellow flowers and hemlock-like leaves and habit.

669. *Laserpitium*. The Latin name of the Silphion of the Greeks. D'Herbelot says, that the natives of Africa called the plant *siſſi* or *serpi*, whence the Latins formed *lac serpitium* and *Laserpitium*. (*Bibb. Or. p. 493.*)

|                                  |                 |       |    |        |       |                      |            |   |     |                        |
|----------------------------------|-----------------|-------|----|--------|-------|----------------------|------------|---|-----|------------------------|
| 3710 <i>ellaifolium</i> W.       | Sulphur-w. lvd. | Δ w   | 2  | jn, jl | P. Y  | Italy                | 1791.      | D | co  | Jac. aus. app. t. 44   |
| 3711 <i>peucedanoides</i> W.     | fine-leaved     | Δ w   | 2  | jn, jl | Pk    | Italy                | ...        | D | co  | Jac. ic. 2. t. 350     |
| 3712 <i>Siler</i> W.             | mountain        | Δ w   | 3  | my, jl | W     | Austria              | 1640.      | D | co  | Jac. aust. 2. t. 145   |
| 3713 <i>lucidum</i> W.           | shining         | Δ cu  | ↓  | jl     | P. Pu | Switzerl.            | 1775.      | S | co  |                        |
| 3714 <i>ferulaceum</i> W.        | Fennel-leaved   | Δ w   | 1½ | jn     | W     | Levant               | 1752.      | D | co  | Tourn. it. 2. t. 121   |
| 3715 <i>pilosum</i> W. en.       | sulphur-colored | Δ w   | 1  | jn, jl | P. Y  | .....                | 1759.      | S | co  |                        |
| 3716 <i>hirsutum</i> W.          | hairy           | Δ w   | 1  | jn, jl | P. Y  | Alps                 | 1759.      | S | co  |                        |
| 670. <i>PEUCE/DANUM</i> W.       | SULPHURWORT.    |       |    |        |       | <i>Umbelliferae.</i> | Sp. 6—21.  |   |     |                        |
| 3717 <i>officinale</i> W.        | official        | Δ m   | 6  | my, jl | Y     | England salt m.      |            | D | c.l | Eng. bot. 1767         |
| 3718 <i>arenarium</i> P. S.      | sand            | Δ w   | 5  | jn, jl | Y     | Hungary              | 1816.      | D | c.l | P. rar. hun. 1. t. 20  |
| 3719 <i>italicum</i> P. S.       | Italian         | Δ w   | 8  | my, jl | Y     | Italy                | ...        | D | c.l | Lob. ic. 781           |
| 3720 <i>alpêtre</i> W.           | Alpine          | Δ w   | 1½ | jn, jl | P. Y  | France               | 1739.      | D | c.l |                        |
| 3721 <i>sibiricum</i> W.         | Siberian        | Δ w   | 3  | jn, jl | Y     | Siberia              | 1804.      | D | c.l | P. rar. hun. 1. t. 60  |
| 3722 <i>aëreum</i> W.            | golden          | Δ cu  | 3  | jn     | Y     | Canaries             | 1779.      | C | co  |                        |
| *671. <i>PASTINA/CA</i> W.       | PARSNEP.        |       |    |        |       | <i>Umbelliferae.</i> | Sp. 4—6.   |   |     |                        |
| 3723 <i>lúcida</i> W.            | shining-leaved  | ○ w   | 1½ | jn, jl | Y     | S. Europe            | 1771.      | S | s.l | Jac. vind. 2. t. 199   |
| 3724 <i>sativa</i> W.            | garden          | ○ cul | 4  | jl     | Y     | England              | ch. pl.    | S | s.l | Eng. bot. 556          |
| 3725 <i>Opópanax</i> W.          | rough           | Δ cu  | 6  | jn, jl | Y     | S. Europe            | 1640.      | D | co  | Gou. il. 19. t. 13, 14 |
| 3726 <i>dissecta</i> Vent.       | cut-leaved      | Δ w   | 1½ | jn, jl | Y     | Levant               | 1816.      | S | co  | Vent. cels. t. 78      |
| †372. <i>HERA/CLEUM</i> W.       | COW-PARSNEP.    |       |    |        |       | <i>Umbelliferae.</i> | Sp. 10—19. |   |     |                        |
| 3727 <i>Sphondylium</i> W.       | common          | Δ ec  | 4  | my, jn | W     | Britain              | hed.       | D | co  | Eng. bot. 939          |
| 3728 <i>flavescens</i> W.        | yellowish       | Δ w   | 4  | jn, jl | W     | Austria              | 1789.      | D | co  | Jac. aust. 2. t. 173   |
| 3729 <i>angustifolium</i> W.     | narrow-leaved   | Δ w   | 4  | my, jn | W     | Britain              |            | D | co  | Jac. aust. 2. t. 174   |
| 3730 <i>elegans</i> W.           | rough-leaved    | Δ w   | 3  | my, jn | W     | Austria              | 1800.      | D | co  |                        |
| 3731 <i>sibiricum</i> W.         | Siberian        | Δ w   | 2  | my, jn | G     | Siberia              | 1768.      | D | co  | Gmel. sib. 1. t. 50    |
| 3732 <i>Panáces</i> W.           | Fig-leaved      | Δ w   | 3  | jl, au | W     | Siberia              | 1596.      | D | co  | Lobel. ic. 701         |
| 3733 <i>austriacum</i> W.        | Austrian        | Δ w   | 2  | jn, jl | W     | Austria              | 1752.      | D | co  | Jac. aust. 1. t. 61    |
| 3734 <i>alpinum</i> W.           | Alpine          | Δ w   | 1½ | jn, jl | W     | Switzerl.            | 1739.      | D | co  | Barr. ic. 55           |
| 3735 <i>pyrenæicum</i> Cusson.   | Pyrenean        | Δ w   | 3  | jn, jl | W     | Pyrenees             | 1798.      | D | co  | Hort. ber. t. 53       |
| 3736 <i>pánilum</i> W.           | dwarf           | Δ w   | ↓  | my, jl | W     | Dauphiny             | 1800.      | D | co  | Vill. delph. 2. t. 14  |
| *673. <i>TORDYLIUM</i> W.        | HARTWORT.       |       |    |        |       | <i>Umbelliferae.</i> | Sp. 6—8.   |   |     |                        |
| 3737 <i>syriacum</i> W.          | Syrian          | ○ w   | ↓  | jl     | W     | Syria                | 1597.      | S | co  | Jac. vind. 1. t. 54    |
| 3738 <i>officinale</i> W.        | official        | ○ w   | 2½ | jl     | W     | England              | corn f.    | S | co  | Eng. bot. 2440         |
| 3739 <i>peregrinum</i> W.        | oriental        | ○ w   | 3  | jl     | W     | Levant               | 1596.      | S | co  | Cam. hor. 37. t. 11    |
| 3740 <i>ápulum</i> W.            | small           | ○ w   | 1½ | jl     | W     | Italy                | 1739.      | S | co  | Jac. vind. 1. t. 53    |
| 3741 <i>máximum</i> W.           | great           | ○ w   | 2  | jn, jl | W     | England              | corn f.    | S | co  | Eng. bot. 1173         |
| 3742 <i>sifífolium</i> W.        | red-flowered    | ○ w   | 1½ | ju, jl | R     | Carniola             | 1816.      | S | co  | Scop. car. 194. t. 8   |
| 674. <i>ASTRAN/TIA</i> W.        | MASTERWORT.     |       |    |        |       | <i>Umbelliferae.</i> | Sp. 4.     |   |     |                        |
| 3743 <i>máxima</i> B. M.         | Hellebore-lvd.  | Δ pr  | 2  | jn, jl | Pk    | Caucasus             | 1804.      | D | s.p | Bot. mag. 1553         |
| 3744 <i>máior</i> W.             | great-black     | Δ pr  | 2  | my, s  | Str   | Al. of Eur.          | 1396.      | D | p.l | Ex. bot. 2. t. 76      |
| 3745 <i>minor</i> W.             | small           | Δ pr  | ↓  | my, jn | Pk    | Switzerl.            | 1686.      | D | p.l | Bot. cab. 93           |
| 3746 <i>carniólíca</i> W.        | Carniolian      | Δ pr  | 1  | my, jn | Str   | Carniola             | 1812.      | D | p.l | Jac. aus. app. t. 10   |
| 675. <i>ZOSY/MIA</i> Hoffm.      | ZOSYVIA.        |       |    |        |       | <i>Umbelliferae.</i> | Sp. 1.     |   |     |                        |
| 3747 <i>absinthifolium</i> P. S. | Wormwood-lvd.   | ○ w   | 2  | jl, au | W     | Persia               | 1816.      | S | co  | Vent. choix. t. 7      |
| 676. <i>RU/MIA</i> Hoffm.        | RUMIA.          |       |    |        |       | <i>Umbelliferae.</i> | Sp. 2.     |   |     |                        |
| 3748 <i>taúrica</i> Hoffm.       | Taurian         | Δ cu  | 1  | jl     | W     | Crimea               | 1819.      | D | co  |                        |
| 3749 <i>capénsis</i> Lk.         | Cape            | ○ cu  | 1  | s      | W     | C. G. H.             | 1822.      | S | co  |                        |



History, Use, Propagation, Culture,

670. *Peucedanum*. From *πυκη*, a pine-tree, and *δαυος*, dwarf; a diminutive flr. The plant was so called on account of its strong smell, which resembles resin.

671. *Pastinaca*. One of the names given by the Latins to the *Daucus* of the Greeks. It is derived from *pastus*, nourishment. *P. sativa* is a well known culinary root, and grown also in agriculture for feeding cattle. It was much in use during Catholic times to eat with salted fish. In the north of Ireland a sort of beer is brewed from the roots mixed with hops; a very good wine is also made from them; and by distillation they yield an ardent spirit, similar to that afforded by the potatoe. The parsnep is much cultivated in Jersey and Guernsey, chiefly for feeding milch cows. The variety preferred is called the Coquaine, the roots of which, Dr. Macculloch informs us (*Caled. Hort. Mem.* 1. 408.), sometimes run four feet deep, and are rarely so small in circumference as six inches. The time of sowing is February and March, in drills to admit of stirring the soil between the rows. They should be thinned so as that each plant may have a surface of twelve or fourteen square inches, and, with the usual routine culture, the crop will be mature in October. They may be taken up and housed like the carrot, or as wanted for use: as they are not easily injured by frost, the latter mode is the best, where they are grown only to the table.  
*P. opopanax* (*σπες*, juice, *σπες*, all, and *ακος*, cure: a cure for all complaints) produces from its stem, when it is cut, a gum resin which is a famous cure in the East for all sorts of maladies.

672. *Heraacleum*. Named after the hero Hercules, who, according to a modern French author, was not only a warrior but a great doctor and botanist. *H. Sphondylium* (from *σπονδυλος*, a vertebra, in allusion to the jointed stem), the *Heilkraut* of the Germans, is common in most parts of Europe. The seeds smell somewhat

- 3710 Leaves pinnatifid, Segm. lanceolate, Common involucre scarcely any, Stem smooth  
 3711 Leaflets linear-lanceolate veiny striated distinct  
 3712 Leaflets oval-lanceolate entire stalked  
 3713 Leaves supra-decompound linear-subulate smooth, Comm. invol. pinnated  
 3714 Leaflets linear  
 3715 Hairy, Stem rounded simple, Lvs. tern. bipinnate, Leaflets alternate ovate pinnatifid cut wedge-shaped  
 3716 Leaves supra-decompound hairy, Leaflets many cut, Leaves of many-leaved invol. membranous at edge
- 3717 Leaves 5 times 3-parted filiform linear  
 3718 Leaves ternate decompound, Leaflets linear obtuse stiffish, Comm. invol. scarcely any  
 3719 Leaves 3-parted filiform longer, Umbels deformed  
 3720 Leaflets linear branched  
 3721 Leaflets linear acute, First umbels sessile  
 3722 Leaves thrice pinnate, Cauline leaflets linear lanceolate : radical oblong many-cut
- 3723 Leaves simple cordate lobed shining acutely crenate  
 3724 Leaves simply pinnate  
 3725 Leaves pinnate, Leaflets with their front base cut out  
 3726 Stem rounded rough branched, Leaves bipinnatifid, Peduncles rigid villous
- 3727 Leaves pinnate, Leaflets 5 oblong pinnatifid acute toothed, Cor. of one shape  
 3728 Leaves pinnate, Leaflets 5 oblong pinnatifid acuminate toothed rough at edge, Flowers radiant  
 3729 Leaves cruciate pinnate, Leaflets linear, Corollas fuscous  
 3730 Leaflets pinnatifid crosswise toothed  
 3731 Leaves pinnated, Leaflets 5 : the intermediate sessile, Cor. of one form  
 3732 Leaves pinnated, Leaflets 5 : the intermediate sessile, Flowers radiant  
 3733 Leaves pinnated rugose on each side scabrous, Flowers somewhat radiant  
 3734 Leaves simple cordate obsolete lobed serrated  
 3735 Leaves simple 3-leaved cordate toothed beneath pubescent  
 3736 Leaves simple and ternate many cut torn, Segments linear
- 3737 Involucres longer than the umbels  
 3738 Partial involucre the length of flowers, Leaflets ovate lacinate  
 3739 Seeds furrowed wrinkled plaited, Universal involucre 1-leaved trifid  
 3740 Umbellules remote, Leaves pinnated with roundish cut pinnæ  
 3741 Umbels clustered radiant, Leaflets lanceolate cut serrated  
 3742 Umbels clustered radiant, Leaflets angular toothed pubescent
- 3743 Radical lvs. palmate 3-lobed unequally twice serrated ; cauline sessile lobed, Involucre longer than umbel  
 3744 Radical leaves 5-lobed, Lobes trifid acute toothed, Involucres lin. lanceolate entire  
 3745 Radical leaves digitate, Leaflets about 7 lanceolate acute deeply toothed  
 3746 Radical leaves 5-lobed, Lobes oblong acutish trifid mucronate-toothed, Involucres entire

3747 Hoary, Leaves decompound, Leaflets wedge-shaped trifid, Flowers angular, Fruit villous

3748 Stem dichotomous knotty, Leaves decompound, Involucre short, Female flowers with a long ray  
 3749 Stems decumbent, Sheaths loose, Seeds smooth



and Miscellaneous Particulars.

like a bug. Gmelin informs us, that the inhabitants of Kamtschatka, about the beginning of July, collect the footstalks of the radical leaves, and after peeling off the rind, which is very acrid, dry them separately in the sun, and then tying them in bundles, lay them up carefully in the shade in bags ; in this state they are covered with a yellow saccharine efflorescence, tasting like liquorice ; this being shaken off, is eaten as a great delicacy. From the stalks thus prepared and fermented with bilberries the Russians distil an ardent spirit, which, Gmelin says, is more agreeable to the taste than spirits made from corn. A kind of ale is brewed from the leaves and seeds in Poland and Lithuania, and attempts have been made to extract sugar from this plant, but forty pounds of the dried stalks only yielded a quarter of a pound of powdery sugar. The young shoots may be eaten as asparagus. Rabbits and swine are fond of the leaves, but not horses. *H. sibiricum* is used in the same manner in the north of Siberia and Kamtschatka.

673. *Tordylium*. Bodæus à Stapel thinks that the derivation of the name is to be found in *τοργος*, a lathe, and *ἄλλω*, to turn, because the seeds seem as if turned in a lathe. But this seems to be a commentator's guess only.

674. *Astrantia*. From *αστρον*, a star, and *αντι*, similar ; so called with reference to the beautiful starlike disposition of the involucre of all the species, and of *A. minor* in particular.

675. *Zostima*. Named by Hoffmann, in honor of the three famous brothers Zosimades, the celebrated patrons of so many fine editions of the Greek classics. A remarkable plant, formerly referred to *Heracleum*, native of most of the eastern parts of the world.

676. *Rumia*. Named by Hoffman after *Rumia* or *Rumina*, the goddess who presided over suckling, on



|                                |                |                      |           |           |       |                        |
|--------------------------------|----------------|----------------------|-----------|-----------|-------|------------------------|
| 677. CA'CHRYS. <i>W.</i>       | CACHRYS.       | <i>Umbelliferae.</i> | Sp. 3—10. |           |       |                        |
| 3750 Libanotis <i>W.</i>       | smooth-seeded  | Δ w 3                | jlau Y    | Sicily    | 1570. | D co Schk. han.1. t.65 |
| 3751 Morisoni <i>W.</i>        | Morison's      | Δ cu 4               | jlau Y    | S. Europe | 1710. | D co Mor. umb. t.3. f1 |
| 3752 panacifolia <i>W.</i>     | Parsnep-leaved | Δ w 4                | jlau Y    | Sicily    | 1752. | D co Boc. sic. i. t. 1 |
| 678. HIPPOMARATHUM. <i>Lk.</i> | HIPPOMARATHUM. | <i>Umbelliferae.</i> | Sp. 1.    |           |       |                        |
| 3753 siculum <i>Lk.</i>        | hairy          | Δ cu 3               | jlau Y    | Sicily    | 1640. | D co Bocc. sic. t. 18  |

## TRIGYNIA.

|                                |                  |                        |            |           |        |                           |
|--------------------------------|------------------|------------------------|------------|-----------|--------|---------------------------|
| 1679. VIBURNUM. <i>W.</i>      | VIBURNUM.        | <i>Caprifoliaceae.</i> | Sp. 23—36. |           |        |                           |
| 3754 Tinus <i>P. S.</i>        | co. Laurestine   | or 4                   | mr.d W     | S. Europe | 1596.  | L co Bot. mag. 38         |
| <i>a hirtum</i>                | hairy            | or 4                   | mr.d W     | S. Europe | ...    | L co                      |
| <i>β visgatum</i>              | slender          | or 4                   | mr.d W     | S. Europe | ...    | L co                      |
| <i>γ strictum</i>              | upright          | or 4                   | mr.d W     | S. Europe | ...    | L co                      |
| 3755 lucidum <i>P. S.</i>      | sh.-lvd.-Laures. | or 6                   | mr.d W     | Spain     | 1596.  | L co Clus. hist. 49       |
| 3756 rugosum <i>P. S.</i>      | large-lvd.-Laur. | or 4                   | ...        | Canaries  | 1796.  | L p1 Bot. mag. 2082       |
| 3757 prunifolium <i>W.</i>     | Plum-leaved      | or 8                   | my.jn W    | N. Amer.  | 1731.  | L p1 Dend. brit. 23       |
| 3758 odoratissimum <i>Ker.</i> | sweet-scented    | or 6                   | jl W       | China     | 1818.  | L p1 Bot. reg. 456        |
| 3759 squamatum <i>Muhl.</i>    | scaly            | or 6                   | my.jn W    | N. Amer.  | 1822.  | L p1 Dend. brit. 24       |
| 3760 pyrifolium <i>Ph.</i>     | Pear-leaved      | or 6                   | my.jn W    | N. Amer.  | ...    | L p1 Dend. brit. 22       |
| 3761 Lentago <i>W.</i>         | tree             | or 8                   | jl W       | N. Amer.  | 1761.  | L p1 Dend. brit. 21       |
| 3762 nudum <i>W.</i>           | oval-leaved      | or 8                   | my.jn Pa.Y | N. Amer.  | 1752.  | L p1 Bot. mag. 2281       |
| 3763 latricum <i>Pall.</i>     | Siberian         | or 2                   | jn.jl W    | Dahuria   | 1785.  | L p1 Pall. ross. i. t. 38 |
| 3764 obovatum <i>Walt.</i>     | obovate-leaved   | or 2                   | my.jn W    | N. Amer.  | 1812.  | L p1 Bot. cab. 1476       |
| <i>β puniceifolium</i>         | narrow-leaved    | or 2                   | my.jn W    | N. Amer.  | 1812.  | L p1                      |
| 3765 cassinoides <i>W.</i>     | thick-leaved     | or 3                   | jn.jl W    | N. Amer.  | 1761.  | L p1 Plu. alm. 361. 3     |
| 3766 levigatum <i>W.</i>       | Cassiob.-bush    | or 10                  | jlau Pa.B  | N. Amer.  | 1724.  | L p1 Mil. ic.1. t.83. f.1 |
| 3767 nitidum <i>W.</i>         | shining-l.-aved  | or 2                   | my.jn W    | N. Amer.  | 1758.  | L p1                      |
| 3768 dentatum <i>Ph.</i>       | tooth-leaved     | or 5                   | jn.jl W    | N. Amer.  | 1736.  | L p1 Dend. brit. 25       |
| 3769 pubescens <i>Ph.</i>      | downy tooth-lv.  | or 3                   | jn.jl W    | N. Amer.  | 1736.  | L p1                      |
| 3770 lantanoides <i>Mich.</i>  | Lantana-like     | or 5                   | my.jn W    | N. Amer.  | ...    | L p1 Bot. cab. 1570       |
| 3771 Lantana <i>W.</i>         | Wayfaring-tree   | or 10                  | my.jn W    | Britain   | hed.   | L p1 Eng. bot. 331        |
| 3772 mille <i>Mich.</i>        | soft             | or 6                   | jn.jl W    | N. Amer.  | 1812.  | L p1                      |
| 3773 acerifolium <i>W.</i>     | Maple-leaved     | or 4                   | jn.jl W    | N. Amer.  | 1736.  | L co Dend. brit. 118      |
| 3774 O'pulus <i>W.</i>         | Guelder Rose     | or 10                  | my.jn W    | Britain   | moi.w. | L p1 Eng. bot. 332        |
| <i>β roseum</i>                | Snowball-tree    | or 14                  | my.jn W    | .....     | ...    | L p1                      |
| 3775 Oxycoecos <i>Ph.</i>      | Cranberry-like   | or 12                  | jl W       | N. Amer.  | ...    | L p1 Bot. cab. 1123       |
| 3776 edule <i>Ph.</i>          | eatable-fruited  | or 12                  | jl W       | N. Amer.  | 1812.  | L p1                      |
| 680. SAMBUCUS. <i>W.</i>       | ELDER.           | <i>Caprifoliaceae.</i> | Sp. 7—9.   |           |        |                           |
| 3777 Ebulus <i>W.</i>          | dwarf            | cu 3                   | jn.jl P.Pk | Britain   | wa.gr. | D co Eng. bot. 475        |
| 3778 chinensis <i>Lindl.</i>   | Chinese          | cu 4                   | s.o W      | China     | 1823.  | D co                      |
| 3779 nigra <i>W.</i>           | common           | ec 15                  | my.jl W    | Britain   | hed.   | C co Eng. bot. 476        |
| <i>β viridis</i>               | green-fruited    | or 8                   | my.jl W    | .....     | ...    | C co                      |
| 3780 laciniata <i>Lk.</i>      | Parsley-leaved   | or 8                   | my.jl W    | .....     | ...    | C co Schm. arb. t. 144    |
| 3781 canadensis <i>W.</i>      | Canadian         | or 6                   | jn.au W    | N. Amer.  | 1761.  | C a1 Schmid. arb. 142     |
| 3782 pubescens <i>Mich.</i>    | pubescent        | or 6                   | ...        | N. Amer.  | 1812.  | C a1                      |
| 3783 racemosa <i>W.</i>        | red-berried      | or 12                  | my.jn Gr.y | S. Europe | 1596.  | C co Jac. ic. 1. t. 59    |
| 681. RHUS. <i>W.</i>           | SUMACH.          | <i>Terebinthaceae.</i> | Sp. 33—75. |           |        |                           |
| 3784 Coriaria <i>W.</i>        | Elm-leaved       | ec 10                  | jl G       | S. Europe | 1596.  | L co Dend. brit. 136      |
| 3785 typhina <i>W.</i>         | Virginian        | ec 20                  | jlau G     | N. Amer.  | 1623.  | S co Dend. brit. 17,18    |
| <i>β frutescens</i>            | dwarf            | cu 6                   | jl G       | .....     | ...    | S co                      |



## History, Use, Propagation, Culture,

which account all vascular substances, with firm outside but very cellular structure inside, were said to be Ruminosa. The seeds of this genus are of that nature. There was also a Dr. Rummy, professor of agriculture in some Polish university.

677. *Cachrys*. One of the names given by the Romans to the Rosemary. According to Morison, the name was derived from *καω*, to grow hot, on account of the carminative qualities of the plant. The Cossacks of the Jäik chew the seeds of *C. odontalgica* for pain in the teeth, and obtain relief by the copious salivation which follows their use. This genus is well known by its corky large smooth seeds.

678. *Hippomarathrum*. From *ἵππος* *μαραθρον*, horse-fennel, on account of its size compared with that of common fennel.

679. *Viburnum*. This name is derived, according to the account of Sebastian Vaillant, from the Latin word *vere*, to tie, on account of the pliability of the branches of some species. *V. tinus* (*τινος*, small, dwarf, tiny) is one of the most ornamental of evergreen shrubs, with shining leaves and shewy white flowers, which appear during the winter months. *V. lucidum* and *strictum* are taller and more tender than the common species, of which they are by many considered as only varieties.

*V. lantana* (from *lento*, to tie) grows chiefly on calcareous soils: it has pliant mealy twigs, and the bark affords a bird lime.

*V. opulus*, (alteration of *populus*) var *roseum*, is a most ornamental shrub, producing large white bunches of

3750 Leaves bipinnate, Pinnæ opposite linear rather pungent, Seeds furrowed smooth  
 3751 Leaves supra-decompound setaceous many-cut, Seeds even smooth  
 3752 Leaves pinnate and ternate, Leaflets oblong crenate

3753 Leaves bipinnate, Leaflets linear, Stem furrowed

### TRIGYNIA.

- 3754 Leaves ovate oblong entire, Divisions of the veins and the young branches glandular hairy  
 α Leaves oval oblong beneath and at edge hairy  
 β Leaves lanceolate oblong at the edge and veins beneath hairy  
 γ Leaves ovate hairy on both sides stiff  
 3755 Leaves coriaceous ovate lanceolate shining entire  
 3756 Leaves broad ovate rugose hairy beneath, Common involucre 7-leaved  
 3757 Leaves obovate roundish and oval smooth finely serrated with edged stalks  
 3758 Evergreen smooth, Leaves coriaceous elliptical oblong distantly toothed  
 3759 Leaves oblong obtusely serrated, Stalks and peduncles with scaly pubescence  
 3760 Smooth, Leaves ovate nearly acute subserrate, Leaf-stalks smooth, Fruit ovate oblong, Cymes stalked  
 3761 Leaves broad ovate acuminate finely serrated, Stalks edged crisp  
 3762 Leaves obl. narr. at base rather blunt entire revolute at edge smooth above shining with netted veins  
 3763 Leaves ovate serrate dotted with hairs, Cymes dichotomous few-flowered  
 3764 Smooth, Leaves obovate crenate toothed or entire obtuse, Umbels sessile, Fruit roundish ovate  
 3765 Smooth, Leaves ovate lanceolate acute at each end crenate revolute at edge, Stalks keeled glandular  
 3766 Leaves obl. lanc. unequally and finely serrated at base wedge-shaped and entire, Branches compr. square  
 3768 Leaves ovate tooth-serrated plaited  
 3769 Leaves oval acuminate tooth-serrated plaited pubescent  
 3770 Somewhat decumbent, Lvs. rounded cord. abruptly acumin. toothed with the stalks and nerves powdery  
 3771 Leaves ovate oblong cordate serrate beneath rugose with veins downy  
 3772 Leaves roundish cord. furrowed with plaits beneath downy with a very soft pubescence, Cymes radiant  
 3773 Leaves cord. ovate generally 3-lobed loosely serrat. stalks without glands at base with stipules and downy  
 3774 Leaves 3-lobed acuminate toothed, Stalks glandular smooth  
 3775 Leaves 3-lobed acute behind 3-nerved divaricating rarely toothed, Stalks glandular, Cymes radiant  
 3776 Leaves 3-lobed behind obtuse 3-nerved, Lobes very short tooth-serrated, Serrat. acumin. Cymes radiant  
 3777 Cymes 3-parted, Stipules leafy, Stem herbaceous, Leaves pubescent beneath  
 3778 Cymes with many abortive fleshy flowers, Stem herbaceous warted, Leaves quite smooth  
 3779 Cymes 5-parted, Stem arborescent  
 3780 Flowers umbelled, Leaves pinnatifid, Stem shrubby  
 3781 Cymes 5-parted, Leaves about twice pinnated, Stem shrubby  
 3782 Panicle ovate, Leaflets lanceolate acuminate unequal at base, Leaf-stalk hairy, Stem shrubby  
 3783 Panicle ovate, Leaflets oblong acuminate nearly equal at base, Stalks smooth, Stem arborescent  
 3784 Leaflets ovate oblong obtuse mucronate scabr. above villous beneath, The last joints of stalk membranous  
 3785 Leaflets lanceolate acuminate finely serrated hairy beneath



and Miscellaneous Particulars.

white flowers, resembling those of Hydrangea, and like them abortive. With lilac, laburnum, and scarlet thorn it forms an elegant group.

680. *Sambucus*. A musical instrument called by the Latins *sambuca*, is supposed to have been made of the wood of this tree, on account of its hardness. The tree was always famous for this quality; so that Pliny says it consists of nothing but skin and bones. (b. xvi. c. 39.) *S. ebulus* is supposed to prevent diseases in swine if used as litter: the root is violently cathartic, the leaves drive away mice, and the berries dye blue.

*S. nigra* with its varieties, and *S. racemosa*, are very shewy trees in shrubberies when in flower and fruit. *S. nigra* is narcotic, purgative, and acrid; the flowers in decoction are diaphoretic and expectorant; used to flavor vinegar, and deleterious to turkeys. The French put layers of them in heaps or casks of apples, to which they communicate a most agreeable odor. The berries are poisonous to poultry; but make a powerful wine much in esteem among country people. As the common elder will grow either exposed to the sea breeze or on high mountains, it is recommended as a nurse-plant in forming plantations. To thrive and be productive as a fruit tree however, it requires a deep, rather moist, and rich soil.

681. *Rhus*. Derived from the same root as *Rosa, rhudd*, in Celtic, signifying red, on account of the color of the fruit. *Ρησ*, in Greek. Sumach, its English name, is an alteration of *simdy*, its name in Arabic. (*Forsk.*) In some of the species of this genus the flowers are hermaphrodite; in others, as *R. elegans*, pentaphyllum, and *Toxicodendron*, the male and female are on separate plants. In *R. toxicodendron*, they

|                          |                  |    |    |        |   |           |       |   |    |                        |
|--------------------------|------------------|----|----|--------|---|-----------|-------|---|----|------------------------|
| 3786 javánica W.         | Java             | cu | 10 | jl     | W | Java      | 1799. | S | pl | Dend. brit. 15         |
| 3787 glábra W.           | smooth           | or | 8  | jl     | G | N. Amer.  | 1793. | L | pl | Di. el. t. 243. f. 314 |
| 3788 élegans W.          | scarlet          | or | 10 | jl     | G | N. Amer.  | 1793. | S | pl | Dend. brit. 16         |
| 3789 viridiflóra Ph.     | green-flowered   | or | 15 | jl     | G | N. Amer.  | ...   | S | pl |                        |
| 3790 púmila Ph.          | dwarf-poisonous  | p  | 1  | jl     | G | N. Amer.  | 1806. | S | pl |                        |
| 3791 Vernix W.           | Varnish          | or | 15 | jl     | G | N. Amer.  | 1713. | L | co | Dend. brit. 19         |
| 3792 succedánea W.       | red Lac          | ec | 10 | jn     | G | China     | 1768. | S | pl | Kæm. am. t. 795        |
| 3793 Bucku. Améla Wall.  | long-leaved      | or | 10 | ...    | G | Nepal     | 1823. | S | co |                        |
| 3794 juglandifólia Wall. | Walnut-leaved    | or | 10 | ...    | G | Nepal     | 1823. | S | co |                        |
| 3795 gláuca Desf.        | glaucous         | cu | 2  | jl     | G | C. G. H.  | 1821. | C | pl |                        |
| 3796 oxyacantha Schousb. | hawthorn         | or | 6  | ...    | G | Barbary   | 1823. | C | pl |                        |
| 3797 oxyacanthoides Dum. | prickly          | or | 6  | ...    | G | Barbary   | 1824. | C | pl |                        |
| 3798 Zizyphina Ten.      | Barley-leaved    | cu | 3  | ...    | G | Sicily    | 1824. | C | pl |                        |
| 3799 semiálata W.        | Service-leaved   | ec | 6  | ...    | G | Macao     | 1780. | L | pl | Mur. co. g. 6. t. 3    |
| 3800 copallina W.        | Lentiscus-leav.  | ec | 6  | au     | G | N. Amer.  | 1688. | S | pl | Jac. sch. 3. t. 341    |
| 3801 Toxicodéndron Ph.   | Poison-Oak       | or | 3  | jn, jl | G | N. Amer.  | 1640. | S | co | Duh. 2. t. 48          |
| α radicans L.            | common           | or | 3  | jn, jl | G | N. Amer.  | ...   | S | co | Bot. mag. 1806         |
| β véra                   | true             | or | 2  | jn, jl | G | N. Amer.  | ...   | S | co | Duh. nov. n. t. 48     |
| γ microcárpa             | small-fruited    | or | 2  | jn, jl | G | N. Amer.  | ...   | S | co | Dill. elth. f. 375     |
| 3802 aromática Ph.       | female sweet     | ec | 8  | my     | G | N. Amer.  | 1759. | L | pl | T. in an. m. 5. t. 30  |
| β suaveólens W.          | male sweet       | or | 6  | my     | G | N. Amer.  | ...   | L | pl |                        |
| 3803 pendulina Jacq.     | pendulous        | cu | 3  | ...    | G | C. G. H.  | ...   | L | pl |                        |
| 3804 dentáta W.          | rough-stalked    | cu | 2  | ...    | G | C. G. H.  | 1798. | C | pl |                        |
| 3805 cuneifólia W.       | wedge-leaved     | cu | 2  | ...    | G | C. G. H.  | 1816. | C | pl |                        |
| 3806 incisa W.           | cut-leaved       | cu | 2  | ...    | G | C. G. H.  | 1789  | C | pl |                        |
| 3807 tomentósa W.        | woolly-leaved    | cu | 10 | ...    | G | C. G. H.  | 1691. | C | pl | Com. ho. 1. t. 92      |
| 3808 villosa W.          | hairy            | cu | 6  | jl     | G | C. G. H.  | 1714. | C | pl | Pl. al. t. 219. f. 8   |
| 3809 pubescens W.        | pubescent        | cu | 10 | ...    | G | C. G. H.  | 1800. | C | pl |                        |
| 3810 viminális W.        | Willow-leaved    | cu | 2  | ...    | G | C. G. H.  | 1774. | C | pl | Jac. sch. 3. t. 344    |
| 3811 angustifólia W.     | narrow-leaved    | cu | 6  | ...    | W | C. G. H.  | 1714. | C | pl | Pl. al. t. 219. f. 6   |
| 3812 rosmarinifólia W.   | Rosemary-leav.   | cu | 4  | ...    | G | C. G. H.  | 1800. | C | pl | Duh. nov. n. t. 48     |
| 3813 pentagáthya Desf.   | various-leaved   | cu | 4  | ...    | G | Barbary   | 1816. | C | pl | Desf. atl. 1. t. 77    |
| 3814 lævigáthya W.       | polished-leaved  | cu | 6  | ...    | G | C. G. H.  | 1758. | C | pl |                        |
| 3815 lúcida W.           | shining-leaved   | cu | 6  | jl, au | G | C. G. H.  | 1697. | C | pl | Com. afr. t. 91. f. 1  |
| β minor                  | small-shin.-lvd. | cu | 6  | jl, au | G | C. G. H.  | 1697. | C | pl | Com. ho. 1. t. 93      |
| 3816 Cótinus W.          | Venetian         | or | 6  | jn, jl | G | S. Europe | 1656. | L | co | Jac. au. 3. t. 210     |

|                      |                 |         |          |        |   |          |          |       |         |                        |                 |
|----------------------|-----------------|---------|----------|--------|---|----------|----------|-------|---------|------------------------|-----------------|
| 682. CASSI'NE W.     | CASSINE.        | Rhamni. | Sp. 4-8. |        |   |          |          |       |         |                        |                 |
| 3817 capénsis W.     | Cape Phillyrea  | or      | 1        | jl, au | W | C. G. H. | 1629.    | C     | a, l, p | Bur. afr. t. 85        |                 |
| 3818 Colpoon W.      | Colpoon-tree    | or      | 6        | ...    | W | C. G. H. | 1791.    | C     | a, l, p | Bur. afr. t. 86        |                 |
| 3819 Maurocénia W.   | Hottentot Cher. | or      | 5        | ...    | W | C. G. H. | 1690.    | C     | a, l, p | Di. el. t. 121. f. 147 |                 |
| 3820 xylócárpa Vent. | bony-seeded     | or      | 3        | ...    | W | Pa. Y.   | Antilles | 1816. | C       | a, l, p                | Vent. Ch. t. 23 |

|                    |               |               |        |    |   |         |       |   |      |               |
|--------------------|---------------|---------------|--------|----|---|---------|-------|---|------|---------------|
| 683. SPATHE'LIA W. | SPATHELIA.    | Terebintaceæ. | Sp. 1. |    |   |         |       |   |      |               |
| 3821 simplex W.    | Sumach-leaved | or            | 40     | tm | R | Jamaica | 1778. | S | s, p | Bot. reg. 670 |

|                     |              |         |          |        |   |          |       |   |    |                  |
|---------------------|--------------|---------|----------|--------|---|----------|-------|---|----|------------------|
| 1684. STAPHYLE'A W. | BLADDER-NUT. | Rhamni. | Sp. 2-4. |        |   |          |       |   |    |                  |
| 3822 pinnáta W.     | five-leaved  | or      | 6        | ap, jn | W | N. Amer. | hed.  | L | co | Eng. bot. 1560   |
| 3823 trifólia W.    | three-leaved | or      | 6        | my, jn | W | N. Amer. | 1640. | S | co | Schm. arb. t. 81 |



History, Use, Propagation, Culture,

are polygamous males, being mixed with the hermaphrodites. The species from the Cape of Good Hope rarely flower in this country, and are chiefly cultivated for the sake of their foliage, which is neat and not susceptible of injury from bad management.

R. Coriaria is used instead of oak bark for tanning leather, and it is said that that of Turkey is chiefly tanned with this plant. The seeds are in common use at Aleppo at meals to provoke an appetite. Both leaves and seeds are used in medicine as astringent and styptic.

R. javanica in China affords an oil by bruising the berries and boiling them in water: they use it as a varnish, but it does not keep its polish so well as the oil of R. vernix.

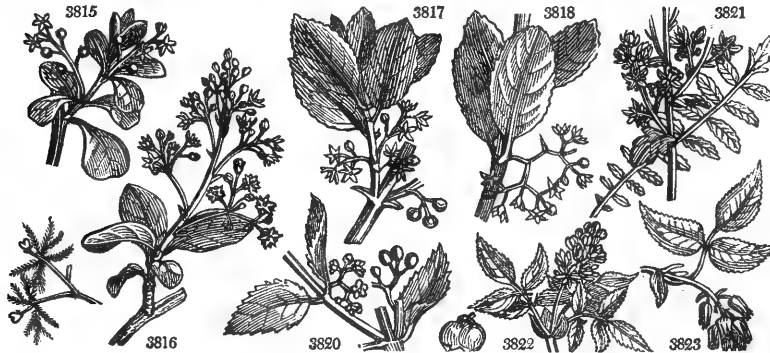
R. glabra has berries which dye red, and the branches boiled with the berries afford a black ink-like tincture. This plant is like a weed in some parts of North America, where it overruns land left for a few years in pasture.

R. vernix affords the true Japan varnish, which oozes out of the tree on its being wounded, and grows thick and black when exposed to the air. It is so transparent, that when laid pure and unmixed upon boxes or furniture, every vein of the wood may be clearly seen. With it the Japanese varnish over the posts of their doors and windows, their drawers, chests, boxes, scymitars, fans, tea-cups, soup-dishes, and most articles of household furniture made of wood. The milky juice of the plant stains linen a dark brown. The whole shrub is in a high degree poisonous; and the poison is communicated by touching or smelling any part of it. In forty-eight hours inflammation appears on the skin, in large blotches, principally on the extremities, and on the glandular parts of the body: soon after small pustules rise in the inflamed parts, and fill with watery matter, attended with burning and itching. In two or three days the eruptions suppurate; after which the inflammation subsides, and the ulcers heal in a short time. It operates, however, somewhat differently upon

- 3786 Leaflets ovate acuminate serrate beneath downy  
 3787 Leaflets lanceolate acuminate with close serratures smooth on both sides whitish beneath,  
 3788 Leaflets lanceolate acuminate in the middle distantly serrated smooth on both sides, Flowers dioecious  
 3789 Smoothish, Leaflets lanceolate oblong serrated downy beneath, Racemes erect green  
 3790 Dwarf, Branches and leaf-stalks pubescent, Leaflets oval, Fruit very downy  
 3791 Leaflets entire annual opaque, Leaf-stalk entire equal  
 3792 Leaflets entire perennial shining, Leaf-stalk entire equal  
 3793 Leaves very large coarse rugose and downy  
 3794 Leaves pinnated in 9 pair rugose smooth above  
 3795 Leaflets obovate, some of them very glaucous  
 3796 Stem shrubby unarmed, Leaves ternate hoary cuneate ovate, the middle one longest  
 3797 Prickly, Leaves ternate smooth, Leaflets narrow wedge-shaped at the end 3-lobed and entire  
 3798 Spiny, Leaflets wedge-shaped toothed beyond the middle, above shining with prominent nerves  
 3799 Leaflets unually serrated, Outer petioles with membranous joints  
 3800 Leaflets entire, Leaf-stalk membranous jointed  
 3801 Stem rooting  
     α Leaves large entire or rarely toothed, Creeping  
     β Dwarf, Leaves variously sinuated downy about flowering time, Erect  
     γ Leaflets oblong oval with a long point, Fruit very small  
 3802 Leaflets sessile ovate rhomb-shaped cut serrate hairy  
  
 3803 Leaflets lanceolate entire sessile smooth on each side ciliated, Common stalk pubescent, Branches pend.  
 3804 Leaflets obovate mucronate toothed smooth, Stem scabrous  
 3805 Leaflets sessile wedge-shaped very smooth 7-toothed, Teeth mucronate  
 3806 Leaflets sessile wedge-shaped cut pinnatifid beneath downy and veiny  
 3807 Leaflets stalked rhomb-shaped angular downy beneath  
 3808 Leaflets obovate entire sessile hairy on both sides  
 3809 Leaflets obovate mucronate smooth, Branches villous  
 3810 Leaflets linear lanceolate entire smooth narrowed at base: the intermediate one stalked  
 3811 Leaflets stalked linear lanceolate entire downy beneath  
 3812 Leaflets sessile linear revolute rusty beneath  
 3813 Prickly, Leaves fingered, Leaflets linear lanceolate at the end toothed or entire  
 3814 Leaflets oblong entire sessile acute on each side smooth, Panicle terminal long  
 3815 Leaflets obovate sessile very narrow at the base smooth on both sides, Corymbs axillary  
  
 3816 Leaves obovate  
  
 3817 Leaves stalked ovate retuse crenated, Panicle twice as short as leaf  
 3818 Leaves stalked ovate subserrate entire at base  
 3819 Leaves sessile entire obovate coriaceous  
 3820 Leaves stalked ovate subserrate, Peduncles dichotomous shorter than the leaves, Fruit ovate

3821 Leaves like the mountain ash, Flowers in long erect panicles from among the leaves

3822 Leaves pinnate  
 3823 Leaves ternate



and Miscellaneous Particulars.

different constitutions; and some are incapable of being poisoned with it at all. Persons of irritable habits are most liable to receive it.

*Rhus aromatica* and *suaevolens*, the male and female of one species, have been made into a distinct genus called *Schmalzia*, by Desvaux and Turpinia, and afterwards *Lobadium*, by the ingenious M. Rafinesque Schmaltz. The expressed oil of the seed of this species, and also of *R. succedanea*, acquires the consistence of suet and serves for making candles.

*R. Toxicodendron* is poisonous to some persons, like *R. vernix*, but in a less degree. Kalm relates, that of two sisters, one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it, or even, when she stood to windward of it, at a greater distance; that it had not the least effect upon him, though he had made many experiments upon himself, and once the juice squirted into his eye; but that on another person's hand, which he had covered very thick with it, the skin, a few hours after, became as a piece of tanned leather, and peeled off afterwards in scales.

*R. pumila* is another dangerous species. Lyons, the collector, suffered severely for several weeks, after only collecting the seeds.

*R. cotinus* is cultivated for tanning leather near Valcimara in the Apennines, where it is called *Scotino*.

682. *Cassine*. An American name. These are shrubs with handsome foliage, but generally inconspicuous white or green flowers. *C. Maurocenia* has its specific name in honor of the Venetian senator F. Maurocenii, who had a fine garden at Padua.

683. *Spathella*. The upright habit and want of branches make this tree resemble a palm-tree, anciently called *Σααθην*. A very handsome stove shrub, rarely flowering.

684. *Staphylea*. From *σταφυλη*, a bunch, in which form its fructification is disposed. Handsome hardy

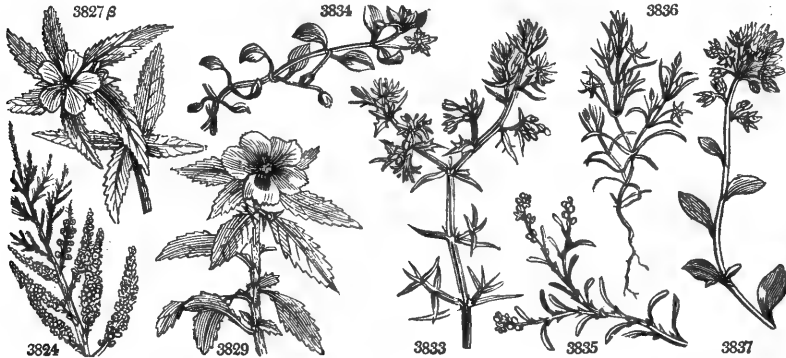
|                                 |                     |   |       |                       |                  |           |         |                               |
|---------------------------------|---------------------|---|-------|-----------------------|------------------|-----------|---------|-------------------------------|
| *685. TA'MARIK. <i>W.</i>       | TAMARISK.           |   |       | <i>Portulacaceae.</i> | <i>Sp. 3—18.</i> |           |         |                               |
| 3824 gallica <i>W.</i>          | French              | ♂ | or 19 | my.o                  | F                | England   | so. co. | C a1 Eng. bot. 1318           |
| 3825 articulata <i>W.</i>       | Indian              | □ | or 30 | ...                   | Pk               | E. Indies | ...     | C 1p Vah. sym. 2. t. 32       |
| 3826 germanica <i>W.</i>        | German              | ♂ | or 8  | jn.s                  | Pk               | Germany   | 1562.   | C m.s. MIL ic. t. 262. f. 2   |
| 686. TURNERA. <i>W.</i>         | TURNERA.            |   |       | <i>Portulacaceae.</i> | <i>Sp. 6—23.</i> |           |         |                               |
| 3827 ulmifolia <i>W.</i>        | Elm-leaved          | ♂ | or 8  | jn.s                  | Y                | Jamaica   | 1733.   | C p.1 Hort. cliff. t. 10      |
| β angustifolia B. M.            | narrow-leaved       | ♂ | or 8  | ap.s                  | Pa. Y            | Jamaica   | 1733.   | C a.p. Bot. mag. 281          |
| 3828 elegans <i>Otto.</i>       | elegant             | ♂ | or 3  | ...                   | Pa. Y            | Brazil    | 1821.   | C a.p. C s.p                  |
| 3829 trioniflora <i>Sims.</i>   | Ketmia              | ♂ | or 2  | ja.d                  | Pa. Y            | Brazil    | 1812.   | C a.p. Bot. mag. 2106         |
| 3830 Pumila <i>W.</i>           | Nettle-leaved       | □ | or 1  | jl                    | Y                | Jamaica   | 1796.   | S a.1 Sl. ja. t. 1. 127. f. 6 |
| 3831 cistoides <i>W.</i>        | Betony-leaved       | □ | or 1  | jn.o                  | Y                | America   | 1774.   | S a.1 Pl. ic. t. 150. f. 1    |
| 3832 racemosa <i>W.</i>         | clustered           | □ | or 2  | jlau                  | Y                | Siberia   | 1789.   | S a.1 Jac. vind. 3. t. 94     |
| 687. DRY'PIS. <i>W.</i>         | DRYPIS.             |   |       | <i>Caryophyllee.</i>  | <i>Sp. 1.</i>    |           |         |                               |
| 3833 spinosa <i>W.</i>          | prickly             | ○ | or 1  | jn.jl                 | P. Pu            | Italy     | 1775.   | S a.1 Bot. mag. 2216          |
| 688. AL'SINE. <i>W.</i>         | CHICKWEED.          |   |       | <i>Caryophyllee.</i>  | <i>Sp. 3—6.</i>  |           |         |                               |
| 3834 media <i>W.</i>            | common              | ○ | or 1  | jl.s                  | W                | Britain   | fields. | S co Eng. bot. 537            |
| 3835 segetalis <i>L.</i>        | corn                | ○ | or 1  | jl.s                  | W                | France    | 1805.   | S co C o                      |
| 3836 mucronata <i>L.</i>        | bristly             | ○ | or 1  | jn.jl                 | W                | S. Europe | 1777.   | S co Fl. graec. 293           |
| 689. TELE'PHIUM. <i>W.</i>      | ORPINE.             |   |       | <i>Portulacaceae.</i> | <i>Sp. 1—2.</i>  |           |         |                               |
| 3837 Imperati <i>W.</i>         | true                | ♂ | or 1  | jn.au                 | W                | S. Europe | 1658.   | D a.1 Lam. ill. t. 213        |
| 690. CORRIG'OLA. <i>W.</i>      | STRAPWORT.          |   |       | <i>Portulacaceae.</i> | <i>Sp. 2—3.</i>  |           |         |                               |
| 3838 littoralis <i>W.</i>       | sand                | □ | or 1  | jl.au                 | W                | England   | so. co. | S s Eng. bot. 668             |
| 3839 telephifolia <i>Pourr.</i> | Orpine-leaved       | ♂ | or 1  | jl.au                 | W                | Spain     | 1822.   | S s                           |
| 691. PHARNA'CEUM. <i>W.</i>     | PHARNACEUM.         |   |       | <i>Caryophyllee.</i>  | <i>Sp. 5—22.</i> |           |         |                               |
| 3840 Cerviana <i>W.</i>         | umbelled            | □ | or 1  | jn                    | W                | Russia    | 1771.   | S co Gm. si. 3. t. 20. f. 2   |
| 3841 lineare <i>W.</i>          | linear-leaved       | ♂ | or 1  | my.jn                 | W                | C. G. H.  | 1795.   | C a.1 Bot. rep. 326. 329      |
| 3842 Mollugo <i>W.</i>          | Ladies' Bedstr.     | ♂ | or 1  | jl.au                 | W                | E. Indies | 1752.   | C a.1 Bur. ind. t. 5. f. 4    |
| 3843 incanum <i>W.</i>          | hoary               | ♂ | or 1  | my.o                  | W                | C. G. H.  | 1782.   | C a.1 Bot. mag. 1883          |
| 3844 dichotomum <i>W.</i>       | forked              | □ | or 1  | jl                    | W                | C. G. H.  | 1783.   | C a.1                         |
| 692. PORTULACA'RIA. <i>W.</i>   | PURSLANE-TREE.      |   |       | <i>Portulacaceae.</i> | <i>Sp. 1.</i>    |           |         |                               |
| 3845 atra <i>W.</i>             | African             | ♂ | or 3  | ...                   | Pu               | Africa    | 1732.   | C r.m. Jac. col. 1. t. 22     |
| 693. BASE'LLA. <i>W.</i>        | MALABAR-NIGHTSHADR. |   |       | <i>Chenopodeae.</i>   | <i>Sp. 5.</i>    |           |         |                               |
| 3846 rubra <i>W.</i>            | red                 | ♂ | or 8  | jl.s                  | Pk               | E. Indies | 1731.   | S r.m                         |
| 3847 nigra <i>Lowr.</i>         | black               | ♂ | or 3  | jl.s                  | W                | China     | 1822.   | S r.m                         |
| 3848 alba <i>W.</i>             | whitc               | ♂ | or 8  | jl.n                  | W                | E. Indies | 1688.   | S r.m. Plu. al. t. 63. f. 1   |
| 3849 lucida <i>W.</i>           | shining             | ♂ | or 6  | jl.n                  | W                | E. Indies | 1802.   | S r.m                         |
| 3850 cordifolia <i>P. S.</i>    | heart-leaved        | ♂ | or 6  | jl.n                  | P. Pu            | E. Indies | 1802.   | S r.m                         |

TETRAGYNIA.

|                             |                     |   |      |                      |                 |          |       |                         |
|-----------------------------|---------------------|---|------|----------------------|-----------------|----------|-------|-------------------------|
| 694. PARNAS'SIA. <i>W.</i>  | GRASS OF PARNASSUS. |   |      | <i>Hypericineae.</i> | <i>Sp. 3—5.</i> |          |       |                         |
| 3851 palustris <i>W.</i>    | marsh               | ♂ | or 1 | jl.au                | W               | Britain  | bogs. | D m.s. Eng. bot. 82     |
| 3852 caroliniana <i>Ph.</i> | Carolina            | ♂ | or 1 | my.jn                | W               | N. Amer. | 1802. | D m.s. Bot. mag. 1459   |
| 3853 asarifolia <i>Ph.</i>  | Asarum-leaved       | ♂ | or 1 | jl.au                | W               | N. Amer. | 1812  | D m.s. Vent. mal. t. 39 |

PENTAGYNIA.

|                            |             |   |      |                        |                  |           |       |                            |
|----------------------------|-------------|---|------|------------------------|------------------|-----------|-------|----------------------------|
| 695. EVOL'VULUS. <i>L.</i> | EVOLVULUS.  |   |      | <i>Convolvulaceae.</i> | <i>Sp. 5—21.</i> |           |       |                            |
| 3854 linifolius <i>L.</i>  | flax-leaved | ○ | or 2 | aus.                   | B                | Jamaica   | 1732. | S co Br. jam. t. 10. f. 2  |
| 3855 emarginatus <i>L.</i> | emarginate  | □ | or 1 | s                      | B                | E. Indies | 1816. | S co Bur. ind. t. 30. f. 1 |
| 3856 nummularius <i>L.</i> | Money-wort  | □ | or 1 | s                      | B                | Jamaica   | 1816. | S cu                       |



History, Use, Propagation, Culture,

shrubs. *S. pinnata* has hard smooth nuts, which are strung for beads by the Catholics in some countries, while in others the kernels, though bitter, are eaten by the inhabitants.

685. *Tamarix*. Tamarisci were people who inhabited the Spanish side of the Pyrenees, where one species grows abundantly on the banks of the Tanaris, now called the Tambrá. *T. gallica*, as it stands the sea breeze, is sometimes used as a hedge plant in such situations.

686. *Turnera*. So named by Plumier, in memory of William Turner, M. D. Prebendary of York, &c. author of "A new Herbal," London, 1551; died in 1568. All the species are of the easiest culture, but few of them of any beauty. They are chiefly weeds with yellow *Cistus*-like flowers.

687. *Drypis*. From *δρυπτος*, to tear. Its leaves are armed with stiff spines.

688. *Alysine*. From *αλσος*, shady place, where alysine loves to grow. Little weeds of no beauty. *Morge-line*, Fr.

689. *Telephium*. Pliny says, Telephus was a king of Mysia, and had his wounds cured by Achilles with this plant. A little inconspicuous weed, with the appearance of a minute *Euphorbia*.

690. *Corrigiola*. A diminutive of *corrigia*, a thong; and applied to the plant we call *Polygonum aviculare*,

3824 Bractes shorter than flower-stalks, Spikes lateral paniced, Leaves lanceolate subulate stem-clasping  
 3825 Flowers sessile, Spikes lateral, Leaves very short sheathing, Branches with turbinate mucronate joints  
 3826 Spikes terminal solitary, Bractes longer than flower-stalks, Leaves linear lanceolate sessile

3827 Flowers sessile, Leaves oblong acute serrate pubescent with two glands at base

3828 Flowers sessile, Leaves ellipt. cuneate obtusely serrated scabrous with two glands at base

3829 Bractes subulate, Leaves ovate acute at each end with two glands at the base

3830 Flowers sessile, Leaves without glands

3831 Peduncles axillary leafless, Leaves serrated at end

3832 Raceme terminal long, Leaves ovate unequally obtusely serrated

3833 A small glaucous plant with rigid prickly leaves

3834 Petals bipartible, Leaves ovate cordate

3835 Petals entire, Leaves subulate

3836 Petals entire short, Leaves bristly, Calyxes awned

3837 Leaves alternate

3838 Flowers stalked, Calyxes membranous at edge

3839 Stem diffuse procumbent, Leaves oblong ovate, Branches leafless

3840 Peduncles umbelled lateral as long as linear leaves

3841 Umbels unequal, Leaves linear distant

3842 Peduncles 1-flowered lateral, Flowers as long as leaves, Stem depressed

3843 Common peduncles very long, Leaves linear, Stipules hairy

3844 Peduncles axillary elongate dichotomous, Leaves whorled linear

3845 A fleshy shrub with many small opposite fleshy roundish leaves

3846 Leaves flat, Peduncles simple

3847 Leaves round ovate, Spikes lateral

3848 Leaves ovate wavy, Peduncles simple longer than the leaf

3849 Leaves cordate, Peduncles clustered branched

3850 Leaves cordate roundish, Peduncles simple shorter than the leaf

#### TETRAGYNIA.

3851 Radical leaves cordate acuminate, Nectaries many-parted

3852 Radical leaves nearly orbicular, Nectaries with 3 bristles

3853 Radical leaves reniform, Petals unguiculated, Nectaries 3-parted

#### PENTAGYNIA.

3854 Leaves linear lanceolate sessile, Peduncles 1-3-fl. a little longer than the leaves

3855 Leaves reniform repand

3856 Leaves roundish, Stem creeping, Flowers nearly sessile



#### and Miscellaneous Particulars.

in allusion to the long and slender shoots of that plant. The *Corrigiola* of modern times is related to the *Polygonum*.

691. *Pharnaceum*. Named after Pharnaces, king of Pontus, who is said by Pliny to have been the first to use the plant. Pretty little herbaceous plants, with fine leaves, and elegant umbels of usually white flowers.

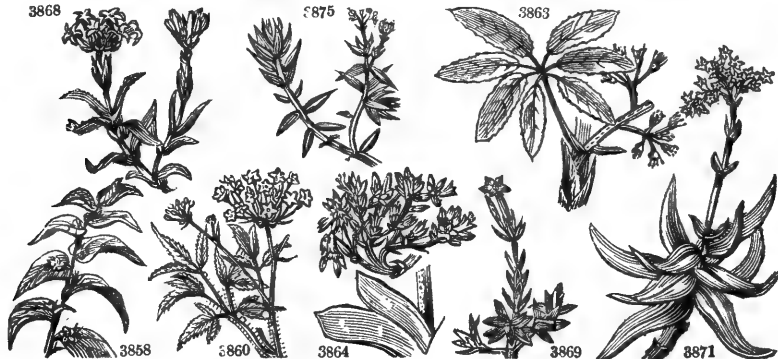
692. *Portulacaria*; that is to say, a *Portulaca*-like plant. The leaves of this plant resemble purslane, whence also the English name, as well as the Latin name.

693. *Basella*. A Malabar name. The species of this genus are used in China as spinage plants; they are also raised on a hotbed at Paris in spring, and transplanted into a warm border for the same purpose, and are said to furnish a summer spinage equal to that of the orache.

694. *Farnassia*. From Mount Parnassus, the abode of grace and beauty, where, on account of the elegance of its form, this plant is feigned to have first sprang up. *F. palustris* is one of the most elegant of marsh plants, well deserving a place in aquatic collections.

695. *Evolvulus*. Derived from *evolvere*, to turn; in the same sense as *Convolvulus*, which this genus entirely resembles in habit.

|  |                               |        |    |       |     |           |       |   |     |                        |
|--|-------------------------------|--------|----|-------|-----|-----------|-------|---|-----|------------------------|
| 3857 <i>alsinoides L.</i>              | Chickweed                     | □ pr   | ‡  | jn.jl | B   | E. Indies | 1733. | S | co  | Bur. zeyl. t. 6. f. 1  |
| 3858 <i>latifolius Ker.</i>            | broad-leaved                  | ◻ Δ pr | ‡  | jn.jl | W   | Brazil    | 1819. | D | co  | Bot. reg. 401.         |
| 696. <i>ARA/LIA W.</i>                 | ARALIA.                       |        |    |       |     |           |       |   |     |                        |
| 3859 <i>spinosa W.</i>                 | Angelica-tree                 | ◻ or   | 8  | jn.jl | W   | Virginia  | 1638. | R | p.l | Dend. brit. 46         |
| 3860 <i>hispidia Ph.</i>               | hispid                        | ◻ or   | 2  | jn.jl | W   | N. Amer.  | 1799. | R | p.l | Bot. mag. 1085         |
| 3861 <i>racemosa Ph.</i>               | berry-bearing                 | ◻ Δ or | 4  | jn.s  | W   | N. Amer.  | 1638. | D | a.p | Mor. s. t. 2. f. 9     |
| 3862 <i>nudicaulis Ph.</i>             | naked-stalked                 | ◻ Δ or | 4  | jn.jl | W   | N. Amer.  | 1731. | D | a.p | Pl. al. t. 238. f. 5   |
| *397. <i>ACTINOPHYLLUM R. &amp; P.</i> | ARALIAEAE. Sp. 1-6.           |        |    |       |     |           |       |   |     |                        |
| 3863 <i>digitatum Wal.</i>             | finger-leaved                 | ◻ or   | 10 | ...   | G   | E. Indies | 1820. | C | a.l |                        |
| *398. <i>RO/CHEA Dec.</i>              | ROCHEA.                       |        |    |       |     |           |       |   |     |                        |
| 3864 <i>falcata P. S.</i>              | sickle-leaved                 | ◻ or   | 2  | jn.s  | R   | C. G. H.  | 1825. | C | a.l | Bot. mag. 2035         |
| 3865 <i>coccinea P. S.</i>             | scarlet                       | ◻ or   | 1  | jn.au | S   | C. G. H.  | 1710. | C | a.l | Bot. mag. 495          |
| 3866 <i>cymosa Haw.</i>                | cymose                        | ◻ or   | ‡  | au    | R   | C. G. H.  | 1800. | C | a.l |                        |
| 3867 <i>flava Haw.</i>                 | yellow                        | ◻ or   | 1  | au.s  | Y   | C. G. H.  | 1802. | C | a.l | Pl. al. t. 314. f. 2   |
| 3868 <i>odoratissima Haw.</i>          | sweet-scented                 | ◻ or   | 1  | jn.jl | Pk  | C. G. H.  | 1793. | C | a.l | Bot. rep. 26           |
| 3869 <i>jasminea Sims.</i>             | jasmine-like                  | ◻ or   | ‡  | ap.my | W   | C. G. H.  | 1815. | C | a.l | Bot. mag. 2178         |
| 3870 <i>versicolor Burch.</i>          | changeable                    | ◻ or   | 2  | mr.s  | R   | C. G. H.  | 1817. | C | a.l | Bot. reg. 320          |
| *609. <i>CRAS/SULA W.</i>              | CRASSULA.                     |        |    |       |     |           |       |   |     |                        |
| 3871 <i>perfoliata L.</i>              | perfoliate                    | ◻ or   | 3  | jl.au | W   | C. G. H.  | 1725. | C | a.l | Plant. grass. 13       |
| 3872 <i>ramosa W.</i>                  | branching                     | ◻ or   | 2  | jl.au | Pk  | C. G. H.  | 1774. | C | a.l |                        |
| 3873 <i>tetragona W.</i>               | square-leaved                 | ◻ or   | 2  | au    | W   | C. G. H.  | 1711. | C | a.l | Plant. grass. 19       |
| 3874 <i>mollis W.</i>                  | soft                          | ◻ or   | 1  | au    | W   | C. G. H.  | 1774. | C | a.l |                        |
| 3875 <i>acutifolia P. S.</i>           | acute-leaved                  | ◻ or   | ‡  | sn    | W   | Greece?   | 1795. | C | a.l | Plant. grass. t. 2     |
| 3876 <i>nudicaulis W.</i>              | naked-stemmed                 | ◻ or   | ‡  | my.s  | G   | C. G. H.  | 1732. | C | a.l | Plant. grass. 133      |
| 3877 <i>arborescens W.</i>             | tree                          | ◻ or   | 3  | my.jn | Pk  | C. G. H.  | 1739. | C | a.l | Bot. mag. 394          |
| 3878 <i>obliqua W.</i>                 | oblique-leaved                | ◻ or   | 4  | ap.my | R   | C. G. H.  | 1759. | C | a.l | Bot. mag. 79           |
| 3879 <i>lactea W.</i>                  | white                         | ◻ or   | ‡  | o     | W   | C. G. H.  | 1774. | C | a.l | Bot. mag. 1771         |
| 3880 <i>cultrata W.</i>                | sharp-leaved                  | ◻ or   | 1  | jl.au | W   | C. G. H.  | 1732. | C | a.l | Bot. mag. 1940         |
| 3881 <i>ciliata W.</i>                 | ciliated                      | ◻ or   | ‡  | jl.au | Y   | C. G. H.  | 1732. | C | a.l | Plant. grass. 7        |
| 3882 <i>undulata Haw.</i>              | wave-leaved                   | ◻ or   | ‡  | au.n  | W   | C. G. H.  | 1737. | C | a.l | Bot. cab. 534          |
| 3883 <i>scabra W.</i>                  | rough-leaved                  | ◻ or   | ‡  | jn.jl | P.y | C. G. H.  | 1790. | C | a.l | Di. el. t. 99. f. 117  |
| 3884 <i>biconvexa Haw.</i>             | double-convex                 | ◻ or   | ‡  | au    | W   | C. G. H.  | 1800. | C | a.l |                        |
| 3885 <i>obvallata W.</i>               | Houseleek-ld.                 | ◻ or   | ‡  | jl.au | W   | C. G. H.  | 1795. | C | a.l | Plant. grass. 61       |
| 3886 <i>ramuliflora Lk.</i>            | branch-flower.                | ◻ or   | 1  | jn.jl | W   | C. G. H.  | 1822. | C | a.l |                        |
| 3887 <i>corymbulosa Lk.</i>            | corymbulose                   | ◻ or   | 1  | jl.au | W   | C. G. H.  | 1822. | C | a.l |                        |
| 3888 <i>columnaris W.</i>              | columnar                      | ◻ or   | ‡  | ...   | W   | C. G. H.  | 1789. | C | a.l | Burm. afr. t. 9        |
| 3889 <i>imbricata W.</i>               | imbricated                    | ◻ or   | 1  | jn.jl | W   | C. G. H.  | 1760. | C | a.l | Plant. grass. 9        |
| 3890 <i>canescens</i>                  | grey                          | ◻ Δ or | ‡  | jl.au | W   | C. G. H.  | 1800. | C | a.l |                        |
|  | <i>Globula canescens</i> Haw. |        |    |       |     |           |       |   |     |                        |
| 3891 <i>perfoliata P. S.</i>           | threaded                      | ◻ or   | 1  | s     | Pk  | C. G. H.  | 1785. | C | a.l | Sc. del. ins. 3. t. 6  |
| 3892 <i>punctata W.</i>                | dotted                        | ◻ or   | 1  | ap.au | W   | C. G. H.  | 1759. | C | a.l |                        |
| 3893 <i>marginalis W.</i>              | marginated                    | ◻ or   | 2  | jl.au | P.y | C. G. H.  | 1774. | C | a.l |                        |
| 3894 <i>pellucida W.</i>               | pellucid                      | ◻ or   | 1  | jn.s  | Pk  | C. G. H.  | 1732. | C | a.l | Di. el. t. 100. f. 119 |
| 3905 <i>spathulata W.</i>              | notched-leaved                | ◻ or   | ‡  | jl.s  | W   | C. G. H.  | 1774. | C | a.l | Plant. grass. 49       |
| 3896 <i>cordata W.</i>                 | heart-leaved                  | ◻ or   | ‡  | my.au | Pk  | C. G. H.  | 1774. | C | a.l | Bot. cab. 359          |
| 3897 <i>tomentosa W.</i>               | downy                         | ◻ Δ or | 1  | ap.my | W   | C. G. H.  | 1790. | C | a.l |                        |
| 3898 <i>linguefolia Haw.</i>           | tongue-leaved                 | ◻ Δ or | 1  | au    | W   | C. G. H.  | 1803. | C | a.l |                        |
| 3899 <i>Cotyledonis W.</i>             | Cotyledon-leav.               | ◻ Δ or | 1  | ...   | W   | C. G. H.  | 1800. | C | a.l |                        |
| 3900 <i>orbiculatis W.</i>             | starry                        | ◻ Δ or | ‡  | jl.s  | Pk  | C. G. H.  | 1731. | C | a.l |                        |
| 3901 <i>retroflexa W.</i>              | Orange-flower.                | □ pr   | ‡  | jn    | Y   | C. G. H.  | 1788. | C | a.l |                        |
| 3902 <i>lineolata W.</i>               | channeled                     | ◻ or   | ‡  | jn.au | Y   | C. G. H.  | 1774. | C | a.l | Bot. mag. 1765         |
| 3903 <i>centauroides W.</i>            | Centaury-flow.                | ◻ or   | ‡  | my.jn | Pk  | C. G. H.  | 1774. | S | a.l | Herm. lug. t. 553      |
| 3904 <i>dichotoma W.</i>               | forked                        | □ pr   | ‡  | jn.jl | Y   | C. G. H.  | 1774. | S | a.l | Plant. grass. 67       |
| 3905 <i>glomerata W.</i>               | rough-clustered               | □ pr   | ‡  | au.o  | Y   | C. G. H.  | 1774. | S | a.l |                        |

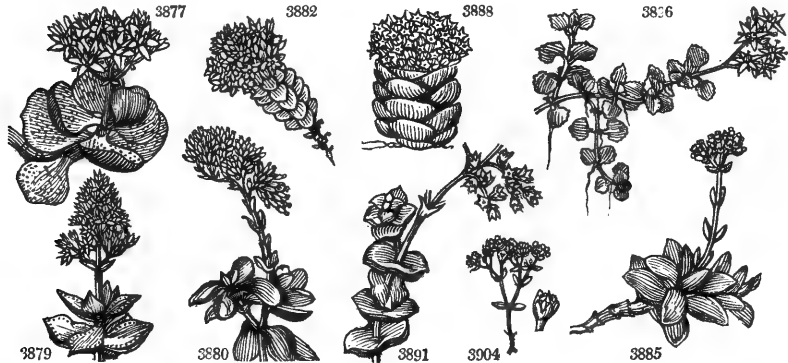


History, Use, Propagation, Culture.

696. *Aralia*. A name of unknown meaning, under which one species was sent to Fagon from Quebec, in 1764, by one Sarrazin, a French physician. *A. spinosa* is an ornamental low tree for lawns, on account of its Angelica-like leaves.

697. *Actinophyllum*. From *ακτιν*, a ray, and *φύλλον*, a leaf; because the leaflets are disposed as it were in rays round a centre. Fine Aralia-like plants, with beautiful foliage, but not with any attraction in the appearance of the flowers.

- 3857 Procurrent villous, Leaves oval subsessile, Capsules deflexed  
 3858 Very hairy, Leaves subsessile oblong cordate acuminate, Flowers sessile 3 together
- 3859 Arborescent, Stem and leaves prickly  
 3860 Stem suffruticose and leaf-stalks hispid, Leaves decomposed  
 3861 Stem herbaceous smooth, Leaves decomposed, Peduncles axillary branched umbelled  
 3862 Stemless, Leaves decomposed, Scapes leafless
- 3863 Leaflets 5 very smooth shining elliptical entire
- 3864 Leaves opposite nearly connate oblong with an auricle on one side, falcate  
 3865 Leaves ovate oblong flat, edge with a cartilagin. fringe, at the base, connate sheathing, Flowers term. sessile  
 3866 Leaves linear with a cartilaginous fringed edge, Stem shrubby, Cyme terminal  
 3867 Leaves flat connate perfoliate smooth, Flowers in corymbose panicle  
 3868 Leaves linear flat fringed with cartilage connate sheathing at base, Flowers terminal sessile  
 3869 Stem decumbent, Leaves ovate cruciate, Head 2-flowered, Petals connate  
 3870 Erect, Leaves oblong lanceolate with cartilaginous teeth at base sheathing, Umbels double many-flow.  
     § 1. *Shrubby, Leaves subulate.*  
 3871 Leaves lanceolate subulate sessile connate channelled convex beneath  
 3872 Leaves subulate above flat connate perfoliate smooth much spreading, Pedunc. long, Flowers cymose  
 3873 Leaves subulate incurved obscurely 4-cornered spreading, Stem erect shrubby rooting  
 3874 Leaves § cylindrical acute gibbous beneath smooth nearly erect, Cymes terminal compound  
 3875 Leaves connate rounded subulate spreading, Cymes few-flowered on long stalks, Stem shrubby decumbent  
 3876 Leaves subulate radical, Stem naked  
     § 2. *Shrubby, Leaves broad, smooth.*  
 3877 Leaves roundish acute glaucous fleshy dotted, Cyme trichotomous  
 3878 Leaves opposite ovate oblique entire acute distinct somewhat cartilaginous at edge  
 3879 Leaves ovate attenuate at base connate entire dotted inside the edge, Cymes panicle-shaped  
 3880 Leaves opposite obovate cultrate oblique connate entire  
     § 3. *Shrubby, Leaves broad, distant, ciliated.*  
 3881 Leaves opposite oval flatish distinct fringed, Corymbs terminal  
 3882 Leaves connate ovate expanded cartilaginous crenate, upper ovate elliptical wavy, Stem dichotomous  
 3883 Leaves opposite spreading connate rough fringed, Stem rough backwards  
 3884 Leaves linear obtuse sheathing convex on both sides, Flowers cymose, Stem decumbent  
 3885 Leaves obl. con obtuse falcate with a cartilaginous fringed edge, Pan. long, Pedunc. opposite clustered  
 3886 Leaves obovate subconnate, Branches axillary few-flowered, Petals lanceolate reflexed  
 3887 Leaves lanceolate convex beneath, Corymbs small axillary, Petals lanceolate  
     § 4. *Shrubby, Leaves broad, very closely imbricated.*  
 3888 Leaves round imbricated, Fascicle round terminal  
 3889 Leaves ovate acute smooth imbricated in rows, Flowers axillary sessile  
 3890 Leaves radical decussately imbricated fringed lanceolate cultrate hoary  
     § 5. *Shrubby, Leaves broad, very much perfoliate.*  
 3891 Leaves connate perfoliate cordate dotted  
 3892 Leaves opposite ovate dotted fringed, Lower oblong  
 3893 Leaves cordate perfoliate acuminate flat spreading dotted within the edge  
 3894 Stem flaccid creeping, Leaves opposite  
     § 6. *Shrubby, Leaves stalked.*  
 3895 Leaves stalked cordate roundish acute crenate, Corymbs panicle-shaped  
 3896 Leaves stalked cordate obtuse entire, Cymes panicle-shaped  
     § 7. *Herbaceous.*  
 3897 Villous, Leaves connate lanceolate fringed, Stem nearly naked terminal, Spike whorled  
 3898 Lower leaves distinct opposite tongue-shaped ciliated pubescent, Flowers whorled sessile close, Stem leafy  
 3899 Leaves connate oblong downy fringed, Stem rather naked, Flowers corymbose close  
 3900 Leaves oblong obtuse cartilaginous-fringed tufted, Scape paniced, Branches opposite cymose  
     § 8. *Annual or biennial.*  
 3901 Leaves connate oblong remote flat, Stem simple, Cyme compound, Flower stalks bent backwards  
 3902 Leaves cordate sessile, Peduncles terminal axillary approximate umbellate  
 3903 Stem dichotomous, Leaves sessile oblong ovate cordate flat, Peduncles axillary 1-flowered  
 3904 Stem dichotomous, Leaves sessile ovate oblong channelled recurved, Peduncles axillary 1-flowered  
 3905 Stem dichotomous rough, Leaves lanceolate, End flowers in bundles



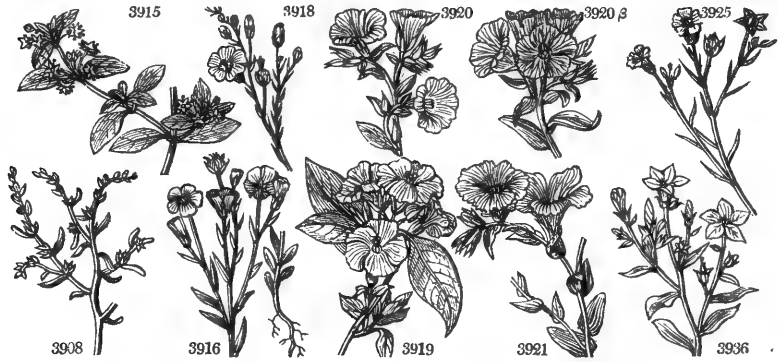
and Miscellaneous Particulars.

698. *Rochea*. Named after M. de la Roche, author of "Historia Eryngiorum," a work of reputation. This succulent genus thrives well in sandy loam, and requires but little water. "Young cuttings taken off and laid to dry a few days, and then potted, or stuck in the tan, will root directly." (*Sweet*.)

699. *Crassula*. From *crassus*, thick, in allusion to the fleshy nature of the leaves and stems of all the species. These plants grow best in sandy loam and brick rubbish, with the pots well drained. "Cuttings root



|                                  |                 |        |          |      |                 |         |    |                        |
|----------------------------------|-----------------|--------|----------|------|-----------------|---------|----|------------------------|
| 3906 glabra <i>Haw.</i>          | smooth-cluster. | □ pr   | ½ jn.o   | W    | C. G. H.        | 1774    | S  | a l                    |
| 3907 Aloidés <i>W.</i>           | Aloe-like       | □ pr   | ½ jn.au  | W    | C. G. H.        | 1774    | S  | a l                    |
| 3908 capitella <i>W.</i>         | square-spiked   | □ pr   | ½ jl.au  | W    | C. G. H.        | 1774    | S  | a l                    |
| 3909 rubens <i>W.</i>            | annual red      | □ pr   | ½ my.jn  | Pk   | Italy           | 1759    | S  | a l                    |
| 3910 verticillaris <i>W.</i>     | whorl-flowered  | □ pr   | ½ jl     | Pk   | S. Europe       | 1788    | S  | a l                    |
| 3911 expansa <i>W.</i>           | awl-leaved      | □ pr   | ½ jn.jl  | W    | C. G. H.        | 1774    | S  | a l                    |
| 3912 sparsa <i>W.</i>            | alternate-lvd.  | □ pr   | ½ jn.jl  | W    | C. G. H.        | 1774    | S  | a l                    |
| 3913 diffusa <i>W.</i>           | diffuse         | □ pr   | ½ jn.jl  | Pk   | C. G. H.        | 1774    | S  | a l                    |
| 3914 moschata <i>W.</i>          | musky           | □ pr   | ½ my.n   | W    | N. S. W.        | 1794    | S  | a l                    |
| 700. GISEKIA. <i>W.</i>          | GISEKIA.        |        |          |      |                 |         |    |                        |
| 3915 pharaceoides <i>W.</i>      | trailing        | □ cu   | 1 jn     | P.Gr | E. Indies       | 1783.   |    | Rox. cr. 2. t.183      |
| 1701. LINUM. <i>W.</i>           | FLAX.           |        |          |      |                 |         |    |                        |
| 3916 usitatissimum <i>W.</i>     | common          | ○ ag   | 1½ jn.jl | B    | Britain         | co. fi. | S  | co Eng. bot. 1357      |
| 3917 nervosum <i>W. &amp; K.</i> | nerved          | △ or   | 1½ jn.jl | B    | Hungary         | 1892.   | D  | co Wal. & kit. t.105   |
| 3918 perenne <i>W.</i>           | perennial       | △ or   | 3 jn.au  | B    | England         | ch. so. | D  | co Eng. bot. 4. t.105  |
| 3919 trigynum <i>Sm.</i>         | three-styled    | □ pr   | 2 ja.o   | Y    | E. Indies       | 1799.   | C  | p l Bot. mag. 1100     |
| 3920 hirsutum <i>W.</i>          | hairy           | △ or   | 1½ jl.au | B    | Austria         | 1759.   | D  | co Jac. aust. 1. t. 31 |
| β hypericifolium <i>Sims.</i>    | Mallow-flower.  | △ or   | 1½ jn.jl | Pu   | Caucasus        | 1807.   | D  | co Bot. mag. 1048      |
| 3921 ascyrifolium <i>H. K.</i>   | blue and white  | △ or   | 1 jl.au  | W    | Portugal        | 1800.   | D  | co Bot. mag. 1067      |
| 3922 narbonense <i>W.</i>        | Narbonne        | △ or   | 2 my.jl  | B    | S. France       | 1759.   | D  | co Bot. cab. 190       |
| 3923 reflexum <i>W.</i>          | reflex-leaved   | △ or   | 1 jl     | B    | S. Europe       | 1777.   | D  | co                     |
| 3924 tenuifolium <i>W.</i>       | slender-leaved  | △ or   | 1½ jn.jl | Pk   | Europe          | 1759.   | D  | co Jac. aus. 3. t.215  |
| 3925 angustifolium <i>H. K.</i>  | narrow-leaved   | △ or   | 1 jl     | Pu   | England sa. pa. | D       | co | Eng. bot. 381          |
| 3926 gallicum <i>W.</i>          | annual-yellow   | △ or   | 1 jl.au  | Y    | France          | 1777.   | S  | co Ger. pr. t. 15. f.1 |
| 3927 maritimum <i>W.</i>         | sea             | △ or   | 2 jl.au  | Y    | S. Europe       | 1596.   | D  | co Jac. vin. 2. t. 154 |
| 3928 alpinum <i>W.</i>           | Alpine          | △ or   | ½ jl.au  | B    | Austria         | 1739.   | D  | co Sweet fl. g. 17     |
| 3929 austriacum <i>W.</i>        | Austrian        | △ or   | 1 jn.jl  | B    | Austria         | 1775.   | D  | co Bot. mag. 1086      |
| 3930 virginianum <i>W.</i>       | Virginian       | △ or   | 1 jl     | Y    | N. Amer.        | 1807.   | D  | co                     |
| 3931 rigidum <i>Ph.</i>          | stiff-leaved    | △ or   | 1 jl     | P.Y  | Missouri        | 1807.   | S  | co                     |
| 3932 flavum <i>W.</i>            | yellow          | △ or   | ½ jn.au  | Y    | Austria         | 1793.   | C  | p l Bot. mag. 312      |
| 3933 campanulatum <i>W.</i>      | glaucous-leaved | △ or   | ½ jn.au  | Y    | Europe          | 1795.   | C  | p l Bot. cab. 1254     |
| β tauricum <i>W. en.</i>         | Taurian         | △ or   | ½ jn.au  | Y    | Tauria          | 1795.   | C  | p l                    |
| 3934 strictum <i>W.</i>          | upright         | △ or   | 1 my.jl  | Y    | S. Europe       | 1759.   | C  | p l                    |
| 3935 suffruticosum <i>W.</i>     | Spanish         | □ or   | 1 au     | Pk   | Spain           | 1759.   | C  | p l Cav. ic. 2. t. 108 |
| 3936 arboreum <i>W.</i>          | tree            | □ or   | 2 my.au  | Y    | Candia          | 1788.   | C  | p l Bot. mag. 234      |
| 3937 africanum <i>W.</i>         | African         | □ or   | 1 jn.jl  | Y    | C. G. H.        | 1771.   | S  | p l Bot. mag. 403      |
| 3938 nodiflorum <i>W.</i>        | knotted         | □ w    | ½ jl.au  | W    | Italy           | 1759.   | D  | s l Moris.s.5.t.6.f.11 |
| 3939 catharticum <i>W.</i>       | purging         | □ w    | ½ jn.au  | W    | Britain         | dr. pa. | S  | p l Eng. bot. 382      |
| 3940 quadrifolium <i>W.</i>      | four-leaved     | □ or   | 2 my.jn  | Y    | C. G. H.        | 1787.   | S  | p l Bot. mag. 431      |
| 702. DRO'SERA. <i>W.</i>         | SUN-DEW.        |        |          |      |                 |         |    |                        |
| 3941 rotundifolia <i>W.</i>      | round-leaved    | ≡ pr   | ½ jl.au  | W    | Britain         | tur.bo. | S  | p Eng. bot. 867        |
| 3942 longifolia <i>W.</i>        | long-leaved     | ≡ pr   | ½ jl.au  | W    | Britain         | tur.bo. | S  | p Eng. bot. 868        |
| 3943 anglica <i>H. K.</i>        | great           | ≡ pr   | ½ jl.au  | W    | England         | tur.bo. | S  | p Eng. bot. 869        |
| 3944 filiformis <i>Ph.</i>       | thready-leaved  | ≡ pr   | ½ my.jn  | Pu   | N. Jersey       | 1811.   | S  | p                      |
| 703. COMMERSO'NIA. <i>W.</i>     | COMMERSONIA.    |        |          |      |                 |         |    |                        |
| 3945 platyphyla <i>B. M.</i>     | broad-leaved    | ≡ □ or | 3 jn.jl  | W    | Moluccas        | 1806.   | C  | l p Bot. mag. 1813     |
| 3946 dasyphyla <i>B. Rep.</i>    | hairy-leaved    | ≡ □ or | 4 ap.my  | W    | N. Holl.        | 1808.   | C  | l p Bot. rep. 603      |



History, Use, Propagation, Culture,

easily if laid to dry a few days after cutting off, before they are planted, to dry up the wound, that they may not rot. They require no covering, but may be placed in any convenient situation." (Sweet.)

700. *Gisekia*. In honor of P. D. Giseke, a Danish botanist, who lived about the end of the last century. A small weed-like plant, with the habit of *Chenopodium*.

701. *Linum*. *Lin*, in Celtic, signifies thread, whence *linen*, in Greek, and *linum*, and its derivations, in Latin. *L. usitatissimum*, is a well known thread or clothing plant, which has been cultivated from the remotest antiquity for its cortical fibres, or boon, which, when separated from the woody matter or hark, as it is technically called by the growers, forms the lint and tow which is spun into yarn, and wove into linen cloth. The seeds are sown on well comminuted loamy soil, which is in good heart, in April, broadcast: during summer weeds are carefully removed; and when the plant is in full flower, or (if seed is desired) when the seed capsules are ripe, it is pulled up by the roots, the capsules torn off by a comb, and the stalks tied in bundles and carried to a pond or pool of stagnated water. Into this water the bundles are thrown, and kept under the surface by being loaded with planks, stones, &c. for ten days or a fortnight, till an appearance of decay or softness is indicated by the bark; they are then taken out and spread on the grass, or on the gravelly banks of a river for a fortnight, where the alternate dews and heats accelerate the progress of decay. It is next taken up, and when quite dry tied into bundles and stacked till wanted by the flax-cleaner. Some cultivators do not steep the flax in water, but only spread it on the surface of grass ground, which is called dew-retting, and has nearly the same effects as the other; but the more recent practice, not yet however very general, is neither to steep or dew-ret, but to dry, bind, and stack as in saving a crop of corn, and afterwards to separate the capsules and the fibre by machinery. By this process the fibre is obtained of much greater

3906 Stem dichotomous pubescent, Leaves linear-lanceolate, End flowers in bundles  
 3907 Leaves ovate acute distinct ciliated, Stem simple downy, Raceme compound, Branches panicled  
 3908 Leaves oblong lanceolate acute connate ciliated, Stem smooth, Raceme elongated, Fl. in bundles sessile  
 3909 Leaves fusiform depressed, Cyme 4-fid leafy, Flowers sessile, Stamens reflexed  
 3910 Leaves spreading, Flowers whorled awned  
 3911 Leaves half cylindrical subulate channelled above spreading, Peduncles axillary solitary 1-flowered  
 3912 Leaves alternate somewhat spatulate acute entire, Raceme compound  
 3913 Leaves oblong narrowed at base remotely crenate, Peduncles opposite the leaves and axillary solitary  
 3914 Stem procumbent, Leaves connate oblong acute, Peduncles axillary 1-flowered, Flowers tetrandrous

3915 Leaves elliptical lanceolate

3916 Sepals ovate acute 3-nerved, Petals crenate, Leaves lanceolate, Stem nearly solitary  
 3917 Sepals and leaves lanceolate subulate 3-5 nerved smooth, Stems branched at end  
 3918 Sepals obovate obtuse about 5-nerved smooth, Stems numerous ascending  
 3919 Leaves elliptical acute nearly entire, Styles 3, Cap. ules 6-celled  
 3920 Sepals hairy acuminate, Leaves alternate; of the branches opposite

3921 Sepals hairy acuminate, Flowers spiked, Spikes revolute, Leaves cordate-ovate pubescent  
 3922 Sepals acuminate, Leaves lanceolate scattered upright rough acuminate, Stem rounded branched at base  
 3923 Sepals acuminate, Leaves ovate lanceolate acuminate reflexed smooth, Filaments connate  
 3924 Sepals acuminate, Leaves scattered setaceous rough backwards  
 3925 Sepals elliptical 3-nerved and capsules acuminate, Leaves linear lanceolate 3-nerved, Stems numerous  
 3926 Sepals subulate acute, Leaves linear lanceolate, Peduncles of panicle about 2-flowered, Flowers sessile  
 3927 Sepals ovate acute blunt, Leaves lanceolate lower opposite  
 3928 Sepals rounded obtuse, Leaves linear acutish, Stems declinate  
 3929 Sepals rounded obtuse, Leaves linear straight acute  
 3930 Sepals acute alternate, Capsules pointless, Stem panicled, Leaves lanceolate: radical ovate  
 3931 Sepals ovate acuminate 3-nerved fringed, Leaves very stiff short, Petals oblong very narrow  
 3932 Sepals acuminate scabrous, Leaves with two glands at base, smooth at edge, Cor. monopetalous  
 3933 Base of the leaves dotted with glands on both sides

3934 Sepals subulate, Leaves lanceolate upright mucronate rough at edge

3935 Leaves linear acute rough, Stems half shrubby

3936 Leaves wedge-shaped, Stems arborescent

3937 Leaves linear lanceolate, Flowers terminal stalked

3938 Flower leaves lanceolate, Flowers alternate sessile, Cal. as long as leaves

3939 Leaves obovate lanceolate entire, Stem dichotomous upwards, Petals acute

3940 Leaves 4-together

3941 Leaves orbicular radical, Scape racemose erect

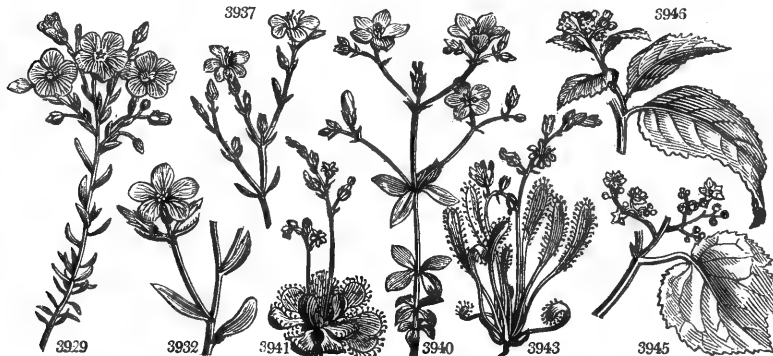
3942 Scapes radical ascending, Leaves oval, Stigmas emarginate

3943 Scapes radical erect, Leaves oblong lanceolate, Stigmas clavate

3944 Scapes radical branched, Leaves filiform very long

3945 Leaves cordate ovate acuminate unequally tooth-serrated, rough above downy beneath

3946 Leaves long cordate unequally serrate hairy on both sides



and Miscellaneous Particulars.

strength; there is less loss of seed, less demand for labor at a busy season, and the refuse of the operation forms an excellent food for horses or cattle. The machines for breaking and cleaning flax are worked by hand, and the best at present is considered that of Bundy. The process of steeping and spreading flax has the further effect on the fibre of bleaching it: when the machine is used, the bleaching progress is effected by steeping in soft soap. Flax seed yields by expression a valuable oil; in powder it is much used in poultices; and the refuse, after pressing for oil, forms a cake fit to feed broken-winded horses, to fatten cattle, and for manure.

L. perenne may be used for the same purpose as the other: both species have been proposed by some gardeners to be adopted as border-flowers.

702. *Drosera*. From *drosos*, dew, on account of the pellucid dew-like glands on the surface of the leaves, whence also our English name *sun-dew*. The famous Italian liqueur is called *Rosoli*, on account of the usage of this plant in its composition. *D. rotundifolia* is an acrid caustic plant, by some supposed to occasion the rot in sheep: it curdles milk, removes warts and corns, and takes away freckles and sunburn; distilled with wine it produces a very stimulating spirit, and it was formerly much used as a tincture spiced and sweetened. The leaf hairs support globules of clear liquor even in the hottest weather, are very irritable, and close upon small insects that touch them, after which the leaf itself bends and holds the dead insect imprisoned.

703. *Commersonia*. Named by Forster in memory of M. Commerson, the French traveller and botanist, who accompanied Bougainville in his voyage round the world. He stopped at the Isle of France, where he died in 1774, after having discovered an immense quantity of new plants. *C. daayphylla* is a pretty flowering shrub: both species grow freely from cuttings in sand under a hand-glass.

| 704. RULINGIA. <i>R. Br.</i> RULINGIA.     |                                |                 |     | <i>Butineriaceae. Sp. 1.</i> |    |    |       |                                 |   |
|--|--------------------------------|-----------------|-----|------------------------------|----|----|-------|---------------------------------|---|
| 3947                                       | pannōsa <i>R. Br.</i>          | cloth-leaved    | ■ □ | or                           | 1  | my | W     | N. Holl                         | 1819. C lp Bot. mag. 219t                   |
| 705. ARMERIA. <i>W. en.</i> THRIFT.        |                                |                 |     |                              |    |    |       | <i>Plumbagineae. Sp. 11—20.</i> |   |
| 3948                                       | vulgāris <i>W. en.</i>         | common          | ■   | △                            | or | ½  | jn.au | R                               | Europe ... D co Sch.bot.han.t.87            |
| 3949                                       | maritima <i>W. en.</i>         | sea-side        | ■   | △                            | or | ½  | my.jl | Ru                              | Britain sea.co. D s.l Eng. bot. 236         |
| 3950                                       | alpina <i>W. en.</i>           | flat-stemmed    | ■   | △                            | or | ½  | my.au | Pu                              | Carinthia ... D s.l                         |
| 3951                                       | arenaria <i>P. S.</i>          | sand            | ■   | △                            | or | ½  | my.au | Pk                              | France ... D s.l                            |
| 3952                                       | littorālis <i>W. en.</i>       | ciliated        | ■   | △                            | or | 1  | my.au | Pk                              | S. Europe ... D s.l                         |
| 3953                                       | alliacea <i>W.</i>             | Garlic-leaved   | ■   | △                            | or | 1  | my.jn | W                               | Spain 1798. D s.l Cav. ic. 2. t. 109        |
| 3954                                       | denticulata <i>Bertoloni.</i>  | toothed         | ■   | △                            | or | 1½ | my.jn | F                               | Naples 1816. D s.l                          |
| 3955                                       | plantaginea <i>W. en.</i>      | Plantain-leaved | ■   | △                            | or | 1  | my.jn | R                               | S. Europe 1816. D s.l                       |
| 3956                                       | scorzoneraefolia <i>W. en.</i> | large-headed    | ■   | △                            | or | 1  | my.jn | S                               | S. Europe 1816. D s.l                       |
| 3957                                       | latifolia <i>W. en.</i>        | broad-leaved    | ■   | △                            | or | 2  | my.jl | L.R                             | Algarbia 1740. D p.l Jac. vind. 1. t. 42    |
| 3958                                       | fasciculata <i>W. en.</i>      | bundled         | ■   | △                            | or | 1  | ap.au | Pu                              | Portugal ... D s.l Vent. cels. t. 38        |
| 7706. STATICE. <i>W. en.</i> SEA-LAVENDER. |                                |                 |     |                              |    |    |       | <i>Plumbagineae. Sp. 32—70.</i> |   |
| 3959                                       | graminifolia <i>W.</i>         | Grass-leaved    | ■   | △                            | or | 1  | jn.jl | R                               | Siberia 1780. D s.l                         |
| 3960                                       | Limonium <i>W.</i>             | common          | ■   | △                            | or | 1  | my.au | B                               | England mud.s. D s.l Eng. bot. 102          |
| 3961                                       | Gmelini <i>W.</i>              | Gmelin's        | ■   | △                            | or | 1  | jn.au | B                               | Siberia 1796. D s.l Gmel. sib. 2. t. 90     |
| 3962                                       | scoparia <i>W.</i>             | Broom           | ■   | △                            | or | 1  | jn.au | B                               | Siberia 1796. D s.l                         |
| 3963                                       | latifolia <i>W.</i>            | broad-leaved    | ■   | △                            | or | 1  | my.jl | B                               | Siberia 1791. D p.l                         |
| 3964                                       | oleifolia <i>W.</i>            | Olive-leaved    | ■   | △                            | or | 1  | my.au | R                               | Italy 1688. D s.l Scop. ins. 1. t. 10       |
| 3965                                       | auriculifolia <i>W.</i>        | Auricle-leaved  | ■   | △                            | or | ½  | jl.au | R                               | Barbary 1781. D s.l                         |
| 3966                                       | emarginata <i>W. en.</i>       | emarginate      | ■   | △                            | or | ½  | my.jl | B                               | Gibraltar ... D s.l                         |
| 3967                                       | cordata <i>W.</i>              | blunt-leaved    | ■   | △                            | or | ½  | my.jl | B                               | S. Europe 1752. D s.l Barr. ic. 805         |
| 3968                                       | scabra <i>W.</i>               | rough-branched  | ■   | △                            | or | 1  | my.jl | B                               | C. G. H. 1788. S r.m                        |
| 3969                                       | virgata <i>W. en.</i>          | twiggy          | ■   | △                            | or | 1½ | jn.au | B                               | Spain ... D s.l                             |
| 3970                                       | reticulata <i>W. en.</i>       | matted          | ■   | △                            | or | ½  | jl.au | B                               | England mud.s. D s.l Eng. bot. 328          |
| 3971                                       | caspia <i>W. en.</i>           | Caspian         | ■   | △                            | or | 1  | jl.au | P.B                             | Caspian Sea... S s.l Gm.sib. 2. t. 89. f. 2 |
| 3972                                       | echioides <i>W.</i>            | rough-leaved    | ■   | △                            | or | 1  | jl.au | P.B                             | S. Europe 1752. D s.l FL. græc. 298         |
| 3973                                       | spatulata <i>Desf.</i>         | spatula-leaved  | ■   | △                            | or | 1  | jn.au | Pu                              | Barbary 1804. D s.l Bot. mag. 1617          |
| 3974                                       | speciosa <i>W.</i>             | Plantain-leaved | ■   | △                            | or | 1  | jl.au | W                               | Russia 1776. D p.l Bot. mag. 656            |
| 3975                                       | conspicua <i>B. M.</i>         | showy           | ■   | △                            | or | 1  | jl.au | Pk                              | Russia 1804. D s.l Bot. mag. 1629           |
| 3976                                       | tatarica <i>W.</i>             | Tartarian       | ■   | △                            | or | 1½ | jn    | Pk                              | Russia 1731. D p.l Sweet fl. g. 37          |
| 3977                                       | flexuosa <i>W.</i>             | zigzag          | ■   | △                            | or | 1  | jl.au | Pu                              | Siberia 1791. S p.l                         |
| 3978                                       | purpurata <i>Thunb.</i>        | purple          | ■   | △                            | or | 6  | jn.jl | Pu                              | C. G. H. 1800. S p.l                        |
| 3979                                       | minuta <i>W.</i>               | small           | ■   | △                            | or | ½  | jn.jl | R                               | Mediterr. 1658. S p.l                       |
| 3980                                       | pectinata <i>W.</i>            | triangular-stk. | ■   | △                            | or | ½  | s.o   | B                               | Canaries 1780. S p.l                        |
| 3981                                       | suffruticosa <i>W.</i>         | narrow-leaved   | ■   | △                            | or | ½  | my.s  | B                               | Siberia 1779. C r.m Gm.s. 2. t. 88. f. 2. 3 |
| 3982                                       | monopetala <i>W.</i>           | Sicilian-shrub  | ■   | △                            | or | 3  | jl.au | Pu                              | Sicily 1731. C r.m Boc. sic. t. 16, 17      |
| 3983                                       | ferulacea <i>W.</i>            | Fennel-leaved   | ■   | △                            | or | 1  | my    | Y                               | Siberia 1796. D s.l Bot. alm. t. 28. f. 4   |
| 3984                                       | sinuata <i>W.</i>              | scollop-leaved  | ■   | △                            | or | 1  | my.s  | P.Y                             | Levant 1629. S r.m Bot. mag. 71             |
| 3985                                       | alata <i>W. en.</i>            | winged          | ■   | △                            | or | 1  | jn.au | P.Y                             | ..... 1806. D s.l                           |
| 3986                                       | mucronata <i>W.</i>            | curled          | ■   | △                            | or | ½  | jn.au | R                               | Barbary 1784. C r.m L'Her.stirp. t. 13      |
| 3987                                       | globularifolia <i>Desf.</i>    | tough-leaved    | ■   | △                            | or | 1  | my.s  | W                               | Sicily 1822. C r.m Barr. ic. t. 793         |
| 3988                                       | incana <i>L.</i>               | hoary           | ■   | △                            | or | 1  | jn.au | Pk                              | Egypt 1823. D r.m                           |
| 3989                                       | macrophylla <i>Link.</i>       | large-leaved    | ■   | △                            | or | 2  | my.jn | W                               | Canaries 1824. C r.m                        |
| 3990                                       | egyptiaca <i>Delisle.</i>      | Egyptian        | ■   | △                            | or | 1½ | my    | W                               | Egypt 1823. D r.m Bot. mag. 2363            |

POLYGYNIA.

|   |                       |               |   |                                |   |       |   |           |                             |
|---|-----------------------|---------------|---|--------------------------------|---|-------|---|-----------|-----------------------------|
| 707. MYOSURUS. <i>W.</i> MOUSE-TAIL.              |                       |               |   | <i>Ranunculaceae. Sp. 1.</i>   |   |       |   |           |                             |
| 3991  | minimus <i>W.</i>     | small         | ○ | cu                             | ½ | ap.my | Y | Britain   | cor. fl. S co Eng. bot. 435 |
| 708. CERATOCEPHALUS. <i>P. S.</i> CERATOCEPHALUS. |                       |               |   | <i>Ranunculaceae. Sp. 1—2.</i> |   |       |   |           |                             |
| 3992  | falcatus <i>P. S.</i> | sickle-leaved | ○ | w                              | ½ | my    | Y | S. Europe | 1739. S co Jac. aust. t. 48 |



History, Use, Propagation, Culture,

704. *Rulingia*. Named in honor of J. P. Ruling, author of an Essay on the Natural Orders. A plant related to *Commersonia*.

705. *Armeria*. Derivation unexplained. This is a genus of handsome plants, for the most part well suited for rock-work, or growing in pots. A. vulgaris is considered the most valuable edging plant next to the box.

706. *Statice*. From στασις, to stop. This plant, says Pliny, stops diarrhoea. This is a very ornamental

3947 The only species

- 3948 Scape rounded smooth, Outer leaves of involucrem acute, Leaves linear flat obtuse
- 3949 Scape rounded pubescent, Leaves of involucre obtuse, Leaves linear flat obtuse ciliated at base
- 3950 Scape compressed smooth, Leaves of involucre ellipt. rounded, Leaves lin. flat acute membr. at edge
- 3951 Scape long, Bractes 2 or 3 longer than head, Leaves linear stiff smooth
- 3952 Scape rounded smooth, Outer leaves of involucre lanceol. acute as long as head, Leaves lin. flat fringed
- 3953 Scape rushy, Leaves linear lanceolate acute flat narrowed downwards
- 3954 Quite smooth, Scape simple, Leaves linear flat, the first toothletted, Leaves of involucre ovate lanc. acum.
- 3955 Scape rounded roughish, Outer leaves of invol. obl. ov. acute: inner obl. obtuse, Leaves lanc. flat 3-nerved
- 3956 Scape rounded smooth, Outer leaves of involucre elliptical mucronate, Leaves lanc. flat acute 3-nerved
- 3957 Leaves long lanceolate entire smooth 3-nerved acute soft, Leaves of involucre acute edged
- 3958 Scape rounded smooth, Leaves of involucre elliptical obtuse, Leaves linear acute channelled

- 3959 Branches 3-cornered, Leaves linear channelled
- 3960 Scape panicled rounded, Leaves wavy at edge oblong smooth obtuse mucronate beneath
- 3961 Scape panicled pubescent, Leaves elliptical mucronate beneath and nearly smooth
- 3962 Scape panicled much branched and lvs. ovate oblong obtuse somewhat wavy, beneath mucronate smooth
- 3963 Scape panicled much branched rough, Leaves pubescent, Hairs in starry bundles
- 3964 Scape panicled rounded, Lower branches sterile, Leaves oblong spatulate obtuse smooth nearly blunt
- 3965 Scape simple rounded, Spikes lateral and terminal 1-sided, Leaves spatulate acute
- 3966 Leaves spatulate emarginate, Scape erect panicled, Upper branches simple, Lower bifid, Flow. 1-sided
- 3967 Scape panicled, Leaves spatulate retuse
- 3968 Leaves somewhat radical obovate-oblong obtuse, Branches rough
- 3969 Lvs. lanc. wedge-shaped acute, Scape erect roughish branched panicled, Fl. 1-sided, Cal. at edge membr.
- 3970 Lvs. lanc. cuneate obtuse, Scape decumbent branched panicled, Fl. branches long, Bractes mem. at edge
- 3971 Lvs. spatul. ret. Scape erect branched rough, Sterile branches pectinate, Fl. very close, Brac. transparent
- 3972 Rough with hoary dots, Scape panicled rounded jointed much branched divaricating, Leaves spatulate
- 3973 Radical leaves spatulate obtuse glaucous entire on long stalks, Scape rounded, Flowers racemose 1-sided
- 3974 Scape branched nearly round, Branches 2-edged winged, Fl. imbricated, Lvs. obov. cuspidate mucronate
- 3975 Scape leafy, Branches 3-cor. winged, Fl. aggregate in interrupted spikes, Bractes acum. longer than cal.
- 3976 Scape dichotomous, Leaves lanceolate mucronate, Flowers alternate distant
- 3977 Scape dichotomous corymbose, Spike-headed, Fl. imbricated, Lvs. lanc. wedge-shaped mucronate 3-nerved
- 3978 Stem leafy, Leaves obovate wedge-shaped 3-nerved mucronate
- 3979 Stem shrubby leafy, Leaves clustered wedge-shaped smooth pointless, Scape few-flowered
- 3980 Stem and branches panicled 3-cornered, Leaves obovate stalked, Spikes 1-sided
- 3981 Stem shrubby naked above and branched, Heads sessile, Leaves lanceolate sheathing
- 3982 Stem shrubby leafy, Flowers solitary, Leaves lanceolate sheathing
- 3983 Stem shrubby branched, Branches imbricated, Paleæ with a bristle at end
- 3984 Stem herbaceous two-edged, Radical leaves lyrate; cauline linear
- 3985 Stem winged, Radical leaves sinuate; cauline lanceolate, Peduncles cuneate 3-winged
- 3986 Stem crisp, Leaves elliptical entire, Spikes 1-sided
- 3987 Scape panicled rounded, Branches clustered, Leaves obovate spatulate mucronate smooth, Cal. acute
- 3988 Scape panicled, Leaves lanceolate 3-nerved wavy mucronate at end, Branches of panicle 3-cornered
- 3989 Leaves broad lanceolate glaucous mucronate, Scape winged, Flowers close corymbose
- 3990 Radical leaves alternately pinnatifid sinuated, Intermediate segments of cor. linear

POLYGYNIA.

3991 Leaves quite entire

3992 Horns of the pericarp falcate ascending



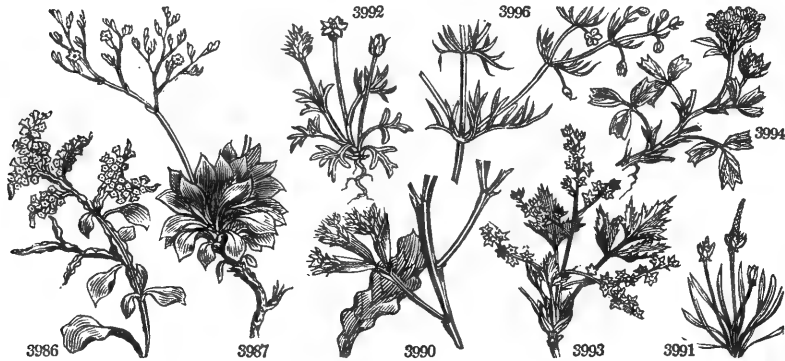
and Miscellaneous Particulars.

genus; the species are not common, and require a little care in cultivation. *Statice speciosa* and *tatarica*, are among the prettiest of hardy border flowers. *S. limonium* is an inhabitant of salt marshes in many parts of England, whence its name, from *λειμων*, a marsh.

707. *Myosurus*. From *μυς* *μυς*, a mouse, and *ουρα*, a tail. Its seeds are situated upon a very long slender receptacle, which looks exactly like the tail of a mouse.

708. *Ceratocephalus*. From *κερας*, a horn, and *κεφαλη*, a head, on account of the horn-like ends of the seeds in the heads of the capsules.

|  |                |    |      |                              |                         |                |         |                           |
|--|----------------|----|------|------------------------------|-------------------------|----------------|---------|---------------------------|
| 709. XANTHORHIZA. <i>W.</i> YELLOW-ROOT. |                |    |      | <i>Ranunculaceae. Sp. 1.</i> |                         |                |         |                           |
| 3953 <i>apiifolia W.</i>                 | Parsley-leaved | as | or 3 | f. ap                        | Fu. Gr N. Amer.         | 1766.          | Sk s p  | Bot. mag. 1736            |
| 710. SIBBALDIA. <i>W.</i>                | SIBBALDIA.     |    |      |                              | <i>Rosaceae. Sp. 2—</i> |                |         |                           |
| 3994 <i>procumbens P. S.</i>             | procumbent     | 2  | Δ    | cu                           | 3 jn. au Y              | Britain        | sc. al. | D s l Eng. bot. 897       |
| 3995 <i>parviflora P. S.</i>             | small-flowered | 2  | Δ    | cu                           | 3 jn. au Y              | Cappadocia ... | D s l   |                           |
| 3996 <i>erecta W.</i>                    | upright        | 2  | Δ    | cu                           | 3 jn. au Pk             | Siberia        | 1806.   | D s l Am. rut. 112. t. 15 |



*History, Use, Propagation, Culture, and Miscellaneous Particulars.*

709. *Xanthorhiza*. From *ξανθός*, yellow, and *ρίζα*, a root, on account of the deep yellow color of the roots. A small shrub, with much cut leaves, and branches of dull purplish brown small flowers.

710. *Sibbaldia*. So named by Linnæus, in memory of Sir Robert Sibbald, professor of physic at Edinburgh; author of *Scotia Illustrata*, &c. 1684. Small alpine plants, with the aspect of *Alchemilla*.



CLASS VI. — HEXANDRIA. 6 STAMENS.

This class contains the most beautiful of the herbaceous plants of our gardens. With a few exceptions, it is to a considerable degree a natural assemblage, comprehending a large proportion of those favorites of gardeners, the orders *Amaryllideæ*, *Asphodeleæ*, *Bromeliaceæ*, *Liliaceæ*, and *Melanthaceæ*. The class also includes a few grasses and palms, some genera of *Berberideæ*, all *Hypoxideæ*, and many *Juncææ*.

The *Amaryllideæ*, or lilies of the hot-houses, consist of a number of beautiful species, the generic distribution of which is uncertain, and difficult to determine. Much attention has been paid to the subject by Messrs. Ker, Herbert, and others; by the former, perhaps, with the most success; a great deal still remains to be done. The limits of the genera are very obscure, and their extreme characters similar. Among the *Bromeliaceæ* are found the delicious pine-apple, and the curious *Tillandsias*, some of which are called air-plants. The asparagus and the official squill are included in *Asphodeleæ*. To the same class are related the lily of the valley, the Solomon's seal, and many other curious little plants. The *Phormium tenax*, which produces the strong flax of New Zealand; the aloes, curious for their fantastic foliage; the fragrant tuberose; the plantains, so valuable as an important article of food in all the tropics, are all contained in this class. Hither also, are referred the valuable rice, the curious bamboo, and the rush, some of the species of which are well known for their use in œconomical purposes, others as the most worthless weeds of our heaths.

Hexandria Trigynia is chiefly made up of the natural order *Melanthaceæ*, among which the *Colchicum* and *Trillium* are found.

Order 1. MONOGYNIA.  6 Stamens. 1 Style.

1. *Monocotyledons. Perianth superior, colored.*

A. *Perianth with the orifice surmounted by a corona or nectary.*

711. *Narcissus*. Sepals 6, equal. Cup funnel-shaped, of a single leaf. Stamens inserted within the cup.  
 712. *Pancreatium*. Flower funnel-shaped, with a long tube. Sepals 6. Cup 12-cleft, membranous. Stamens inserted on the edge of the cup.  
 713. *Eucrosia*. Flower ringent nodding. Crown formed by the dilated bases of the stamens. Stamens declinate, united into a tube, which is split on its upper side.  
 714. *Eurycles*. Flower funnel-shaped, regular. Crown fleshy, short. Stamens inserted into the edge of the cup.  
 715. *Chlidanthus*. Flower funnel-shaped, irregular. Stamens erect, included, united by their dilated bases; the short filaments 2-toothed. Anthers innate. Ovary 3-celled, many-seeded. Style filiform. Stigma 3-lobed. Capsule cartilaginous, 3-valved. Seeds membranous.  
 716. *Colostemma*. Flower funnel-shaped, with a 6-parted limb. Crown tubular, with a 12-toothed mouth, the alternate teeth anther-bearing. Ovary 1-celled, 2,3-seeded. Style filiform. Stigma obtuse. Berry 1-2-seeded.  
 717. *Chrysiophiala*. Flower funnel-shaped, with a tube narrowed downwards thickened at the base, with a dilated 6-cleft limb. Crown 6-cleft. Stamens erect, upright. Stigma thickened, obsoletely trifid.

3993 Roots very yellow, Leaves compound

3994 Leaves ternate, Leaflets smooth above hairy beneath, Flowers corymbose, Petals as long as calyx  
 3995 Procurrent, Leaves ternate, Leaflets 3-toothed on each side rough with hairs, Flowers clustered  
 3996 Leaflets linear multifid, Plant erect

B. *Perianth with the orifice naked.*

\* *Stigma undivided.*

718. *Lophiola*. Flower woolly, 6-parted, bearded inside. Anthers erect. Filaments naked. Ovary nearly superior.

719. *Argolasia*. Flower woolly, longer than the filaments: limb 6-parted, spreading. Pericarp 3-celled.  
 720. *Anigozanthus*. Flower tubular, incurved: with a 6-parted irregular limb. Stamens inserted into the mouth, ascending.

\* *Stigma 3-lobed.* Guzmanina has Perianth inferior.

721. *Musa*. Spathe superior. Cor. of 2 petals: one of which is erect and 5-toothed; the other concave and honey-bearing. Berry oblong, 3-cornered, many-seeded.

722. *Urania*. Cal. O. Cor. 3 petals. Nect. 2-leaved: one of the leaves bifid. Caps. 3-celled, many-seeded. Seeds in two rows with an arillus.

723. *Bonapartea*. Calyx 2-leaved. Petals 3 convolute. Stamens inserted in the receptacle. Anthers exerted. Style 3-cornered. Caps. 3-celled, 3-valved. Seeds numerous, terminated by a bristle.

724. *Agave*. Flower erect, tubular, or funnel-shaped. Filaments longer than flower, erect. Capsule triangular, many-seeded.

725. *Furcraea*. Flower campanulate, 6-parted. Stamens inserted in a gland, thickened downwards, compressed, subulate at end. Capsule 3-valved, 3-celled, many-seeded.

726. *Bromelia*. Cal. 3-fid. Petals 3. A honey-bearing scale at base of petal. Berry 3-celled.

727. *Guzmania*. Cal. 3-parted, not superior, with convolute segments. Petals 3, rolled together into a tube. Anthers united in a cylinder. Caps. 3-celled, 3-valved. Seeds numerous, oblong, naked.

728. *Puccinia*. Cal. 3-leaved, half inferior. Petals 3. Stigmas 3, twisted together. Caps. 3, opening inwards. Seeds winged or terminated at each end in a long bristle.

729. *Tilandsia*. Cal. 3-fid, persistent, convolute. Cor. 3-fid, campanulate. Caps. 1-3-celled. Seeds comose.

730. *Pontederia*. Flower monosepalous, 6-cleft, 2-lipped. Stamens inserted into the tube of flower at the top. Caps. 3-celled.

731. *Hæmanthus*. Involucre many-leaved, many-flowered. Flower 6-parted. Berry 3-celled.

732. *Galanthus*. Sepals 3, concave. Cup formed of 3 small emarginate sepals. Stigma simple.

733. *Leucoium*. Flower campanulate, 5-parted, with the ends of the sepals thickened. Stigma simple.

734. *Sirumaria*. Sepals 6, spreading. Style thickened below the middle, and cohering occasionally with the filaments. Stigma trifid. Capsule inferior, roundish, 3-celled.

735. *Crinum*. Flower funnel-form, half six-cleft, with a filiform tube, and a spreading recurved limb. Sepals subulate, channelled. Seeds fleshy.

736. *Cyrtanthus*. Flower incurved, tubular, clavate, 6-cleft: segments ovate, oblong. Filaments inserted into the tube, conniving at end.

737. *Brunsvigia*. Flower 6-parted. Capsule turbinate, 3-winged, nearly transparent, many-seeded.

738. *Nerine*. Sepals 6, spreading, wavy. Stamens declinate, unequal in direction or proportion. Capsule few-seeded. Seeds round like peas.

739. *Amaryllis*. Flower nodding, irregular, funnel-shaped, ringent. Filaments declinate, unequal in proportion or direction. Seeds flat, numerous.

740. *Fallola*. Flower vertical, regular. Stamens regularly spreading. Seeds numerous, flat.

741. *Griffisia*. Flower 6-parted, ringent. Stamens declinate, with the upper one erect, and away from the rest. Seeds few, round, fleshy.

742. *Sternbergia*. Flower vertical, regular, funnel-shaped, with an erect limb. Stamens slightly declinate. Anthers versatile. Seeds round like peas.

743. *Zephyranthes*. Flower vertical, nearly regular, funnel-shaped, with an erect limb. Stamens nearly regular. Anthers versatile. Seeds flat.

744. *Habranthus*. Flower campanulate, nodding. Stamens declinate, unequal, inserted into a fleshy rim of the base of the tube. Stigma 3-lobed.

745. *Doryanthes*. Flower 6-parted. Filaments shorter than flower. Anthers erect.

746. *Gethyllis*. Flower 6-parted, with a filiform very long tube. Spathe obliquely truncated. Berry clavate, radical, 1-celled.

747. *Polygonanthes*. Flower funnel-shaped, incurved. Filaments inserted into the throat. Ovary at the bottom of tube.

748. *Alostremeria*. Sepals 6, campanulate or 2-lipped, the two lower half-tubular at the base. Stamens declinate or erect. Stigmas 3, linear. Caps. roundish-oval, 3-6-angular, 3-valved, or pulpy within, and not opening.

749. *Conanthera*. Sepals 6, reflexed. Anthers united in an acute cone. Caps. oblong, 3-celled, 3-valved. Seeds few, roundish.

750. *Hypoxis*. Spathe 2-valved. Flower 6-parted, superior. Caps. long, narrow at the base. Seeds roundish, naked.

751. *Curculigo*. Sepals 6, flat. Spathe of one valve. Style very short. Stigmas 3, diverging. Caps. 1-celled, 4-seeded, spongy, beaked.

2. *Monocotyledons. Perianth inferior.*

A. *Perianth glumaceous, irregular.*

752. *Bambusa*. Scales 3, covering the 5-flowered spikelets. Glume 2-valved. Style bifid. Seed 1.

753. *Calamus*. Sepals 6. Berry dry, 1-seeded, imbricated backwards.

754. *Ehrharta*. Glume 2-valved, abbreviated, 1-flowered. Paleæ 4, in pairs, the outer compressed acinaciform, transversely wrinkled.

B. *Perianth not coloured, regular. Stems herbaceous. Aroidæ and Juncea.*

755. *Acorus*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Caps. 3-celled.  
 756. *Oromium*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Follicles 1-seeded.  
 757. *Tupistra*. Cor. 1-petalous, 6-fid, nearly equal. Anthers sessile in middle of sepals. Style 3 cornered, thick. Stigma clypeate, 3-lobed.  
 758. *Tacca*. Cal. 6-parted. Cor. 6-petalous, inserted into the calyx, bearing the anthers. Stigma stellate. Berry dry, hexangular, many-seeded.  
 759. *Aspidistra*. Cor. 1-petalous, 6-fid, equal. Anthers at bottom of tube. Style stipitate. Stigma clypeate.  
 760. *Juncus*. Sepals 6, persistent. Stigmas 3. Caps. 1-celled, 3-valved. Seeds very numerous.  
 761. *Luzula*. Sepals 6. Stigmas 3. Caps. 1-celled, 3-valved, 3-seeded. Seeds fixed to a central receptacle.

C. *Perianth not colored, regular. Fruit, a drupa. Stems arborescent. Palms.*

762. *Corypha*. Cal. 3-leaved. Cor. of 3-petals. Berry 1-seeded. Seed large, round, bony.  
 763. *Licuala*. Cal. 3-parted. Cor. 3-parted. Cup truncated, band-like. Drupe 1-seeded.  
 764. *Thrinax*. Cal. 6-toothed. Cor. O. Stigma funnel-form, oblique. Berry 1-seeded.

D. *Perianth partly or wholly colored, regular.*

765. *Tradescantia*. Cal. 3-leaved. Petals 3. Filaments with jointed hairs. Caps. 3-celled.  
 766. *Dichorizantra*. Cal. 3-leaved. Petals 3. Two of the stamens separate from the rest. Caps. 3-celled.  
 767. *Agapanthus*. Flower funnel-shaped, regular, six-parted. Stamens declinate.  
 768. *Andropogon*. Flower tubular, withering, with a 6-lobed mouth. Stamens inserted on the tube. Anthers fixed to a base like an extinguisher. Ovary stalked. Stigma simple. Capsule 3-partible. Seeds in two rows, with a loose downy skin.  
 769. *Hemerocallis*. Flower campanulate, with a cylindrical tube. Stamens declinate. Stigma small, simple, villous.  
 770. *Aloe*. Flower tubular, with a 6-cleft spreading mouth, and honey at the bottom of the tube. Filaments inserted into the receptacle. Caps. 3-celled, 3-valved, many-seeded. Seeds in two rows, with a membranous edge.  
 771. *Lilium*. Sepals 6, campanulate, with a longitudinal honey-line, and generally reflexed. Valves of the capsule connected by a mesh of hairs.  
 772. *Tulipa*. Sepals 6, campanulate. Style O.  
 773. *Fritillaria*. Sepals 6, campanulate, with a honey-pore above the claws.  
 774. *Dracena*. Flower 6-parted, erect. Filaments thickest in the middle, or simple. Berry 3-celled, 1-seeded.  
 775. *Phylloma*. Flower 6-parted, tubular. Sepals imbricated. Stamens hypogynous, included. Style setaceous. Stigma simple. Berry coriaceous, many-seeded.  
 776. *Aletris*. Flower funnel-shaped, wrinkled. Stamens inserted into base of segments. Capsule 3-celled, with many seeds.  
 777. *Tritoma*. Flower 6-toothed. Stamens inserted into the receptacle, exerted, alternately longer. Capsule 3-celled, many-seeded.  
 778. *Veltheimia*. Flower tubular, 6-toothed. Stamens inserted in the tube. Caps. membranous, 3-winged, with 1-seeded cells.  
 779. *Sansevieria*. Cor. monopetalous, with a filiform tube, and a 6-parted revolute limb. Stamens inserted into the limb. Berry 1-seeded.  
 780. *Tubaghia*. Flower funnel-shaped, with a 6-cleft limb. Crown of the throat 3-leaved; the leaves bifid as large as the segments.  
 781. *Yucca*. Flower campanulate, spreading. Style O. Caps. 3-6-celled, with a hole at the end.  
 782. *Erythronium*. Sepals 6, campanulate. Two little tubercles attached to the base of every other sepal.  
 783. *Gloriosa*. Sepals 6, wavy, reflexed. Style oblique, trifid at end.  
 784. *Bulbocodium*. Sepals 6, funnel-shaped, with narrow claws bearing the stamens.  
 785. *Uvularia*. Sepals 6, erect. A hollow at the base of the sepals. Filaments very short. Flowers solitary, axillary. Capsule compressed, 3-cornered. Seeds with an arillus.  
 786. *Streptopus*. Sepals 6, campanulate. Stigmas very short. Berry globose, polished, papery. Seeds naked.  
 787. *Convallaria*. Flower 6-cleft, campanulate. Berry spotted, 3-celled.  
 788. *Smilacina*. Flower 6-parted, spreading. Filaments diverging, fixed to the base of the segments. Berry globose, 3-celled. Flowers terminal, panicle, or umbelled.  
 789. *Polygonatum*. Flower 6-cleft, cylindrical. Filaments inserted into top of tube. Berry globose, 3-celled, with 2-seeded cells. Flowers axillary.  
 790. *Ophiopogon*. Flower half superior, persistent. Anthers sessile. Stigma simple. Berry 1-seeded.  
 791. *Eucomis*. Flower 6-parted, persistent, spreading. Filaments united at base into a circle. Capsule 3-celled. Seeds ovate. Scape with a leafy crown.  
 792. *Brodiaea*. Flower campanulate, 6-parted. Filaments inserted into the throat. Ovary stalked. Capsule 3-celled, with many-seeded cells.  
 793. *Peltosanthus*. Flower rotate, 6-parted; sepals vaulted at base. Ovary 3-celled, with 2-seeded cells.  
 794. *Aphyllanthes*. Spathe giuameous, imbricated. Flower 6-parted, with a spreading limb. Capsule 3-celled, 3-valved, many-seeded.  
 795. *Sowerbaea*. Sepals 6. Filaments 3, each bearing two anthers, with three sterile filaments between them.  
 796. *Allium*. Flower 6-parted, spreading. Spathe many-flowered. Umbel clustered.  
 797. *Albuca*. Sepals 6: the inner conniving; the outer spreading, generally with a green stripe at their back. Style 3-cornered. Seeds flat.  
 798. *Xanthorrhæa*. Sepals 6, persistent. Filaments flat, naked. Caps. 3-cornered. Seeds two, compressed, edged.  
 799. *Thysanotus*. Flower 6-parted, spreading, persistent; with the inner segments fringed. Stamens 6, declinate. Filaments smooth. Ovary with two seeded cells. Seeds 2, one erect, one pendulous.  
 800. *Eriospermum*. Sepals 6, campanulate, persistent. Filaments dilated at base. Caps. 3-celled. Seeds enveloped in wool.  
 801. *Gagea*. Stamens adhering to base of sepals. Style clavate. Caps. 3-celled, 3-valved, covered by the remains of flower. Seeds small, numerous, round.  
 802. *Ornithogalum*. Sepals 6, erect, persistent, spreading above the middle. Filaments dilated at base, or subulate. Caps. roundish, angular, 3-celled. Seeds roundish, naked. Flowers white or green.  
 803. *Scilla*. Sepals 6, spreading, deciduous. Filaments filiform, attached to base of sepals. Flowers blue or pink.  
 804. *Puschkinia*. Flower 6-parted. Cup very short, 6-toothed, covering the throat. Stamens within the cup.  
 805. *Massonia*. Limb of flower 6-parted. Filaments attached to the neck of the tube. Capsule 3-celled, 3-winged, many-seeded.

806. *Eremurus*. Sepals 6, after flowering, rolled together. Stamens naked, rolled together inside the flower, barren, much exerted. Style after fecundation reflexed.
807. *Bulbine*. Sepals 6, spreading. Filaments smooth. Caps. ovate. Seeds angular. Leaves flat. Flowers generally white or purple.
808. *Asphodelus*. Flower 6-parted, spreading. Six valves covering the ovary.
809. *Anthericum*. Sepals 6, spreading. Filaments bearded. Caps. ovate. Seeds angular. Leaves succulent, fistular. Flowers yellow.
810. *Arthropodium*. Sepals 6, spreading: the three inner wavy at the edge or fringed. Filaments bearded. Capsule nearly round.
811. *Chlorophyllum*. Flower 6-parted, spreading, equal, persistent. Stamens 6. Filaments filiform, smooth. Ovary with many-seeded cells. Style filiform. Stigma 1. Capsule deeply 3-lobed, with compressed veiny lobes; three-celled, 3-valved. Seeds few, compressed.
812. *Cesia*. Flower 6-parted, spreading, equal, deciduous. Stamens 6. Filaments beardless, narrow: at each end. Anthers inserted by an emarginate base. Ovary 3-celled, with 2-seeded cells. Style filiform. Capsule lobed, or clavate at end. Seeds ventricose.
813. *Nartheccium*. Sepals 6, spreading, persistent. Filaments filiform, hairy. Caps. prismatical. Seeds with an appendage at each end.
814. *Dianella*. Sepals 6, spreading. Filaments thickened at end. Berry 3-celled, many-seeded.
815. *Eustrephus*. Flower 6-parted, the 3 inner sepals fringed. Capsule berried, 3-celled, 3-valved, many-seeded.
816. *Asparagus*. Flower 6-parted erect; the 3 lower sepals reflexed at end. Berry 3-celled, many-seeded.
817. *Drimis*. Flower campanulate, 6-cleft, with revolute segments. Stamens inserted into the sepals. Stigma capitate.
818. *Uropetalon*. Flower six-cleft, with the alternate segments shortest. Capsule membranous. Seeds black, shining.
819. *Hyacinthus*. Flower erect, 6-cleft, with equal segments. Stamens inserted in the middle of the flower. Cells of capsule 2-seeded.
820. *Zuccagnia*. Sepals cylindrical: the 3 outer longest, lanceolate, setaceous, reflexed. The other characters of Hyacinthus.
821. *Muscari*. Flowers ovate or cylindrical, very shortly divided. The other characters of Hyacinthus.
822. *Lachenalia*. Sepals 6, obtuse, the 3 inner the longest. Stamens erect. Capsule 3-winged. Seeds globose.
823. *Phormium*. Sepals 6, the 3 inner the longest. Stamens ascending, exerted. Capsule oblong, 3-cornered. Seeds compressed.
824. *Cyanella*. Sepals 6: the 3 lower hanging down. Style and lowest stamen declinate. Capsule roundish, 3-celled.

3. *Dicotyledons*.

825. *Leontice*. Cal. 6-leaved, deciduous. Petals 6. Six leaves inserted upon the claws of the corolla, spreading at end.
826. *Caulophyllum*. Cal. 6-leaved. Petals 6, opposite the calyx. Cells of anther opening at edge.
827. *Diphylleia*. Cal. 3-leaved, deciduous. Petals 6, opposite the calyx. Anthers opening with a membrane dividing from the base to the tip. Berry 1-celled. Seeds 2-3, roundish.
828. *Prinos*. Cal. 6-cleft. Cor. monopetalous, rotate. Berry 6-seeded.
829. *Berberis*. Cal. 5-leaved. Petals 6, with glands upon their claws. Style O. Stigma umbilicate. Berry 1-celled, 2-4-seeded.
830. *Nandina*. Cal. many-leaved, imbricated. Petals 6. Berry juiceless, 2-seeded.
831. *Cossignia*. Cal. 5-parted. Petals 4 or 5. Capsule 3-celled, opening at end with about 3-seeded cells. Flowers in panicle racemes.
832. *Hillia*. Cal. double, the lower 6-leaved, the upper superior, 2 or 4-leaved. Cor. 6-cleft, with a very long cylindrical tube. Anthers sessile, in the throat of the corolla. Seeds comose.
833. *Richardia*. Cal. 6-parted, persistent, superior. Cor. funnel-form, 6-cleft. Stigmas 3, capitate. Fruit 3-partible. Seeds 5, truncate.
834. *Canarina*. Cal. 6-leaved. Cor. 6-cleft, campanulate. Stigmas 6. Capsule inferior, 6-celled, many-seeded.
835. *Frankenia*. Cal. 5-cleft, funnel-shaped. Petals 5. Stigma 2-3-parted. Caps. 1-celled, 3-valved.
836. *Peplos*. Cal. carpanulate, with a 12-cleft mouth. Petals 6 or 0, inserted in the calyx. Caps. 2-celled, many-seeded.

## Order 2. DIGYNIA.



6 Stamens. 2 Styles.

837. *Oryza*. Glumes 2, 1-flowered. Paleæ 2, nearly equal, adhering to the seed.

838. *Atraphaxis*. Cal. 2-leaved. Petals 2, situated. Stigmas capitate. Seed 1.

## Order 3. TRIGYNIA.



6 Stamens. 3 Styles.

1. *Monocotyledons*.

839. *Flagellaria*. Sepals 5. Berry 3-1-seeded.
840. *Scheuchzeria*. Sepals 6. Anthers linear. Stigmas sessile, lateral. Capsules inflated, distinct, 2-seeded.
841. *Triglochin*. Sepals 6, the 3 outer in a different row from the inner. Style O. Capsule opening by the base.
842. *Lichtensteinia*. Sepals 6, withering, persistent, wavy, spreading. Stamens hypogynous, shorter than the sepals. Capsule many-seeded, half 3-valved.
843. *Myrsiphyllum*. Flower 6-parted, revolute. Styles 3, contiguous, straight. Ovary stalked. Berry 3-celled, with 2-seeded cells.
844. *Tyfieldia*. Bractæ 3. Sepals 6. Capsules 3, superior, united at the base, many-seeded.
845. *Melanthium*. Polygamous. Flower rotate, 6-parted, with 2 glands at the base of each segment. Filaments from the elongated claws of flower. Capsule 3-fid, 3-celled. Seeds membranous.
846. *Medeola*. Flower 6-parted, revolute. Berry 3-seeded.
847. *Xerophyllum*. Flower 6-parted. Stigmas 3, oblong, sessile. Caps. 3-celled, with 2-seeded cells.
848. *Wurmbea*. Flower 6-parted, with an hexangular tube. Filaments inserted in the throat. Styles con-  
niving. Caps. oblong, 3-cornered. Seeds round.
849. *Androcymbium*. Sepals 6, unguiculate, cucullate. Stamens inserted in the middle of sepals. Ovaries 3. Styles filiform.
850. *Tritium*. Cal. spreading, 3-leaved. Petals 3. Berry 3-celled.
851. *Calchicum*. A spathe. Flower 6-parted, with a tube proceeding directly from the root. Anthers incumbent. Caps. 3, connected, inflated.
852. *Helonias*. Sepals 6. Styles 3, distinct. Capsule 3-celled, 3-horned, few-seeded.
853. *Nolina*. Flower 6-parted, spreading. Style very short. Capsule 3-cornered, membranous, 3-celled, opening by bipartible dissepiments. Seeds solitary, convex on one side.
854. *Aponogeton*. An amentum composed of scales. Neither calyx nor corolla. Capsules 4, 3-seeded. Stamens varying from 6 to 7 and 12.



855. *Sabal*. Spathes partial. Filaments free, thickened at base. Berry 1-3-seeded. Seed bony. Embryo lateral. A palm.

2. *Dicotyledons*.

856. *Rumex*. Calyx 3-leaved. Petals 3, conniving. Seed 1, 3-cornered.  
857. *Oxyria*. Calyx 2-leaved. Petals 2. Styles 2.

Order 4. POLYGYNIA.



6 Stamens. Many Styles.

858. *Wendlandia*. Sepals 6. Petals 6, succulent. Style reclinate. Caps. 6, 1-celled, many-seeded.  
859. *Damasonium*. Spathe 1-leaved, half-bifid, winged. Flowers superior, 6-parted, with the 3 inner segments petaloid. Stamens 6-12. Ovary with 6-8-parietal prominent placentas. Style short. Stigmas 6-12.  
860. *Actinocarpus*. Flower 6-parted: the 3 outer sepals falling off late, the inner petaloid. Stamens 6. Ovaries 6-8, connate at base, 2-seeded. Capsules connate at base, stellate above.  
861. *Alisma*. Flower 6-parted: the 3 outer sepals falling off late, like a calyx; the 3 inner petaloid. Stamens 6. Ovaries indefinite in number, 1-seeded. Capsules distinct, not opening.

MONOGYNIA.

| †711. NARCISSUS. W. |                            | NARCISSUS.      | <i>Amaryllidaceae.</i> |   | Sp. 55-59. |    |       |     |                 |   |     |                   |
|---------------------|----------------------------|-----------------|------------------------|---|------------|----|-------|-----|-----------------|---|-----|-------------------|
| 3997                | <i>poeticus</i> Sal.       | Poet's          | ♂                      | Δ | or         | 1  | my    | W   | S. Europe ...   | O | co  | Park. par. 76     |
| 3998                | <i>recurvus</i> Haw.       | drooping-leaf'd | ♂                      | Δ | or         | 1  | my    | W   | S. Europe ...   | O | co  |                   |
| 3999                | <i>patellaris</i> Sal.     | spreading-flow. | ♂                      | Δ | or         | 1  | my    | W   | England ...     | O | co  | Eng. bot. 275     |
| 4000                | <i>angustifolius</i> H. K. | narrow-leaved   | ♂                      | Δ | or         | 1  | ap.my | W   | S. Europe 1570. | O | co  | Bot. mag. 193     |
| 4001                | <i>biflorus</i> W.         | two-flowered    | ♂                      | Δ | or         | 1  | ap.my | W   | Britain mea.    | O | co  | Eng. bot. 276     |
| 4002                | <i>tenuior</i> H. K.       | slender         | ♂                      | Δ | or         | 1  | my    | L.Y | ..... 1789.     | O | co  | Bot. mag. 379     |
| 4003                | <i>crenulatus</i> Haw.     | Bazelman-min.   | ♂                      | Δ | or         | 1  | mr.ap | W   | Spain ...       | O | co  |                   |
| 4004                | <i>Trewianus</i> E. M.     | Bazelman-maj.   | ♂                      | Δ | or         | 1½ | mr.ap | W.Y | Spain ...       | O | r.m | Bot. mag. 940     |
| 4005                | <i>floribundus</i> Sal.    | Grand-Monarch   | ♂                      | Δ | or         | 1½ | mr.ap | W.Y | Spain ...       | O | r.m |                   |
| 4006                | <i>fistulosus</i> Haw.     | hollow-stalked  | ♂                      | Δ | or         | 2  | ap    | W.Y | .....           | O | r.m |                   |
| 4007                | <i>ceruus</i> Haw.         | waxen-cupped    | ♂                      | Δ | or         | 1  | ap    | W   | Spain 1759.     | O | r.m |                   |
| 4008                | <i>Tazetta</i> W.          | Polyanthus      | ♂                      | Δ | or         | 1  | mr.ap | W   | .....           | O | s.l | Bot. mag. 925     |
| 4009                | <i>Macleanii</i> Lindl.    | Mac Leay's      | ♂                      | Δ | or         | 1  | ap.my | W   | Mediterr. 1815. | O | s.l |                   |
| 4010                | <i>orientalis</i> L.       | oriental        | ♂                      | Δ | or         | 1  | mr.ap | W   | Levant ...      | O | co  | Bot. mag. 948     |
| 4011                | <i>papyraceus</i> B. M.    | paper           | ♂                      | Δ | or         | 1  | mr.ap | W   | .....           | O | co  | Bot. mag. 947     |
| 4012                | <i>italicus</i> B. M.      | Italian         | ♂                      | Δ | or         | 1  | mr.ap | P.Y | S. Europe ...   | O | co  | Bot. mag. 1188    |
| 4013                | <i>tereticaulis</i> L. T.  | round-stalked   | ♂                      | Δ | or         | 1½ | mr.ap | P.Y | Spain ...       | O | co  |                   |
| 4014                | <i>compressus</i> L. T.    | flat-stalked    | ♂                      | Δ | or         | 1  | mr.ap | L.Y | Spain ...       | O | co  |                   |
| 4015                | <i>bifrons</i> B. M.       | Jonquil-scent.  | ♂                      | Δ | or         | 1  | mr.ap | Y   | S. Europe ...   | O | co  | Bot. mag. 1186    |
| 4016                | <i>primulinus</i> Haw.     | Cowslip-cupped  | ♂                      | Δ | or         | 1  | mr.ap | Y   | .....           | O | co  | Bot. mag. 1299    |
| 4017                | <i>Jonquilla</i> W.        | Jonquil         | ♂                      | Δ | or         | 2  | ap.my | Y   | Spain 1596.     | O | r.m | Bot. mag. 15      |
|                     | <i>β flore-pleno</i>       | double          | ♂                      | Δ | or         | 1  | ap.my | Y   | Spain 1596.     | O | r.m |                   |
| 4018                | <i>gracilis</i> Lindl.     | slender         | ♂                      | Δ | or         | 1½ | ap.my | Y   | .....           | O | co  | Bot. reg. 816     |
| 4019                | <i>viridiflorus</i> B. M.  | green-flowered  | ♂                      | Δ | or         | 1  | au.o  | W   | Barbary 1629.   | O | r.m | Bot. mag. 1687    |
| 4020                | <i>serotinus</i> W.        | late-flowered   | ♂                      | Δ | or         | 1  | au.o  | P.Y | Barbary 1629.   | O | r.m | Clu. hist. t. 252 |
| 4021                | <i>calathinus</i> L.       | great Jonquil   | ♂                      | Δ | or         | 1  | ap.my | Y   | S. Europe 1629. | O | r.m | Bot. mag. 78      |
| 4022                | <i>odorus</i> L.           | sweet-scented   | ♂                      | Δ | or         | 1  | ap.my | Y   | S. Europe 1629. | O | s.l | Bot. mag. 934     |
| 4023                | <i>nitans</i> H. K.        | nodding         | ♂                      | Δ | or         | 1  | mr.my | Y   | S. Europe 1789. | O | s.l | Bot. mag. 945     |
| 4024                | <i>infundibularis</i> Sal. | funnel-flowered | ♂                      | Δ | or         | 1  | mr.my | Y   | .....           | O | s.l | Park. par. 92     |
| 4025                | <i>pulchellus</i> B. M.    | neat            | ♂                      | Δ | or         | 1  | mr.my | Y   | Spain ...       | O | s.l | Bot. mag. 1262    |
| 4026                | <i>triandrus</i> B. M.     | Rush-leaved     | ♂                      | Δ | or         | 2  | ap.my | W   | Portugal 1629.  | O | s.l | Bot. mag. 48      |
| 4027                | <i>capax</i> Sal.          | capacious       | ♂                      | Δ | or         | 1  | ap.my | P.Y | .....           | O | s.l | Red. lil. 177?    |
| 4028                | <i>montanus</i> B. Reg.    | snowdrop        | ♂                      | Δ | or         | 1  | ap.my | W   | Portugal ...    | O | s.l | Bot. reg. 123     |
| 4029                | <i>galanthifolius</i> Haw. | mountain-leav.  | ♂                      | Δ | or         | 1  | my    | W   | .....           | O | s.l | Park. par. 73     |
| 4030                | <i>albicans</i> Haw.       | whitish         | ♂                      | Δ | or         | 1  | mr.ap | P.Y | ..... 1789.     | O | s.l | Park. par. 106    |
| 4031                | <i>Bulbocodium</i> W.      | Hoop-petticoat  | ♂                      | Δ | or         | 1  | mr.ap | Y   | Portugal 1629.  | O | s.l | Bot. mag. 83      |
| 4032                | <i>inflatus</i> Haw.       | inflated        | ♂                      | Δ | or         | 1  | mr.ap | Y   | .....           | O | s.l |                   |
| 4033                | <i>lobulatus</i> Haw.      | lobed           | ♂                      | Δ | or         | 1  | ap.my | Y   | .....           | O | s.l |                   |
| 4034                | <i>tenuifolius</i> L. T.   | slender-leaved  | ♂                      | Δ | or         | 2  | ap.my | W   | .....           | O | s.l |                   |
| 4035                | <i>incomparabilis</i> W.   | Butter & Eggs   | ♂                      | Δ | or         | 1  | ap.my | Y   | Portugal 1629.  | O | co  | Bot. mag. 121     |
| 4036                | <i>tortuosus</i> Haw.      | twisted-petaled | ♂                      | Δ | or         | 1  | ap    | W   | Spain 1629.     | O | co  | Bot. mag. 924     |
| 4037                | <i>moschatus</i> L.        | musk            | ♂                      | Δ | or         | 1  | mr.ap | W   | Spain 1759.     | O | co  | Bot. mag. 1300    |



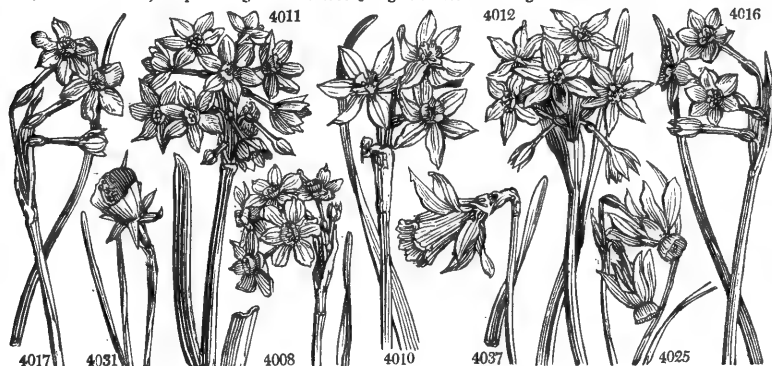
History, Use, Propagation, Culture,

711. *Narcissus*. From *νεμεν, stupor*, on account of the dangerous effects produced by the smell, even of the least perfumed kinds, upon the nerves. For this reason *Narcissus* was consecrated to the Furies, who by means of it were accustomed to stupefy those whom they wished to punish. *Jonquilla*, a name applied to one



## MONOGYNIA.

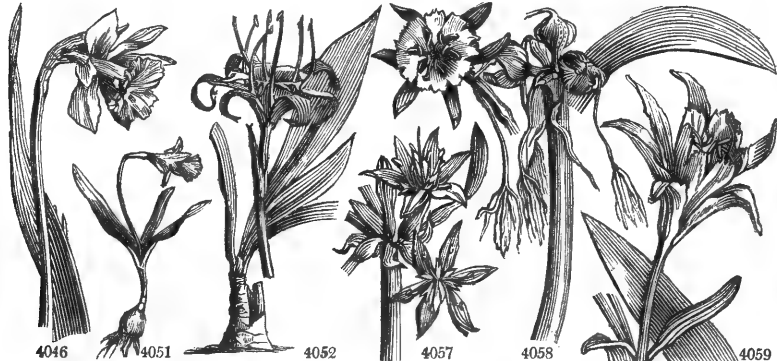
- 3997 Segm. refl. imbr. at base, Cup expanded flat, Three anthers shorter than the tube, Leaves erect narrow  
 3998 Lvs.  $\frac{1}{2}$  an inch broad glauc. at end rec. Seg. imbr. Cup plait. with scarlet rim, Stig. as long as inner stamens  
 3999 Lvs. erect glauc. Seg. imbric. with deflexed edges, Cup yel. minutely plaited, Stig. as long as inner stamens  
 4000 Seg. horizontal obo. not imbric. Cup saucer-shaped with very red edge, Lower anth. half included in tube  
 4001 Scape kneed before flowering usually 2-3-flowered, Cup all yellow  
 4002 Very slender, Spathe 1-2-f. Seg. white, Cup yellow cup-shaped 3 or 4 times as long as segm.  
 4003 About 3-flowered, Seg. reflexed white, Cup spreading plaited crenulate yellow  
 4004 Like *N. Tazetta*, differing in the 3-lobate cup, and in the edges of the upper leaves not being turned up  
 4005 Flowers about 16, Seg. round-oval reflexed incurved white, Cup large straight yellow entire  
 4006 Segm. white almost twice as long as the straight inflated nearly entire yellow cup  
 4007 2-3-f. Cup very large thick truncate entire waxen twice as short as white segm.  
 4008 Spathe many-flowered, Cup camp. truncate shorter than petals, Leaves flat  
 4009 Spathe 1-2-f. Scape compr. 2-edged, Sepals spread. imbricated a little longer than truncated entire cup  
 4010 About 10-f. Seg. white round ov. thrice as long as pale yel. spread. irreg. cut cup, Scape striat. rounded  
 4011 Few-flowered, Seg. stellate as long as tube, Cup cupulate crenate, Style within the crown  
 4012 Many-flowered, Cor. bent back, Segm. stellate, Cup spreading cupulate slightly trifid  
 4013 About 6-f. Seg. round-ovate imbr. white, Cup citron spreading entire or lobed, Scape rounded below  
 4014 Many-f. Pedunc. nearly erect, Seg. imbr. 3 times as long as the erect eroded cup, Lvs. remarkably broad  
 4015 Scape obtusely compressed smooth, Segm. very yellow ovate imbr. 3-4 times as long as cup  
 4016 Like the last, but the cup is more entire and the leaves broader  
 4017 Spathe 1-3-flowered, Seg. reflexed spatulate, Cup much shorter than seg. saucer-shaped spreading crenate  
 4018 12-18 inches high, Lvs. linear subulate chann. Scape rounded 1-2-f. Ovary inflated, Fl. sulphur-colored  
 4019 Leafless at flowering, Flowers green with acute segm.  
 4020 Spathe 1-flowered, Cup 6-parted very short, Leaves subulate  
 4021 About 3-flow. Cup obsoletely curled outside obtusely angular not twice as short as seg. Scape  $1\frac{1}{2}$  ft. high  
 4022 Segm. of stary cor. distinct at base, Cup even distinctly 6-lobed  
 4023 About 2-f. Seg. refl. pale yellow, twice as long as cup which is deeper col. trun. cylind. Style exserted  
 4024 A slight variety of *N. incomparabilis*  
 4025 1-7-f. Leaves erect, Segm. reflexed lanceolate longer than cup which is cyathiform 6-fid repand  
 4026 All white, Cup twice as short as segm. which are reflexed  
 4027 A very obscure plant of which no description is anywhere given  
 4028 Cor. pendulous white with straight half-expanded segm. Cup cyathiform with a crenulate mouth  
 4029 Segm. twisted stellate, Cup cyathiform much plaited twice as short as segm.  
 4030 Sulphur-colored or nearly white, Cup turgid entire as long as segm. Style protruded, Leaves obtuse  
 4031 Flower yellow, Crown trigid truncate entire, Style included, Leaves erect before flowering  
 4032 Fl. yel. Crown inflated at the end contracted entire, Style exserted, Lvs. always spreading on the ground  
 4033 Crown undulate lobed at end, Style included  
 4034 Crown deeply 6-lobed, Style very long, Leaves shining erect before flowering  
 4035 Segm. sulphur, Crown campanulate yellow at the end spreading 6-lobed, Lobes imbricated  
 4036 Leaves flat and scape striated, Segm. much twisted shorter than crown, Germ. 6-furrowed  
 4037 Leaves twisted, Scapes and germens smooth, Segm. twisted the length of crown



## and Miscellaneous Particulars.

of the species, is a diminution of *juncus*, a rush; as *Taxsetta* is of *taxza*, the Italian name for a cup. This is a popular flower of great beauty, some species very fragrant, and all of them of the easiest culture. They also force well, either in pots of earth or on glasses of water. Their forcing may be greatly accelerated by retard.

|                                  |   |   |   |    |    |       |                      |                 |       |    |                           |
|----------------------------------|---|---|---|----|----|-------|----------------------|-----------------|-------|----|---------------------------|
| §4038 serrátus <i>Haw.</i>       | serrated                                    | ♂ | △ | or | ‡  | mr.ap | P.Y                  | S. Europe       | ...   | O  | co                        |
| 4039 spúrius <i>Haw.</i>         | spurious                                    | ♂ | △ | or | 1  | ap    | Y                    | England         | ...   | O  | co                        |
| §4040 Pseudo-Narcissus <i>L.</i> | Daffodi.                                    | ♂ | △ | or | 1  | mr.ap | P.Y                  | England         | woods | O  | co Eng. bot. 17           |
| §4041 tubiflórus <i>Sal.</i>     | tube-flowered                               | ♂ | △ | or | 1  | mr.ap | W.v                  | .....           | ...   | O  | co                        |
| §4042 bicolor <i>B. M.</i>       | two-colored                                 | ♂ | △ | or | 1  | ap.my | W.v                  | Spain           | 1629. | O  | co Bot. mag. 1187         |
| §4043 Sabini <i>Lindl.</i>       | Sabine's                                    | ♂ | △ | or | 1  | ap.my | Y                    | .....           | ...   | O  | co Bot. reg. 762          |
| §4044 niveus <i>W. en.</i>       | snowy                                       | ♂ | △ | or | 1  | my    | W                    | S. Europe       | ...   | O  | co                        |
| §4045 obvalláris <i>Sal.</i>     | Sibthorp's                                  | ♂ | △ | or | 1  | mr.ap | Y                    | Spain           | ..... | O  | co B. m. 1301. f. inf     |
| §4046 májor <i>B. M.</i>         | large                                       | ♂ | △ | or | 1  | mr.ap | Y                    | Spain           | 1629. | O  | co Bot. mag. 51           |
| §4047 propinquus <i>Sal.</i>     | allied                                      | ♂ | △ | or | 1  | nr.ap | Y                    | Spain           | 1629. | O  | co B. m. 1301. f. su.     |
| §4048 nobilis <i>Haw.</i>        | noble                                       | ♂ | △ | or | 1  | mr.ap | Y                    | .....           | ...   | O  | co                        |
| 4049 Ajax <i>Sal.</i>            | great                                       | ♂ | △ | or | 1  | mr.ap | Y                    | .....           | ...   | O  | co                        |
| §4050 pámilus <i>Sal.</i>        | low   | ♂ | △ | or | ‡  | mr.ap | Y                    | Spain           | ..... | O  | co Pass. hort. 8          |
| §4051 minor <i>W.</i>            | small                                       | ♂ | △ | or | ‡  | mr.ap | Y                    | Spain           | 1629. | O  | s.l. Bot. mag. 6          |
| †*712. PANCRATIUM <i>W.</i>      | PANCRATIUM.                                 |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 24.</i>  |       |    |                           |
| 4052 zeylánicum <i>K. R.</i>     | one-flowered                                | ♂ | △ | or | 1  | jn.jl | W                    | Ceylon          | 1752. | Sk | r.m. Bot. reg. 479        |
| 4053 verecúndum <i>K. R.</i>     | Narcissus-leav.                             | ♂ | △ | or | 1½ | jn.au | W                    | E. Indies       | 1776. | Sk | r.m. Bot. reg. 413        |
| 4054 maritimum <i>L.</i>         | sea   | ♂ | △ | or | 2  | my.jl | W                    | S. Europe       | 1597. | Sk | s.p. Bot. reg. 161        |
| 4055 carolinánum <i>K. R.</i>    | Carolina                                    | ♂ | △ | or | 2  | jn.jl | W                    | Carolina        | 1759. | Sk | r.m. Cat. car. 3. t. 5    |
| 4056 canariéne <i>K. R.</i>      | Canary                                      | ♂ | △ | or | 1½ | jn.jl | W                    | Canaries        | 1815. | Sk | r.m. Bot. reg. 174        |
| 4057 illyricum <i>L.</i>         | Illyric                                     | ♂ | △ | or | 1½ | my.jn | W                    | S. Europe       | 1615. | Sk | s.p. Bot. reg. 718        |
| §4058 Amánceas <i>K. R.</i>      | Narcissus-flow.                             | ♂ | △ | or | 1½ | jn.jl | Y                    | Peru            | 1804. | Sk | r.m. Bot. reg. 600        |
| §4059 calathinum <i>K. R.</i>    | cup-flowered                                | ♂ | △ | or | 2  | jn.jl | W                    | Brazils         | ...   | Sk | r.m. Bot. reg. 215        |
| §4060 nútans <i>K. R.</i>        | nodding                                     | ♂ | △ | or | 2  | jn.jl | W                    | Brazils         | ...   | Sk | r.m. Bot. mag. 1561       |
| 4061 undulátum <i>K. R.</i>      | wave-leaved                                 | ♂ | △ | or | 1  | jn.jl | W                    | S. Amer.        | ...   | Sk | r.m.                      |
| 4062 littorále <i>L.</i>         | fan-leaved                                  | ♂ | △ | or | 2  | my.au | W                    | S. Amer.        | 1758. | Sk | r.m. Bot. mag. 1879       |
| 4063 Dryándri <i>K. R.</i>       | tall  | ♂ | △ | or | 2  | my.au | W                    | .....           | ...   | Sk | r.m. Bot. mag. 825        |
| 4064 angústum <i>K. R.</i>       | narrow-leaved                               | ♂ | △ | or | 1½ | my.au | W                    | .....           | ...   | Sk | r.m. Bot. reg. 221        |
| 4065 rotátum <i>K. R.</i>        | large-crowned                               | ♂ | △ | or | 1  | jl.s  | W                    | Carolina        | 1803. | Sk | r.m. Bot. mag. 1082       |
| 4066 mexicánum <i>K. R.</i>      | Mexican                                     | ♂ | △ | or | 1  | au    | W                    | Mexico          | 1732. | Sk | r.m. Bot. cab. 274        |
| 4067 guianéne <i>Ker.</i>        | Guiana                                      | ♂ | △ | or | 2  | n     | W                    | Guiana          | 1815. | Sk | r.m. Bot. reg. 265        |
| 4068 pátenes <i>Red.</i>         | spreading                                   | ♂ | △ | or | 2  | jl.au | W                    | W. Indies       | 1822. | Sk | r.m. Bot. cab. 558        |
| 4069 pedále <i>Lodd.</i>         | long-flowered                               | ♂ | △ | or | 3  | au    | W                    | Brazil          | 1820. | Sk | r.m. Bot. cab. 809        |
| 4070 frágrans <i>Red.</i>        | fragrant                                    | ♂ | △ | or | 1  | my.au | W                    | W. Indies       | 1819. | Sk | r.m. Bot. cab. 834        |
| 4071 biflórum <i>Roeb.</i>       | two-flowered                                | ♂ | △ | or | 1  | my.au | W                    | E. Indies       | 1820. | Sk | r.m.                      |
| 4072 caribæum <i>L.</i>          | Caribbean                                   | ♂ | △ | or | 1½ | my.au | W                    | W. Indies       | 1730. | Sk | r.m. Bot. mag. 826        |
| 4073 amœnum <i>W.</i>            | handsome                                    | ♂ | △ | or | 1  | my.au | W                    | Guiana          | 1790. | Sk | r.m. Bot. mag. 1467       |
| 4074 ovátum <i>K. R.</i>         | oval-leaved                                 | ♂ | △ | or | 1  | my.au | W                    | W. Indies       | ...   | Sk | r.m. Bot. reg. 43         |
| 4075 speciósium <i>L.</i>        | large                                       | ♂ | △ | or | 1½ | my.au | W                    | W. Indies       | 1759. | Sk | r.m. Bot. mag. 1453       |
| 713. EUCROSIA <i>B. Reg.</i>     | EUCROSIA.                                   |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 1.</i>   |       |    |                           |
| 4076 bicolor <i>B. Reg.</i>      | two-colored                                 | ♂ | △ | or | 1  | ap.my | O                    | Cape Hor.       | 1816. | O  | lt.l. Bot. reg. 207       |
| †714. EURYCLEES <i>Salisb.</i>   | EURYCLEES.                                  |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 2-3.</i> |       |    |                           |
| 4077 amboinénsis <i>Sal.</i>     | heart-leaved                                | ♂ | △ | or | 2  | my.jn | W                    | Amboyna         | 1759. | O  | lt.l. Bot. mag. 1419      |
| 4078 australásica                | Cunningham's                                | ♂ | △ | or | 1  | my    | W                    | N. Holl.        | 1821. | O  | lt.l. Bot. reg. 715       |
|                                  | <i>Pancratium australasicum</i> <i>Ker.</i> |   |   |    |    |       |                      |                 |       |    |                           |
| 715. CALOSTEMMA <i>R. Br.</i>    | CALOSTEMMA.                                 |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 2-3.</i> |       |    |                           |
| 4079 látum <i>Ker.</i>           | yellow                                      | ♂ | △ | or | 1  | n     | Y                    | N. Holl.        | 1819. | O  | s.l. Bot. reg. 421        |
| 4080 purpúreum <i>Ker.</i>       | purple                                      | ♂ | △ | or | 1  | n     | Pu                   | N. Holl.        | 1819. | O  | s.l. Bot. reg. 422        |
| 716. CHLIDANTHUS <i>Herb.</i>    | CHLIDANTHUS.                                |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 1.</i>   |       |    |                           |
| 4081 frágrans <i>Lindl.</i>      | fragrant                                    | ♂ | △ | or | 1  | my.jn | Y                    | B. Ayres        | 1820. | O  | lt.l. Lindl. coll. 34     |
| †717. CHRYSIPHIALA <i>Ker.</i>   | CHRYSIPHIALA.                               |   |   |    |    |       | <i>Amaryllideae.</i> | <i>Sp. 2-5.</i> |       |    |                           |
| 4082 fláva <i>Ker.</i>           | yellow                                      | ♂ | △ | or | 1  | my    | O                    | Peru            | 1820. | O  | lt.l. Bot. reg. 778       |
| 4083 pauciflóra <i>Lindl.</i>    | few-flowered                                | ♂ | △ | or | ‡  | my    | O                    | Peru            | 1822. | O  | lt.l. Hook. ex. f. t. 132 |



History, Use, Propagation, Culture,

ing the bulbs one season in an ice-house. Many fine bulbs of this genus, are annually imported from Holland, and some from Naples, especially the italicus, which grows wild round that city in great beauty. The genus has been injudiciously separated into several by Haworth, whom however no one has followed.

712. *Pancratium*. A name given by the Greeks to a kind of Scilla. The word signifies all-force, from *παν* and *κρατος*, in allusion to its powerful effects in medicine. This is a free-flowering genus; several of the species are very handsome and fragrant, and are met with in most collections of stove plants. A mixture of light loam and rich vegetable moulds suits them best, and care must be taken not to give them much water, when they are not in a growing state. They are to be increased by suckers, or from seeds, which often ripen freely. If any plant happen to lose its heart, if it be kept dry, it will throw out abundance of suckers, which is the readiest way of propagating it. (*Bot. Cult.* 89.) *P. maritimum*, illyricum, and carolinianum, are hardy; the other species are stove-plants. *P. amanceas* has yellow flowers, and is not less beautiful than rare.

- 4038 Scape striated compressed, Segm. flat: the outer ovate acuminate not so long as the serrated crown  
 4039 Scape smooth compressed, Crown very yellow deeply 6-cleft spreading, Segm. 4 erect lanceolate  
 4040 Scape two-edged straight striated, Segm. sulphur, Crown yellow with serrate crenate orifice  
 4041 Segm. incurved horizontal a little twisted, Crown funnel-shaped ventricose at base very short  
 4042 Like the last, but the crown is yellow, the segm. of flower yellowish  
 4043 Spathe 1-f. Scape 2-edged, Cup columnar plaited shorter than the sepals, Tube about as long as sepals  
 4044 Scape 2-edge nearly trian. Spat. 1-2-f. Seg. of cor. lanc. acute, Crown plaited crenate thrice as long as limb  
 4045 Segm. half as long as tube ovate, Crown funnel-form 6-cleft plaited upwards  
 4046 Leaves twisted very glaucous, Crown campanulate very large very open at orifice  
 4047 Segm. 4 erect twisted incurved spreading, Crown as long as segm. deeply and irregularly cut  
 4048 Scape deeply striated, Seg. much spread, twisted ellipt. shorter than crown which has a very open orifice  
 4049 Scape deeply striated, Mouth of crown 6-cleft expanded deeply and irregularly crenate  
 4050 Pet. narrow obcuneate not imbricating at base, Crown 6-cleft at mouth spreading minutely rugose  
 4051 Spathe 1-flowered, Crown curled waved lobed, Scape 6 inches high
- 4052 One-flowered, Leaves lig. lanc. Segments of limb longer than tube, Stamens incurved conniving  
 4053 Spathe 2-4-fl. Lvs. lin. acute, Limb of cor. shorter than tube, Altern. div. of crown deeper, Stam. incurved  
 4054 Many-fl. Lvs. sheath. downw. very glauc. with an obt. point, Cr. much unit. to turb. limb, Anth. bent inw.  
 4055 Many-flowered, Leaves rather glaucous? nor sheathing downwards, Anthers incumbent  
 4056 Many-fl. Lvs. strap-shap. somew. glauc. obt. Tube twice as short as limb, Fil. not longer than teeth of cr.  
 4057 Many-fl. Lvs. strap-shap. cces. Scape 2-edged, Pet. lanc. conv. longer than tube, Cr. short with very deep div.  
 4058 Many-fl. Leaves bright-green, Tube as long as stellate nodding limb, Stamens short abruptly bent inwards  
 4059 1 or many-fl. Spat. herb. Limb erect turb. a little shorter than blunt. 3-cor. tube, Cro. not much shorter than  
 4060 Few-flowered, Leaves obt. Spathe dry, Cor. nodding, Anthers longer than filaments [limb  
 4061 Lvs. stalked ellip. shortly pointed, Scape compressed, Petals linear wavy, Racemes of crown 1-toothed  
 4062 Many-flowered, Leaves many lorate narrowed each way, Tube rounded twice as long as limb  
 4063 Leaves lanc. lorate, Petals little shorter than tube, 5 times as long as crown  
 4064 Many-fl. Lvs. lorate with long points shin. Petals spread. longer than tube 3 times as short as nar. crown  
 4065 Two or many-flowered, Leaves linear-lorate obtuse many, Crown turbinate rotate longer than filaments  
 4066 Two-flowered, Lvs. few linear-lanceolate with long points, Crown rotate turbinate longer than filaments  
 4067 Many-flowered, Leaves oval-oblong stalked, Spathe 4-valved, Cup narrow 4 times as short as the limb  
 4068 Lvs. broad lin. Flowers many sessile with linear straightish segments longer than tube, Crown obconical  
 4069 Leaves lanceolate dark-green, Flowers a foot long, Stamens short  
 4070 A slight variety of *P. amannum*, No. 4073  
 4071 One or 3-fl. Leaves linear cuneate, Tube as long as lin. petals, Seg. of crown eroded, Fil. length of crown  
 4072 Many-fl. Lvs. many lin. lanc. Tube twice as short as limb, Cr. twice as short as stam. with 1-tooth. recesses  
 4073 Lvs. many oval-lanc. 3 or 4 times as broad as stalk, Umbel sessile spreading, Tube shorter than limb  
 4074 Compactly many-fl. Lvs. oval stri. nar. each way, Tube round. nearly as long as limb, Teeth of crown entire  
 4075 Lvs. many lanc. elliptical with a point three times as broad as their stalk, Tube twice as short as limb

4076 The only species

4077 Leaves stalked cordate rounded with concentric distant nerves

4078 Like the last, but is smaller with a 6-parted crown

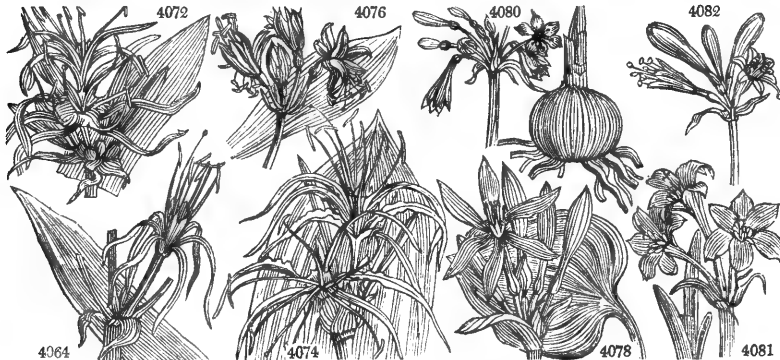
4079 Flowers yellow

4080 Flowers purple

4081 A small plant with bright yellow flowers appearing before the leaves

4082 Leaves linear ligulate, Flowers 6-7-cylindrical, with oblong obtuse segments

4083 Leaves oblong lanceolate stalked, Flowers 2 campanulate funnel-shaped



and Miscellaneous Particulars.

713. *Eucrosia*. From *eu*, well, and *κροσος*, a fringe, in allusion, we presume, to the beautiful fringe to the flower, formed by the cup of united stamens. A pretty half-hardy bulbous plant, extremely rare.

714. *Eurycles*. From *eury*, wide, and *κλασμα*, a portion of a thing, in allusion to the broad divisions of the crown. A genus formerly included in *Pancratium*, from which it is distinguished not only by its flowers, but by its broad leaves, which are like those of the *Hermerocallis*.

715. *Calostemma*. From *καλος*, beautiful, and *στυμμα*, a crown, in allusion to the beauty of the colored corona of the flower. Very pretty New Holland bulbs, requiring the cultivation of other greenhouse bulbs.

716. *Chlidanthus*. From *χλιδος*, delicate, and *ανθος*, a flower; on account of the delicate color and texture of the beautiful yellow flowers. The plant requires a stove, and produces the scape before the leaves.

717. *Chrysoiphiala*. So named by Mr. Ker, in allusion to the golden cup-like flowers; *χρυσος*, gold, and *φιαλις*, a goblet. Bulbous plants from the same country and with the same habits as the last.

|                                       |                       |                       |          |          |           |         |                              |
|---------------------------------------|-----------------------|-----------------------|----------|----------|-----------|---------|------------------------------|
| 718. LOPHIO <sup>LA</sup> . B. M.     | LOPHIOLA.             | <i>Hemodoraceae</i> . | Sp. 1.   |          |           |         |                              |
| 4084 aurea B. M.                      | golden-flower. ♀ Δ or | 1½ my.jl              | Y        | N. Amer. | 1811.     | D p.l   | Bot. mag. 1596               |
| 719. ARGOLA <sup>SIA</sup> . Jus.     | ARGOLASIA.            | <i>Hemodoraceae</i> . | Sp. 1.   |          |           |         |                              |
| 4085 plumosa W.                       | woolly ♀ Δ or         | 1½ ...                | W        | C. G. H. | 1787.     | D s.l.p |                              |
| 720. ANIGOZANTHOS. R. Br.             | ANIGOZANTHOS.         | <i>Hemodoraceae</i> . | Sp. 1—2. |          |           |         |                              |
| 4086 flavida R. Br.                   | russet-green-fl. ♀    | my.s                  |          | N. Holl. | 1803.     | R s.p   | Bot. mag. 1151               |
| 721. MU <sup>SA</sup> . W.            | PLANTAIN-TREE.        | <i>Musaceae</i> .     | Sp. 4—5. |          |           |         |                              |
| 4087 paradisiaca W.                   | common ♀              | clt 20                | o.d      | Pk       | India     | 1690.   | Sk s.p Tr. eh. 3. t. 18. 20  |
| 4088 sapientum W.                     | Banana-tree ♀         | clt 20                | mr.o     | Pk       | W. Indies | 1729.   | Sk s.p Tr. eh. 4. t. 21. 23  |
| 4089 rosacea W.                       | rose-colored ♀        | or 20                 | f.my     | Pu       | Mauritius | 1805.   | Sk s.p Bot. reg. 706         |
| 4090 coccinea W.                      | scarlet-flowered ♀    | or 20                 | mr.d     | S        | China     | 1792.   | Sk s.p Bot. mag. 1559        |
| 722. URA <sup>NIA</sup> . W.          | URANIA.               | <i>Musaceae</i> .     | Sp. 1.   |          |           |         |                              |
| 4091 speciosa W.                      | Plantain-leaved ♀     | or 20                 | ...      | R        | Madagasc. | ...     | Sk p.l Jac. sch. 1. t. 93    |
| *723. BUONAPAR <sup>TEA</sup> . F. P. | BUONAPARTEA.          | <i>Bromeliaceae</i> . | Sp. 1—2. |          |           |         |                              |
| 4092 junccea Fl. p.                   | Rush-leaved ♀         | or 1½                 | ...      | B        | Peru      | 1800.   | C s.l Fl. pr. 3. t. 262      |
| 724. AGA <sup>VE</sup> . H. K.        | AGAVE.                | <i>Bromeliaceae</i> . | Sp. 10.  |          |           |         |                              |
| 4093 yuccafolia Haw.                  | Yucca-leaved ♀        | or 6                  | ...      | Y.w      | .....     | 1819.   | Sk r.m                       |
| 4094 americana W.                     | common Amer. ♀        | or 20                 | au.o     | Y        | S. Amer.  | 1640.   | Sk r.m Bot. rep. 433         |
| 4095 Milleri Haw.                     | Miller's ♀            | or 6                  | ...      | G        | .....     | 1768.   | Sk r.m                       |
| 4096 flaccida Haw.                    | flaccid ♀             | or 6                  | ...      | G        | S. Amer.  | 1790.   | Sk r.m                       |
| 4097 lorida Jacq.                     | Vera Cruz ♀           | or 8                  | jn.jl    | G        | Vera Cruz | 1731.   | Sk s.p Bot. mag. 1522        |
| 4098 angustifolia Haw.                | narrow-leaved ♀       | or 6                  | ...      | G        | .....     | 1790.   | Sk r.m                       |
| 4099 Karatto Mill.                    | Karatto ♀             | ec 5                  | ...      | G        | S. Amer.  | 1768.   | Sk r.m                       |
| 4100 vivipara W.                      | viviparous ♀          | or 15                 | au.o     | G        | S. Amer.  | 1731.   | Sk s.p Com. præl. t. 15      |
| 4101 virginica W.                     | Virginian ♀           | or 3                  | s        | P.G      | N. Amer.  | 1765.   | Sk r.m Bot. mag. 1157        |
| ‡4102 geminiflora Ker.                | pair-flowered ♀       | or 10                 | ...      | B        | America   | 1810.   | Sk r.m Jo. ofsc. No. 3. t. 1 |



History, Use, Propagation, Culture.

718. *Lophiola*. From *λοφα*, a crest, on account of the little crest of the petals. It is a very rare North American plant, and thrives best in pots set in saucers of water.

719. *Argolasia*. From *αργος*, white, and *λαειος*, wool, on account of its calyx, which is white and velvety on the outside. It requires the same culture as the last.

720. *Anigozanthus*. Named by Labillardiere, from *ανισω*, to raise up, and *ανθος*, a flower. Its flowers are raised upon very long conspicuous scapes. Curious New Holland plants, with yellow or green flowers.

721. *Musa*. So named by Plumier, in memory of Antonius Musa, the brother of Euphorbus, and the freedman of Augustus. Such is the sense in which Linnæus admits the word. But the Arabic name for the plant, *mauz*, is a much more likely derivation. This splendid genus consists of species which have perennial, roundish, solid, watery bulbs, with biennial, and sometimes longer enduring stems. The stems are straight, erect, varying from five to twenty-five feet in height, simple, thick, round, smooth, fungous, watery, and lamellated. The leaves are oblong, entire, from three to ten feet in length, and under two feet in width. The flowers are in large terminating racemes, without a calyx or perianthium, generally whitish: the fertile flowers occupying the lower, and the barren the upper, part of the raceme. The former are succeeded by oblong, angular, fleshy berries, sweet, eatable, and containing many black seeds. They are natives of the old world, and for the most part cultivated there: none appear to be natives of America.

*M. paradisiaca* rises with a soft herbageous stalk fifteen or twenty feet high, with leaves often more than six feet long, and near two feet broad. When the plant is full grown, the spike of flowers appears from the centre of the leaves; it is near four feet in length, and nods on one side. The fruit which succeeds the fertile flowers on the lower part of the spike is eight or nine inches long, and above an inch in diameter, a little incurved, with three angles; at first green, but when ripe of a pale yellow color. The skin is tough, and within is a soft pulp of a luscious sweet flavor. The spikes of fruit are often so large as to weigh upwards of forty pounds. Gerarde, and other old authors, name it Adam's apple, from a notion that it was the forbidden fruit of Eden; whilst others supposed it to be the grapes brought out of the promised land by the spies of Moses. It is certainly one of the most useful fruits in the world, and seems to have migrated with mankind into all the climates in which it can be cultivated. The fruit is so much esteemed by all Europeans who settle in America, that the first thing they do in establishing a plantation is to begin with a Plantain walk; enlarging it as their family increases. Some or other of the trees are bearing most part of the year; and their fruit is often the whole food on which a family subsists. When used instead of bread, it is roasted or boiled when just full grown: it is also eaten boiled with salt-meat or fish, and when ripe it is made into tarts, sliced and fried with butter, or dried and preserved as a sweetmeat. A fermented liquor is made from them, and in some places a cloth from the fibres of the trunk; the leaves make excellent mats, or serve for stuffing mattresses. Long (*Jam.* 788.) says, this fruit and the banana are among the greatest blessings bestowed by Providence upon the inhabitants of hot climates. Three dozen plantains are sufficient to serve one man for a week instead of bread, and will support him much better.

*M. sapientum* is by some considered a variety of the plantain, from which it differs in having its stalks marked with dark purple stripes and spots. The fruit is shorter and rounder, with a softer pulp, of a more luscious taste. An excellent marmalade, and a drink like the best Southnam cider, are made from it. There are many varieties both of the plantain and banana.

*M. rosacea* and *coccinea*, are very ornamental plants, on account of the color of the flowers, but scarcely to be distinguished from *M. paradisiaca*. The culture of all the species is easy in lofty houses, with abundance

4084 The only species

4085 Leaves linear carinate smooth, Scape angular corymbose, Flowers woolly

4086 Stem and leaves smooth, Down of branches deciduous, Anthers with a reflexed end

4087 Spadix nodding, Male flowers persistent

4088 Stem spotted, Spadix nodding, Male flowers deciduous

4089 Spadix nodding or erect, Male flowers deciduous, Spathes elliptical obtuse, Fruit oblong

4090 Spadix erect, Flowers capitate, Spathes clustered scarlet very large yellow at end

4091 A plant like a Banana

4092 Leaves multifarious cespitose recurved very narrow and rigid

4093 Lvs. lorate atten. erect recurved glaucous above chan. with marginal minute dense white serrulations

4094 Stemless, Lvs. toothed spiny, Scape branched, Tube of cor. contracted in middle, Stem longer than cor.

4095 Leaves toothed spiny, Scape quite simple

4096 Leaves narrow lanceolate flaccid recurved, Spines marginal minute

4097 A little stemmed, Leaves toothed spiny, Scape branched, Stam. longer than cylind. cor.

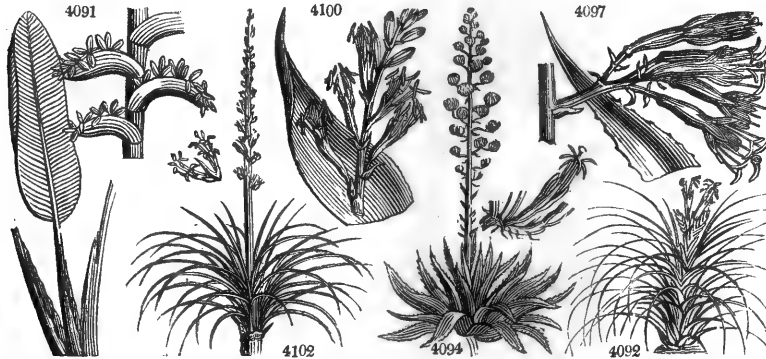
4098 With a stem, Leaves narrow lanceolate glaucous tooth-serrated

4099 Leaves erect bright green with an entire brown edge

4100 Stemless, Leaves toothed, Scape branched, Tube of cor. narrowed in middle, Stem as long as cor.

4101 Stemless, Leaves cartilaginous sawed, Scape simple

4102 Leaves thready at edge, Flowers of spike approximating by pairs



and Miscellaneous Particulars.

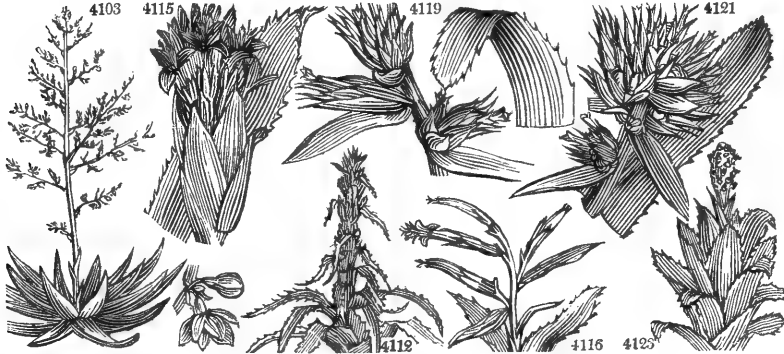
of room for the roots, and a rich loamy soil kept rather moist. A plant of the banana was planted in the pit of a stove about 1811. "It was then about six feet high, with a single stem. In each succeeding year it has produced a bunch of fruit; and in 1819 two bunches; the first ripe in May, the other in August, having about four dozen of fruit on each bunch. The plant is now sixteen feet high, and measures three feet round at the bottom." (*Hort. Trans.* iv. 138.)

722. *Urania*. A name of one of the muses, unjustifiably applied to this genus by Schreber, in the room of that of *Ravenala*, which it bears in Madagascar. To grow this plant luxuriantly, a strong heat and a good supply of water are required. Fresh imported seeds will grow freely.

723. *Buonapartea*. So named by the authors of the *Flora Peruviana*, after Napoleon Bonaparte, emperor of the French. Fine plants like *Bromelia*, with long, narrow, recurved leaves, and spikes of simple blue flowers, which were never yet seen in this country.

724. *Agave*. Altered from *ayavos*, admirable, which this genus may well be said to be, considering its appearance, its size, and the beauty of its flowers. In mythology, *Agave* is the name of one of the Nereids. *A. americana* is a popular succulent throughout Europe. It grows wild or is acclimated in Sicily, the south of Spain, and Italy, and is much used in the latter country, planted in vases as an ornament to piers, parapets, and about houses. About Milan and other towns in Lombardy, where it will not endure the winter, they use imitations of copper so well formed and painted, as to be readily mistaken for the original. In France and Germany it is still very common; and in this country formerly used to be the regular companion of the orange, myrtle, and pomegranate, then our principal greenhouse plants. An idea used to prevail that the American *Aloe* only flowered once in a hundred years; but, independently of this unnatural application of time to the inflorescence, it has long been known to flower sooner or later, according to the culture bestowed on it. Many have flowered within these few years in this country; and if the plant had the same treatment as the pine-apple, it would probably flower nearly as often. There is a variety with striped foliage, and sometimes the stripes are of different shades of white, yellow, and red, as in the queen pine-apple. There are hedges of the plant in Spain, Portugal, Sicily, Calabria, and the West Indies. According to Long, (*Jamaica*, iii. 710.) the leaves are useful as a succedaneum for soap. For this purpose, after being cut, they are passed between the rollers of a mill with their point foremost; and the juice being conducted into wide shallow receivers, through a coarse cloth or strainer, it is exposed to a hot sun, until the aqueous part being exhaled, it is reduced to a thick consistence. It may then be made up into balls, with the help of ley ashes. It will lather with salt water as well as fresh. This soap may also be prepared by pounding the leaves in a wooden mortar, and then expressing the juice, which may be brought to a consistence by the sun or by boiling. One gallon of juice thus prepared, will yield about one pound of a soft extract. The juice, in both these ways, must be carefully strained; and the extract must never be combined with tallow or other unctuous materials. The leaves are also used for scowering pewter, and other kitchen utensils, and floors. The inward spongy substance of the decayed stalk is used for tinder. The fibres of the leaves, separated by bruising and steeping in water, and afterwards beating them, make a strong thread for common use. All the species greatly resemble each other, and it is doubted, whether, in the works of several travellers, different species of *Agave*, *Aloe*, and even *Bromelia*, are not confounded in their descriptions of their uses. There is, for example, a variety of the *Agave americana*, called *Karatas* by Long, and there is a species of *Bromelia* of that designation; hedges of *Karatas* are frequently mentioned without noticing the generic name of the plant.

|                           |                  |   |   |    |                     |          |          |  |
|---------------------------|------------------|---|---|----|---------------------|----------|----------|--|
| 725. FURCRÆA. F.          | FURCRÆA.         |   |   |    | <i>Bromeliaceæ.</i> | Sp. 5—7. |          |  |
| 4103 gigantæa Vent.       | gigantic         | ✓ | △ | or | 20                  | ja.s     | Gr       | S. Amer. 1690. Sk r.m Bot. mag. 2250         |
| 4104 tuberosa H. K.       | tuberous         | ✓ | △ | or | 10                  | au.s     | Gr       | S. Amer. 1739. Sk r.m                        |
| 4105 cubensis W.          | Cuba             | ✓ | △ | or | 6                   | ...      | Gr       | S. Amer. 1739. Sk r.m J. am. t. 260. f. 25   |
| 4106 rígida Mill.         | rigid            | ✓ | △ | or | 6                   | ...      | S. Amer. | 1768. Sk r.m                                 |
| 4107 australis Haw.       | entire-leaved    | ✓ | △ | or | ...                 | ...      | N.Holl.  | 1811. Sk r.m                                 |
| *726. BROME/LIA. W.       | PINE-APPLE.      |   |   |    |                     |          |          | <i>Bromeliaceæ.</i> Sp. 16—29.               |
| §4108 Anáanas W.          | common           | ✓ | △ | fr | 4                   | ja.d     | P        | S. Amer. 1690. Sk r.m Bot. mag. 1554         |
| 4109 semiserrata W. en.   | half-sawed-lvd.  | ✓ | △ | or | 3                   | ja.d     | Gr       | S. Amer. ... Sk r.m                          |
| §4110 lúcida W. en.       | King-Pine        | ✓ | △ | fr | 4                   | ja.d     | Pk       | S. Amer. ... Sk r.m D. el. 25. t. 21. f. 22  |
| 4111 Pinguin W.           | broad-leaved     | ✓ | △ | ec | 3                   | mr.ap    | R        | W. Indies 1600. Sk r.m Jac. am. pic. t. 91   |
| 4112 sylvestris W.        | wild             | ✓ | △ | or | 3                   | jl       | Cr       | S. Amer. 1820. Sk r.m Bot. mag. 2392         |
| 4113 fastuosa Lindl.      | noble            | ✓ | △ | or | 4                   | au.s     | Pu       | S. Amer. 1815. Sk s.p Lindl. coll. 1.        |
| 4114 Karátas W.           | drooping-leaved  | ✓ | △ | or | 2                   | ...      | Pk       | W. Indies 1739. Sk r.m Jac. v. 1. t. 31. 32  |
| §4115 nudicaulis W.       | upright-stalked  | ✓ | △ | or | 2                   | f.mr     | Cr       | R. Janiero ... Sk r.m Bot. reg. 203          |
| <i>pyramidalis</i> B. M.  |                  |   |   |    |                     |          |          |  |
| 4116 pallida Ker.         | pale             | ✓ | △ | or | 1½                  | n        | G.v      | S. Amer. 1817. Sk s.p Bot. reg. 344          |
| 4117 chrysántha Jacq.     | golden-flowered  | ✓ | △ | or | 2                   | ...      | Y        | Caracas 1819. Sk s.p Jacq. sch. 1. t. 55     |
| 4118 lingulata W.         | tongue-leaved    | ✓ | △ | or | 1½                  | my.jn    | Y        | S. Amer. 1789. Sk r.m Plum. ic. t. 64. f. 1  |
| §4119 bractæata W.        | red-bracted      | ✓ | △ | or | 2                   | s.o      | Pk       | Jamaica 1785. Sk r.m Par. lond. 40           |
| 4120 Acángá L.            | recurved         | ✓ | △ | or | 2                   | ...      | ...      | Brazil 1822. Sk s.p Pis. braa. t. 91         |
| 4121 exsúdans Lodd.       | sweating         | ✓ | △ | or | 2                   | s.o      | Y        | W. Ind. 1820. Sk r.m Bot. cab. 801           |
| 4122 húmilis W.           | dwarf            | ✓ | △ | or | 1                   | mr       | Pk       | ..... 1789. Sk r.m Jac. ic. 1. t. 60         |
| §4123 melanántha Ker.     | black-flowered   | ✓ | △ | or | 1½                  | my       | Bl       | Trinidad 1824. Sk r.m Bot. reg. 766          |
| 727. GUZMAN'NIA. Fl. Per. | GUZMAN'NIA.      |   |   |    |                     |          |          | <i>Bromeliaceæ.</i> Sp. 1.                   |
| 4124 tricolor Fl. Per.    | three-colored    | ✓ | △ | or | 1                   | my       | P.s      | S. Amer. 1820. Sk r.m Lindl. coll. 8         |
| †728. PITCAIR'NIA. W.     | PITCAIR'NIA.     |   |   |    |                     |          |          | <i>Bromeliaceæ.</i> Sp. 9—14.                |
| 4125 broméliefolia W.     | scarlet          | ✓ | △ | or | 2                   | jn       | S        | Jamaica 1781. Sk s.p Bot. mag. 824           |
| 4126 angustifolia W.      | narrow-leaved    | ✓ | △ | or | 2                   | ja.d     | S        | Sant. Cruz 1777. Sk s.p Bot. mag. 1547       |
| 4127 integrifolia B. M.   | entire-leaved    | ✓ | △ | or | 2                   | au       | R        | W. Indies 1800. Sk s.p Bot. mag. 1462        |
| 4128 latifolia W.         | broad-leaved     | ✓ | △ | or | 2                   | au.s     | S        | W. Indies 1785. Sk s.p Bot. mag. 856         |
| 4129 bractæata H. K.      | large bract.-red | ✓ | △ | or | 2                   | ap.my    | R        | W. Indies 1799. Sk s.p Red. lil. 73. 74      |
| 4130 sulphúrea B. R.      | yellow-flower'd  | ✓ | △ | or | 2                   | jn.au    | Y        | W. Indies 1797. Sk s.p Bot. mag. 1416        |
| 4131 furfurácea W. en.    | drooping-leav'd  | ✓ | △ | or | 2                   | jn.au    | R        | S. Amer. 1816. Sk r.m                        |
| 4132 coarctata R. & P.    | contracted       | ✓ | △ | or | 2                   | my.jn    | Y        | Chile 1822. Sk r.m Bot. mag. 2411            |
| 4133 staminea B. M.       | long-stamened    | ✓ | △ | or | 2                   | ja       | S        | S. Amer. 1823. Sk r.m Feuill. chil. t. 39    |
| †729. TILLAN'DSIA. W.     | TILLAN'DSIA.     |   |   |    |                     |          |          | <i>Bromeliaceæ.</i> Sp. 11—27.               |
| 4134 utriculata W.        | bladder          | ✓ | △ | or | 2                   | ...      | P.Y      | S. Amer. 1793. Sk s.p                        |
| 4135 serrata W.           | saw-leaved       | ✓ | △ | or | 2                   | jn       | Y        | Jamaica 1793. Sk s.p Pl. ic. 63. t. 75. f. 1 |



History, Use, Propagation, Culture,

725. *Furcraea*. Named in honor of M. Fourcroy, the famous French chemist. A noble genus resembling the last.

726. *Bromelia*. So named by Linnaeus, in memory of Olaus Bromel, a Swede, author of *Lupologia*, and other works, 1694, &c. *Ananas*, Fr., Ger., and Ital.; and *Nanas* among the Peruvians, where it was originally found by Europeans. This fruit may, without hesitation, be pronounced the first in the world, though it has not been known in Europe above two centuries, and has only been cultivated about a century as a fruit plant in Britain. It passed from Brazil to the West, and thence to the East Indies, where it has long been successfully cultivated. About the middle of the seventeenth century it was brought to Holland, by Mr. La Court, a merchant, and cultivated at Driehoek, his seat, near Leyden; and from thence it was imported into this country, and first fruited by Sir Matthew Decker, at Richmond, about 1715, or earlier. La Court began by growing his pines without bottom heat, as dry stove plants; but afterwards had recourse to low pits and tanner's bark. Plans of his pits, and an account of his mode of culture, are published in his work, entitled, *Aenmerkingen over Lusthoven, Plantagion, &c.* (See *Ency. of Gard.* p. 1129, Anno 1737.) Sir M. Decker, Bradley informs us, adopted pits; and soon after pine stoves, or larger and more commodious pits, were, by the year 1730, in most of the first English gardens, and some also in Scotland, where the pine-apple was first fruited by Justice, at Crichton, near Edinburgh; in 1732. The pine is now cultivated very generally in Britain, in several places in Ireland, and at most of the capital cities on the continent. In one or two of the southern provinces of Spain, it is grown in sheltered situations in the open air.

There are many varieties of the pine in the West Indies, procured by raising from seed; in this country there are upwards of thirty sorts, but the queen, New Providence, and one or two others, are most esteemed. The plants are propagated by suckers, and by that singular production, proceeding from the summit of the fruit, called a crown: from large suckers fruit is sometimes obtained in eighteen months, but, in general, a period of two or three years is required, and for the New Providence sometimes longer. Loamy soil well enriched with rotten dung, and the pots sufficiently drained, with abundance of heat without sudden extremes, will ensure large and well flavored fruit. (See *The various Modes of cultivating the Pine-Apple from its first Introduction to the Improvements of Mr. Knight, &c.* 8vo. 1822.)

Some of the other species of true *Bromelia* have crowns, and the fruit of most of them is eatable, though small. B. *Pinguin* has the fruit separately in clusters, and not in a cone or pine, as is in the *Ananas*. It is very common in Jamaica, in most of the Savannas, and on the rocky hills. It is used there for fencing pas-

- 4103 Leaves entire, Scape branched  
 4104 Root tuberous, Leaves very long spiny at edge  
 4105 Cor. hexapetalous, Leaves ciliate spiny  
 4106 Leaves linear lanceolate entire upwards, at the base serrate spiny  
 4107 An obscure plant described by Haworth only and supposed to be *Doryanthes excelsa* !
- 4108 Leaves fringed with spines mucronate, Spike comose  
 4109 Leaves at the end toothed spiny, Spike comose  
 4110 Leaves entire, Spike comose  
 4111 Leaves ciliated spiny mucronate, Raceme terminal  
 4112 Leaves ciliated spiny with a very long point, Raceme term. comp. Flowers sessile shorter than bractæ  
 4113 Leaves ciliated spiny with a very long point, Raceme rigid compound, Flow. in numerous lateral spikes  
 4114 Leaves erect, Flowers stemless sessile aggregate  
 4115 Radical leaves toothed spiny : cauline entire
- 4116 Panicle lax few-fl. spreading, Peduncles 1-flowered, Upper spathes fertile as long as flower spreading  
 4117 Leaves serrate spiny, Bractes lanceolate toothed, Raceme compound shorter than leaves  
 4118 Leaves serrate spiny obtuse, Spikes alternate  
 4119 Leaves serrate spiny, Bractes ovate lanceolate, Scape elongated, Raceme compound  
 4120 Panicle diffuse, Leaves ciliate spiny mucronate recurved  
 4121 Raceme compound, Flowers heaped shorter than the long red entire bractæ, Calyx acute  
 4122 Nearly stemless, Leaves aggregate sessile, Axillæ stoloniferous  
 4123 Leaves ligulate oblong very blue, Spike oval woolly with small sessile flowers
- 4124 Scape upright, Spike imbricated, The lower bractæ green ; the upper scarlet
- 4125 Leaves ciliate spiny, Peduncles and germens quite smooth  
 4126 Leaves ciliate spiny, Peduncles and germens downy  
 4127 Leaves narrow glaucous entire, Calyx villous  
 4128 Leaves entire somewhat spiny at base  
 4129 Leaves entire a little spiny at base, Bractes as long as peduncle and calyx  
 4130 Leaves entire white beneath, Raceme imbricated dense  
 4131 Leaves toothed spiny recurved, above shining smooth, beneath mealy  
 4132 Spike compound contracted, Leaves ensiform acute, Cor. with a black spot at bottom  
 4133 Leaves linear lanc. entire, Petals revolute, Stamens longer than cor.
- 4134 Culm panicle  
 4135 Leaves upwards serrate spiny, Spike comose



and Miscellaneous Particulars.

ture lands, on account of its prickly leaves. These, stripped of their pulp, soaked in water, and beaten with a wooden mallet, yield a strong thread which is twisted into ropes and whips, and manufactured by the Spaniards into a good cloth. The juice of the fruit in water makes a cooling draught in fevers ; it is extremely diuretic, destroys worms, and makes a good vinegar.

*B. Karatas*, so called from its Brazilian name, *Karaguata-acanga*, generally grows at the root of some shady tree, in hilly and woody places in America and the Caribbee islands. It is an elegant plant, producing numerous radical leaves, which are of a subulate-linear shape, sharp pointed, and edged with spines. The flowers are scentless, seated in the bosom or middle part of the plant, rose colored, with the calyx and germ downy. The length of the leaves is six or seven feet. The fruits are oval, two or three hundred in number, and grow sessile in a heap or central group, surrounded by paleaceous expanded leaves or bractes ; they contain a succulent whitish or yellowish flesh, under a coriaceous and yellowish bark. When ripe, they are far from unpleasant ; but when unripe they set the teeth on edge, and excoriate the mouth. The economy of this plant in the preservation of its fruit to maturity is wonderful : being so protected by the spines of the surrounding leaves, as to be secure from all injuries.

*B. humilis* propagates itself by runners or shooting processes, which proceed from the axillæ of the lower leaves, and produce a young plant from their extremities.

*Bromelia fastuosa* is the most beautiful of the genus. It has never flowered more than once in this country, when the figure in Mr. Lindley's *Collectanea Botanica* was obtained. *Bromelia sylvestris* resembles this, but is less beautiful.

727. *Guzmania*. Named after Anastasio Guzman, an industrious apothecary, and zealous collector of objects of natural history in South America. A beautiful evergreen herbaceous plant, with the foliage of *Tillandsia*, and a spike of bractæ, the uppermost of which are richly colored with rose.

728. *Pitcairnia*. So named by Mons. L'Heritier, in honor of William Pitcairn, M. D. an eminent physician of London, and a collector of foreign plants, particularly from the Alps. The species are remarkable for their long, narrow, green, prickly leaves, and for their uniform panicles of bright red. *Pitcairnia staminea* is very handsome. They require the same treatment as *Bromelia*.

729. *Tillandsia*. So named by Linnæus, in memory of Elias Tillandsius, professor of physic at Abo, author



|        |                            |                |        |   |        |      |                            |         |                         |
|--------|----------------------------|----------------|--------|---|--------|------|----------------------------|---------|-------------------------|
| § 4136 | <i>amec'na</i> Lodd.       | charming       | △ or   | 2 | jn     | V    | W. Indies 1819.            | Sk s.p  | Bot. cab. 76            |
| 4137   | <i>usneoides</i> W.        | pendulous      | △ or   | 6 | ...    | Pu   | W. Indies 1823.            | Sk p    | Pl. alm. t. 96. f. 5    |
| § 4138 | <i>lingulata</i> W.        | tongue-leaved  | △ or   | 2 | jn, jl | Y    | Jamaica 1776.              | Sk s.p  | Jac. amer. t. 62        |
| 4139   | <i>flexuosa</i> W.         | flexuose       | △ or   | 1 | ...    | B    | W. Indies 1790.            | R s.p   | Jac. amer. t. 63        |
|        | β <i>pálida</i>            | pale           | △ or   | 1 | jn, jl | Y    | W. Indies 1815.            | R s.p   | Bot. reg. 749           |
| 4140   | <i>anceps</i> Lodd.        | two-edged      | △ or   | 2 | ap     | B    | W. Indies 1820.            | R s.p   | Bot. cab. 771           |
| 4141   | <i>nótans</i> W.           | nodding        | △ or   | 2 | au     | B    | Jamaica 1793.              | R s.p   | Bot. cab. 771           |
| 4142   | <i>stricta</i> B. M.       | stiff-leaved   | △ or   | 2 | n      | B    | Brazil 1810.               | R s.p   | Bot. mag. 1529          |
| 4143   | <i>recurvata</i> W.        | recurve-leaved | △ or   | 2 | jl     | Pu   | Jamaica 1793.              | R s.p   | Sl. ja. l. t. 121. f. 1 |
| 4144   | <i>xiphoides</i> B. Reg.   | Air-plant      | △ or   | 2 | jl     | W    | Buen. Ay. ...              | R s.p   | Bot. reg. 105           |
| † 730. | PONTEDERIA. W.             | PONTEDERIA.    |        |   |        |      | Commelinaceae. Sp. 4-7.    |         |                         |
| 4145   | <i>cordata</i> Ph.         | heart-leaved   | ≡ △ or | 2 | jn, au | B    | N. Amer. 1759.             | D 1     | Bot. mag. 1156          |
| 4146   | <i>angustifolia</i> Ph.    | narrow-leaved  | ≡ △ or | 2 | jn, au | B    | N. Amer. 1806.             | D 1     | Bot. mag. 1156          |
| 4147   | <i>dilatata</i> H. K.      | spreading      | ≡ △ or | 2 | my     | B    | E. Indies 1806.            | D 1     | Bot. rep. 490           |
| 4148   | <i>lanceolata</i> Lodd.    | lanceolate     | ≡ △ or | 2 | au     | B    | N. Amer. 1815.             | D 1     | Bot. cab. 613           |
| 731.   | HÆMANTHUS. W.              | BLOOD-FLOWER.  |        |   |        |      | Amaryllidaceae. Sp. 14-16. |         |                         |
| 4149   | <i>coccineus</i> W.        | salmon-colored | ▽ △ or | 1 | au, o  | R    | C. G. H. 1629.             | O r.m   | Bot. mag. 1075          |
| 4150   | <i>coarctatus</i> W.       | compressed     | ▽ △ or | 1 | f, mr  | Pk   | C. G. H. 1795.             | O r.m   | Bot. reg. 181           |
| 4151   | <i>rotundifolius</i> B. M. | round-leaved   | ▽ △ or | 1 | jn, o  | S    | C. G. H. 1790.             | O s.l.p | Bot. mag. 1618          |
| 4152   | <i>puncicus</i> W.         | wave-leaved    | ▽ △ or | 1 | my, s  | S    | C. G. H. 1752.             | O r.m   | Bot. mag. 1315          |
| 4153   | <i>multiflorus</i> W.      | many-flowered  | ▽ △ or | 1 | my, s  | D, R | S. Lome 1783.              | O r.m   | Bot. mag. 961           |
| 4154   | <i>tigrinus</i> W.         | tiger-spotted  | ▽ △ or | 1 | f, d   | F    | C. G. H. 1790.             | O r.m   | Bot. mag. 1705          |
| 4155   | <i>quadri-valvis</i> W.    | four-valved    | ▽ △ or | 1 | s, o   | F    | C. G. H. 1774.             | O r.m   | Bot. mag. 1523          |
| 4156   | <i>pubescens</i> W.        | pubescent      | ▽ △ or | 1 | au     | W    | C. G. H. 1790.             | O r.m   | Bot. cab. 702           |
|        | β <i>albiflorus</i> W.     | white-flowered | ▽ △ or | 1 | ap, au | W    | C. G. H. 1791.             | O r.m   | Bot. mag. 1239          |
| 4157   | <i>maculatus</i> Jacq.     | spotted-leaved | ▽ △ or | 1 | ap, au | ...  | C. G. H. 1790.             | O s.l.p | Bot. mag. 1239          |
| 4158   | <i>lanceifolius</i> W.     | spear-leaved   | ▽ △ or | 1 | s, o   | R    | C. G. H. 1794.             | O r.m   | Jac. sch. l. t. 60      |
| 4159   | <i>carinatus</i> W.        | keel-leaved    | ▽ △ or | 1 | au, s  | Pk   | C. G. H. 1759.             | O r.m   | Bot. mag. 1239          |
| 4160   | <i>pumilio</i> W.          | dwarf          | ▽ △ or | 1 | au, s  | Pk   | C. G. H. 1789.             | O s.l.p | Jac. sch. l. t. 61      |
| 4161   | <i>carneus</i> Ker.        | flesh-colored  | ▽ △ or | 1 | jn, jl | Pk   | C. G. H. 1819.             | O s.l.p | Bot. reg. 509           |
| 4162   | <i>Hyalocarpus</i> Jacq.   | china-fruited  | ▽ △ or | 1 | jl     | R    | C. G. H. 1822.             | O s.l.p | Jacq. sch. t. 409       |
| 732.   | GALANTHUS. W.              | SNOWDROP.      |        |   |        |      | Amaryllidaceae. Sp. 2.     |         |                         |
| 4163   | <i>nivalis</i> W.          | common         | ▽ △ or | 1 | ja, mr | W    | Britain mea.               | O co    | Eng. bot. 19            |
| 4164   | <i>plicatus</i> Bieb.      | plaited        | ▽ △ or | 1 | ja, ap | W    | Crimea 1818.               | O co    | Eng. bot. 545           |
| † 733. | LEUCOJUM. W.               | SNOW-FLAKE.    |        |   |        |      | Amaryllidaceae. Sp. 5.     |         |                         |
| 4165   | <i>vérum</i> W.            | spring         | ▽ △ or | 1 | ja, m  | W    | Germany 1596.              | O s.l   | Bot. mag. 46            |
| 4166   | <i>æstivum</i> W.          | summer         | ▽ △ or | 1 | ap, my | W    | England m.me.              | O s.l   | Eng. bot. 621           |
| 4167   | <i>pulchellum</i> P. L.    | neat           | ▽ △ or | 1 | ap, my | W    | .....                      | O s.l   | Par. lond. t. 81        |
| § 4168 | <i>autumnale</i> W.        | autumnal       | ▽ △ or | 1 | s      | Pk   | Portugal 1629.             | O s.l   | Bot. mag. 960           |
| 4169   | <i>trichophyllum</i> P. S. | narrow-leaved  | ▽ △ or | 1 | ja, f  | W    | Barbary 1812.              | O s.l   | Bot. reg. 544           |



History, Use, Propagation, Culture,

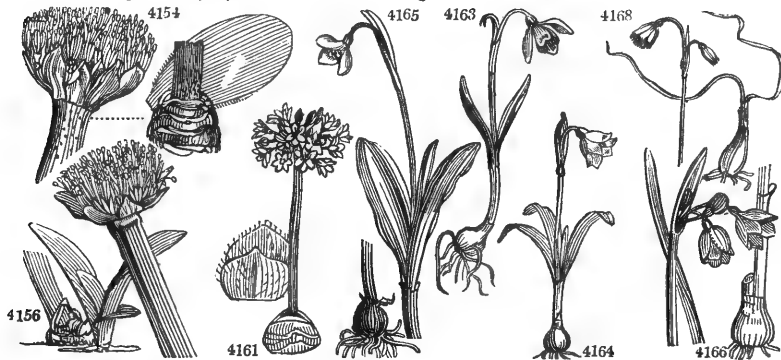
of Flora Aboensis, 1673. Several species of this genus are parasitical, and others require the same treatment as Pitcairnia or Bromelia.

*T. utriculata* is a valuable plant in the woods of the West Indies, as containing a supply of water in dry seasons. The seed being pappose, is carried about by the wind, and sticks readily on the bark of trees: there, especially on decaying ones, it sends out small brown fibres which take hold of the bark, and weave and mat themselves among one another; from this foundation rise several leaves on every side, like those of Aloes or Ananas; they are folded or inclosed one within another, each three feet and a half long, and three inches broad at the base, but ending in a point, having a very hollow or concave inward side, and a round or convex outward one, forming a bason or cistern, containing about a quart of water, which, in the rainy season falls upon the upper parts of the spreading leaves, and being conveyed down them by channels, lodges in the bottom as in a bottle; for the leaves, having swelled out at the base, bend inwards close to the stalk, thus hindering the evaporation of the water by the heat of the sun. From the midst of the leaves rises a round, smooth, straight, green stalk, three or four feet high, having many branches, and when wounded yielding a clear white mucilaginous gum. The flowers come out here and there on the branches. The corolla is of a yellowish-white or herbaceous color; and the calyx is made up of three green viscid leaves with purple edges.

Men, birds, and insects supply themselves with water from this plant. Dampier says, he has many times, to his great relief, stuck his knife into the leaves just above the roots, and let out the water into his hat.

*T. usneoides* deserves, for its appearance and uses, to be shortly described. The stem is no bigger than a thread; the skin whitish, as if covered with hoar-frost, within tough and black like a horse hair. Many of these together stick on the branches of the ebony or other trees superficially by the middle, and send down on each side some of the same stems, very often a yard long, hanging on both sides, curled, or turning and winding one within another, and resembling an old man's beard, whence its common name in Jamaica. The stems are branched, and the branches, which are two or three inches long, are set with roundish, white, frosted leaves. The flowers come out at the end of the branches. This slender parasitical plant is found among the trees in many parts of Jamaica, but does not grow so commonly there, nor so luxuriantly, as it does in the more northern provinces of the main continent, where it is said to overrun whole forests. It is frequently imported from Jamaica to North America, for the use of the

- 4136 Leaves lanceolate channelled slightly prickly, outer acute inner retuse  
 4137 Filiform branched twisted rough  
 4138 Leaves lanceolate ligulate entire ventricose at base  
 4139 Leaves linear subulate entire imbricate, Spike lax  
 4140 Leaves narrow channelled recurved, Spike imbricated simple oval two-edged  
 4141 Spikes subdivided nodding, Flowers distinct ovate, Leaves ovate lanceolate membranous  
 4142 Leaves radical stiff frosted, Flowers imbricated in an ovate spike of whitish bracts  
 4143 Leaves subulate rough reclinate, Stems 1-flowered, Glumes 2-flowered  
 4144 Flower tubular tritid, Segments of the tripetaloid limb reflexed twice as short as tube, Lvs. entire  
 4145 Leaves cordate, Flowers spiked  
 4146 Leaves long-triangular narrowed by degrees, at the base truncate cordate, Petals lin. lanc.  
 4147 Leaves sagittate obtuse, Flowers in crowded umbels  
 4148 Leaves lanceolate elliptical cordate, Spike oblong  
 4149 Leaves linguiform flat smooth pressed on the ground 2-ranked, Umbel shorter than the spathe  
 4150 Leaves linguiform oblong flat smooth callous at end, Umbel contracted shorter than spathe, Limb erect  
 4151 Leaves rounded fringed with pink hairs, Umbel few-flowered, Leaves of spathe cordate blunt  
 4152 Leaves oblong elliptical acute retuse wavy, Umbel contracted, Limb and stamens erect  
 4153 Leaves ellipt. lanceol. acute concave erect, Umbel longer than spathe, Limb spreading, Stam. ascending  
 4154 Leaves linguiform flat smooth fringed at edge depressed, Umbel contracted, Limb and stamens erect  
 4155 Leaves lanceolate ciliated villous above smooth beneath, Spathe campanulate 4-valved  
 4156 Leaves oblong lanceolate hairy all over, Umbel fastigate rounded, Limb and stamens erect  
 4157 Leaves broad much spotted with brown  
 4158 Lvs. ellipt. atten. at base depressed flat smooth ciliated at edge, Pedunc. longer than spathe and flower  
 4159 Leaves linear carinated  
 4160 Leaves linear lanceolate erect smooth, Peduncles length of spathe and flowers, Limb spreading  
 4161 Leaves 2 round ovate acuminate and scape hairy backwards, Spathe reflexed withered, Stam. included  
 4162 Leaves oblong obtuse smooth erect not spotted, Umbel rounded, Limb erect  
 4163 Leaves smooth  
 4164 Leaves plaited  
 4165 Spathe 1-flowered, Style clavate  
 4166 Spathe many-flowered, Style clavate  
 4167 A slight variety of the last  
 4168 Spathe many-flowered, Style filiform  
 4169 Vernal, Sepals entire, Style filiform with a blunt stigma



and Miscellaneous Particulars.

saddlers and coachmakers, who commonly stuff their pannels, cushions, &c. with it. In Louisiana and the neighbouring settlements, this plant being very carefully gathered and stripped of the bark, is made into mattresses, cushions, pannels, &c. It is manufactured by tying the stalks in bunches, and sinking them in water, or burying them under ground in a moist place, until the bark rots: they are then taken up, boiled in water, and washed, until the fibres are quite cleared of the pulp. These are not only used instead of horse-hair, but are very like it, that a man cannot distinguish them, without a strict examination, and that even with a glass, unless he observes the branchings of it.

The Bonana bird's nest is always made of the fibres of this plant, and is generally found hanging by a few threads from the tops of the most expanded branches of the most lofty trees, especially those that spread over ponds or rivers.

In cultivating *Tillandsia* in our stoves, the parasitical species may either be hung up in baskets of moss, or fastened in moss to some plant, or to the stump of a tree set up on purpose: if planted in pots, they require but little water, and a sandy loam, with bits of sticks and small pieces of potsherds mixed with it. (*Sweet.*) They are, however, extremely difficult to manage under any mode of treatment.

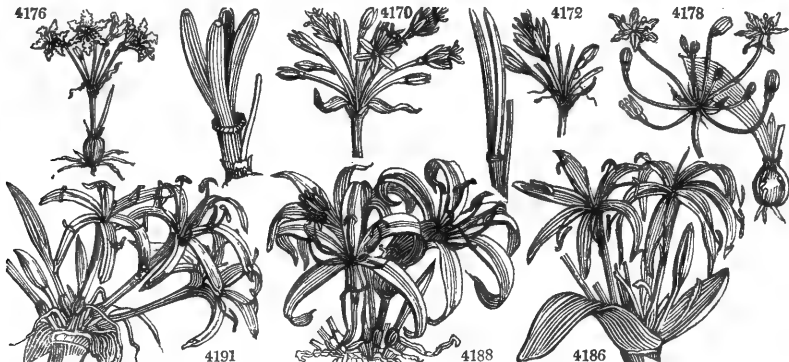
730. *Pontederia*. So named in memory of Julius Pontedera, professor of botany at Padua, author of *Tabulæ Botanicae*, 1718, &c. This is a genus of aquatic, herbaceous, perennial plants, with fibrous roots sheathing stem-leaves, and blue flowers in spikes or umbels from the cloven sheath of the leaves. A loamy soil in a cistern of water grows them well, and they are not without beauty.

731. *Hamantus*. From *haima*, blood, and *antos*, a flower, in allusion to the brilliant red colors of the flowers. An ornamental genus, which thrives best in sandy loam and a little peat, and placed in a dry stove or bulb-house near the glass. The species require no water when in a dormant state, as the bulbs then ripen, and afterwards flower freely. (*Sweet.*)

732. *Galanthus*. From *γαλα*, milk, and *ανθος*, a flower, on account of the milky whiteness of the blossoms. It is rather singular, and also to be regretted, that no variations or hybrids have been produced from this early and pretty little flower.

733. *Leucojum*. From *λευκος*, white, and *ιον*, a violet. A genus resembling the last in habit, but differing in technical characters. The little autumn species is very pretty, but difficult to cultivate.

|                                      |                  |                               |  |
|--------------------------------------|------------------|-------------------------------|--|
| 734. STRUMA'RIA. Jac. STRUMARIA      |                  | <i>Amaryllidæ. Sp. 9—11.</i>  |  |
| 4170 truncata W.                     | truncated        | ♂ Δ                           | or 1 ap.my W C. G. H. 1795. O s.l. Jac. ic. 2. t. 357        |
| 4171 rubella W.                      | pale-red         | ♂ Δ                           | or 1 my.jn Pk C. G. H. 1795. O s.l. Jac. ic. 2. t. 358       |
| 4172 angustifolia W.                 | narrow-leaved    | ♂ Δ                           | or 1 ap.my Pk C. G. H. 1795. O s.l. Jac. ic. 2. t. 359       |
| 4173 linguæfolia W.                  | tongue-leaved    | ♂ Δ                           | or 1 ap.my W C. G. H. ... O s.l. Jac. ic. 2. t. 356          |
| 4174 filifolia H. K.                 | fine-leaved      | ♂ Δ                           | or 1 n W C. G. H. 1774. O s.l. Bot. reg. 440                 |
| 4175 spiralis H. K.                  | spiral           | ♂ Δ                           | or 1 ap.au Pk C. G. H. 1774. O s.l. Bot. mag. 1388           |
| 4176 crispa B. M.                    | curled-flower'd  | ♂ Δ                           | or 1 ap.au Pk C. G. H. 1790. O s.l. Bot. mag. 1398           |
| 4177 stellaris Jacq.                 | starred          | ♂ Δ                           | or 1 o.n Pk C. G. H. 1794. O s.l. Jac. sch. 1. t. 71         |
| 4178 gemmata B. M.                   | Jewel-flowered   | ♂ Δ                           | or 1 au Pa.Y C. G. H. 1812. O s.l. Bot. mag. 1620            |
| 735. CRINUM. W. CRINUM               |                  | <i>Amaryllidæ. Sp. 26—28.</i> |  |
| 4179 americanum W.                   | American         | ♂ Δ                           | or 2 il.au W S. Amer. 1752. O r.m. Bot. mag. 1034            |
| 4180 erubescens W.                   | blush-colored    | ♂ Δ                           | or 2 jn.au Pa.w W. Indies 1789. O r.m. Bot. mag. 1232        |
| 4181 Commelini Ker.                  | Commelin's       | ♂ Δ                           | or 2 jn.au W S. Amer. 1798. O r.m. Jac. sch. 2. t. 202       |
| 4182 defixum Ker.                    | marsh            | ♂ Δ                           | or 2 aus W E. Indies 1810. O r.m. Rhe. m. 1. t. 38           |
| 4183 amœnum Roxb.                    | delightful       | ♂ Δ                           | or 2 ... W E. Indies 1810. O r.m. ...                        |
| 4184 sumatranum Ker.                 | Sumatra          | ♂ Δ                           | or 5 ... W Sumatra 1810. O r.m. Bot. reg. 1049               |
| 4185 longifolium Ker.                | long-leaved      | ♂ Δ                           | or 3 ... W Bengal 1810. O r.m. ...                           |
| 4186 cruentum Ker.                   | red-flowered     | ♂ Δ                           | or 4 jn.au R E. Indies 1810. O r.m. Bot. reg. 171            |
| 4187 asiaticum W.                    | Poison-bulb      | ♂ Δ                           | or 3 jn.au W China 1732. O r.m. Bot. mag. 1073               |
| <i>C. tozicarium</i> Roxb.           |                  | beautiful                     |  |
| 4188 amabile Donn.                   | beautiful        | ♂ Δ                           | or 5 jn.au Pu E. Indies 1810. O r.m. Bot. mag. 1605          |
| 4189 bracteatum W.                   | bracteated       | ♂ Δ                           | or 2 jn.au W Mauritius 1810. O r.m. Bot. reg. 179            |
| 4190 canaliculatum Ker.              | channelled-ld.   | ♂ Δ                           | or 4 ... W ... 1810. O r.m. ...                              |
| 4191 pedunculatum B. R.              | long-peduncled   | ♂ Δ                           | or 3 jn.au W N. S. W. 1790. O r.m. Bot. reg. 52              |
| 4192 ensifolium Roxb.                | sword-leaved     | ♂ Δ                           | or 3 ... W Pegu 1819. O r.m. ...                             |
| 4193 lorifolium Roxb.                | strap-leaved     | ♂ Δ                           | or 5 ... W Pegu 1819. O r.m. ...                             |
| 4194 augustum Roxb.                  | noble            | ♂ Δ                           | or 4 jn.au Pk Mauritius 1818. O r.m. Bot. reg. 679           |
| 4195 brachyandrum Herb.              | short-stamened   | ♂ Δ                           | or 5 jn.au W N. Holl. 1819. O r.m. ...                       |
| 4196 plicatum Hort.                  | plaited          | ♂ Δ                           | or 2 jn.au W China 1818. O r.m. ...                          |
| 4197 declinatum Herb.                | sloping          | ♂ Δ                           | or 2 my W Silhet 1818. O r.m. Bot. mag. 2231                 |
| 4198 submersum Herb.                 | lake             | ♂ Δ                           | or 1 1/2 jl Pk Rio Janeiro, 1820. O r.m. Bot. mag. 2463      |
| 4199 Careyænum Herb.                 | Carey's          | ♂ Δ                           | or 2 jl W Mauritius 1821. O r.m. Bot. mag. 2466              |
| 4200 confertum Herb.                 | crowded          | ♂ Δ                           | or 2 jn W N. Holl. 1822. O r.m. Bot. mag. 2522               |
| 4201 aquaticum Burch.                | water            | ♂ Δ                           | or 4 aus Pk C. G. H. 1820. O r.m. Bot. mag. 2332             |
| 4202 arenarium Herb.                 | sand             | ♂ Δ                           | or 2 my W N. Holl. 1822. O r.m. Bot. mag. 2355               |
| 4203 mauritianum Herb.               | African          | ♂ Δ                           | or 4 mr Pk Mauritius 1812. O r.m. Bot. cab. 650              |
| 4204 scabrum Herb.                   | rough            | ♂ Δ                           | or 4 my Pk Azores 1810. O r.m. Bot. cab. 529                 |
| †*736. CYRTANTHUS. H. K. CYRTANTHUS. |                  | <i>Amaryllidæ. Sp. 7—8.</i>   |  |
| 4205 angustifolius W.                | narrow-leaved    | ♂ Δ                           | or 1 my.jn O C. G. H. 1774. O r.m. Bot. mag. 271             |
| 4206 collinus B. Reg.                | hill             | ♂ Δ                           | or 1/2 my.au Cr C. G. H. 1815. O r.m. Bot. reg. 162          |
| 4207 spiralis B. Reg.                | spiral-leaved    | ♂ Δ                           | or 1 my.au S C. G. H. 1790. O r.m. Bot. reg. 167             |
| 4208 obtusus W.                      | oblique-leaved   | ♂ Δ                           | or 2 my.au G.o C. G. H. 1774. O r.m. Bot. mag. 1133          |
| 4209 uniflorus Ker.                  | one-flowered     | ♂ Δ                           | or 1 my.au W.n C. G. H. 1815. O r.m. Bot. reg. 138           |
| 4210 odoratus Ker.                   | sweet            | ♂ Δ                           | or 1/2 my.jl Cr C. G. H. 1818. O r.m. Bot. reg. 503          |
| 4211 pallidus Sims.                  | pale             | ♂ Δ                           | or 1 my.jl Pk C. G. H. 1822. O r.m. Bot. mag. 2471           |
| 737. BRUNSVIGIA. Heist. BRUNSVIGIA.  |                  | <i>Amaryllidæ. Sp. 8.</i>     |  |
| 4212 Josephineæ R. L.                | Josephine's      | ♂ Δ                           | or 1 1/2 jn.au S C. G. H. 1814. O r.m. Red. lit. t. 370. 372 |
| β minor B. Reg.                      | smaller          | ♂ Δ                           | or 1 jn.au S C. G. H. 1814. O r.m. Bot. r. 152, 153          |
| 4213 multiflora H. K.                | many-flowered    | ♂ Δ                           | or 1 jn.au R C. G. H. 1752. O r.m. Bot. mag. 1619            |
| 4214 marginata H. K.                 | red-margined     | ♂ Δ                           | or 1 s.o. S C. G. H. 1752. O r.m. Jac. sch. 1. t. 65         |
| 4215 Rádula H. K.                    | rasp-leaved      | ♂ Δ                           | or 1/2 ap.au R C. G. H. 1790. O r.m. Jac. sch. 1. t. 68      |
| 4216 striata H. K.                   | striated         | ♂ Δ                           | or 1/2 s.o. Pk C. G. H. 1795. O r.m. Jac. sch. 1. t. 70      |
| 4217 falcata B. M.                   | sickle-leaved    | ♂ Δ                           | or 1/2 my.jn R C. G. H. 1774. O r.m. Bot. mag. 1443          |
| 4218 toxicaria Ker.                  | Poison-bulb      | ♂ Δ                           | or 1 s.o. Pk C. G. H. 1774. O r.m. Bot. reg. 567             |
| β coranica Ker.                      | cor. Poison-bulb | ♂ Δ                           | or 1 s.o. Pk C. G. H. 1815. O r.m. Bot. reg. 139             |
| 4219 ciliaris Ker.                   | fringed          | ♂ Δ                           | or 1 ... Pk C. G. H. 1752. O r.m. Brey. cent. t. 39          |



History, Use, Propagation, Culture,

734. *Strumaria*. From *struma*, a tubercle; a name given by Jacquin, on account of the swelling of the middle of the style. Pretty little delicate plants; their culture as in *Hemanthus*.

735. *Crinum*. *Kéwon* is Greek for a lily. Its limits as a genus are defined by the hypocateriform flower with linear reflexed segments. Some unwise attempts have been made to destroy this distinction, by admitting into this genus plants with the characters of *Amaryllis*. We, however, have adhered to the old, and, as we think, most intelligible, mode of understanding the genus. This is a fine stately genus of the *Amaryllidæ*: several beautiful species have lately been introduced. They grow best in rich loam, mixed with a little rotten dung, and potted in large pots they will flower abundantly. They may be increased by suckers from the root, or by seed. If the plant be shy in producing suckers, it may be cut down near to the root, and it will send out plenty. (*Bot. Cult.* 46.)

- 4170 Leaves linear ensiform rounded obtuse flat, Scape compressed, Stamens longer than cor.  
 4171 Leaves linear obliquely bent, Petals flat  
 4172 Leaves linear flat, Germen with three glands  
 4173 Leaves linear ensiform rounded obtuse flat, Scape rounded, Stamens as long as cor.  
 4174 Leaves filiform, Petals acute  
 4175 Leaves filiform spiral, Petals acute colored outside  
 4176 Leaf filiform straight, Umb. many-flowered, Petals wavy flat  
 4177 Sepals spreading alternately bearded beneath the ends  
 4178 Scape flexuose much longer than the lanceol. ciliated leaves, Pedunc. very long, Petals wavy channelled

- 4179 Leaves striated, Umbel sessile many-flowered, Tube furrowed about as long as limb  
 4180 Lvs. lanc. lor. with cartil. teeth, Umb. subs. many-fl. Tube longer than limb, Stam. little long. than style  
 4181 Ends of sepals hooked inwards, Leaves linear channelled, Scape 4-fl.  
 4182 Bulb with a very long tap-root, Leaves stiff erect with long points smooth at edge, Umb. sess. many-fl.  
 4183 Bulb spherical, Leaves narrow with a nearly smooth edge, Umb. few-fl. sess. Sep. lin. lanc. as long as tube  
 4184 Bulb oval not with a neck, Lvs. broad lin. lanc. straight with a white cartil. toothed edge, Umb. of fl. sess.  
 4185 Bulb round, Leaves narrowed lax channelled hispid at edge, Umb. sess. many-fl. Seg. shorter than tube  
 4186 Bulb ovate with a neck, Leaves broad subulate roughish at edge, Spathe herbaceous  
 4187 Bulb cylind. above ground, Lvs. lanc. smooth at edge longer than scape, Umb. stalk. Sep. long lin. reflexed  
 4188 Bulb very large with long red neck, Lvs. broad glauc. smth. at edge, Umb. many-fl. Tube shorter than limb  
 4189 Bulb with long neck, Lvs. obl. lanc. with obt. point smooth wavy at edge, Umb. many-fl. with pale bractes  
 4190 Bulb cylindrical scarcely with a neck, Leaves lorate with a smooth edge, Umb. on a very long stalk  
 4191 Bulb cylindrical like a leek, Scape central broad compressed, Umb. many-fl. lax stalked  
 4192 Bulb ovate, Leaves scattered straight of one form  
 4193 Bulb cylindrical ovate, Leaves lorate very long, Umb. many-fl. stalked  
 4194 Bulb colum. above ground, Lvs. many lanc. with smooth edge, Scape as long as lvs. Umb. stalk. 20-30-fl.  
 4195 Bulb columnar, Leaves many bluntly acuminate, Flowers sessile, Segments longer than tube  
 4196 Like *C. asiaticum*, but with leaves strong plaited backwards about their middle  
 4197 Bulb oblong, Leaves acute wavy smooth at edge, Flowers many stalked declinate  
 4198 Bulb oblong ovate red, Leaves rough at edge, Flowers spreading, Sepals lanceolate flat not revolute  
 4199 Bulb round, Lvs. wavy rough at edge, Sepals obov. flat, Flowers very large with a tinge of pink at back  
 4200 Bulb ovate, Leaves narrow channelled acute, Flowers upright crowded  
 4201 Bulb ovate, Leaves very long narrow green twisted, Flowers campanulate, Stamens spreading  
 4202 Bulb ovate, Leaves a little rough at edge, Umbel 5-flowered shortly stalked, Sepals lanc. flat  
 4203 Leaves long narrow weak, Scape shorter than leaves, Umbel 5-6-flowered  
 4204 Leaves long narrow recurved rough at edge, Scape 2-edged, Umb. 5-flowered, Sepals broad

- 4205 Leaves linear channelled, Flowers cernuous. Tube cylindrical  
 4206 Leaves 3 linear glaucous, Pedunc. somewhat shorter than flower, Stamens included  
 4207 Many-flowered, Leaves 3 ligulate spiral obtuse glaucous  
 4208 Leaves lanceolate obtuse flat oblique, Cor. pendulous obversely conical  
 4209 Leaf solitary linear glaucous, Limb as long as throat  
 4210 Flowers about 4 straightish nodding, Anthers included, Leaves linear not glaucous  
 4211 Leaves linear lanc. keeled appearing after the flowers, Cor. nodding, Limb as long as tube

- 4212 Lvs. strap-shaped erect spreading glaucous, Scape twice as long as the rays of the many-flowered umbel

- 4213 Leaves linguiform lying on the ground smooth  
 4214 Leaves linguiform pressed on the ground with a cartilaginous edge  
 4215 Leaves elliptical pressed on the ground rough with little pustules  
 4216 Leaves elliptical ovate erect edged  
 4217 Leaves falcate with a muricated discolored cartilaginous edge  
 4218 Umbel hemispherical close, Leaves many erect oblique glaucous

- 4219 Leaves strongly fringed with white hairs

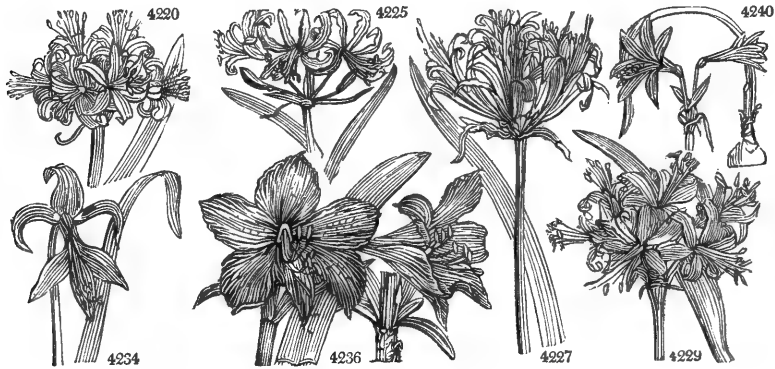


and Miscellaneous Particulars.

736. *Cyranthus*. From *κυρτός*, curved, and *ανθός*, a flower. The tube of the flower is long and round. This is an elegant genus, and the species grow well in sandy loam mixed with a little peat. They require plenty of water when in a growing state, but scarcely any when dormant; and they should be fresh potted just before they begin to grow, when they will flower freely. They may be increased by offsets from the bulbs, or from seeds. (*Bot. Cult.* 176.)

737. *Brunsvigia*. Named after the noble family of Brunswick. This is a splendid genus; some of the bulbs grow to a great size, and require large pots to have them thrive and flower in perfection. They require plenty of water when in a growing state; but must when dormant be kept so by wholly withholding water.

| NERINE.                    |                         | Amaryllidæe. |   | Sp. 12.                 |   |
|----------------------------|-------------------------|--------------|---|-------------------------|---|
| 4220 curvifolia W.         | Fothergill's glittering | ♂            | Δ | or                      | 1 my.s P C. G. H. 1777. O r.m Bot. mag. 725       |
| 4221 coriaca B. M.         | Guernsey Lily           | ♂            | Δ | or                      | 1 jl.au S C. G. H. 1809. O r.m Bot. mag. 1089     |
| 4222 sarniensis W.         | poppy-colored           | ♂            | Δ | or                      | 1 a.o R Japan 1659. O r.m Bot. mag. 304           |
| 4223 venusta B. M.         | Zigzag                  | ♂            | Δ | or                      | 1 jn.jl S C. G. H. 1806. O r.m Bot. mag. 1090     |
| 4224 flexuosa W.           | small                   | ♂            | Δ | or                      | 1 s.o Pk C. G. H. 1795. O r.m Bot. reg. 172       |
| 4225 humilis W.            | waved-flowered          | ♂            | Δ | or                      | 2 jn.jl R C. G. H. 1795. O r.m Bot. mag. 726      |
| 4226 undulata W.           | golden                  | ♂            | Δ | or                      | ♂ my.jn Pk C. G. H. 1777. O r.m Bot. mag. 369     |
| 4227 aurea W.              | Snowdrop-leav.          | ♂            | Δ | or                      | 1 au.s Y China 1767. O r.m Bot. mag. 409          |
| 4228 radiata               | rose-colored            | ♂            | Δ | or                      | 14 jn.jl Pk China 1758. O r.m Bot. rep. 95        |
| 4229 rosea Herb.           | broad-headed            | ♂            | Δ | or                      | ♂ jl Pk C. G. H. 1818. O r.m Bot. mag. 2124       |
| 4230 laticoma Ker.         | pretty                  | ♂            | Δ | or                      | 1 au Pk C. G. H. 1818. O r.m Bot. reg. 457        |
| 4231 pulchella Herb.       |                         | ♂            | Δ | or                      | 2 jl Pk C. G. H. 1820. O r.m Bot. mag. 2407       |
| †*739. AMARYLLIS. W.       |                         | AMARYLLIS.   |   | Amaryllidæe. Sp. 33—39. |   |
| 4232 Pumilio W.            | dwarf                   | ♂            | Δ | or                      | ♂ n Pk C. G. H. 1774. O r.m Ker's rev. pl. 3.f.8  |
| 4233 pudica Ker.           | modest                  | ♂            | Δ | or                      | ♂ my.jl Pk C. G. H. 1795. O r.m Bot. mag. 47      |
| 4234 formosissima W.       | Jacobea Lily            | ♂            | Δ | or                      | ♂ my.au D.R N. Amer. 1658. O r.m Bot. reg. 444    |
| 4235 adlica Ker.           | crowned                 | ♂            | Δ | or                      | 14 my.au G.s Brazil ... O r.m Bot. reg. 199       |
| 4236 pittáctina Ker.       | parrot                  | ♂            | Δ | or                      | 14 my.au G.s Brazil 1816. O r.m Bot. reg. 164     |
| 4237 calyptrata Ker.       | green-flowered          | ♂            | Δ | or                      | 14 my.au G Brazil 1816. O r.m Bot. reg. 305       |
| 4238 equestris W.          | Barbadoes lily          | ♂            | Δ | or                      | 1 jl.o S W. Indies 1710. O r.m Bot. reg. 234      |
| β maior                    | larger                  | ♂            | Δ | or                      | 14 jl.o S W. Indies 1710. O r.m Bot. reg. 453     |
| 4239 regina W.             | Mexican Lily            | ♂            | Δ | or                      | 2 my.jn S America 1725. O r.m Bot. reg. 453       |
| 4240 ádvena B. M.          | streaked-flow.          | ♂            | Δ | or                      | ♂ my.jn S Chili 1807. O r.m Bot. reg. 1125. 1     |
| β cerina Lindl.            | pale                    | ♂            | Δ | or                      | ♂ my.jn P.v Y Chili 1821. O r.m Bot. reg. 1125. 2 |
| 4241 solandraeflora Lindl. | Solandra-flow.          | ♂            | Δ | or                      | 14 ap P.v S. Amer. 1820. O r.m Lindl. coll. 11    |
| 4242 pulverulenta Herb.    | pointed                 | ♂            | Δ | or                      | 1 ap.my R Brazil 1819. O r.m Bot. reg. 534        |
| β acuminata Ker.           |                         | ♂            | Δ | or                      | ♂ jn Cr Chili 1821. O r.m Bot. mag. 2399          |
| §4243 cyrtanthoides Sims.  | Cyrtanthus-like         | ♂            | Δ | or                      | 1 n S Chili 1824. O r.m Bot. reg. 809             |
| §4244 ignea Lindl.         | fiery                   | ♂            | Δ | or                      | ♂ s W Peru 1822. O r.m Bot. reg. 724              |
| 4245 can'dida Lindl.       | white                   | ♂            | Δ | or                      | ♂ s W Maranhão 1821. O r.m Bot. reg. 719          |
| 4246 marinensis Ker.       | netted-veined           | ♂            | Δ | or                      | 1 ap.my Pu Brazil 1777. O r.m Bot. reg. 657       |
| 4247 reticulata W.         | striped-leaved          | ♂            | Δ | or                      | 1 ap.my Pu Brazil 1815. O r.m                     |
| β striatifolia             | New Holland             | ♂            | Δ | or                      | 2 jl.au W N. Brazil 1816. O r.m Bot. reg. 426     |
| 4248 australiaca Ker.      | noble                   | ♂            | Δ | or                      | 3 jl.au Pk E. Indies 1819. O r.m Bot. reg. 579    |
| 4249 insignis Ker.         |                         | ♂            | Δ | or                      |   |
| β Crinum latifolium Roxb.  |                         | ♂            | Δ | or                      |   |
| 4250 moluccana             | Molucca                 | ♂            | Δ | or                      | 2 jl.au Pk Moluccas 1819. O r.m Bot. mag. 3292    |
| 4251 crocata K. R.         | saffron-flower.         | ♂            | Δ | or                      | 1 ap.my Ve Brazil 1815. O r.m Bot. reg. 38        |
| 4252 rutila K. R.          | fiery                   | ♂            | Δ | or                      | ♂ ap.my Ve Brazil 1815. O r.m Bot. reg. 226       |
| 4253 filigida B. Reg.      | striped-tubed           | ♂            | Δ | or                      | ♂ ap.my Ve Brazil ... O r.m Bot. reg. 226         |
| 4254 blanda K. R.          | charming                | ♂            | Δ | or                      | ♂ my.jn Pk C. G. H. 1754. O r.m Bot. mag. 1450    |
| 4255 Belladonna W.         | Belladonna Lily         | ♂            | Δ | or                      | 2 jls F W. Indies 1712. O p.l Bot. mag. 733       |
| β pallida                  | pale-flowered           | ♂            | Δ | or                      | 2 jls F C. G. H. ... O p.l Red. ill. 470          |
| 4256 vittata W.            | superb                  | ♂            | Δ | or                      | 1 ap.my St ..... 1769. O r.m Bot. mag. 129        |
| β major Lindl.             | large                   | ♂            | Δ | or                      | 2 my.jl St C. G. H. 1774. O r.m                   |
| 4257 coranica K. R.        | sickle-leaved           | ♂            | Δ | or                      | 2 jl.au P.Pu C. G. H. 1816. O r.m Bot. reg. 139   |
| 4258 longifolia W.         | long-leaved             | ♂            | Δ | or                      | 2 jl Pk C. G. H. 1752. O r.m Bot. mag. 661        |
| β Govenia                  | Goven's                 | ♂            | Δ | or                      | 2 jn.jl Pk ..... O r.m                            |
| 4259 revoluta W.           | revolute                | ♂            | Δ | or                      | 2 s Pk C. G. H. 1774. O r.m Bot. reg. 623         |
| 4260 zeylanica W.          | Ceylon                  | ♂            | Δ | or                      | 3 jl.au Pu Ceylon 1771. O r.m Bot. mag. 1171      |
| 4261 ornata W.             | Yucca-flowered          | ♂            | Δ | or                      | 2 jn.jl W.pu Guinea 1774. O r.m Bot. mag. 1253    |
| 4262 gigantea K. R.        | gigantic                | ♂            | Δ | or                      | 2 jl.au W S. Leone 1792. O r.m Bot. mag. 923      |
| 4263 latifolia W.          | broad-leaved            | ♂            | Δ | or                      | 3 jls W E. Indies 1806. O r.m Rh. mal. 11. t. 39  |
| 4264 tatsirica Pall.       | Tartarian               | ♂            | Δ | or                      | ♂ ... B Siberia 1822. O r.m                       |
| 740. VALLOTA. Herb.        |                         | VALLOTA.     |   | Amaryllidæe. Sp. 1.     |   |
| 4265 purpurea Herb.        | scarlet                 | ♂            | Δ | or                      | 14 my.jn S C. G. H. 1774. O r.m Bot. reg. 552     |
| β minor                    | smaller                 | ♂            | Δ | or                      | 1 my.jn S C. G. H. 1774. O r.m Bot. mag. 1430     |

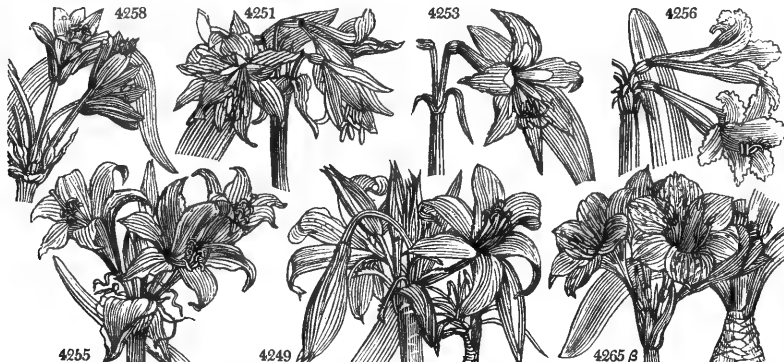


History, Use, Propagation, Culture,

738. *Nerine*. A fanciful name. *Nerine* was the daughter of *Nereus*. The plant has become naturalized in Guernsey, having been part of the cargo of a Cape ship, which was cast away many years ago on the coast of the island. *N. sarniensis* is a popular autumnal bulb, imported annually from the islands of Jersey and Guernsey, where it is grown in the open air in a sandy soil. Here it requires the protection of a frame to perfect the bulbs, so as it may flower the following year. The reason is, that the leaves on which the perfection and future flowering of every bulb depends, are protruded in the beginning of winter, and our winters are too long, gloomy, and severe, to admit of these leaves performing their functions properly. Hence two or more winters in a very mild situation in the open air are required to do what in Jersey is done in one winter; or two winters (as W. Williamson experienced) in a cold frame, or one winter only (agreeably to Knight's experience) in a frame with artificial heat. (*Hort. Trans.* iii. 450. iv. 177, and *Caled. Mem.* ii. 62.)

- 4220 Leaves narrow sub-involute glaucous falcate, Petals lin.-lanc. wavy, Stamens erect sub-exserted  
 4221 A mere variety of the foregoing, from which it differs in having crimson flowers  
 4222 Many-fl. Leaves many narrow sub-involute not glaucous upright  
 4223 Like the last, but the flowers are scarlet and appear at the same time as leaves  
 4224 Lvs. very narrow obt. min. pustulate, Sepals recurved divaricating: the one bearing the stamens remote  
 4225 Leaves few ligulate channelled, Sepals turned upwards oblique, Stam. declinate shorter than cor.  
 4226 Laxly many-fl. Lvs. few lin. Cor. recurved stel. irregular, Sepals curled; the lowest placed under the stem.  
 4227 Fl. stalked erect, Cor. infundibulif. clavate, Sepals linear lanceolate, Stamens straight, Leaves quite blue  
 4228 Five sepals, or all rising in a semicircular ray wavy, Stam. deflexed twice as long as cor.  
 4229 Leaves broad nerved lying on the ground, Sepals equally revolute, Stamens very long  
 4230 Leaves linear lorate, Scape flat smooth, Peduncles upright hispid 3-cornered twice as long as flower  
 4231 Leaves glaucous, Cor. deformed pale streaked with red  
 4232 Flower sessile, Leaf one linear, Sepals longer than tube ovate obl. reflexed acute, Stamens inclined  
 4233 One-flowered, Cor. regular erect turbinate conniving, One sepal pushed aside by the stamens  
 4234 Tube fringed, Cor. nodding with a very ringent limb, Stam. included in the involute lower segments  
 4235 Tube crowned by a short entire green membrane  
 4236 Two-flowered half ringent, Membrane of the tube very short two-colored toothletted, Stamens included  
 4237 Mem. of orifice entire, Limb half ringent nodding with outer seg. incurved at end, the inner recurved  
 4238 Tube fringed, 2-3-fl. Stalks shorter than the erect spatha, Tube horizontal, Limb curved upwards  
 4239 Tube fringed, 2-4-fl. Lvs. few lorate acum. with a keeled rib, Cor. cernu. deeply turbin. Tube short thick  
 4240 Many-fl. Tube fringed, Leaves 1 or more linear ligulate involute glaucous, Stalks as long as nodding cor.  
 4241 Flowers about 2 with a very long tube and a nearly regular limb  
 4242 Leaves long strap-shaped with the scape very ocellous, Flowers 4 ringent with taper pointed segments  
 4243 Cor. funnel-shaped campanulate drooping, Stamens straight exserted, Leaves green lorate obtuse  
 4244 Umbel 6-fl. Sepals rolled into a cylindrical tube, Flower-stalks the length of flowers, Stigma simple  
 4245 Flower solitary erect, Sepals conniving, Stamens ascending, Anthers innate, Leaves linear fleshy  
 4246 Flower nodding ringent, Outer sepals broadest, Throat naked, Tube the length of the ovary  
 4247 Leaves several lorate-oblong narrow, towards the base, Flower cernuous cucul. tubular obliquely ringent  
 4248 Leaves linear very long and weak, Limb nodding 2-lipped, Flower-stalks many times longer than ovary  
 4249 Lvs. numerous spreading flat with rough edge, Fl. about 10 with nodd. spreading obsoletely 2-lipped limb  
 4250 Bulb spherical, Spathe bifid erect obtuse, Flowers sessile, Leaves with a long point wavy downwards  
 4251 Spathe withered scarcely as long as stalks, Cor. cern. unco. Tube as long as germen, Upper sepal remote  
 4252 About 2-fl. Spathe arid refl. Limb turbin. bilabiate: three upper seg. conniv. recurv. lower narr. remote  
 4253 Leaves obl. lanc. not glaucous, Flowers nodding with an oblique mouth, the upper one much reflexed  
 4254 Lvs. many obl. obtuse, Pedunc. divaricating as long as fl. Tube short turbin. Limb recurved spreading  
 4255 With many fl. on stalks, Lvs. ligul. Cor. regular turbin. nodd. Sepals recurv. at end, Tube scarcely any  
 4256 Cor. cucul. campanulate, Outer sepals separate to the bottom; inner united half way by the interior ribs  
 4257 Lvs. altern. turn. both ways fal. Scape flat, Cor. regul. Tube twice as short as revol. limb. Stam. erect spread.  
 4258 Umb. many-fl. shortly stalked, Leaves attenuated glaucous, Tube about twice as long as limb  
 4259 Many-fl. Leaves acuminate glaucous, Flowers erect recurved stalked cucullate, Limb spreading revolute  
 4260 Leaves many lorate lanceolate wavy thick in the middle, Limb cernuous as long as tube  
 4261 Lvs. many lorate atten. channelled rough at edge, Limb obsoletely 2-lipped shorter than tube nodding  
 4262 Leaves obl. lanceolate narrowed both ways wavy rough at edge, Limb nodding shorter than tube  
 4263 Spathe many-fl. Flowers stalked tubular at base, Leaves obl. lanceolate  
 4264 Spathe 2-fl. Cor. campan. deeply 6-parted, Upper seg. very narr.; lower ob. acum. Lvs. lin. longer than scape

4265 The only species, *Amaryllis purpurea* of Willd



and Miscellaneous Particulars.

739. *Amaryllis*. Name of a nymph celebrated by the poets, and especially by Virgil. Derived from *ama* *quies*, to be resplendent. This is a superb genus: the greenhouse sorts thrive best in a rich loamy soil, and should have but little water given them after they have done flowering, so that the bulbs may harden, to produce more flowers the following season. Most of them are increased freely by offsets, and ripen plenty of seed. A shell taken from the bulb, with a leaf on it, and planted in a pot of mould, will produce a bulb; as will almost any bulbous-rooted plant. (*Bot. Cult.* 131.)

The stove *Amaryllises* grow best in light loam and rich soil, and the strong growing kinds require large pots to flower in perfection; they are increased by offsets and by seeds, which they bear plentifully, if care be taken to shake some pollen on the stigma at the proper period.

740. *Vallota*. A name of unknown meaning. The only species of this genus is a beautiful Cape plant, with bright purple flowers, of which two varieties are known in gardens.

|  |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
|--|------------------|---|---|----|----------------------|--------|-------|-----------|-------|-----|---------------------|--------------------------|
| 741. GRIFFINIA. Ker.                   | GRIFFINIA.       |   |   |    | <i>Amaryllideae.</i> | Sp. 2. |       |           |       |     |                     |                          |
| 4266 hyacinthina Ker.                  | blue             | ✓ | △ | or | 1                    | jn.s   | B     | S. Amer.  | 1815. | O   | r.m                 | Bot. reg. 163            |
| 4267 parviflora Ker.                   | small-flowered   | ✓ | △ | or | 1                    | jn.s   | Pa.P  | S. Amer.  | 1815. | O   | r.m                 | Bot. reg. 511            |
| 742. STERNBERGIA. W. STERNBERGIA.      |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4268 colchiciflora W. & K.             | Colchicum-fl.    | ✓ | △ | or | 1                    | aus.   | Y     | Hungary   | 1816. | O   | r.m                 | W. & Kit. 2. t. 157      |
| 4269 clusiana Ker.                     | Ecluse's         | ✓ | △ | or | 1                    | aus.   | P.Y   | Constant. | ...   | O   | r.m                 | Clu. hist. 1. t. 163     |
| 4270 lutea Ker.                        | yellow           | ✓ | △ | or | 1                    | aus.   | Y     | S. Europe | 1596. | O   | r.m                 | Bot. mag. 290            |
| 4271 chloroleuca Ker.                  | one-leaved       | ✓ | △ | or | 1                    | my.au  | P.Gr  | .....     | ...   | O   | r.m                 | Ker. rev. pl. 8. f. 2    |
| 743. ZEPHYRANTHES. Herb. ZEPHYRANTHES. |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4272 tubispatha Herb.                  | tube-sheathed    | ✓ | △ | or | 1                    | my.jl  | W     | S. Amer.  | ...   | O   | r.m                 | Bot. mag. 1586           |
| 4273 atamac'o Herb.                    | Atamasco-Lily    | ✓ | △ | or | 1                    | my.jn  | W     | N. Amer.  | 1829. | O   | r.m                 | Bot. mag. 239            |
| 4274 rosea Lindl.                      | rosy             | ✓ | △ | or | 1                    | my.jn  | R     | Havann.   | 1823. | O   | r.m                 | Bot. reg. 821            |
| 744. HABRANTHUS. Herb. HABRANTHUS.     |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4275 versicolor Herb.                  | changeable       | ✓ | △ | ft | 1                    | s      | Pk    | S. Amer.  | 1821. | O   | r.m                 | Bot. mag. 2485           |
| 4276 gracilifolius Herb.               | slender          | ✓ | △ | ft | 1                    | ja     | W     | S. Amer.  | 1821  | O   | r.m                 | Bot. mag. 2464           |
| 745. DORYANTHES. R. Br. DORYANTHES.    |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4277 excelsa R. Br.                    | gigantic         | ✓ | △ | or | 20                   | jl.au  | Cr    | N. S. W.  | 1800. | Sk  | s.p                 | Bot. mag. 1685           |
| 746. GETHYLIS. H. K. GETHYLLIS.        |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4278 spiralis W.                       | spiral-leaved    | ✓ | △ | or | 1                    | jn.jl  | W     | C. G. H.  | 1780. | s.p | Bot. mag. 1088      |                          |
| 4279 ciliaris W.                       | fringed          | ✓ | △ | or | 1                    | jn.jl  | W     | C. G. H.  | 1788. | s.p | Jac.schen. 1. t. 79 |                          |
| 4280 villosa W.                        | hairy            | ✓ | △ | or | 1                    | jn.jl  | W     | C. G. H.  | 1787. | s.p | Bot. mag. 1088      |                          |
| 4281 lanceolata W.                     | spear-leaved     | ✓ | △ | or | 1                    | jn     | W     | C. G. H.  | 1790. | s.p | Bot. mag. 1088      |                          |
| 747. POLIANTHES. L. TUBEROSE.          |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4282 tuberosa W.                       | common           | ✓ | △ | or | 3                    | aus.   | W     | E. Indies | 1629. | O   | r.m                 | Bot. reg. 63             |
| § flore pleno                          | double           | ✓ | △ | or | 3                    | aus.   | W     | .....     | ...   | O   | r.m                 | Bot. reg. 63             |
| 4283 gracilis Lk.                      | slender          | ✓ | △ | or | 3                    | aus.   | P.Y   | Brazil    | 1822. | O   | r.m                 | Bot. reg. 63             |
| 748. ALSTROEMERIA. W. ALSTROEMERIA.    |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4284 Pelegrina W.                      | spotted-flower.  | ✓ | △ | or | 1                    | jn.s   | St    | Peru      | 1753. | S   | r.m                 | Bot. mag. 139            |
| 4285 Ligta W.                          | striped-flower'd | ✓ | △ | or | 1                    | f.mr   | S     | Peru      | 1776. | R   | s.p                 | Bot. mag. 125            |
| 4286 salsilla W.                       | estable-rooted   | ✓ | △ | or | 6                    | jn.jl  | G.Cr  | S. Amer.  | 1806. | R   | s.p                 | Bot. mag. 1613           |
| 4287 Flos Martini Ker.                 | Fior de St. Mar. | ✓ | △ | or | 1                    | jn     | w.P.Y | Chili     | 1822. | S   | s.p                 | Bot. reg. 731            |
| 4288 pulchella Sims.                   | red-flowered     | ✓ | △ | or | 3                    | jn     | S     | Chili     | 1822. | S   | s.p                 | Hook. ex. f. 64          |
| 749. CONANTHERA. Fl. per. CONANTHERA.  |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| § 4289 campanulata Lindl.              | bell-flowered    | ✓ | △ | or | 1                    | mr     | B     | Chili     | 1823. | R   | s.p                 | Bot. mag. 2496           |
| 750. HYPOXIS. W. HYPOXIS.              |                  |   |   |    |                      |        |       |           |       |     |                     |                          |
| 4290 erecta W.                         | upright          | ✓ | △ | or | 1                    | jn.jl  | Y     | N. Amer.  | 1752. | O   | p.l                 | Bot. mag. 710            |
| 4291 sobolifera W.                     | creeping         | ✓ | △ | or | 1                    | jn.s   | Y     | C. G. H.  | 1774. | O   | p.l                 | Bot. mag. 711            |
| 4292 villosa W.                        | villous          | ✓ | △ | or | 1                    | jn.s   | Y     | C. G. H.  | 1774. | O   | p.l                 | Jac. ic. 2. t. 307       |
| 4293 decumbens W.                      | decumbent        | ✓ | △ | or | 1                    | jn.s   | Y     | Jamaica   | 1753. | O   | p.l                 | Mil. ic. 1. t. 39. f. 2  |
| 4294 obliqua W.                        | oblique-leaved   | ✓ | △ | or | 1                    | jn.jl  | Y     | C. G. H.  | 1795. | O   | p.l                 | Bot. rep. 195            |
| 4295 aquatica W.                       | water            | ✓ | △ | or | 1                    | jn.jl  | Y     | C. G. H.  | 1787. | O   | p.l                 | Bot. rep. 195            |
| 4296 alba W.                           | white            | ✓ | △ | or | 1                    | jn     | W     | C. G. H.  | 1806. | O   | p.l                 | Jac. coll. 4. t. 2. f. 1 |
| 4297 obtusa B. Reg.                    | obtuse           | ✓ | △ | or | 1                    | jn     | Y     | C. G. H.  | 1816. | O   | p.l                 | Bot. reg. 159            |
| 4298 ovata W.                          | smooth-leaved    | ✓ | △ | or | 1                    | my     | Y     | C. G. H.  | 1806. | O   | s.p                 | Bot. mag. 1010           |
| 4299 stellata W.                       | star-flowered    | ✓ | △ | or | 1                    | ap.jn  | W.B   | C. G. H.  | 1752. | O   | s.p                 | Bot. mag. 662            |
| β elegans P. S.                        | white star-flow. | ✓ | △ | or | 1                    | ap.jn  | W.B   | C. G. H.  | 1752. | O   | s.p                 | Bot. mag. 1223           |



History, Use, Propagation, Culture.

741. *Griffinia*. Named by Mr. Ker, after William Griffin, Esq. of South Lambeth, an amiable man, and most assiduous and successful collector of bulbous plants. His collection is even now one of the finest in Europe. These species resemble *Amaryllis*, but have broad-stalked leaves, and blue flowers.

742. *Sternbergia*. Named after Count Caspar Sternberg, a celebrated botanist and patron of botany. The species consist of the hardy plants formerly referred to *Amaryllis*; they are all hardy, and, with the exception of *S. lutea*, very rare.

743. *Zephyranthes*. A fanciful name employed by Mr. Herbert. It seems to mean wind-flower. These are pretty plants, with solitary white or pink flowers. The species are so nearly hardy, as to survive in a warm border all but our severest winters.

744. *Habranthus*. From *habros*, delicate, and *anthos*, a flower. Small Chilean plants resembling the last in habit, and principally distinguished by their very unequal declinate stamens.

745. *Doryanthes*. So called by Correa de Serra, from *dory*, spear, and *anthos*, a flower, on account of the long straight stem, surmounted by a head of crimson flowers. This is a fine plant from New South Wales. It grows freely in a mixture of sandy loam and peat, but does not flower till it gets large: a conservatory is the most proper place for it, as the flower-stem grows to a great height before the flowers expand. It may be increased by suckers from the roots, but these are sparingly produced. (*Bot. Cult.* 181.)

746. *Gethyllis*. From *gēthos*, to rejoice. The flowers are much valued at the Cape of Good Hope for the delicious perfume of their flowers. The species are very curious: but few have been introduced. Their bulbs require the usual attention as to not watering them when in a dormant state; they are increased by offsets or seeds.

4266 Leaves with a flat stalk, The three lower sepals wavy, Scape with a prominent line along each side

4267 Leaves oval-lanceol. with a stalk two-edged crosswise, Umbel remarkably stalked, Sepals uniform

4268 Leaves linear obliquely twisted shining

4269 Leaves lorate flat very glaucous laxly spiral

4270 Leaves many-keeled, Flower sessile on a two-edged scape, Sepals oval-oblong obtuse

4271 About 2-flowered, Leaf linear, Tube very short, Sepals rounded at end

4272 Leaves few linear, Spathe 1-leaved sheathing erect bifid twice as short as stalk

4273 Leaves many ligulate, Spathe bifid longer than stalk, Sepals acuminate

4274 Leaves lying flat on the ground shorter than the one-flowered scape, Spathe bifid fleshy at end

4275 Leaves linear

4276 Leaves cylindrical

4277 The only species

4278 Leaves linear spiral smooth, Sepals ovate oblong

4279 Leaves linear spiral ciliated, Sepals ovate oblong

4280 Leaves linear filiform spiral villous, Sepals ovate oblong

4281 Leaves lanceolate flat, Sepals lanceolate

4282 Leaves linear lanceolate, Sepals oblong

4283 Leaves linear, Scape racemose, Sepals linear

4284 Stem erect, Cor. spreading, Three outer sepals wedge-shaped 3-toothed, Leaves lin. lanc. sessile

4285 Stem erect, Leaves spatulate oblong, Pedunc. longer than involucre, Cor. 2-labiate

4286 Stem twining, Cor. cylindrical in branched umbels

4287 Stem erect, Leaves linear lanceolate, Flower-stalks twisted, Outer sepals obovate mucronate

4288 Stem weak, Leaves spatulate ciliated, Umbel many-flowered, Peduncles 2-flowered

4289 Flower campanulate spreading

4290 Hairy, Scape 4-fl. shorter than lin. lanc. leaves, Pedunc. twice as short as leaves

4291 Like the last, but the leaves are shorter more villous and incurved, Petals more obtuse

4292 Villous, Scape 4-fl. shorter than lin. lanc. lvs. Pedunc. shorter than flower, Fruit cylindrical

4293 Pilose, Scape 2-fl. decumbent shorter than lin. lanc. leaves

4294 Scape 3-fl. pilose as long as leaves, Pedunc. thrice as long as fl. Leaves lanc. smooth obliquely bent

4295 Leaves linear, Scapes umbelliferous or 1-fl. Height depending on depth of water

4296 Scape 1-flowered shorter than filiform rounded smooth leaves

4297 Leaves at the edge and keel hairy, Scape hispid many-flowered racemose, Sepals obtuse

4298 Leaves ovate-lanceolate entire smooth, Scapes 1-flowered

4299 Scape 1-flowered shorter than the lin. lanc. loose keeled smooth leaves



and Miscellaneous Particulars.

747. *Polianthes*. From *πῶλος*, many, and *ἄστρος*, a flower; in allusion to the abundance of the blossoms. This is a very popular bulb, on account of its highly odoriferous flowers. It is imported annually from Italy and America, and flowers freely in pots of sandy loam and some rotten dung or leaf mould. R. A. Salisbury is of opinion that we might grow our own bulbs, by planting the offsets in such a situation as would obtain for them a "sufficient degree of heat in summer to bring their leaves out to their full magnitude, that of the roots following of course." "The theory," he adds, "which I would recommend any intelligent gardener to adopt in its general management is, to keep the roots growing as vigorously as possible from May to October, but in a state of complete rest and drought for the rest of the year." (*Hort. Trans.* i. 53.)

748. *Alstromeria*. So named from Baron Claudius Alströmer, of Sweden, who in his travels through Europe sent many plants to Linnæus. The species are beautiful, and *A. Ligtu* is as fragrant as *mignonette*. *A. Salsilla* is cultivated in Peru and the West Indies for its roots, which are used like the tubers of the potatoe.

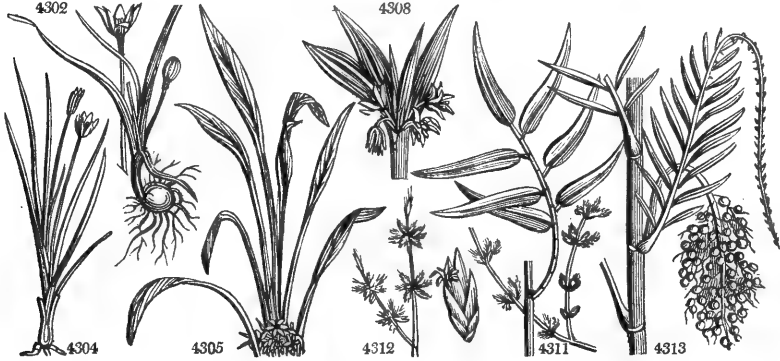
*A. Ligtu*, Sweet observes, "is generally considered difficult to flower; but it will blossom well by letting the pots be dry for a considerable time till the shoots are all dried up; then give it a good watering, and put it in a moist heat, and it will flower abundantly. It may be increased by parting the roots or by seed." (*Bot. Cult.* 15.) The finest kinds have not yet been introduced to this country.

749. *Conanthera*. From *κωνος*, a cone, and *ἄνθηρα*, an anther; their anthers being, which is singular among these plants, united into a cone. A pretty little Peruvian genus, of which two species are now known.

750. *Hypoxis*. From *ὑπο*, beneath, and *ὄξυς*, pointed, in allusion to the sharp points of the inferior sepals. The species are plants with yellow flowers of little beauty, if we except *H. stellata*, which has a dark spot at the claws of its white petals. They increase fast by seeds or offsets.



|                                  |                 |     |    |       |        |    |                   |           |    |     |                      |
|----------------------------------|-----------------|-----|----|-------|--------|----|-------------------|-----------|----|-----|----------------------|
| 4300 stellipilis Ker.            | starry-haired   | ☿ Δ | or | 1     | jl     | Y  | C. G. H.          | 1821.     | O  | s p | Bot. reg. 663        |
| 4301 veratrifolia W.             | plaited-leaved  | ☿ Δ | or | 2     | jn, jl | Y  | C. G. H.          | 1788.     | O  | l p | Jac. ic. 2. t. 367   |
| 4302 linearis B. Rep.            | linear-leaved   | ☿ Δ | or | 1     | sp, my | Y  | C. G. H.          | 1792.     | O  | l p | Bot. rep. 171        |
| 4303 serrata W.                  | saw-leaved      | ☿ Δ | or | 1     | sp, jl | Y  | C. G. H.          | 1788.     | O  | l p | Bot. mag. 709        |
| 4304 joncea W.                   | rushy           | ☿ Δ | or | 1     | jn, jl | Y  | Carolina          | 1787.     | O  | l p | Smi. spic. 15. t. 16 |
| 751. CURCULIGO. H. K. CURCULIGO. |                 |     |    |       |        |    | <i>Hyposidea.</i> | Sp. 6—10. |    |     |                      |
| 4305 sumatrana Roeb.             | Sumatra         | ☿   | or | 3     | jl     | Y  | Sumatra           | 1818.     | O  | l p | Bot. cab. 443        |
| 4306 plicata H. K.               | plaited-leaved  | ☿ Δ | or | 1 1/2 | jn, jl | Y  | C. G. H.          | 1788.     | O  | l p | Bot. reg. 345        |
| 4307 orchoides W.                | narrow-leaved   | ☿ Δ | or | 1     | jn, jl | Y  | E. Indies         | 1800.     | O  | l p | Roxb. cor. 1. t. 13  |
| 4308 brevifolia H. K.            | short-leaved    | ☿ Δ | or | 1     | my, jl | Y  | E. Indies         | 1804.     | O  | l p | Bot. mag. 1076       |
| 4309 latifolia H. K.             | broad-leaved    | ☿ Δ | or | 1 1/2 | my, au | Y  | Poolo Pin.        | 1804.     | O  | l p | Bot. mag. 2034       |
| 4310 recurvata H. K.             | recurved-leaved | ☿ Δ | or | 1     | ...    | Y  | Bengal            | 1805.     | O  | l p | Bot. reg. 770        |
| 752. BAMBU'SA. W.                |                 |     |    |       |        |    | <i>Gramineae.</i> | Sp. 2—10. |    |     |                      |
| 4311 arundinacea W.              | common          | ☿   | ec | 40    | ...    | Ap | India             | 1780.     | S  | l   | Roxb. cor. 1. t. 79  |
| 4312 verticillata W.             | whorl-flowered  | ☿   | cu | 20    | ...    | Ap | India             | 1802.     | S  | l   | Roxb. cor. 1. t. 80  |
| 753. CA'LAMUS. W.                |                 |     |    |       |        |    | <i>Palmae.</i>    | Sp. 2—10. |    |     |                      |
| 4313 ruden'tum W.                | common          | ☿   | ec | 50    | ...    | Ap | E. Indies         | 1812.     | S  | a l | Rumph. 5. t. 53      |
| 4314 Zalacca W.                  | Java            | ☿   | cu | 20    | ...    | Ap | E. Indies         | 1812.     | S  | a l | Rumph. t. 57. f. 2   |
| 754. EHRHAR'TA. W.               |                 |     |    |       |        |    | <i>Gramineae.</i> | Sp. 1—8.  |    |     |                      |
| 4315 panicea W.                  | Panic-grass     | ☿ Δ | cu | 2     | my, jl | Ap | C. G. H.          | 1790.     | S  | co  | Smith ined. 1. t. 9  |
| 755. A'CORUS. W.                 |                 |     |    |       |        |    | <i>Aroideae.</i>  | Sp. 2—3.  |    |     |                      |
| 4316 calamus W.                  | sweet-flag      | ☿ Δ | m  | 2     | jn, jl | Ap | Britain           | ...       | D  | m s | Eng. bot. 356        |
| 4317 gramineus W.                | grass-leaved    | ☿ Δ | cu | 1     | f      | Ap | China             | 1786.     | D  | s p | Smi. spic. 15. t. 17 |
| *756. ORONTIUM. W.               |                 |     |    |       |        |    | <i>Aroideae.</i>  | Sp. 2—4.  |    |     |                      |
| 4318 aquaticum W.                | aquatic         | ☿ Δ | cu | 2     | jn     | Ap | N. Amer.          | 1775.     | D  | s p | Hook. ex. fl. 19     |
| 4319 japonicum W.                | Japan           | ☿ Δ | ec | 2     | ja, ap | Ap | Japan             | 1783.     | D  | s p | Bot. mag. 898        |
| 757. TUPIS'TRA. B. M.            |                 |     |    |       |        |    | <i>Aroideae.</i>  | Sp. 1.    |    |     |                      |
| 4320 squallida B. M.             | Amboyna         | ☿ Δ | cu | 2     | ap     | Ld | Amboyna           | 1810.     | R  | l p | Bot. reg. 704        |
| 758. TAC'CA. W.                  |                 |     |    |       |        |    | <i>Aroideae.</i>  | Sp. 2.    |    |     |                      |
| 4321 pinnatifida W.              | Salep           | ☿ Δ | ec | 2     | ...    | Pu | E. Indies         | '1793.    | R  | l p | Bot. cab. 692        |
| 4322 integrifolia B. M.          | entire-leaved   | ☿ Δ | cu | 2     | my, jl | Pu | E. Indies         | 1810.     | Sk | l p | Bot. mag. 1488       |



History, Use, Propagation, Culture.

751. *Curculigo*. From *Curculio*, the weevil, one of the Coleopterous insects; the seed having a process resembling the rostrum or beak of that animal. The species are of the easiest culture and increase, but of little beauty. They in most respects resemble *Hyposis*.

752. *Bambusa*. Latinized from the Indian name *Bambos*. B. arundinacea has a woody, hollow, round, straight culm, forty feet high and upwards, simple and shining; the internodes a foot in length and circumference; sheaths thick, hairy, rough, convolute, deciduous; branches alternate, slender, solid, spiny, reclining, springing out from the base to the very top; the lower ones being usually cut off. Panicle of flowers diffused in spikes. It grows naturally almost every where within the tropical regions. Over a great part of Asia it is very common; in China, Cochinchina, Tonquin, Cambodia, Japan, Ceylon, the peninsula of India, and the islands. It has been long introduced into the West Indies, and is said to flourish likewise in South Carolina.

There is, perhaps, scarcely any plant that serves for such a variety of domestic purposes. In the East Indies great use is made of it in building, and the houses of the meaner people are almost entirely composed of it. Dr. Patrick Brown mentions, that it was yet strong and perfect in some of the houses which had been built by the Spaniards in Jamaica above a hundred years before. Bridges also are made of it, masts for their boats, boxes, cups, baskets, mats, and a great variety of other utensils and furniture, both domestic and rural. Paper also is made from it, by bruising and steeping it in water, and thus forming it into a paste. It is the common fence for gardens and fields; and is frequently used as pipes for conveying water. The leaves are generally put round the chests of tea which are sent to Europe from China, as package, fastened together so as to form a kind of mat. The tops of the tender shoots are frequently pickled in the West Indies.

In the cavities or tubular parts of the bamboo is found at certain seasons a concrete white substance, called *Tabasheer* or *Tabachir*, an article which the Arabian physicians hold in high estimation. It is commonly found in what are called the female or large bamboos. The bamboos which contain this concrete are found on shaking to contain a fluid, which, after some time, gradually lessens, and then they are opened in order to extract the *Tabasheer*. The nature of this substance is very different from what might have been expected in the product of a vegetable. Its indestructibility by fire, its total resistance to acid, its uniting by fusion with alkalies in certain proportions into a white opaque mass, into a transparent permanent glass, and it being again separable from these compounds entirely unchanged by acids, &c. seem to afford the strongest reasons for considering it as very nearly identical with common siliceous earth. As to its medical virtues, though the drug be, as before observed, in much esteem with the orientalists, yet they are not such as to cause it to have any regard paid it in the modern practice of physic in Europe.

The bamboos grow rapidly to a great height in our stoves in moist loamy soil, and they are readily increased by suckers.

753. *Calamus*. From *καλαμος*, a reed, in Greek; *qalem*, in Arabic; *calam*, in Slavonic; *calamus*, and *culmus*, in Latin. This genus seems to form the connecting link between the palms and the gramineous plants, having the inflorescence of the former, and the habit of the latter. It furnishes the rattan canes, of which

- 4300 Leaves radical numerous white beneath with stellate hairs, Umbel few-flowered  
 4301 Scape 1-f. shorter than the oblong elliptical smooth plaited leaves  
 4302 Leaves linear smooth channelled, Flower solitary green outside  
 4303 Scape 1-f. shorter than the linear ciliate serrate keeled leaves, Flowers out of flower reflexed  
 4304 Leaves channelled hairy entire, Scapes 1-f.
- 4305 Leaves lanceolate on long stalks, Head sessile, Flowers shorter than bractes  
 4306 Leaves linear subulate, Flowers sessile  
 4307 Leaves linear subulate, Flowers stalked  
 4308 Leaves lanceolate, Tube of flower very long  
 4309 Leaves elliptical, Head sessile, Tube of flower scarcely longer than limb  
 4310 Leaves elliptical recurved, Head stalked cernuous, Tube of flower very short
- 4311 Panicle branched divaricating  
 4312 Spike terminal simple whorled
- 4313 Prickles of stem reflexed, Spadix divaricating straight  
 4314 Prickles spreading, Spadix radical
- 4315 Culm divided, Panicle branched, Flowers erect digynous
- 4316 Point of scape very long leafy  
 4317 Point of scape scarcely longer than spadix
- 4318 Leaves lanceolate-ovate  
 4319 Leaves ensiform
- 4320 The only species

- 4321 Leaves tripartite multifid  
 4322 Leaves ovate lanceolate entire stalked



and Miscellaneous Particulars.

there are several species or varieties, all distinguished by a stem which is perennial, unbranched, long, round, solid, jointed, scandent when near trees, but without prickles or tendrils, extremely tough and pliable. The different sorts grow on the banks of rivers in the East, like our reeds, and furnish valuable props for plants, cables, ropes, withs, wicker and watted work, baskets, hoops for petticoats, walking-sticks, &c.

C. Zalacca, the Saksck, is cultivated for the fruit, which is about the size of a walnut, and covered with scales like those of a lizard; within the scales are two or three sweet yellow kernels. This tree is supposed to yield the dragon's blood.

754. *Ehrharta*. So named by Linnaeus, in honor of Frederick Ehrhart, a native of Switzerland, a very diligent and acute observer. These are very curious grasses, of which an account has been published in the Transactions of the Linnean Society.

755. *Acorus*. From  $\alpha$ , privative, and  $\rho\alpha\epsilon\sigma$ , the pupil of the eye, maladies in which are supposed to be cured by the virtues of this plant. *Acorus Calamus*, Linnaeus observes, is the only native aromatic plant of northern climates; the root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent, bitterish taste. The flavor is greatly improved by drying. The roots are commonly imported from the Levant; but those of our own growth are full as good. The Turks candy them, and regard them as a preservative against contagion. In many counties of England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes; a purpose for which its fragrant leaves made it very suitable.

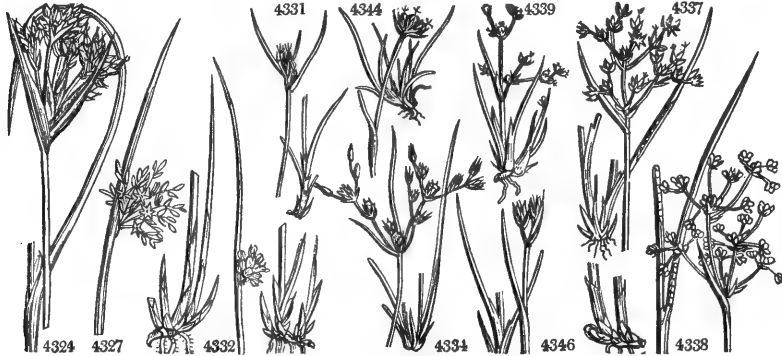
The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in intermittent fever even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitters, and stomachic infusions. Thomson says, (*Mat. Med.* 134.) it is too seldom prescribed. Though the plant is abundant in the fenny districts of England, yet what is used by the druggists is imported from the Levant. No cattle whatever eat the plant.

756. *Orontium*. The Greek name of a plant now unknown to us as such. It is thought to have been so called from growing on the edge of the Orontes, a river of Asia Minor. *O. japonicum* has broad leaves like those of the lily of the valley, green on the upper side, and covered with very minute hairs, so that they look like a fine velvet. Cattle, hogs, and stags, are very fond of these leaves in the spring, and they come out among the earliest. Kalm states, that the Indians gather the seeds and eat them when dried like peas, boiling them repeatedly in water before they are fit for use; they also boil them in milk or butter, and use them instead of bread. They call the plant *Taukece*. It grows in marshes, near moist and low grounds, very plentifully in Virginia, Canada, and other provinces of North America.

757. *Tupistra*. A diminutive of *varas*, a mallet, on account of the peculiar form of the flower. An obscure plant, supposed to belong to the order Aroideae. It has long lanceolate broad leaves, and radical spikes of dingy purple flowers. It requires the heat of a bark-bed.

758. *Tacca*. The Malay name of the plant. *T. pinnatifida* has a red root, the size of a man's fist, roundish.

| 759. ASPIDISTRA. Ker. ASPIDISTRA.              |                  | Aroideæ. Sp. 1. |   | Pu China |     | 1822. Sk co |      | Bot. reg. 628 |               |
|--|------------------|-----------------|---|----------|-----|-------------|------|---------------|---------------|
| 4323 lurida Ker.                               | dinky            | ✓               | △ | cu       | 1   | jl          |      |               |               |
| 760. JUN'CUS. L. Russ. Junceæ. Sp. 23-39.      |                  |                 |   |          |     |             |      |               |               |
| 4324 acútus W.                                 | great sharp sea  | ✓               | △ | ec       | 6   | jl.au       | Ap   | Britain       | sea co. S s   |
| 4325 marítimus P. S.                           | lesser sharp sea | ✓               | △ | ec       | 4   | au          | Ap   | Britain       | sal. m. S s   |
| 4326 conglomerátus W.                          | common           | ✓               | △ | ec       | 2   | jn.jl       | Ap   | Britain       | moi. p. S m.s |
| 4327 effúsus W.                                | soft             | ✓               | △ | ec       | 3   | my.au       | Ap   | Britain       | moi. p. S m.s |
| 4328 glaucus W.                                | hard             | ✓               | △ | ec       | 2   | jl          | Ap   | England       | moi. p. S m.s |
| 4329 cálticus W.                               | coast            | ✓               | △ | cu       | 1   | jl          | Ap   | Europe        | 1820. S s     |
| 4330 árticus L.                                | arctic           | ✓               | △ | cu       | 1   | my          | Ap   | Norway        | 1820. S s     |
| 4331 filifórmis W.                             | least            | ✓               | △ | cu       | 1   | au          | Ap   | Britain       | tur.bo. S m.s |
| 4332 trifídus W.                               | three-leaved     | ✓               | △ | cu       | 1   | jl          | Ap   | Scotland      | sc.alp. S m.s |
| 4333 squarrosúus W.                            | Goose-corn       | ✓               | △ | w        | 1   | jn.jl       | Ap   | Britain       | sa.he. S m.s  |
| 4334 grátilis E. B.                            | slender          | ✓               | △ | cu       | 1   | jl.au       | Ap   | Scotland      | sc.alp. S m.s |
| 4335 capitátus W.                              | headed           | ✓               | △ | cu       | 1   | jl.au       | Ap   | Europe        | 1823. S s     |
| 4336 lampocárpus L. T.                         | shining-fruited  | ✓               | △ | w        | 2   | jn.au       | Ap   | Britain       | moi. p. S m.s |
| 4337 acutiflórus L. T.                         | sharp-flowered   | ✓               | △ | w        | 2   | jl.au       | Ap   | Britain       | moi. p. S m.s |
| 4338 obtusiflórus L. T.                        | blunt-flowered   | ✓               | △ | w        | 1   | au          | Ap   | Britain       | mar. S m.s    |
| 4339 uliginosus H. K.                          | little-bulbous   | ✓               | △ | w        | 1   | jn.jl       | Ap   | England       | tur.he. S m.s |
| 4340 aristátus Mich.                           | bearded          | ✓               | △ | cu       | 1   | jl          | Ap   | N. Amer.      | 1823. S s     |
| 4341 subverticillátus W.                       | half-whorled     | ✓               | △ | cu       | 1   | jl.au       | Ap   | Europe        | 1821. S m.s   |
| 4342 bulbosus W.                               | bulbous-rooted   | ✓               | △ | w        | 1   | jl.au       | Ap   | Britain       | ... S m.s     |
| 4343 bufónius W.                               | knob             | ✓               | △ | w        | 1   | jl.au       | Ap   | Britain       | w.s.gr. S m.s |
| 4344 triglómis W.                              | three-flowered   | ✓               | △ | cu       | 1   | jl          | Ap   | Britain       | bsm. S m.s    |
| 4345 biglómis W.                               | two-flowered     | ✓               | △ | cu       | 1   | au          | Ap   | Scotland      | bsm. S m.s    |
| 4346 castáneus H. K.                           | black-spiked     | ✓               | △ | cu       | 1   | jl          | Ap   | Scotland      | sc.alp. S m.s |
| 761. LU'ZULA. Dec. Junceæ. Sp. 10-25.          |                  |                 |   |          |     |             |      |               |               |
| 4347 pilósa W.                                 | hairy            | ✓               | △ | w        | 1   | mr.my       | Ap   | Britain       | groves. S m.s |
| 4348 Forstéri E. B.                            | Forster's        | ✓               | △ | w        | 1   | my.jn       | Ap   | England       | woods. S m.s  |
| 4349 máxima W.                                 | wood             | ✓               | △ | w        | 2   | my          | Ap   | Britain       | woods. S m.s  |
| 4350 lútea W.                                  | yellow           | ✓               | △ | cu       | 1   | my.jn       | Ap   | Switzerl.     | ... S m.s     |
| 4351 álvida W.                                 | white-headed     | ✓               | △ | cu       | 1   | my.jn       | Ap   | Switzerl.     | ... S m.s     |
| 4352 nívea W.                                  | snowy            | ✓               | △ | cu       | 1   | my.jn       | Ap   | Switzerl.     | 1770. S m.s   |
| 4353 campéstris W.                             | field            | ✓               | △ | w        | 1   | ap.my       | Ap   | Britain       | bar.pa. S m.s |
| 4354 congéstá W. en.                           | close-headed     | ✓               | △ | w        | 1   | jn          | Ap   | France        | 1805. S m.s   |
| 4355 spicáta W.                                | spiked           | ✓               | △ | cu       | 1   | jl          | Ap   | Scotland      | sc.alp. S m.s |
| 4356 flavescens Lk.                            | yellowish        | ✓               | △ | cu       | 1   | jl          | Ap   | Europe        | 1820. S m.s   |
| *762. CO'RYPHA. W. FAN-PALM. Palmae. Sp. 2-10. |                  |                 |   |          |     |             |      |               |               |
| 4357 umbraculifera W.                          | great            | ✓               | △ | ec       | 100 |             | Y    | E. Indies     | 1742. S r.m   |
| 4358 Taliéra Roxb.                             | Taliéra Palm     | ✓               | △ | or       | 100 |             | W.gr | E. Indies     | 1823. S r.m   |



History, Use, Propagation, Culture,

In its natural state it is one of the most bitter and acrid, but loses something of these qualities by culture. The raw root is rasped, and washed frequently in water, when a white meal falls to the bottom like starch; this is again washed twice or thrice, till no more acrimony can be perceived in the water. The meal is then dried in the sun. The first infusions are thrown away carefully, being looked upon as noxious and even deadly. In Otaheite and the other Society isles, they make of this meal a tasteful, nourishing, gelatinous cake-like salep. In Banda, where sago bread is not common, they use this as a succedaneum, and it is even preferable to the other. They also apply it as a plaster to deep wounds. The petioles and stalk boiled a long time lose their acrimony, and are rendered fit for food, as well as the roots, in China and Cochinchina.

759. *Aspidistra*. From *arsis*, a little round shield, on account of the form of the flower. A plant with the same habit as *Tupistra*, but with solitary radical flowers half buried in the earth.

760. *Juncus*. From the Latin, *jungo*, to join: the first ropes were made of rushes. The *Junceæ* and *Cypereæ* form intermediate links between the *Graminææ* and the *Liliacææ*; some of the latter, as *Anthericum*, bearing considerable resemblance to the *Junceææ*.

*J. acutus* and *maritimus* are planted on the sea-bankments of Holland, and also in some parts of our own coasts, and in America. The roots run deep into the sand, and form a matted body which holds it together. In Holland, when the plants are fully grown and in flower, they are cut down, dried, and bound up like corn. The *J. acutus*, being very rough, is used for scouring copper and other vessels, and is one of the plants imported into this country for that purpose, under the name of the Dutch rush. The other species, and often both, are plaited into mats, baskets, chair-bottoms, ropes, &c.

*J. conglomeratus* and *effusus* are used when green for making little baskets and children's ornaments; and the pith of this and other species is used as wicks for watch-lights, and children's toys.

*J. glaucus* and *conglomeratus* are bad weeds in wet-bottomed clayey pastures. The best way of removing them is to dig them out, and to prevent their growth, to lay the land dry by surface and under-drainage. These species, and some others, are gathered green by the Dutch gardeners, and used when dry as ties for fruit-trees. Sir J. E. Smith says, "they both, probably, served for strewing floors in England, as mentioned by Shakspeare and Sir Thomas More, about the time of Edward IV., and later; till more refined manners wrought

4323 The only species

- 4324 Culm rounded mucronate, Panicle terminal, Invol. 2-leaved spiny  
 4325 Panicle terminal proliferous, Involucre 2-leaved spiny, Caps. obl. acute as long as sepals  
 4326 Culm upright, Pan. lateral globose, Caps. retuse, Flowers triandrous  
 4327 Culm upright, Pan. lateral decomposed effuse, Caps. clavate truncate at end  
 4328 Culm glaucous, at the end bent inwards and rounded, Pan. lat. erect, Caps. oblong acute  
 4329 Culm pungent, Panicle effuse  
 4330 Culm erect, Umbel lateral, Pedunc. many-f. Flowers sessile  
 4331 Culm filiform nodding, Panicle lateral  
 4332 Leaves and flowers ternary terminal  
 4333 Leaves setaceous, Heads clustered leafless  
 4334 Leaves linear flat, Stem dichotomous racemose higher than leaves, Flowers solitary  
 4335 Culm filiform, Head terminal sessile solitary in an involucre  
 4336 Leaves jointed compressed, Culm not jointed, Panic. erect, Caps. colored shining  
 4337 Leaves jointed compressed, Culm not jointed, Panic. compound dichotomous, Sepals acute  
 4338 Leaves and stem jointed round, Panic. divaricating, Sepal obtuse as long as capsule  
 4339 Leaves bristly somewhat knotty, Heads 3-flowered proliferous, Culm bulbous rooting  
 4340 Bulbous, Culm leafy erect compressed, Flowers 3-androus and bractea bearded  
 4341 Culm procumbent, Leaves setaceous jointed, Corymb dichotomous divaricating, Head 5-f. sessile  
 4342 Leaves linear channelled, Culm leafy at base, Pan. cymose, Caps. obtuse  
 4343 Leaves linear channelled, Culm dichotomous racemose, Flowers solitary  
 4344 Leaves flat, Head 3-flowered terminal erect leafless with bractea  
 4345 Leaves flat, Head 2-flowered terminal one-sided leafy at base  
 4346 Leaves flat stem-clasping, Head terminal double many-flowered leafy at base, Bractea acute

- 4347 Leaves pilose, Panic. cymose divaricating, Flowers solitary, Caps. obtuse  
 4348 Leaves pilose, Panic. cymose erect, Flowers solitary, Caps. pointed  
 4349 Leaves pilose taper-pointed, Panic. cymose decomposed, Flowers in bundles  
 4350 Leaves and sheaths smooth, Corymb comp. close, Pedunc. many-flowered, Sepals acute shining  
 4351 Leaves pilose, Corymb decomp. spreading shorter than leaves, Sepals mucronate equal, Root fibrous  
 4352 Leaves pilose, Corymb comp. contracted shorter than leaves, Sepals acute unequal, Root creeping  
 4353 Leaves pilose, Spikes terminal, Capsules obtuse  
 4354 Like the last, but the culm is panicled with ovate spikes  
 4355 Leaves flat, Spike racemose nodding compound at base, Capsules acute  
 4356 Like *Luzula pilosa*, but heads are yellower, Leaves broader, Flowers and capsules larger

- 4357 Fronds pinnate palmate with a thread between the segments, Spadix erect  
 4358 Seeds roundish dark-colored rugose the size of a nutmeg



and Miscellaneous Particulars.

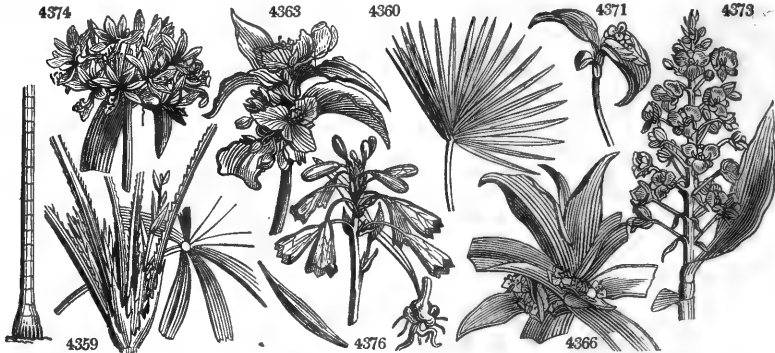
them into mats, and foreign commerce at length introduced carpets. For the former purpose, indeed, as well as for chair-bottoms and hassocks, *Scirpus lacustris* has superseded their use. (*English Flora*, p. 162.)

761. *Luzula*. These plants were called by the ancient botanists *Gramen Luzulae*; whence this name has been contrived by Decandolle to distinguish the rushes with flat leaves, from those which have leaves resembling the stem.

762. *Corypha*. From *σάφρον*, the summit of any thing; a name applied by Linnaeus to this noble genus of palms, the topmost leaves of which form immense fans twenty feet long and fifteen wide. In Ceylon this palm is called Tallipot, and, according to Knox (*Hist. of Ceylon*), it grows as big and tall as a ship's mast, and very straight. The leaves are of great use, one being so broad and large, that it will cover fifteen or twenty men. Being dried it is very strong and limber; and though it be very broad when open, yet it will fold close like a fan, and then is no bigger than a man's arm. The whole leaf spread is round, but is cut into triangular pieces for use: these they lay upon their heads as they travel, with the narrow end foremost, to make their way through thickets. Soldiers all carry them, not only to shade them from the sun, and to keep them dry in case of rain on their march, but to make their tents for them to lie under. These leaves all grow on the top of the tree. It bears no fruit until the last year of its life, and then yellow blossoms, most lovely to behold, but smelling very strongly, come out on the top, and spread abroad in great branches; these come to a fruit, round and very hard, as big as our largest cherries; in such abundance, that one tree will yield seed enough for a country; but not good to eat. The flowers smell so strong, that they cut down the trees when they are near houses. The trunk within is a pith only, which they beat in a mortar to flour, and bake cakes of it, which taste much like white bread. The leaves also serve for covering their houses, and for writing on with an iron style. Most of the books which are shown in Europe for the Egyptian papyrus, are made from the leaves of this palm. In Malabar it is called Coda-pana. Rumphius, Loureiro, and Adanson mention several other species of this palm.

The *C. taliera* is a fine tree of prodigious use in the northern provinces of India for covering houses and for other useful purposes.

|                            |                                 |   |   |    |                        |                                     |      |           |                                   |
|----------------------------|---------------------------------|---|---|----|------------------------|-------------------------------------|------|-----------|-----------------------------------|
| 763. LICUA/LA. W.          | LICUALA.                        |   |   |    | <i>Palma. Sp. 1-2.</i> |                                     |      |           |                                   |
| 4359 spinosa W.            | spiny                           | ☐ | □ | ec | 6                      | ...                                 | W.gr | E. Indies | 1802. S r.m Rump.amb.1. t         |
| 764. THRINAX. W.           | THRINAX.                        |   |   |    |                        | <i>Palma. Sp. 1-3.</i>              |      |           |                                   |
| 4360 parviflora W.         | small                           | ☐ | □ | ec | 15                     | ...                                 | W.gr | Jamaica   | 1778. S r.m                       |
| *765. TRADESCANTIA. W.     | SPIDERWORT.                     |   |   |    |                        | <i>Commelineae. Sp. 12-29.</i>      |      |           |                                   |
| 4361 virginica W.          | common                          | ☐ | △ | or | 1½                     | my.o                                | B    | N. Amer.  | 1629. D pl Bot. mag. 105          |
| 4362 rosea Ph.             | rose-flowered                   | ☐ | △ | or | 1                      | my.o                                | Pk   | Carolina  | 1802. D r.m Bot. cab. 370         |
| 4363 subaspera B. M.       | Lyon's-                         | ☐ | △ | or | 1                      | my.o                                | Pu   | N. Amer.  | 1812. D r.m Bot. mag. 1597        |
| 4364 crassifolia W.        | thick-leaved                    | ☐ | △ | or | 3                      | jl.o                                | B    | Mexico    | 1796. L s.p Bot. mag. 1598        |
| 4365 erecta W.             | upright                         | ☐ | △ | or | 2                      | jl.au                               | B    | Mexico    | 1794. S r.m Bot. mag. 1340        |
| 4366 discolor W.           | purple-leaved                   | ☐ | △ | or | 1                      | sp.s                                | W    | S. Amer.  | 1783. Sk s.p Bot. mag. 1192       |
| 4367 malabrica W.          | Grass-leaved                    | ☐ | △ | or | 1                      | jl.au                               | Pu   | E. Indies | 1776. Sk r.m Rheed.nam.9.t.6      |
| 4368 fuscata Lodd.         | rusty                           | ☐ | △ | or | ½                      | s.o                                 | B    | S. Amer.  | 1820. L r.m Bot. reg. 482         |
| 4369 parviflora Fl. per.   | small-flowered                  | ☐ | △ | or | 1                      | au.s                                | B    | Peru      | 1822. L r.m Fl. per. t. 272       |
| 4370 geniculata W.         | knotted                         | ☐ | △ | or | 1                      | jl.au                               | B    | W. Indies | 1783. L s.p Jac. amer. t. 64      |
| 4371 cristata W.           | crested                         | ☐ | △ | or | 1                      | jl.s                                | B    | Ceylon    | 1770. D r.m Bot. mag. 1435        |
| 4372 Zanonia Red.          | Gentian-leav'd                  | ☐ | △ | or | 1½                     | jl.d                                | B    | W. Indies | 1759. S r.m Red. lil. 192         |
| 766. DICHORIZAN'DRA. Vand. | DICHORIZANDRA.                  |   |   |    |                        | <i>Commelineae. Sp. 1-4.</i>        |      |           |                                   |
| 4373 thyriflora Vand.      | thyrsoid                        | ☐ | △ | or | 4                      | au                                  | B    | Brazil    | 1822. R r.m Bot. reg. 682         |
| 767. AGAPAN'THUS. W.       | AFRICAN LILY.                   |   |   |    |                        | <i>Hemerocallideae. Sp. 5-3.</i>    |      |           |                                   |
| 4374 umbellatus W.         | large-flowered                  | ☐ | △ | or | 3                      | ja.au                               | B    | C. G. H.  | 1692. R r.m Bot. mag. 500         |
| β variegatus W.            | striped-leaved                  | ☐ | △ | or | 2                      | ja.au                               | B    | .....     | R r.m                             |
| 4375 praecox W. en.        | small-flowered                  | ☐ | △ | or | 4                      | ja.au                               | P.B  | C. G. H.  | ... R r.m Bo. cab. 42             |
| 768. BLANDFOR'DIA. R. Br.  | BLANDFORDIA.                    |   |   |    |                        | <i>Hemerocallideae. Sp. 2-3.</i>    |      |           |                                   |
| 4376 nobilis R. Br.        | noble                           | ☐ | △ | or | 2                      | jl.au                               | Or   | N. S. W.  | 1803. S s.l.p Ex. bot. i. t. 4    |
| 4377 grandiflora R. Br.    | large-flowered                  | ☐ | △ | or | 2                      | jl.au                               | Cr   | N. S. W.  | 1812. S s.l.p Lab. no. ho. t. 111 |
| *769. HEMEROCAL'LIS. W.    | DAY LILY.                       |   |   |    |                        | <i>Hemerocallideae. Sp. 7-9.</i>    |      |           |                                   |
| 4378 graminea H. K.        | narrow-leaved                   | ☐ | △ | or | 1                      | jn.jl                               | L Y  | Siberia   | 1759. R s.l Bot. mag. 873         |
| 4379 flava H. K.           | yellow                          | ☐ | △ | or | 2                      | jn                                  | Y    | Siberia   | 1596. R s.l Bot. mag. 19          |
| 4380 disticha Donn.        | fan-like                        | ☐ | △ | or | 2                      | my.jl                               | Or   | China     | 1798. R s.l Sweet fl. gar. 28     |
| 4381 filva W.              | copper-colored                  | ☐ | △ | or | 4                      | jn.au                               | Ful  | Levant    | 1596. R s.l Bot. mag. 64          |
| 4382 Liliastrum W. en.     | Savoy-Spiderw.                  | ☐ | △ | or | 1½                     | my.jn                               | W    | Switzerl. | 1629. R s.l Bot. mag. 318         |
|                            | <i>Anthericum Liliastrum L.</i> |   |   |    |                        |                                     |      |           |                                   |
| 4383 Japónica B. M.        | white-flowered                  | ☐ | △ | or | 1                      | au.s                                | W    | Japan     | 1790. R p.l Bot. mag. 1433        |
| 4384 carúnea H. K.         | blue-flowered                   | ☐ | △ | or | 1½                     | my.jl                               | B    | Japan     | 1790. R p.l Bot. mag. 894         |
| *770. A'LOE. W.            | ALOE.                           |   |   |    |                        | <i>Hemerocallideae. Sp. 99-116.</i> |      |           |                                   |
| 4385 atrovirens Dec.       | dark-green                      | ☐ | ┘ | gr | 1                      | my                                  | G    | C. G. H.  | 1823. S s.l Bot. mag. 1361        |
| 4386 tortuosa Haw.         | twisted                         | ☐ | ┘ | gr | 1                      | my.s                                | G    | C. G. H.  | 1794. S s.l Bot. mag. 1337        |
| 4387 rigida Dec.           | rigid                           | ☐ | ┘ | gr | 1                      | my.s                                | G    | C. G. H.  | 1795. C s.l Plant. grass. 62      |
| 4388 aspera Haw.           | rough                           | ☐ | ┘ | gr | 1                      | jn                                  | G    | C. G. H.  | 1795. C s.l                       |
| 4389 viscosa Haw.          | clammy                          | ☐ | ┘ | gr | 1½                     | jn.jl                               | G    | C. G. H.  | 1797. Sk s.l Bot. mag. 814        |
| 4390 albicans Haw.         | white-edged                     | ☐ | ┘ | gr | 1                      | jl                                  | G    | C. G. H.  | 1795. Sk s.l Bot. mag. 1452       |
| 4391 cymbiformis Haw.      | boat-leaved                     | ☐ | ┘ | gr | ½                      | my.au                               | G    | C. G. H.  | 1795. Sk s.l Bot. mag. 802        |
| 4392 reticulata Haw.       | netted                          | ☐ | ┘ | gr | ½                      | my.au                               | G    | C. G. H.  | 1794. C s.l Bot. mag. 1314        |
| 4393 recurva Haw.          | recurve-leaved                  | ☐ | ┘ | gr | 1                      | au                                  | G    | C. G. H.  | 1795. C s.l Bot. mag. 1353        |
| 4394 retusa W.             | smooth cushion                  | ☐ | ┘ | gr | 1                      | my.jl                               | G    | C. G. H.  | 1790. Sk s.l Bot. mag. 455        |
| 4395 mirabilis Haw.        | rough cushion                   | ☐ | ┘ | gr | ½                      | my.au                               | G    | C. G. H.  | 1795. Sk s.l Bot. mag. 1354       |
| 4396 translucens H. K.     | transparent                     | ☐ | ┘ | gr | ½                      | my.au                               | G    | C. G. H.  | 1795. Ls s.l Bot. mag. 1417       |



History, Use, Propagation, Culture,

763. *Licuala*. The Macassar name of this plant in the Moluccas. The fruit of this palm is a fleshy oval drupe, about the size of sweet-bay berries; it continues long green, but finally becomes brown or blackish: the nut is oblong, hard, and striated. In the Isle of Celebes, and in Macassar, they make much use of the narrow leaves for tobacco pipes, and of the middle broad one for wrapping up fruit, &c. The wood, if the pith and hard rind may be so called, like that of most palms, is of little use.

764. *Thrinax*. From *θηρμαξ*, a fan. The leaves of this little palm form a sort of fan. Brown (*Hist. of Jamaica*.) says, that this tree covers whole fields in many parts of Jamaica; that it grows both in the rocky hills and low moist plains near the sea, but seems to thrive best in the former. It shoots by a simple stalk, and rises generally from four or five, to ten or fourteen feet in height. It is always furnished with leaves in form of a fan, sustained by slender compressed foot-stalks, and bears a great abundance of small berries, which serve to feed both the birds and beasts of the wood, when they are in season. The trunk seldom exceeds four or five inches in diameter: it is much used for piles in wharfs, and other buildings made in the sea; for it stands the water well, and is never touched by the worms. The foot-stalks of the leaves split and pared, serve to make baskets, bow-strings, ropes, &c. where strength and toughness are required. The leaves are called thatch, and are used as such, especially for out-houses, and stand the weather many years; but such coverings are apt to harbour rats and other vermin.

765. *Tradescantia*. So named by Ruppinius, in memory of John Tradescant, gardener to Charles I. He introduced the first species to Europe. The museum of the Tradescants is celebrated as one of the earliest ever

- 4359 Frond palmate, Segments linear toothed truncate at end, Stem spiny
- 4360 Fronds flabelliform palmate plaited with stiff lanceolate segments, Stem compressed not prickly
- 4361 Erect, Leaves lanceolate smooth, Flowers umbelled clustered terminal
- 4362 Erect, Leaves grassy very long, Peduncles few-flowered, Cal. smooth
- 4363 Erect smooth branched, Leaves long recurved ciliated, Pedunc. lat. and term.
- 4364 Leaves ovate at the edge and under woolly, Flowers umbelled clustered terminal
- 4365 Erect, Leaves ovate narrow at base smooth, Peduncle terminal naked bifid racemose
- 4366 Stemless smooth, Bractes equitant compressed, Leaves lanceolate colored beneath
- 4367 Erect smooth, Peduncles solitary very long
- 4368 Stemless with rusty hairs, Leaves elliptical acuminate radical
- 4369 Creeping, Leaves ovate oblong: under the flowers cordate, Pedunc. umbelled axillary
- 4370 Procumbent hairy
- 4371 Creeping smooth, Spathes 2-leaved imbricated
- 4372 Erect, Leaves broad lanceolate, Pedunc. lateral solitary many-flowered, Bractes double
- 4373 Leaves oval lanceolate whole-colored, Racemes thyrsoid many-flowered
- 4374 Peduncles length of corolla, Leaves linear
- 4375 Peduncles twice as long as corolla, Leaves linear
- 4376 Bractes twice as short as flower-stalks, Leaves very narrow
- 4377 Bractes as long as flower-stalks: the inner much the shortest
- 4378 Leaves linear keeled, Three inter. petals wavy, Nerves of the petals undivided
- 4379 Leaves linear keeled, Petals flat acute, Nerves of the petals undivided
- 4380 Leaves linear keeled distichous, Sepals wavy acute spreading reflexed, Nerves branched
- 4381 Leaves linear keeled, Three inner petals obtuse wavy, Nerves of outer petals branched
- 4382 Leaves linear flat, Scape simple, Nerves of petals undivided
- 4383 Leaves cordate acuminate, Cor. funnel-shaped
- 4384 Leaves ovate acuminate, Limb of cor. campanulate
- § 1. *Flowers small. Cor. bilabiate. (AFICRA. W.)*
- 4385 Leaves spreading ovate 3 cornered, Edge and keel with short subulate teeth
- 4386 Leaves spirally trifarious spreading blackish, on the outside smooth, Stem much twisted
- 4387 Nearly stemless, Leaves multifarious green not spotted: the upper horizontal rugose
- 4388 Leaves trifarious orbicular ovate acuminate green beneath very rough, Stem erect
- 4389 Leaves trifarious ovate acute very green not warted, Stems upright simple
- 4390 Leaves polished mucronate whitish, Edges and keel cartilaginous
- 4391 Leaves cymbiform obtuse glaucous very hollow above, Suckers numerous
- 4392 Leaves equilaterally triquetrous obtuse glaucous netted above concave
- 4393 Leaves subulate thick erect recurved concave above warted beneath, Edges obscurely pearly
- 4394 Leaves 6-farious at the end retuse deltoid pale-green lined above
- 4395 Leaves ciliate spiny 5-farious deltoid cuspidate at the edge and keel ciliate spiny, Obsoletely netted below
- 4396 Proliferous, Leaves multifarious lanceolate rounded elegantly ciliated; at end with obl. pellicud spots



and Miscellaneous Particulars.

formed in this country: it was left to Ashmole, from whom it came to the university of Oxford, bearing his name. All the species are of the easiest culture, but few of them can be called beautiful. *T. virginica* is usually admitted as a border-flower.

766. *Dichorizandra*. A name contrived by Mikan, from *dis*, two, *choris*, separately, and *andros*, in botanical composition, a stamen; to express the separation of two anthers, upon which the character of the genus depends. Beautiful herbaceous stove plants, with the foliage of Commelina or Tradescantia.

767. *Agapanthus*. From *αγανθος*, to love, and *ανθος*, a flower; lovely-flower. The blossoms are of a bright agreeable blue color, and the plant itself much prized. It is nearly hardy, and cultivated without any trouble, in large pots of common earth.

768. *Blandfordia*. In compliment to George, Marquis of Blandford, son of the second Duke of Marlborough, a lover of plants, but not of honor. Beautiful New Holland liliaceous plants, very rarely seen in collections. Their flowers resemble those of *Cyrtanthus*.

769. *Hemerocallis*. From *ημερα*, the day, and *καλος*, beautiful: beautiful day-lily. This is an ornamental genus of the easiest culture. The species are remarkable among border flowers for their fine orange, yellow, or blue flowers. The *Hemerocallis carulea* has been considered a distinct genus by Mr. Salisbury, and called *Saussurea*.

770. *Aloe*. A word for which several derivations have been offered. That it has been obtained from the Arabic *alooch*, seems most probable. The genus has been divided by Mr. A. H. Haworth and others into

|      |                      |                  |   |   |    |    |       |       |          |       |        |                   |
|------|----------------------|------------------|---|---|----|----|-------|-------|----------|-------|--------|-------------------|
| 4397 | púmila Haw.          | small-cobweb     | ☞ | △ | gr | 1  | my    | G     | C. G. H. | 1752. | Sk s.l | Bot. mag. 1361    |
| 4398 | arachnoïdes Haw.     | cobweb           | ☞ | □ | gr | 1  | au    | G     | C. G. H. | 1727. | Ls s.l | Bot. mag. 786     |
| 4399 | rádula Haw           | raspy-pearl      | ☞ | △ | gr | 1½ | au    | G     | C. G. H. | 1805. | Sk s.l | Jac. schœn. t. 35 |
| 4400 | atenuáta Haw.        | chalky-pearl     | ☞ | △ | gr | 1  | my.au | G     | C. G. H. | 1790. | Sk s.l | Bot. mag. 1345    |
| 4401 | minima Haw.          | least-pearl      | ☞ | △ | gr | ½  | my.s  | G     | C. G. H. | 1725. | Sk s.l |                   |
| 4402 | minor Haw.           | lesser-pearl     | ☞ | △ | gr | 1  | my.au | G     | C. G. H. | ...   | Sk s.l | Bot. mag. 815     |
| 4403 | margaritifera H. K.  | larger-pearl     | ☞ | △ | gr | 1  | my.s  | G     | C. G. H. | 1739. | Sk s.l | Brad.succ.3. t.21 |
| 4404 | Hawórhii Hort.       | largest-pearl    | ☞ | △ | gr | 1  | au    | G     | C. G. H. | 1801. | Sk s.l |                   |
| 4405 | bulluláta Jacq.      | blistered        | ☞ | △ | gr | 1½ | my.jn | G     | C. G. H. | ...   | Sk s.l |                   |
| 4406 | pseudo-rígida Salm.  | gunpowdered      | ☞ | △ | gr | 1  | ap.my | G     | C. G. H. | ...   | Sk s.l |                   |
| 4407 | bicarináta Haw.      | double-keeled    | ☞ | △ | gr | 1  | jn    | G     | C. G. H. | 1820. | S s.l  |                   |
| 4408 | spirális Haw.        | great-spiral     | ☞ | □ | gr | 1  | au.s  | G     | C. G. H. | 1790. | S s.l  |                   |
| 4409 | spirélla Haw.        | small-spiral     | ☞ | □ | gr | 1½ | au    | G     | C. G. H. | 1808. | S s.l  |                   |
| 4410 | pentagóna Haw.       | five-sided       | ☞ | □ | gr | 1½ | jn.jl | G     | C. G. H. | 1731. | Sk s.l | Bot. mag. 1338    |
|      | <i>β torta</i>       | twisted          | ☞ | □ | gr | 1  |       |       |          |       |        |                   |
| 4411 | imbricáta Haw.       | rough-flowered   | ☞ | □ | gr | 1½ | jn.jl | G     | C. G. H. | 1731. | Sk s.l | Bot. mag. 1455    |
| 4412 | foliolósa Haw.       | small-leaved     | ☞ | □ | gr | 1  | jn.au | G     | C. G. H. | 1795. | C s.l  | Bot. mag. 1352    |
| 4413 | semiglabráta Haw.    | half-smoothed    | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1811. | Sk s.l |                   |
| 4414 | erécta Haw.          | erect-pearl      | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1818. | Sk s.l | Pl. grasses, 57   |
| 4415 | brévis Haw.          | short-pearl      | ☞ | □ | gr | ½  | jn.jl | G     | C. G. H. | 1810. | Sk s.l | Bot. mag. 1360    |
| 4416 | fasciáta Haw.        | barred-pearl     | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1818. | Sk s.l |                   |
| 4417 | scábra Haw.          | rough            | ☞ | □ | gr | ½  | jn.jl | G     | C. G. H. | 1818. | Sk s.l |                   |
| 4418 | papilósa Salm.       | papillose        | ☞ | □ | gr | 1  | jn.jl | G     | C. G. H. | 1820. | Sk s.l |                   |
| 4419 | pseudo tortuósa Sal. | twisted-triang.  | ☞ | □ | gr | 1  | jl.au | G     | C. G. H. | 1818. | Sk s.l |                   |
| 4420 | concinna Haw.        | mat              | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1818. | Sk s.l |                   |
| 4421 | cordifólia Haw.      | heart-leaved     | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1817. | Sk s.l |                   |
| 4422 | asperióscula Haw.    | small-thick      | ☞ | □ | gr | ½  | jn    | G     | C. G. H. | 1818. | Sk s.l |                   |
| 4423 | cúrta Haw.           | short-twisted    | ☞ | □ | gr | ½  | ...   | G     | C. G. H. | 1816. | Sk s.l |                   |
| 4424 | tortélla Haw.        | little-twisted   | ☞ | □ | gr | ½  | jl    | G     | C. G. H. | 1817. | Sk s.l |                   |
| 4425 | nítida Salm.         | shining          | ☞ | □ | gr | 1  | jl    | G     | C. G. H. | 1818. | Sk s.l | Bot. mag. 2304    |
| 4426 | setáta Haw.          | bristle-edged    | ☞ | □ | gr | ½  | jn    | G     | C. G. H. | 1795. | C s.l  |                   |
| 4427 | obliqua Haw.         | broad-marbled    | ☞ | □ | gr | 1½ | jn.au | R     | C. G. H. | 1759. | Ls s.l | Bot. mag. 979     |
| 4428 | maculáta H. K.       | narr.-marbled    | ☞ | □ | gr | 3  | jl.au | R     | C. G. H. | 1759. | C s.l  | Bot. mag. 765     |
| 4429 | nigricana Haw.       | dark-tongue      | ☞ | □ | gr | 2  | jn.jl | R     | C. G. H. | 1790. | Ls s.l | Bot. mag. 838     |
| 4430 | glabra Haw.          | smooth-keeled    | ☞ | □ | gr | 3  | jn.jl | R     | C. G. H. | 1796. | Sk s.l |                   |
| 4431 | carináta W.          | rough-keeled     | ☞ | □ | gr | 2  | jn.jl | R     | C. G. H. | 1731. | Ls s.l | Bot. mag. 1331    |
| 4432 | lingua W.            | acute-tongue     | ☞ | □ | gr | 3  | mr.n  | R     | C. G. H. | ...   | Ls s.l |                   |
| 4433 | anguláta Haw.        | retuse-tongue    | ☞ | □ | gr | 2  | mr.n  | R     | C. G. H. | 1791. | Sk s.l |                   |
| 4434 | acinacifólia Haw.    | longsword-lvd.   | ☞ | □ | gr | 3  | mr.s  | Or    | C. G. H. | 1819. | Sk s.l | Bot. mag. 2369    |
| 4435 | brevifólia Haw.      | sht.-lvd.-tongue | ☞ | □ | gr | 3  | jl.au | R     | C. G. H. | 1809. | Sk s.l |                   |
| 4436 | intermédia Haw.      | middle-tongue    | ☞ | □ | gr | 2  | mr.n  | R     | C. G. H. | 1790. | Sk s.l |                   |
| 4437 | verrucósa W.         | warted           | ☞ | □ | gr | 2  | mr.n  | R     | C. G. H. | 1731. | Sk s.l | Bot. mag. 887     |
| 4438 | nítens Haw.          | shining          | ☞ | □ | gr | 3  | mr.n  | Or    | C. G. H. | 1818. | Sk s.l |                   |
| 4439 | subcarináta Salm.    | obscure-keeled   | ☞ | □ | gr | 2  | jn.jl | Or    | C. G. H. | 1818. | Sk s.l |                   |
| 4440 | túrgida Haw.         | turgid-cushion   | ☞ | □ | gr | ½  | s     | P. Gr | C. G. H. | 1818. | Sk s.l |                   |
| 4441 | acumináta Haw.       | mid.-hedgheg     | ☞ | △ | gr | 3  | mr.my | Or    | C. G. H. | 1795. | Sk s.l | Bot. mag. 757     |
| 4442 | tuberculáta Haw      | tuberc.-hedgheg  | ☞ | △ | gr | 2  | mr.my | Or    | C. G. H. | 1795. | Sk s.l |                   |
| 4443 | húmilis W.           | dwarf-hedgheg.   | ☞ | △ | gr | 1  | mr.jn | Or    | C. G. H. | 1731. | Sk s.l | Plant. grass. 39  |
| 4444 | can'dicans Haw.      | marbled-white    | ☞ | △ | gr | 1  | jl    | R     | C. G. H. | 1796. | Sk s.l |                   |
| 4445 | virens Haw.          | apple-green      | ☞ | △ | gr | 3  | aus   | Y     | C. G. H. | 1790. | Sk s.l | Bot. mag. 1355    |
| 4446 | dichótoma W.         | smooth-stem'd.   | ☞ | △ | gr | 8  | ...   | R     | C. G. H. | 1780. | Ls s.l |                   |
| 4447 | pseudo-africana Sal. | narrow-tongue    | ☞ | △ | gr | 6  | mr.n  | Or    | C. G. H. | 1731. | Sk s.l | Bot. mag. 1382    |
| 4448 | Prin'cipis Haw.      | the Prince's     | ☞ | △ | gr | 5  | mr.n  | ...   | C. G. H. | 1821. | Sk s.l |                   |
| 4449 | echináta Salm.       | great-tuberc.    | ☞ | △ | gr | 6  | ...   | ...   | C. G. H. | 1821. | Sk s.l |                   |
| 4450 | vulgáris H. K.       | yellow-flower'd  | ☞ | □ | m  | 12 | my.au | Y     | Levant   | 1596. | Sk s.l | Plant. grass. 27  |
| 4451 | purpurascens Haw.    | purple           | ☞ | □ | m  | 12 | jo    | Pu    | C. G. H. | 1789. | C s.l  | Bot. mag. 1474    |
| 4452 | soccotrina Haw.      | soccotrine       | ☞ | □ | m  | 12 | f.ap  | R     | C. G. H. | 1731. | C s.l  | Bot. mag. 472     |
| 4453 | arborescens H. K.    | tree             | ☞ | □ | m  | 12 | mr.n  | R     | C. G. H. | 1731. | C s.l  | Bot. mag. 1306    |
| 4454 | férox H. K.          | great-hedgheg.   | ☞ | □ | gr | 6  | ap.my | Y     | C. G. H. | 1759. | C s.l  | Bot. mag. 1975    |
| 4455 | supralævís H. K.     | uprig-hedgheg.   | ☞ | □ | gr | 5  | ...   | Or    | C. G. H. | 1731. | S s.l  | Com.pra.71. t.20  |



History, Use, Propagation, Culture,

many genera, but their opinion has not been adopted by men of science. The species consist of odd looking succulents; some of them may be classed as trees, others as shrubs, but the greater number have more the habit and appearance of evergreen herbaceous plants. One or two species are used in medicine or the arts.

A. vulgaris purpurascens, soccotrina, and arborescens, which some consider as not specifically different

- 4397 Leaves very green, Spines marginal herbaceous, Tubercles numerous  
 4398 Leaves expanded lanceolate flat above, with the edges cartilaginous thick ciliated  
 4399 Leaves erect recurved subulate all over rough, Tubercles very minute numerous and pearly  
 4400 Leaves erect recurved subulate, Tubercles above large pearly below very minute  
 4401 Leaves spreading ovate acuminate with very numerous small warts  
 4402 Leaves long oblong acuminate with middle-sized pearly warts in rows  
 4403 Dichotomous, Leaves long ovate acuminate with great pearly warts, Capsules wrinkled across  
 4404 Stemless, Lvs. ovate acum. cuspidate upw. 3-cor. keeled, Edges and keeled cren. with coarse pearly warts  
 4405 Leaves rigid spirally 5-farious ovate acuminate sparingly warted with dark-green tubercles  
 4406 Leaves spirally trifarious recurved at end covered all over with minute dark-green warts  
 4407 Lvs. multifarious cordate very hard deep-green twice keeled, with dark-green raised warts on under side

§ 2. *Flowers small. Cor. regular.*

- 4408 Leaves very spiral 5-farious ovate acum. smooth dark-green with some obscure spots beneath  
 4409 Leaves very spiral 5-farious lanc. acumin. smooth pale-green with some obscure spots beneath  
 4410 Leaves 5-farious and spiral smooth green obsolete spotted beneath

- 4411 Erect rounded, Cor. rugose, Leaves multifarious erect polished not spotted  
 4412 Leaves multifarious very short and close together orbic. ovate horizontal polished bright-green  
 4413 Stemless dichotomous, Leaves dark-green erect ovate obl. acum. mucronate  
 4414 Leaves upright straight the old ones incurved ovate-obl. abruptly acuminate with small warts  
 4415 Soboliferous, Leaves spreading ovate acute with large warts  
 4416 Leaves erect lanc. acuminate above flat and smooth barred with large warts beneath  
 4417 Leaves semi-cylindrical 3-cornered thickened upwards very rough except at base  
 4418 Leaves attenuated erect with large white warts depressed in the centre  
 4419 Stem twisted, Leaves trifarious spiral imbricated spreading ovate acute smooth  
 4420 Leaves nearly trifarious densely imbricated spreading with an obtuse recurved point  
 4421 Leaves very rigid cordate stem-clasping thick dark-green above keeled and rough, Edge rough  
 4422 Leaves rigid rounded cordate closely inflexed dark-green edged a little rough above  
 4423 Leaves spirally trifarious blackish-green equilaterally triangular very rough  
 4424 Leaves close spirally trifarious blackish quite smooth outside, Stem much branched

§ 3. *Flowers curved. (GASTERIA. Haw.)*

- 4425 Differs from *A. acinacifolia* only in having blunter points to the leaves  
 4426 Leaves lorate lanceolate with a long bristly point keeled above at the edge fringed with memb. bristles  
 4427 Leaves spirally multifarious mottled narrow linguiform obtuse with a point  
 4428 Leaves tongue-shaped smooth pointed, Flowers racemose cernuous curved  
 4429 Differs from *A. lingua* only in having broader and shorter leaves  
 4430 Smooth, Lvs. multifarious acuminate spotted deeply keeled beneath with a cartilaginous edge and keel  
 4431 Stemless, Leaves acinaciform papillose  
 4432 Leaves distichous tongue-shaped acute spotted serrated with tubercles at edge  
 4433 Leaves distichous tongue-shaped retuse with a point obscurely spotted curved to one side  
 4434 Stemless, Leaves distichous acinaciform with cartilaginous prickly edges  
 4435 Leaves exactly distichous parabolically tongue-shaped short obtuse with edges smooth upwards  
 4436 Leaves bifarious ensiform bright-green  
 4437 Leaves ensiform acute papillose distichous  
 4438 Leaves spiral multifarious shining deeply keeled at the sides obscurely spotted, Edges cartilaginous  
 4439 Lvs. bright-green multifarious spreading with white warts obtuse with a point, Edges densely cartilaginous  
 4440 Leaves oblong acute entire above towards the end swollen pellucid with darker markings

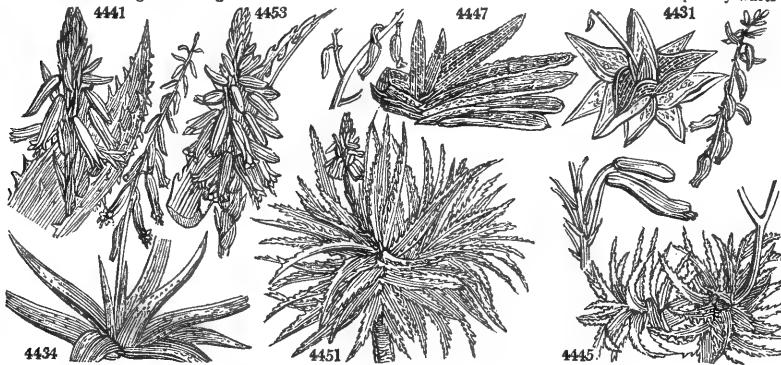
§ 4. *Flowers large. (ALOE.)*

\* *Stemless.*

- 4441 Leaves acuminate glaucous above flat smooth sparingly prickly beneath very rough  
 4442 Leaves acuminate above a little hollow very prickly all over  
 4443 Stemless, Leaves spiny ascending 3-cornered subulate  
 4444 Leaves distichous ensate lean smooth beneath white with warts running together  
 4445 Leaves oblong lanceolate green sparingly spotted, Edges with a few distant green spines  
 4446 Stem dichotomous, Leaves ensiform serrated, Stamens longer than cor.  
 4447 Stem shrubby simple, Lvs. revol. recurved narrow ensiform glauc. Warts prickly scatt. over both sides  
 4448 Leaves very green erect recurved, marginal and dorsal spines at the end red  
 4449 Leaves oblong lanceolate spiny toothed beneath white with warts, Petals unequal

\*\* *With a stem.*

- 4450 Leaves spreading ascending spiny at edge, Pedunc. branched, Branches with a double bract  
 4451 Leaves ensiform glaucous recurved at end, Marginal serratures white  
 4452 Leaves oblong ensiform somewhat spotted, Edges cernuous white with straight spines  
 4453 Leaves stem-clasping reflexed spiny at edge  
 4454 Leaves ovate ensiform glaucous deflexed covered over especially beneath with scattered spines  
 4455 Leaves oblong ensiform glaucous incurved above smooth beneath covered with scattered prickly warts

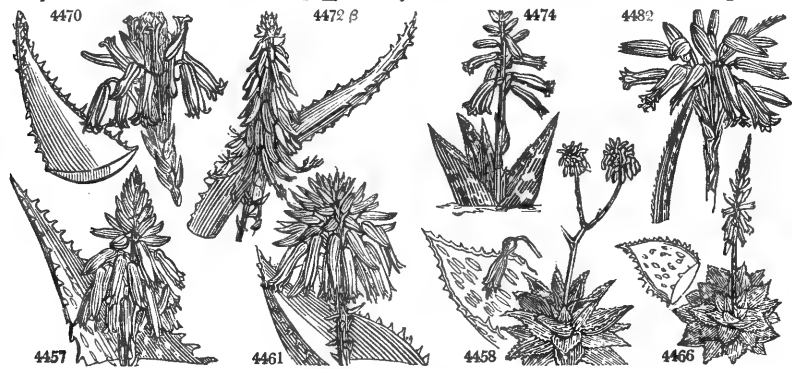


and *Miscellaneous Particulars.*

are cultivated in Barbadoes and other West India islands, to obtain the hepatic aloes, which are brought to England and used chiefly for horses. The aloes known by the name of Succotrine, is made chiefly from the species of that name, and *A. spicata*; being originally manufactured in the island of Socotra or Socotora, in the straits of Babelmandel it retains the name: this drug is lighter colored, and not so coarse as the horse or



|   |                  |   |    |    |       |       |           |          |        |                   |                |
|---|------------------|---|----|----|-------|-------|-----------|----------|--------|-------------------|----------------|
| 4456 flavispina Haw.                                | yellow-spined    | ■ | gr | 5  | au    | R     | C. G. H.  | 1790.    | C s.1  |                   |                |
| 4457 picta H. K.                                    | great-soap       | ■ | gr | 4  | au.o  | R     | C. G. H.  | 1797.    | C s.1  | Bot. mag. 1323    |                |
| 4458 latifolia Haw.                                 | broad-levd.-soap | ■ | gr | 6  | jl.au | S     | C. G. H.  | 1795.    | Sk s.1 | Bot. mag. 1344    |                |
| 4459 saponaria Haw.                                 | common-soap      | ■ | gr | 4  | jl.au | R     | C. G. H.  | 1797.    | Sk s.1 | Bot. mag. 1460    |                |
| 4460 serrulata H. K.                                | saw-leaved       | ■ | gr | 7  | jl.au | R     | C. G. H.  | 1789.    | C s.1  |                   |                |
| 4461 mitriformis Dec.                               | common-mitre     | ■ | gr | 6  | au    | R     | C. G. H.  | 1732.    | C s.1  | Bot. mag. 1270    |                |
| 4462 nobilis Haw.                                   | great-mitre      | ■ | gr | 5  | au    | R     | C. G. H.  | 1800.    | Sk s.1 |                   |                |
| 4463 distans Haw.                                   | small-mitre      | ■ | gr | 6  | au    | R     | C. G. H.  | 1732.    | Sk s.1 | Bot. mag. 1362    |                |
| 4464 albispina Haw.                                 | white-spined     | ▽ | gr | 7  | ...   | S     | C. G. H.  | 1796.    | Ls s.1 |                   |                |
| 4465 distans H. K.                                  | short-leaved     | ▽ | gr | 2  | jn.au | R     | C. G. H.  | 1731.    | C s.1  | Plant. grass. 81  |                |
| 4466 depressa H. K.                                 | flat-leaved      | ▽ | gr | 6  | au    | O     | C. G. H.  | 1731.    | Ls s.1 | Bot. mag. 1332    |                |
| 4467 suberecta Haw.                                 | lesser-hedgeh.   | ■ | gr | 5  | mr.jn | S     | C. G. H.  | 1789.    | S s.1  |                   |                |
| 4468 paniculata Jacq.                               | streaked         | ■ | gr | 5  | ...   | S     | C. G. H.  | 1795.    | Sk s.1 | Jacq. fragm. t.62 |                |
| <i>A. striata</i> Haw.                              |                  |   |    |    |       |       |           |          |        |                   |                |
| 4469 lineata H. K.                                  | lined            | ■ | gr | 5  | ...   | S     | C. G. H.  | 1789.    | Sk s.p |                   |                |
| 4470 glauca H. K.                                   | glauous          | ■ | gr | 4  | ja.s  | R     | C. G. H.  | 1731.    | Sk s.1 | Bot. mag. 1278    |                |
| 4471 spicata W.                                     | spike-flowered   | ■ | m  | 4  | ...   | R     | C. G. H.  | 1795.    | Sk s.p |                   |                |
| 4472 africana H. K.                                 | African          | ■ | gr | 8  | ja    | R     | C. G. H.  | 1731.    | Sk s.1 |                   |                |
| β angustifolia                                      | narrow-leaved    | ■ | gr | 7  | ja    | R     | C. G. H.  | 1819.    | Sk s.1 | Bot. mag. 2517    |                |
| 4473 plicatilis W.                                  | fan              | ■ | gr | 8  | jn.jl | R     | Africa    | 1723.    | C s.1  | Bot. mag. 457     |                |
| 4474 variegata H. K.                                | partridge-breast | ■ | gr | 4  | mr.s  | Pk    | C. G. H.  | 1790.    | Sk s.1 | Bot. mag. 513     |                |
| 4475 Commelini Salm.                                | Commelin's       | ■ | gr | 3  | ...   | ...   | C. G. H.  | 1819.    | Sk s.1 |                   |                |
| 4476 macra Haw.                                     | lean             | ■ | gr | 3  | jn    | O     | Mauritius | 1817.    | Sk s.1 |                   |                |
| 4477 albocincta Haw.                                | white-edged      | ■ | gr | 3  | jn    | O     | .....     | 1812.    | Sk s.1 |                   |                |
| 4478 serpa Dec.                                     | saw-leaved       | ■ | gr | 4  | jl    | O     | C. G. H.  | 1818.    | Sk s.1 |                   |                |
| 4479 chinensis Hort.                                | Chinese          | ■ | gr | 3  | ...   | Y     | China     | 1821.    | Sk s.1 |                   |                |
| 4480 rufocincta Haw.                                | rosy-edged       | ■ | gr | 3  | jn    | O     | E. Indies | 1818.    | Sk s.1 |                   |                |
| 4481 caesia Salm.                                   | caesius          | ■ | gr | 5  | jl    | O     | C. G. H.  | 1818.    | Sk s.1 |                   |                |
| 4482 micrantha B. M.                                | small-spined     | ■ | gr | 3  | jl    | Pk    | C. G. H.  | 1819.    | Sk s.1 | Bot. mag. 2272    |                |
| 4483 xanthacantha Salm.                             | yellow-spined    | ■ | gr | 3  | jn    | O     | C. G. H.  | 1817.    | Sk s.1 |                   |                |
| 1771. LILIUM. W. LILY. <i>Liliaceae. Sp. 20-24.</i> |                  |   |    |    |       |       |           |          |        |                   |                |
| 4484 candidum W.                                    | white            | ♂ | Δ  | or | 3     | jn.jl | W         | Levant   | 1596.  | O r.m             | Bot. mag. 278  |
| 4485 japonicum W.                                   | Japan            | ♂ | Δ  | or | 2     | jl.au | W         | China    | 1804.  | O r.m             | Bot. mag. 1591 |
| 4486 longiflorum Thunb.                             | long-flowered    | ♂ | Δ  | or | 2     | my.jn | W         | China    | 1820.  | O r.m             | Bot. reg. 560  |
| 4487 carolinianum Fsh.                              | Carolina         | ♂ | Δ  | or | 2     | jl.au | O         | N. Amer. | 1819.  | O r.m             | Bot. reg. 580  |
| <i>astumale</i> Led.                                |                  |   |    |    |       |       |           |          |        |                   |                |
| 4488 bulbiferum W.                                  | orange           | ♂ | Δ  | or | 3     | jn.jl | O         | Italy    | 1566.  | O p.l             | Bot. mag. 36   |
| β umbellatum W.                                     | umbel-fl. orange | ♂ | Δ  | or | 3     | jn.jl | O         | Italy    | 1596.  | O p.l             | Bot. mag. 1018 |
| 4489 dauricum Ker.                                  | Daurian          | ♂ | Δ  | or | 2     | jn.jl | L.O       | Dauria   | 1754.  | O p.l             | Bot. mag. 872  |
| <i>pensylvanicum</i> B. M.                          |                  |   |    |    |       |       |           |          |        |                   |                |
| 4490 concolor H. K.                                 | self-colored     | ♂ | Δ  | or | 2     | jl    | R         | China    | 1806.  | O p.l             | Bot. mag. 1165 |
| 4491 Catesbaei W.                                   | Catesby's +      | ♂ | Δ  | or | 1     | jl.au | O         | Carolina | 1787.  | O p.l             | Bot. mag. 259  |
| 4492 philadelphicum W.                              | Philadelphia     | ♂ | Δ  | or | 5     | jl.au | L.O       | N. Amer. | 1757.  | O r.l             | Bot. mag. 519  |
| β andinum Ker.                                      | Louisiana red    | ♂ | Δ  | or | 4     | jl.au | Sc        | N. Amer. | 1819.  | O r.l             | Bot. reg. 594  |
| 4493 canadense W.                                   | Canadian         | ♂ | Δ  | or | 4     | jl.au | L.O       | N. Amer. | 1629.  | O p.l             | Bot. mag. 800  |
| β rubrum  | red-flowered     | ♂ | Δ  | or | 4     | jl.au | O         | N. Amer. | 1629.  | O p.l             | Bot. mag. 858  |
| 4494 superbum W.                                    | superb           | ♂ | Δ  | or | 6     | jn.au | L.O       | N. Amer. | 1727.  | O p.l             | Bot. mag. 936  |
| 4495 Martagon W.                                    | Turk's Cap       | ♂ | Δ  | or | 3     | jl.au | Pu        | Germany  | 1596.  | O co              | Bot. mag. 893  |
| 4496 criscum Bernh.                                 | yellow           | ♂ | Δ  | or | 3     | jl.au | Y         | .....    | 1596.  | O co              | Bot. cab. 784  |
| 4497 spectabile Link.                               | showy            | ♂ | Δ  | or | 3     | jl.au | O         | .....    | 1596.  | O co              |                |
| 4498 chalcedonicum W.                               | Scar.-Martagon   | ♂ | Δ  | or | 4     | jl.au | R         | Levant   | 1596.  | O p.l             | Bot. mag. 30   |
| 4499 pyrenaicum W. ex.                              | Pyrenean         | ♂ | Δ  | or | 2     | jl.au | D.O       | Pyrenees | 1596.  | O p.l             | Red. lil. 145  |
| 4500 pompinum W.                                    | Scar.-Pomphone   | ♂ | Δ  | or | 2     | my.jn | R         | Siberia  | 1629.  | O r.l             | Bot. mag. 971  |
| 4501 monadelphum B. M.                              | monadelphous     | ♂ | Δ  | or | 2     | jn.jl | Y         | Caucasus | 1800.  | O r.l             | Bot. mag. 1405 |
| 4502 tigrinum H. K.                                 | tiger-spotted    | ♂ | Δ  | or | 6     | jl.s  | O         | China    | 1804.  | O r.l             | Bot. mag. 1237 |
| 4503 pumilum R. L.                                  | dwarf            | ♂ | Δ  | or | 1     | jn    | Sc        | Dauria   | 1816.  | O r.l             | Bot. reg. 132  |

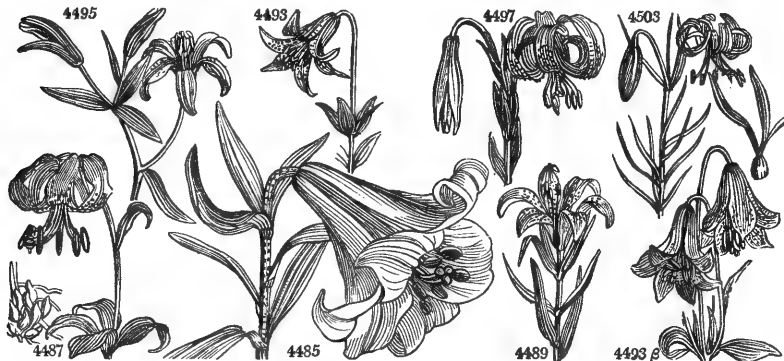


History, Use, Propagation, Culture,

hepatic aloes. *A. spicata* is cultivated extensively at the Cape of Good Hope, and a considerable part of what is sold as coming from Socotora is from that quarter. All the medicinal aloes are grown on the poorest soil. In preparing the drug, the leaves are cut off close to the stem, then cut in pieces, and the juice expressed; this is allowed to remain at rest for forty-eight hours, during which time a feculent matter is deposited; after which the supernatant liquor is poured off into flat dishes and evaporated in the sun. At the Cape, in the month of July, the leaves are pulled, then cut into pieces, the juice expressed, and inspissated by means of heat.

The month of March is the period for cutting the aloes in the island of Barbadoes. The leaves are cut off close to the stem, and disposed in tube, in such a manner that the juice runs out. After a sufficient quantity of it is collected, it is exposed to heat in copper boilers; and as it becomes more inspissated by a constant and regular fire, it is ladled from one boiler to another, and fresh juice added, until that in the last, which is called the *teache*, acquires the consistence of honey; when it is poured into calabashes, and hardens by age. It is

- 4456 Suckers from the root, *Lvs. obl. acum. glauc. spread. cover. at side and back with very broad brown spines*  
 4457 Caulcescent, Leaves ensiform toothed mottled spreading  
 4458 Leaves ovate lanc. pale-green with obl. obsolete whitish barred spots, Spines rufous  
 4459 Leaves obl. lanc. dull green rather glaucous with obl. large transverse spots and rufous spines  
 4460 Leaves spotted, Edges and keel serrulate at end  
 4461 Leaves thick spiny at edge below spinulose appressed not dotted, Racemes in umbels  
 4462 Leaves erect broadly ovate acute, Spines marginal numerous white  
 4463 Leaves erect spreading remote ovate acute, Spines marg. few large yellow  
 4464 Leaves ovate acum. green, Edge and keel very spiny, Spines long very white  
 4465 Leaves caespitose very short glaucous 3-cornered at end, Angles with numerous white spines  
 4466 Distinguished from *A. serra* by the spines not being united at base  
 4467 Leaves acuminate above flat smooth beneath warted  
 4468 Leaves glaucous streaked, Edges obsolete toothletted
- 4469 Leaves green lined, Spines red  
 4470 Leaves very glaucous, Spines red  
 4471 Leaves lorate ensiform downward spotted with white, Marginal spines middle-sized red  
 4472 Leaves broad ensiform recurved smooth hard, Spines marginal and dorsal red at end
- 4473 Leaves tongue-shaped smooth distichous, Flowers racemose pendulous cylindrical  
 4474 Leaves trifurcous painted channelled, Angles cartilaginous  
 4475 Leaves ovate oblong attenuate spreading glaucous, The edge and keel upwards with white spines  
 4476 Caudex leafy, Leaves lorate ensiform channelled spreading green serrulate  
 4477 Glaucous polished, Leaves oblong acuminate with a deep white entire cartilaginous edge  
 4478 Leaves tufted with the spines of the edge united at base, Scape toothed  
 4479 Leaves smooth pale-green straight erect-spreading soft  
 4480 Leaves lorate lanceolate acuminate green, Edge red with many white teeth  
 4481 Stem shrubby, Leaves long-lanceolate recurved at end glaucous smooth spotted with red spines  
 4482 *Lvs. narrow sword-shaped beneath spotted with white, Spots warty scatt. Edge with minute white spines*  
 4483 Caulcescent, *Lvs. ovate acum. glaucous spreading at the edge and back spiny, Spines very broad yellow*
- 4484 Leaves lanc. scattered narrowed at base, Cor. camp. smooth inside  
 4485 Leaves scattered lanc. Cor. cernuous campanulate  
 4486 Leaves scattered lanceolate, Cor. tubular campan. Stem smooth  
 4487 Leaves nerveless whorled cuneate-lanceolate, Flowers solitary with revolute spotted sepals
- 4488 Leaves scattered, Cor. campan. upright rough inside  
 4489 Leaves scattered lanc. : the upper whorled, Stem 1-flowered winged
- 4490 Leaves scatt. lanc. obl. Cor. erect revol. camp. within papillose without smooth  
 4491 Leaves scatt. lin. lanc. Stem 1-flowered, Cor. erect, Pet. with long claws wavy at edge reflexed at end  
 4492 Leaves whorled, Flowers erect, Cor. campan. Petals clawed
- 4493 Leaves whorled linear, Flowers reflexed, Cor. revolute campanulate
- 4494 Lower leaves whorled ; upper scatt. Flowers racemose reflexed, Cor. revolute  
 4495 Leaves whorled ovate lanceolate, Flowers reflexed, Cor. revolute  
 4496 Leaves ternate or scattered lin. falc. 3-nerved ciliated, Pedunc. pubes. Cor. erect rough inside  
 4497 Leaves ternate or scattered linear 3-nerved ciliated, Pedunc. tomentose, Flowers erect rough inside  
 4498 Leaves lin. lanc. scattered, Flowers reflexed, Cor. revolute dotted inside  
 4499 Leaves scattered linear, Pedunc. long, Flowers reflexed, Cor. revolute papillose inside  
 4500 Leaves scattered lin. subulate, Flowers reflexed, Cor. revolute toothed and warted inside  
 4501 Like a Martagon, but the stamens are united in a tube  
 4502 Leaves scattered sessile 5-nerved, The upper cord. ovate, Cor. revolute papillose inside  
 4503 Leaves linear subulate scattered smooth, Flowers reflexed, Sepals revolute smooth inside



## and Miscellaneous Particulars.

brought home in these calabashes, or large gourd-shells, which contain from sixty to seventy pounds weight each. (*Thomson's Mat. Med.* 141.)

In the West Indies, the Cape, and most countries where the woody prickly species abound naturally, they are planted as hedges, and the fibres of the leaves, after being macerated for juice, manufactured into cordage or coarse cloth

*A. picta*, *latifolia*, and *saponaria* are so named from the spots of the leaves, which are of the color of soft soap.

The curious species of aloes, inhabitants of the greenhouse, require but little water : sandy loam, mixed with a little lime rubbish or gravel, suits them best ; and they flower more abundantly by being exposed to the open air in summer. They are increased by suckers ; or leaves, stripped off the plants and laid on a pot of mould, or planted shallow in it, will produce young plants. (*Bot. Cult.* 150.)

771. *Lilium*. From the Celtic word *Lí*, which signifies whiteness. The lily has always been considered the

|  |                  |   |      |                   |                  |      |                     |                               |
|--|------------------|---|------|-------------------|------------------|------|---------------------|-------------------------------|
| 1772. <i>TULIPA</i> . <i>W.</i>        | TULIP.           |   |      | <i>Liliaceae.</i> | <i>Sp.</i> 9—11. |      |                     |                               |
| 4504 <i>sylvéstris</i> <i>W.</i>       | wild             | ♂ | △ or | 1                 | ap.my            | Y    | England             | ch. pit. O s.l                |
| 4505 <i>túrcica</i> <i>Roth.</i>       | nar.-waved-ld.   | ♂ | △ or | 2                 | ap.my            | St   | .....               | O s.l Sw. fl. gar. t. 186     |
| 4506 <i>óculus scális</i> <i>R. L.</i> | Agén             | ♂ | △ or | 1                 | ap               | R.B  | Italy               | 1816. O s.l Bot. reg. 204     |
| 4507 <i>Gesneriána</i> <i>W.</i>       | common           | ♂ | △ or | 2                 | ap.my            | St   | Levant              | 1577. O r.m Bot. mag. 1135    |
| 4508 <i>suavéolens</i> <i>W.</i>       | Van Thol         | ♂ | △ or | ½                 | mr.ap            | R.y  | S. Europe           | 1636. O r.m Bot. mag. 839     |
| 4509 <i>clusiána</i> <i>B. M.</i>      | Clusius's        | ♂ | △ or | 1                 | jn               | W.pu | Sicily              | 1603. O r.m Bot. mag. 1390    |
| 4510 <i>celsiána</i> <i>P. S.</i>      | Cels's           | ♂ | △ or | 1½                | jn.jl            | Y    | Levant              | ... O r.m Bot. mag. 717       |
| 4511 <i>cornúta</i> <i>R. L.</i>       | horned           | ♂ | △ or | 2                 | my               | St   | Levant              | 1816. O r.m Bot. reg. 137     |
| 4512 <i>biflóra</i> <i>L.</i>          | two-flowered     | ♂ | △ or | ½                 | ap               | Y    | Russia              | 1806. O r.m Bot. reg. 535     |
| 1773. <i>FRITILLA'RIA</i> . <i>W.</i>  | FRITILLARY.      |   |      |                   |                  |      | <i>Liliaceae.</i>   | <i>Sp.</i> 12—19.             |
| 4513 <i>Imperiális</i> <i>W.</i>       | Crown Imper.     | ♂ | △ or | 4                 | mr.ap            |      | Persia              | 1596. O co                    |
| <i>α rúbra</i>                         | red-flowered     | ♂ | △ or | 4                 | mr.ap            | R    | Persia              | 1596. O co Bot. mag. 194      |
| <i>β fláva</i>                         | yellow-flowered  | ♂ | △ or | 4                 | mr.ap            | Y    | Persia              | 1596. O co Bot. mag. 1215     |
| 4514 <i>pérsica</i> <i>W.</i>          | Persian          | ♂ | △ or | 1½                | ap.my            | Br   | Persia              | 1596. O co Bot. mag. 1537     |
| <i>β mínima</i> <i>Swert.</i>          | dwarf-Persian    | ♂ | △ or | ½                 | ap.my            | Br   | Persia              | 1596. O co Bot. mag. 962      |
| 4515 <i>obliquus</i> <i>B. M.</i>      | oblique-leaved   | ♂ | △ or | 1                 | ap               | Br.p | Caucasus            | ... O co Bot. mag. 857        |
| 4516 <i>tulpifólia</i> <i>Bieb.</i>    | tulp-leaved      | ♂ | △ or | 1                 | my               | Br.p | Crimea              | 1822. O co                    |
| 4517 <i>verticilláta</i> <i>W.</i>     | whorled          | ♂ | △ or | 1                 | s                | Pu   | Crimea              | 1823. O co                    |
| 4518 <i>pyrenáica</i> <i>H. K.</i>     | cluster-flowered | ♂ | △ or | 1½                | my.jn            | D.P  | .....               | O co Bot. mag. 952            |
| 4519 <i>nígra</i> <i>B. M.</i>         | Pyrenean         | ♂ | △ or | 1                 | my               | Y.pu | Pyrenes             | 1596. O co Bot. mag. 864      |
| 4520 <i>nervósa</i> <i>W. ca.</i>      | nerved-leaved    | ♂ | △ or | 1½                | my               | D.P  | Caucasus            | 1826. O co Bot. mag. 853      |
| 4521 <i>lútea</i> <i>Bieb.</i>         | yellow-flower.   | ♂ | △ or | 1                 | ap.my            | Y    | Caucasus            | 1812. O co Bot. mag. 1538     |
| 4522 <i>latifólia</i> <i>W.</i>        | broad-leaved     | ♂ | △ or | 1                 | ap.my            | R    | Caucasus            | 1604. O co Bot. mag. 853      |
| 4523 <i>Meleagris</i> <i>W.</i>        | chequered        | ♂ | △ or | 1                 | mr.my            | Pu   | Britain             | mol.p. O co Eng. bot. 622     |
| 4524 <i>lanceoláta</i> <i>Ph.</i>      | spear-leaved     | ♂ | △ or | ½                 | my               |      | Kamschat.           | 1759. O co Lin. tr. 10. t. 11 |
| <i>Lilium kamchatsense</i> <i>W.</i>   |                  |   |      |                   |                  |      |                     |                               |
| 1774. <i>DRACÆ'NA</i> . <i>W.</i>      | DRAGON-TREE.     |   |      |                   |                  |      | <i>Asphodeleae.</i> | <i>Sp.</i> 7—20.              |
| 4525 <i>Dráco</i> <i>W.</i>            | common           | ♀ | □ or | 10                | ...              | W    | E. Indies           | 1640. C p.l Blackw. t. 358    |
| 4526 <i>ensifólia</i> <i>W.</i>        | sword-leaved     | ♀ | □ or | 2                 | ...              | W    | .....               | 1800. C p.l                   |



History, Use, Propagation, Culture,

emblem of whiteness. This is a splendid genus, all the species of which are considered border flowers of great beauty. The more common sorts, species, and varieties, will thrive in any soil and situation, even under the shade of trees. The Canadian, Pomponian, and Philadelphia martagons are somewhat tender, and require the protection of ashes or rotten bark in winter. They are generally planted in borders, and need not be taken up oftener than every three or four years in September, and replanted six inches deep in the October following. None of the species can be safely transplanted after they have pushed leaves, without weakening them so as to prevent their flowering for several years. This remark, indeed, will apply to most bulbous rooted plants. Mr. Griffin, of South Lambeth, whose superior skill in the cultivation of bulbous plants is well known (*Hort. Trans.* iv. 544.), has been in the practice of keeping the *lilium japonicum* in pots, protected by a greenhouse or garden frame; but he thinks they thrive best in the former. He places the bulb in twenty-four sized pots, not lower than an inch from the surface of the mould, which is composed of about two-thirds peat and one-third loam, the bottom of the pot being covered to the depth of two inches, with broken pieces of tile and the rough siftings of peat. The plants are kept entirely from frost, and are watered very little when in a dormant state, for they are then very impatient of wet in excess. The pots kept in the greenhouse are placed at a distance from the flue to prevent the mould drying quickly. (*Hort. Trans.* iv. 554.) Mr. S. Brooks grows in a brick-pit, which he can cover with mats or glasses at pleasure; but he says, it "appears to be sufficiently hardy to endure our winters, as I have had a bed of them two years in the open ground without protection." (*Hort. Trans.* iv. 552.)

772. *Tulipa*. Linnæus classed this among barbarous names. In Persian it is called *thodiyân* (*De Souza*), whence undoubtedly its origin. In old French it is called *tulipan*. T. Gesneriana (Gesner, a Zurich botanist), may be called the king of florists' flowers, having been a prime object of attention with this class of cultivators for nearly three centuries. It appears to have been brought to Europe from Persia by way of Constantinople in 1559, and in a century afterwards to have become an object of considerable trade in the Netherlands, and a sort of mania among the growers, who bought and sold bulbs at prices amounting to 500l. sterling and upwards; in those days an immense sum. The taste for tulips in England was at its greatest height about the end of the seventeenth and the beginning of the eighteenth century. It afterwards declined, and gave way to a taste for rare plants from foreign countries. The tulip, however, is still extensively cultivated in Holland, from which all Europe is supplied with bulbs, and also to a considerable extent in England, both in tradesmen's gardens and in those of the opulent. It is, however, like the auricula, pink, &c. more the poor man's flower than that of the botanists or country gentleman.

The varieties of the tulip are endless, and their names arbitrary, like those of all florists' flowers. One of the latest London catalogues (Mason's) enumerates six sorts of early blowing tulips; four perroquets or middle blowers; twenty-two double sorts; and upwards of 600 single late sorts; the last being the only sorts valued by florists as competition flowers. These late sorts are classed by the Dutch as under:—

Prime baguets (*baguette*, Fr., a rod or wand); very tall; fine cups with white bottoms, well broken with fine brown, and all from the same breeder.

Baguets Rigaut's (supposed from Rigaud, some eminent florist's name, or *rougeaude*, red face); not quite so tall, but with strong stems, and very large well-formed cups, with white bottoms, well broken with fine brown, and all from the same breeder.

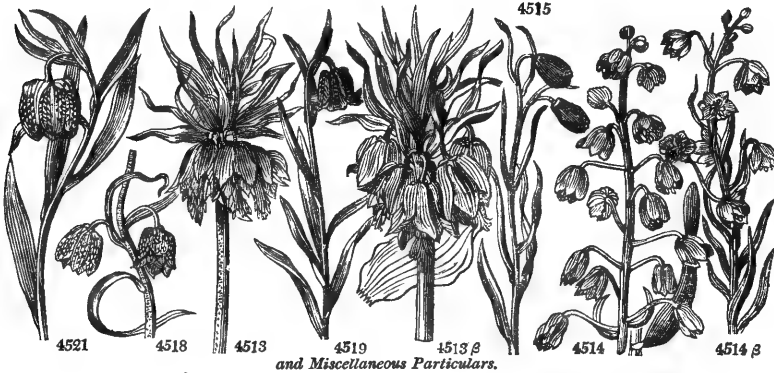
- 4504 Stem 1-fl. smooth, Flower nodding, Petals acute bearded at end, Leaves lanceolate  
 4505 Flower erect, Petals lanceol. acuminate, Leaves lanceolate linear  
 4506 Coat of bulb woolly inside, Leaves ciliated glaucous, Stem and flower smooth  
 4507 Stem 1-fl. smooth, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate  
 4508 Stem 1-fl. pubescent, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate  
 4509 Flower erect stellate with a dark eye, Leaves linear lanceolate  
 4510 Leaves lin. lanc. convolute, Petals lanceolate greenish outside  
 4511 One-flowered, Flower from fusiform spreading, Sepals very long caudate  
 4512 Flowers erect flat, Stem 2-leaved 2-3-flowered, Leaves linear subulate

4513 Raceme comose naked below, Leaves entire

4514 Raceme naked, Leaves oblique

- 4515 Leaves glaucous numerous oblique, Cor. turbinate  
 4516 Leaves lanc. alternate remote, Stem 1-flowered naked upwards, Angles of caps. obtuse  
 4517 Leaves linear whorled opp. and alternate when old cirrhose, Stem many-flowered, Capsule winged  
 4518 Lower leaves opp. Inner flowers among the leaves  
 4519 Leaves scattered flat coriaceous glaucous, Cor. campanulate revolute at end  
 4520 Leaves alternate linear nerved flat, Stem 1-flowered  
 4521 Leaves lin. lanc. alternate; the upper approximated shorter than the terminal solitary flower  
 4522 Leaves lanc. approximated, the upper opp. as long as the terminal solitary flower, Capsule obtuse angled  
 4523 Leaves alternate linear channelled, Stem one-flowered  
 4524 Leaves whorled, Flower erect, Cor. campanulate, Petals sessile

- 4525 Leaves fleshy spiny at end  
 4526 Herbaceous caulescent, Leaves ensiform



Incomparable Verports; very perfect cups, cherry and rose, and white bottoms, well broken with shining brown.

Byblomens, or mixt flowers, the *flamands* of the French florists, with bottoms white, or nearly so, from different breeders, and broken with variety of colors.

Bizarres (*ôizarre*, Fr. odd, irregular); ground yellow, from different breeders, and broken with variety of colors.

What are called breeders are procured from seed, and consist of one plain color on a white or yellow bottom. These being cultivated on a dry and rather poor soil, become broken or variegated, and produce new varieties. The time that elapses before they break, varies from one to twenty years or more, and sometimes this change never takes place, so that whoever thinks of raising new varieties of tulips from seed, must be possessed of an ample fund of patience and perseverance. The early dwarf tulip, known among florists as the Van Tholl, is a distinct species, *T. suaveolens*.

In raising tulips from seed, the florists pursue a mode in some respects the reverse of that practised with other plants. Instead of saving the seed to be sown from the finest variegated tulips, they prefer unbroken flowers or breeders, selecting such of these as have tall strong stems, with large well-formed cups, clear in the bottom. Plants raised from seed saved from the finer variegated sorts, form poor weak breeders of no value. The seed is sown on fine light soil, thinly covered, and protected and shaded by a frame. At the end of the second year the bulbs are taken up and replanted three inches apart; and again at the end of the fourth year. Some will bloom the fourth year, most the fifth, and all of them the seventh year. Being now furnished with a set of breeders, all that the florist can do is to take up and replant till they break or shew variegation, which, as already observed, some will do in a year or two, and some not for a long period, or never. Some vary the soil to promote breaking, but in doing this there is often danger of weakening the strength of the flower.

In cultivating choice tulips, an open airy situation, dry at bottom, is made choice of; there excavations are made commonly in the form of beds four feet broad, of any convenient length, and two and a half or three feet deep. In the bottom a layer of well rotten hot-bed dung is laid and well trod in, and on this two or two and a half feet of rich fresh sandy loam. On this the roots are planted six inches apart, and covered four inches. The best season is the beginning of November. In very severe winters, protection by mats or by a layer of decayed tanner's bark, may be requisite; but the tulip is very hardy, and almost the only protection it requires is shading and shielding from rain and winds during full bloom. The bulbs should be taken up annually, as soon as the flowers are decayed, and kept in a dry airy situation till wanted for planting. (See *Madocks, Hogg, Emerton, &c.*)

*T. clusiana* and *T. celsiana* are both elegant little border bulbs, inferior indeed to their prototypes in splendour of coloring, but more elegant in their simplicity.

773. *Fritillus*. *Fritillus* signifies a dice-box, and is said to have been the origin of this name. This is a genus with flowers shrewy and singular in appearance. They require a deep loamy soil, and are readily increased by offsets or seeds. They will grow in the shade of trees and shrubs, and do not require to be taken up above once in three years.

774. *Dracæna*. From *Δρακων*, the female of *δρακων*, a dragon, because the inspissated juice becomes a red powder very like the eastern dragon's blood. *D. draco* has the habit of a palm. The trunk is nearly

|                                |                 |        |    |        |      |                       |                   |        |                        |
|--------------------------------|-----------------|--------|----|--------|------|-----------------------|-------------------|--------|------------------------|
| 4527 umbraculifera <i>W.</i>   | umbel-flowered  | ♂ □ or | 10 | ...    | W    | Mauritius             | 1788.             | C p.l  | Bot. cab. 289          |
| 4528 cœrnea <i>W.</i>          | drooping        | ♂ □ or | 10 | my     | W    | Mauritius             | ...               | C p.l  | Jac. sch. 1. t. 96     |
| 4529 fœrrea <i>H. K.</i>       | purple          | ♂ □ or | 8  | mr.ap  | W    | China                 | 1771.             | R p.l  | Bot. mag. 2053         |
| 4530 frâgrans <i>H. K.</i>     | sweet-scented   | ♂ □ or | 6  | f.my   | W    | Africa                | 1768.             | R p.l  | Bot. mag. 1081         |
| 4531 ovâta <i>B. M.</i>        | oval-like       | ♀ □ or | 2  | aus.   | Pk   | S. Leone              | ...               | R p.l  | Bot. mag. 1180         |
| 775. PHYLLO'MA. <i>B. M.</i>   | PHYLLOMA.       |        |    |        |      | <i>Asphodelœ.</i>     | <i>Sp. 1.</i>     |        |                        |
| 4532 aloifôrum <i>B. M.</i>    | aloe-like       | ♂ □ or | 10 | ap     | Or   | Bourbon               | 1766.             | R p.l  | Bot. mag. 1585         |
| 776. ALE'TRIS. <i>W.</i>       | ALETRIS.        |        |    |        |      | <i>Hemerocallidœ.</i> | <i>Sp. 2-3.</i>   |        |                        |
| 4533 farinosa <i>W.</i>        | colic-root      | ♀ △ or | 1  | jn     | W    | N. Amer.              | 1768.             | R s.p  | Bot. mag. 1418         |
| 4534 aurea <i>Ph.</i>          | golden-tipped   | ♀ △ or | 1  | jlau   | Y    | N. Amer.              | 1811.             | R s.p  | Willd. ho. ber. 8      |
| 777. TRITOMA. <i>B. M.</i>     | TRITOMA.        |        |    |        |      | <i>Hemerocallidœ.</i> | <i>Sp. 3.</i>     |        |                        |
| 4535 Uvâria <i>H. K.</i>       | great           | ♀ △ or | 2  | aus.   | O    | C. G. H.              | 1707.             | R p.l  | Bot. mag. 758          |
| 4536 mœdia <i>H. K.</i>        | lesser          | ♀ △ or | 2  | jn.d   | O    | C. G. H.              | 1789.             | R p.l  | Bot. mag. 744          |
| 4537 pûmila <i>H. K.</i>       | least           | ♀ △ or | 1  | sn     | O    | C. G. H.              | 1774.             | R p.l  | Bot. mag. 764          |
| 778. VELTHE'IMIA. <i>H. K.</i> | VELTHEIMIA.     |        |    |        |      | <i>Hemerocallidœ.</i> | <i>Sp. 2-4.</i>   |        |                        |
| 4538 viridifolia <i>W.</i>     | green-leaved    | ♀ △ or | 2  | ap.n   | F.w  | C. G. H.              | 1768.             | Sk r.m | Bot. mag. 501          |
| 4539 glauca <i>W.</i>          | glaucous        | ♀ △ or | 2  | ja.ap  | F.g  | C. G. H.              | 1781.             | Sk r.m | Bot. mag. 1091         |
| 779. SANSEVIERA. <i>W.</i>     | SANSEVIERA.     |        |    |        |      | <i>Hemerocallidœ.</i> | <i>Sp. 12-14.</i> |        |                        |
| 4540 glauca <i>Haw.</i>        | sprdg.-glaucous | ♀ △ cu | 2  | ...    | W.g  | .....                 | ...               | Sk s.l |                        |
| 4541 stenophylla <i>L. K.</i>  | narrow-leaved   | ♀ △ cu | 3  | ...    | W.g  | .....                 | 1818.             | Sk s.l |                        |
| 4542 polyphylla <i>Haw.</i>    | upright-glauc.  | ♀ △ cu | 2  | ...    | W.g  | .....                 | ...               | Sk s.l |                        |
| 4543 guineensis <i>W.</i>      | Guinea          | ♀ △ cu | 2  | jn.n   | G    | Guinea                | 1690.             | Sk s.p | Bot. mag. 1179         |
| 4544 læte-virens <i>Haw.</i>   | light-green     | ♀ △ cu | 2  | ...    | W.g  | .....                 | ...               | Sk s.p |                        |
| 4545 fulvocincta <i>Haw.</i>   | fulvous-edged   | ♀ △ cu | 1  | ...    | W.g  | Brazil                | 1818.             | Sk s.p |                        |
| 4546 epicata <i>Haw.</i>       | spiked          | ♀ △ cu | 2  | ...    | W.g  | E. Indies             | 1790.             | Sk s.p | Cav. ic. 3. t. 246     |
| 4547 seylânica <i>W.</i>       | Ceylon          | ♀ △ cu | 2  | jn.n   | W.g  | Ceylon                | 1731.             | Sk s.p | Bot. reg. 160          |
| 4548 lanuginosa <i>W.</i>      | woolly          | ♀ △ cu | 2  | ...    | W.g  | E. Indies             | ...               | Sk s.p | Rheed. 11. t. 42       |
| 4549 grandicœpis <i>Haw.</i>   | large-pointed   | ♀ △ cu | 3  | ...    | W.g  | .....                 | ...               | Sk s.p |                        |
| 4550 pûmila <i>Haw.</i>        | dwarf           | ♀ △ cu | 1  | ...    | W.g  | C. G. H.              | 1796.             | s.p    |                        |
| 4551 cârnea <i>H. K.</i>       | flesh-colored   | ♀ △ or | 1  | mr.jn  | F.   | China                 | 1792.             | lp     | Bot. rep. 361          |
| sessiflora <i>B. M.</i>        |                 |        |    |        |      |                       |                   |        |                        |
| 780. TULBA'GHIA. <i>W.</i>     | TULBAGHIA.      |        |    |        |      | <i>Hemerocallidœ.</i> | <i>Sp. 2-5.</i>   |        |                        |
| 4552 alliœea <i>W.</i>         | Narcissus-lvd.  | ♀ △ or | 1  | my.jl  | Br   | C. G. H.              | 1774.             | r.m    | Bot. mag. 806          |
| 4553 cepâcea <i>W.</i>         | onion-scented   | ♀ △ or | 1  | ap     | Br   | C. G. H.              | 1795.             | r.m    |                        |
| 781. YUC'CA. <i>W.</i>         | ADAM'S NEEDLE.  |        |    |        |      | <i>Liliacœ.</i>       | <i>Sp. 12.</i>    |        |                        |
| 4554 gloriôsa <i>W.</i>        | superb          | ♂ or   | 4  | jlau   | W.gr | America               | 1596.             | S r.l  | Bot. mag. 1260         |
| 4555 aloifolia <i>W.</i>       | Aloe-leaved     | ♂ or   | 2  | aus.   | W.gr | S. Amer.              | 1696.             | R r.l  | Bot. mag. 1700         |
| 4556 tenuifolia <i>Haw.</i>    | slender-leaved  | ♂ or   | 1  | ...    | W.gr | Malta                 | 1817.             | R r.l  |                        |
| 4557 draconis <i>W.</i>        | drooping-lvd.   | ♂ or   | 8  | aus.   | W.gr | S. Amer.              | 1732.             | R r.l  | DI. el. t. 324. f. 417 |
| 4558 concava <i>Haw.</i>       | hollow-leaved   | ♂ or   | 1  | 1/2 au | W.gr | .....                 | 1816.             | R r.l  |                        |
| 4559 obliqua <i>Haw.</i>       | oblique-leaved  | ♂ or   | 4  | ...    | W.gr | .....                 | 1808.             | R r.l  |                        |
| β major                        | large           | ♂ or   | 4  | ...    | W.gr | .....                 | 1808.             | R r.l  |                        |
| 4560 flac-cida <i>Haw.</i>     | flaccid         | ♂ or   | 2  | ...    | W.gr | .....                 | 1816.             | R r.l  |                        |
| 4561 serrulata <i>Haw.</i>     | rough-edged     | ♂ or   | 10 | ...    | W.gr | Carolina              | 1808.             | R r.l  |                        |
| 4562 recur'va <i>Haw.</i>      | recurved-lvd.   | ♂ or   | 3  | au     | W.gr | Georgia               | 1794.             | R r.l  | Par. lond. 31          |
| 4563 supërba <i>Haw.</i>       | superb          | ♂ or   | 10 | au     | W.gr | .....                 | ...               | R r.l  | Bot. rep. 473          |
| 4564 glaucœscens <i>Haw.</i>   | glaucous        | ♂ or   | 2  | jlau   | W.gr | N. Amer.              | 1819.             | R r.l  | Sw. f. gard. 53        |
| 4565 filamentosa <i>W.</i>     | thready         | ♂ or   | 2  | s.o    | W.gr | Virginia              | 1675.             | S r.l  | Bot. mag. 900          |



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equal in size, which is rarely more than eight or ten inches the whole length; the inner part very pithy, next to this a circle of strong fibres, and the outside soft; the same diameter the whole length; circular marks or rings are left the whole length where the leaves have fallen off. The top sustains a large head of these, coming out singly all round it.

775. *Phylloma*. From *φυλλον*, a leaf, and *λωμα*, an edge, in reference to the broad red edge of the leaves. The plant resembles an aloe in foliage and flowers, and requires the same culture.

776. *Aletris*. From *αλειας*, meal, in allusion to the powdery dust with which the whole plant appears to be covered. Small North American plants, which may be cultivated with a little attention in rich leaf mould.

777. *Tritoma*. From *τριες*, three, and *τριων*, to cut, in allusion to the three sharp edges of the ends of the leaves. (v. *Ker. in Bot. Mag. fol. 744.*) The species of this genus thrive best in peat soil, but will do very well in any other light earth. They are hardy enough to endure our mildest winters in the open air, and only require the protection of a frame in severe frosts. There being also a genus of insects called *Tritoma*, Professor Link calls this genus *Tritomantha*.

778. *Veltheimia*. Frederick Augustus de Veltheim was a German botanical amateur, of whom nothing more is known. This genus resembles the last, and is of easy culture in any light loamy soil; and readily increased

- 4527 Leaves lanceolate narrowed each way, Corymb very short terminal many-flowered  
 4528 Leaves lanc. obliquely bent, Panicle hanging down divaricating  
 4529 Leaves lanceolate acute discolored  
 4530 Leaves lanceolate lax, Flowers very fragrant  
 4531 Head of flowers sessile in the centre of the ovate leaves

4532 Leaves tooth-spiny, Racemes axillary

- 4533 Flowers stalked oblong tubular, Cor. in fruit smooth mealy, Leaves broad lanceolate mucronate  
 4534 Flowers sub-sessile campanulate, Cor. in fruit rugose very rough, Leaves lanc. ensiform acute

- 4535 Leaves with the keel and edge rough, Cor. clavate cylindrical  
 4536 Leaves with keel and edge smooth, Cor. clavate cylindrical  
 4537 Leaves with keel and edge rough, Cor. globose at end

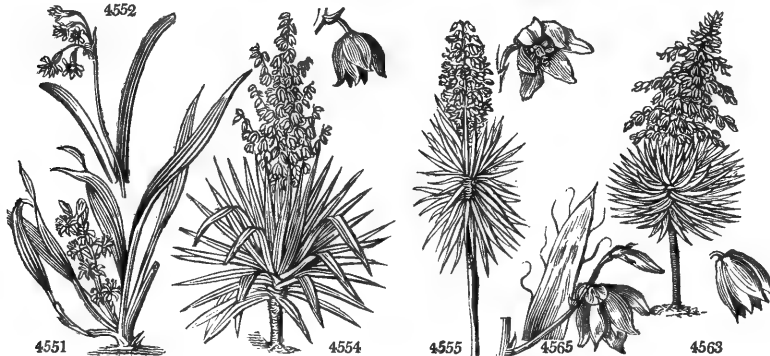
- 4538 Leaves lanc. plaited wavy obtuse, Teeth of the limb rounded straight  
 4539 Leaves lanc. glaucous curled at edge mucronate at end, Limb spreading

- 4540 Leaves about 11 spreading flaccid broadly lanceol. ensiform glaucous obscurely barred  
 4541 Leaves beneath convex lined channelled not barred  
 4542 Leaves about 19 sub-erect rigid brittle broad lanceolate ensiform glaucous obscurely barred  
 4543 Leaves lanc. uniform, Style twice as long as stamens, Bractes thrice as short as tube of cor. Flow. sessile  
 4544 Leaves about three flaccid lanc. ensiform pale-green with scarcely any bars  
 4545 Leaves lanc. revolute recurved dull green slightly edged with fulvous  
 4546 Leaves about eleven nearly erect rigid brittle lanc. ensif. with very obscure bars  
 4547 Leaves smooth oblong acute flat and lin. lanceolate channelled, Style the length of stamens  
 4548 Leaves with woolly nerves : lower oblong ; rest lin. Pedunc. without bractes  
 4549 Leaves about 12 sub-erect lanc. ensif. much barred with a small bristle at end  
 4550 Leaves about 20 spreading lanc. ensif. much barred, with 4-6 strong lines beneath  
 4551 Leaves distichous lanceolate ensiform keeled, Flowers solitary sessile

- 4552 Nectary 1-leaved 6-toothed  
 4553 Nectary 3-leaved

- 4554 Leaves quite entire  
 4555 Leaves crenulate straight  
 4556 Leaves linear very narrow stiff closely curved back into a semicircle serrulate at edge  
 4557 Leaves crenate nodding  
 4558 Leaves erect incurved rough on both sides dull glaucous with strong white marginal threads  
 4559 Leaves lorate linear lanc. obliquely bent glaucous, Suckers tuberos

- 4560 Leaves all very flaccid weakly recurved with very strong brownish threads  
 4561 Leaves in a close head very stiff green rough at edge  
 4562 Leaves recurved deflexed with a few threads  
 4563 Leaves a little plaited mucronate, Flowers very close together camp. not opening curved outwards at end  
 4564 Leaves linear lanc. narrow glaucous with fine white marginal threads  
 4565 Leaves erect recurved broadly channelled with very strong twisted brown marginal threads



and Miscellaneous Particulars.

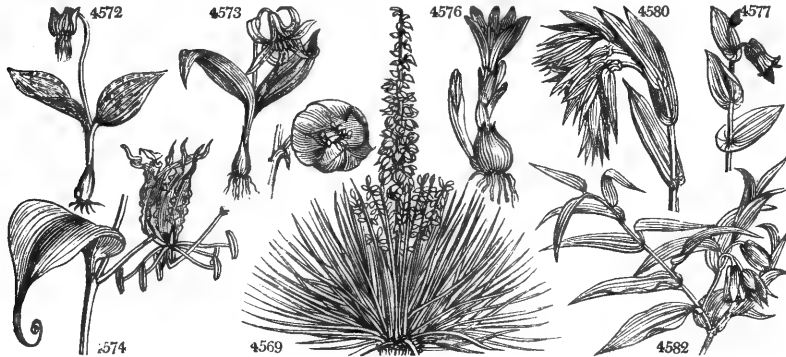
by offsets from the bulbs ; or by pulling off the leaves close to the bulb, and then planting them in pots of mould, when, like most other bulbous rooted plants, they will produce bulbs at their base. The species are quite hardy, although usually treated as greenhouse plants.

779. *Sansevieria*. This is a succulent genus, of the easiest culture and propagation in sandy loam with little water. It is probable that nearly all the numerous kinds adopted here from the works of Mr. A. H. Haworth, are varieties of one common stock, which in the woods of Guinea sports into an infinite number of forms.

780. *Tulbaghia*. This was named in honor of — Tulbagh, a Dutch governor of the Cape of Good Hope, who patronized travelling naturalists. Very pretty plants, less fragrant than beautiful ; they are rarely seen in collections, but may be cultivated in very light sandy peat in a good greenhouse.

781. *Yucca*. The inhabitants of St. Domingo call this plant *Yuca*. The species are considered highly desirable from their palm, or oriental pine-apple, or aloe character, and as being evergreens. For this reason they make a striking contrast in gardens and shrubberies, with European shrubs. They grow slowly, and do not flower freely. They are well adapted for a conservatory, as even the reputed hardy species do not thrive generally in the open air.

|       |                      |                           |   |    |    |       |          |                      |          |         |                     |
|-------|----------------------|---------------------------|---|----|----|-------|----------|----------------------|----------|---------|---------------------|
| 4566  | rufo-cincta Haw.     | rufous-edged              | ☼ | or | 1½ | jl    | W.g      | .....                | 1816.    | Sk r.m  |                     |
| 4567  | stricta Sims.        | Lyons's                   | ☼ | or | 1  | jl    | W.g      | Carolina             | 1817.    | Sk r.m  | Bot. mag. 9222      |
| 4568  | conspicua Salm.      | conspicuous               | ☼ | or | 3  | ...   | W.g      | .....                | 1816.    | Sk r.m  |                     |
| 4569  | angustifolia Ph.     | narrow-leaved             | ☼ | or | 2  | jl.au | W.g      | Missouri             | 1811.    | Sk r.l  | Bot. mag. 2236      |
| 4570  | crenulata Haw.       | rough-edged               | ☼ | or | 2  | ...   | W.g      | .....                | 1818.    | Sk s.l  |                     |
| 4571  | arcuata Haw.         | bowed                     | ☼ | or | 1  | ...   | W.g      | .....                | 1817.    | Sk s.l  |                     |
| 1782. | ERYTHRONIUM.         | W. Dog's-TOOTH            | ☼ |    |    |       |          | <i>Liliaceae.</i>    | Sp. 2.   |         |                     |
| 4572  | Dens canis W.        | common                    | ☼ | or | ½  | mr    | Pu       | Europe               | 1596.    | O p.l   | Bot. mag. 5         |
|       | <i>β albiflorum</i>  | white-flowered            | ☼ | or | ½  | mr    | W        |                      |          |         |                     |
| 4573  | americanum H. K.     | yellow-flowered           | ☼ | or | ½  | ap.my | Y        | N. Amer.             | 1665.    | O p.l   | Bot. mag. 1113      |
| 783.  | GLORIOSA. W.         | GLORIOSA.                 | ☼ |    |    |       |          | <i>Liliaceae.</i>    | Sp. 2-3. |         |                     |
| 4574  | superba W.           | superb                    | ☼ | or | 6  | jl.au | Or       | E. Indies            | 1690.    | O s.p   | Bot. reg. 77        |
| 4575  | simplex L.           | blue-flowered             | ☼ | or | 2  | jl.au | B        | Senegal              | 1756.    | O s.p   |                     |
| 784.  | BULBOCODIUM.         | W. BULBOCODIUM.           | ☼ |    |    |       |          | <i>Melanthaceae.</i> | Sp. 1.   |         |                     |
| 4576  | vernum W.            | spring-flower.            | ☼ | or | ½  | fmr   | D.Pu     | Spain                | 1629.    | O s.p   | Bot. mag. 153       |
| 785.  | UVULARIA. W.         | UVULARIA.                 | ☼ |    |    |       |          | <i>Melanthaceae.</i> | Sp. 6-9. |         |                     |
| 4577  | perfoliata W.        | perfoliate                | ☼ | or | ½  | my.jn | Pa.Y     | N. Amer.             | 1710.    | Sk p.l  | Ex. bot. 1. t. 49   |
| 4578  | flava Ph.            | deep-yellow               | ☼ | or | ½  | my.jn | Y        | N. Amer.             | ...      | Sk p.l  | Ex. bot. 1. t. 50   |
| 4579  | lancofolata W.       | spear-leaved              | ☼ | or | 1  | jn.au | Y        | N. Amer.             | 1710.    | Sk p.l  | Corn. can. t. 41    |
| 4580  | grandiflora H. K.    | large-yellow              | ☼ | or | 1  | my.jn | Y        | N. Amer.             | 1802.    | Sk p.l  | Ex. bot. 1. t. 51   |
| 4581  | sessilifolia W.      | sessile-leaved            | ☼ | or | ½  | jn    | LY       | N. Amer.             | 1790.    | Sk p.l  | Ex. bot. 1. t. 52   |
| 4582  | chinensis B. M.      | brown-flower'd            | ☼ | or | 1  | sn    | Pk       | China                | 1801.    | Sk p.l  | Bot. mag. 916       |
| 786.  | STREPTOPUS. M.       | STREPTOPUS.               | ☼ |    |    |       |          | <i>Smilacaceae.</i>  | Sp. 3.   |         |                     |
| 4583  | amplexifolius R. L.  | heart-leaved              | ☼ | or | 1  | my    | W        | Hungary              | 1752.    | Sk it.s | Red. lil. 259       |
| 4584  | roseus Ph.           | rose-colored              | ☼ | or | 1½ | jn.jl | Pk       | N. Amer.             | 1806.    | Sk it.s | Bot. mag. 1489      |
| 4585  | lanuginosus Ph.      | woolly                    | ☼ | or | 1½ | jn.jl | Y.Gr     | N. Amer.             | 1812.    | Sk it.s | Bot. mag. 1490      |
| 787.  | CONVALLARIA.         | Desf. LILY OF THE VALLEY. | ☼ |    |    |       |          | <i>Smilacaceae.</i>  | Sp. 1.   |         |                     |
| 4586  | majalis W.           | common                    | ☼ | or | ½  | my.jn | W        | Britain woods.       | R s.l    |         | Eng. bot. 1035      |
|       | <i>β rubra</i>       | red-flowered              | ☼ | or | ½  | my.jn | F        | Britain gard.        | R s.l    |         |                     |
|       | <i>γ flore pleno</i> | double                    | ☼ | or | ½  | my.jn | W        | Britain gard.        | R s.l    |         |                     |
| 788.  | SMILACINA. Desf.     | SMILACINA.                | ☼ |    |    |       |          | <i>Smilacaceae.</i>  | Sp. 6.   |         |                     |
| 4587  | umbellata Desf.      | umbel-flower'd            | ☼ | or | ½  | my.jn | N. Amer. | 1778.                | R s.l    |         | Bot. mag. 1155      |
| 4588  | borealis Desf.       | oval-leaved               | ☼ | or | 1  | my.jn | W        | N. Amer.             | 1778.    | R s.l   | Bot. mag. 1403      |
| 4589  | bifolia Desf.        | least                     | ☼ | or | ½  | my.jn | W        | N. Eur.              | 1596.    | R s.l   | Bot. mag. 510       |
| 4590  | trifolia Desf.       | three-leaved              | ☼ | or | ½  | jn.jl | W        | N. Amer.             | 1812.    | R s.l   | Gmel. sib. 1. t. 6  |
| 4591  | stellata Desf.       | star-flowered             | ☼ | or | ½  | my.jn | W        | N. Amer.             | 1633.    | R s.l   | Bot. mag. 1043      |
| 4592  | racemosa Desf.       | cluster-flower'd          | ☼ | or | 1  | my.jn | W        | N. Amer.             | 1640.    | R s.l   | Bot. mag. 899       |
| 789.  | POLYGONATUM.         | Desf. SOLOMON'S SEAL.     | ☼ |    |    |       |          | <i>Smilacaceae.</i>  | Sp. 7-8. |         |                     |
| 4593  | verticillatum Desf.  | whorl-leaved              | ☼ | or | 1  | my.jn | W        | Scotland woods.      | R s.l    |         | Eng. bot. 123       |
| 4594  | canaliculatum Ph.    | channelled                | ☼ | or | 1  | jn    | W        | N. Amer.             | 1812.    | R s.l   |                     |
| 4595  | pubescens Ph.        | pubescent                 | ☼ | or | 1  | my.jn | W        | N. Amer.             | 1812.    | R s.l   | Willd. ber. 45      |
| 4596  | vulgare Desf.        | angular                   | ☼ | or | 2  | my.jn | W.g      | England moun.        | R s.l    |         | Eng. bot. 280       |
| 4597  | multiflorum Desf.    | common                    | ☼ | or | 2  | my.jn | W        | Britain woods.       | R s.l    |         | Eng. bot. 279       |
| 4598  | latifolium Desf.     | broad-leaved              | ☼ | or | 1  | my.jn | W        | Germany              | 1802.    | R s.l   | Jac. aus. 3. t. 232 |
| 4599  | oppositifolium Lodd. | opposite-leaved           | ☼ | or | 1  | ap    | W        | Nepal                | 1822.    | R s.l   | Hook. ex. fl. 125   |



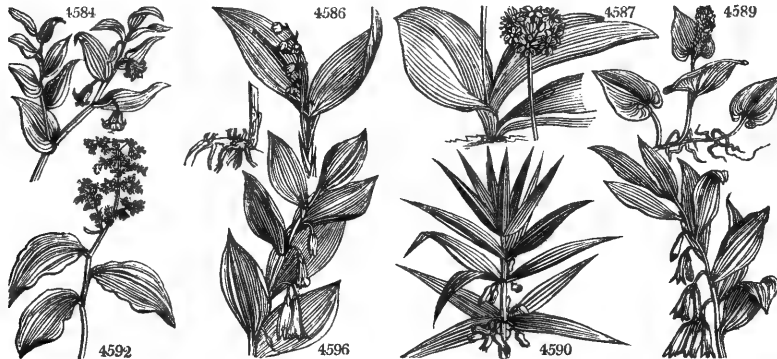
History, Use, Propagation, Culture,

782. *Erythronium*. From *ερυθρος*, red, in allusion to the color of the flower and leaves. Beautiful little vernal bulbs, the favorites of gardeners, from the cottager's border to the nobleman's flower garden. The *E. americanum* runs very much at the root, and will not flower unless confined and prevented wasting its vigour in long subterranean surculi.

783. *Gloriosa*. So named on account of the glorious colors of its flowers, and the elegance of their form. This is a splendid and curious genus, which requires considerable care in its treatment so as to make it flower freely. The late John Sweet, of Bristol, has given the following directions: "When the stalks and foliage have decayed in the autumn, and left the root, like a well-ripened potatoe, in a dormant state, the pot in which it is, must be removed from the bark-bed (to a dry part of the house) at some distance from the fire: all the warmth at this time necessary being merely what is sufficient to keep the earth in the pot free from damp; and to prevent the waterings of the house, or other moisture, falling on the earth in the pot, it should be covered, by inverting upon it another pot of the same size; or if larger, it will hang over its edges, and more effectually exclude the wet. If the roots are small, two or three may be placed together in the same pot, whilst in their dormant state; but if they are thus shifted, the mould must be well shaken down in the pot, in order to prevent the access of air to them: the old mould in which they grew must also be used; for fresh earth or sand would stimulate them to move too early. About the second week in March, the roots must be replanted, putting one or two, according to their size, into pots measuring six inches over. The best compost for them is fresh loam, mixed with an equal quantity of peat-mould, of good quality; the loam should be good, not over rich with dung, nor too heavy. The roots are to be covered about two inches deep; and care must be taken not to break them, unless nature has shown where it is practicable to divide them easily. The pots, when filled, must be plunged into the bark-bed, where the heat should be equal to ninety-five degrees of Fahrenheit's scale. Water is to be given very sparingly at first; and though, as they grow,

- 4566 Leaves erect lin. lanc. flaccid glaucous green quite smooth with a slight red edge  
 4567 Stemless, Leaves linear very straight, Scape branched at base, Cor. round campanulate  
 4568 Leaves few loosely headed long lanceolate, their edges rough  
 4569 Leaves erect rigid narrow ensiform glaucous with a broad white edge and a few threads  
 4570 Leaves a little recurved glaucous lin. lanc. at the edge and keel rough, beneath glaucous  
 4571 Leaves lin. lanceolate recurved almost into a circle deep green 7-8 lines broad roundish at edge
- 4572 Style filiform  
 4573 Style clavate 3-cornered
- 4574 Leaves cirriferous  
 4575 Leaves acuminate
- 4576 A small plant like a Crocus
- 4577 Leaves perfoliate ovate  
 4578 Leaves perfoliate elliptic oblong obtuse, Cor. narrowed at base scabrous within, Anthers cuspidate  
 4579 Leaves perfoliate ovate lanceolate acute  
 4580 Leaves perfoliate oblong acute, Petals smooth on both sides, Nect. roundish  
 4581 Leaves sessile  
 4582 Leaves stalked
- 4583 Leaves stem-clasping and stem smooth  
 4584 Smooth shining, Leaves stem-clasping serrulate ciliated, Anthers short 2-horned  
 4585 Downy hoary, Leaves sessile cordate acuminate, Pedicels in pairs on a very short stalk
- 4586 Scape naked smooth, Leaves ovate

- 4587 Leaves ovate oblong obtuse ciliated, Scape leafless, Umbel capitate  
 4588 Leaves radical elliptical, Umbel terminal  
 4589 Leaves cordate, Flowers tetrandrous  
 4590 Leaves stem-clasping in threes, Raceme terminal simple  
 4591 Leaves alternate stem-clasping elliptical acute, Raceme terminal simple  
 4592 Leaves alternate sessile ovate acuminate, Panicle terminal naked
- 4593 Leaves whorled  
 4594 Stem furrowed, Leaves alternate amplexicaul. oblong pubescent at edge, Pedunc. axillary 2-fl.  
 4595 Stem rounded furrowed, Leaves amplexicaul. ovate downy beneath, Pedunc. axill. about 2-fl.  
 4596 Leaves alternate stem-clasping, Pedunc. axillary 1-fl.  
 4597 Leaves alternate stem-clasping, Stem round, Pedunc. axillary many-fl.  
 4598 Leaves alternate stem-clasping acuminate, Stem angular, Pedunc. axillary many-fl.  
 4599 Stem round, Leaves opposite oblong acuminate shining, Pedunc. umbell. 3-5-flowered



and Miscellaneous Particulars.

they will require a more liberal supply, yet it is necessary at all times to be very moderate in giving it. The heat must be well kept up; and as the roots extend, they must be supported. Under such treatment as I have described, I have known one plant grow ten feet in the course of a season, and to have numerous blossom-stems upon it." It is readily increased by dividing the roots. (*Hort. Trans.* iii. 2, 3.) The flowers are at first green, they afterwards assume those beautiful markings of yellow for which they are so much esteemed.

784. *Bulbocodium*. From *βυλβο*, a bulb, and *κοδιον*, wool; its bulb is enveloped in a rough and velvety covering. A beautiful little vernal flower resembling a small species of Colchicum.

785. *Uvularia*. A diminutive of *uva*, a bunch of grapes. A genus of little beauty and of easy culture, constantly twisted. A plant like an *Uvularia* in habit.

786. *Streptopus*. From *στρεπ*, to turn, and *πυς*, a foot, or, in botanical language, stalk. Its flower-stalks are constantly twisted. A plant like an *Uvularia* in habit.

787. *Consualia*. From *consualis*, a valley, in allusion to the places where it grows. (*Muguet*, Fr.) *C. majalis* is an elegant and delicate scented plant, which has long been a favorite of the florist; though, as it is not a native of hot countries, it is not likely to be the Lily of the Valley of Solomon. Notwithstanding the fragrance of the flowers when green, yet when dried they have a narcotic odour, and if reduced to powder excite sneezing. An extract prepared from the flowers or from the roots partakes of the bitterness, as well as of the purgative properties, of aloes. A beautiful and durable green colour may be prepared from the leaves with lime.

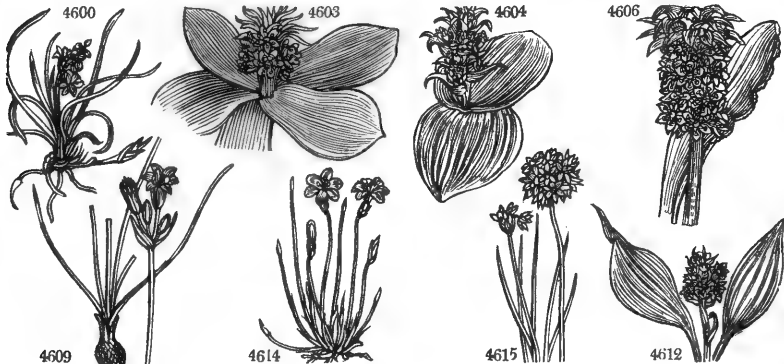
The plant is very common in the woods about Woburn in Bedfordshire, and from thence the London markets are supplied with the flowers. It forces freely, and few plants are more eligible for that operation.

788. *Smilacina*. A diminution of *Smilax*, another genus of plants, which see in its place. These are very pretty little hardy American flowers, requiring some delicacy in their management.

789. *Polygonatum*. From *πολυς*, many, and *γονυ*, a knee; on account of the numerous articulations of its



| 790. OPHIOPO'GON. Ker.   |                 | SNAKE'S BEARD. |   | Smilacææ. Sp. 2—3.      |    |       |       |           |         |    |       |                       |
|--------------------------|-----------------|----------------|---|-------------------------|----|-------|-------|-----------|---------|----|-------|-----------------------|
| 4600 japonicus Ker.      | Japan           | ✓              | Δ | cu                      | 1½ | in    | L.Y   | Japan     | 1784.   | D  | s.p.1 | Bot. mag. 1063        |
| 4601 spicatus W.         | spiked          | ✓              | Δ | cu                      | 1  | aus.  | V     | China     | 1820.   | D  | s.p.1 | Bot. reg. 596         |
| 791. EUCO'MIS. W.        |                 | EUCOMIS.       |   | Asphodeleæ. Sp. 7—9.    |    |       |       |           |         |    |       |                       |
| 4602 nána W.             | dwarf           | ✓              | Δ | or                      | ½  | my    | Br    | C. G. H.  | 1774.   | O  | r.m   | Bot. mag. 1495        |
| 4603 purpureocaulis H.K. | purple-stalked  | ✓              | Δ | or                      | 2  | mr.ap | G.b   | C. G. H.  | 1794.   | O  | r.m   | Bot. rep. 369         |
| 4604 bifolia W.          | two-leaved      | ✓              | Δ | or                      | ½  | ap.my | L.G   | C. G. H.  | 1792.   | O  | r.m   | Bot. mag. 840         |
| 4605 régia W.            | tongue-leaved   | ✓              | Δ | or                      | 2  | mr.ap | G     | C. G. H.  | 1793.   | O  | r.m   | Di. el. t. 52. f. 109 |
| 4606 undulata W.         | waved-leaved    | ✓              | Δ | or                      | 2  | mr.ap | G     | C. G. H.  | 1760.   | O  | r.m   | Bot. mag. 1083        |
| 4607 punctata W.         | spotted         | ✓              | Δ | or                      | 2  | jl    | G.b   | C. G. H.  | 1783.   | O  | r.m   | Bot. mag. 913         |
| 4608 striata H.K.        | streaked        | ✓              | Δ | or                      | 2  | in.d  | G     | C. G. H.  | 1790.   | O  | r.m   | Bot. mag. 1539        |
| *792. BRODIE'A. L. T.    |                 | BRODIEA.       |   | Hemerocallideæ? Sp. 3.  |    |       |       |           |         |    |       |                       |
| 4609 grandiflora L. T.   | large-flowered  | ✓              | Δ | or                      | ¾  | in    | B     | Georgia   | 1806.   | O  | p.1   | Par. lond. t. 98      |
| 4610 ixioides Sims.      | Ixia-like       | ✓              | Δ | or                      | ¾  | il    | B     | Chili     | 1821.   | O  | p.1   | Bot. mag. 2382        |
| 4611 congesta L. T.      | close-headed    | ✓              | Δ | or                      | ¾  | my    | B     | Georgia   | 1806.   | O  | p.1   | Lin. tr. v. 10. t. 1  |
| 793. PELIOSANTHES. B. R. |                 | PELIOSANTHES.  |   | Asparagææ. Sp. 2.       |    |       |       |           |         |    |       |                       |
| 4612 humilis B. M.       | small           | ✓              | Δ | or                      | ¾  | my.jn | G     | E. Indies | 1809.   | D  | r.1   | Bot. mag. 1532        |
| 4613 Téta B. M.          | green-flowered  | ✓              | Δ | or                      | ¾  | ap    | G.Pu  | E. Indies | 1807.   | Sk | s.p.  | Bot. mag. 1302        |
| 794. APHYLLANTHES. W.    |                 | LILY PINK.     |   | Asphodeleæ. Sp. 1.      |    |       |       |           |         |    |       |                       |
| 4614 monspeliensis W.    | Rush-like       | ✓              | Δ | pr                      | 1  | in.jl | R     | France    | 1791.   | R  | s.p   | Bot. mag. 1132        |
| †795. SOWERBE'A. L. T.   |                 | SOWERBEA.      |   | Asphodeleæ. Sp. 1.      |    |       |       |           |         |    |       |                       |
| 4615 júncea R. Br.       | Rush-leaved     | ✓              | Δ | pr                      | 1  | my.jl | Pk    | N. S. W.  | 1792.   | R  | s.p   | Bot. mag. 1104        |
| *796. AL'LIIUM. W.       |                 | GARLIC.        |   | Asphodeleæ. Sp. 76—107. |    |       |       |           |         |    |       |                       |
| 4616 Ampeloprasum W.     | gr.-round-head. | ✓              | Δ | cu                      | 2  | jl.au | Pu    | England   | sun.hi. | O  | co    | Eng. bot. 1657        |
| 4617 Fórum W.            | Leek            | ✓              | Δ | cul                     | 2  | ap.my | W     | Switzerl. | 1562.   | S  | r.m   | Blackw. t. 421        |
| 4618 lineáre W.          | linear-leaved   | ✓              | Δ | pr                      | 1  | in.jl | W     | Siberia   | 1752.   | O  | co    | Gmel. sib. 1. t. 13   |
| 4619 suavéolens W.       | sweet-smelling  | ✓              | Δ | pr                      | 1  | in.jl | W     | Austria   | 1801.   | O  | co    | Jac. ic. 2. t. 364    |
| 4620 Victoriális W.      | long-rooted     | ✓              | Δ | pr                      | 1½ | my    | W     | Austria   | 1739.   | O  | co    | Bot. mag. 1222        |
| 4621 subhirsútum W.      | hairy           | ✓              | Δ | pr                      | 1  | my    | W     | S. Europe | 1596.   | O  | co    | Bot. mag. 774         |
| 4622 obliquum W.         | oblique-leaved  | ✓              | Δ | pr                      | 1½ | in.jl | W     | Siberia   | 1759.   | O  | co    | Bot. mag. 1408        |
| 4623 mágicum W.          | Homer's Moly    | ✓              | Δ | pr                      | 1  | in.jl | G.w   | Austria   | 1596.   | O  | co    | Bot. mag. 1148        |
| 4624 róseum W.           | Rose-colored    | ✓              | Δ | pr                      | 1  | jn    | Pa.pu | France    | 1752.   | O  | co    | Bot. mag. 978         |
| 4625 deflexum W.         | deflexed        | ✓              | Δ | pr                      | ½  | in.jl | Pa.pu | .....     | 1820.   | O  | co    |                       |
| 4626 strictum Schrad.    | upright         | ✓              | Δ | pr                      | 1  | jl    | Pk    | .....     | 1821.   | O  | co    |                       |
| 4627 neopolítanum Cyr.   | Neapolitan      | ✓              | Δ | pr                      | 1  | jl    | W     | Naples    | 1823.   | O  | co    |                       |
| 4628 ciliátum Cyr.       | ciliated        | ✓              | Δ | pr                      | ¾  | my    | W     | Naples    | 1820.   | O  | co    |                       |
| 4629 tatáricum L.        | Tartarian       | ✓              | Δ | pr                      | ½  | in.jl | W     | Siberia   | 1787.   | O  | co    | Bot. mag. 1142        |
| 4630 descéndens W.       | purple-headed   | ✓              | Δ | pr                      | 1  | jl    | Pu    | Switzerl. | 1766.   | O  | co    | Bot. mag. 251         |
| 4631 flávum W.           | sulphur-colored | ✓              | Δ | pr                      | 1  | in.jl | Y     | Austria   | 1759.   | O  | co    | Bot. mag. 1330        |
| 4632 pállens W.          | pale-flowered   | ✓              | Δ | pr                      | 2  | in.jl | Pa.Y  | S. Europe | 1779.   | O  | co    | Bot. mag. 1420        |
| 4633 paniculátum L.      | panicled        | ✓              | Δ | pr                      | 2  | in.jl | Pu    | S. Europe | 1730.   | O  | co    | Bot. mag. 1432        |
| 4634 caucásicum Bieb.    | Caucasian       | ✓              | Δ | pr                      | 1  | in.jl | Pk    | Caucasus  | ...     | O  | co    | Bot. mag. 973         |
| 4635 rotándum L.         | round           | ✓              | Δ | pr                      | 1½ | jl    | Pu    | S. Europe | 1820.   | O  | co    |                       |
| 4636 globósum Bieb.      | globose         | ✓              | Δ | pr                      | 1  | aus.  | Pu    | Caucasus  | 1821.   | O  | co    | Gmel. sib. 1. t. 10   |
| 4637 moschátum L.        | musky           | ✓              | Δ | pr                      | ½  | aus.  | W.pu  | S. Europe | 1823.   | O  | co    | Wald.&K.1. t. 68      |
| 4638 guttátum Fisch.     | spotted         | ✓              | Δ | pr                      | 1½ | jl    | W     | Odessa    | 1819.   | O  | co    |                       |
| 4639 rupéstre Bieb.      | rock            | ✓              | Δ | pr                      | 1½ | jn    | Pu    | Crimea    | 1824.   | O  | co    |                       |
| 4640 pusillum W. en.     | diminutive      | ✓              | Δ | pr                      | ¾  | jn    | Pk    | Siberia   | 1821.   | O  | co    |                       |
| 4641 sphærocephalon W.   | small-headed    | ✓              | Δ | pr                      | 1½ | jl    | R     | Europe    | 1759.   | O  | co    | Bot. mag. 1764        |
| 4642 parviflorum W.      | small-flowered  | ✓              | Δ | pr                      | 1  | in.jl | Pu    | S. Europe | 1781.   | O  | co    |                       |
| 4643 cárneum W. en.      | flesh-colored   | ✓              | Δ | pr                      | 1  | in.jl | Pa.pu | .....     | 1816.   | O  | co    |                       |
| 4644 arenárium W.        | sand            | ✓              | Δ | pr                      | ¾  | jn    | Pu    | Britain   | mol.w.  | O  | co    | Eng. bot. 1358        |
| 4645 carinátum W.        | mountain        | ✓              | Δ | pr                      | ¾  | my.jn | Pu    | England   | rocks.  | O  | co    | Eng. bot. 1658        |
| 4646 contróversum W.en.  | barren          | ✓              | Δ | pr                      | 1  | in.jl | Pu    | .....     | 1816.   | O  | co    |                       |



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stem. The English name arises from the roots, which in *P. vulgare* are full of knots, and a transverse section of them shews characters which dreamers have discovered to represent the impress of the famous seal of Solomon.

790. *Ophiopogon*. From *οφις*, a snake, and *πυρον*, a beard: snake's-beard. This plant is best grown in pots, as it requires the protection of a frame during severe frosts.

791. *Eucomis*. From *eu*, well, and *κομμη*, hair; on account of the fine tuft of leaves, in botanical language called *coma*, by which the stem is surmounted. Handsome herbaceous plants which are nearly hardy.

792. *Brodiaea*. Named by Sir James Smith, after James Brodie, Esq. of Brodie House, a gentleman to whom the botany of Scotland is indebted. Highly curious little plants with blue flowers.

793. *Peliosanthes*. From *πελος*, livid, and *ανθος*, a flower, in allusion to the color of the flowers. *Teta* is the name of the plant in India; and having been adopted by Dr. Roxburgh, ought not to have been neglected in this country.

- 4600 Scape naked, Leaves linear thrice as long as scape  
 4601 Scape naked, Raceme spiked, Flowers aggregate
- 4602 Scape clavate, Leaves broad lanceolate acute  
 4603 Scape clavate, Leaves multifarious expanded  
 4604 Scape clavate, Leaves elliptical acute twin lying on the ground  
 4605 Scape cylindrical, Leaves tongue-shaped obtuse lying on the ground  
 4606 Scape cylindrical, Leaves ovate oblong wavy spreading, Crown as long as raceme  
 4607 Scape cylindrical, Leaves oblong lanceolate channelled spreading, Crown short, Racemes long  
 4608 Scape cylindrical, Leaves lanceolate spreading striped, Crown short, Raceme long
- 4609 Flowers large lax, Leaves of corona lanceolate undivided  
 4610 Leaves of the corona subulate  
 4611 Flowers clustered, Leaves of corona bifid
- 4612 Scape shorter than ovate-lanceolate leaves  
 4613 Scape branched longer than leaves
- 4614 The only species  
 4615 The only species

A. Stem leafy. Leaves not fistular.  
 Umbel not bulbiferous. Leaves flat.

- 4616 Umb. globose, Stam. 3 cusp. Sepals with a rough keel  
 4617 Stam. tricuspidate, Root tunicated  
 4618 Umb. globose, Stam. tricuspidate twice as long as flower  
 4619 Umb. capitate, Stam. subulate twice as long as flower  
 4620 Umb. capitate, Stam. lanceolate longer than flower, Leaves elliptical  
 4621 Umb. fastigiate, Stam. subulate, Leaves linear ciliated  
 4622 Stam. filiform thrice as long as flower, Leaves oblique  
 4623 Cauline leaves lanceolate, Umbel dense depressed, Stamens subulate shorter than flower  
 4624 Umb. fastigiate, Sepals emarginate, Stamens very short simple  
 4625 Stam. 3-pointed as long as flower, Leaves very narrow, Scape declinate  
 4626 Very upright, Leaves channelled  
 4627 Umb. loose few-flowered, Leaves smooth  
 4628 Very like *Allium subhirsutum* differing only in the smallness of the flowers, Sepals 3 lines long
- Umbel not bulbiferous. Leaves not flat.
- 4629 Stamens simple, Umbel flat, Leaves half-rounded  
 4630 Outer peduncles shorter than the rest, Stamens 3-pointed  
 4631 Flowers pendulous, Sepals ovate, Stam. longer than flower  
 4632 Flowers pendulous truncated, Stam. simple as long as flower  
 4633 Pedunc. capillary effuse, Stam. simple, Spathe very long  
 4634 Stam. simple twice as long as flower, Spathe as long as flower-stalks: one valve shorter  
 4635 Umbel globose, Stam. 3-pointed, Flowers lateral nodding, Leaves half-round  
 4636 Stamens simple twice as long as flower, Umbel globose, Spathe subulate very long  
 4637 Umbel fastigiate about 6-flowered, Sepals acute, Stamens simple, Leaves setaceous  
 4638 Umbel globose very dense, Spathe lanc. as long as flow.-stalks, Stam. 3-pointed longer than fl. Lvs.  $\frac{1}{2}$  round  
 4639 Flower-stalks nearly equal, Sepals ovate conniving as long as simple stamens, Style longer than stamens  
 4640 Spathe ovate shorter than umbel, Stamens simple shorter than flower  
 4641 Leaves half-round, Stamens 3-pointed longer than flower  
 4642 Umbel globose, Stamens simple longer than flower, Spathe subulate  
 4643 Umbel sub-globose, Stamens 3-pointed shorter than flower

Umbel bulbiferous. Leaves flat.

- 4644 Sheaths of leaves rounded, Spathe blunt, Stamens 3-pointed  
 4645 Umbel spreading, Peduncles nodding, Stamens subulate, Spathe with very long points  
 4646 Flowers all male, Stamens 3-pointed, Spathe with a very long point



and Miscellaneous Particulars.

794. *Aphyllanthes*. From  $\alpha$ , privative,  $\varphi\lambda\lambda\omicron\varsigma$ , leaf, and  $\alpha\nu\theta\omicron\varsigma$ , a flower; leafless flower. Its stems are naked, like a rush, and bear on their summit a little tuft of blue flowers.

795. *Sowerbea*. So named in honor of the late James Sowerby, an excellent draughtsman and ingenious naturalist. The power he possessed of representing the general features of plants within the compass of a few inches, as in his English Botany, has never been possessed in the same degree by any other individual than the late Sydenham Edwards. His execution as an artist is fully attested by the superb plates of the Flora Londinensis, of his own Fungi, and indeed of almost every botanical work of merit which appeared during his life. His talents and his reputation are inherited by his sons. This plant requires plenty of water, and is easily increased by dividing the roots.

796. *Allium*. From the Celtic *al*, which signifies hot or burning. This is a genus of strongly scented bulbous plants, all of them edible, and some of them of the greatest antiquity as potherbs.

|                                       |                  |   |   |     |    |       |      |                    |            |   |     |                     |
|---------------------------------------|------------------|---|---|-----|----|-------|------|--------------------|------------|---|-----|---------------------|
| 4647 sativum <i>W.</i>                | cultivated       | ♂ | △ | cul | 1½ | jn.jl | W    | Sicily             | 1548.      | O | r.m | Moria.s.&t.15.f.9   |
| 4648 Scorodoprasum <i>W.</i>          | Rocamboles       | ♂ | △ | cul | 3  | jl    | L.Pu | Denmark            | 1596.      | O | co  | Moria.s.&t.14.f.1   |
| 4649 monspessulan. <i>W.en.</i>       | Montpellier      | ♂ | △ | pr  | 1  | jn    | Papu | S. France          | 1822.      | O | co  |                     |
| 4650 violaceum <i>W.en.</i>           | violet           | ♂ | △ | pr  | 1  | jn    | V    | S. Europe          | 1823.      | O | co  |                     |
| 4651 foetidum <i>W.</i>               | stinking         | ♂ | △ | pr  | 1  | jl    | D.Pu | .....              | ...        | O | co  |                     |
| 4652 vineale <i>W.</i>                | crow             | ♂ | △ | pr  | 1  | jn    | Pu   | Britain            | mea.       | O | co  | Eng. bot. 1974      |
| 4653 oleraceum <i>W.</i>              | purple-striped   | ♂ | △ | pr  | 1  | jl    | Papu | England            | corn fl.   | O | co  | Eng. bot. 483       |
| 4654 odorum <i>L.</i>                 | sweet-scented    | ♂ | △ | pr  | 1  | jn    | W    | S. Europe          | 1820.      | O | co  | Bot. mag. 1142      |
| 4655 Satourpurpureum <i>w.&amp;k.</i> | dark-purple      | ♂ | △ | pr  | 1  | jl    | D.Pu | Hungary            | 1821.      | O | co  | Wald.&K.i.1.17      |
| 4656 nigrum <i>L.</i>                 | black            | ♂ | △ | pr  | ½  | jl.au | W    | Barbary            | 1818.      | O | co  | Fl. græc. 323       |
| 4657 caspium <i>Bieb.</i>             | Caspian          | ♂ | △ | pr  | 1  | ap    | W    | Crimea             | 1822.      | O | co  |                     |
| <i>Amaryllis caspia L.</i>            |                  |   |   |     |    |       |      |                    |            |   |     |                     |
| 4658 albidum <i>Fisch.</i>            | whitish          | ♂ | △ | pr  | ½  | jn.jl | W    | Crimea             | 1820.      | O | co  |                     |
| 4659 saxatile <i>Bieb.</i>            | strong           | ♂ | △ | pr  | 1  | jl.au | W    | Crimea             | 1823.      | O | co  |                     |
| 4660 Cowani <i>Lindl.</i>             | Cowan's          | ♂ | △ | pr  | 1  | jn    | W    | Chill              | 1823.      | O | co  | Bot. reg. 753       |
| 4661 acutangulum <i>W.en.</i>         | acute-angled     | ♂ | △ | pr  | ½  | jn    | W    | .....              | 1816.      | O | co  |                     |
| 4662 spirale <i>W.en.</i>             | spiral           | ♂ | △ | pr  | ½  | jn.jl | W    | Germany            | 1802.      | O | co  |                     |
| 4663 nutans <i>W.</i>                 | nodding          | ♂ | △ | pr  | 1  | jl.au | R    | Siberia            | 1785.      | O | co  | Bot. mag. 1143      |
| 4664 ascalonicum <i>W.</i>            | Shallot          | ♂ | △ | cul | ½  | jn.jl | Pu   | Palestine          | 1548.      | O | r.m | M.his.s.&t.14.f.3   |
| 4665 senescens <i>W.</i>              | Narcissus-leav.  | ♂ | △ | pr  | ½  | jn.jl | W    | Germany            | 1596.      | O | co  | Bot. mag. 1150      |
| 4666 gracile <i>H. K.</i>             | Carolina         | ♂ | △ | pr  | 3  | mr.ap | W    | Carolina           | 1776.      | O | r.m | Bot. mag. 1129      |
| 4667 angulosum <i>W.</i>              | angular-stalked  | ♂ | △ | pr  | 1  | jn.jl | L.Pu | Germany            | 1739.      | O | co  | Bot. mag. 1149      |
| 4668 striatum <i>W.</i>               | streaked-leaved  | ♂ | △ | pr  | 1  | my.jn | W    | C. G. H.           | 1800.      | O | co  | Bot.m.1035.1524     |
| 4669 narcissiflorum <i>W.</i>         | Narcissus-flwd.  | ♂ | △ | pr  | 1  | jl.au | W    | France             | ...        | O | r.m | Vill. deiph. 2. t.6 |
| 4670 canadense <i>W.</i>              | Canadian         | ♂ | △ | pr  | ½  | jn.jl | W    | N. Amer.           | 1739.      | O | co  |                     |
| 4671 ursinum <i>W.</i>                | Ramson           | ♂ | △ | pr  | 1  | ap.my | W    | Britain            | woods.     | O | co  | Eng. bot. 122       |
| 4672 triquetrum <i>W.</i>             | triangular-stkd. | ♂ | △ | pr  | ½  | my.jn | W    | Spain              | 1759.      | O | co  | Bot. mag. 869       |
| 4673 Clusianum <i>W.</i>              | Clusius's        | ♂ | △ | pr  | ½  | jn.au | W    | S. Europe          | 1803.      | O | co  | Clus.hist.1.p.192   |
| 4674 Moly <i>W.</i>                   | great-yellow     | ♂ | △ | pr  | 2  | jn    | W    | S. Europe          | 1604.      | O | co  | Bot. mag. 429       |
| 4675 tricoccum <i>W.</i>              | three-seeded     | ♂ | △ | pr  | 1  | jl    | W    | N. Amer.           | 1770.      | O | co  |                     |
| 4676 cernuum <i>Roth.</i>             | drooping         | ♂ | △ | pr  | 1  | jn    | W.pu | N. Amer.           | 1806.      | O | co  | Bot. mag. 1324      |
| 4677 stellatum <i>B. M.</i>           | Missouri         | ♂ | △ | pr  | ½  | jn    | Li   | N. Amer.           | 1811.      | O | co  | Bot. mag. 1576      |
| 4678 bisulcicum <i>B. M.</i>          | furrowed         | ♂ | △ | pr  | ½  | jl    | Pu   | Siberia            | ...        | O | co  | Bot. mag. 1381      |
| 4679 baicalense <i>W.en.</i>          | Baical           | ♂ | △ | pr  | ½  | jn.jl | Pu   | Siberia            | 1816.      | O | co  |                     |
| 4680 rubens <i>W.en.</i>              | red              | ♂ | △ | pr  | 1  | jn.jl | Papu | Germany            | 1805.      | O | co  |                     |
| 4681 fragrans <i>Vent.</i>            | fragrant         | ♂ | △ | pr  | 1½ | s.o   | W    | W. Indies          | 1822.      | O | co  | Vent. cels. t. 26   |
| 4682 acutum <i>Spr.</i>               | acute            | ♂ | △ | pr  | 1  | jl    | Papu | .....              | 1819.      | O | co  |                     |
| 4683 foliosum <i>Fisch.</i>           | leafy            | ♂ | △ | pr  | 1  | jl    | Pu   | .....              | 1817.      | O | co  |                     |
| 4684 proliferum <i>Schr.</i>          | Tree-Onion       | ♂ | △ | cu  | 3  | ilo   | W    | .....              | 1820.      | O | co  | Bot. mag. 1469      |
| 4685 ochroleucum <i>W.en.</i>         | pale-yellow      | ♂ | △ | pr  | 1  | jn.jl | Pa.Y | Hungary            | 1816.      | O | co  | Pl.rar.hu.2.t.186   |
| 4686 Cæpa <i>W.</i>                   | common-onion     | ♂ | ○ | cul | 3  | jn.jl | W    | .....              | ...        | S | r.m | Fl. græc. t. 326    |
| 4687 fistulosum <i>W.</i>             | Welsh-Onion      | ♂ | △ | cul | 1½ | ap.my | Gr   | Siberia            | 1629.      | O | co  | Bot. mag. 1230      |
| 4688 Schcenoprasum <i>W.</i>          | Chives           | ♂ | △ | cul | ½  | my.jn | F    | Britain            | m.pas.     | S | r.m | Eng. bot. 2438      |
| 4689 sibiricum <i>W.</i>              | Siberian         | ♂ | △ | pr  | 1  | jl.au | W    | Siberia            | 1777.      | O | co  | Bot. mag. 1141      |
| 4690 setaceum <i>W.en.</i>            | bristly          | ♂ | △ | pr  | ½  | jl.au | G.w  | Hungary            | 1805.      | O | co  | Wald.&Kit. t.63     |
| 4691 Chamæ-Moly <i>W.</i>             | dwarf-Moly       | ♂ | △ | pr  | ½  | ja.f  | G.w  | S. Europe          | 1774.      | O | co  | Bot. mag. 1303      |
| 797. ALBUCA. <i>W.</i>                |                  |   |   |     |    |       |      | <i>Asphodelea.</i> | Sp. 17-19. |   |     |                     |
| 4692 altissima <i>W.</i>              | tall             | ♂ | △ | or  | 4  | ap.my | G.v  | C. G. H.           | 1780.      | O | r.m | Jac. ic. 1. t. 36   |
| 4693 major <i>W.</i>                  | great            | ♂ | △ | or  | 3  | ap.my | G.v  | C. G. H.           | 1759.      | O | r.m | Bot. mag. 804       |



History, Use, Propagation, Culture,

A. Porrum. (From *pori*, in Celtic, to eat.) *Leek*, Engl., *Poireau*, Fr., *Lauch*, Ger., and *Poro*, Ital., has a cylindrical scaly imperfect bulb, which is blanched in gardens, and much used in soups and stews. It is sown in March, transplanted in May in shallow drills, and being slightly earthed up as it advances, is fit for use in October, and remains in that state till April or May following.

A. sativum, *Ail*, Fr., *Knoblauch*, Ger., and *Aglio*, Ital., has sobiliferous bulbs, which are used in seasoning, and sometimes in medicine. It is cultivated by dividing the bulb, and planting the soboles in February or March. They are fit to take up in the September following, and laid up in a dry situation till wanted for use.

A. scorodoprasum. (From *σχοδοπρον*, onion, and *λεκρον*, leek, as if both leek and onion.) *Ail d'Espagne*, Fr., *Rockenbolben*, Ger., and *Scorodopraso*, Ital., has bulbs like garlic, but the soboles or cloves are smaller. It is cultivated for the same purposes as that species, and is considered as having a more delicate flavor.

A. ascalonicum (growing near Ascalon). *Eschalôte*, Fr., *Schalotte*, Ger., and *Scalogni*, Ital., is the mildest of cultivated Alliums. It has a sobiliferous bulb, small fistular leaves, and seldom flowers. It is propagated by the clove, planted in autumn or spring, and taken up for use in August or September. It is very subject to insects, which autumn and shallow planting are found to counteract. (*Caled. Mem.* i. 109, and *Hort. Trans.* ii. 98. *Encyc. of Gard.* 3847.)

- 4647 Bulbs compound, Stamens 3-pointed  
 4648 Leaves crenulate, Sheaths 2-edged, Stamens 3-pointed  
 4649 Like *Allium carinatum*, but the stamens are three-pointed  
 4650 Stamens subulate twice as long as flower, Spathe longer than umbel

*Umbel bulbiferous. Leaves not flat.*

- 4651 Leaves half round, Spathes much longer than umbel, Sepals obtuse, Stamens simple exserted  
 4652 Stamens 3-pointed  
 4653 Leaves rough half-round furrowed beneath, Stamens simple

*B. Leaves radical, not fistular.*

- 4654 Scape rounded, Umb. many-fl. fastigate, Leaves linear channelled angular beneath, Stam. subulate  
 4655 Scape rounded, Leaves lin. lanceol. Umb. fastigate, Sepals very narrow, Stamens simple  
 4656 Scape rounded, Leaves lanceolate, Umb. hemispherical, Sepals spreading, Stamens simple  
 4657 Scape rounded, Lvs. lin. lanc. wavy, Umb. hemispherical, Roots very long, Stam. simple twice as long as fl.
- 4658 Scape oblique 4 cornered, Leaves linear, Umb. fastigate, Stamens simple as long as fl.  
 4659 Scape rounded, Leaves half-round, Spathe acum. longer than umbel, Stam. simple longer than flower  
 4660 Scape  $\frac{1}{2}$  rounded, Leaves lanceolate acuminate falcid ciliated sheathing, Umbel fastigate, Sepals obtuse  
 4661 Scape 2-edged angular, Umbel clustered, Stamens simple as long as flower, Leaves linear oblique  
 4662 Scape nearly 2-edged, Umbel capitate, Stamens longer than flower, Leaves linear spiral  
 4663 Scape 2-edged, Umb. drooping before flowering, afterw. erect, Lvs. lin. flat, Stam. 3-pointed longer than fl.  
 4664 Scape rounded, Leaves subulate, Umbel globose, Stamens 3-pointed  
 4665 Scape 2-edged, Leaves linear convex and smooth beneath, Umbel roundish, Stamens subulate  
 4666 Scape rounded very long, Leaves linear channelled, Stamens subulate connate at base  
 4667 Scape 2-edged, Leaves linear channelled angular beneath, Umbel fastigate  
 4668 Scape 3-cornered shorter than the lin. furrowed leaves, Umb. fastigate, Stamens simple, Sepals obtuse  
 4669 Scape rounded longer than the linear, subulate leaves, Umb. fastig. Stamens simple, Sepals mucronate  
 4670 Scape rounded, Leaves linear  
 4671 Scape 3-cornered, Leaves lanceolate stalked, Umbels fastigate  
 4672 Scape and leaves 3-cornered, Stamens simple  
 4673 Scape rounded, Leaves linear flat ciliated, Umb. few-flowered, Sepals obovate concave  
 4674 Scape nearly cylindrical, Leaves lanceolate sessile, Umbel fastigate  
 4675 Scape half-round, Leaves lanceolate oblong flat smooth, Umbel globose, Seeds solitary  
 4676 Scape 4-cornered, Umb. fastigate cernuous, Leaves linear flat, Stamens subulate longer than flower  
 4677 Leaves twisted linear, Umbel loose, Filam. subulate as long as flower  
 4678 Scape rounded longer than leaves, Umb. compact, Stam. subul. as long as flower  
 4679 Scape rounded at end, Umbel half globose, Leaves linear flat chann. at base, Stam. subul. longer than fl.  
 4680 Scape rounded, Umb. fastigate, Leaves half-round compressed, Stam. lanceolate shorter than fl.  
 4681 Scape rounded, Umb. few-flowered fastigate, Leaves lin. channelled, Stam. lanceolate shorter than fl.

*C. Leaves fistular.*

- 4682 Scape leafy, Umb. fastigate, Spathes nearly equal, Sepals mucronate  
 4683 Scape leafy at base  
 4684 Scape fistular twisted, Umb. bulbiferous proliferous, Stamens 3-pointed  
 4685 Scape rounded with an angle, Leaves linear obtuse, Umb. rounded, Stamens setaceous twice as long as fl.  
 4686 Scape ventricose beneath longer than the round leaves  
 4687 Scape as long as the round ventricose leaves  
 4688 Scape as long as the round subulate leaves  
 4689 Scape not quite naked round, Leaves half-round, Stamens subulate, Sepals lanceolate acute  
 4690 Scape round, Leaves setaceous subulate ciliated, Sepals ovate lanceolate emarginate at ends  
 4691 Scape scarcely any, Capsules cernuous, Leaves flat ciliated

§ 1. *Three stamens fertile.*

- 4692 Inner sepals glandular at end inflexed, Leaves subulate channelled recurved  
 4693 Inner sepals glandular at end inflexed, Peduncles spreading, Leaves linear lanc. flat reflexed



*and Miscellaneous Particulars.*

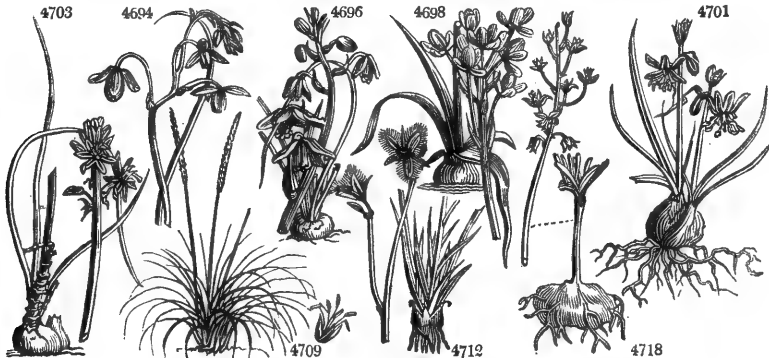
*A. cepa.* (*Cep* signifies head in Celtic.) *Oignon*, Fr., *Zwiebel*, Ger. and *Cipolla*, Ital., is universally cultivated for the kitchen, and is used as a pot-herb, salad, and pickle. It is commonly raised from seed, which is sown on rich, loamy, and rather moist soil, in March; and being thinned, weeded, and the soil stirred, the bulbs will be fit to take up in September, when they may be kept through the winter like potatoes or apples. It is also grown from small bulbs, which are planted on the surface of the soil in March, and swell to a large size (if not earthed up) in the course of the season. Sometimes onion-seeds are sown in autumn in a very dry situation, and the young plants are taken up and transplanted in spring; or a sowing is made very early in spring on a warm border or on a hot-bed, and the crop transplanted from that.

There is a variety called the underground-onion, which multiplies its bulbs by offsets below the surface. The species called the tree onion, like several others, produces its bulbs instead of or among the umbel of flowers. It is occasionally cultivated, but chiefly as matter of curiosity.

*A. fistulosum* is grown chiefly as a scallion, or spring salad onion. It has almost no bulb, but large succulent fistular leaves, strong in flavor. It is sown in autumn, and fit to be used in spring.

797. *Albuca.* Derived from *abous*, white, in allusion to the color of the flowers of this genus. Not a very happy allusion though, because the flowers are mostly green. The stem of the *Asphodel* was called *albuca* by

|                                  |                    |   |   |    |    |       |     |                    |            |               |                           |
|----------------------------------|--------------------|---|---|----|----|-------|-----|--------------------|------------|---------------|---------------------------|
| 4694 minor <i>W.</i>             | small              | ♂ | Δ | or | 1  | my.jn | Y   | C. G. H.           | 1768.      | O s.l         | Bot. mag. 720             |
| 4695 flaccida <i>Jac.</i>        | flaccid            | ♂ | Δ | or | 2  | my.jl | Y.W | C. G. H.           | 1791.      | O r.m         | Jac. ic. 2. t. 144        |
| 4696 viridiflora <i>W.</i>       | green-flowered     | ♂ | Δ | or | 1  | jn.jl | G   | C. G. H.           | 1794.      | O r.m         | Bot. mag. 1656            |
| 4697 coarctata <i>W.</i>         | channel-leaved     | ♂ | Δ | or | 2  | my.jn | Y   | C. G. H.           | 1774.      | O r.m         |                           |
| 4698 fastigiata <i>W.</i>        | level-topped       | ♂ | Δ | or | 1½ | my.jn | W   | C. G. H.           | 1774.      | O r.m         | Bot. rep. 450             |
| 4699 caudata <i>W.</i>           | upright-flower.    | ♂ | Δ | or | 2  | my.jl | W   | C. G. H.           | 1791.      | O r.m         | Jac. ic. 2. t. 442        |
| 4700 setosa <i>W.</i>            | bristly            | ♂ | Δ | or | 1  | my.jl | G   | C. G. H.           | 1795.      | O r.m         | Bot. mag. 1481            |
| 4701 vittata <i>B. M.</i>        | ribbon             | ♂ | Δ | or | ½  | jn.au | Y.G | C. G. H.           | 1802.      | O s.p         | Bot. mag. 1329            |
| 4702 physodes <i>B. M.</i>       | dingy-flowered     | ♂ | Δ | or | ¾  | jn.jl | W   | C. G. H.           | 1804.      | O r.m         | Bot. mag. 1046            |
| 4703 exuviata <i>B. M.</i>       | Adder's-skin       | ♂ | Δ | or | 1  | my.jl | W   | C. G. H.           | 1795.      | O r.m         | Bot. mag. 871             |
| 4704 aurea <i>Jacq.</i>          | golden             | ♂ | Δ | or | 1½ | my.jl | G.Y | C. G. H.           | 1818.      | O r.m         |                           |
| 4705 abyssinica <i>Jacq.</i>     | Abyssinian         | ♂ | Δ | or | 2  | au    | W   | Abyssinia          | 1818.      | O r.m         |                           |
| 4706 fragrans <i>W.</i>          | sweet-scented      | ♂ | Δ | or | 1  | jn.jl | Y.G | C. G. H.           | 1791.      | O s.p         | Jac. schen. l. t. 81      |
| 4707 viscosa <i>W.</i>           | clammy-leaved      | ♂ | Δ | or | 1  | my.jn | W.G | C. G. H.           | 1779.      | O r.m         | Jac. ic. 2. t. 445        |
| 4708 spiralis <i>W.</i>          | spiral-leaved      | ♂ | Δ | or | ¾  | jn    | W   | C. G. H.           | 1795.      | O s.p         | Jac. ic. 2. t. 439        |
| 1798. XANTHORRHÆA. <i>R. Br.</i> | XANTHORRHÆA.       |   |   |    |    |       |     | <i>Asphodeleæ.</i> | Sp. 3-7.   |               |                           |
| 4709 hæstilis <i>R. Br.</i>      | yellow-gum         | ♂ | Δ | cu | 4  | ap.mr | W   | N. S. W.           | 1803.      | Sk s.p        |                           |
| 4710 minor <i>R. Br.</i>         | small              | ♂ | Δ | cu | 2  | ...   | W   | N. S. W.           | 1804.      | Sk s.p        |                           |
| 4711 bracteata <i>R. Br.</i>     | long-bracted       | ♂ | Δ | cu | 2  | ...   | W   | N. S. W.           | 1810.      | Sk s.p        |                           |
| 799. THYSANOTUS. <i>R. Br.</i>   | THYSANOTUS.        |   |   |    |    |       |     | <i>Asphodeleæ.</i> | Sp. 2-21.  |               |                           |
| 4712 juncus <i>R. Br.</i>        | Rush-like          | ♂ | Δ | pr | ½  | aus.  | Pu  | N. S. W.           | 1804.      | O s.p         | Bot. reg. 656             |
| 4713 isantherus <i>R. Br.</i>    | even-anthered      | ♂ | Δ | pr | ½  | aus.  | Pu  | N. S. W.           | 1822.      | O s.p         | Bot. reg. 655             |
| 800. ERIOSPERMUM. <i>W.</i>      | ERIOSPERMUM.       |   |   |    |    |       |     | <i>Asphodeleæ.</i> | Sp. 5-9.   |               |                           |
| 4714 latifolium <i>W.</i>        | broad-leaved       | ♂ | Δ | cu | 1  | jn.au | L.B | C. G. H.           | 1800.      | Sk s.p        | Bot. mag. 1382            |
| 4715 pubescens <i>Jacq.</i>      | downy              | ♂ | Δ | cu | 1  | jn    | W.G | C. G. H.           | 1820.      | Sk s.p        | Bot. reg. 578             |
| 4716 lanceafolium <i>W.</i>      | spear-leaved       | ♂ | Δ | cu | 1  | jn.au | L.B | C. G. H.           | 1795.      | Sk s.p        | Jac. ic. 2. t. 421        |
| 4717 parvifolium <i>W.</i>       | small-leaved       | ♂ | Δ | cu | ½  | jn.au | D.B | C. G. H.           | 1795.      | Sk s.p        | Jac. ic. 2. t. 422        |
| 4718 folioliferum <i>B. R.</i>   | leaflet-bearing    | ♂ | Δ | cu | ¾  | jn.au | Y.G | C. G. H.           | 1806.      | Sk s.p        | Bot. reg. 795             |
| 801. GA'GÆA. <i>Sal.</i>         | GAGÆA.             |   |   |    |    |       |     | <i>Asphodeleæ.</i> | Sp. 6-7.   |               |                           |
| 4719 lutea <i>B. M.</i>          | bundle-flower'd    | ♂ | Δ | pr | ¾  | mr.ap | Y   | Britain            | woods.     | O s.p         | Bot. mag. 1200            |
| 4720 sylvatica <i>W. en.</i>     | wood               | ♂ | Δ | pr | ¾  | mr.ap | Y   | Europe             | ...        | O s.p         | P. i. u. N. a. 5. t. f. 1 |
| 4721 spathacea <i>W.</i>         | sheathed           | ♂ | Δ | pr | ¾  | my    | Y   | Germany            | 1759.      | O s.p         | H. in. us. an. 15. t. 1   |
| 4722 minima <i>P. S.</i>         | starry             | ♂ | Δ | pr | ¾  | my    | Y   | Sweden             | 1759.      | O s.p         |                           |
| 4723 circinata <i>L.</i>         | netted             | ♂ | Δ | pr | ¾  | my.jn | Y   | Siberia            | 1789.      | O s.p         | Pall. it. t. D. f. 2      |
| 4724 serotina <i>B. M.</i>       | mountain           | ♂ | Δ | pr | ¾  | jn    | Y   | Wales              | ...        | O s.p         | Eng. bot. 793             |
| 802. ORNITHOGALUM. <i>W.</i>     | STAR OF BETHLEHEM. |   |   |    |    |       |     | <i>Asphodeleæ.</i> | Sp. 29-47. |               |                           |
| 4725 uniflorum <i>W.</i>         | one-flowered       | ♂ | Δ | or | ½  | my.jn | Y   | Siberia            | 1781.      | O s.p         | N. c. p. 18. t. 6. f. 3   |
| 4726 ixiodites <i>H. K.</i>      | Ixia-like          | ♂ | Δ | or | ½  | my.jn | W   | California         | 1796.      | O s.p         |                           |
| 4727 niveum <i>W.</i>            | snowy              | ♂ | Δ | or | ½  | my.jn | W   | C. G. H.           | 1774.      | O r.m         | Bot. reg. 235             |
| 4728 umbellatum <i>W.</i>        | common             | ♂ | Δ | or | 1  | ap.jn | W   | England me.pa.     | O co       | Eng. bot. 130 |                           |
| 4729 virens <i>Lindl.</i>        | greenish           | ♂ | Δ | or | 1½ | jn.jl | G   | Del. Bay           | 1823.      | O co          | Bot. reg. 814             |
| 4730 narbonense <i>W.</i>        | Narbonne           | ♂ | Δ | or | 1½ | jl    | W   | S. Europe          | 1810.      | O co          | Bot. mag. 2510            |
| 4731 fimbriatum <i>Eieb.</i>     | fringed            | ♂ | Δ | or | ½  | f.mr  | W   | Crimea             | 1820.      | O co          | Lindl. coll. 28           |
| 4732 pyrenicum <i>W.</i>         | spiked             | ♂ | Δ | or | 2  | jn.jl | G   | England past.      | O co       | Eng. bot. 489 |                           |
| 4733 stachyodes <i>W.</i>        | close-spiked       | ♂ | Δ | or | 2½ | ap.jl | L.Y | S. Europe          | 1771.      | O co          | Ren. spec. t. 90          |
| 4734 lacteum <i>W.</i>           | milk-white         | ♂ | Δ | or | 1  | jn.jl | W   | C. G. H.           | 1796.      | O r.m         | Bot. mag. 1134            |
| 4735 revolutum <i>W.</i>         | revolute-flower.   | ♂ | Δ | or | 1  | mr.jn | W   | C. G. H.           | 1795.      | O r.m         | Bot. mag. 653             |
| 4736 elatum <i>B. Rep.</i>       | tall               | ♂ | Δ | or | 3  | mr    | W   | Egypt              | 1804.      | O r.m         | Bot. rep. 528             |
| 4737 latifolium <i>W.</i>        | broad-leaved       | ♂ | Δ | or | 1½ | jn.jl | W   | Egypt              | 1629.      | O r.m         | Bot. mag. 876             |
| 4738 scilloides <i>W.</i>        | squill-like        | ♂ | Δ | or | 1½ | jn.jl | W   | C. G. H.           | 1795.      | O r.m         | Jac. sch. 1. t. 888       |
| 4739 prasinum <i>B. Reg.</i>     | green-flowered     | ♂ | Δ | or | 1½ | jn.jl | G   | C. G. H.           | 1816.      | O r.m         | Bot. reg. 158             |
| 4740 comosum <i>W.</i>           | short-spiked       | ♂ | Δ | or | ¾  | jn.au | W   | Austria            | 1596.      | O p.l         | Jac. ic. 2. t. 426        |
| 4741 pyramidale <i>W.</i>        | pyramidal          | ♂ | Δ | or | 2  | jn.jl | W   | Spain              | 1752.      | O r.m         | Jac. ic. 2. t. 425        |



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the Latins. A genus of little beauty, but of easy management in sandy loam and decayed vegetable soil, and propagation is effected by suckers from the old bulbs; or by taking off leaves with a scale, and planting them round the edge of a pot of sandy loam.

798. *Xanthorrhæa*. From *ξανθός*, yellow, and *ῥίζα*, to flow. The plant produces a yellow gum.

799. *Thysanotus*. From *θύσανος*, a fringe, on account of the fringe of the sepals. Elegant little New Holland plants, with bright purple blossoms and slender grassy leaves.

800. *Eriosperrum*. From *εἶσος*, wool, and *σπέρμα*, seed, on account of the envelope of the seed. Very curious little Cape plants, with deformed or unusually shapen leaves.

801. *Gagea*. Named by R. A. Salisbury, Esq., after his friend Sir Thomas Gage, a great amateur of botany. A genus of curious little bulbous plants, none of which exceed the height of more than three or four inches, and principally distinguished from *Ornithogalum* by the yellow color of their flowers.

4694 Inner sepals glandular at end inflexed, Scape erect, Fl. nodding, Lvs. linear subulate channelled smooth  
 4695 Inner sepals glandular at end inflexed, Peduncles spreading at right angles, Lvs. lanc. lin. obliquely bent  
 4696 Inner sepals glandular at end inf. Scape erect wavy, Fl. cernuous, Lvs. lin. subul. chann. outside hairy  
 4697 Inner sepals vaulted at end, Leaves smooth, Peduncles the length of bractes

§ 2. *Six stamens fertile.*

4698 Inner sepals vaulted at end, Leaves lin. flattish, Scape shorter than leaves, Pedunc. very long spreading  
 4699 Inner sepals glandular at end inflexed, Leaves lin. lanc. convol. upright shorter than scape  
 4700 Inner sepals glandular at end inflexed, Leaves lin. lanc. flattish, Pedunc. at right angles, Flowers erect  
 4701 Scape shorter than leaves few-flowered, Flowers nodding, Filam. 2-toothed  
 4702 Leaves lanceolate, Raceme pyramidal before the leaves, Filam. glandular at base  
 4703 Leaves lin. subulate channelled, Scape simple shorter than leaves, Scales of root wrinkled across  
 4704 Inner sepals glandular at end inflexed, Lvs. lin. lanc. flat, Pedunc. very long erect spreading, Fl. upright  
 4705 Inner sepals vaulted at end, Leaves lin. lanceol. channelled upright, Pedunc. shorter than nodding flow.  
 4706 Inner sepals vaulted at end, Leaves lin. lanc. channelled, Pedunc. spreading the length of nodding flow.  
 4707 Inner sepals vaulted at end, Lvs. lin. subul. chann. hairy clammy, Ped. spread. twice as long as nodd. fl.  
 4708 Inner sepals vaulted at end, Leaves lin. subulate convolute at the end spirally twisted villous

4709 Stem very short, Leaves 2-edged lengthwise, Scape very long higher than the spike  
 4710 Stemless, Leaves 3 cornered flat in front beyond the middle hollowed, Scape very long higher than spike  
 4711 Stemless, Leaves 3 cornered below the middle in front little raised above middle concave, Bracts very long

4712 Roots fibrous, Stems branched diffuse rounded striated, Branches somewhat angular, Anthers unequal  
 4713 Bulbs fascicled, Leaves radical channelled nearly as long as the rounded simple stem

4714 Leaves roundish acuminate cucullate at base  
 4715 Leaf sub-cordate acute cucullate pubescent  
 4716 Leaves ovate lanceolate at the edge wavy involute  
 4717 Leaves elliptical obtuse flat  
 4718 Leaf proliferous, Leaflets filiform undivided sessile

4719 Radical leaf linear flat, Peduncles simple umbellate, Sepals obtuse smooth, Bulbs clustered  
 4720 Radical leaf linear lanc. flat, Pedunc. simple somewhat umbellate, Sepals obtuse smooth, Bulb solitary  
 4721 Leaves linear filiform upright, Pedunc. about 3 with a three-leaved involucre  
 4722 Scape angular naked, Pedunc. umbellate branched pubescent, Sepals lanc. acute  
 4723 Scape naked, Pedunc. 3 umbell. pubescent, Leaves filiform, Three outer sepals longer than the others  
 4724 Leaves half cylindrical, Cauline dilated at base

4725 Scape 2-leaved, Leaves opp. Pedunc. 1-fl. Outer sepals lanc. retuse: inner ellipt. twice as broad  
 4726 Scape naked, Flowers umbell. Filam. all 2-forked bearing the anther in the middle  
 4727 Raceme few-flowered, Sepals lanceolate, Leaves filiform channelled, Filam. subulate  
 4728 Corymb few-flowered, Pedunc. longer than bractes, Filam. subulate  
 4729 Raceme spiked many-fl. Lvs. lin. lanc. weak, Every other stamen with two teeth, Bractes longer than fl.  
 4730 Raceme oblong, Filam. lanceolate membranous, Pedunc. and fl. spreading  
 4731 Corymb few-flowered shorter than lanceolate strongly fringed leaves  
 4732 Raceme very long, Sepals linear obtuse, Filam. lanceol. equal, Style the length of stamens  
 4733 Raceme very long, Sepals lanc. oblong, Filam. broad lanceol. alternately shorter  
 4734 Raceme long, Filam. subulate alternate lanceolate, Bractes membranous ovate twice as long as pedunc.  
 4735 Raceme few-flowered, Sepals linear oblong obliquely bent emarginate, Filam. lanc. subul. Leaves linear  
 4736 Leaves short oblong erect, Scape very long, Flowers campanulate the length of stamens  
 4737 Raceme very long, Filam. subulate, Pedunc. much longer than flower, Leaves lanceolate  
 4738 Raceme very long, Filam. subul. Pedunc. length of fl. Bractes the length of pedunc. Lvs. lin. lanc. loose  
 4739 Lvs. glaucous twisted upwards, Raceme divaricating on a long scape, Filaments with an ovate base  
 4740 Raceme very short, Bractes lanc. the length of flower, Sepals obtuse, Filam. subulate  
 4741 Raceme conical, Fl. numerous ascending, Sepals oblong flat, Stam. lanc. equal, Style very short



and Miscellaneous Particulars.

802. *Ornithogalum*. From *ορνιθας*, a bird, and *γαλα*, milk. No good explanation has been offered of the application of this word; that of Tournefort is not worth quoting. *O. squilla* is the officinal squill. It has a bulb almost as big as the human head, pear-shaped, and tunicate like the onion. From the middle of the root arise several shining leaves a foot long, and two inches broad at their base, lessening all the way to the top, where they end in points. They continue green all the winter, and decay in the spring; then the flower-stalk comes out, rising two feet high, naked about half way, and terminated by a pyramidal thyrse of white flowers.

The squill is one of the few medicines known in the early ages of Greece, which is still held in great estimation. It is very nauseous, intensely bitter and acrimonious, without any perceptible smell. It is poisonous to several animals: if much handled it ulcerates the skin; and in large doses frequently repeated, it not only excites nausea, but strangury, bloody urine, and hemorrhoids, with fatal inflammation and gangrene of the stomach and bowels. Under proper management, however, it is a medicine of great practical utility. In

|                                 |                 |        |          |     |                    |            |       |                     |
|---------------------------------|-----------------|--------|----------|-----|--------------------|------------|-------|---------------------|
| 4742 odorátum <i>W.</i>         | sweet-scented   | ♂ Δ or | 1½ my.jn | P.Y | C. G. H.           | 1795.      | O r.m | Bot. rep. 290       |
| 4743 barbátum <i>W.</i>         | bearded         | ♂ Δ or | 1 my.jl  | W   | C. G. H.           | 1795.      | O r.m | Jac. sch. 1 t. 91   |
| 4744 juncifólium <i>W.</i>      | Rush-leaved     | ♂ Δ or | ¾ jl.au  | W   | C. G. H.           | 1794.      | O r.m | Bot. mag. 972       |
| 4745 rupéstre <i>W.</i>         | rock            | ♂ Δ or | ¾ my.au  | W   | C. G. H.           | 1795.      | O r.m |                     |
| 4746 arábicum <i>W.</i>         | great-flowered  | ♂ Δ or | 1½ mr.ap | W   | Egypt              | 1629.      | O r.m | Bot. mag. 728       |
| 4747 thyrsoídes <i>W.</i>       | thyrese-flower. | ♂ Δ or | 1½ jn.jl | W   | C. G. H.           | 1757.      | O r.m | Bot. mag. 1164      |
| 4748 aúreum <i>W.</i>           | golden          | ♂ Δ or | ¾ jn.jl  | Y   | C. G. H.           | 1790.      | O r.m | Bot. mag. 190       |
| 4749 flavissimum <i>Jac.</i>    | great-yellow    | ♂ Δ or | 1 jn.jl  | Y   | C. G. H.           | 1804.      | O r.m | Jac. ic. t. 436     |
| 4750 coarctátum <i>W.</i>       | close-flowered  | ♂ Δ or | 1½ jn.jl | W.G | C. G. H.           | 1804.      | O r.m | Jac. ic. t. 435     |
| 4751 caudátum <i>W.</i>         | long-spiked     | ♂ Δ or | 3 f.au   | W.G | C. G. H.           | 1774.      | O r.m | Bot. mag. 805       |
| 4752 unifólium <i>B. M.</i>     | one-leaved      | ♂ Δ or | ¾ jn.jl  | W   | Gibraltar          | 1805.      | O r.m | B. mag. 935, 953    |
| 4753 Squilla <i>B. M.</i>       | official Squill | ♂ Δ or | 3 ap.my  | W   | £. Europe          | 1629.      | O r.m | Bot. mag. 918       |
| †*803. SCILLA/LA. <i>W.</i>     | SCUILL.         |        |          |     | <i>Asphodelea.</i> | Sp. 21—35. |       |                     |
| 4754 itálica <i>W.</i>          | Italian         | ♂ Δ or | ¾ ap.jl  | B   | Switzerl.          | 1605.      | O p.l | Bot. mag. 663       |
| 4755 peruviana <i>W.</i>        | corymbose       | ♂ Δ or | 1 my     | D.B | Spain              | 1607.      | O r.m | Bot. mag. 749       |
| 4756 lusitánica <i>W.</i>       | Portugal        | ♂ Δ or | ¾ my     | L.B | Portugal           | 1777.      | O p.l | Bot. mag. 1999      |
| 4757 Lilio-Hyacinthus <i>W.</i> | Lily-rooted     | ♂ Δ or | 1 my.jl  | B   | S. Europe          | 1597.      | O co  | Red. lil. 205       |
| 4758 amœna <i>W.</i>            | nodding         | ♂ Δ or | ¾ mr.ap  | L.B | Levant             | 1596.      | O p.l | Bot. mag. 341       |
| 4759 sibirica <i>H. K.</i>      | Siberian        | ♂ Δ or | ¾ f.mr   | B   | Siberia            | 1796.      | O p.l | Bot. mag. 1025      |
| 4760 præcox <i>W.</i>           | early-flowering | ♂ Δ or | ¾ ap.my  | D.B | .....              | 1790.      | O s.l |                     |
| 4761 vérna <i>W.</i>            | vernal          | ♂ Δ or | ¾ mr.ap  | B   | Britain            | rocks.     | O s.l | Eng. bot. 23        |
| 4762 unifólia <i>L.</i>         | one-leaved      | ♂ Δ or | ¾ my.jn  | W   | Portugal           |            | O s.l |                     |
| 4763 hyacinthoides <i>W.</i>    | Hyacinth        | ♂ Δ or | ¾ au     | B   | Madeira            | 1585.      | O r.m | Bot. mag. 1140      |
| 4764 autumnális <i>W.</i>       | autumnal        | ♂ Δ or | ¾ au.s   | Pk  | England            | dr. pa.    | O p.l | Eng. bot. 78        |
| 4765 bifólia <i>W.</i>          | two-leaved      | ♂ Δ or | ¾ f.ap   | B   | England            | woods.     | O p.l | Eng. bot. 24        |
| 4766 umbelláta <i>W. en.</i>    | umbelled        | ♂ Δ or | ¾ ap     | B   | Pyrenees           | 1822.      | O p.l | B. ph.n.41.t.8.f.6  |
| 4767 cœrnea <i>Lk.</i>          | cerneous        | ♂ Δ or | ¾ ap.my  | Pk  | Spain              | 1815.      | O p.l |                     |
| 4768 índica <i>Rozeb.</i>       | Indian          | ♂ Δ or | 1 .....  | ... | E. Indies          | 1816.      | O p.l |                     |
| 4769 campanuláta <i>W.</i>      | Spanish         | ♂ Δ or | 1 my.jn  | D.P | Spain              | 1633.      | O p.l | B.mag. 127, 1102    |
| 4770 non scripta <i>Sm.</i>     | Harebell's      | ♂ Δ or | ¾ mr.jn  | B   | Britain            | woods.     | O co  | Eng. bot. 377       |
| β cœrnea                        | flesh-colored   | ♂ Δ or | ¾ mr.jn  | Pk  | Britain            | woods.     | O s.l | Bot. mag. 1461      |
| β alba                          | white           | ♂ Δ or | ¾ mr.jn  | W   | Britain            | woods.     | O s.l |                     |
| 4771 brevifólia <i>B. M.</i>    | short-leaved    | ♂ Δ or | ¾ ja     | Pk  | C. G. H.           | 1811.      | O s.l | Bot. mag. 1468      |
| 4772 corymbósa <i>B. M.</i>     | Cape            | ♂ Δ or | ¾ aud    | Pk  | C. G. H.           | 1793.      | O s.l | Bot. rep. 345       |
| 4773 esculénta <i>B. M.</i>     | Quamash         | ♂ Δ ec | 1 my.jl  | P.n | N. Amer.           | 1811.      | O s.l | Bot. mag. 1574      |
| § 4774 románá <i>B. M.</i>      | Roman           | ♂ Δ or | 1 my     | W   | Italy              | 1596.      | O s.l | Bot. mag. 939       |
| 804. PUSCHKI'NA. <i>Bieb.</i>   | PUSCHKINIA.     |        |          |     | <i>Asphodelea.</i> | Sp. 1.     |       |                     |
| 4775 scilloides <i>Bieb.</i>    | little          | ♂ Δ or | ¾ my.jn  | P.B | Siberia            | 1819.      | O s.l | Lindl. coll. 24     |
| †805. MASSONIA. <i>W.</i>       | MASSONIA.       |        |          |     | <i>Asphodelea.</i> | Sp. 9—10.  |       |                     |
| 4776 latifólia <i>W.</i>        | broad-leaved    | ♂ Δ cu | ¾ mr.ap  | W   | C. G. H.           | 1775.      | O s.l | Bot. mag. 848       |
| 4777 longifólia <i>Jacq.</i>    | long-leaved     | ♂ Δ cu | ¾ mr.ap  | W   | C. G. H.           | ...        | O s.l | Jac. sch. 4. t. 457 |
| β candida <i>Burchell</i>       | white           | ♂ Δ cu | ¾ mr.ap  | W   | C. G. H.           | ...        | O s.l | Bot. rep. 694       |
| 4778 muricáta <i>H. K.</i>      | prickly-leaved  | ♂ Δ cu | ¾ ap.my  | W   | C. G. H.           | 1790.      | O s.l | Bot. mag. 559       |
| 4779 scabra <i>H. K.</i>        | shagreen-leaved | ♂ Δ cu | ¾ ja.ap  | W   | C. G. H.           | 1790.      | O s.l | Bot. rep. 220       |
| pustuláta <i>B. M.</i>          |                 |        |          |     |                    |            |       |                     |
| 4780 echináta <i>W.</i>         | rough-leaved    | ♂ Δ cu | ¾ my     | W   | C. G. H.           | 1790.      | O s.l |                     |
| 4781 pauciflóra <i>H. K.</i>    | few-flowered    | ♂ Δ cu | ¾ my     | W   | C. G. H.           | 1790.      | O s.l |                     |
| 4782 angustifólia <i>W.</i>     | narrow-leaved   | ♂ Δ cu | ¾ mr.ap  | W   | C. G. H.           | 1775.      | O s.l | Bot. mag. 736       |
| 4783 unduláta <i>W.</i>         | waved-leaved    | ♂ Δ cu | ¾ ap     | W   | C. G. H.           | 1791.      | O s.l |                     |
| 4784 ensifólia <i>B. M.</i>     | trumpet-flower. | ♂ Δ cu | ¾ f.s    | L   | C. G. H.           | 1790.      | O s.l | Bot. mag. 554       |
| 806. EREMURUS. <i>Bieb.</i>     | EREMURUS.       |        |          |     | <i>Asphodelea.</i> | Sp. 1      |       |                     |
| 4785 spectábilis <i>Bieb.</i>   | channelled-ld.  | ♂ Δ or | 1 my.jn  | Y   | Siberia            | 1800.      | O s.l | Bieb. cent. t. 61   |
| 4748                            |                 |        |          |     |                    |            |       |                     |
| 4746                            |                 |        |          |     |                    |            |       |                     |
| 4756                            |                 |        |          |     |                    |            |       |                     |
| 4763                            |                 |        |          |     |                    |            |       |                     |



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dropsy it has long been esteemed the most certain and effectual diuretic with which we are acquainted, and it is usually employed in asthma.

803. *Scilla*. From σκίλλα, to injure, according to Miller, because its root is a violent poison as well as an article of medicine. In Arabic it is called *dsqyl*; has not the name *scilla* been obtained rather from this root? The genus is so ill defined that botanists are more guided by their blue colour than by any precise mark, in referring plants to this rather than Ornithogalum.

*S. peruviana* or *hyacinth* of Peru is erroneously named, being a native of Spain. It is valuable as an evergreen, or rather wintergreen, its fine lucid green leaves appearing before winter and continuing through that season, till it sends up its thick succulent scapes about the end of April. There are two varieties, one with a deep blue, and the other with a white flower. Like other Spanish bulbs it is liable to be destroyed by an extraordinary severe winter.

*S. verna* is a maritime plant found on the coast of Cornwall, Wales, the Isle of Man, and the Hebrides. *S. non-scripta* is the *Hyacinthus* of that name of Linnæus, the *Jacinte des bois*, of the French, and *Niederlantische* or *Englische Hyacinthe*, of the Germans. The fanciful specific name of *non-scriptus* was

- 4742 Raceme long, Filam. subul. Sepals lanc. at the end callous inflexed, Leaves linear depressed flat  
 4743 Raceme few-fl. Filam. subulate, Sepals lin. obtuse : 3 outer bearded at end; inn. mucron. Leaves filiform  
 4744 Raceme long many-fl. Filam. subulate, Sepals lanc. acute, Leaves filiform subulate  
 4745 Leaves filiform fleshy, Scape few-flowered  
 4746 Corymb many-flowered, Filam. subulate, Cor. broadly campan. Outer sepals obsolete 3-toothed  
 4747 Corymbs many-fl. racemose, Filam. alternately forked, Leaves lanceolate  
 4748 Raceme contracted corymbose, Filam. alternately emarg. Leaves lanc. with cartilaginous teeth  
 4749 Like the last, but the flowers very yellow, and the bractes very narrow the length of the flower-stalk  
 4750 Raceme many-fl. contracted, Altern. filam. emarginate, Leaves linear channelled  
 4751 Raceme very long, Leaves lanc. linear, Flowers spreading, Stam. dilated alternately wedge-shaped  
 4752 Leaf solitary longer than scape, Flowers few spiked sessile  
 4753 Flowers without the leaves, Bractes reflexed

- 4754 Raceme conical oblong  
 4755 Corymb clustered conical  
 4756 Raceme oblong conical, Sepals lined  
 4757 Raceme few-flowered, Peduncles without bractes, Leaves lanceol. lying on the ground  
 4758 Scape angular, Peduncles alternate shorter than flower, Bractes obtuse very short  
 4759 Four-leaved, Scape many half-rounded striated 2-flowered decumbent after flowering  
 4760 Scape angular, Raceme corymbose, Peduncles twice as long as fl. Bractes obsolete  
 4761 Raceme few-flowered with bractes, Flowers campanulate, Leaves linear channelled : radical many  
 4762 Leaf roundish somewhat spiked on one side  
 4763 Raceme cylindrical many-flowered, Sepals half as long again as the ovaries, Peduncles colored  
 4764 Leaves filiform linear, Flowers corymbose, Peduncles naked ascending the length of the flower  
 4765 Flowers racemose, Leaves lanceolate linear about two elevated on a scape  
 4766 Scape rounded, Corymb few-flowered umbelled, Bractes filiform the length of peduncles  
 4767 Flowers campanulate 6-parted, Raceme cernuous  
 4768 A species which has not yet been seen in flower, nor described  
 4769 Raceme many-fl. obl. conical, Flowers campan. erect, Bractes 2-parted longer than pedunc. Lvs. lanceol.  
 4770 Flowers campanulate 6-parted revolute at end

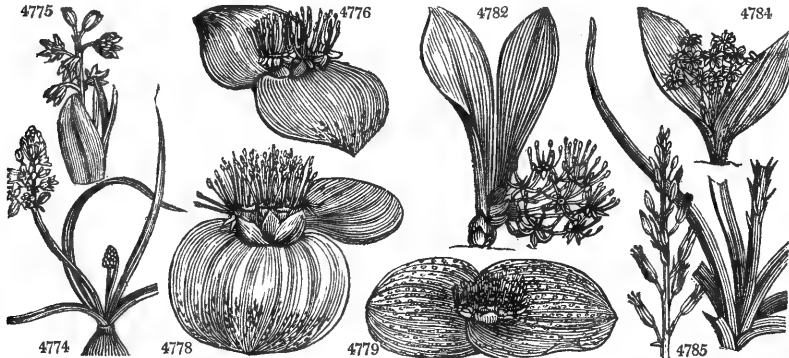
- 4771 Flowers 6-parted, Raceme cernuous, Leaves shorter than scape  
 4772 Flowers funnel-shaped corymbose erect, Scape shorter than the leaves  
 4773 Scape longer than keeled linear leaves, Spike racemose, Five sepals ascending; the lower deflexed  
 4774 Flowers campanulate half six-cleft racemose, Stamens membranous

4775 The only species, like a pale-flowered variety of *Scilla sibirica*

- 4776 Leaves roundish smooth  
 4777 Leaves lanceolate oblong acuminate  
 4778 Leaves roundish smooth towards the end mucronate  
 4779 Leaves roundish veiny warted rough

- 4780 Leaves ovate and lanceolate with hairy tubercles, Sepals filiform  
 4781 Leaves lanceolate and elliptical veinless warted, Warts naked, Sepals ovate  
 4782 Leaves oblong lanceolate flat smooth  
 4783 Leaves lanceolate wavy smooth  
 4784 Leaves lanceolate, Sepals much shorter than the tube, Filam. capillary alternately longer

4785 Scape naked simple, Stamens twice as long as flower, Leaves linear channelled



and Miscellaneous Particulars.

applied to this plant by Dodonæus, because it has not the marks of *Al*, *Al*, on the petals, as other hyacinths are supposed to have, and therefore is not the *Hyacinthus poeticus*. This idea has its origin in the Roman mythology, in which *Apollo*, being much grieved for the death of the youth *Hyacinthus*, changed his blood into a flower which bore his name, &c. It is a native of almost every part of Europe and of Persia.

804. *Puschkinia*. Named after Count *Mussin Pouschkin*, a Russian botanist and patron of botany. A very remarkable little plant, resembling a *Scilla* in appearance, but well defined by the very curious union of its stamens into a cup.

805. *Massonia*. So named by *Thunberg*, after *Mr. Francis Masson*, author of *Stapelie Novæ*; a successful botanical collector at the Cape of Good Hope, Madeira, the West Indies, and finally North America, into whose wildernesses he went to die. Very singular plants, with broad leaves lying flat on the ground, and compact umbels of flowers.

806. *Eremurus*. From *ἐρημος*, desert, and *ὄψα*, a tail: tail of the desert. Its long spikes of yellow flowers may be easily imagined to merit such an appellation in their native abodes.



|                                    |                                |                     |                |                 |                            |
|------------------------------------|--------------------------------|---------------------|----------------|-----------------|----------------------------|
| 807. <i>BULBINE</i> <i>W. en.</i>  | BULBINE.                       | <i>Asphodeleae.</i> | Sp. 7—19.      |                 |                            |
| 4786 <i>frutescens W. en.</i>      | shrubby                        | ♂   or              | 2 mr.au Y      | C. G. H. 1702.  | C a l Bot. mag. 816        |
| 4787 <i>rostrata W. en.</i>        | beaked                         | ♂   or              | 2 mr.au Y      | C. G. H. 1812.  | C a l Jac. ic. 2. t. 403.  |
| 4788 <i>alooides W. en.</i>        | Alco-leaved                    | ♀   Δ   or          | 1 ap.au Y      | C. G. H. 1732.  | O a l Bot. mag. 1317       |
| 4789 <i>pugioniflorae Lk.</i>      | dagger-leaved                  | ♀   Δ   or          | 1 ap.jn Y      | C. G. H. 1738.  | Sk s l Bot. mag. 1454      |
| 4790 <i>longiscapa W. en.</i>      | glaucous-leaved                | ♀   Δ   or          | 1 ap.au Y      | C. G. H. 1759.  | Sk r m Bot. mag. 1339      |
| 4791 <i>annua W. en.</i>           | annual                         | ♂   O   or          | 2 my.jn Y      | C. G. H. 1731.  | S s p Bot. mag. 1451       |
| 4792 <i>ciliata Lk.</i>            | ciliated                       | ♀   Δ   or          | 2 my Y         | C. G. H. 1823.  | S s p Bot. mag. 1451       |
| 808. <i>ASPHODELUS W.</i>          | ASPHODEL.                      | <i>Asphodeleae.</i> | Sp. 8—10.      |                 |                            |
| 4793 <i>luteus W.</i>              | yellow                         | ♀   Δ   or          | 3 my.jn Y      | Sicily 1596.    | R co Bot. mag. 773         |
| 4794 <i>tauricus W. en.</i>        | Taurian                        | ♀   Δ   or          | 3 my.jn W      | Tauria 1812.    | R co Bot. cab. 1102        |
| 4795 <i>ramosus W.</i>             | branched                       | ♀   Δ   or          | 2 my W         | S. Europe 1551. | R co Bot. mag. 799         |
| 4796 <i>albus W.</i>               | upright                        | ♀   Δ   or          | 2 iny W        | S. Europe ...   | R co Blackw. t. 238        |
| 4797 <i>fistulosus W.</i>          | onion-leaved                   | ♀   Δ   or          | 1 1/2 jn.s W   | S. Europe 1596. | R co Bot. mag. 984         |
| 4798 <i>clavatus Forb.</i>         | club-seeded                    | ♂   Δ   or          | 1 jl.au W      | E. Indies 1868. | S co Bot. mag. 984         |
| 4799 <i>crucicus Lam.</i>          | Candian                        | ♀   Δ   or          | 2 jn Y         | Candia 1821.    | R co Bot. cab. 915         |
| 4800 <i>intermedius Horn.</i>      | intermediate                   | ♀   Δ   or          | 1 1/2 jl W     | Canaries 1822.  | R co Bot. cab. 915         |
| †*809. <i>ANTHERICUM W.</i>        | ANTHERICUM.                    | <i>Asphodeleae.</i> | Sp. 25—50.     |                 |                            |
| 4801 <i>nutans W.</i>              | nodding                        | ♀   Δ   or          | 1 ap.au W      | C. G. H. 1812.  | Sk s l Jac. ic. 2. t. 407  |
| 4802 <i>latifolium W.</i>          | broad-leaved                   | ♀   Δ   or          | 2 ap.au W      | C. G. H. 1812.  | Sk s l Jac. ic. 2. t. 408  |
| 4803 <i>serotinum L.</i>           | late-flowering                 | ♀   Δ   or          | 3 au.s W       | England 1810.   | Sk s l Eng. bot. 793       |
| ‡4804 <i>ramosus L.</i>            | branched                       | ♀   Δ   or          | 2 my.jn W      | Europe 1570.    | Sk s l Bot. mag. 1055      |
| 4805 <i>pendulum Horn.</i>         | pendulous                      | ♀   Δ   or          | 1 1/2 jl W     | N. Holl. 1822.  | Sk s l Bot. mag. 1055      |
| 4806 <i>albucoides Ait.</i>        | Albucalike                     | ♀   Δ   or          | 1 jl W         | C. G. H. 1788.  | Sk s l Bot. mag. 1055      |
| 4807 <i>sulphureum W. &amp; K.</i> | sulphur-colored                | ♀   Δ   or          | 1 ap.au P. Y   | Hungary 1823.   | Sk s l Bot. mag. 2623      |
| 4808 <i>glacium Fl. per.</i>       | glaucous                       | ♀   Δ   or          | 1 1/2 ... W    | Peru 1823.      | Sk s l Bot. cab. 1580      |
| 4809 <i>semibarbatum R. Br.</i>    | half-bearded                   | ♀   Δ   or          | 1 jl Y         | N. Holl. 1820.  | Sk s l Bot. cab. 330       |
| 4810 <i>filifolium Jacq.</i>       | thread-leaved                  | ♀   Δ   or          | 2 my W         | C. G. H. 1820.  | Sk s l Bot. reg. 557       |
| 4811 <i>pomeridianum Ker.</i>      | afternoon                      | ♀   Δ   or          | 2 jn W         | C. G. H. 1819.  | Sk s l Bot. reg. 564       |
|                                    | <i>Scilla pomeridiana</i>      |                     |                |                 |                            |
| 4812 <i>physodes B. M.</i>         | dingy-flowered                 | ♀   Δ   or          | 1 jn.jl W      | C. G. H. 1795.  | O r m Bot. mag. 1046       |
| 4813 <i>asphodeloides P. S.</i>    | upright-leaved                 | ♀   Δ   or          | 2 jn.au W      | C. G. H. 1759.  | O r m Jac. vind. t. 181    |
| 4814 <i>hispidium P. S.</i>        | hairy-leaved                   | ♀   Δ   or          | 1 1/2 my.jn W  | C. G. H. 1774.  | O s p Jac. ic. 2. t. 409   |
| 4815 <i>fragrans W.</i>            | sweet-scented                  | ♀   Δ   or          | 1 ap.my W      | C. G. H. 1795.  | Sk s p Bot. reg. 311       |
| 4816 <i>flexifolium W.</i>         | flexuose-leaved                | ♀   Δ   or          | 2 my.jn W      | C. G. H. 1795.  | Sk s p Jac. ic. 2. t. 412  |
| 4817 <i>filiforme W.</i>           | thread-leaved                  | ♀   Δ   or          | 1 ap W         | C. G. H. 1774.  | Sk s p Bot. mag. 1044      |
| 4818 <i>floribundum W.</i>         | thick-spiked                   | ♀   Δ   or          | 1 mr.ap W      | C. G. H. 1774.  | Sk s p Bot. mag. 1040      |
| 4819 <i>revolutum W.</i>           | curled-flowered                | ♀   Δ   or          | 2 s.d W        | C. G. H. 1731.  | Sk s l Bot. mag. 1044      |
| 4820 <i>vespertinum W.</i>         | afternoon-flow.                | ♀   Δ   or          | 2 my.s W       | C. G. H. 1803.  | Sk s l Bot. mag. 1040      |
| 4821 <i>graminifolium W.</i>       | wave-leaved                    | ♀   Δ   or          | 1 1/2 jn W     | C. G. H. 1794.  | Sk s l Jac. ic. 2. t. 411  |
| 4822 <i>triflorum W.</i>           | three-flowered                 | ♀   Δ   or          | 1 au.o W       | C. G. H. 1782.  | Sk s l Jac. ic. 2. t. 410  |
| 4823 <i>canaliculatum W.</i>       | channelled-ld.                 | ♀   Δ   or          | 1 ap.my W. G   | C. G. H. 1774.  | Sk r m Bot. mag. 1124      |
| ‡4824 <i>Liliago W.</i>            | grass-leaved                   | ♀   Δ   or          | 1 my.jn W      | S. Europe 1596. | Sk s l Bot. mag. 914       |
| ‡4825 <i>Lilias'trum W.</i>        | Savoy                          | ♀   Δ   or          | 1 1/2 my.jn W  | S. Europe 1623. | Sk co Bot. mag. 318        |
| †810. <i>ARTHROPODIUM R. Br.</i>   | ARTHROPODIUM.                  | <i>Asphodeleae.</i> | Sp. 2—6.       |                 |                            |
| 4826 <i>paniculatum R. Br.</i>     | panicked                       | ♀   Δ   or          | 3 my.s W       | N. S. W. 1800.  | C s p Bot. mag. 1421       |
| 4827 <i>cirratum R. Br.</i>        | New Zealand                    | ♀   Δ   or          | 3 my.jn W      | N. Zeal. 1821.  | Sk s p Bot. reg. 709       |
| 811. <i>CHLOROPHYTUM Ker.</i>      | CHLOROPHYTUM.                  | <i>Asphodeleae.</i> | Sp. 3—5.       |                 |                            |
| 4828 <i>inornatum Ker.</i>         | dwarf                          | ♀   Δ   cu          | 1 jn.au W      | S. Leone ...    | D co Bot. mag. 1071        |
| 4829 <i>elatum R. Br.</i>          | tall                           | ♀   Δ   cu          | 2 au.s W       | C. G. H. 1751.  | S l p Red. lil. 191        |
|                                    | <i>Anthericum elatum H. K.</i> |                     |                |                 |                            |
| 4830 <i>orchidastrum Lindl.</i>    | Orchis-like                    | ♀   Δ   cu          | 2 ja.d W       | S. Leone 1822.  | S l p Bot. reg. 813        |
| 812. <i>CÆ'SIA R. Br.</i>          | CÆSIA.                         | <i>Asphodeleae.</i> | Sp. 1—5.       |                 |                            |
| 4831 <i>vittata R. Br.</i>         | nodding-flower.                | ♀   Δ   or          | 1 jl.au Pa. B. | N. S. W. 1816.  | S l p Bot. mag. 1071       |
| *813. <i>NARTHECIUM B. M.</i>      | NARTHECIUM.                    | <i>Asphodeleae.</i> | Sp. 2—3.       |                 |                            |
| 4832 <i>castriagum Ph.</i>         | Lancash.-Asphodel.             | ♀   Δ   cu          | 1/2 jl.au Y    | Britain 1811.   | tur bo D m s Eng. bot. 535 |
| 4833 <i>americanum B. M.</i>       | American                       | ♀   Δ   cu          | 1/2 jl.au Y    | N. Amer. 1811.  | D p Bot. mag. 1505         |



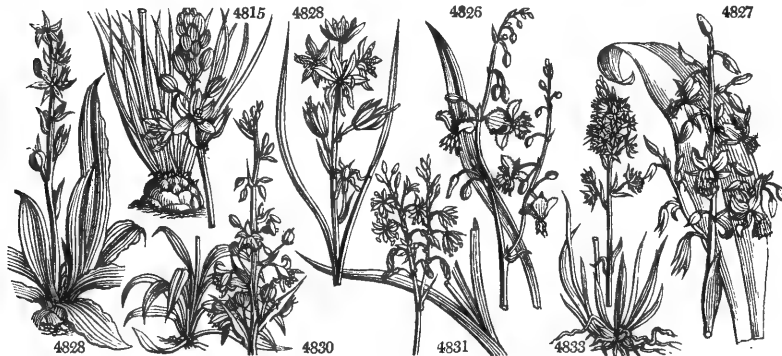
History, Use, Propagation, Culture,

807. *Bulbine*. From βάλβος, a bulb. The species are deservedly common in flower gardens, being at once showy, fragrant, of easy culture, and rapid increase by suckers.

808. *Asphodelus*. From ασφιδελος, private, and σπυλλος, to supplant: that is to say, a flower which cannot be supplanted or surpassed. *Linn.* The yellow and white species are old inhabitants of our gardens, of easy culture and rapid increase. Immense tracts of land in Apulia are covered with the latter species, which affords very good nourishment to the sheep. It was sacred to Proserpine, and used in funeral ceremonies.

809. *Anthericum*. A name applied by the Greeks to the stem of the asphodel, and not misapplied to this set of plants, which in some sort resemble the asphodel. Plants with fleshy leaves, and spikes of bright yellow flowers; easily cultivated if kept dry.

- 4786 Leaves fleshy rounded, Stem shrubby erect branched  
 4787 Leaves fleshy rounded glaucous, Stem shrubby short rooting  
 4788 Leaves fleshy tongue-shaped lanceolate flat on both sides  
 4789 Leaves fleshy linear acuminate channelled, Scape twice as long as leaves  
 4790 Leaves fleshy subulate half rounded flexuose glaucous 3 times as short as scape  
 4791 Leaves fleshy subulate rounded, Scape racemose  
 4792 Leaves ensiform fleshy 3 cornered fringed, Scape simple, Raceme very long
- 4793 Stem leafy, Leaves 3 cornered striated  
 4794 Stem leafy, Lvs. subul. 3 cornered striated, Bractes membranous lanceol. : the upper longer than flower  
 4795 Stem naked branched, Pedunc. altern. longer than bract, Leaves ensiform carinate smooth  
 4796 Stem naked simple, Pedunc. clustered the length of bractes, Leaves linear keeled smooth  
 4797 Stem naked, Leaves upright striated subulate fistular  
 4798 Leaves linear weak, Scape erect branched, Flowers small  
 4799 Stem leafy naked above branched, Leaves filiform striated toothed ciliated  
 4800 Stem nearly naked, Leaves upright cylindrical fistular
- 4801 Leaves fleshy lanceolate flat concave at base reflexed at end, Raceme nodding at end  
 4802 Leaves fleshy oblong lanceolate acuminate nerved straight 4 times as short as scape  
 4803 Leaves flatish, Scape 1-flowered  
 4804 Leaves flat, Scape branched, Flowers flat, Pistils straight  
 4805 Leaves linear keeled shorter than the branched scape, Flowers clustered in threes pendulous  
 4806 Leaves linear channelled smooth cartilaginous at edge, Scape simple  
 4807 Leaves lanc. linear channelled with an obtuse concave end, Scape and raceme simple, Flowers spreading  
 4808 Raceme simple long many-flowered, Pedunc. spreading in flower, appressed in fruit  
 4809 Roots fibrous, Filaments declinate : the outer not bearded  
 4810 Leaves filiform flexuose reflexed longer than scape, Scape simple filiform, Raceme few-flowered  
 4811 Leaves flaccid glaucous with the edge and nerves rough, Stem panicled branched, Filam. not bearded
- 4812 Leaves oblong, Raceme corymbose, Stamens dilated in middle papillose  
 4813 Leaves fleshy linear-subulate half-rounded upright  
 4814 Leaves fleshy compressed hispid  
 4815 Leaves rounded filiform upright shorter than scape, Scape simple  
 4816 Leaves linear filiform flexuose reflexed at base ciliated the length of the branched scape  
 4817 Leaves filiform rounded roughish, Filaments smooth, Sepals lanceolate  
 4818 Leaves flat smooth linear lanceolate acute, Scape simple, Raceme many-flowered cylindrical compact  
 4819 Leaves 3-cornered rough, Scape branched, Flowers revolute  
 4820 Leaves linear ensiform keeled 3-cornered shorter than the branched scape  
 4821 Leaves linear flat depressed shorter than the branched scape, Alternate sepals wavy  
 4822 Leaves channelled sword-shaped, Scape simple, Bractes remote 3-flowered  
 4823 Leaves fleshy hairy sword-shaped 3-cornered channelled on the narrow side, Scape simple  
 4824 Leaves flat, Scape simple, Flowers flat, Pistil declinate  
 4825 Leaves flat, Scape simple, Flowers campanulate, Stamens declinate
- 4826 Racemes divided, Pedicels clustered, Inner sepals crenulate, Capsules pendulous  
 4827 Raceme divided, Bractes leafy, The bearded half of filam. with 2 appendages at base, Lvs. lanc. ensiform
- 4828 Stemless, Leaves lanceolate radical little longer than simple scapes  
 4829 Leaves flat, Scape branched, Peduncles clustered, Flower flat
- 4830 Lvs. lanceol. acuminate upright spreading, Panicle branched upright many-flowered, Branches smooth
- 4831 Flowers nodding, Stamens propendent, Filaments striped, Leaves flat, Bulbs clustered
- 4832 Leaves ensiform, Filaments woolly  
 4833 Bractes unequal : the lower embracing the stalk ; the upper setaceous



and Miscellaneous Particulars.

810. *Arthropodium*. From ἀρθρον, a joint, and πους, a foot, on account of the jointed footstalks of the flowers. Distinguished by its bearded filaments.  
 811. *Chlorophyllum*. From χλωρος, green, and φυτόν, a plant. Very inconspicuous flowers requiring a bark-bed, but easily cultivated under such circumstances.  
 812. *Cæsia*. Named after Frederick Cæsius, who lived in 1703.  
 813. *Nartheicum*. From νάρθηξ, a rod or wand, in allusion to the slender spike of flowers. This genus resembles a small *Anthericum*, from which genus it has been separated.

|                           |                        |     |     |             |                    |                    |            |                            |                          |
|---------------------------|------------------------|-----|-----|-------------|--------------------|--------------------|------------|----------------------------|--------------------------|
| 814. DIANEL/L.A. Lam.     | DIANELLA.              |     |     |             | <i>Asphodeleæ.</i> | Sp. 6—15.          |            |                            |                          |
| 4834 la'vis R. Br.        | smooth                 | ✳ Δ | or  | 2 au        | B                  | N. Holl.           | 1822.      | Sk a p                     |                          |
| 4835 longifolia R. Br.    | long-leaved            | ✳ Δ | or  | 2 au        | B                  | N. Holl.           | 1822.      | Sk a p Bot. reg. 734       |                          |
| 4836 strumosa Ker.        | strumous               | ✳ Δ | or  | 1 1/2 mr    | B                  | N. Holl.           | 1822.      | Sk a p Bot. reg. 751       |                          |
| 4837 nemorosa Lam.        | wood                   | ✳ Δ | or  | 2 au        | B                  | E. Indies          | 1731.      | Sk a p Bot. mag. 1404      |                          |
|                           | <i>D. ensifolia W.</i> |     |     |             |                    |                    |            |                            |                          |
| 4838 caerulea R. Rr.      | blue                   | ✳ Δ | or  | 2 my.au     | B                  | N. S. W.           | 1783.      | R a p Bot. mag. 505        |                          |
| 4839 divaricata R. Br.    | divaricated            | ✳ Δ | or  | 3 jl.au     | B                  | N. S. W.           | 1805.      | R a p                      |                          |
| 815. EUS/TREPHUS. R. Br.  | EUSTREPHUS.            |     |     |             |                    | <i>Asphodeleæ.</i> | Sp. 2.     |                            |                          |
| 4840 latifolius R. Br.    | broad-leaved           | □   | or  | 3 jn.jl     | P.Pu               | N. S. W.           | 1800.      | C a p Bot. mag. 1245       |                          |
| 4841 angustifolius R. Br. | narrow-leaved          | □   | or  | 3 jl        | P.Pu               | N. S. W.           | 1820.      | C a p                      |                          |
| †816. ASPAR/AGUS. L.      | ASPARAGUS.             |     |     |             |                    | <i>Asphodeleæ.</i> | Sp. 21—32. |                            |                          |
| 4842 officinalis L.       | common                 | Δ   | cul | 4 jn.au     | G                  | England            | sea co.    | S r m Eng. bot. 339        |                          |
| 4843 sylvaticus W. & K.   | wood                   | Δ   | cu  | 2 jn.au     | G                  | Hungary            | ...        | R r m Pl.rar.hu.3.t.201    |                          |
| 4844 verticillaris Bieb.  | whorl-leaved           | Δ   | cu  | 2 jn.au     | W                  | Caucasus           | 1752.      | R r m Buxb. cen.5.t.37     |                          |
| 4845 declinatus W.        | long-leaved            | Δ   | cu  | 5 ...       | W.g                | C. G. H.           | 1759.      | R a p                      |                          |
| 4846 maritimus Bieb.      | maritime               | Δ   | cu  | 2 jn        | G                  | Caspian            | 1823.      | R a p                      |                          |
| 4847 decumbens W.         | decumbent              | Δ   | cu  | 2 my        | W.g                | C. G. H.           | 1792.      | R a p Jac. schoen.1.t.97   |                          |
| 4848 scandens W.          | climbing               | Δ   | cu  | 6 ...       | G                  | C. G. H.           | 1793.      | R a p                      |                          |
| 4849 dahuricus Fisch.     | Dahurian               | Δ   | cu  | 3 my        | G                  | Dauria             | 1823.      | R a p                      |                          |
| 4850 falcatus W.          | sickle-leaved          | Δ   | cu  | 3 ...       | W.g                | E. Indies          | 1799.      | R a p Bur. zeyl.t.13.f.2   |                          |
| 4851 racemosus W.         | branching              | Δ   | cu  | 3 ...       | W.g                | E. Indies          | 1808.      | R a p                      |                          |
| 4852 Broussoneti Jacq.    | Broussonet's           | Δ   | cu  | 2 ...       | ...                | Canaries           | 1822.      | R a p                      |                          |
| 4853 retrofractus W.      | Larch-leaved           | Δ   | cu  | 4 aus       | W                  | Africa             | 1759.      | R a p Pluk. al.t.375.f.3   |                          |
| 4854 asiaticus W.         | Asiatic                | Δ   | cu  | 3 ...       | W                  | Asia               | 1759.      | R a p Pluk. al. t.15. f.4  |                          |
| 4855 aethiopicus W.       | angular-stalked        | Δ   | cu  | 3 ...       | W                  | C. G. H.           | 1816.      | R a p                      |                          |
| 4856 albus W.             | white                  | Δ   | cu  | 2 ...       | W                  | Spain              | 1640.      | R a p Moris. s.1. t.1.f.3  |                          |
| 4857 acutifolius W.       | needle-leaved          | Δ   | cu  | 2 ...       | W.g                | Spain              | 1640.      | R a p Fl. græc. 337        |                          |
| 4858 flexuosus W.         | flexuous               | Δ   | cu  | 3 jl.au     | G                  | C. G. H.           | ...        | R a p                      |                          |
| 4859 aphyllus W.          | prickly                | Δ   | cu  | 3 ...       | W.g                | S. Europe          | 1640.      | R a p Moris. s.1. t.1. f.2 |                          |
| 4860 subulatus W.         | awl-leaved             | Δ   | cu  | 3 ...       | ...                | C. G. H.           | 1811.      | R a p                      |                          |
| 4861 capensis W.          | Cape                   | Δ   | cu  | 4 ap.my     | ...                | C. G. H.           | 1691.      | R a p Jac. schæ. 3. t.266  |                          |
| 4862 sarmentosus W.       | linear-leaved          | Δ   | cu  | 6 au        | W.g                | Ceylon             | 1710.      | R r m Rhe. mal. 10. t.10   |                          |
| 817. DRI/MIA. Jacq.       | DRIMIA.                |     |     |             |                    | <i>Asphodeleæ.</i> | Sp. 7—11.  |                            |                          |
| 4863 altissima Jacq.      | tallest                | Δ   | or  | 1 1/2 aus   | W.g                | C. G. H.           | 1791.      | O a p Bot. mag. 1074       |                          |
| 4864 elata B. M.          | tall                   | Δ   | or  | 2 o.n       | R.g                | C. G. H.           | 1799.      | O a p Bot. mag. 822        |                          |
| 4865 ciliaris B. M.       | ciliated               | Δ   | or  | 1 1/2       | Pu.w               | C. G. H.           | ...        | O a p Bot. mag. 1444       |                          |
| 4866 pusilla W.           | dwarf                  | Δ   | or  | 1 1/2       | my.jn              | G                  | C. G. H.   | 1793.                      | O a p Jac. ic. 2. t. 374 |
| 4867 lanceifolia R. M.    | Copperas-leav'd        | Δ   | or  | 1 1/2 a.o   | Pu                 | C. G. H.           | 1800.      | O a p Bot. mag. 643        |                          |
| 4868 revoluta B. M.       | reflex-flowered        | Δ   | or  | 1 1/2 au    | G                  | C. G. H.           | 1774.      | O a p Bot. mag. 1380       |                          |
| 4869 media Jacq.          | intermediate           | Δ   | or  | 1 1/2 au    | W                  | C. G. H.           | 1820.      | O a p                      |                          |
| 818. UROPET/ALON. Ker.    | UROPETALON.            |     |     |             |                    | <i>Asphodeleæ.</i> | Sp. 4.     |                            |                          |
| 4870 glaucum Burchell     | glaucous-leaved        | Δ   | or  | 1 jl.au     | G                  | C. G. H.           | 1816.      | O l p Bot. reg. 156        |                          |
| 4871 crispum Burch.       | curled-leaved          | Δ   | or  | ...         | G                  | C. G. H.           | 1816.      | O l p Bot. reg. 822        |                          |
| 4872 serotinum Ker.       | late-flowering         | Δ   | or  | 1 1/2 jn.au | G.R                | Spain              | 1629.      | O l p Bot. mag. 859        |                          |
| 4873 fulvum Hort.         | tile-red               | Δ   | or  | 1 1/2 jn.au | G.R                | Mogadore           | 1808.      | O l p Bot. mag. 1185       |                          |



History, Use, Propagation, Culture.

814. *Dianella*. A diminution of *Diana*, the name which the genus originally received from Commerson. The species are found in the recesses of forests, where the goddess of hunting may be supposed to inhabit.

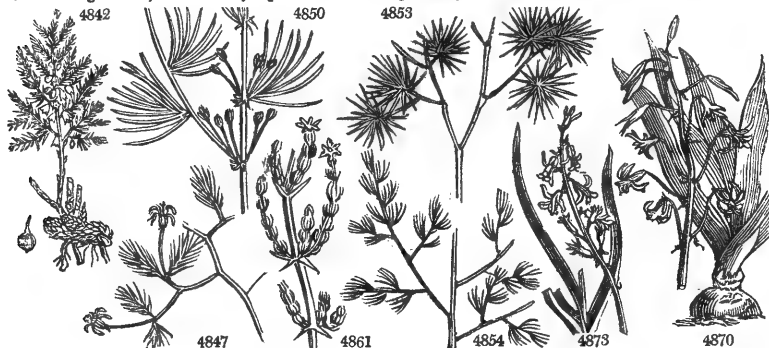
815. *Eustrephus*. From *eu*, well, and *strophos*, to turn, in allusion to the twining habit of the species.

816. *Asparagus*. From *asparagos*, to tear, on account of the strong prickles with which some of the species are armed. Some are dicocious, and others are prickly evergreen climbers. *A. officinalis*, *Asperge*, Fr., *Spargel*, Ger., and *Asparago*, Ital., is one of the oldest and most delicate of culinary vegetables. It is found on the sea-shores in different parts of Britain and in many parts of Europe, and is abundant in the inland sandy plains in Russia, Turkey, and Greece. *Asparagus* was in much esteem both among the Greeks and Romans. It is much praised by Cato and Columella, and Pliny mentions a sort which grew near Ravenna, a deep sandy country, three shoots of which would weigh a pound. It is equally admired by the moderns, and assiduously cultivated in private gardens everywhere, and to a great extent round London, Paris, and Vienna. In no part of the world is it grown to such perfection as in the market gardens round London. That of the parish of Mortlake is particularly strong and succulent: the soil is a sandy loam, deeply trenched, and well manured; the seed is sown in drills and thinned out till the plants stand six inches apart in the row, and the rows are a foot asunder. Round Paris and Vienna more pains are taken in preparing the soil, by forming excavations and filling them with layers of turf, durable manure, as bones, wood-chips, &c., sand, manure, loam, &c.; but though plantations on such beds last longer than on ours, they do not yield better shoots, and it may justly be questioned whether they are equally profitable to the cultivator.

The culinary preparations of *asparagus* are few, its very delicate flavor rather being deteriorated than improved by powerful tastes. It is best boiled and served alone, to be eaten with butter and salt; or with the points of the shoots cut in small pieces, and served up as green peas. It is esteemed diuretic, and in Paris

- 4834 Radical leaves sword-shaped flat shorter than the stem with the keel and edges smooth, Panicle simple  
 4835 Radical leaves ensiform long smooth at the edge and keel, Panicle upright  
 4836 Leaves bright-green smooth, Panicle lax decomp. Sepals of pendulous flower reflexed, Filam. strumous  
 4837 Leaves linear-lanceolate at the edge prickly, Keel smooth
- 4838 Stem leaves numerous long ensiform rough at the edge and keel, Branches of panicle short  
 4839 Leaves radical lin.-lanceolate at the keel and edges smooth, Panicle decomposed straggling
- 4840 Leaves ovate or elliptical-lanceolate, Anthers after flowering twisted  
 4841 Leaves linear or linear-lanceolate, Anthers after flowering straight
- 4842 Stem herbaceous round erect, Leaves setaceous  
 4843 Stem herbaceous erect rounded, Leaves setaceous  $\frac{1}{2}$ -whorled and whorled, Stipules solitary unarmed  
 4844 Stem half-climbing, Branches straggling, Leaves setaceous curved, Flowers globose  
 4845 Stem unarmed rounded, Branches declinate, Leaves setaceous  
 4846 Stem much branched wavy, Leaves setaceous pungent, Flowers campanulate  
 4847 Stem herbaceous unarmed decumbent much branched, Branches wavy, Leaves setaceous  
 4848 Herbaceous unarmed twining, Leaves lanceolate falcate  
 4849 Stem herbaceous erect, Branches straight, Leaves bundled setaceous long, Pedunc. sol. nodding  
 4850 Prickly solitary recurved, Branches round, Leaves fascicled linear falcate, Pedunc. 1-f. clustered  
 4851 Prickles solitary, Branches striated, Leaves bundled linear-subulate falcate, Racemes many-f. axillary  
 4852 Branches striated, Leaves linear falcate unequal, Flowers few  
 4853 Prickles solitary, Branches round reflexed bent back, Leaves setaceous bundled  
 4854 Prickles solitary, Stem erect, Branches filiform, Leaves bundled setaceous  
 4855 Prickles solitary reversed, Branches angular, Leaves lanceolate linear  
 4856 Prickles solitary, Branches angular wavy, Leaves bundled 3-cornered blunt deciduous  
 4857 Stem unarmed angular shrubby, Leaves needle-like rigid perennial mucronate equal  
 4858 Herbaceous unarmed, Branches wavy, Leaves lanceolate  
 4859 Stem unarmed angular shrubby, Leaves subulate striated unequal diverging  
 4860 Unarmed, Branches bent back, Leaves rounded subulate  
 4861 Spines 4, Branches clustered rounded, Leaves setaceous  
 4862 Leaves solitary linear lanceolate, Stem wavy, Prickles recurved
- 4863 Leaves oval sub-erect plain, Raceme long cylindrical, Bracts hooked back upon themselves  
 4864 Leaves linear lanc. obliquely bent smooth, Flowers nodding  
 4865 Leaves linear keeled ciliated  
 4866 Leaves lanceolate smooth channelled at base, Flowers erect  
 4867 Leaves wedge-shaped smooth, Scape few-flowered  
 4868 Leaves lanceolate smooth wavy, Peduncles horizontal  
 4869 Leaves linear lanceolate half-round

- 4870 Leaves broad lanceolate erect much shorter than scape, Peduncles very long  
 4871 An undescribed species, said to be in the gardens about London  
 4872 Leaves bright green channelled striated, Sepals oval the length of stamens  
 4873 Leaves glaucous, Raceme lax, Sepals linear much spreading longer than stam.



and Miscellaneous Particulars.

is much resorted to by the sedentary operative classes, as tailors, weavers, &c. when they are troubled with symptoms of gravel or stone.

There are some varieties and subvarieties of asparagus, but excepting the red-topped and green-topped, the others are merely local varieties, and can hardly be said to be obtainable by seed.

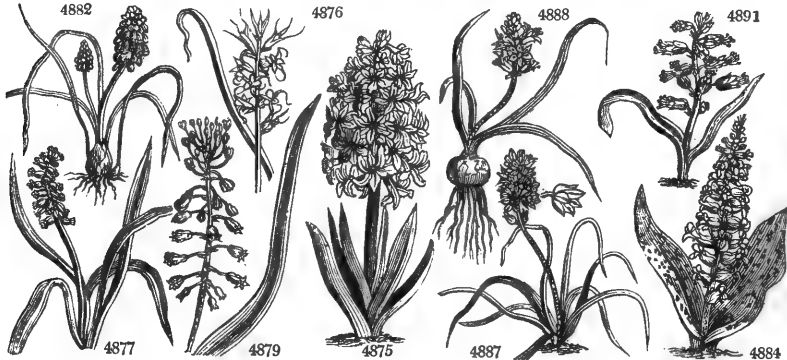
In the kitchen garden asparagus is generally grown in beds four feet broad, and in rows a foot or eighteen inches apart by nine inches in the row. The plants are either raised from seed where they are to remain, or raised on a seed-bed the preceding year and transplanted. The value of the crop depends on the soil being dry, sandy, trenched two and a half or three feet deep, and powerfully manured. During winter the beds are covered with dung or litter to protect them from the frost. In spring this is raked off into the alleys and dug in, while the beds are stirred with a fork, to admit the air, heat, rain, &c. to stimulate the rising shoots. Asparagus from seed will be fit to cut the third year, in perfection the fifth, and will continue good for ten or twelve years. The season for cutting is from the middle of April to the middle of June.

Asparagus is extensively forced, generally by taking up the roots and placing them on dung or tan beds; but sometimes a more gentle forcing is given by covering the beds with dung in the manner of forcing sea-cale. By the former mode earlier crops are obtained, but the roots are lost; by the latter, the crop is only forwarded a week or two, but the roots remain to produce the following year.

817. *Drimis*. So called from the Greek word *δριμος*, caustic, because the juice of the roots is so very acrid, as, when applied to the skin, to cause inflammation and even blisters.

818. *Uroselinon*. From *ουρα*, a tail, and *σελαλον*, a petal, in allusion to the manner in which the divisions of the flower are lengthened out. Curious and rare bulbous plants, very nearly related to *Zuccagnia*; perhaps not generically distinct.

|   |                             |                    |          |                   |                       |
|---|-----------------------------|--------------------|----------|-------------------|-----------------------|
| <b>819. HYACINTHUS. B. M. HYACINTH.</b>     |                             | <i>Asphodeleæ.</i> |          | <i>Sp. 2—3.</i>   |                       |
| 4874  | amethystinus <i>W.</i>      | Amethyst-col.      | ♂ Δ or   | ♄ ap.my B         | S. Europe 1759. O l.p |
| 4875  | orientalis <i>W.</i>        | garden             | ♂ Δ or   | ♄ mr.ap B         | Levant 1596. O r.m    |
| <b>820. ZUCCAG'NIA. Thunb. ZUCCAGNIA.</b>   |                             | <i>Asphodeleæ.</i> |          | <i>Sp. 1—2.</i>   |                       |
| 4876  | viridis <i>Thunb.</i>       | green              | ♂ Δ   or | ♄ au G            | C. G. H. 1774. O l.p  |
| <b>821. MUSCA'RI. B. M. GRAPE-HYACINTH.</b> |                             | <i>Asphodeleæ.</i> |          | <i>Sp. 6—8.</i>   |                       |
| 4877  | moschatum <i>B. M.</i>      | must               | ♂ Δ or   | ♄ ap.my B         | Levant 1596. O s.l    |
|   | <i>β flavum B. M.</i>       | yellow             | ♂ Δ or   | ♄ ap.my G. v      | Levant 1596. O s.l    |
| 4878  | ciliatum <i>Cyr.</i>        | ciliated           | ♂ Δ or   | ♄ my Br.pu        | Crimea 1892. O s.l    |
| 4879  | comosum <i>R. L.</i>        | purple             | ♂ Δ or   | ♄ ap.my B         | S. Europe 1596. O s.l |
|   | <i>β monstrosum</i>         | feathered          | ♂ Δ or   | ♄ ap.my B         | S. Europe 1596. O s.l |
| 4880  | pallens <i>Fisch.</i>       | pallid             | ♂ Δ or   | ♄ my Pa.B         | Crimea 1822. O s.l    |
| 4881  | botryoides <i>B. M.</i>     | blue               | ♂ Δ or   | ♄ ap.my B         | Italy 1596. O s.l     |
| 4882  | racemosum <i>B. M.</i>      | starch             | ♂ Δ or   | ♄ ap B            | Europe ... O s.l      |
| <b>†822. LACHENA'LIA. W. LACHENALIA.</b>    |                             | <i>Asphodeleæ.</i> |          | <i>Sp. 26—29.</i> |                       |
| 4883  | glauca <i>W.</i>            | sea-green          | ♂ Δ   pr | 1 mr.ap G.w       | C. G. H. 1795. O s.l  |
| 4884  | orchioides <i>W.</i>        | Orchis-like        | ♂ Δ   pr | 1 f.ap G. v       | C. G. H. 1752. O s.l  |
| 4885  | pallida <i>W.</i>           | pale-flowered      | ♂ Δ   pr | ♄ mr.ap Pa.B      | C. G. H. 1782. O s.l  |
| 4886  | hyacinthoides <i>W.</i>     | Hyacinth-flow.     | ♂ Δ   pr | ♄ mr.ap W. r      | C. G. H. 1812. O s.l  |
| 4887  | angustifolia <i>W.</i>      | narrow-leaved      | ♂ Δ   pr | ♄ ap.my W. r      | C. G. H. 1793. O s.l  |
| 4888  | contaminata <i>W.</i>       | contaminated       | ♂ Δ   pr | ♄ f.mr Pk         | C. G. H. 1774. O s.l  |
| 4889  | pátula <i>W.</i>            | spreading-flow.    | ♂ Δ   pr | ♄ ap.my W.pk      | C. G. H. 1795. O s.l  |
| 4890  | frágrans <i>W.</i>          | sweet-scented      | ♂ Δ   pr | 1 mr.my W. r      | C. G. H. 1798. O s.l  |
| 4891  | unicolor <i>B. M.</i>       | self-colored       | ♂ Δ   pr | ♄ my.jn Pk        | C. G. H. 1806. O s.l  |
| 4892  | lúcida <i>B. M.</i>         | glossy-leaved      | ♂ Δ   pr | ♄ mr.my Pk        | C. G. H. 1798. O s.l  |
| 4893  | racemosa <i>B. M.</i>       | starch             | ♂ Δ   pr | 1 my W.g          | C. G. H. 1811. O s.l  |
| 4894  | pustulata <i>W.</i>         | bistered           | ♂ Δ   pr | 1 ja.ap W.g       | C. G. H. 1790. O s.l  |
| 4895  | purpúreo-carúlb.m.          | purple-blue        | ♂ Δ   pr | 1 ap.my R.p       | C. G. H. 1798. O s.l  |
| 4896  | nervosa <i>B. M.</i>        | nerved-leaved      | ♂ Δ   pr | ♄ jn Pk           | C. G. H. 1810. O s.l  |
| 4897  | violacea <i>W.</i>          | violet             | ♂ Δ   pr | 1 mr.ap L.B       | C. G. H. 1795. O s.l  |
| 4898  | bifolia <i>B. M.</i>        | cowled-leaved      | ♂ Δ   pr | ♄ mr.ap Pk        | C. G. H. 1813. O s.l  |
| 4899  | rosea <i>B. Rep.</i>        | rose-colored       | ♂ Δ   pr | 1 ap.my Pk        | C. G. H. 1800. O s.l  |
| 4900  | uniifolia <i>W.</i>         | one-leaved         | ♂ Δ   pr | ♄ mr.ap W. b      | C. G. H. 1795. O s.l  |
| 4901  | sessilifolia <i>B. Rep.</i> | sessile-flowered   | ♂ Δ   pr | ♄ my.jn R.        | C. G. H. 1804. O s.l  |
| 4902  | isopátula <i>W.</i>         | equal-flowered     | ♂ Δ   pr | ♄ my.jn W.pu      | C. G. H. 1804. O s.l  |
| 4903  | tricolor <i>W.</i>          | three-colored      | ♂ Δ   pr | 1 ap.my R. v      | C. G. H. 1774. O s.l  |
| 4904  | lutéola <i>Jacq.</i>        | yellow             | ♂ Δ   pr | 1 ap.my Y. r      | C. G. H. 1774. O s.l  |
| 4905  | pendula <i>Jacq.</i>        | pendulous          | ♂ Δ   pr | ♄ mr.my R. v      | C. G. H. 1789. O s.l  |
| 4906  | rábida <i>W.</i>            | dotted-flower'd    | ♂ Δ   pr | ♄ s.o R           | C. G. H. 1803. O s.l  |
| 4907  | quadricolor <i>Jacq.</i>    | four-colored       | ♂ Δ   pr | 1 mr.ap Sc. v     | C. G. H. 1774. O s.l  |
| 4908  | serótina <i>Jacq.</i>       | late               | ♂ Δ   pr | ♄ au Pk           | Spain 1820. O s.l     |



History, Use, Propagation, Culture,

819. *Hyacinthus*. Every one knows the fable of Hyacinthus, who was killed by Apollo and changed to this flower. Bochart, however, remarking that the ancients applied the name to a red flower, concludes that the Arabic *yâgdut*, which signifies red, has something to do with the name. A conjecture certainly sufficiently learned, but less plausible.

*H. orientalis* is the origin of one of our finest florist's flowers, and, like the tulip and narcissus, of a considerable commerce to the Dutch. It is a native of the East, and abundant about Aleppo and Bagdat, where it flowers in February. It seems to have been first cultivated as a flower by the Dutch; but when is unknown. Most probably in the beginning of the sixteenth century, soon after the revival of commerce in the west of Europe, when the merchants of Holland traded to the eastern shores of the Mediterranean and the Archipelago. About the end of the sixteenth century there were seven or eight varieties known in England. In 1620, Swertius, in his *Floriilegium*, figured forty varieties; Miller says the Haarlem florists in his time (say 1720) had above 2000 varieties, and though the passion for this flower has greatly declined, they have still upwards of half that number. In England three or four hundred sorts are annually imported from the Dutch florists by the seedsmen.

A fine double hyacinth is characterized by strength and enlargement of all the parts, and by bright distinct colors. The fundamental varieties are double, semidouble, single, red, white, purple, blue, and yellow, in many different shades and variegations. A variety degenerates in a few years; but some have existed undeteriorated upwards of a century. Varieties are raised from seed, and flower the fourth or fifth year: their names are after the growers or their patrons, favorite friends, public characters, or the celebrated names of history and antiquity.

The seeds of the hyacinth are sown in October, after they have ripened, or in the following March. They remain three years with no other culture than covering with a little earth in autumn, but the fourth season they are transplanted into beds, where they remain two or three years longer till all the bulbs have flowered.

The soil is essentially a very sandy loam and vegetable mould; and if in forming the beds this soil can be made to the depth of two feet, and at the bottom of the bed a layer of six or nine inches of cow-dung

4874 Flowers campanulate half 6-cleft cylindrical at base

4875 Flowers funnel-shaped half 6-cleft ventricose at base

4876 Leaves linear channelled longer than scape

4877 Flowers cylindrical ovate uniform horizontal subsessile

4878 Flowers camp. cylindrical half 6-cleft, Pedunc. in fruit very long and horizontal

4879 Flowers cylindrical angular on long stalks, the upper sterile on very long stalks

4880 Flowers campan. cylindrical, Limb erect shorter than tube, Leaves lin. lanc. erect

4881 Flowers globose uniform : the lower remote, Leaves linear upright channelled

4882 Flowers ovate uniform clustered : the upper sessile, Leaves lax dependent linear

4883 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Leaves lin. lanc. smooth

4884 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Lvs. obl. lanc. with cartila. cren. edge

4885 Flowers campanulate sessile, Inner sepals longer spreading obt. Scape ang. at end short. than lin. obl. lvs.

4886 Fl. campanulate sessile, Inner sepals longer spreading emarg. Lvs. lin. chann. lax twice as long as scape

4887 Fl. campan. sessile, Inner sepals longer spreading obov. obt. Lvs. lin. channelled lax longer than scape

4888 Fl. camp. cylind. on short stalks erect, Inner sep. long lanc. obt. erect, Lvs. lin. chann. lax long. than scape

4889 Flowers camp. stalked, Inner sepals longer obovate spreading, Lvs. lanc. channelled shorter than scape

4890 Fl. camp. stalked horizontal, Inner sep. longer obt. Stam. longer than fl. Lvs. lanc. twice as short as scape

4891 Leaves two, Scape not longer than leaves, Fl. short horizontal, Stamens long declinate

4892 Leaves two oblong, Raceme compact, Flowers short campanulate nearly as long as stamens

4893 Leaves three lanceolate blistered shorter than scape, Flowers campanulate erect

4894 Flowers camp. on short stalks, Inner sep. long. obtuse, Scape 3 cornered reclinate, Leaves blistered

4895 Fl. camp. stalked, Inner sep. long obt. revol. Stam. longer than fl. Scape angular at end, Leaves blistered

4896 Leaves two oval-edged, Flower erect conical shorter than spreading stamens

4897 Fl. camp. flat at base length of stalk, Inner sep. long. obt. Stam. longer than fl. Scape ang. at end, Lvs. obl.

4898 Leaves lanceolate erect unequal : the larger cucullate at base, Scape few-flowered shorter than leaves

4899 Lvs. lin. lanc. two-spreading, Flowers whole-colored with the outer sepals nearly as long as the inner

4900 Flowers cylindrical length of stalks, Inner sepals longer obtuse unequal, Leaf one lin. lanceol.

4901 Lvs. two lin. lanc. spreading, Fl. erect sessile clust. ovate with inner sep. much the narrowest and longest

4902 Flowers cylind. stalked, Sepals linear obtuse equal, Scape angular at end, Leaves lanc. deflexed

4903 Flowers cylind. stalked pendulous, Inner sepals longer emarginate, Leaves lanceolate

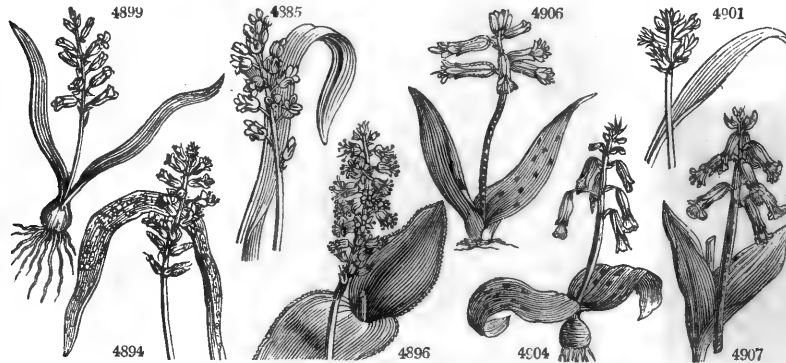
4904 Flowers cylind. stalked pendulous, Inner sepals longer emarginate spreading, Leaves obl. spreading

4905 Leaves twin obl. not spotted, Scape erect not spotted, Flowers cylindrical pendulous

4906 Flowers cylind. on short stalks pendulous, Inner sepals longest, Leaves oblong

4907 Leaves twin lin. lanc. spotted, Scape erect, Flowers pendulous with the inner limb of sepals spreading

4908 Flowers camp. stalked, Outer sepals long spreading : inner connate, Leaves long channelled



and Miscellaneous Particulars.

deposited, the plants will thrive the better. The season of planting is from the middle of October to the middle of November. The bed should be protected from heavy rains and severe frosts by the usual means ; and about the beginning of April, when the flowers begin to open, an awning of canvass should be fixed over them, to exclude all extremes of weather, and the more brilliant moments of sunshine. In three weeks or a month after blooming the bulbs should be taken up, unless they are intended to remain for replanting. They should be dried in the shade, or under a few inches of dry earth, kept dry, and afterwards cleaned and wrapped up in separate papers, or laid on open airy shelves till wanted for replanting.

The hyacinth forces well, especially some of the blue sorts ; it also does better than most bulbs when planted on water.

820. *Zuccagnia*. This plant was named in honor of Attili Zuccagni, superintendent of the garden at Florence. It is scarcely a different genus from *Uropetalon*.

821. *Muscari*. Something which smells of musk, called  $\mu\sigma\sigma\chi\omicron\varsigma$  in Greek, *muscus* in Latin, *misk* in Arabic. (*Forskahl.*) *M. comosum*,  $\beta$  monstrosum, is a most ornamental border flower. The bulb is large, ovate, and solid : the leaves narrow, a foot long, with obtuse points : the flower-stalks rise near a foot and a half high ; they are naked at the bottom for about seven or eight inches, above which the panicles of flowers begin, and terminate the stalks. The flowers stand upon peduncles which are more than an inch long, each sustaining three, four, or five flowers, whose petals are cut into slender filaments like hairs ; they are of a purplish blue color, and, having neither stamina nor germ, never produce seeds. The other species are very pretty hardy flowers.

*M. racemosum* was named starch hyacinth by William Curtis, from the smell of the flower.

822. *Lachenalia*. So named in honor of Wernerus de la Chenal, of Switzerland, author of some medical and botanical tracts printed at Basle. The numerous species of this genus were chiefly introduced from the Cape by Masson : they bear a strong general resemblance, and are yet individually different ; they may be styled diminutive, but pretty ; they grow readily in sand and peat, and may be forced or retarded so as to flower at almost any season. They must be very sparingly watered when not in a growing state.

|                                  |                 |        |    |       |                    |                   |            |          |       |       |                     |                      |
|----------------------------------|-----------------|--------|----|-------|--------------------|-------------------|------------|----------|-------|-------|---------------------|----------------------|
| 823. PHORMIUM. <i>W.</i>         | FLAX-LHY.       | ☒ Δ ec | 6  | au    | <i>Asphodeleæ.</i> | <i>Sp. 1.</i>     | N. Zeal.   | 1788.    | R     | l.a.p | Cook. it. v.2. t.96 |                      |
| 4909 tenax <i>W.</i>             | Iris-leaved     |        |    |       | G.w                |                   |            |          |       |       |                     |                      |
| 824. CYANEL/LA. <i>W.</i>        | CYANELLA.       | ☒ Δ pr | 1  | jl.au | <i>Asphodeleæ.</i> | <i>Sp. 2-4.</i>   | C. G. H.   | 1768.    | O     | s.p   | Bot. mag. 568       |                      |
| 4910 capensis <i>W.</i>          | purple-flower.  | ☒ Δ pr | 1  | jl.au | Y                  |                   | C. G. H.   | 1788.    | O     | s.p   | Bot. mag. 1252      |                      |
| 4911 lida <i>W.</i>              | yellow-flowered | ☒ Δ pr | 1  | jl.au | Y                  |                   |            |          |       |       |                     |                      |
| 825. LEONTICE. <i>W.</i>         | LEONTICE.       | ☒ Δ cu | 1  | mr.jn | <i>Berberideæ.</i> | <i>Sp. 2-3.</i>   | Y          | Levant   | 1740. | D     | s.l.p               | M. his. 3. t.15. f.7 |
| 4912 chrysogonum <i>W.</i>       | oak-leaved      | ☒ Δ cu | 1  | ap.my | Y                  |                   |            | Levant   | 1597. | D     | s.l.p               | M. his. 3. t.15. f.6 |
| 4913 Leontopetalum <i>W.</i>     | Lion's-leaf     | ☒ Δ cu | 1  | ap.my | Y                  |                   |            |          |       |       |                     |                      |
| 826. CAULOPHYL/LUM. <i>Mich.</i> | CAULOPHYLLUM.   | ☒ Δ cu |    |       | <i>Berberideæ.</i> | <i>Sp. 1-2.</i>   | Y.G        | N. Amer. | 1755. | D     | s.p                 | Mic. Am. 1. t. 21    |
| 4914 thalictroides <i>Ph.</i>    | Columbine-ld.   | ☒ Δ cu |    |       | Y.G                |                   |            |          |       |       |                     |                      |
| 827. DIPHYLLEIA. <i>Mich.</i>    | DIPHYLLEIA.     | ☒ Δ pr |    |       | <i>Berberideæ.</i> | <i>Sp. 1.</i>     |            |          |       |       |                     |                      |
| 4915 cymosa <i>Mich.</i>         | blue-berried    | ☒ Δ pr |    |       | Y                  |                   | N. Amer.   | 1812.    | D     | lp    | Bot. mag. 1666      |                      |
| 828. PRINOS. <i>W.</i>           | WINTER-BERRY.   |        |    |       | <i>Rhamnææ.</i>    | <i>Sp. 6-11.</i>  |            |          |       |       |                     |                      |
| 4916 verticillatus <i>W.</i>     | deciduous       | ☒ or   | 6  | jl.au | W                  |                   | N. Amer.   | 1736.    | L     | s.p   | Dend. brit. 30      |                      |
| 4917 ambiguus <i>Ph.</i>         | Carolina        | ☒ or   | 4  | ...   | W                  |                   | Carolina   | 1812.    | L     | l.t.s | Dend. brit. 29      |                      |
| 4918 lævigatus <i>Ph.</i>        | smooth          | ☒ or   | 4  | jl.au | W                  |                   | N. Amer.   | ...      | L     | l.t.s | Dend. brit. 28      |                      |
| 4919 lanceolatus <i>Ph.</i>      | scarlet-berried | ☒ or   | 4  | jn.jl | W                  |                   | Carolina   | 1811.    | L     | l.t.s |                     |                      |
| 4920 glaber <i>W.</i>            | evergreen       | ☒ or   | 1½ | jl.au | W                  |                   | Canada     | 1759.    | L     | l.t.s | Bot. cab. 450       |                      |
| 4921 lucidus <i>W.</i>           | shining         | ☒ or   | 2  | jn.jl | W                  |                   | .....      | 1778.    | L     | l.t.s |                     |                      |
| †829. BERBERIS. <i>W.</i>        | BERBERY.        |        |    |       | <i>Berberideæ.</i> | <i>Sp. 10-38.</i> |            |          |       |       |                     |                      |
| 4922 vulgaris <i>W.</i>          | common          | ☒ fr   | 8  | ap.my | Y                  |                   | England    | bu. pl.  | L     | co    | Eng. bot. 49        |                      |
| β violacea                       | purple-fruited  | ☒ fr   | 8  | ap.my | Y                  |                   | .....      | ...      | L     | co    |                     |                      |
| γ alba                           | white-fruited   | ☒ fr   | 8  | ap.my | Y                  |                   | .....      | ...      | L     | co    |                     |                      |
| 4923 canadensis <i>Ph.</i>       | Canada          | ☒ fr   | 8  | ap.my | Y                  |                   | Canada     | 1759.    | L     | co    |                     |                      |
| 4924 ilicifolia <i>W.</i>        | Holly-leaved    | ☒ or   | 4  | jl.au | Y                  |                   | T'del Pue. | 1791.    | L     | r.m   |                     |                      |
| 4925 cretica <i>W.</i>           | Cretan          | ☒ or   | 6  | ap.my | Y                  |                   | Candia     | 1759.    | L     | co    | Fl. grec. 342       |                      |
| 4926 sibirica <i>W.</i>          | Siberian        | ☒ or   | 1  | jn.jl | Y                  |                   | Siberia    | 1790.    | L     | co    | Bot. reg. 457       |                      |
| 4927 emarginata <i>W. en.</i>    | emarginate      | ☒ or   | 3  | ap.my | Y                  |                   | Siberia    | 1790.    | G     | co    |                     |                      |
| 4928 sinensis <i>Desf.</i>       | Chinese         | ☒ or   | 4  | ap.my | Y                  |                   | China      | 1815.    | G     | co    | Dend. brit. 26      |                      |
| 4929 fascicularis <i>Dec.</i>    | clustered       | ☒ or   | 10 | ap.my | Y                  |                   | California | 1819.    | C     | co    | Bot. mag. 2396      |                      |
| 4930 aristata <i>Dec.</i>        | Nepal           | ☒ or   | 6  | ap.my | Y                  |                   | Nepal      | 1820.    | C     | co    | Hook. ex. fl. 98    |                      |
| 4931 heterophylla <i>Juss.</i>   | various-leaved  | ☒ or   | 4  | ap.my | Y                  |                   | Magellan   | 1805.    | L     | co    | Hook. ex. fl. 14    |                      |
| 830. NANDINA. <i>W.</i>          | NANDINA.        |        |    |       | <i>Berberideæ.</i> | <i>Sp. 1.</i>     |            |          |       |       |                     |                      |
| 4932 domestica <i>W.</i>         | garden          | ☒ or   | 6  | jn.jl | G.Br               |                   | China      | 1804.    | C     | pl    | Bot. mag. 1109      |                      |
| 831. COSSIGNIA. <i>Juss.</i>     | COSSIGNIA.      |        |    |       | <i>Sapindaceæ.</i> | <i>Sp. 1.</i>     |            |          |       |       |                     |                      |
| 4933 pinnata <i>Lam.</i>         | pinnated        | ☒ or   | 10 | ...   | ...                |                   | Mauritius  | 1824.    | C     | pl    |                     |                      |
| 832. HYL/LIA. <i>W.</i>          | HYLIA.          |        |    |       | <i>Rubiaceæ.</i>   | <i>Sp. 2.</i>     |            |          |       |       |                     |                      |
| 4934 longiflora <i>W.</i>        | long-flowered   | ☒ or   | 1½ | f.mr  | W                  |                   | W. Indies  | 1789.    | C     | s.p   | Bot. mag. 721       |                      |
| 4935 tetrandra <i>W.</i>         | mountain        | ☒ or   | 1  | jn.jl | W                  |                   | Jamaica    | 1793.    | C     | s.p   | Bot. fl. oc. t.11   |                      |



History, Use, Propagation, Culture,

823. *Phormium*. From *φορμος*, a basket. This plant sends up numerous leaves, which in New Zealand and Norfolk Island are manufactured into matting; or a coarse thread is separated from them and made into cordage and coarse linen, as is done from different species of Aloe, Agave, and Liliaceæ in the Levant and south of Europe. The plant thrives in any rich light soil, increases readily by offsets, and is said to stand the oven air about Cork, where thoughts are entertained of using it as a substitute for flax. The experiments, however, which have been made in New Holland by some spirited individuals respecting its cultivation, have all failed.

824. *Cyanella*. Derived from *κυανος*, blue, in allusion to the color of the flowers of some species; all are very pretty and easily cultivated.

825. *Leontice*. An abridgment of *Leontopetalum*, its ancient name; from *λεων*, a lion, and *πτελον*, a leaf, because the shape of the leaves was thought to resemble the print of a lion's foot.

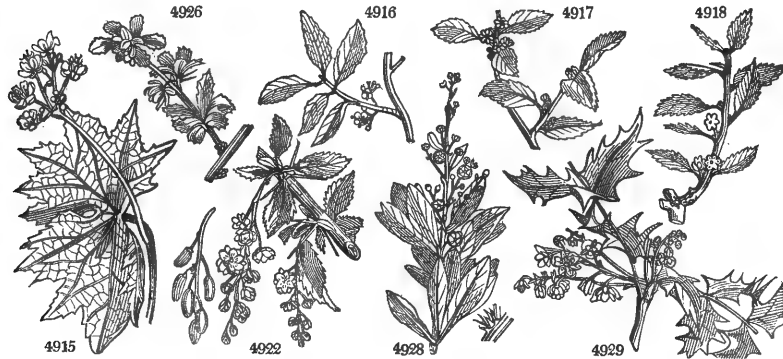
826. *Caulophyllum*. From *καυλον*, a stem, and *φυλλον*, a leaf. Its leaves are so terminated by the stalk, as to appear a mere continuation of a stem.

827. *Diphyllia*. From *διε*, two, and *φυλλον*, a leaf. The plant has never more than two leaves.

828. *Prinos*. This was the Greek name of the evergreen oak; from *πριος*, to saw, on account of the strongly toothed leaves of that plant. The species are low shrubs of little beauty; but of the easiest culture in any light soil.

829. *Berberis*. *Berbéry*s, according to Golius, (p. 246), is the Arabic name of this plant. *B. vulgaris* is at once an ornamental shrub, a fruit tree, a hedge plant, a dye, a drug, and a reputed enemy to the corn farmer. When covered with flowers in spring, or with fruit in autumn, it is a fine object. The leaves are of a yellowish or bluish green, and gratefully acid to the taste. The smell of the flowers is offensive when near, but pleasant at a certain distance. The berries are so very acid, that birds seldom touch them. The berry, however, is cultivated for the sake of these, which are pickled and used for garnishing dishes; and being boiled with sugar, form a most agreeable rob or jelly; they are used likewise as a sweetmeat, and are put into sugar-plums or confits. As a medicine the fruit is considered a mild restraining acid, agreeable to the stomach, and of efficacy (like other vegetable acids) in hot bilious disorders, and in a putrid disposition of the humours. The roots boiled in a lye yield a yellow colour: and in Poland they dye leather of a fine yellow

- 4909 The only species, resembling an *Agave*
- 4910 Stem leafy paniced, Racemes divaricating, Leaves lanceolate wavy  
4911 Scape naked branched, Racemes erect, Leaves linear lanceolate flat
- 4912 Leaves pinnate, Leaflets whorled lanceolate acute 3-pointed  
4913 Radical leaves biternate; cauline ternate, Fruit ovate
- 4914 Cauline leaf triternate; floral biternate
- 4915 Quite smooth, Leaves palmate angular lobed serrated with taper-pointed lobes
- 4916 Leaves obovate lanceolate acuminate doubly serrated, Veins beneath hairy  
4917 Leaves oval pointed at each end mucronate serrulate pubescent beneath, Female flowers solitary  
4918 Leaves lanceol. serrated acuminate smooth on each side, Flowers all 6-cleft  
4919 Leaves lanceol. very finely and distantly serrated acute at each end quite smooth, Male flow. 3-androus  
4920 Leaves lanceol. obt. smooth serrated at end  
4921 Leaves elliptical acuminate smooth somewhat serrated at end
- 4922 Racemes simple pendulous, Leaves obovate ciliate-toothed
- 4923 Branches dotted, Prickles in 3s, Lvs. simple obovate remotely toothed, Racemes short, Fruit globular  
4924 Spines 3-parted, Leaves oval with a few large spiny teeth, Ped. short 4-fl. Pedicels elongate corymbose  
4925 Spines 3-5-parted, Leaves oval-oblong entire or serrated, Racemes 3-8-flow. almost shorter than leaves  
4926 Spines 3-7-parted, Leaves lanceolate obovate ciliate-toothed, Peduncles 1-flowered shorter than leaf  
4927 Spines 3-parted, Leaves lanceolate obovate ciliate serrate, Racemes pendulous, Petals emarginate  
4928 Spines 3-parted very few, Leaves obl. obtuse entire or a little toothed, Racemes many-fl. nodding  
4929 Lvs. pinnate in 4 or 5 pairs, Leaflets ovate lanceolate spreading toothed, Racemes erect much clustered  
4930 Spines simple scarcely two-toothed at base, Lvs. obl. with 4 or 5 spiny teeth, Racemes spreading many-fl.  
4931 Spines 3-parted, Lvs. ovate lanceolate smooth some entire some three-toothed, Pedicels solitary one-flow.
- 4932 Leaves supra-decompound with lanc. entire leaflets
- 4933 Leaves pinnate lanceolate emarginate
- 4934 Cor. 6-cleft, Segments lanceolate revolute, Leaves ovate acute  
4935 Cor. 4-cleft, Segments ovate, Leaves obovate

and *Miscellaneous Particulars.*

with the bark of the root. The inner bark of the stems also will dye linen of a fine yellow, with the assistance of alum. Kine, sheep, and goats are said to eat it; horses and swine to refuse it. This species varies with red, purple, pale yellow, and stoneless fruit.

Insects of various kinds are remarkably fond of the flowers of the barberry; and the *Æcidium Berberidis*, its particular inhabitant, is supposed to generate the dust which, carried from the bush by winds, and lighting on wheat and other growing corns, gives rise to the Puccinia, a minute fungus, which closes up the pores of the leaves, and appears like rust or mildew. (*Sir J. Banks on Blight, &c.*) Many highly respectable authorities in Britain, on the continent, and in America, are in favor of and against this opinion. Willdenow, Withering, and Dwight have stated various remarkable cases on good authority. Sir J. Banks and his draughtsman Bauer proved the fact of the mildew being a fungus.

Linnaeus observed, that when bees in search of honey touch the filaments, the anthers approximate to the stigma and explode the pollen. Sir J. Smith ascertained that the same effect is produced by touching the inside of the filaments with a small bit of stick. (*Phil. Trans. vol. lxxviii. 1. 158.*)

All the other species are much esteemed as ornamental plants. *B. aristata* is a fine hardy evergreen shrub. *B. ilicifolia* and *emarginata* are also hardy, but less ornamental. *B. fascicularis* is a beautiful ornamental nearly hardy shrub, remarkable for its pinnate leaves.

830. *Nandina*. *Nandina* is the name of this shrub in Japan, where it is a garden shrub: the flowers are in panicles, and succeeded by berries of the size of a pea. In the greenhouse it grows freely in loam and peat, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

831. *Cossiguia*. Named by Commerson, after M. de Cossigny, a French naturalist, then living at Pondicherry. Fine plants with handsome pinnate leaves.

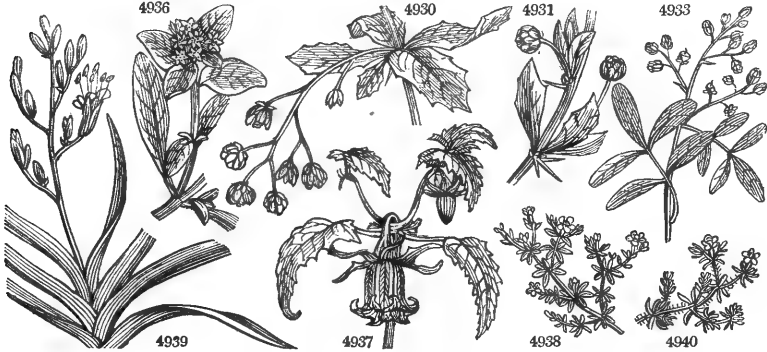
832. *Hilla*. So named by Jacquin, in honor of Sir John Hill, author of many large works on botany and other parts of natural history, as well as general literature. Owing to some differences with his contemporaries, and writing against the Royal Society, after being rejected as a fellow, his memory in England has not met with much respect; in truth it was but little that it deserved. The species are of easy culture, and cuttings root readily in sand.



|  |  |                                      |  |  |                  |
|--|--|--------------------------------------|--|--|------------------|
| †833. RICHARDIA. L.<br>4936 scabra L.  | RICHARDIA.<br>rough                              | ☒ □ w 2                              | <i>Rubiaceae.</i> Sp. 1.<br>W Vera Cruz ...  | C 1 p  | Lam. ill. t. 254 |
| 834. CANARI'NA. W.<br>4937 Campánula W.  | CANARI'NA.<br>Canary                             | ☒ △ or 3                             | <i>Campanulaceae.</i> Sp. 1.<br>ja. mr O Canaries 1696.  | R r m  | Bot. mag. 444    |
| 835. FRANKE'NIA. W.<br>4938 lævis W.<br>4939 Nôthria W.<br>4940 hirsûta W.<br>4941 pulverulenta W. | SEA-HEATH.<br>smooth<br>Cape<br>hairy<br>powdery | ☒ △ cu<br>☒ △ cu<br>☒ △ cu<br>☒ △ cu | <i>Frankeniaceae.</i> Sp. 4—16.<br>½ jl. au F England sal. m. D s.l.<br>½ in. au F C. G. H. 1816. D s.l.<br>½ in. jl L.B Siberia 1789. D s.l.<br>½ jl R England sea co. D s.l. | Eng. bot. 205<br>Be. c. 171. t. 1. f. 2<br>Fl. græc. 343<br>Eng. bot. 2222 |                  |
| †836. PEP'LIS. W.<br>4942 Pörtula W.   | WATER PURSLANE.<br>common                        | ☒ ○ cu                               | <i>Salicariæ.</i> Sp. 1—2.<br>½ jl. s Pu Britain   | wat. pl. S aq  | Eng. bot. 121    |

DIGYNIA.

|   |  |                      |   |  |                    |
|---|--|----------------------|---|--|--------------------|
| 837. ORY'ZA. W.<br>4943 sativa W.                           | RICE.<br>common                        | ☒ □ ag 2             | <i>Gramineæ.</i> Sp. 1.<br>Ap E. Indies 1596.                                 | S aq                                     | Cat. car. 1. t. 14 |
| 838. ATRAPHAX'IS. W.<br>4944 spinosa W.<br>4945 undulata W. | ATRAPHAXIS.<br>prickly<br>waved-leaved | ☒ △ cu 2<br>☒ □ cu 2 | <i>Polygonæ.</i> Sp. 2—3.<br>Ap Levant 1732. C 1 p<br>Ap C. G. H. 1732. C 1 p | Dend. brit. 119<br>Dil. cl. t. 32. f. 36 |                    |



History, Use, Propagation, Culture,

833. *Richardia*. So named by Houston, after Richard Richardson, an English botanist. Cuttings root in sand under a glass.

834. *Canarina*. That is to say, a plant native of the Canaries. This plant, Sweet observes, "is very desirable, as it flowers in autumn and winter, when few other plants are in bloom. After flowering, the stem lies down, and the roots continue dormant all the summer, when they need but little water. When they begin to grow they had better be placed in the stove, as they will not flower so abundantly in the greenhouse. A light loamy soil suits them best, or a mixture of loam and peat; and they are readily increased by dividing the roots, or from cuttings planted in the same kind of soil under a hand-glass" (*Bot. Cult.* p. 162.)

835. *Frankenia*. In honor of John Frankenia, professor of botany at Upsal, who first enumerated the plants of Sweden in *Speculum Botanicum*, 1638, and *Speculum Botanicum Renovatum* in 1659.

836. *Peplis*. One of the Greek names of the Purslane. The plant now so called resembles the Purslane in some points.

837. *Oryza*. From the Arabic word *êruz*, the Greeks coined their word *ορυζα*, and the various modern nations of Europe their *rice*, *riz*, *reis*, &c. *O. sativa*, the common rice, has the culm from one to six feet in length, annual, erect, simple, round, jointed. Leaves subulate-linear, reflex, embracing, not fleshy. Flowers in a terminating panicle. Calycine leaflets lanceolate. Valves of the corolla equal in length; the inner valve even, awnless; the outer twice as wide, four-grooved, hispid, awned. Style single, two-parted.

*O. mutica*, the dry or mountain rice, cultivated in Ceylon, Java, and of late in Hungary, has the culm three feet high, and more slender. Fruit longish, with awns the longest of all. It is sown on mountains and in dry soils; roots with a long inundation, and perishes with sea water.

The varieties of rice, as of other cultivated grain, are as numerous as the different soils, climates, and other physical circumstances, in which it is cultivated: besides the dry rice, the chief sorts, by some considered species, are the *O. precox*, or early rice, and the *O. glutinosa*, or clammy rice, both cultivated in irrigated lands.

The native place of rice, like that of the other sorts of grain in common use, is unknown; it is cultivated in great abundance all over India, where the country will admit of being flooded; in the southern provinces of China, in Cochinchina, Cambodia, Siam, Japan, &c. In Japan it is very white, and of the best quality. It has also been introduced into cultivation in the southern kingdoms of Europe, Italy, Spain, the south of France, and within a few years into Hungary and Westphalia. In Carolina it has long been a staple commodity. Houghton's account of its introduction there is, that Ashby was encouraged to send a hundred pound bagful of rice to that province, from which, in 1698, sixty tons were imported into England. Dalrymple says, that rice in Carolina is the result of a small bag of *paddy*, given as a present from Dubois, treasurer of the East India Company, to a Carolina trader. A Dutch vessel also, from Madagascar, brought rice into the same province; and to this is attributed their having two kinds. (*Oriental Repertory*, 1.)

In the hilly parts of Java, and in many of the Eastern islands, the mountain rice is planted upon the sides of hills, where no water but rain can come; it is, however, planted in the beginning of the rainy season, and reaped in the beginning of the dry season. The natives call it *Paddy Gunung*, which signifies mountain rice. It is entirely unknown in the western parts of India, but it is well known in Cochinchina, where it thrives in dry light soils, mostly on the sides of hills, not requiring more moisture than the usual rains and dews supply, neither of which are frequent at the season of its vegetation.

There is a kind of hill rice which is hardy enough to grow on the edge of the Himalayan snows. It is almost to be expected, that this will, at some future time, prove an acquisition of value to the European cultivator.

Rice is extensively cultivated in the East Indies and China, and chiefly on low grounds near large rivers,

4936 The only species, Leaves lanceolate ovate rough

4937 The only species, Leaves stalked hastate toothed

4938 Flowers solitary, Petals repand obtuse, Leaves linear ciliated at base

4939 Flowers fasciated, Petals acute, Leaves linear ciliated at base

4940 Flowers fasciated, Petals repand obtuse, Leaves linear oblong hairy at base

4941 Flowers solitary, Petals subrepand, Leaves roundish-ovate powdery beneath

4942 Flowers hexandrous axillary solitary, Flowers stalked rounded ovate

### DIGYNIA.

4943 The only species

4944 Prickly

4945 Unarmed, Leaves wavy



and Miscellaneous Particulars.

which are liable to be annually inundated, and enriched by the deposition of mud. According to Sir George Staunton's account, the Chinese obtain two crops of rice in a year from the same ground, and cultivate it in this way from generation to generation on the same soil, and without any other manure than the mud deposited by the water of the river used in overflowing it. After the waters of the inundation have withdrawn, a few days are allowed for the mud to get partially dry; then a small spot is enclosed by a bank of clay slightly ploughed and harrowed, and the grain, previously steeped in dung, diluted with animal water, is then sown very thickly on it. A thin sheet of water is immediately brought over it, either by a led stream, or the chain-pump. Thus a seed-bed or nursery is prepared, and, in the meantime, the remainder of the tract is preparing for being planted. When the plants are six or seven inches high, they are transplanted in furrows made by the plough, so as to stand about a foot apart every way; water is then brought over them, and kept on till the crop begins to ripen, when it is withheld; so that when harvest arrives the field is quite dry. It is reaped with a sickle, threshed with a flail or the treading of cattle, and the husk taken off by beating it in a stone mortar, or passing it between two flat stones, as in a common meal mill. The first crop being cut in May, a second is immediately prepared for by burning the stubble, and this second crop ripens in October or November. After removal, the stubble is ploughed in, which is the only vegetable manure such lands can be said to receive from man. In Japan, Ceylon, and Java, according to Thunberg, Davis, and Raffles, aquatic rice is cultivated nearly in the same manner. Mountain-rice is grown much in the same way as our barley.

In Lombardy and Savoy rice is sown on rich lands, the sower often wading to the knees in water: one crop a year only is obtained; but four crops are often taken in succession. In America a similar practice obtains.

In Westphalia, and some other parts of the south of Germany, rice has long been cultivated; there it is sown on lands that admit of irrigation; but the water is not admitted till the seed has germinated, and it is withdrawn, as in Italy, when the crop comes into flower. From long culture in a comparatively cold country, the German rice has acquired a remarkable degree of hardiness and adaptation to the climate; a circumstance which has frequently been alluded to as an encouragement to the acclimating of exotics. It is found, Dr. Walker remarks (*Essays on Nat. Hist.*), that rice seeds direct from India will not ripen in Germany at all, and even that Italian or Spanish seeds are much less early and hardy than those ripened on the spot.

In Hungary rice has not been long cultivated: the mountain sort has chiefly been tried, and that in the manner of our barley or summer-wheat.

In England a crop of rice has been obtained near Windsor, on the banks of the Thames.

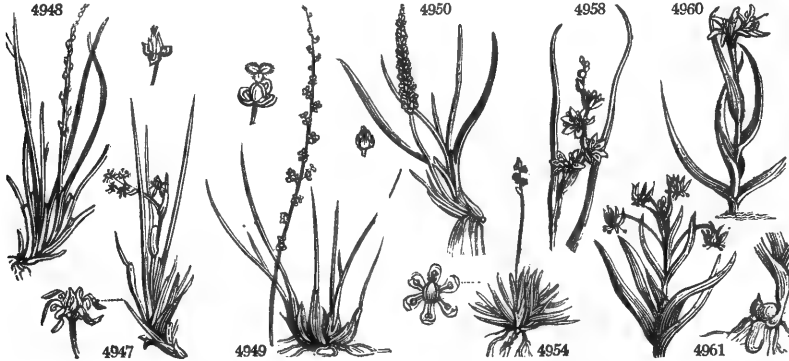
In the stove, or in a hot-bed, rice may be grown in pots of rich soil placed in pans of water, and in August they may be set in the greenhouse, or under any glass roof open at the sides, and they will produce perfect grains.

By far the best imported rice is that from Carolina: it is larger and better tasted than that of India, which is small, meagre, and the grains frequently broken. As an article of diet, rice has been extolled as superior almost to any other vegetable: but, whatever it may be in warmer climates, where it is a common, and to many persons almost their only food, it does not appear so well calculated for European constitutions as the potatoe; for we find that the poor constantly reject the use of rice when potatoes are to be had; and whilst these can be obtained, we may venture to predict, that rice will always be considered in this country, rather as a dainty, to be eaten with sweet condiments, spices, fruit, &c. than as ordinary food. (*Willich's Family Cyclopaedia.*)

838. *Atraphaxis*. A name given by the Greeks to the *Atriplex* of the Latins; derived from  $\alpha$ , privative, and  $\tau\rho\phi\alpha\upsilon\upsilon$ , to nourish; that is to say, a plant yielding no nourishment. Cuttings root freely in sand under a glass; but the plants are of neither beauty nor curiosity.

TRIGYNIA.

|  |                               |        |   |       |      |          |           |        |                         |
|--|-------------------------------|--------|---|-------|------|----------|-----------|--------|-------------------------|
| 839. FLAGELLA'RIA. <i>W.</i> FLAGELLARIA.      | <i>Juncæ?</i> Sp. 1.          |        |   |       |      |          |           |        |                         |
| 4946 indica <i>W.</i>                          | Indian                        | ☞ □ cu | 7 | jn.jl | W    | India    | 1782.     | Sk p.1 | Red. lil. 257           |
| 840. SCHEUCHZERIA. <i>W.</i> SCHEUCHZERIA.     | <i>Alismaceæ.</i> Sp. 1.      |        |   |       |      |          |           |        |                         |
| 4947 palustris <i>W.</i>                       | marsh                         | ☞ Δ cu | ‡ | my.jn | Br   | England  | sp. bo.   | S m.s  | Eng. bot. 1801          |
| 841. TRIGLO'CHIN. <i>W.</i> ARROW GRASS.       | <i>Alismaceæ.</i> Sp. 3—7.    |        |   |       |      |          |           |        |                         |
| 4948 palüstre <i>W.</i>                        | marsh                         | ☞ Δ ec | 1 | jl.au | G    | Britain  | wa.me.    | S m.s  | Eng. bot. 366           |
| 4949 bulbösum <i>B. M.</i>                     | bulbous-rooted                | ☞ Δ cu | 1 | o     | Pu   | C. G. H. | 1806.     | S p.   | Bot. mag. 1445          |
| 4950 maritimum <i>W.</i>                       | sea                           | ☞ Δ ec | 1 | my.au | G    | Britain  | sal. m. S | S m.s  | Eng. bot. 255           |
| 842. LICHTENSTEINIA. <i>W.</i> LICHTENSTEINIA. | <i>Melanthaceæ.</i> Sp. 1.    |        |   |       |      |          |           |        |                         |
| 4951 lævigata <i>W.</i>                        | smooth                        | ☞ Δ pr | 1 | ...   | B    | C. G. H. | 1824.     | S s.1  | Bot. mag. 994           |
| 843. MYRSIPHYLLUM. <i>W. en.</i> MYRSIPHYLLUM. | <i>Smilacæ.</i> Sp. 2.        |        |   |       |      |          |           |        |                         |
| 4952 asparagoides <i>W. en.</i>                | broad-leaved                  | ☞ Δ cu | 6 | mr.o  | G.w  | C. G. H. | 1702.     | R s.p  | Her. lugd. t. 681       |
| 4953 angustifölium <i>W.</i>                   | narrow-leaved                 | ☞ Δ cu | 6 | mr.d  | G.w  | C. G. H. | 1752.     | R s.p  | Til. p. 17. t. 12. f. 2 |
| 844. TOFIELDIA. <i>Hud.</i> TOFIELDIA.         | <i>Melanthaceæ.</i> Sp. 2—7.  |        |   |       |      |          |           |        |                         |
| 4954 alpina <i>Smith</i>                       | Scotch                        | ☞ Δ cu | ‡ | jl.au | G    | Britain  | bgs. m. S | S m.s  | Eng. bot. 536           |
| 4955 pubescens <i>Mich.</i>                    | downy                         | ☞ Δ cu | ‡ | ap.my | W    | N. Amer. | 1790.     | S m.s  | Pl. ma. t. 342. f. 3    |
| †845. MELANTHIUM. <i>L.</i> MELANTHIUM.        | <i>Melanthaceæ.</i> Sp. 6—12. |        |   |       |      |          |           |        |                         |
| 4956 pömilium <i>W.</i>                        | dwarf                         | ☞ Δ cu | ‡ | my.jn | W    | C. G. H. | 1800.     | O s.1  |                         |
| 4957 graminum <i>Can.</i>                      | grassy                        | ☞ Δ cu | 1 | my.jn | W    | Mogador  | 1823.     | O s.1  | Cav. ic. t. 587. f. 1   |
| 4958 jünceum <i>W.</i>                         | Rush-leaved                   | ☞ Δ cu | ‡ | jn.n  | Pk   | C. G. H. | 1788.     | O s.p  | Bot. mag. 558           |
| 4959 secündum <i>W.</i>                        | side-flowering                | ☞ Δ cu | 1 | jn.n  | W    | C. G. H. | 1812.     | O s.p  | La. ill. t. 269. f. 2   |
| 4960 uniförium <i>W.</i>                       | yellow                        | ☞ Δ cu | ‡ | jn.jl | L.Y  | C. G. H. | 1787.     | O s.p  | Bot. mag. 767           |
| 4961 viride <i>W.</i>                          | branching                     | ☞ Δ cu | ‡ | o.n   | G    | C. G. H. | 1788.     | O s.p  | Bot. mag. 994           |
| 846. MEDEOLA. <i>W. en.</i> MEDEOLA.           | <i>Smilacæ.</i> Sp. 1.        |        |   |       |      |          |           |        |                         |
| 4962 virginica <i>W.</i>                       | Indian Cucum.                 | ☞ Δ cu | ‡ | jn    | Y.g  | Virginia | 1759.     | R s.p  | Bot. mag. 1316          |
| 847. XEROPHYLLUM. <i>Mich.</i> XEROPHYLLUM.    | <i>Melanthaceæ.</i> Sp. 1.    |        |   |       |      |          |           |        |                         |
| 4963 setifölium <i>W.</i>                      | bristle-headed                | ☞ cu   | 2 | my.jn | W    | N. Amer. | 1823.     | R s.p  | Bot. mag. 748           |
| 848. WURMBA' A. <i>L.</i> WURMBA.              | <i>Melanthaceæ.</i> Sp. 3.    |        |   |       |      |          |           |        |                         |
| 4964 longiföra <i>W.</i>                       | bell-flowered                 | ☞ Δ cu | ‡ | my.jn | W    | C. G. H. | 1788.     | O s.1  | Bot. mag. 1291          |
| 4965 spicata <i>B. M.</i>                      | spiked                        | ☞ Δ cu | ‡ | my.jn | Pu   | C. G. H. | 1788.     | O s.1  | Bot. mag. 694           |
| 4966 capensis <i>W.</i>                        | spotted-flower.               | ☞ Δ cu | ‡ | my.jn | Br.y | C. G. H. | 1783.     | O s.p  |                         |
| 849. ANDROCYMBIUM. <i>W.</i> ANDROCYMBIUM.     | <i>Melanthaceæ.</i> Sp. 1.    |        |   |       |      |          |           |        |                         |
| 4967 eucomides <i>W.</i>                       | dwarf                         | ☞ Δ cu | ‡ | mr.my | G    | C. G. H. | 1794.     | O s.p  | Bot. mag. 641           |
| 850. TRILLIUM. <i>W.</i> TRILLIUM.             | <i>Melanthaceæ.</i> Sp. 9—10. |        |   |       |      |          |           |        |                         |
| 4968 sessile <i>W.</i>                         | sessile-leaved                | ☞ Δ or | ‡ | ap.my | Br   | N. Amer. | 1759.     | R s.p  | Bot. mag. 40            |
| 4969 petiolatum <i>Ph.</i>                     | Plantain-leaved               | ☞ Δ or | ‡ | ap.my | Br   | N. Amer. | 1811.     | R s.p  |                         |
| 4970 erythrocarpum <i>Mi</i>                   | painted-flower.               | ☞ Δ or | ‡ | my.jn | W    | N. Amer. | 1811.     | R s.p  | Bot. mag. 3002          |
| 4971 ovatum <i>Ph.</i>                         | purple-flower.                | ☞ Δ or | ‡ | my.jn | P.Pu | N. Amer. | 1812.     | R s.p  |                         |
| 4972 pömilium <i>Ph.</i>                       | dwarf                         | ☞ Δ or | ‡ | my.jn | R    | Carolina | 1812.     | R s.p  |                         |
| 4973 cernuum <i>W.</i>                         | drooping-flow.                | ☞ Δ or | 1 | ap.my | W    | N. Amer. | 1758.     | R s.p  | Bot. mag. 954           |
| 4974 erectum <i>W.</i>                         | stinking                      | ☞ Δ or | ‡ | ap.my | Br   | N. Amer. | 1759.     | R s.p  | Bot. mag. 470           |
| β album  | white-flowered                | ☞ Δ or | ‡ | ap.my | W    | N. Amer. | ...       | R s.p  | Bot. mag. 1027          |
| 4975 pendulum <i>Ph.</i>                       | pendulous                     | ☞ Δ or | ‡ | ap.my | W    | N. Amer. | 1805.     | R s.p  | W. ho. b. 1. t. 35      |
| 4976 grandiförium <i>Ph.</i>                   | large-flowered                | ☞ Δ or | ‡ | ap.jn | W    | N. Amer. | 1799.     | R s.p  | Par. lond. 1            |



History, Use, Propagation, Culture,

839. *Flagellaria*. From *flagellum*, a thong, in allusion to the length, toughness, and slenderness of its shoots.

840. *Scheuchzeria*. So named by Linnæus, in memory of the two brothers, John James Scheuchzer, professor of mathematics at Zurich, author of *Itinera Alpina*; and John, professor of physic at Zurich, author of a famous Treatise on Grasses. A curious little marsh plant.

841. *Triglöchin*. From *treis*, three, and *γλωχις*, a point, in allusion to the three angles of the capsule. All domestic cattle are fond of the hardy species, which afford an early bite on the sides of Highland mountains, and are greedily eaten where they occur in salt marshes.

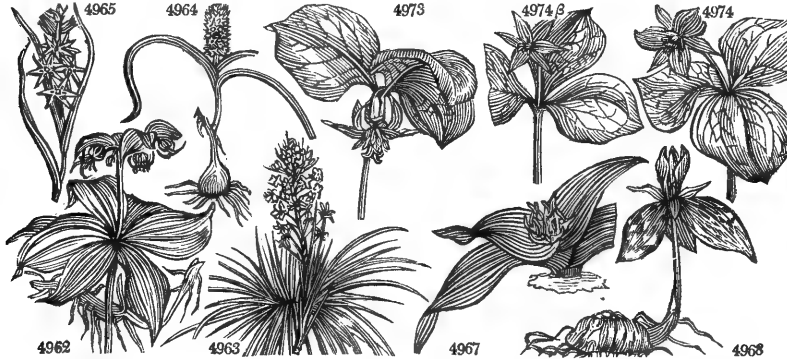
842. *Lichtensteinia*. Named after M. Von Lichtenstein, a Prussian traveller at the Cape of Good Hope.

843. *Myrsiphyllum*. From *μυρσίον*, a myrtle, and *φύλλον*, a leaf, in allusion to the resemblance between the leaves of the species and those of myrtle.

844. *Tofieldia*. Named by Hudson, after a Mr. Tofield, a country gentleman living near Doncaster.

## TRIGYNIA.

- 4946 A shrub with distichous branches, Leaves cirrhous at end  
 4947 A rushy aquatic plant  
 4948 Capsules 3-celled linear  
 4949 Capsules 3-celled smooth linear narrowed at end  
 4950 Capsules 6-celled ovate  
 4951 The only species, Sepals very narrow  
 4952 Leaves ovate cordate at base oblique  
 4953 Leaves alternate ovate-lanceolate  
 4954 Smooth, Flowers clustered in spikes, Sepals obtuse, Capsules oblong  
 4955 Scape rachis and leaf-stalks downy all over  
 4956 Leaves lanceolate bearded at base, Stem 3-flowered, Sepals sessile  
 4957 Stemless, Leaves imbricated grassy, Flowers sessile  
 4958 Leaves linear subulate, the upper dilated at base, Spike wavy, Sepals with claws  
 4959 Leaves linear, Spike one-sided, Sepals with claws  
 4960 Leaves lin. lanc. longer than one-flowered stem, Sepals lanc. with claws  
 4961 Peduncles one-flowered cernuous  
 4962 Leaves whorled in the middle of stem, in threes at the summit  
 4963 Leaves of the stem setaceous  
 4964 Spike many-flowered longer than leaves, Tube twice as long as limb  
 4965 Leaves lanceolate channelled upright, Tube shorter than stellate limb  
 4966 Leaves lanceolate hooded  
 4967 Leaves oblong lanceolate cucullate  
 4968 Flower sessile erect, Petals lanceolate erect twice as long as calyx  
 4969 Flower sessile erect, Petals linear lanceolate erect a little longer than calyx  
 4970 Stalk of flower nearly erect, Petals oval-lanceolate acute recurved about twice as long as narrow calyx  
 4971 Stalk of flower erect, Petals oblong acute spreading a little longer than calyx  
 4972 Stalk of flower erect, Petals scarcely longer than calyx, Leaves oval oblong obtuse sessile  
 4973 Stalk of flower recurved, Petals lanceolate acuminate flat reflexed the length and breadth of calyx  
 4974 Stalk of flower inclining, Flower nodding, Petals scarcely longer but much broader than calyx  
 4975 Flower pendulous, Petals ovate with a short point, Leaves rounded rhomboid acuminate subsessile  
 4976 Flower cernuous, Petals spatulate-lanceolate erect at base much longer than calyx



## and Miscellaneous Particulars.

845. *Melanthium*. A name applied by the Greeks to the *Nigella* of the Latins. What resemblance the modern plant bears to the ancient has not been stated.

846. *Medeola*. A name in remembrance of *Medea*, the famous sorceress, given to this plant on account of supposed powerful effects in medicine, but which it is now thought not to possess.

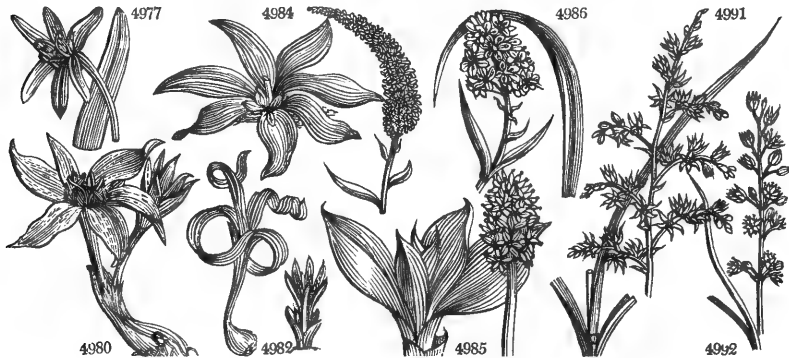
847. *Xerophyllum*. From *ξερος*, dry, and *φυλλον*, a leaf; its leaves appear as if withered. An American plant with a long spike of white flowers, resembling *Helonias*.

848. *Wurmbeea*. So called by Thunberg, in gratitude for services rendered him at Batavia by one Wurmbe, a Dutch agent there. Jussieu considers this not generically distinct from *Melanthium*.

849. *Androcymbium*. From *ανηρ ανδρος*, a man, or, in botanical language, a stamen, and *κυμβος*, a little boat, in allusion to the peculiar conformation of the stamens and their appendages.

850. *Trillium*. From *τριλις*, triple; the calyx has three sepals, the corolla 3 petals, the pistil 3 styles, and the stem 3 leaves. These are curious little plants, somewhat difficult to keep. Sweet says they do best on a bed of peat, and may be increased, though slowly, by the division of the root or by seeds.

|                                |                 |   |   |     |                            |       |                              |          |          |                        |                        |
|--------------------------------|-----------------|---|---|-----|----------------------------|-------|------------------------------|----------|----------|------------------------|------------------------|
| †851. COL/CHICUM. <i>W.</i>    | MEADOW-SAFFRON. |   |   |     | <i>Melanthaceæ. Sp. 7.</i> |       |                              |          |          |                        |                        |
| 4977 autumnale <i>W.</i>       | common          | ♂ | Δ | m   | ½ s.o                      | Pu    | Britain                      | mead.    | O s.p    | Eng. bot. 133          |                        |
| β <i>album</i>                 | white-flowered  | ♂ | Δ | m   | ½ s.o                      | W     | Britain                      | mead.    | O s.p    |                        |                        |
| 4978 arenarium <i>W. en.</i>   | sand            | ♂ | Δ | or  | ½ s.o                      | Pu    | Hungary                      | 1816.    | O s.p    | Pl. rar. h. 2.t. 179   |                        |
| 4979 byzantinum <i>B. M.</i>   | broad-leaved    | ♂ | Δ | or  | ½ s.o                      | Pu    | Levant                       | 1629.    | O s.p    | Bot. mag. 1192         |                        |
| 4980 variegatum <i>L.</i>      | chequer-flower. | ♂ | Δ | or  | ½ au.o                     | Pu    | Greece                       | 1629.    | O p.l    | Bot. mag. 1028         |                        |
| 4981 umbrösum <i>Fisch.</i>    | Crim            | ♂ | Δ | or  | ½ au.o                     | Pk    | Crimea                       | 1819.    | O p.l    | Bot. reg. 541          |                        |
| 4982 versicolor <i>Ker.</i>    | changeable      | ♂ | Δ | or  | ½ au                       | Pu    | Crimea                       | 1820.    | O p.l    | Bot. reg. 571          |                        |
| 4983 montanum <i>L.</i>        | mountain        | ♂ | Δ | or  | ½ au                       | Pu    | S. Europe                    | ...      | O p.l    | All. p. 1. t. 74. f. 2 |                        |
| *852. HELÖNIAS. <i>L.</i>      | HELONIAS.       |   |   |     |                            |       | <i>Melanthaceæ. Sp. 8.</i>   |          |          |                        |                        |
| 4984 lütea <i>B. M.</i>        | spiked-flower.  | ♀ | Δ | or  | 2 jl.au                    | Y     | N. Amer.                     | 1759.    | R s.p    | Bot. mag. 1062         |                        |
| 4985 bullata <i>W.</i>         | spear-leaved    | ♀ | Δ | or  | 1 ap.my                    | Pu    | N. Amer.                     | 1758.    | R s.p    | Bot. mag. 747          |                        |
| 4986 la'ta <i>B. M.</i>        | channel-leaved  | ♀ | Δ | or  | ½ jm                       | W     | N. Amer.                     | 1770.    | R s.p    | Bot. mag. 803          |                        |
| 4987 glaberrima <i>B. M.</i>   | smooth          | ♀ | Δ | or  | 1 my.jn                    | Y     | N. Amer.                     | 1811.    | R s.p    | Bot. mag. 1680         |                        |
| 4988 bracteata <i>B. M.</i>    | large-bracted   | ♀ | Δ | or  | 1½ my.jn                   | G     | N. Amer.                     | 1811.    | R s.p    | Bot. mag. 1703         |                        |
| 4989 ténax <i>Ph.</i>          | tough-leaved    | ♀ | Δ | or  | 1½ ...                     | W     | N. Amer.                     | 1811.    | R s.p    | Ph. amer. 1. t. 9      |                        |
| 4990 angustifolia <i>Mich.</i> | narrow-leaved   | ♀ | Δ | or  | 1 my.jn                    | W     | N. Amer.                     | 1823.    | R s.p    | Bot. reg. 1703         |                        |
| 4991 graminea <i>B. M.</i>     | panicled        | ♀ | Δ | or  | 2 my.jn                    | W     | N. Amer.                     | 1812.    | R s.p    | Bot. mag. 1599         |                        |
| 853. NOLYNA. <i>Mich.</i>      | NOLINA.         |   |   |     |                            |       | <i>Melanthaceæ. Sp. 1.</i>   |          |          |                        |                        |
| 4992 georgiana <i>M.</i>       | Georgian        | ♂ | Δ | or  | 2½ jl.au                   | W     | Georgia                      | 1812.    | R s.p    | Pl. ma. t. 342. f. 1   |                        |
| 854. APONOGETON. <i>W.</i>     | APONOGETON.     |   |   |     |                            |       | <i>Fluviales. Sp. 3.</i>     |          |          |                        |                        |
| 4993 monostachyon <i>W.</i>    | simple-spiked   | ≡ | Δ | cu  | ½ au.o                     | Pk    | E. Indies                    | 1803.    | O p.l    | Bot. rep. 406          |                        |
| 4994 distachyon <i>W.</i>      | broad-leaved    | ≡ | Δ | cu  | ½ my.jl                    | W     | C. G. H.                     | 1788.    | O p.l    | Bot. mag. 1293         |                        |
| 4995 angustifolium <i>W.</i>   | narrow-leaved   | ≡ | Δ | cu  | ½ aps                      | W     | C. G. H.                     | 1788.    | O p.l    | Bot. mag. 1268         |                        |
| †855. SABAL. <i>P. S.</i>      | SABAL.          |   |   |     |                            |       | <i>Palmeæ. Sp. 1.</i>        |          |          |                        |                        |
| 4996 Adansoni <i>B. M.</i>     | Adanson's       | ♀ | Δ | or  | 6                          | jn.au | G                            | Florida  | 1810.    | S s.l                  | Bot. mag. 1434         |
| *856. RUMEX. <i>W.</i>         | DOCK.           |   |   |     |                            |       | <i>Polygoneæ. Sp. 37-79.</i> |          |          |                        |                        |
| 4997 Paténtia <i>W.</i>        | Patience        | * | Δ | cul | 4                          | jn.jl | G                            | Italy    | 1573.    | R co                   | Blackw. h. t. 489      |
| 4998 sanguineus <i>W.</i>      | bloody-veined   | * | Δ | cul | 3                          | jn.jl | G                            | England  | sha.pl.  | R co                   | Eng. bot. 1533         |
| 4999 crispus <i>W.</i>         | curled          | * | Δ | m   | 2                          | jn.jl | G                            | Britain  | rubble.  | co                     | Eng. bot. 1998         |
| 5000 Britannica <i>W.</i>      | Virginian       | * | Δ | m   | 2                          | jn.jl | G                            | N. Amer. | ...      | co                     | Plu.al.m.t.354.f.1     |
| 5001 persicarioides <i>W.</i>  | Persicaria-like | * | ○ | cu  | 2                          | jn.jl | G                            | N. Amer. | 1773.    | S co                   |                        |
| 5002 ægyptiacus <i>W.</i>      | Egyptian        | * | ○ | cu  | 1½                         | jn.jl | G                            | Egypt    | 1734.    | S co                   | Till. pis. t. 37. f. 1 |
| 5003 dentatus <i>W.</i>        | dentated        | * | ○ | cu  | ½                          | jl.au | G                            | Egypt    | 1732.    | S co                   | Di.el. t. 158. f. 191  |
| 5004 maritimus <i>W.</i>       | golden          | * | Δ | w   | 1                          | jl.au | G                            | Britain  | salt ma. | R co                   | Eng. bot. 725          |
| 5005 palustris <i>Sm.</i>      | yellow-marsh    | * | Δ | w   | 2                          | jl.au | G                            | England  | mar.     | R co                   | Eng. bot. 1932         |
| 5006 divaricatus <i>W.</i>     | spreading       | * | Δ | w   | 2                          | jl.au | G                            | Italy    | 1793.    | S co                   | Till. pis. t. 37. f. 2 |
| 5007 acutus <i>W.</i>          | sharp           | * | Δ | dy  | 2                          | jn.jl | G                            | Britain  | wat.pl.  | R co                   | Eng. bot. 724          |
| 5008 obtusifolius <i>W.</i>    | broad-leaved    | * | Δ | w   | 3                          | jn.au | G                            | Britain  | rubble.  | R co                   | Eng. bot. 1999         |
| 5009 pülcher <i>W.</i>         | Fiddle          | * | Δ | w   | 2                          | jn.au | G                            | Britain  | gra.pa.  | R co                   | Eng. bot. 1576         |
| 5010 confertus <i>W.</i>       | close-headed    | * | Δ | cu  | 4                          | jn.jl | G                            | .....    | 1796.    | R co                   |                        |
| 5011 nemorosus <i>Schr.</i>    | wood            | * | Δ | cu  | 2                          | jl    | G                            | Germany  | ...      | R co                   |                        |
| 5012 condylodes <i>Bieb.</i>   | whole-colored   | * | ○ | cu  | 3                          | jl    | G                            | Caucasus | S co     | co                     |                        |
| 5013 brasiliensis <i>Lk.</i>   | Brazilian       | ♀ | Δ | cu  | 1½                         | my    | G                            | Brazil   | 1822.    | R co                   |                        |



History, Use, Propagation, Culture,

851. *Colchicum*. From Colchis, saith Dioscorides, where this plant grows in abundance; but it is probable that the term Colchicum was applied to all poisonous plants, among which this certainly held no inconsiderable place. The economy of this plant in regard to its bulbs, flowers, and seeds, is singular, and may be classed with other anomalies found in *Crocus*, &c. The bulb, which in *C. autumnale* is about the shape and size of that of a tulip, is formed in the following manner:—

From the permanent, striated, dilated tuber of the old root, sinuated on one side, and clothed with the coats of the preceding root-leaves, a new plant springs, which is tuberosus at the base, throws out fibres at bottom like other bulbs, and is received into the bosom of the former tuber, which embraces it half round. This has an outer radical spathe, which is cylindrical and tubular, cloven at top on one side, and half under ground. From two to six flowers half emerge from this spathe without leaves. In the mean time the fruits, much later than the flowers, sit on the stem rising out of the spathe. As the plant advances the new tuber increases, the old one, deprived of its nutriment, perishes, and at the same time the former pushes forth from its base the germ of a succeeding plant. There are commonly two lateral germs from the same tuber; one lower, just described, bearing the flower and seed; the other superior, caulescent like the former, but more slender, and scarcely floriferous.

The flowers, which arise with long slender tubes from the root, die off in the end of October, without leaving any external appearance of seeds. These lie buried all the winter within the bulb; in spring they grow up on a fruit-stalk, and are ripe about the time of hay-harvest. May not the very great length of the styles account in some measure for the delay in the ripening of the seeds? As this plant blossoms late in the year, and probably would not have time to ripen its seeds before winter, Providence has contrived its structure such, that it may be performed at a depth within the earth, out of the reach of the usual effects of frost; and as seeds buried at such a depth are known not to vegetate, a no less admirable provision is made to raise them above the surface when they are perfected, and to sow them at a proper season.

4977 Leaves flat lanceolate erect

4978 Leaves linear channelled erect, Styles shorter than flower

4979 Leaves 5 ovate-oblong very broad, Flowers very numerous

4980 Leaves wavy spreading

4981 Two or many-flowered, Sepals linear oblong obtuse, Leaves small oval grassy-green

4982 Leaves 4 glaucous spiral, Flowers small very dwarf, Style one

4983 Leaves appearing with flower linear much spreading

4984 Scape leafy, Leaves oblong lanceolate, Flowers diœcious

4985 Leaves lanceolate ensiform nerved, Bractes linear-lanceolate

4986 Scape leafy, Raceme oblong, Bractes short oblong, Leaves smooth lanceolate linear

4987 Leaves channelled nerved, Segments of flower broad ovate with a transverse nectary at base

4988 Root horizontal, Leaves lanc. erect, Bractes longer than flower, Nectaries distinct

4989 Scape leafy, Raceme showy lax, Bractes membranous, Leaves subulate setaceous very long

4990 Raceme oblong lax, Leaves very long and narrow, Caps. oblong

4991 Leaves grassy, Panicle loose, Segments of flower ovate acute

4992 Leaves very long narrow dry, Flowers racemose

4993 Leaves oval, Spike one cylindrical

4994 Spike bifid, Leaves linear oblong floating, Bractes entire

4995 Spike bifid, Leaves linear lanc. erect, Bractes bipartite

4996 The only species

§ 1. *Hermaphrodite. Valves marked with a grain.*

4997 Valves cordate entire : one grained, Leaves ovate lanceolate

4998 Valves entire : one grained, Leaves cordate lanceolate

4999 Valves entire all grained, Leaves lanceolate wavy acute

5000 Valves ovate entire veinless all grained, Fruit-stalks pendulous, Leaves lanceolate

5001 Valves toothed all grained, Leaves lanceolate

5002 Valves trifid setaceous : one grained

5003 Valves toothed all grained, Leaves lanceolate

5004 Valves toothed grained, Leaves linear

5005 Valves lanceolate grained toothed at base, Leaves linear lanc. Whorls distant

5006 Valves toothed all grained, Leaves cordate-oblong obtuse pubescent

5007 Valves toothed all grained, Leaves cordate-oblong acuminate

5008 Valves toothed all grained, Leaves cordate oblong obtuse crenate

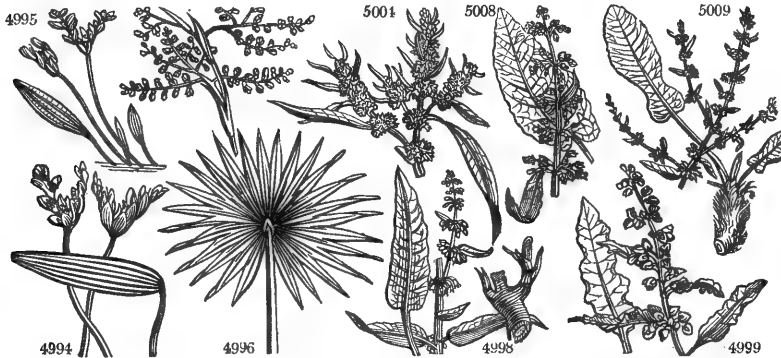
5009 Valves toothed : one grained, Radical leaves panduriform

5010 Valves rounded cordate repand : one grained, Leaves cordate oblong wavy at edge

5011 Valves oblong obtuse entire : one grained, Leaves lanceolate

5012 Valves entire lanceol. one grained, Leaves cordate lanceolate

5013 Valves entire lanceolate acute grained, Upper leaves linear-lanceolate



and *Miscellaneous Particulars.*

There are a few varieties of common *Colchicum* cultivated by florists; viz. the white, striped-flowered, striped-leaved, broad-leaved, many-flowered, and double-flowered. No cattle are said to eat it; though it is remarkably abundant in the meadows of the Italian Alps, and the leaves must certainly be frequently made into hay.

*C. autumnale*, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties: and on the continent, where it was recommended to notice by Baron Stœrck, it is a favorite remedy in dropsy, particularly hydrothorax, and in humoral asthma. But as it does not differ in its mode of action from squill, and is more uncertain in its operation, it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained: and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, diminishing the action of the arterial system. (*Thomson's Med. Met.* 257.)

All the species are ornamental as border-flowers, and may be blown in water-glasses.

852. *Helonias*. Derived from *lœx*, a marsh. Some of the species grow in bogs in N. America. These plants delight in a moist situation and peat soil: they increase slowly by dividing at the root or by seeds.

853. *Nolina*. Named after an American botanist of French extraction, called P. C. Nolin. This plant is best grown in pots, as it requires protection during winter.

854. *Aponogeton*. A name of the same meaning as *Potamogeton* (see that genus), of which it is probably an incomplete anagram. These plants are bulbous aquatics, and grow freely in loam and peat plunged in a cistern of water. They are very pretty ornaments of the aquarium.

855. *Sabal*. A name employed by Adanson. It is supposed to have no meaning.

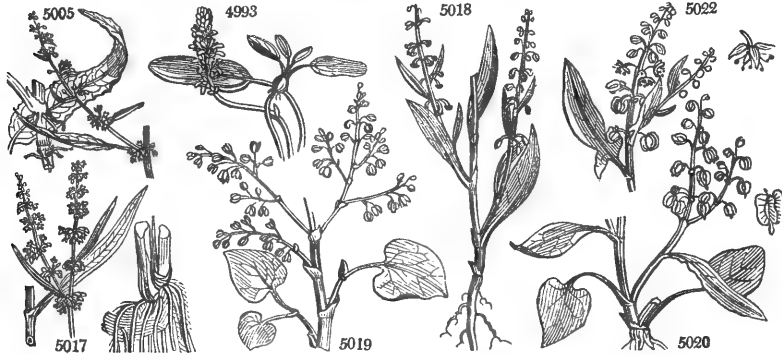
856. *Rumex*. A name given by the Latins to a root of thorn.

*R. patientia* (so called from the slowness of its operation as a medicine) and *sanguineus*, were formerly

|                         |                 |         |             |   |            |          |        |                          |
|-------------------------|-----------------|---------|-------------|---|------------|----------|--------|--------------------------|
| 5014 purpureus Lk.      | purple          | ✱ Δ w   | 4 jl        | G | .....      | ...      | R co   |                          |
| 5015 strictus Lk.       | upright         | ✱ Δ w   | 2 jn.jl     | G | .....      | 1823.    | R co   |                          |
| 5016 ucranicus Horn.    | Ukraine         | ✱ Δ w   | 2 jn        | G | Ukraine    | 1822.    | R co   |                          |
| 5017 aquaticus H. K.    | great-water     | ✱ Δ w   | 5 jl.au     | G | Britain    | riv.ba.  | R co   | Eng. bot. 2104           |
| 5018 bucephalophorus W. | Basil-leaved    | ○ cu    | 1 jn        | G | Italy      | 1683.    | S co   | Cav. ic. 1. t. 41. f. 1  |
| 5019 Lunaria W.         | tree            | ✱ Δ cu  | 2 jn.jl     | G | Canaries   | 1698.    | C a. 1 | Plu. almt. 2. 92. f. 3   |
| 5020 vesicarius L.      | bladder         | ○ cu    | 2 jl.au     | G | Africa     | 1656.    | S co   | Moris. s. 5. t. 28. f. 7 |
| 5021 roseus W.          | rose            | ○ cu    | 1 jl.au     | G | Egypt      | 1737.    | S co   | Fl. grac. 346            |
| 5022 tingitanus W.      | Tangier         | ✱ Δ cu  | 1 1/2 jn.au | G | Barbary    | 1680.    | R co   | Zanon. hist. 9. t. 6     |
| 5023 scutatus W.        | French-sorrel   | ✱ Δ cul | 1 1/2 jn.jl | G | France     | 1596.    | R co   | Mor. ox. 5. t. 28. f. 6  |
| 5024 sarcorrhizus Lk.   | fleshy-rooted   | ✱ Δ cu  | 1 jl        | G | C. G. H.   | 1824.    | C co   |                          |
| 5025 hastifolius Bieb.  | spear-leaved    | ✱ Δ cu  | 1 1/2 au    | G | Crimea     | 1823.    | R co   |                          |
| 5026 alpinus W.         | Alpine          | Δ m     | 1 jn.jl     | G | France     | 1597.    | R lp   | Zorn. ic. 261            |
| 5027 aculeatus W.       | small-prickly   | ✱ Δ cu  | 1 jl        | G | Candia     | ...      | R co   |                          |
| 5028 spinosus W.        | large-prickly   | ✱ Δ cu  | 2 jn.jl     | G | Candia     | 1656.    | S co   | Fl. grac. 347            |
| 5029 giganteus H. K.    | tall            | ✱ Δ cu  | 6 jn.au     | G | Sandw. Is. | 1762.    | R co   |                          |
| 5030 tuberosus W.       | tuberous-root.  | ✱ Δ cu  | 1 1/2 jn.au | G | Italy      | 1756.    | R co   | Fl. grac. 348            |
| 5031 acetosa W.         | common-sorrel   | ✱ Δ cul | 2 jn.jl     | G | Britain    | me. pa.  | R co   | Eng. bot. 127            |
| 5032 acetosella W.      | Sheep's-sorrel  | ✱ Δ w   | 1 my.jl     | G | Britain    | gra. pa. | R co   | Eng. bot. 1674           |
| 5033 arifolius W.       | halberd-leaved  | ✱ Δ cu  | 1 1/2 ap.d  | G | Africa     | 1775.    | C s. 1 | Jac. vind. 3. t. 93      |
| *857. OXYRIA. Dec.      | MOUNTAIN SORREL | Δ cu    | 1 1/2 jn.jl | G | Polygoneæ. | Sp. 1.   |        |                          |
| 5034 acida R. Br.       | common          | Δ cu    | 1 1/2 jn.jl | G | Britain    | alp. pa. | R p. 1 | Eng. bot. 910            |

POLYGYNIA.

|   |               |        |             |    |                |           |         |                          |
|---|---------------|--------|-------------|----|----------------|-----------|---------|--------------------------|
| 858. WENDLANDIA. W. WENDLANDIA.         |               | ✱ Δ or | 6 jn.jl     | W  | Menispermeæ.   | Sp. 1.    |         |                          |
| 5035 populifolia W.                     | Poplar-leaved | ✱ Δ or | 6 jn.jl     | W  | Florida        | 1759.     | C co    | Dil. el. t. 178. f. 219  |
| 859. DAMASONIUM. W. DAMASONIUM.         |               | ✱ Δ or | 1 jls       | W  | Hydrocharidæe. | Sp. 1-2.  |         |                          |
| 5036 indicum W.                         | Indian        | ✱ Δ or | 1 jls       | W  | E. Indies      | 1800.     | S aq    | Bot. mag. 1201           |
| 860. ACTINOCARPUS. R. Br. ACTINOCARPUS. |               | ✱ Δ or | 1 1/2 my.au | W  | Alismaceæ.     | Sp. 2-4.  |         |                          |
| 5037 minor R. Br.                       | small         | ✱ Δ or | 1 1/2 jn.au | W  | N. S. W.       | ...       | S s. 1  |                          |
| 5038 Damasonium R. Br.                  | common        | ✱ Δ or | 1 1/2 jn.au | W  | England        | dit.      | S s. 1  | Eng. bot. 1615           |
| 861. ALISMA. W.                         |               | ✱ Δ or | 1 1/2 jn.jl | Pu | Alismaceæ.     | Sp. 5-9.  |         |                          |
| 5039 Plantago W.                        | greater       | ✱ Δ or | 1 1/2 jn.jl | Pu | Britain        | pools.    | aq r. m | Eng. bot. 837            |
| 5040 lanceolata With.                   | spear-leaved  | ✱ Δ or | 1 1/2 jn.jl | Pu | Britain        | pools.    | aq c. 1 | Pet. en. pl. t. 43. f. 7 |
| 5041 trivialis Ph.                      | blunt-leaved  | ✱ Δ or | 1 1/2 jn.jl | W  | N. Amer.       | 1816.     | aq c. 1 |                          |
| 5042 natans W.                          | floating      | ✱ Δ or | 1 1/2 jl.au | W  | Wales          | all. lak. | aq r. m | Eng. bot. 775            |
| 5043 ranunculoides W.                   | lesser        | ✱ Δ or | 1 1/2 au    | Pu | Britain        | tur. bo.  | aq p    | Eng. bot. 326            |



History, Use, Propagation, Culture,

used as spinage plants. The former is still used on the continent, and mashed with a small proportion of *R. acetosa* or *scutata*, makes a very good spinage.

*R. crispus* has a fusiform yellow root, which, taken in a recent state, and bruised and made into an ointment or decoction, is said to cure the itch.

*R. obtusifolius* is a domestic weed of the worst description: it is found in every country of Europe, but almost confined to cultivated grounds or rubbish, rick-yards, neglected gardens, and places used as retiring grounds by men or cattle. It is never found on poor or wet-bottomed land. It is refused by cattle; but the leaves were formerly used for wrapping round butter and cream-cheese; and the roots, along with those of *R. acutus*, by the dyers. In powder, the roots of most docks are said to be one of the best articles for cleaning the teeth. The leaves of all of them are considered laxative rather than otherwise.

*R. acetosa* has been long cultivated in gardens for its leaves as spinage and salad; but *R. scutatus* is much more delicate. The Laplanders use the leaves of the *R. acetosa* to turn their milk sour: in Ireland they are eaten with fish and other alkaliesent food. The root is powerfully astringent, and considered antiscorbatic: dried and boiled it gives out a beautiful red color. All domestic cattle eat this and most other species of the genus.

*R. acetosella*, where it abounds naturally, is a certain indication of dry, poor, gravelly, iron soil. *R. alpinus*, monk's or bastard rhubarb, was formerly used as true rhubarb, but in larger doses.

The different species of *Rumex* attract the cultivator's attention as weeds more powerfully than as culinary, medicinal, or dying plants. The sorts vulgarly known as docks produce a large quantity of seeds, and ripen them rapidly and perfectly. Fortunately they are heavy, and are not carried to a great distance from the parent; but almost every one grows, and once a year old they are tedious and expensive to eradicate. The first season they may be destroyed by hoeing; but when the tap-root is established, unless it be wholly eradicated by the weeding, or dock-hook, or spade, the ground cannot be considered as cleared. Any part of the

- 5014 Valves veiny toothed grained, Lower leaves cordate oblong, upper oval, all with colored veins
- 5015 Valves toothed one grained, Leaves ovate lanceolate repand entire
- 5016 Like *R. persicarioides* but differing in having auricled leaves and longer teeth to the valves

§ 2. *Hernaphrodite. Valves naked.*

- 5017 Valves entire, Leaves cordate smooth acute
- 5018 Valves toothed, Flower-stalks flat reflexed thickened
- 5019 Valves smooth, Stem shrubby, Leaves cordate
- 5020 Flowers in pairs, All the valves very large membranous reflexed, Leaves undivided
- 5021 Flowers distinct, Wing of one valve very large membranous veiny, Leaves eroded
- 5022 Flowers distinct, Valves cordate obtuse entire, Leaves hastate-ovate
- 5023 Leaves cordate hastate
- 5024 Stem shrubby, Root tuberous, Leaves roundish running down into the stalk
- 5025 Valves entire reniform, Leaves hastate, Middle lobe cordate, Stem much branched diffuse

§ 3. *Flowers dioecious.*

- 5026 Valves entire naked, Leaves cordate obtuse rugose
- 5027 Leaves lanceolate stalked, Fruit reflexed, Valves fringed
- 5028 Female calyx 1-leaved, Outer valves reflexed hooked
- 5029 Flowers monoecious, Valves naked, Leaves oblong ovate
- 5030 Leaves lanceolate sagittate, Lobes spreading
- 5031 Leaves oblong sagittate
- 5032 Leaves lanceolate hastate
- 5033 Leaves stalked hastate serrated acute with simple spreading auricles, Valves naked entire

5034 Leaves sagittate reniform

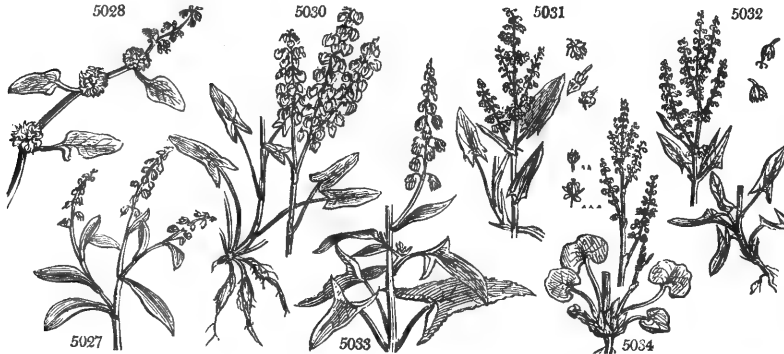
POLYGYNIA.

5035 Leaves alternate stalked cordate ovate with a glandular point

5036 Leaves cordate

5037 Fruit 8-cleft, Leaves 3-nerved  
5038 Leaves cordate oblong, Fruit 6-cleft

- 5039 Leaves ovate acute, Capsules bluntly 3-cornered
- 5040 Leaves lanceolate
- 5041 Leaves oval cordate 9-nerved
- 5042 Leaves elliptical obtuse, Capsules striated
- 5043 Leaves linear-lanceolate, Capsules 5-cornered incurved



and Miscellaneous Particulars.

root left will generate buds and send them to the surface, and if the plough or spade cut a root into pieces an inch long, each piece will grow, whether near the surface or buried to some depth. The less careful agriculturist often receives dock-seeds with his grass-seeds, brought from the stable-keepers and not properly cleaned: these come up the first year, and establish themselves along with the clover unobserved. The second year they flower, and if the crop is not early cut the seed ripens, and in using the hay is either mixed with the litter of the stable or with the hay-seeds, to be again carried to the field. Such as purchase town-manure cannot avoid receiving dock-seeds; but they may destroy them by fermenting the manure well before using it; others, who desire to get rid and keep clear of this weed, should be most particular in their choice of seeds of every kind, especially of grass-seeds; should weed them out as soon as they can be discovered; and, for such as remain till the second year, they may be pulled by hand when in the flower-stalk, and during or after a day's rain. (See *Encyc. Agr. art. Peren. Weeds.*)

857. *Oxyria*. From *ὄξυς*, acid, in allusion to the qualities of its leaves. The plant is one of those singular individuals which has the character of two distinct genera, and yet is referable to neither. Wahlenberg made it a *Rheum*, Linnaeus a *Rumex*, Mr. Brown what it now is. It was formerly used as a salad.

858. *Wendlandia*. Named in honor of J. C. Wendland, a German botanist. He has published various works upon plants, many of them illustrated with numerous colored figures. This is a climbing plant, referred by Decandolle to *Cocculus*.

859. *Damasonium*. From *δαμασσω*, to take away or diminish. This plant had the reputation of removing the effects of the venom of the sea-dog. Handsome floating aquatics.

860. *Actinocarpus*. From *ἄκτις*, a ray, and *καρπός*, fruit, in allusion to the radiate disposition of the little carpella round a common axis. Pretty floating aquatics.

861. *Aisma*. Derived from *αἶς*, water, in Celtic. *Aisma* Plantago grows in watery places, and is called water-plantain, from the resemblance between its leaf and that of the common plantain.





CLASS VII.—HEPTANDRIA. 7 STAMENS.

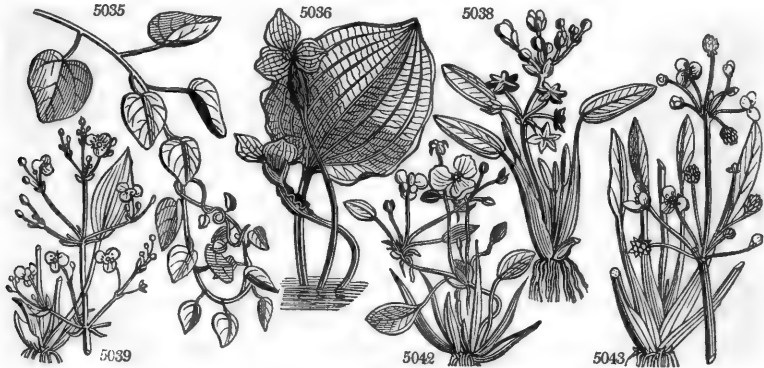
A SMALL class, of which the Parinarium, which is a good tropical fruit, and the valuable Horse-chesnut, *Æsculus*, are the only remarkable genera. The *Astranthus* is a curious genus of the natural order of Homalinee.

Order 1. MONOGYNIA.  7 Stamens. 1 Style.

- 862. *Trientalis*. Cal. 7-leaved. Cor. 7-parted, equal, flat. Berry without juice.
- 863. *Disandra*. Cal. about 7-parted. Cor. rotate, 7-parted. Caps. 2-celled, many-seeded.
- 864. *Pisonia*. Cal. campanulate, 5-cleft. Cor. O. Berry 1-celled, 1-seeded.
- 865. *Petiveria*. Cal. 4-leaved. Cor. O. Style lateral. Stigma pencil-shaped. Seed 1, with four reflexed awns at the end.
- 866. *Æsculus*. Cal. 1-leaved, inflated. Cor. 4-5-petaled, unequal, pubescent, inserted in the calyx. Caps. 3-celled. Seeds large, chesnut-like.
- 867. *Jonesia*. Cal. 2-leaved. Cor. funnel-shaped, with a closed fleshy tube and 4-cleft limb. Nectary, a ring inserted in the throat of the tube. A Legumen.

MONOGYNIA.

|                       |                 |      |                    |               |                       |                   |       |     |                     |  |
|-----------------------|-----------------|------|--------------------|---------------|-----------------------|-------------------|-------|-----|---------------------|--|
| 862. TRIENTALIS. W.   | WINTER-GREEN.   |      | <i>Primulaceæ.</i> | <i>Sp. 2.</i> |                       |                   |       |     |                     |  |
| 5044 europæa W.       | oval-leaved     | △ cu | ½ my.jn            | W             | Britain               | m. wo.            | R     | s p | Eng. bot. 15        |  |
| 5045 americana Ph.    | spear-leaved    | △ cu | ½ jl.au            | W             | N. Amer.              | 1816.             | R     | s p |                     |  |
| 863. DISANDRA. W.     | DISANDRA.       |      |                    |               | <i>Scrophularinæ.</i> | <i>Sp. 1.</i>     |       |     |                     |  |
| 5046 prostrata W.     | trailing        | △ or | ½ my.au            | Y             | Madeira               | 1771.             | R     | p l | Bot. mag. 218       |  |
| 864. PISONIA. W.      | PISONIA.        |      |                    |               | <i>Nyctagineæ.</i>    | <i>Sp. 8.—12.</i> |       |     |                     |  |
| 5047 aculeata W.      | prickly         | □ cu | 10 mr.ap           | G             | Jamaica               | 1739.             | C     | p l | Lam. ill. t. 86i    |  |
| 5048 fragrans Lk.     | fragrant        | □ cu | 3                  | ...           | .....                 | 1823.             | C     | p l |                     |  |
| 5049 macrophylla Lk.  | long-leaved     | □ cu | 3                  | ...           | .....                 | 1823.             | C     | p l |                     |  |
| 5050 nigricans W.     | black           | □ cu | 3                  | ...           | G. W.                 | W. Indies         | 1806. | C   | p l                 |  |
| 5051 obovata Lk.      | obovate         | □ cu | 3                  | ...           | .....                 | 1823.             | C     | p l |                     |  |
| 5052 mexicana W.      | Mexican         | □ cu | 4                  | ...           | ...                   | Mexico            | 1824. | C   | p l                 |  |
| 5053 nitida W.        | shining         | □ cu | 3                  | ...           | ...                   | Madagas.          | 1824. | C   | p l                 |  |
| 5054 grandis R. Br.   | large           | □ or | 12                 | ...           | ...                   | N. Holl.          | 1805. | C   | p l                 |  |
| 865. PETIVERIA. W.    | PETIVERIA.      |      |                    |               | <i>Chenopodeæ.</i>    | <i>Sp. 2.</i>     |       |     |                     |  |
| 5055 alliacea W.      | Garlic-scented  | □ cu | 2 jn.jl            | W             | Jamaica               | 1759.             | C     | p l | Tr. ehr. 33. t. 67  |  |
| 5056 octandra W.      | dwarf           | □ cu | 2 jn.jl            | W             | W. Indies             | 1737.             | C     | p l | Pl. ic. 213. t. 219 |  |
| *866. ÆSCULUS. W.     | HORSE-CHESNUT.  |      |                    |               | <i>Hippocastanæ.</i>  | <i>Sp. 8.—10.</i> |       |     |                     |  |
| 5057 Hippocastanum W. | common          | tm   | 40 ap.my           | W             | Asia                  | 1629.             | S     | co  | Sch. arb. i. t. 38  |  |
| 5058 Pavia W.         | red-flowered    | ♂    | or 30 my.jn        | Sc            | N. Amer.              | 1711.             | G     | s l | Dend. brit. 120     |  |
| 5059 discolor Ph.     | dwarf           | ♂    | or 8 my            | R             | Georgia               | 1812.             | G     | s l |                     |  |
| 5060 flava W.         | yellow-flowered | ♂    | or 20 my.jn        | Y             | N. Amer.              | 1764.             | G     | s l | Dend. brit. 163     |  |
| 5061 glabra W. en.    | smooth-leaved   | ♂    | or 12 my.jn        | G. Y          | N. Amer.              | 1812.             | G     | co  |                     |  |



History, Use, Propagation, Culture,

862. *Trientalis*. From *triens*, the third of a thing; why so named we do not understand. Sir J. E. Smith says, "Few persons have seen the fruit of this plant; and it was most unaccountably mistaken, even by Linnæus and Gærtner. The valves of the ripe capsule become concave externally, convex and polished within, and have been taken for a permanent corolla. But they are opposite to the calyx leaves, which the segments of the corolla are not. The beautiful tunics of the seeds were supposed to be the skin of a dried berry, and are not faithfully represented by Gærtner. (*English Flora*, vol. ii. 208.)

863. *Disandra*. From *dis*, difficult, and *andros*, a male, or, in botanical composition, a stamen; that is to say, a plant of which the stamens are subject to vary, and therefore difficult for botanists. A trailing plant with bright yellow flowers.

864. *Pisonia*. So named by Plumier, in honor of William Piso, a physician at Amsterdam, author of the *Natural History of Brazil*, 1648, fol. *P. aculeata* is an inebriant tree with round resinous spiny branches, wanting support. It is common in the savannahs and other low places in the island of Jamaica, and in

866. *Dracontium*. Spathe cymbiform. Spadix covered. Cal. O. Petals 5. A berry.

869. *Calla*. Spathe ovate. Spadix covered. Cal. O. Cor. O. A berry.

870. *Parinarium*. Cal. 5-cleft. Petals 5. Stamens 14, of which 7 are barren. Drupe fleshy cribose. Nut 2-celled, with 1-seeded cells.

Order 2. DIGYNIA.  7 Stamens. 2 Styles.

871. *Limeum*. Cal. 5-leaved. Petals 5, equal. Caps. globose, 2-celled.

Order 3. TETRAGYNIA.  7 Stamens. 4 Styles.

872. *Saururus*. Cal. a spike of 1-flowered scales. Cor. O. Ovaries 4. Berries 4, 1-seeded.

873. *Astranthus*. Cal. O. Cor. hypocateriform, with a 14-cleft limb. Seed 1, small, superior.

Order 4. HEPTAGYNIA.  7 Stamens. 7 Styles.

874. *Septas*. Cal. 7-parted. Petals 7. Ovaries 7. Caps. 7, many seeded.

### MONOGYNIA.

5044 Leaves lanceolate entire

5045 Leaves narrow lanceolate acuminate oblique

5046 Leaves reniform crenate, Flower-stalks in pairs

5047 Spines axillary horizontal, Leaves ovate narrowed at each end, Corymb axillary

5048 Unarmed, Leaves opposite acuminate narrowed into a short stalk very smooth fleshy

5049 Unarmed, Leaves opposite a little narrowed towards the base entire smooth, Lateral nerves parallel

5050 Unarmed, Leaves ovate acuminate, Flowers cymose erect, Fruit berried

5051 Unarmed, Leaves opposite acute scarcely narrowed at the base entire smooth with parallel nerves

5052 Leaves ovate entire villous, Flowers in umbels

5053 Leaves quinate pointed (*Lilac de Madagascar*.)

5054 Leaves oblong acuminate smooth, Cymes compound, Flowers polygamous, Fruit spiny

5055 Flowers hexandrous

5056 Flowers octandrous

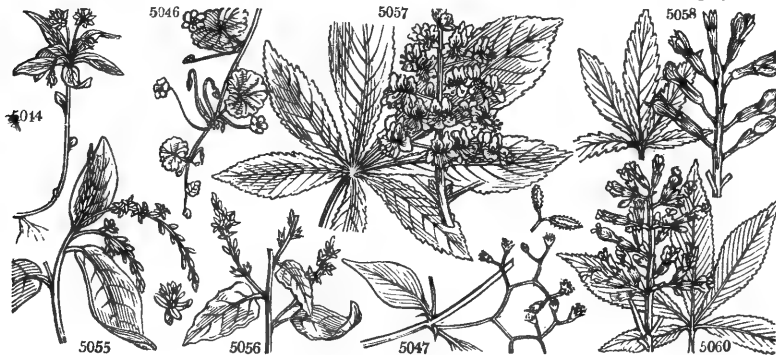
5057 Leaves digitate 7, Petals 5 spreading

5058 Leaves quinate smooth unequally toothed, Petals 4 with connivent claws the length of the calyx

5059 Leaves quinate pointed at each end downy beneath unequally toothed, Petals 4

5060 Leaves quinate beneath at the rib pubescent, Petals 4 with connivent claws longer than the calyx

5061 Leaves quinate quite smooth, Petals 4 spreading with claws the length of the calyx, Fruit spiny



#### and Miscellaneous Particulars.

several other islands in the West Indies, where it is very troublesome to whoever passes, fastening itself by its strong crooked thorns to the clothes; and the seeds being glutinous and burry, also fasten themselves to whatever touches them: so that the wings of the ground-doves and other birds, are often so loaded with the seeds, as to prevent their flying, by which means they become an easy prey.

865. *Petiveria*. So named by Plumier, in honor of James Petiver, apothecary of London, and fellow of the Royal Society, author of *Museum*, 1695; *Gazophylacium*, 1702, collected into one volume folio, with many plates. P. alliacea, is common in savannahs and woods in the West Indies, where it is a troublesome weed, and tastes the milk of cows that feed on it. It is so acrid, that on chewing a little, it burns the mouth and leaves the tongue black, dry, and rough, as it appears in a malignant fever. It is thought, however, to be covered by Guinea-hens, and hence its vulgar name of Guinea-hen weed.

866. *Esculus*, or *Esculus*, as Pliny writes it. A name which the Latins gave to a tree which furnished them with an esculent nut: that plant was the *Quercus Esculus* of Linnæus. *Marronnier*, Fr., *Marronien-*

|                        |                |   |    |    |      |       |           |           |       |                            |
|------------------------|----------------|---|----|----|------|-------|-----------|-----------|-------|----------------------------|
| 5062 cárnea Hort.      | flesh-colored  | 半 | or | 7  | jn   | Pu    | N. Amer.  | 1823.     | G co  | Dend. brit. 121            |
| 5063 pállida W. en.    | pale-flowered  | 半 | or | 12 | jn   | G.Y   | N. Amer.  | 1812.     | G co  |                            |
| 5064 parviflora H. K.  | small-flowered | 半 | or | 6  | jlau | W     | N. Amer.  | 1786.     | L s.l |                            |
| 867. JONE'SIA. W.      | JONESIA.       |   | ♀  |    |      |       |           |           |       |                            |
| 5065 pinnáta W.        | winged-leaved  | ♀ | □  | ft | 20   | ...   | E. Indies | 1796.     | C p.l | Rh. mal. 5. t. 59          |
| 868 DRACON'TIUM. W.    | DRAGON.        |   | ♀  |    |      |       |           |           |       |                            |
| 5066 polyphýllum W.    | purple-stalked | ♀ | △  | cu | 2    | mr.jn | Ap        | India     | 1759. | R lt.l Bot. reg. 700       |
| 5067 spinósum W.       | prickly        | ♀ | △  | cu | 2    | ap.mj | Ap        | Ceylon    | 1759. | R lt.l                     |
| 5068 pertósum W.       | perforated     | ♀ | △  | cu | 6    | ap.jn | Ap        | W. Indies | 1752. | R p.l J. sch. 2. t. 184. 5 |
| 869. CAL'LA. W.        | CALLA.         |   | ♀  |    |      |       |           |           |       |                            |
| 5069 ethiópica W.      | Ethiopian      | ♀ | △  | or | 3    | ja.mj | Ap        | C. G. H.  | 1731. | Sk r.m Bot. mag. 832       |
| 5070 palústris W.      | marsh          | ♀ | △  | cu | 3    | jlau  | Ap        | N. Europe | 1768. | D p Bot. mag. 1831         |
| 5071 aromática Roxb.   | aromatic       | ♀ | △  | or | 2    | jl    | Ap        | China     | 1813. | D r.m Bot. mag. 2279       |
| 870. PARINARIUM. Juss. | PARINARIUM.    |   | ♀  |    |      |       |           |           |       |                            |
| 5072 excélsium Sab.    | Guinea Plum    | ♀ | □  | fr | 60   | ...   | W         | S. Leone  | 1822. | C l                        |
| 5073 macrophýllum Sab. | Gingerbr. Tree | ♀ | □  | fr | 6    | ...   | W         | S. Leone  | 1822. | C r.l                      |

DIGYNIA.

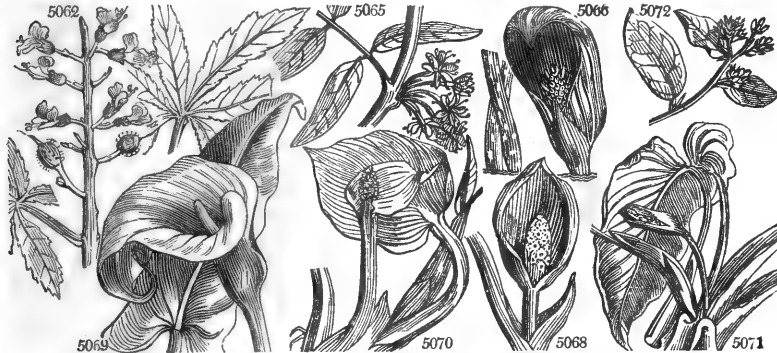
|                   |         |   |   |   |   |       |   |          |       |       |
|-------------------|---------|---|---|---|---|-------|---|----------|-------|-------|
| 871. LI'MEUM. W.  | LIMEUM. | ♀ | △ | w |   |       |   |          |       |       |
| 5074 africanum W. | African | ♀ | △ | w | 1 | jn.jl | W | C. G. H. | 1774. | R s.p |

TETRAGYNIA.

|                            |                |   |   |    |   |       |     |          |       |                      |     |
|----------------------------|----------------|---|---|----|---|-------|-----|----------|-------|----------------------|-----|
| 872. SAURU'RUS. W.         | LIZARD'S-TAIL. | ♀ | △ | cu | 2 | s     | Ap  | Virginia | 1759. | D s.p                |     |
| 5075 cérnuus W.            | drooping       | ♀ | △ | cu | 1 | s     | Ap  | N. Amer. | 1791. | D l Jaqc. ecl. t. 18 |     |
| 5076 lúcidus Jacq.         | shining        | ♀ | △ | cu | 1 | 1/2   | ... | Ap       | China | 1819.                | D l |
| 5077 chinénsis Hort.       | Chinese        | ♀ | △ | cu | 1 | 1/2   | ... | Ap       | China | 1819.                | D l |
| 873. ASTRAN'THUS. L.       | ASTRANTHUS.    | ♀ | □ | cu | 4 | jn.jl | W   |          |       |                      |     |
| 5078 cochinchinénsis Lour. | Cochinchinese  | ♀ | □ | cu | 4 | jn.jl | W   | China    | 1823. | C r.m Bot. mag. 894  |     |

HEPTAGYNIA.

|                       |                |   |   |    |   |       |     |          |       |                      |
|-----------------------|----------------|---|---|----|---|-------|-----|----------|-------|----------------------|
| 874. SEPTAS. W.       | SEPTAS.        | ♀ | △ | cu | 5 | aus.  | W   | C. G. H. | 1774. | R s.p Bot. rep. 90   |
| 5079 capénsis W.      | Cape           | ♀ | △ | cu | 5 | mr.ap | W   | C. G. H. | 1809. | R s.p Bot. mag. 1472 |
| 5080 globiflora E. M. | globe-flowered | ♀ | △ | cu | 5 | jl    | W.g | C. G. H. | 1800. | R s.p                |
| 5081 umbélla H. S.    | skreen         | ♀ | △ | cu | 5 | jl    | W.g | C. G. H. | 1800. | R s.p                |



History, Use, Propagation, Culture,

baum, Ger., and Marrone, Ital. *Æ. hippocastanum* (*ξσρος*, horse, horse-chesnut; because it was formerly a veterinary medicine) is a magnificent tree, at once grand from its magnitude and massy form, and beautiful when in blossom, from being covered with spikes of delicate white and pink flowers, protruding from among elegant digitate leaves. It is a rapid growing tree, and speedily produces a considerable bulk of timber, which, however, is of little value as such. The plant is best adapted for an ornamental tree in the outskirts of plantations, in avenues, or singly on lawns. It is much prized by the French as an ornamental avenue tree, and when the geometric style of gardening was in vogue in this country was a good deal planted, as at Bushy park, Canons, Castle Howard, &c. During the rage for the picturesque, it fell into disrepute from its "compact lumphish parabolic form;" but the public are now convinced that there are other beauties besides those peculiarly adapted for representation by painters, and the taste for trees beautiful or interesting from their flowers, foliage, or other details, is now reviving. The nuts or capsules are large and mahogany colored, and have often occasioned regret that they are not edible, like those of the Spanish chesnut. Deer eat them greedily, and may be seen watching about the trees for their fall during windy weather. In Turkey they are ground and mixed with horse provender. According to some, swine and sheep may be fattened on them, and poultry when they are boiled. They are of a saponaceous nature, and broken and steeped in hot water might save soap, where that article is excessively dear. This tree migrated from the northern parts of Asia into England by Constantinople, Vienna, Italy, and France. Parkinson in 1629 places it in his orchard as a fruit tree, and describes the nuts as superior to the ordinary sort.

E. Pavia was so named by Boerhaave, in honor of Peter Paw, a Dutchman, and professor of botany at Leyden, in 1691.

The other species have beautiful flowers, but are not free growing trees.

- 5062 Leaves 6-7-nate obov. acuminate 2-serrate, Petals 4 connivent with claws shorter than cal. Anth. smooth  
 5063 Leaves quinate, Petals spreading with claws shorter than calyx, Stam. twice as long as cor. Fruit spiny  
 5064 Leaves quinate, Petals 4, Stamens twice as long as corolla  
 5065 The only species

- 5066 Leaves supradecomposed, pedate, Segments pinnatifid, Scape much shorter than leaf-stalks  
 5067 Leaves sagittate, Peduncles and petioles prickly  
 5068 Stem climbing, Leaves cordate ovate bored through

- 5069 Leaves sagittate cordate, Spathe cucullate, Spadix male upwards  
 5070 Leaves cordate, Spathe flat, Spadix hermaphrodite all over  
 5071 Leaves cordate acuminate, Spathe boat-shaped hiding the spadix

- 5072 Leaves ovate-oblong green above white beneath  
 5073 Leaves long oblong-lanceolate very white all over

## DIGYNIA.

- 5074 Leaves oblong stalked

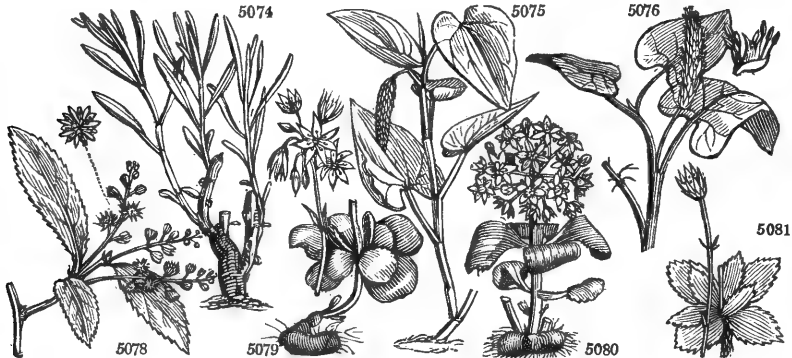
## TETRAGYNIA.

- 5075 Leaves cordate stalked  
 5076 Leaves deeply cordate ovate-lanceolate shining  
 5077 Leaves cordate ovate acuminate shining nerved

- 5078 Leaves ovate lanceolate serrated

## HEPTAGYNIA.

- 5079 Leaves connate crenate roundish, Stem nearly leafless  
 5080 Floral-leaves 4 spatulate doubly crenate, Umbel compound  
 5081 Stem-leaves about two hooded and connate into a skreen, Flowers many minute



## and Miscellaneous Particulars.

867. *Jonesia*. Named in honor of the famous Sir W. Jones, who to his other accomplishments added the knowledge of botany. The most fragrant tree of India. Large cuttings root well in sand under a hand-glass.

868. *Dracontium*. From *δρακων*, a dragon. The stems of some species are mottled like the skin of a snake.

869. *Calla*. A name of one of Pliny's plants, which probably was applied to something of the same natural order as that now called *Calla*.

870. *Parinarium*. The Guiana name of the genus is *Parinari*. Very fine trees with fine bunches of terminal flowers, which are succeeded by plum-like fruits, that in hot climates are esteemed and served up at table. It has been called *Petrocarya* by Schreber and other Linnæan botanists, who fancy science to depend upon names.

871. *Limcum*. An ancient name of a poisonous plant. It is derived from *λοιμος*, pest, poison. It was used, says Pliny, to poison arrows with. The plant to which modern botany has applied this name is a dangerous poison.

872. *Saururus*. From *σαυρος*, a lizard, and *ουρα*, a tail; on account of its long and pyramidal tail, which may be compared to the tail of a lizard. Aquatic plants with neat foliage, but with no beauty in their flowers.

873. *Astrantius*. From *αστρος*, a star, and *ανθεα*, a flower, on account of the star-like disposition of the segments of the flower. A small Chinese bush with serrated leaves, and spikes of pale whitish green flowers.

874. *Septas*. From *septem*, seven. All the parts of the flower are in seven. Very neat little Cape plants, with umbels of white flowers.



## CLASS VIII. — OCTANDRIA. 8 STAMENS.

This is a class, which, with reference to the plants which compose it, is of much consequence to the botanist and gardener. To the former it is recommended by the singular Melastomaceous plants which it contains, the curious *Michauxia*, and the *Jeffersonia*, remarkable for its capsule, which opens like a snuff-box. To the gardener it possesses irresistible attraction, not only in the delightful *Tetradhecas*, *Boronias*, and *Correas* of New Holland, in the *Dimocarpus* of China, celebrated for its truly excellent fruit, and in the *Fuchsias*, *Oenotheras*, *Combretums*, and *Vacciniums*, some of which form the pride of our hardy gardens; but also in the magnificent tribe of *Heaths*, which are certainly the most beautiful of plants, under cultivation. This is abundantly attested by the splendid collections of Lee of Hammersmith, Rollison of Tooting, and last, but not least, of *Lodiges* of Hackney, where the precision of science is combined with the allurements of form and coloring.

Order 1. MONOGYNIA.  8 Stamens. 1 Style.

## § 1. Ovary superior

875. *Tropæolum*. Cal. 1-leaved, 5-cleft, spurred. Petals 5, unequal. Nuts coriaceous, furrowed. Seed 1, roundish.
876. *Roxburghia*. Cal. 4-leaved. Petals 4. Nectary 4 lanceolate leaves inserted in the middle of the petals. Anthers 2, hanging down from the base of each nectarial leaf. Caps. 1-celled, 2-valved, many seeded. Seeds on a spongy placenta.
877. *Grislea*. Cal. 4-cleft. Pet. 4, from the recesses of the calyx. Filaments very long, ascending. Capsule globose, 1-celled, many-seeded.
878. *Boronia*. Cal. 4-cleft, persistent. Petals 4, ovate. Nect. coronate. Filam. ciliated, incurved. Stigma capitate. Caps. 4, 2-valved. Seeds solitary, with an arillus.
879. *Tetradheca*. Cal. 4-cleft. Petals 4. Anthers 4-celled. Caps. 2-celled, 5-valved: with valves bearing the septa in their middle. Seeds about 2.
880. *Correa*. Cal. campanulate. Petals 4. Caps. 4-celled, opening with 4 valves. Cells 1-2-seeded.
881. *Mimusops*. Cal. 4-leaved. Petals 4. Nectary 16-leaved. Drupe pointed.
882. *Oreithrope*. Cal. 4-parted. Petals 4, bearded in the middle. Ovary double. Berries 2, 1-seeded.
883. *Dimocarpus*. Sepals 5. Petals 5, reflexed, villous inside. Berries 2, one of which is often abortive, barked, tubercled, 1-celled, 1-seeded.
884. *Melicocca*. Cal. 3-parted. Petals 4, reflexed below the calyx. Stigma peltate. Drupe with a cork.
885. *Bighia*. Cal. 5-parted. Petals 5. Style very short. Stigmas 3. Seed solitary with a very large arillus.
886. *Metaiba*. Cal. 5-parted. Petals 5, with two scales at their base. Caps. oblong, 1-celled, 2-seeded.
887. *Kölreuteria*. Sepals 5. Petals 4, irregular. Nect. 4 bifid scales. Caps. inflated, 3-celled, with 2-seeded cells.
888. *Guarea*. Cal. 4-toothed. Petals 4. Nectary cylindrical, bearing the anthers on the orifice. Caps. 4-celled, 4-valved. Seeds solitary.
889. *Amyris*. Cal. 4-toothed. Petals 4, oblong, spreading. Stigma capitate. Berry drupaceous, by abortion 1-seeded.
890. *Ximena*. Cal. 4-cleft. Petals 4, hairy, revolute. Drupe 1-seeded.
891. *Becchia*. Cal. 5-cleft. Petals 5. Caps. 3-4-celled, many-seeded, covered with the calyx. Seeds few.
892. *Erica*. Sepals 4, persistent. Cor. 4-cleft, persistent. Filaments inserted in the receptacle. Anthers bifid. Caps. membranous, 4-8-celled.
893. *Menziesia*. Cal. 1-leaved. Cor. 1-petalous, ovate. Filam. inserted in the receptacle. Caps. 4-celled, with the septa from the inflexed edges of the valves. Seeds many, numerous.
894. *Chlora*. Sepals 8 or 10. Cor. 1-petalous, 8-cleft. Caps. 1-celled, 2-valved, many-seeded.
895. *Michauxia*. Cal. many-cleft. Cor. rotate, 8-10-parted, revolute. Nect. 8-valved, stamiferous. Caps. 8-10-celled, many-seeded.
896. *Jeffersonia*. Sepals 5, colored, deciduous. Petals 8, incurved spreading. Stamens surrounding the ovary. Caps. obovate, stipitate, 1-celled, opening below the end.
897. *Dodonæa*. Sepals 4. Cor. O. Filaments very short. Anth. oblong. Caps. 3-celled, 3-winged. Seeds 2.
898. *Lausonia*. Cal. 4-cleft. Petals 4. Stamens in 4 pairs. Caps. 4-celled, many-seeded. Seeds angular.

## § 2. Ovary inferior.

## A. Seeds many.

899. *Osbeckia*. Cal. 4-cleft: its lobes separated by a fringed scale. Cor. of 4 or 5-petals. Anthers rostrate. Caps. 4-5-celled, surrounded by the truncated tube of the calyx. Recept. compressed, half ovate.
900. *Rhæsia*. Cal. urceolate, 4-5-cleft. Petals 4, inserted in the calyx, oblique. Anthers declinate. Caps. setose, 4-celled, inside the calyx. Recept. lunate. Seeds numerous cochleate.
901. *Oenothera*. Cal. tubular, 4-cleft, with deciduous deflexed segments. Petals 4, inserted in the calyx. Stigma 4-cleft. Caps. 4-celled, 4-valved, inferior. Seeds naked, affixed to a 4-cornered central receptacle.
902. *Gaura*. Cal. 4-cleft, tubular. Petals 4, ascending towards the upper side. Nect. inferior, 1-seeded.
903. *Epilobium*. Cal. 4-cleft, tubular. Petals 4. Caps. oblong, inferior. Seeds comose.
904. *Fuchsia*. Cal. funnel-shaped, colored, deciduous. Petals 4, in the throat of calyx, alternate with its segments. Nectary an 8-furrowed gland. Stigma capitate. Berry oblong, obtuse, 4-cornered, 4-celled.
905. *Jambolifera*. Cal. 4-toothed. Petals 4, funnel-shaped. Filaments flattish. Stigma simple. Fruit a 4-celled drupa.
906. *Oxycoocus*. Cal. 4-cleft. Cor. 4-parted, with linear revolute segments. Filaments conniving. Anthers tubular, 2-parted. Berry many-seeded.
907. *Vaccinium*. Cor. urceolate or campanulate, 4-5-cleft, with reflexed segments. Filaments inserted on the ovary. Berry 4-5-celled, many-seeded.

## B. Seed one.

908. *Memecylon*. Cal. with a striated bottom, and an entire edge. Cor. 1-petalous. Anthers inserted on the side of the end of the filament. Berry crowned with the cylindrical calyx.
909. *Lagetta*. Cor. caducous, tubular, 4-toothed, with 4 petal-like glands. Drupe hairy, pisiform, 1-seeded.
910. *Daphne*. Cor. 4-cleft, like a corolla, withering, including the stamens. Drupe 1-seeded.
911. *Dirca*. Cor. tubular, with an obsolete limb. Stamens longer than tube. Berry 1-seeded.

912. *Gnidia*. Cor. funnel-shaped, 4-cleft; with 4-8-petaloid scales at the orifice. Nut somewhat drupaceous.  
 913. *Stellera*. Cor. 4-cleft, inflated in middle. Stam. inserted in throat, very short. Nut 1, beaked.  
 914. *Passerina*. Cor. 4-cleft, naked. Style filiform, lateral, long. Stamens inserted on the tube. Nut 1, coated.  
 915. *Lachnæa*. Flowers in heads. Cor. 4-cleft, with an unequal limb. Filaments long, with an unequal insertion. Nut somewhat drupaceous.  
 916. *Combretum*. Cal. 4-toothed, campanulate, superior. Petals 4, inserted in the calyx. Stamens very long. Caps. 4-angular, with membranous angles, 1-celled. Seed 1, oblong.

Order 2. DIGYNIA.  8 Stamens. 2 Styles.

917. *Galenia*. Cal. 4-cleft. Cor. O. Capsule roundish, 2-seeded.  
 918. *Aphananthe*. Sepals 5. Two stamens opposite 2 sepals, 6 opposite and alternate with three other sepals.  
 919. *Weinmannia*. Sepals 4. Petals 4. Caps. 2-celled, 2-beaked.  
 920. *Möhringia*. Sepals 4. Petals 4. Caps. 1-celled, 4-valved.

Order 3. TRIGYNIA.  8 Stamens. 3 Styles.

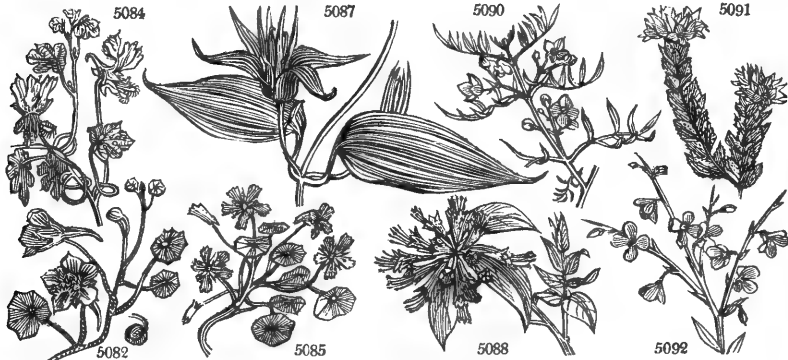
921. *Polygonum*. Cal. O. Cor. 5-parted, like a calyx. Seed 1, angular, covered. (Stamens and styles uncertain in number.)  
 922. *Coccoloba*. Cal. 5-parted, colored, finally becoming berried. Cor. O. Berry formed of the calyx, 1-seeded.  
 923. *Paullinia*. Sepals 5. Petals 4. Nect. 4-leaved, unequal. Caps. turbinate, 3-cornered, 3-celled, with 1-seeded cells. Seeds with an arillus.  
 924. *Seriana*. Sepals 5. Petals 4. Nect. 4-leaved. Samaræ 3, longitudinally united, globose, connected downwards in a membranous wing.  
 925. *Cardiospermum*. Sepals 4. Petals 4. Nect. 4-leaved, unequal. Caps. 3, connate, inflated.  
 926. *Sapindus*. Sepals 4. Petals 4. Caps. fleshy, connate, ventricose.

Order 4. TETRAGYNIA.  8 Stamens. 4 Styles.

927. *Verea*. Sepals 4. Cor. hypocrateriform, 4-cleft, with acute segments, and a ventricose tube. Scales 4, at the base of the ovaries, linear. Capsules 4, 1-celled, many-seeded.  
 928. *Bryophyllum*. Sepals 4. Petals 4, connate into a cylinder. Seeds many.  
 929. *Paris*. Sepals 4. Petals 4, narrower. Anth. attached to the middle of filament. Berry 4-celled.  
 930. *Adoza*. Cal. 2-3-cleft, inferior. Cor. 4-5-cleft, superior. Berry 1-celled, 4-5-seeded, united with the calyx.  
 931. *Elatine*. Sepals 4. Petals 4. Caps. 4-celled, 4-valved, depressed, many seeded; the dissepiments opposite the sutures.  
 932. *Haloragis*. Sepals 4, superior. Petals 4, caducous. Drupe dry. Nut 4-celled.  
 933. *Forsköhlea*. Cal. 4-leaved. Petals 8 spatulate. Seeds 4 enveloped in wool.

MONOGYNIA.

|                                   |                 |      |         |                    |           |       |        |                         |       |                      |
|-----------------------------------|-----------------|------|---------|--------------------|-----------|-------|--------|-------------------------|-------|----------------------|
| 1875. TROPÆOLUM. W. INDIAN CRESS. |                 |      |         | <i>Tropaeolæ.</i>  | Sp. 5—13. |       |        |                         |       |                      |
| 5082 minus <i>W.</i>              | small           | ♂ or | ↓ jn.o  | O.y                | Peru      | 1596. | S s.l  | Bot. mag. 98            |       |                      |
| ♂ <i>florè pleno</i>              | double-flowered | ♂ or | ↓ jn.o  | O.y                | Peru      | 1596. | C s.l  |                         |       |                      |
| 5083 majus <i>W.</i>              | great           | ♂ or | ↓ jn.o  | O.y                | Peru      | 1686. | S s.l  | Bot. mag. 23            |       |                      |
| ♂ <i>florè pleno</i>              | double-flowered | ♂ or | ↓ jn.o  | O                  | Peru      | 1686. | C r.m  |                         |       |                      |
| 5084 aduncum <i>Sm.</i>           | fringe-flowered | ♂ or | ↓ jn.o  | O                  | Peru      | 1775. | S r.m  | Bot. mag. 1351          |       |                      |
| <i>T. peregrinum</i> B.M.         |                 |      |         |                    |           |       |        |                         |       |                      |
| 5085 pinnatum <i>B. R.</i>        | pinnate-flower. | ♂ or | ↓ jn.o  | P                  | .....     | ...   | C r.m  | Bot. rep. 535           |       |                      |
| 5086 hybridum <i>W.</i>           | hybrid          | ♂ or | ↓ jn.au | O                  | .....     | ...   | C r.m  | Ber. ac. h. 32. t. 1    |       |                      |
| 876. ROXBURG'HIA. W. ROXBURGHIA.  |                 |      |         | <i>Aroideæ.</i>    | Sp. 1.    |       |        |                         |       |                      |
| 5087 gloriósoides <i>Rozb.</i>    | Gloriosa-leaved | ♂ or | ↓ ap    | P.k.g              | E. Indies | 1803. | Sk p.l | Bot. mag. 1500          |       |                      |
| 877. GRISLEA. W.                  |                 |      |         | <i>Salicariæ.</i>  | Sp. 1—3.  |       |        |                         |       |                      |
| 5088 tomentósa <i>W.</i>          | downy           | ♂ or | ↓ my.jn | R                  | E. Indies | 1804. | C s.p  | Bot. reg. 30            |       |                      |
| 878. BORO'NIA. Sm.                |                 |      |         | <i>Rutacææ.</i>    | Sp. 3—13. |       |        |                         |       |                      |
| 5089 ledifólia <i>Gay.</i>        | Ledum-leaved    | ♂ or | ↓ mr.ap | W                  | N. S. W.  | 1814. | L s.p  | Vent. malm. 59          |       |                      |
| 5090 pinnáta <i>Sm.</i>           | Hawth.-scent.   | ♂ or | ↓ f.my  | Pu                 | N. S. W.  | 1794. | L s.p  | Bot. rep. 58            |       |                      |
| 5091 serruláta <i>Sm.</i>         | Rose-scented    | ♂ or | ↓ jn.jl | R                  | N. S. W.  | 1816. | L s.p  | Bot. reg. 842           |       |                      |
| 879. TETRATHE'CA. W. TETRATHECA.  |                 |      |         | <i>Tremandrea.</i> | Sp. 1—5.  |       |        |                         |       |                      |
| 5092 júncea <i>W.</i>             | rushy           | ♂ or | ↓ jl.au | Pu                 | N. S. W.  | 1803. | C s.p  | Sm. nov. h. 1. t. 2     |       |                      |
| 880. CORRE'A. W.                  |                 |      |         | <i>Rutacææ.</i>    | Sp. 3—4.  |       |        |                         |       |                      |
| 5093 síba <i>B. Rep.</i>          | white-flowered  | ♂ or | ↓ ap.jl | W                  | N. S. W.  | 1793. | C s.p  | Bot. rep. 18            |       |                      |
| 5094 speciósa <i>B. Rep.</i>      | red-flowered    | ♂ or | ↓ ap.jl | R                  | N. S. W.  | 1806. | L s.p  | Bot. reg. 26            |       |                      |
| 5095 vírens <i>H. K.</i>          | green-flowered  | ♂ or | ↓ my.n  | G                  | N. S. W.  | 1800. | C s.p  | Bot. reg. 3             |       |                      |
| 881. MÍMUSOP'S. W.                |                 |      |         | <i>Sapotææ.</i>    | Sp. 3—6.  |       |        |                         |       |                      |
| 5096 Eléngi <i>W.</i>             | pointed-leaved  | ♂ or | ↓ ...   | W                  | E. Indies | 1796. | C p.l  | Rox. cor. 1. t. 14      |       |                      |
| 5097 Kaúki <i>W.</i>              | obtusè-leaved   | ♂ or | ↓ ...   | W                  | E. Indies | 1796. | C p.l  | Rum. am. 3. t. 8        |       |                      |
| 5098 hexan'dra <i>Rozb.</i>       | hexandrous      | ♂ or | ↓ ...   | W                  | India     | 1804. | C p.l  | Rox. cor. 1. t. 15      |       |                      |
| *882. ORNITROPHE. W. ORNITROPHE.  |                 |      |         | <i>Sapindacææ.</i> | Sp. 2—9.  |       |        |                         |       |                      |
| 5099 serráta <i>W.</i>            | saw-leaved      | ♂ or | ↓ ...   | W                  | E. Indies | 1804. | C p.l  | Rox. cor. 1. t. 61      |       |                      |
| 5100 comínia <i>W.</i>            | yellow-berried  | ♂ or | ↓ ...   | W                  | Jamaica   | 1759. | C p.l  | Sl. ja. 2. t. 208. f. 1 |       |                      |
| *883. DIMOCAR'PUS. W. DIMOCARPUS. |                 |      |         | <i>Sapindacææ.</i> | Sp. 2—4.  |       |        |                         |       |                      |
| 5101 Litchi <i>W.</i>             | Lee-Chee        | ♂ or | ↓ fr    | 15                 | my.jn     | W     | China  | 1786.                   | L r.m | Lam. ill. t. 306     |
| 5102 Longán <i>H. K.</i>          | Long            | ♂ or | ↓ fr    | 15                 | my.jn     | W     | China  | 1786.                   | L r.m | Buch. ic. t. 99      |
| 884. MELICOC'CA. W. HONEY-BERRY.  |                 |      |         | <i>Sapindacææ.</i> | Sp. 1.    |       |        |                         |       |                      |
| 5103 bújua <i>W.</i>              | winged-leaved   | ♂ or | ↓ ...   | Y                  | Jamaica   | 1778. | C lt.l | Ja. am. 106. t. 72      |       |                      |
| 885. BLIG'HIA. H. K. AKEE-TREE.   |                 |      |         | <i>Sapindacææ.</i> | Sp. 1.    |       |        |                         |       |                      |
| 5104 sápidá <i>H. K.</i>          | Ash-leaved      | ♂ or | ↓ fr    | 20                 | ...       | W     | África | 1793.                   | S r.m | An. bo. 2. t. 16, 17 |



History, Use, Propagation, Culture,

875. *Tropæolum*. From *tropæum*, a trophy. The leaf resembles a buckler, and the flower an empty helmet, of which trophies were formed. *T. majus* is an ornamental annual, and also a culinary plant. The flowers are eaten in salads, and are very grateful: they are also used as a garnish. The seeds, which consist of three conjoined berries or nuts, with grooved wrinkled gibbous husks that become fungous when dry, are pickled in salt and vinegar, and used as a substitute for capers, to which some prefer them. In the evening the flowers emit spontaneously at certain intervals visible sparks like those of an electric machine. This was first observed by the daughter of Linnæus.

876. *Roxburghia*. In honor of William Roxburgh, M. D. born in Scotland, and settled in the East Indies; author of a splendid work on the plants of the coast of Coromandel. A singular plant, the natural affinities of which are yet obscure; it grows in loam and peat, and may be increased, though but slowly, by dividing at the root.

877. *Grislea*. So named after G. Grisley, a Portuguese surgeon, author of *Viridarium Lusitanicum*, 1661. A free flowering shrub of considerable beauty; it grows in loam and peat, and cuttings root in sand under a hand-glass in heat.

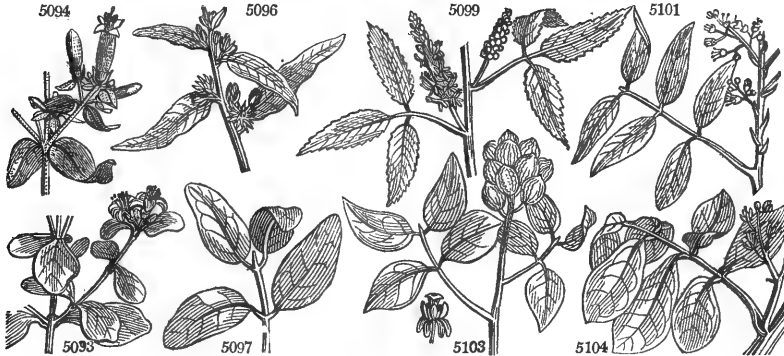
878. *Boronia*. So named after Francis Borone, an Italian servant of Dr. Sibthorp, who perished from an accident at Athens. Pretty little New Holland plants, generally with red flowers. These are valuable plants, as flowering nearly all the year. They thrive best in sandy peat, with the pots well drained with broken potsherds. They may be propagated by layers or ripened cuttings, taken off at a joint and planted in sandy peat, and placed under a bell-glass, will strike root, if properly managed: the glass must be taken off occasionally to dry them, as they are very liable to damp off.

879. *Tetratheca*. From *τετρα*, four, and *θηκη*, a cell, in allusion to the four cells of the anthers, for which the plants are remarkable. Cuttings root in sand under a bell-glass.

880. *Correa*. So named after Joseph Correa de Serra, a learned Portuguese, who, without publishing much, was one of the most profound theoretical botanists of this age. He died at Lisbon in 1823. "Ripened cuttings

## MONOGYNIA.

- 5082 Leaves peltate repand mucronate, Petals acute  
 5083 Leaves peltate repand, Petals obtuse  
 5084 Leaves peltate 5-lobed palmate toothed, Petals jagged  
 5085 Leaves peltate, Lobes obtuse unequal, Flowers pinnate  
 5086 Leaves peltate 5-lobed, Lobes obtuse repand, Petals cuneate toothed at end  
 5087 Leaves cordate many-nerved  
 5088 Leaves minute tomentose beneath, Corymbs axillary spreading  
 5089 Leaves linear lanceolate entire tomentose beneath  
 5090 Leaves pinnated with an odd one in 2-4-pairs very smooth, Leaflets linear acute, Pedunc. dichotomous  
 5091 Leaves simple trapeziform acute serrulate at end smooth  
 5092 Leaves alternate few lanceolate and branches smooth  
 5093 Leaves ovate downy beneath, Teeth of calyx small acute distant  
 5094 Leaves ovate obtuse beneath rusty with down, Flowers erect, Calyx truncate  
 5095 Leaves ovate-oblong cordate, Flowers pendulous, Calyx with 4 acute teeth  
 5096 Leaves alternate ovate acuminate  
 5097 Leaves alternate clustered at the ends of the branches oblong very obtuse  
 5098 Leaves alternate obovate emarginate, Flowers hexandrous  
 5099 Leaves ternate rough, Leaflets stalked ovate acuminate serrate, Racemes simple  
 5100 Leaves ternate, Leaflets stalked oblong narrowed at each end pubescent beneath, Racemes compound  
 5101 Leaves pinnated, Leaflets flat acute, Fruit scaly, Flowers apetalous  
 5102 Leaves pinnated, Leaflets rugose blunt, Fruit hispid, Flowers pentapetalous  
 5103 The only species  
 5104 The only species



and Miscellaneous Particulars.

will root freely in sand under a bell or hand-glass. The cuttings must not be planted too thick, or they will be liable to damp. *C. speciosa* has generally been reckoned difficult to strike from cuttings, but it roots as freely as the others if properly managed, and requires the same treatment."

881. *Mimusops*. From *μῦμος*, an ape, and *οψίς*, figure. The flowers are thought to resemble the countenance of a monkey. Ripened cuttings root readily in sand under a hand-glass.

882. *Ornitrophe*. From *ορνίς*, a bird, and *τροφή*, nourishment. Its fruit is much eaten by small birds. In the Isle de France it is called *bois de merle*, or *thrush-wood*. Cuttings root in sand under a hand-glass.

883. *Dimocarpus*. From *δίδυμος*, double, and *καρπός*, fruit; its fruit grows in pairs. These are fruit-bearing trees, cultivated in China. The fruit is a berry in bunches of a red color, and rather larger than the grape. The bunches are small; the skin of the berry is tough and leathery; the pulp is colorless, semitransparent, and of a slightly sweet subacid taste. The fruit of *D. Litchi* is frequently brought to England dried like raisins; that of *D. Longan* has been ripened by John Knight, Esq. of Lee Castle, in a lofty stove, erected for the purpose of growing tropical fruits. A bunch was presented to the Horticultural Society, in September 1816, "supposed to be the only one ever produced in Europe, and which persons well acquainted with the long-yen in its native places of growth, pronounced to be quite as good as those grown within or near the tropics." (*Hort. Trans.* ii. 408.)

884. *Melicocca*. From *μέλι*, honey, and *κακός*, fruit; its fruit, which resembles the yolk of an egg, has a very sweet flavour mixed with a little acid. This tree is cultivated in some parts of South America and in Jamaica for its fruit, which grows to the size of a large plum, and is very mellow. The natives suck it for the sake of the salivation which it produces. In our stoves it thrives well in light loamy soil, and cuttings root in sand under a hand-glass in heat.

885. *Blighia*. Named in honor of the famous Captain Bligh, who first carried the bread-fruit to the West Indies. This is an esteemed African fruit tree with a reddish or yellow pome, about the size of a goose's egg,



|                                   |                                   |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
|-----------------------------------|-----------------------------------|---|---|-----|----|-------|------|-------------------------|---------------------|-----------|-------|------------------------|-------|----------------------|
| 886. <i>METAIBA</i> . <i>Aub.</i> | <i>METAIBA</i> .                  | ♂ | □ | tm  | 60 | ...   | W    | <i>Sapindaceae</i> .    | <i>Sp.</i> 1.       | Guiana    | 1803. | C                      | p.l   | Au. gui. 1. t. 128   |
| 5105 guianensis <i>Aub.</i>       | Ash-leaved                        |   |   |     |    |       |      | ...                     | W                   |           |       |                        |       |                      |
|                                   | <i>Ephelis frazinea</i> <i>W.</i> |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
| 887. <i>KÖLREUTERIA</i> .         | <i>W. KÖLREUTERIA</i> .           | ♂ | □ | or  | 10 | jl.au | W    | <i>Sapindaceae</i> .    | <i>Sp.</i> 1.       | China     | 1763. | R                      | co    | Bot. reg. 320        |
| 5106 paniculata <i>W.</i>         | panicled                          |   |   |     |    |       |      |                         | W                   |           |       |                        |       |                      |
| 888. <i>GUAREA</i> .              | <i>GUAREA</i> .                   | ♂ | □ | tm  | 15 | my.jn | W    | <i>Meliaceae</i> .      | <i>Sp.</i> 1-5.     | S. Amer.  | 1752. | L                      | r.m   | Cav. di. 7. t. 210   |
| 5107 trichilioides <i>W.</i>      | Ash-leaved                        |   |   |     |    |       |      |                         | W                   |           |       |                        |       |                      |
| 889. <i>AMYRIS</i> .              | <i>AMYRIS</i> .                   | ♂ | □ | or  | 12 | jn.jl | W    | <i>Terebinthaceae</i> . | <i>Sp.</i> 2-28.    | Chili     | 1790. | C                      | p.l   | Var. ic. 3. t. 239   |
| 5108 polygama <i>W.</i>           | simple-leaved                     |   |   |     |    |       |      |                         | W                   | Carthag.  | 1793. | C                      | l.p   | J. a. ed. pi. t. 188 |
| 5109 sylvatica <i>W.</i>          | wood                              |   |   |     | 16 | jn.jl | W    |                         | W                   |           |       |                        |       |                      |
| 890. <i>XIMEÑIA</i> . <i>W.</i>   | <i>XIMENIA</i> .                  | ♂ | □ | or  | 15 | ...   | W    | <i>Oleaceae</i> .       | <i>Sp.</i> 1-3.     | W. Indies | 1759. | C                      | s.p   | J. am. pic. t. 107   |
| 5110 americana <i>W.</i>          | American                          |   |   |     |    |       |      |                         | W                   |           |       |                        |       |                      |
| 891. <i>BEOCKIA</i> . <i>Sm.</i>  | <i>BECKIA</i> .                   | ♂ | □ | pr  | 3  | s.d   | W    | <i>Myrtaceae</i> .      | <i>Sp.</i> 3-7.     | China     | 1806. | L                      | s.l   | Osh. iter. t. 1      |
| 5111 frutescens <i>Sm.</i>        | Chinese                           |   |   |     | 3  | au.o  | W    |                         | W                   | N. Caled. | 1806. | C                      | s.p   | Bot. rep. 593        |
| 5112 virgata <i>Sm.</i>           | twiggy                            |   |   |     | 3  | au.o  | W    |                         | W                   | N. S. W.  | ...   | C                      | s.l.p |                      |
| 5113 densifolia <i>Sm.</i>        | close-leaved                      |   |   |     | 3  | au.o  | W    |                         | W                   |           |       |                        |       |                      |
| †*892. <i>ERIÇA</i> . <i>W.</i>   | <i>HEATH</i> .                    | ♂ | □ | spl | 2  | ap.jl | R    | <i>Ericaceae</i> .      | <i>Sp.</i> 294-300. | C. G. H.  | 1774. | C                      | s.p   | And. hea. vol. 1     |
| 5114 Plukenetii <i>L.</i>         | Plukenet's                        |   |   |     | 2  | mr.jl | Y    |                         | Y                   | C. G. H.  | 1774. | C                      | s.p   | L. ill. t. 288. f. 3 |
| 5115 Petiverii <i>W.</i>          | Petiver's                         |   |   |     | 2  | f.jl  | W.pu | C. G. H.                | 1787.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5116 Banksia <i>W.</i>            | Banks's                           |   |   |     | 2  | ap.jl | W    | C. G. H.                | 1774.               | C         | s.p   | And. hea. vol. 2       |       |                      |
| 5117 penicilliflora <i>Sat.</i>   | white-pencilled                   |   |   |     | 2  | f.jl  | Y    | C. G. H.                | 1794.               | C         | s.p   | And. hea. vol. 1       |       |                      |
|                                   | <i>calyculata</i> <i>Wendl.</i>   |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
| 5118 follicularis <i>Saisb.</i>   | yellow-pencill.                   |   |   |     | 2  | f.jl  | Y    | C. G. H.                | 1794.               | C         | s.p   | And. hea. vol. 1       |       |                      |
|                                   | <i>melastoma</i> <i>Andr.</i>     |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
| 5119 verticillata <i>Andr.</i>    | verticillate                      |   |   |     | 1  | fl.o  | Sc   | C. G. H.                | 1774.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5120 Sebana <i>Donn.</i>          | Seba's                            |   |   |     | 2  | mr.jn | O    | C. G. H.                | 1774.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5121 Ewerana <i>H. K.</i>         | Ewer's                            |   |   |     | 2  | jl.n  | Pk.g | C. G. H.                | 1793.               | C         | s.p   | And. hea. vol. 2       |       |                      |
| 5122 sicciflora <i>Saisb.</i>     | green-pencilled                   |   |   |     | 2  | ap.my | G    | C. G. H.                | 1799.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5123 densifolia <i>W.</i>         | dense-leaved                      |   |   |     | 2  | mr.au |      | C. G. H.                | 1811.               | C         | s.p   |                        |       |                      |
| 5124 grandiflora <i>L.</i>        | great-flowered                    |   |   |     | 3  | my.s  | Y    | C. G. H.                | 1775.               | C         | s.p   | Bot. mag. 189          |       |                      |
| 5125 cephalotes <i>Thunb.</i>     | purple-headed                     |   |   |     | 1  | mr.jl | Pu   | C. G. H.                | 1812.               | C         | s.p   |                        |       |                      |
| 5126 cruenta <i>H. K.</i>         | bloody-flowered                   |   |   |     | 2  | my.s  | D.R  | C. G. H.                | 1774.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5127 perspicua <i>W.</i>          | clear-flowered                    |   |   |     | 1  | mr.jn | W.pu | C. G. H.                | 1790.               | C         | s.p   | W. er. 1. p. 7. c. ic. |       |                      |
| 5128 speciosa <i>Andr.</i>        | specious                          |   |   |     | 2  | jn.s  | R.g  | C. G. H.                | 1800.               | C         | s.p   | Bot. cab. 575          |       |                      |
| 5129 ignescens <i>Andr.</i>       | fiery                             |   |   |     | 1  | mr.jn | R    | C. G. H.                | 1792.               | C         | s.p   | And. hea. vol. 2       |       |                      |
| 5130 discolor <i>Andr.</i>        | different-color.                  |   |   |     | 2  | mr.n  | R.g  | C. G. H.                | 1788.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5131 versicolor <i>W.</i>         | various-colored                   |   |   |     | 2  | my.n  | O.u  | C. G. H.                | 1790.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5132 fascicularis <i>H. K.</i>    | cluster-flower.                   |   |   |     | 1  | f.jn  | Pu   | C. G. H.                | 1787.               | C         | s.p   | And. hea. vol. 1       |       |                      |
|                                   | <i>octophylla</i> <i>L.</i>       |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
|                                   | <i>coronata</i> <i>Andr.</i>      |   |   |     |    |       |      |                         |                     |           |       |                        |       |                      |
| 5133 spléndens <i>P. S.</i>       | splendid                          |   |   |     | 2  | ap.s  | S    | C. G. H.                | 1792.               | C         | s.p   | W. er. 8. p. 5. c. ic  |       |                      |
| 5134 mammosa <i>L.</i>            | nipple                            |   |   |     | 2  | fl.o  | Pu   | C. G. H.                | 1762.               | C         | s.p   | And. hea. vol. 1       |       |                      |
| 5135 procera <i>W.</i>            | lofty                             |   |   |     | 6  | ap.jn | W    | C. G. H.                | 1791.               | C         | s.p   |                        |       |                      |
| 5136 gelida <i>Andr.</i>          | green verticill.                  |   |   |     | 3  | ap.jl | G.w  | C. G. H.                | 1790.               | C         | s.p   | Bot. cab. 699          |       |                      |
| 5137 serratifolia <i>Andr.</i>    | saw-leaved                        |   |   |     | 1  | aud.  | O    | C. G. H.                | 1790.               | C         | s.p   | And. hea. vol. 1       |       |                      |



History, Use, Propagation, Culture.

with the arillus of the seed of a grateful subacid flavor. In the West Indies it is esteemed very wholesome and nourishing. Here it grows well in loam and peat, and ripened cuttings with all their leaves on root best in sand under a hand-glass.

886. *Metaiba*. The vernacular name of the plant in French Guiana. Large cuttings root best under a hand-glass in sand.

887. *Kölreuteria*. So named by Laxmann, in honor of Joseph Gottlieb Kölreuter, who published *De plantis quibusdam Rarioribus, Tubingæ, 1755*, with a dissertation *De Insectis Coleopteris*. He also made many experiments on the pollen of flowers, hybrid plants, &c. published in the Petersburg Transactions.

This shrub should be planted in as sheltered a situation as possible, as it will not flower if too much exposed; and if the wood is not well ripened, the tops of the shoots will be injured by the frost.

888. *Guarea*. The natives of Cuba call the plant *Guara*. This tree, though it has an inconspicuous flower, yet has fine large leaves. All parts of the plant, especially the bark, smell strong of musk, and may be used instead of that perfume for many purposes. The wood is full of a bitter resinous substance, which renders it unfit for rum-hogheads, being observed to communicate both its smell and taste to all spirituous liquors: but it is often cut for staves and heading, when there is a scarcity of other timber. The powder of the bark is said to be a good emetic; and is sometimes used among the negroes for that purpose. Ripened cuttings root in sand under a hand-glass.

889. *Amyris*. Derived from *μύρρα*, myrrh. Its resinous gum has an excellent perfume. Almost every species of this genus produces some valuable gum or resin. *A. gileadensis* produces the celebrated balm of Gilead. It is a shrub with purplish branches, striated a little, with crowded ternate leaves, and protuberant buds loaded with balsamic resin.

5105 Leaves alternate abruptly pinnated in 2-3 or 4 pairs

5106 The only species. Leaves pinnated toothed torn

5107 Stalks of the leaves short tumid inflated

5108 Leaves simple lanceolate entire, Racemes simple axillary numerous

5109 Leaves ternate crenate acute

5110 Peduncles many-flowered, The lower usually changed into spines

5111 Leaves opposite beardless, Teeth of calyx membranous colored

5112 Leaves linear lanceolate, Peduncles axillary umbelled

5113 Leaves imbricated four ways obtuse with a little reflexed point, Teeth of calyx leafy

A. TUBIFLORE. *Corollas long and cylindrical.*

5114 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Bractes distant from calyx

5115 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. cylindrical

5116 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Segments of cor. reflexed

5117 Stamens long connivent colored, Lvs. in 3s, Cal. imbricated, Fl. 3, Cor. globose scarcely longer than cal.

5118 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. conical

5119 Anth. bearded, Style incl. Cor. cylind. contracted above the base, Fl. pend. Leaves 4 whorled

5120 Stamens long connivent colored, Leaves in threes, Cal. imbricated, Flowers 3, Cor. cylindrical incurved

5121 Anthers bearded, Leaves in threes, Flowers terminal solitary

5122 Stamens exserted colored, Leaves in 3s, Cal. imbricated, Flowers 3, Cor. conical, Leaves recurved

5123 Anth. bearded incl. Style exsert. Cor. tubular clavate pubes. Fl. axill. Leaves 3 imbricated

5124 Stamens beardless exserted, Cor. incurved smooth, Style long, Flowers axillary stalked, Lvs. 6 smooth

5125 Anth. beardless included, Style exserted, Cor. tubular clavate, Cal. pubescent, Fl. capitate, Leaves 6

5126 Ant. beard. incl. Style exsert. Cor. tub. incurv. Cal. simple gland. tooth. Fl. axill. whorl. Lvs. 3 rough

5127 Anthers beardless, Lvs. 3, Flowers solitary or 3 term. Cal. imbric. Cor. villous [at edge

5128 Cor. cylind. Anthers bearded, Lvs. 3, Fl. term. 3, Cal. imbric. Style exserted rounded at end

5129 Anthers beardless, Lvs. 4, Fl. term. Bractes ovate distant from cal. Sepals ovate acumin.

5130 Anthers bearded included, Style exserted, Cor. tubul. clav. Cal. double, Fl. term. 3, Lvs. 3 smooth

5131 Anthers beardless, Leaves 3 smooth, Fl. 3 term. Cal. imbric. Corolla smooth

5132 Anth. bearded, Style incl. Cor. cylind. ventric. Flowers umbelled capitate, Lvs. 8 linear truncate

5133 Anth. beardless exserted, Cor. tub. clavate pubescent, Fl. term. racemose, Leaves 5 or more smooth

5134 Anth. bearded, Style incl. Cor. clav. cylind. Flow. umbell. Lvs. 6 linear reflexed

5135 Anth. beardless included, Style exserted, Cor. ventricose at base, Fl. term. Lvs. 4 pubescent erect

5136 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Bract. lanc. Sepals broad lanceol.

5137 Anth. beardless, Lvs. 4 ciliated, Fl. term. Two bractes next cal. one distant, Cor. smooth



and Miscellaneous Particulars.

A. Opobalsamum produces the balsam of Mecca. It has pinnate leaves, with sessile leaflets. It grows near Bederhumin, a village between Mecca and Medina, in a sandy rocky soil, confined to a small tract about a mile in length, and attains the height of fifteen feet. The balsam is obtained by incision. Neither of these species are yet introduced to Britain: those we possess grow in loam and peat, and cuttings root freely in a pot of sand under a hand-glass.

890. *Ximenia*. Francis Ximenes was a Spanish naturalist from whom we have, published in 1615, four works upon the plants and animals useful in medicine in New Spain. The flowers of this tree have an odor like frankincense: the fruit is yellow, shiny, the size of a pigeon's egg, with a thin rind and sweet subacid pulp: it is eaten by negroes and children in the West Indies. Cuttings root in sand under a hand-glass.

891. *Bacchia*. From Abraham Beck, who was physician in ordinary to the king of Sweden, and who communicated plants to Linnaeus, by whom the genus was dedicated. These plants are of free growth in sandy loam and peat, and so hardy as to require little more than protection from frost during winter. Young cuttings root in sand under a bell-glass.

892. *Erica*. From *εἰκω*, to break, in allusion to the brittle branches of the plant. It was also reputed a specific for breaking the stone in the bladder. *La brugère*, Fr., *Heide*, Ger., *Erica*, Ital., and *Brezio*, Span. Ling or common heath abounds in barren wastes in every part of Europe, and especially in the northern countries. Though little regarded in warm climates, the different species of native Erica are made subservient to a great variety of purposes in the bleak and barren highlands of Scotland, and other northern countries. The poorer inhabitants cover their cabins with them instead of thatch, or else twist them into ropes, and bind down the thatch with them in a kind of lattice work. They also make the walls with alternate layers of heath, and a sort of cement made of black earth and straw. The hardy Highlanders frequently

|   |                  |   |     |    |       |      |          |       |       |                       |
|---|------------------|---|-----|----|-------|------|----------|-------|-------|-----------------------|
| 5138 <i>claviflora Salisb.</i><br><i>sessiliflora Andr.</i> | club-flowered    | ■ | el  | 3  | au.o  | G    | C. G. H. | 1799. | C s.p | And. hea. vol. 2      |
| 5139 <i>spicata Thunb.</i>                                  | spiked           | ■ | pr  | 2½ | ja.d  | L.Y  | C. G. H. | 1789. | C s.p | And. hea. vol. 1      |
| 5140 <i>transparens W.</i>                                  | transparent      | ■ | de  | 1½ | my    | W    | C. G. H. | 1800. | C s.p | Bot. cab. 177         |
| 5141 <i>virescens Lodd.</i>                                 | greenish         | ■ | or  | 1  | my    | Y.g  | C. G. H. | 1820. | C s.p | Bot. cab. 233         |
| 5142 <i>flam'mea Andr.</i>                                  | flame-flowered   | ■ | or  | 1½ | my.o  | L.Y  | C. G. H. | 1798. | C s.p | And. hea. vol. 2      |
| 5143 <i>Patersonia Andr.</i>                                | Pateron's        | ■ | or  | 2½ | mr.au | Y    | C. G. H. | 1791. | C s.p | And. hea. vol. 1      |
| 5144 <i>glandulosa W.</i>                                   | glandul.-haired  | ■ | or  | 1  | my.jn | R.o  | C. G. H. | 1801. | C s.p |                       |
| 5145 <i>gilva Wendl.</i>                                    | dull-yellow      | ■ | or  | 1  | my.jn | Y    | C. G. H. | 1820. | C s.p |                       |
| §5146 <i>Sparman'ni W.</i>                                  | Sparmann's       | ■ | spl | 1  | mr.s  | D.O  | C. G. H. | 1794. | C s.p | And. hea. vol. 3      |
| 5147 <i>perspicua Wendl.</i>                                | glassy           | ■ | or  | 1½ | my.jn | Pk   | C. G. H. | 1819. | C s.p |                       |
| 5148 <i>costata Andr.</i>                                   | ribbed-flowered  | ■ | or  | 2  | f.jn  | Pk   | C. G. H. | 1795. | C s.p | And. hea. vol. 1      |
| 5149 <i>purpurea W.</i>                                     | purple-flower.   | ■ | el  | 2  | ja.d  | L.Pu | C. G. H. | 1789. | C s.p | Bot. cab. 703         |
| 5150 <i>elata Andr.</i>                                     | tall             | ■ | or  | 3  | ils   | O    | C. G. H. | 1790. | C s.p | And. hea. vol. 2      |
| 5151 <i>sulphurea Lodd.</i>                                 | sulphur          | ■ | el  | 2  | jn.jl | Y    | C. G. H. | 1805. | C s.p | Bot. mag. 1984        |
| 5152 <i>laniflora Wendl.</i><br><i>sordida Andr.</i>        | sordid           | ■ | or  | 1  | mr.au | LS   | C. G. H. | 1790. | C s.p | And. hea. vol. 1      |
| 5153 <i>tubiflora L.</i>                                    | tube-flowered    | ■ | de  | 2  | ap.jl | Pk   | C. G. H. | 1775. | C s.p | And. hea. vol. 1      |
| 5154 <i>simpliciflora Donn.</i>                             | single-flowered  | ■ | or  | 2  | mr.jl | O    | C. G. H. | 1774. | C s.p | W. er. 17. p. 69      |
| 5155 <i>Archæia Andr.</i>                                   | Lady Archer's    | ■ | or  | 1½ | au.n  | DS   | C. G. H. | 1796. | C s.p | And. hea. vol. 2      |
| 5156 <i>spuria Andr.</i>                                    | spurious         | ■ | or  | 2  | ap.au | Pu   | C. G. H. | 1796. | C s.p | And. hea. vol. 1      |
| 5157 <i>Hibbert'ia Andr.</i>                                | Hibbert's        | ■ | spl | 2  | jn.s  | O.Y  | C. G. H. | 1800. | L s.p | And. hea. vol. 3      |
| 5158 <i>conspicua H. K.</i>                                 | conspicuous      | ■ | or  | 2  | my.au | D.Y  | C. G. H. | 1774. | C s.p | And. hea. vol. 2      |
| 5159 <i>curviflora L.</i>                                   | curve-flowered   | ■ | or  | 2  | jl.o  | Y    | C. G. H. | 1774. | C s.p | And. hea. vol. 1      |
| 5160 <i>triphylla Lk.</i>                                   | three-leaved     | ■ | spl | 2  | jn.n  | R.y  | C. G. H. | 1822. | C s.p |                       |
| 5161 <i>monadelphous B. M.</i>                              | monadelphous     | ■ | or  | 1½ | my.jn | Pk   | C. G. H. | 1789. | C s.p | Bot. mag. 1370        |
| 5162 <i>concinna H. K.</i>                                  | blush            | ■ | de  | 2½ | s.o   | F    | C. G. H. | 1773. | C s.p | And. hea. vol. 2      |
| 5163 <i>pellucida Andr.</i>                                 | pellucid         | ■ | or  | 2  | jn.n  | W    | C. G. H. | 1800. | C s.p | And. hea. vol. 3      |
| 5164 <i>Linneæna H. K.</i>                                  | Linneæus's       | ■ | de  | 1½ | ja.my | W    | C. G. H. | 1790. | C s.p | And. hea. vol. 2      |
| 5165 <i>hirsuta Lodd.</i>                                   | hairy            | ■ | el  | 1  | mr.ap | W.pu | C. G. H. | 1800. | C s.p | Bot. cab. 754         |
| 5166 <i>erubescens Andr.</i>                                | reddish          | ■ | or  | 1½ | mr.jl | F    | C. G. H. | 1800. | C s.p | And. hea. vol. 3      |
| 5167 <i>Lecæna H. K.</i>                                    | Lee's            | ■ | or  | 2½ | ja.au | O.y  | C. G. H. | 1788. | C s.p | And. hea. vol. 1      |
| 5168 <i>colorans Lodd.</i>                                  | coloring         | ■ | or  | 2  | ap.jn | W.r  | C. G. H. | 1817. | C s.p | Bot. cab. 224         |
| 5169 <i>onomastiflora Sal.</i>                              | onoma-flower.    | ■ | el  | 1½ | mr.s  | Y    | C. G. H. | 1789. | C s.p | And. hea. vol. 1      |
| 5170 <i>viridis Andr.</i>                                   | green-flowered   | ■ | cu  | 2½ | my.s  | D.G  | C. G. H. | 1800. | C s.p | And. hea. vol. 2      |
| §5171 <i>sanguinea Lodd.</i>                                | bloody           | ■ | el  | 1  | ja.d  | Cr   | C. G. H. | 1815. | C s.p | Bot. cab. 86          |
| 5172 <i>longifolia Donn.</i>                                | long-leaved      | ■ | or  | 2  | f.jl  | R    | C. G. H. | 1787. | C s.p | lc. hor. kew. 4       |
| 5173 <i>pinæa W.</i>  | Pine-tree-leav.  | ■ | or  | 2  | au.d  | R    | C. G. H. | 1790. | C s.p | Bot. cab. 1259        |
| 5174 <i>aurea Andr.</i>                                     | gold-colored     | ■ | el  | 2  | ils   | O    | C. G. H. | 1799. | C s.p | And. hea. vol. 2      |
| 5175 <i>elongata Lodd.</i>                                  | turbinate        | ■ | de  | 1½ | f.n   | W    | C. G. H. | 1810. | C s.p | Bot. cab. 738         |
| 5176 <i>lanata Wendl.</i>                                   | woolly           | ■ | or  | 1  | f.my  | O    | C. G. H. | 1775. | C s.p | Bot. cab. 738         |
| 5177 <i>Bowieana Lodd.</i>                                  | Bowie's          | ■ | or  | 1  | au.d  | W    | C. G. H. | 1783. | C s.p | W. er. 5. p. 5. c. ic |
| 5178 <i>coccinea Lodd.</i>                                  | scarlet-flower'd | ■ | cu  | 1½ | ja.d  | D.R  | C. G. H. | 1822. | C s.p | Bot. cab. 842         |
| 5179 <i>exidans Lodd.</i>                                   | dewy             | ■ | cu  | 1½ | o.n   | R    | C. G. H. | 1810. | C s.p | And. heaths, v.1      |
| 5180 <i>Massonia Thunb.</i>                                 | depression       | ■ | gr  | 3  | jl.o  | R.g  | C. G. H. | 1787. | L s.p | Bot. mag. 356         |
| 5181 <i>gemmifera Lodd.</i>                                 | gem-bearing      | ■ | spl | 1  | my.jl | S    | C. G. H. | 1802. | C s.p | Bot. cab. 457         |
| 5182 <i>bicolor Andr.</i>                                   | two-colored      | ■ | or  | 2  | mr.o  | G.r  | C. G. H. | 1790. | C s.p | Bot. cab. 1001        |
| 5183 <i>exsurgens Andr.</i>                                 | quiver-formed    | ■ | spl | 1½ | ja.d  | D.O  | C. G. H. | 1792. | C s.p | Bot. cab. 835         |
| §5184 <i>vestita Thunb.</i><br><i>α álba</i>                | tremulous        | ■ | spl | 3  | ja.d  | W    | C. G. H. | 1789. | C s.p | And. heaths, v.1      |
| <i>β incarnata</i>  | white            | ■ | el  | 2  | ja.d  | W    | C. G. H. | 1789. | C s.p | And. heaths, v.2      |
| <i>γ purpurea</i>   | flesh-colored    | ■ | spl | 2  | ja.d  | Pk   | C. G. H. | 1789. | C s.p | And. heaths, v.1      |
| <i>δ rosea</i>  | purple           | ■ | de  | 2  | ja.d  | Pu   | C. G. H. | 1789. | C s.p | And. heaths, v.2      |
| <i>ε fulgida</i>  | rosy             | ■ | de  | 3  | ja.d  | L.R  | C. G. H. | 1789. | C s.p | And. heaths, v.2      |
| <i>ζ coccinea</i>   | bright-red       | ■ | spl | 3  | ja.d  | O    | C. G. H. | 1789. | C s.p | And. heaths, v.1      |
| <i>η lutea</i>  | scarlet          | ■ | spl | 3  | ja.d  | D.R  | C. G. H. | 1789. | C s.p | And. heaths, v.2      |
| <i>θ rosea Andr.</i>  | yellow           | ■ | el  | 3  | ja.d  | Y    | C. G. H. | 1789. | C s.p | And. heaths, v.3      |
| 5185 <i>rosea Andr.</i>                                     | rose-colored     | ■ | el  | 2½ | jn.o  | L.R  | C. G. H. | 1798. | C s.p | Bot. cab. 782         |
| 5186 <i>Nivénia Andr.</i>                                   | Niven's          | ■ | spl | 3  | f.jl  | Pu   | C. G. H. | 1799. | C s.p | And. heaths, v.2      |
| 5187 <i>áspera Andr.</i>                                    | rough            | ■ | or  | 1  | my.jn | Y    | C. G. H. | 1802. | C s.p | And. heaths, v.3      |
| 5188 <i>cylindrica Andr.</i>                                | cylindric        | ■ | or  | 2  | my.jn | W    | C. G. H. | 1798. | C s.p | And. heaths, c. ic    |

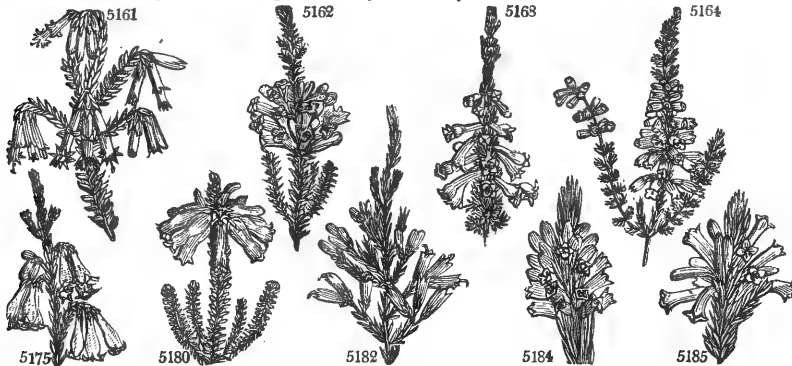


History, Use, Propagation, Culture,

make their beds with it. In most of the western isles they dye their yarn of a yellow color, by boiling it in water with the green tops and flowers of this plant; and woollen cloth boiled in alum water, and afterwards in a strong decoction of the tops, comes out a fine orange color. In some of these islands they tan their leather in a strong decoction of it. Formerly the young tops are said to have been used alone to brew a kind of ale; and Boethius relates that this liquor was much used by the Picts. In some of the isles it is said they still brew ale with one part malt, and two parts of the young tops of heath, sometimes adding hops. In many parts of Great Britain besoms are made of it. The turf, with the heath growing on it, is cut up and dried for the fuel of the cottager, for heating ovens, covering under-ground drains, &c. Sheep and goats will sometimes eat the tender shoots, but they are not fond of them. Cattle not accustomed to browse on heath give bloody

- 5138 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Sepals orbicular obovate  
 5139 Anthers bearded, Lvs. 4-6, Flow. axillary, Cal. imbric. Sepals rhomboid with long claws  
 5140 Anth. beardless, Leaves 4-3-cornered ciliated, Flowers terminal subsolitary  
 5141 Anthers included bearded, Cal. leafy, Leaves 4 hairy, Flowers terminal, Style exserted  
 5142 Anthers beardless included, Lvs. 3-4, Flowers terminal few, Cal. imbr. Cor. pubescent  
 5143 Anthers bearded, Lvs. 4-6, Fl. axillary, Cal. imbric. Sepals subulate from a broad base  
 5144 Anth. beardless, Lvs. 4 linear glandular hairy, Cor. clavate, Cal. hispid  
 5145 Anthers bearded, Style incl. Cor. cylind. Sepals membran. Fl. axill. whorl. Lvs. 4 lin. smooth  
 5146 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in a 4-cornered head, Sep. lin.-subul. Ped. very short  
 5147 Anthers beardless, Flowers solitary or 3, Cal. imbric. Cor. villous  
 5148 Anthers beardless, Flowers 3, Cal. imbricated, Cor. smooth, Leaves pubescent  
 5149 Anth. beardless exserted, Ovary turbinate, Lvs. 4-6, Fl. axillary, Two bractes close to cal. one remote  
 5150 Anthers beardless exserted, Lvs. 4-6, Flowers axill. Bractes remote, Ovary with 8 furrows smooth  
 5151 Anthers beardless included, Bractes next calyx, Cor. hairy solitary, Leaves 4 hairy  
 5152 Anthers exserted gibbous at base, Bractes remote, Cal. leafy, Lvs. 4, Branches hairy, Fl. terminal  
 5153 Anthers beardless, Lvs. 4, Bractes a little distant from cal. Sepals oblong revolute at edge  
 5154 Anthers beardless exserted, Lvs. 4, Bractes linear distant from cal. Sepals ovate acuminate  
 5155 Anth. beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. pubescent viscid  
 5156 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes lin. remote, Sepals ovate acuminate  
 5157 Anthers beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. smooth viscid  
 5158 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes remote, Sepals ovate obtuse  
 5159 Anth. beardless, Cor. curved clavate smooth, Fl. solitary term. Leaves 4 linear smooth  
 5160 Anth. beardless included, Cal. leafy imbricated, Leaves 3 smooth spreading, Style exserted  
 5161 Anth. beardless exserted, Cor. cylind. ovate, Sepal col. obl. obt. Leaves 3 appressed erect, Fl. 3 terminal  
 5162 Anth. beardless included, Cor. cylindrical narrowed at base, Fl. term. umbell. Leaves 6 smooth  
 5163 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in 4-cornered head, Sepals lin. subul. Ped. length of fl.  
 5164 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals lanceolate  
 5165 A handsome species with tufted hairy leaves. It resembles *E. linnaeana*  
 5166 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals ovate roundish  
 5167 Anth. beardless, Leaves 4, Fl. axillary, Cor. ribbed, Bractes nearly as long as calyx  
 5168 Anth. beardless included, Leaves 6 ciliated, Flowers terminal, Cor. clavate at first white afterwards red  
 5169 Anth. beardless, Lvs. 4-6, Fl. axillary, Cor. ribbed cylind. with a spreading limb, Bractes  $\frac{1}{2}$  length of cal.  
 5170 Anth. beardless, Lvs. 4-6, Fl. axill. Cor. ribbed widest in middle with a revol. limb, Bractes length of cal.  
 5171 Leaves spreading smooth, Flowers clavate incurved smooth  
 5172 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals linear  
 5173 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals from a broad base linear subulate  
 5174 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals ovate acuminate  
 5175 Leaves upright smooth, Fl. term. 4 turbinate hairy  
 5176 Anth. includ. beardless, Bractes remote from flower, Leaves very short imbricated  
 5177 Leaves 3 smooth spreading distant, Fl. axillary pendulous cylindrical smooth  
 5178 Anth. beardless included, Leaves 4-6, Fl. axill. Two bractes next cal. : one remote, Ovary turbinate  
 5179 Leaves 4 hairy clammy, Fl. cylindrical terminal curved smooth, Style exserted  
 5180 Anth. beardless, Leaves 4-6 hairy, Fl. axill. Two bractes next cal. : one remote, Ovary clavate  
 5181 Leaves short with long hairs, Fl. large axillary pendulous cylindrical with a green mouth  
 5182 Anth. bearded, Leaves 3 ovate rough, Fl. 3 cernuous smooth, Cal. villous colored  
 5183 Anth. beardless exserted, Leaves 4-6, Fl. axill. Bractes remote, Ovary with 4 furrows smooth  
 5184 Anth. beardless included, Lvs. 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary with 8 furrows  
 [silky upwards]

- 5185 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. erect spreading  
 5186 Anth. beardless exserted, Leaves 3, Fl. terminal numerous, Bractes remote  
 5187 Anth. beardless included, Leaves 3 hairy, Fl. capitate, Cal. imbr. Cor. very hairy  
 5188 Anth. beardless, Leaves 4 triangular smooth, Fl. term. cylind. smooth

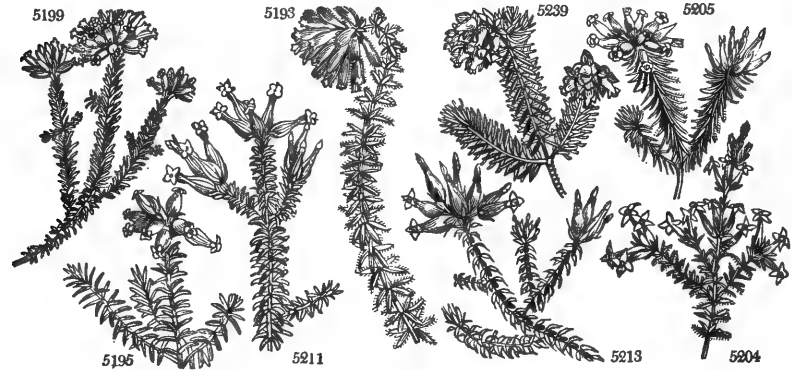


and Miscellaneous Particulars.

milk, but are soon cured by drinking plentifully of water. The branches of heath afford shelter, and the seeds a principal part of their food to many birds, especially those of the grouse kind: and for this purpose the seed-vessel is formed and protected in such a manner, that the seeds are preserved a whole year, or even longer. Bees collect largely from the flowers, and honey made from them was anciently supposed to be of a bad quality, but in fact it is only of a darker color. The foliage affords nourishment to the *Phalæna quercus* or great egger moth. Dodder frequently entwines itself about this plant, and gives it a singular appearance.

Till the latter end of the last century, this genus consisted of three or four humble British shrubs, and the heath of Spain (*E. mediterranea*), a slow growing tree. But when the Cape of Good Hope fell into the hands of the British, collectors were sent out, and soon brought to light some hundreds of species. It may serve as

|                                 |                               |   |     |   |       |       |          |       |   |     |                    |
|---------------------------------|-------------------------------|---|-----|---|-------|-------|----------|-------|---|-----|--------------------|
| 5189 <i>Monsônia Thunb.</i>     | Lady Monson's bladder-flower. | ■ | el  | 4 | aps   | W     | C. G. H. | 1787. | C | ap  | Bot. mag. 1915 -   |
| 5190 <i>Halicacaba L.</i>       | large brown-fl.               | ■ | or  | 1 | my.au | Y     | C. G. H. | 1780. | C | apj | And. heaths, v. 2  |
| 5191 <i>lanuginosa Andr.</i>    | smooth                        | ■ | or  | 1 | ja.s  | P.v   | C. G. H. | 1803. | C | sp  | And. heaths, v. 3  |
| 5192 <i>glabra Lk.</i>          | Honey-wort-fl.                | ■ | de  | 1 | my.au | W     | C. G. H. | 1820. | C | ap  | Bot. mag. 230      |
| 5193 <i>cerinthoides L.</i>     | pectinated                    | ■ | spl | 4 | my.n  | D.S   | C. G. H. | 1774. | C | sp  | Bot. mag. 230      |
| 5194 <i>pectiniiflora Sal.</i>  | fine-red                      | ■ | or  | 2 | jn.n  | R     | C. G. H. | 1800. | C | sp  | Bot. cab. 647      |
| 5195 <i>princeps Andr.</i>      | charming                      | ■ | or  | 1 | my.jl | S     | C. G. H. | 1800. | C | sp  | And. heaths, v. 3  |
| 5196 <i>bianda Andr.</i>        | inflated                      | ■ | or  | 2 | aps.  | L.P   | C. G. H. | 1800. | C | sp  | Th.eric.67.t.2 f.2 |
| 5197 <i>inflata W.</i>          | rusty                         | ■ | or  | 1 | my.jl | R     | C. G. H. | 1798. | C | sp  | And. heaths, v. 3  |
| 5198 <i>ferruginea Andr.</i>    | nine-pin                      | ■ | el  | 1 | jn.au | O     | C. G. H. | 1798. | C | sp  | Bot. mag. 612      |
| 5199 <i>metulaeflora B. M.</i>  | tumid                         | ■ | or  | 1 | my.s  | Sc    | C. G. H. | 1812. | C | sp  | Bot. reg. 65       |
| 5200 <i>tumida Ker.</i>         | white slender-fl.             | ■ | de  | 2 | s     | W     | C. G. H. | 1800. | C | sp  | And. heaths, v. 3  |
| 5201 <i>fatulosa Sal.</i>       | bottle                        | ■ | or  | 1 | ap.jl | W.R   | C. G. H. | 1798. | C | sp  | And. heaths, v. 2  |
| 5202 <i>obvata Andr.</i>        | pointed-leaved                | ■ | el  | 1 | jl.o  | R     | C. G. H. | 1800. | C | sp  | Bot. cab. 216      |
| 5203 <i>acuminata Andr.</i>     | red slender-fl.               | ■ | el  | 3 | ap.jn | F     | C. G. H. | 1802. | C | ap  | Bot. mag. 1720     |
| 5204 <i>Lawsóni B. M.</i>       | Porcelain                     | ■ | cu  | 1 | ap.s  | F     | C. G. H. | 1787. | C | sp  | Bot. mag. 350      |
| 5205 <i>ventricosa Thunb.</i>   | swelled                       | ■ | or  | 2 | my.jl | R     | C. G. H. | 1796. | C | sp  | And.heaths,c.cic   |
| 5206 <i>pregnans Andr.</i>      | glutinous                     | ■ | or  | 2 | jn.o  | Pu    | C. G. H. | 1787. | C | ap  | Ico. hor. Kew. 17  |
| 5207 <i>glutinosa W.</i>        | <i>sundew-like</i>            | ■ | or  | 2 | jl.o  | Pu    | C. G. H. | 1787. | C | ap  | Pet. mus. t. 161   |
| 5208 <i>roseoides Lam.</i>      | square-flower'd               | ■ | or  | 1 | jl.s  | L.Y   | C. G. H. | 1789. | C | ap  | And. heaths, v. 3  |
| 5209 <i>tetragona Thunb.</i>    | Irby's                        | ■ | or  | 1 | jn.o  | W.g   | C. G. H. | 1800. | C | ap  | And. heaths, v. 3  |
| 5210 <i>irbyana Andr.</i>       | Jasmine-flower.               | ■ | de  | 2 | jn.n  | W.pk  | C. G. H. | 1794. | C | sp  | And. heaths, v. 1  |
| 5211 <i>jasminiiflora Andr.</i> | flask                         | ■ | or  | 2 | jn.au | W.R   | C. G. H. | 1790. | C | sp  | Bot. mag. 303      |
| 5212 <i>ampullacea Curt.</i>    | Lady Shannon's                | ■ | el  | 1 | jn    | W.pu  | C. G. H. | 1806. | C | sp  | Bot. cab. 168      |
| 5213 <i>shannoniana Lodd.</i>   | recurved-leav'd               | ■ | or  | 1 | my.au | Pk.w  | C. G. H. | 1787. | C | sp  | Bot. mag. 362      |
| 5214 <i>retorta Thunb.</i>      | yellow-slend-fl.              | ■ | or  | 1 | ap.jn | L.Y   | C. G. H. | 1800. | C | sp  | And. heaths, v. 3  |
| 5215 <i>tenuiflora Andr.</i>    | Lady Clifford's               | ■ | de  | 1 | ap.my | W     | C. G. H. | 1812. | C | sp  | Bot. cab. 34       |
| 5216 <i>chiffordia Lodd.</i>    | Hyacinth-flow.                | ■ | or  | 1 | jn.au | Pk    | C. G. H. | 1798. | C | sp  | And. heaths, v. 3  |
| 5217 <i>hyacinthoides Andr.</i> | clustered                     | ■ | or  | 1 | my.s  | Pu    | C. G. H. | 1797. | C | sp  | Bot. cab. 256      |
| 5218 <i>fastigiata L.</i>       | funnel-shaped                 | ■ | or  | 1 | ap.my | Pu    | C. G. H. | 1821. | C | ap  | Bot. cab. 589      |
| 5219 <i>walkeria Andr.</i>      | Aiton's                       | ■ | or  | 2 | jn.s  | W.pu  | C. G. H. | 1790. | C | sp  | Bot. mag. 429      |
| 5220 <i>infundibularis Lk.</i>  | yellow                        | ■ | or  | 2 | f.my  | P.Y   | C. G. H. | 1774. | C | sp  | And. heaths, v. 1  |
| 5221 <i>aitonia Andr.</i>       | tufted                        | ■ | or  | 2 | ap.au | C     | C. G. H. | 1787. | C | ap  | Ico. hor. Kew. 18  |
| 5222 <i>lutea L.</i>            | red-flowered                  | ■ | de  | 2 | ap.au | Pk    | C. G. H. | 1787. | C | ap  | W.eri.12.p.7.c.cic |
| 5223 <i>comosa L.</i>           | white-flowered                | ■ | el  | 2 | ap.au | W     | C. G. H. | 1787. | C | sp  | And. heaths, v. 2  |
| 5224 <i>a rubra</i>             | musk                          | ■ | fr  | 1 | mr.jl | W     | C. G. H. | 1790. | C | sp  | And. heaths, v. 1  |
| 5225 <i>beta</i>                | Daphne-flower.                | ■ | de  | 1 | ap.my | Pa.pu | C. G. H. | 1791. | C | sp  | Bot. cab. 154      |
| 5226 <i>muscaria W.</i>         | Parmentine's                  | ■ | de  | 1 | jl.au | Pa.pu | C. G. H. | 1810. | C | sp  | Bot. cab. 197      |
| 5227 <i>daphneiflora Sal.</i>   | Bonpland's                    | ■ | pr  | 1 | mr.s  | Pa.Y  | C. G. H. | 1812. | C | sp  | Bot. cab. 345      |
| 5228 <i>parmentieri Lodd.</i>   | Sir A. Hume's                 | ■ | el  | 1 | mr.ap | Pk    | C. G. H. | 1798. | C | sp  | Bot. cab. 389      |
| 5229 <i>bonplandii Lodd.</i>    | toothletted                   | ■ | or  | 1 | ap.my | Pu    | C. G. H. | 1821. | C | sp  | Bot. cab. 1090     |
| 5230 <i>humeana Lodd.</i>       | radiated                      | ■ | or  | 1 | au.n  | C     | C. G. H. | 1798. | C | sp  | And. heaths, v. 1  |
| 5231 <i>denticulata L.</i>      | awned                         | ■ | or  | 1 | mr.au | n.p.w | C. G. H. | 1801. | C | sp  | And. heaths, v. 3  |
| 5232 <i>radiata Andr.</i>       | Cowslip-flower.               | ■ | or  | 1 | my.jl | P.w   | C. G. H. | 1802. | C | sp  | Bot. mag. 1548     |
| 5233 <i>aristata Andr.</i>      | neat                          | ■ | pr  | 2 | my.jl | R.w   | C. G. H. | 1805. | C | sp  | Bot. cab. 114      |
| 5234 <i>primuloides Andr.</i>   | musk-scented                  | ■ | ft  | 1 | my.jl | G     | C. G. H. | 1800. | C | sp  | Bot. cab. 614      |
| 5235 <i>mindula Lodd.</i>       | concave                       | ■ | el  | 2 | mr.ap | Pa.pu | C. G. H. | 1808. | C | sp  | Bot. cab. 134      |
| 5236 <i>conchata Lodd.</i>      | Lord Coventry's               | ■ | pr  | 1 | jn.jl | Pk    | C. G. H. | 1808. | C | sp  | Bot. cab. 423      |
| 5237 <i>coventryana Lodd.</i>   | bitten                        | ■ | de  | 2 | ap.my | Pa.pk | C. G. H. | 1817. | C | sp  | Bot. cab. 133      |
| 5238 <i>erosa Lodd.</i>         | July                          | ■ | el  | 2 | jl    | R     | C. G. H. | 1800. | C | sp  | Bot. cab. 799      |
| 5239 <i>juliana Lodd.</i>       | neat                          | ■ | pr  | 1 | ap.my | W.pk  | C. G. H. | 1800. | C | sp  | Bot. cab. 688      |
| 5240 <i>trissula Lodd.</i>      | Coris-leaved                  | ■ | pr  | 1 | au.d  | Pa.pu | C. G. H. | 1774. | C | sp  | Bot. mag. 423      |
| 5241 <i>calycina W.</i>         | Andromeda-fl.                 | ■ | pr  | 2 | mr.jn | Pk    | C. G. H. | 1803. | C | ap  | Bot. mag. 1250     |
| 5242 <i>calycina W.</i>         | elegant                       | ■ | el  | 1 | mr.n  | G     | C. G. H. | 1799. | C | sp  | Bot. mag. 966      |
| 5243 <i>elegans Andr.</i>       | three-flowered                | ■ | or  | 1 | my.jn | W     | C. G. H. | 1774. | C | ap  | Wen.eri.12.p.13    |
| 5244 <i>triflora L.</i>         |                               |   |     |   |       |       |          |       |   |     |                    |



History, Use, Propagation, Culture,

an easily recollected date, to say that all of them were sent home during the reign of George III., and as a tribute to merit, that most of them were gathered by Mr. Francis Masson. Their beauty needs no encomium; many are pretty, some are graceful or elegant, a few splendid, and there are curious, grotesque, and odiferous species. Their culture and propagation is one of the most delicate branches of the art of gardening; it may be said to have been invented in England, and in the Hammersmith nursery, and places Britain far before all countries in this art as in so many others. The only soil in which heaths will grow is earth of peat: if any substitute can be found, it is in leaf-mould

B. VENTRICOSÆ. *Corolla inflated.*

- 5189 Anthers bearded, Bractes oblong next cal. Cor. twice as long as calyx  
 5190 Anthers bearded, Bractes ovate next cal. Cor. 4-cleft thrice as long as calyx  
 5191 Anthers bearded, Bractes ovate next cal. Cor. 4-parted scarcely twice as long as calyx  
 5192 Anthers bearded included, Cal. leafy, Bractes remote from fl. Leaves 4 spreading smooth  
 5193 Anthers beardless, Flowers terminal, Two bractes next fl. : one remote, Cor. viscid-hairy  
 5194 Cal. rhomboid-spatulate, Cor. woolly inside, Leaves narrow-ovate cuneate pectinate  
 5195 Anth. beardless, Fl. term. Two bractes next fl. : one remote, Cor. smooth, Sepals lin. lanceolate  
 5196 Anth. bearded, Two bractes next fl. ; one remote, Leaves 6, Beards of anth. very short  
 5197 Anth. bearded, Bractes remote, Leaves 4 smooth, Beards of anth. very long  
 5198 Anth. beardless, Fl. term. 8, Bractes remote, Leaves 4, Sepals terminated by 3 or more bristles  
 5199 Anth. beardless, Fl. term. Two bractes next cal. ; one remote, Cor. smooth, Sepals ovate acuminate  
 5200 Pubescent, Two subul. bractes next cal. Leaves decussate 4, Cor. villous many times longer than calyx  
 5201 Cal. minutely ciliated, Tube narrow-cylindrical urceolate, Anthers beardless  
 5202 Anth. beardless, Fl. term. 4, Cal. imbric. Sepals ovate oblong acute, Leaves recurved ciliated  
 5203 Anth. beardless, Fl. term. many, Cal. imbric. Leaves recurved terminated by a bristle

C. LIMBATE. *Corolla elongated, narrowed upwards, with a flat limb.*

- 5204 Anth. beardless, Leaves ciliated and flowers 4, Sepals subulate, Stigma exerted  
 5205 Anth. bearded, Bractes remote, Leaves 4 ciliated, Beards of anth. very short  
 5206 Anth. bearded included, Leaves 4 ciliated, Fl. capitate, Bractes remote  
 5207 Anth. bearded included, Cor. globose ovate, Leaves opposite and scattered fringed with glands linear

- 5208 Anth. beardless, Fl. terminal 3, Leaves 3, Bractes remote, Sepals subulate, Cor. 4-cornered  
 5209 Anth. included beardless, Fl. umbelled, Bractes remote  
 5210 Anth. beardless, Fl. term. 3, Leaves 3, Bractes remote, Sepals ovate oblong  
 5211 Anth. beardless, Fl. term. 4, Leaves 4, Bractes remote  
 5212 Flowers long conical striped, with a flat limb, The whole surface of corolla shining  
 5213 Anth. beardless, Fl. term 8, Leaves 4, Bractes remote, Sepals terminated by a long bristle  
 5214 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals from a broad base, subulate, entire  
 5215 Anth. beardless, Fl. term. Leaves 4 smooth, Cor. slender, Style included  
 5216 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals ovate acuminate serrulate  
 5217 Anth. beardless included, Flowers fasciated, Style included, Leaves 4

- 5218 Anth. included beardless, Leaves 4 smooth erect, Fl. term. Cal. imbricated leafy  
 5219 Anth. beardless, Leaves 3, Fl. term. Fl. 3, Bractes remote, Cor. viscid  
 5220 Anth. bearded, Style included, Flowers terminal, Leaves lin. 2 smooth, Branches deflexed  
 5221 Anth. beardless included, Style included, Leaves 4, Flowers clustered

- 5222 Anth. beardless, Cor. somewhat 4-cornered, Sepals lanceolate entire, Fl. term. sessile, Leaves 4 smooth  
 5223 Cal. ovate cuspidate scarcely serrated, Cor. three lines long, Limb twice as short as tube recurved  
 5224 Leaves 4 spreading, Fl. 4 terminal  
 5225 Leaves 4 erect, Fl. simple on little axillary branches, Cor. ovate  
 5226 Leaves 3 smooth erect imbricated, Fl. 3 terminal, Cor. hypocrateriform, Tube slender  
 5227 Anth. beardless included, Sepals membranous ciliate toothed, Fl. term. sessile, Leaves 4 smooth  
 5228 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary smooth  
 5229 Anth. beardless, Fl. terminal, Cal. imbricated, Fl. 4. Sepals oblong obtuse, Leaves recurved setose  
 5230 Anth. beardless, Flowers terminal subsessile 5, Bractes next calyx, Leaves spreading 5

- 5231 Leaves short erect, imbricated, Flowers terminal solitary, Tube ovate, Limb recurved  
 5232 Leaves 3 filiform spreading, Fl. 3 term. rotate, Stamens and styles exerted  
 5233 Leaves dense acerose smooth erect, Fl. axillary, Tube cylindrical  
 5234 Leaves densely imbricated erect, Flowers large axillary, Petals sawed  
 5235 Leaves dense spreading, Fl. 4 terminal, Tube ovate longer than limb  
 5236 Leaves 4 narrow erect smooth, Flowers terminal 4 very numerous, Tube ventricose

D. CALYCINÆ. *Corolla inclosed in the inflated calyx.*

- 5237 Anthers crested, Cor. ovate, Style included, Cal. turbinate, Leaves 3, Flowers umbelled

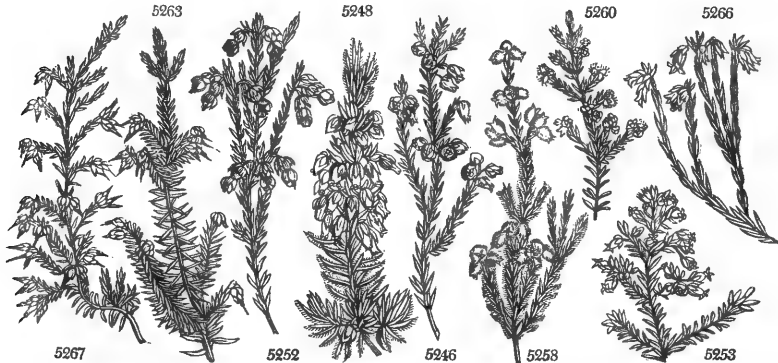
- 5238 Anthers crested, Bractes remote, Leaves 3 much longer than the joints green  
 5239 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal, numerous  
 5240 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal three



and Miscellaneous Particulars.

sifted very fine and mixed with fine sand. Earth of peat is obtained by collecting peats from bogs or turf from the surface of peaty wastes and moist places, and laying the peats or turves in a heap to rot and moulder into earth. This they will require several years to do; but in the meanwhile a portion of mould may be obtained whenever it is wanted, by turning the turves and sifting the fragments. Sometimes this peat is found without any mixture of sand; at other times, where streams have run into the bog or lake while the peat was forming, it is mixed with fine sand that had been held suspended in the water. This last is the best sort of peat for the Erica family; and therefore where peat is not sandy naturally, fine white sand

|                              |                  |   |    |    |       |       |           |         |   |      |                        |
|------------------------------|------------------|---|----|----|-------|-------|-----------|---------|---|------|------------------------|
| 5241 flagelláris Lk.         | wiry             | ■ | pr | 1½ | my    | P.v   | C. G. H.  | 1820.   | C | s.p. |                        |
| 5242 bractéata Thunb.        | red-bracted      | ■ | or | 2  | my.jn | Ru    | C. G. H.  | 1800.   | C | s.p. |                        |
| 5243 túrgida Lk.             | turgid           | ■ | el | 1  | ap.jl | Pu    | C. G. H.  | 1821.   | C | s.p. |                        |
| 5244 lachneefolia Andr.      | Lachnea-leav'd   | ■ | de | 1½ | my.jl | W     | C. G. H.  | 1793.   | C | s.p. | And. heaths, v.3       |
| 5245 nigrita L.              | black-tipped     | ■ | cu | ¾  | mr.jn | W     | C. G. H.  | 1790.   | C | s.p. | And. heaths, v.1       |
| 5246 báccans L.              | Arbutus-flower.  | ■ | or | 1½ | ap.jn | Pu    | C. G. H.  | 1774.   | C | s.p. | Bot. mag. 353          |
| 5247 fúgax Salisb.           | fibrous          | ■ | or | 1½ | mr.ap | Pu    | C. G. H.  | 1800.   | C | s.p. |                        |
| 5248 triúmphans Lodd.        | conquering       | ■ | el | 2  | my.jn | W     | C. G. H.  | 1802.   | C | s.p. | Bot. cab. 257          |
| 5249 phylícoides W.          | phylica-like     | ■ | or | 1½ | ap.jn | W     | C. G. H.  | 1800.   | C | s.p. |                        |
| 5250 incúrva Wendl.          | incurved         | ■ | de | 1½ | my.jl | W     | C. G. H.  | 1821.   | C | s.p. |                        |
| 5251 tenuifolia L.           | slender-leaved   | ■ | or | 1  | ap.my | Pk    | C. G. H.  | 1794.   | C | s.p. | Seb.mu.1.t.73.f.6      |
| 5252 Thunbergia W.           | Thunberg's       | ■ | pr | 1½ | my.au | O     | C. G. H.  | 1794.   | C | s.p. | Bot. mag. 1214         |
| 5253 taxifolia H. K.         | Yew-leaved       | ■ | or | 1  | jn    | Pu    | C. G. H.  | 1788.   | C | s.p. | And. heaths, v.1       |
| 5254 petioláta Thunb.        | Rosemary-leav.   | ■ | cu | ¾  | mr.jl | P.pu  | C. G. H.  | 1774.   | C | s.p. | And. heaths, v.3       |
| 5255 imbriciáta L.           | imbricated       | ■ | or | 1  | my.au | Pk    | C. G. H.  | 1786.   | C | s.p. | Bot. cab. 1243         |
| 5256 velleriflora Salisb.    | woolly-flower'd  | ■ | cu | 1½ | f.jn  | W     | C. G. H.  | 1774.   | C | s.p. | And. heaths, v.1       |
| 5257 Bruniádes L.            | Brunia-like      | ■ | cu | 1½ | ap.jn | W     | C. G. H.  | 1790.   | C | s.p. | W. er. 16 p. 53. c. ic |
| 5258 capitáta L.             | downy-headed     | ■ | or | 1½ | mr.jl | Y     | C. G. H.  | 1774.   | C | s.p. | And. heaths, v.1       |
| 5259 pátnes Andr.            | spreading        | ■ | or | 1½ | mr.jn | Pu    | C. G. H.  | 1800.   | C | s.p. | And. heaths, v.3       |
| 5260 fimbriáta Andr.         | fringed          | ■ | or | ¾  | mr.jn | Pa.pu | C. G. H.  | 1800.   | C | s.p. | And. heaths, c. ic     |
| 5261 melanthéra Thunb.       | dark-anthered    | ■ | el | 1½ | jn    | Pa.pu | C. G. H.  | 1803.   | C | s.p. | Bot. cab. 867          |
| 5262 flaccida Lk.            | flaccid          | ■ | de | 1  | my    | W     | C. G. H.  | 1822.   | C | s.p. |                        |
| 5263 sexfaria H. K.          | six-angled       | ■ | or | ¾  | my.au | W     | C. G. H.  | 1774.   | C | s.p. | And. heaths, v.2       |
| 5264 frágrans Andr.          | fragrant         | ■ | ft | ¾  | mr.jn | Pu    | C. G. H.  | 1803.   | C | s.p. | And. heaths, v.2       |
| 5265 oppositifolia Andr.     | opposite-leaved  | ■ | or | ¾  | mr.my | W     | C. G. H.  | 1804.   | C | s.p. | And. heaths, v.3       |
| 5266 biflora Lk.             | two-flowered     | ■ | de | 1½ | ap.jn | W     | C. G. H.  | 1819.   | C | s.p. | Bot. cab. 683          |
| 5267 spumosa L.              | frothy           | ■ | cu | 1½ | my.au | W     | C. G. H.  | 1785.   | C | s.p. | Bot. cab. 566          |
| 5268 vulgáris L.             | common           | ■ | ec | 2  | f.jl  | Pu    | Britain   | heaths. | C | s.p. | Eng. bot. 1013         |
| <i>Calluna vulgaris</i> Sal. |                  |   |    |    |       |       |           |         |   |      |                        |
| β álba                       | white-flowered   | ■ | or | 2  | f.jl  | W     | .....     | ...     | C | s.p. |                        |
| γ flore pleno                | double-flowered  | ■ | or | 2  | f.jl  | Pu    | .....     | ...     | C | s.p. |                        |
| 5269 glauca Sal.             | glaucous         | ■ | or | 2  | my.jl | D.Pu  | C. G. H.  | 1792.   | C | s.p. | Bot. mag. 580          |
| 5270 pyrolæflora Sal.        | Pyrola-flower'd  | ■ | or | 1½ | my.jl | W     | C. G. H.  | 1790.   | C | s.p. |                        |
| 5271 laxa Andr.              | loose-flowered   | ■ | or | 1½ | f.s   | B     | C. G. H.  | 1800.   | C | s.p. | And. heaths, v.3       |
| 5272 lúcida Andr.            | lucid            | ■ | or | 1½ | ap.jn | D.Pu  | C. G. H.  | 1800.   | C | s.p. | And. heaths, v.2       |
| 5273 squamósa Andr.          | scaly-cupped     | ■ | or | ¾  | ap.jn | F     | C. G. H.  | 1794.   | C | s.p. | And. heaths, v.3       |
| 5274 togáta B. M.            | large-cupped     | ■ | or | ¾  | jn.jl | R     | C. G. H.  | 1812.   | C | s.p. | Bot. mag. 1626         |
| 5275 canaliculáta Andr.      | channelled       | ■ | or | ¾  | f.au  | R     | C. G. H.  | 1799.   | C | s.p. | And. hea. vol. 3       |
| 5276 horizontális Andr.      | horizontal-ld.   | ■ | de | 1½ | jl.s  | Pk    | C. G. H.  | 1800.   | C | s.p. | And. hea. vol. 3       |
| 5277 globosa W.              | globular-flower. | ■ | de | 1½ | jl.s  | Pk    | C. G. H.  | 1789.   | C | s.p. |                        |
| 5278 gnaphalódes W.          | Gnaphal.-like    | ■ | cu | 1  | f.au  | W     | C. G. H.  | 1812.   | C | s.p. | P.m. 68. t. 346. f. 11 |
| 5279 rubélla Lodd.           | thrift-flowered  | ■ | pr | 2  | jn    | Pk    | C. G. H.  | 1814.   | C | s.p. | Bot. mag. 2165         |
| 5280 árdens Andr.            | glowing          | ■ | or | 2  | ap.jn | S     | C. G. H.  | 1800.   | C | s.p. | Bot. reg. 115          |
| 5281 nitida Andr.            | nitid            | ■ | de | 2  | jl.o  | W     | C. G. H.  | 1800.   | C | s.p. | And. hea. vol. 3       |
| 5282 physódes L.             | sticky           | ■ | de | 1½ | mr.jl | W     | C. G. H.  | 1788.   | C | s.p. | Bot. mag. 443          |
| 5283 viridipurpúrea W.       | green and purp.  | ■ | or | 3  | my.au | G.Pu  | Portugal  | ...     | C | s.p. | Li. er. n.9. c. fig. 8 |
| 5284 arbórea L.              | tree             | ■ | or | 5  | f.jn  | W     | S. Europe | 1658.   | C | s.p. |                        |
| β stylósa P. S.              | long-styled      | ■ | pr | 5  | f.jn  | W     | S. Europe | 1658.   | C | s.p. |                        |
| 5285 resinósa B. M.          | varnished        | ■ | or | 1½ | my.au | O     | C. G. H.  | 1803.   | C | s.p. | Bot. cab. 679          |
| 5286 Lambertia Andr.         | Lambert's        | ■ | de | 1  | my.au | W     | C. G. H.  | 1800.   | C | s.p. | And. hea. vol. 2       |
| 5287 incarnáta Thunb.        | flesh-colored    | ■ | or | 1½ | my.au | R     | C. G. H.  | 1791.   | C | s.p. | And. hea. c. ic        |
| 5288 rúbens Thunb.           | red-flowered     | ■ | or | 1  | jn.s  | D.R   | C. G. H.  | 1798.   | C | s.p. | Bot. cab. 557          |
| 5289 fibula Lk.              | button           | ■ | or | 1½ | jl    | Pu    | C. G. H.  | 1823.   | C | s.p. |                        |
| 5290 axilláris Thunb.        | axil-flowered    | ■ | or | 1  | my.jl | Pk    | C. G. H.  | 1798.   | C | s.p. |                        |
| 5291 margaritácea Thunb.     | pearl-flowered   | ■ | el | 1½ | my.s  | W     | C. G. H.  | 1775.   | C | s.p. | And. hea. vol. 1       |
| 5292 péndula Wendl.          | pendulous        | ■ | or | 1½ | jl.au | Pu    | C. G. H.  | 1791.   | C | s.p. | W.e. 10. p. 13. c. ic  |
| 5293 laterális W.            | side-flowered    | ■ | cu | 1½ | mr.jl | R     | C. G. H.  | 1791.   | C | s.p. | And. hea. vol. 1       |
| 5294 empetrifolia L.         | Crowberry-ld.    | ■ | or | 1½ | ap.jn | Pu    | C. G. H.  | 1774.   | C | s.p. | Bot. mag. 447          |
| 5295 incúrva Andr.           | incurved         | ■ | de | 1  | mr.my | W     | C. G. H.  | 1802.   | C | s.p. | And. hea. c. ic        |



History, Use, Propagation, Culture,

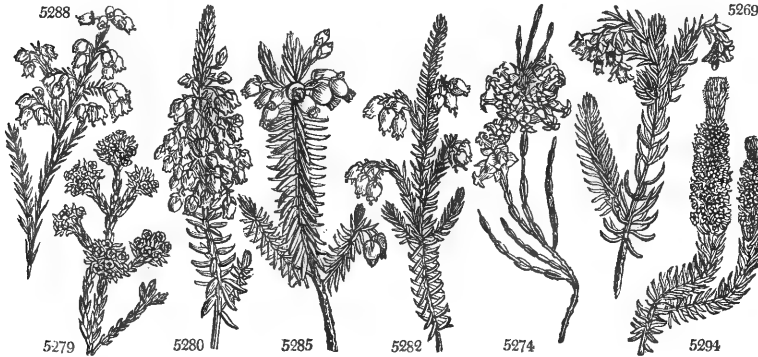
or sand of any color, provided it be free from iron impregnation, should be procured and mixed with it. This sand admits the water to penetrate into the soil and reach the roots of the plant, and also to drain away from the roots so as not to rot them. Pots filled with pure peat-earth are apt to be either hard, dry, and impenetrable to water, or otherwise as wet as a saturated sponge. The free growing kinds (according to Sweet) thrive best in good black peat, and like largish pots to grow in. The dwarf and hard-wooded kinds like a very sandy peat, and smaller pot, well drained with broken potsherds and rough bits of turfy peat; they also require less water than the free growing kinds, as they grow chiefly at the Cape on the tops and sides of mountains, and in the crevices of rocks, &c. chiefly in very sandy soil, and but little of it.

- 5241 Anth. crested, Leaves 3, Cal. imbricated, Sepals carinate, Flowers terminal three, Style included
- 5242 Anth. beardless, Leaves 3 lanceolate smooth, Fl. umbelled surrounded by colored bractes
- 5243 Anthers crested, Leaves 3 mucronate smooth with a white edge, Sepals lanceolate, Flowers terminal
- 5244 Anthers bearded, Leaves 3 oval imbricated, Flowers capitate
- 5245 Anthers bearded, Leaves 3 smooth, Cor. campanulate, Style included, Flowers 3 sessile
- 5246 Anthers bearded, Leaves 4, Appendages subulate pectinate longer than the anther
- 5247 Anthers bearded, Style included, Cor. ovate 4-cornered, Fl. terminal 3, Leaves 3 or 4, Stem pubescent
- 5248 Leaves long ciliated spreading, Fl. axill. Cor. cylindrical, Cal. with keeled sepals
- 5249 Anth. bearded included, Style included, Cor. campan. Fl. axill. nodding, Leaves 3 imbricated 6 ways
- 5250 Anth. beardless exserted, Style exserted, Cor. campan. Fl. terminal capitate, Leaves 4-incurved ciliated
- 5251 Anth. beardless included, Cor. and calyx scarlet, Leaves opposite
- 5252 Anth. beardless, Cor. flat, Tube globose, Style exserted, Leaves 3
- 5253 Anth. beardless included, Cor. ovate, Flowers in umbelled corymbs, Lvs. 3 triangular cartilagin. at edge
- 5254 Anthers beardless exserted, Style exserted, Cor. campanulate, Flowers 3 terminal, Lvs. 3 lanc. smooth
- 5255 Anthers beardless exserted, Cor. campanulate, Cal. imbricated, Style exserted, Leaves 3
- 5256 Anthers much exserted beardless, Cor. campanulate length of the very hairy calyx, Leaves spreading
- 5257 Anthers much exserted beardless, Cor. campanulate longer than the very hairy calyx, Leaves erect
- 5258 Anthers beardless included, Cor. globose campan. Cal. woolly, Flowers sessile, Lvs. 3 lin. obtuse villous
- 5259 Anthers beardless included, Leaves broadish, Fl. terminal, Cal. imbricated
- 5260 Anthers beardless included, Leaves 3 lines long, Fl. capitate, Cal. ciliated
- 5261 Anthers beardless of middle length, Cor. campan. longer than cal. Style exserted, Leaves 3
- 5262 Leaves 4 hairy, Fl. capitate, Sepals and bractes very hairy, Cor. globose, Anthers beardless exserted
- 5263 Anthers beardless exserted, Style exserted, Cor. campan. Leaves 3 imbricated in 6 rows
- 5264 Anthers beardless, Leaves linear 3 smooth, Limb of cor. revolute
- 5265 Anthers beardless, Leaves appressed, Fl. capitate, Cor. limbate
- 5266 Leaves 2 channelled, Fl. term. on short stalks, Sepals ovate acute, Anth. included crested
- 5267 Anth. beardless included, Cor. 3, Style exserted, Leaves 3
- 5268 Anthers bearded, Leaves opposite sagittate

- 5269 Anth. crested, Leaves 3 erect spreading much longer than joints glaucous, Bractes remote from calyx
- 5270 Leaves wedge-shaped, Cal. ovate cuneate, Cor. 4-cornered spherical, Anthers bearded
- 5271 Anth. crested, Leaves 3 ciliated, Cal. imbricated, Style exserted
- 5272 Anth. crested, Leaves 3 smooth, Cal. imbricated, Style exserted
- 5273 Anth. crested, Leaves 4
- 5274 Anth. crested, Leaves opp. appressed, Cal. large cup-shaped, Sepals rounded mucronate
- 5275 Anth. beardless, Leaves 3, Bractes remote, Cor. campan.
- 5276 Anth. beardless, Leaves and flowers 4
- 5277 Anth. beardless, Leaves 4, Flowers 3
- 5278 Anth. crested, Cor. ovate covered, Style included, Leaves 3, Stigma 4-parted
- 5279 Anth. beardless, Leaves opposite imbricated appressed, Umbels terminal many-flowered

E. GLOBOSAE. Corolla small, globose.

- 5280 Cor. globose, Anth. crested, Two bractes next the calyx, the third remote
- 5281 Cor. globose, Anth. crested, All bractes close to calyx
- 5282 Cor. globose, Anth. crested, Bractes remote from cal. Leaves glandular at edge, Sepals ovate
- 5283 Anthers bearded, Cor. campanulate, Style included, Leaves 3, Flowers scattered
- 5284 Anth. bearded, Style exserted, Cor. camp. globose, Leaves 3 or 4 roughish, Branches pubescent
- 5285 Cor. globose glutinous, Anth. crested, Bractes remote, Leaves roughish
- 5286 Cor. globose, Leaves quite smooth, Anth. crested
- 5287 Anth. crested, Leaves 3 ovate smooth, Flowers umbelled ovate, Cal. entire, Branches villous
- 5288 Anth. crested, Leaves 3 linear smooth, Fl. umbelled globose, Cal. lanceolate short, Branches smooth
- 5289 Leaves 3 or 4 spreading finely ciliated, Fl. terminal, Bractes remote, Sepals ovate, Anth. included crested
- 5290 Anth. beardless, Leaves 3 triangular smooth, Fl. racemose globose, Branches downy
- 5291 Anth. crested, Style exserted, Cor. globose campanulate, Fl. terminal umbelled, Leaves 4 smooth erect
- 5292 Anth. crested, Style included, Cor. ovate, Umb. many-fl. terminal, Leaves 4 or 5, Branches pendulous
- 5293 Anth. bearded, Cor. globose camp. Cal. appressed ciliated, Fl. term. and axill. 1-sided, Lvs. 4 horizontal
- 5294 Anth. bearded, Style exserted, Cor. campanulate, Fl. whorled, Leaves 6 linear hairy
- 5295 Anth. beardless exserted, Cor. campanulate, Fl. term. capitate, Leaves 4 incurved ciliated



and Miscellaneous Particulars.

The climate for the heaths is not required to be warm during winter; if the frost is excluded, that will be enough. Some species, as the *E. persoluta* for example, will even bear to have the ground about their roots frozen without injury, provided it is not thawed in the sun, or too suddenly, or in a very warm temperature. In general the heaths may be kept in the coldest part of the greenhouse, and those not in flower in pits, well covered at night with mats or prepared coverings of reeds or straw. Too much fire-heat in winter will hurt them as much as any thing, as they only require to be kept from frost: most of the kinds might be preserved through the winter in frames: the only difficulty is to keep the damp from them.

Heaths require a great deal of air and light, and therefore should be placed near the glass and near such



|                          |                 |   |    |       |       |       |          |       |   |     |                      |
|--------------------------|-----------------|---|----|-------|-------|-------|----------|-------|---|-----|----------------------|
| 5296 planifolia L.       | flat-leaved     | ■ | or | 2     | jl.s  | Pu    | C. G. H. | 1795. | C | s.p | W. er. 8.p.7.c.ic.   |
| 5297 serpyllifolia Lodd. | thyme-leaved    | ■ | pr | 1     | jn.jl | W     | C. G. H. | 1810. | C | s.p | Bot. cab. 794        |
| 5298 marifolia Thunb.    | Marum-leaved    | ■ | or | 2     | my.jn | W     | C. G. H. | 1773. | C | s.p | And. hea. vol. 1     |
| 5299 hiepidula Thunb.    | bristly-stemmed | ■ | el | 1     | jn.au | Pu    | C. G. H. | 1791. | C | s.p | Bot. cab. 538        |
| 5300 Schollia Lodd.      | Scholl's        | ■ | cu | 1 1/2 | my.jn | Pu    | C. G. H. | 1810. | C | s.p | And. hea. vol. 3     |
| 5301 Blandfordia Andr.   | Ld. Blandford's | ■ | or | 1 1/2 | mr.jn | Y     | C. G. H. | 1803. | C | s.p | Bot. cab. 468        |
| 5302 sanguinolenta Lodd. | blood-colored   | ■ | pr | 3/4   | my.jl | Cr    | C. G. H. | 1818. | C | s.p | And. hea. c. ic.     |
| 5303 Savillea Andr.      | Savile's        | ■ | or | 3/4   | jn.jl | R     | C. G. H. | 1800. | C | s.p | Bot. cab. 1678       |
| 5304 aggregata Wendl.    | clustered       | ■ | el | 3/4   | jl    | Pu    | C. G. H. | 1820. | C | s.p | Bot. cab. 1743       |
| 5305 congesta Wendl.     | white flowered  | ■ | el | 3/4   | jl    | W     | C. G. H. | 1822. | C | s.p | Bot. cab. 1194       |
| 5306 paniculata L.       | close-headed    | ■ | de | 1     | jn.jl | W     | C. G. H. | 1820. | C | s.p | Bot. cab. 1194       |
| 5307 suaveolens Lodd.    | panicked        | ■ | or | 1     | f.ap  | R     | C. G. H. | 1774. | C | s.p | Bot. cab. 1194       |
| 5308 amœna Wendl.        | white-flowered  | ■ | or | 1     | f.ap  | W     | C. G. H. | 1774. | C | s.p | Bot. cab. 24         |
| 5309 lævis Andr.         | sweet-scented   | ■ | el | 1     | au    | Pk    | C. G. H. | 1800. | C | s.p | W.e.17.p.73.c.ic.    |
| 5310 Peziza Lodd.        | feathery        | ■ | or | 1     | mr.jl | Pu    | C. G. H. | 1795. | C | s.p | Bot. cab. 1393       |
| 5311 gracilis Wendl.     | smooth          | ■ | de | 1     | my.jn | W     | C. G. H. | 1821. | C | s.p | Bot. cab. 265        |
| 5312 nidularia Lodd.     | mushroom        | ■ | de | 1     | mr.s  | W     | C. G. H. | 1812. | C | s.p | W.er.8.p.9.c.ic.     |
| 5313 persolita L.        | gracile         | ■ | or | 3/4   | f.jn  | W     | C. G. H. | 1794. | C | s.p | Bot. cab. 764        |
| 5314 grandinosa Lodd.    | nestling        | ■ | pr | 2     | mr.ap | Pk    | C. G. H. | 1809. | C | s.p | Bot. cab. 342        |
| 5315 pubescens L.        | garland         | ■ | or | 1 1/2 | f.my  | Pu    | C. G. H. | 1774. | C | s.p | Bot. cab. 627        |
| 5316 hirtiflora H. K.    | hailstone       | ■ | pr | 1 1/2 | mr.ap | W     | C. G. H. | 1810. | C | s.p | Bot. cab. 167        |
| 5317 mitreiformis W.     | pale-downy      | ■ | or | 1 1/2 | f.d   | Pu    | C. G. H. | 1790. | C | s.p | Bot. mag. 481        |
| 5318 mucosa L.           | hairy-flowered  | ■ | cu | 1 1/2 | ap.jn | Pu    | C. G. H. | 1790. | C | s.p | Bot. cab. 633        |
| 5319 ramentacea L.       | cistus-leaved   | ■ | cu | 1     | my.jn | W     | C. G. H. | 1823. | C | s.p | And. hea. vol. 2     |
| 5320 mellifera Lk.       | mucous          | ■ | el | 1 1/2 | f.au  | R     | C. G. H. | 1787. | C | s.p | And. hea. vol. 1     |
| 5321 odorata Andr.       | slender-branch. | ■ | el | 1 1/2 | jd    | D.R   | C. G. H. | 1786. | C | s.p | And. hea. vol. 1     |
| 5322 canescens Andr.     | honey-bearing   | ■ | or | 1     | ap.my | Pu    | C. G. H. | 1820. | C | s.p | Bot. cab. 633        |
| 5323 pura Lodd.          | perfumed        | ■ | de | 1     | ap.jl | W     | C. G. H. | 1804. | C | s.p | And. hea. vol. 2     |
| 5324 racemosa Thunb.     | hoary           | ■ | el | 1 1/2 | my.au | Pk    | C. G. H. | 1790. | C | s.p | Bot. cab. 72         |
| 5325 absinthoides L.     | pure            | ■ | pr | 3/4   | au.s  | W     | C. G. H. | 1807. | C | s.p | W.er.10.p.3.c.ic.    |
| 5326 scariosa Thunb.     | racemed         | ■ | el | 1 1/2 | ap.my | Pk    | C. G. H. | 1795. | C | s.p | Bot. cab. 477        |
| 5327 campanulata Wendl.  | wormwood-like   | ■ | or | 1 1/2 | mr.jn | Pu    | C. G. H. | 1792. | C | s.p | And. hea. vol. 1     |
| 5328 scoparia L.         | many-flowered   | ■ | or | 1     | jn.jl | Pu    | C. G. H. | 1800. | C | s.p | L.e.n.14.c.fig.fl.   |
| 5329 triceps Lk.         | bell-flowered   | ■ | el | 1     | ap.au | Y     | C. G. H. | 1794. | C | s.p | Bot. cab. 962        |
| 5330 coarctata Wendl.    | small-green-fl. | ■ | pr | 6     | ap.my | G     | C. G. H. | 1770. | C | s.p | Bot. cab. 962        |
| 5331 actæa Lk.           | three-headed    | ■ | de | 1     | my.jn | W     | C. G. H. | 1820. | C | s.p | Bot. cab. 46         |
| 5332 conferta Andr.      | crowded         | ■ | cu | 1     | my.s  | Pu    | C. G. H. | 1801. | C | s.p | And. hea. vol. 1     |
| 5333 penicilliflora Sal. | Actæon          | ■ | pr | 1     | my.jn | Pa.pu | C. G. H. | 1822. | C | s.p | And. hea. vol. 2     |
| 5334 villosa Andr.       | crowded-flower. | ■ | de | 1 1/2 | fo    | W     | C. G. H. | 1800. | C | s.p | W.er.4.p.5.c.ic.     |
| 5335 tharsiflora Andr.   | white-pencilled | ■ | cu | 2     | my.au | W.Br  | C. G. H. | 1792. | C | s.p | And. hea. vol. 3     |
| 5336 mutabilis Andr.     | villous         | ■ | cu |       | f.jn  | W     | C. G. H. | 1800. | C | s.p | And. hea. vol. 3     |
| 5337 obliqua W.          | turban-flowered | ■ | pr |       | my.au | R     | C. G. H. | 1800. | C | s.p | Bot. cab. 46         |
| 5338 flavâ Andr.         | mutable         | ■ | pr |       | fo    | Cr    | C. G. H. | 1798. | C | s.p | And. hea. vol. 1     |
| 5339 decora Andr.        | oblique-leaved  | ■ | or | 1 1/2 | au.o  | Pu    | C. G. H. | 1789. | C | s.p | Bot. cab. 882        |
| 5340 cordata Andr.       | three-ld.-yell. | ■ | el | 1 1/2 | ap    | Y     | C. G. H. | 1795. | C | s.p | And. hea. vol. 3     |
| 5341 Passerina W.        | graceful        | ■ | el | 2     | au    | Pu    | C. G. H. | 1790. | C | s.p | And. hea. vol. 1     |
| 5342 setacea Andr.       | heart-leaved    | ■ | de | 3/4   | ap.jn | W     | C. G. H. | 1799. | C | s.p | Pet. gaz. t. 3. f. 7 |
| 5343 tenuissima P. S.    | Sparrow-wort    | ■ | cu |       | my.n  | W     | C. G. H. | 1800. | C | s.p | And. hea. vol. 1     |
| 5344 floribunda Lodd.    | bristly-leaved  | ■ | pr | 1 1/2 | f.ap  | W     | C. G. H. | 1796. | C | s.p | W. er. 6.p.9.c.ic.   |
|                          | slender         | ■ | pr |       | f.au  | R     | C. G. H. | 1803. | C | s.p | Bot. cab. 176        |
|                          | many-flowered   | ■ | cu | 1     | my.jn | Pa.pu | C. G. H. | 1800. | C | s.p |                      |

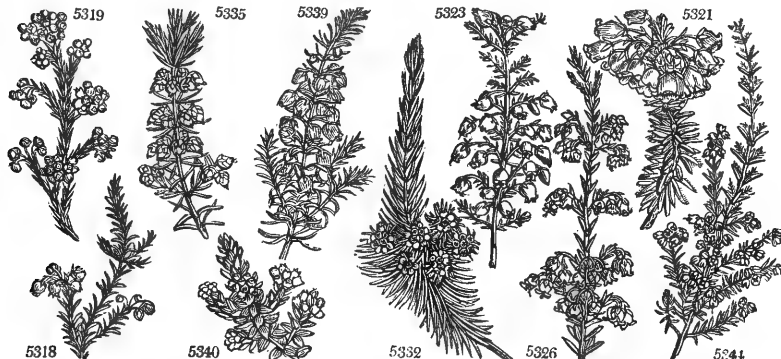


History, Use, Propagation, Culture,

glass as may be opened to admit air every mild day in the year. They require also very regular supplies of water; not much at a time, but so frequently that the earth may never get dry or the plant droop. Many kinds of plants, if they have suffered for want of water, may be recovered by an abundant supply, and placing them under a bell-glass on a little heat; but if once the roots of a heath are thoroughly dried, no art of the gardener will recover the plant. This is the true reason why so many heaths are destroyed when introduced as chamber plants, and also by gardeners who are ignorant of their nature.

Heaths are propagated by cuttings, seeds, and a few by layers. In propagating by cuttings, the tender tops are taken at whatever season of the year they begin to grow, which with most sorts is about the month of June. The strong growing kinds require the cuttings to be rather larger than the others, and some of the stunted growing kinds should be kept in the hot-house a little while when they begin to grow, to draw them to a sufficient length of young wood, or cuttings cannot be procured. Then take the extreme points of the shoots, and with a sharp penknife cut off their lower ends at right angles, placing the cutting on the nail of the thumb, as in cutting the nib of a pen. The cutting will be from three quarters to an inch long; strip off the leaves from the lower end to nearly half the length of the cutting; and, in order that this may be done

- 5296 Anth. bearded exserted, Cor. campanulate, Leaves 3 or 4 ovate acute fringed with glands  
 5297 Leaves 3 ovate, Fl. very minute 3-6 term. Style long exserted  
 5298 Anth. bearded, Cor. ovate conical, Style middling, Leaves 3 ovate pubescent white beneath  
 5299 Anth. beardless included, Cor. roundish, Leaves 3 ovate acute ciliated, Stem hispid  
 5300 Shoots long, Leaves smooth erect imbricated, Fl. axillary, Cor. globose shorter than stalk nodding  
 5301 Tube of cor. cup-shaped, Fl. axillary, Cal. imbric. Leaves 4  
 5302 Leaves 3 spreading acerose, Cor. campanulate rough with short hairs  
 5303 Bractes remote, Cor. with a short open limb, Anth. included bearded  
 5304 Flowers capitate, Bractes remote, Cor. hairy, Anth. included bearded
- 5305 Leaves hairy, Flowers capitate, Anth. included bearded  
 5306 Bractes remote, Flowers very abundant, Anth. included bearded, Style exserted
- 5307 Leaves 3 ovate ciliated spreading, Fl. term. 3, Bractes remote, Cor. ovate shorter than its stalk  
 5308 Anth. bearded, Style included, Cor. camp. Cal. villous, Fl. axill. whorled, Leaves 4 imbric. villous
- 5309 Anth. included bearded, Fl. capitate, Bractes remote  
 5310 Leaves 3 narrow spreading, Cor. 4 globose campanulate [quite smooth  
 5311 Anth. bearded, Style exserted, Cor. camp. Sepals linear smooth, Fl. terminal umbelled, Leaves 4, Stem  
 5312 Branches slender upright, Leaves 3 short smooth, Fl. clustered terminal, Cor. globose campanulate  
 5313 Anth. bearded, Style included, Cor. camp. Sepals ciliated, Leaves 3-4 smooth, Branches pubescent  
 5314 Leaves 3 spreading very narrow, Leaves 3 terminal, Cor. globose smooth  
 5315 Anth. bearded, Style included, Cor. ovate pubescent, Leaves 3 hairy, Stem hairy  
 5316 Anth. bearded, Leaves 4 or more hairy, Fl. terminal, Cor. pubescent
- 5317 Leaves 4 covered with glandular hairs, Fl. capitate, Bractes none, Cal. hairy, Anth. included bearded  
 5318 Anth. bearded, Cor. globose mucous, Ped. 3 term. longer than fl. Leaves 4 linear with a cartil. serrul. edge  
 5319 Anth. crested, Style included, Cor. globose, Fl. umb. Leaves 4 linear 3-cornered smooth  
 5320 Leaves 4 and branches hairy, Fl. capitate 4 or more, Cal. leafy, Anth. exserted bearded, Style long exserted  
 5321 Anth. beardless, Bractes remote  
 5322 Anth. beardless, Leaves linear 3 smooth, Limb of cor. revolute
- 5323 Leaves 3 short smooth, Fl. solitary term. Cor. ovate smooth, Anth. a little exserted  
 5324 Anth. beardless, Leaves 4 lanceolate villous, Fl. racemose, Cal. downy  
 5325 Anth. beardless included, Cor. ovate campanulate, Style exserted, Stigma funnel-form, Leaves 3  
 5326 Anth. beardless, Leaves 3 linear smooth, Fl. camp. racemose, Bractes remote  
 5327 Anth. beardless, Leaves linear 3 smooth, Limb of cor. spreading recurved  
 5328 Anth. beardless, Leaves linear 3 smooth, Limb of cor. erect  
 5329 Anth. beardless exserted, Leaves 3 ciliated at base, Fl. term. 3, Sepals scarious  
 5330 Anth. beardless included, Stigma calyptrate, Cor. dilated upwards, Bractes remote  
 5331 Anth. beardless exserted, Leaves 3 smooth, Fl. term. Style exsert. Stigma peltate  
 5332 Anth. beardless, Leaves linear 4 smooth, Flowers terminal nearly 12  
 5333 Anth. bearded. exsert. Cor. urceol. smooth, Fl. term. umb. Leaves 3 pointed ciliated imbricated
- 5334 Anth. beardless exserted, Fl. urceolate villous, Leaves 3 revolute villous  
 5335 Anth. beardless exserted, Fl. cernuous turban-shaped covered by calyx, Leaves 3  
 5336 Leaves 3 or 4, Fl. terminal 2, Cor. downy changing from green to crimson  
 5337 Anth. crested, Cor. ovate viscid, Fl. term. umb. Leaves scattered arcuate truncate  
 5338 Leaves 3 erect imbricated smooth, Fl. axill. Cor. urceolate, Style exserted  
 5339 Anth. beardless included, Fl. axillary spiked, Cor. campan. ribbed, Leaves 6 obtuse  
 5340 Anth. beardless, Leaves 3 ovate villous  
 5341 Anth. beardless, Leaves 3, Cal. 4-cleft very densely downy  
 5342 Anth. beardless, Leaves 3 hispid, Sepals hairy upwards, Cor. smooth  
 5343 Anth. bearded included, Cor. very small above, obt. smooth, Fl. umb. erect and cernuous, Lvs. 3-4 smooth  
 5344 Leaves two distant, Fl. numerous very minute globose campanulate, Style exserted



## and Miscellaneous Particulars.

without injuring the shoot, use a sharp penknife or a pair of small scissors, for the least bruise or wound spoils the cutting. This done, dibble the cuttings into pots filled with moistened white sand from pits, or with any small sand from pits or rivers, or, in default of that, with powdered sandstone. When they are all planted, water the whole to fix them still better, and when the moisture has subsided, cover them with a small crystal or greenish crystal bell-glass fitted within the rim of the pot, and place them in the shade on a spent hot-bed, keeping them quite close till rooted. The free-striking sorts will have roots in two months, and the others at different periods from three to twelve months, most of them will be ready for transplanting into pots of the smallest size in the following March. Their rooting is easily known by their beginning to shoot, and then the bell should be taken off an hour or two daily.

Many *Ericas* ripen their seeds in this country, and of other sorts seeds are regularly obtained by the nursery-men from the collectors at the Cape of Good Hope. Imported seeds generally arrive in the winter, and should be sown early in the spring following, in pots filled with equal parts of peat and sand well incorporated; the seeds should be thinly covered with earth gently pressed down, and bell-glasses placed over them as over the cuttings. The soil must be kept moderately moist by gentle waterings, and in about six or seven weeks

|                          |                 |    |    |          |       |           |         |   |    |                     |
|--------------------------|-----------------|----|----|----------|-------|-----------|---------|---|----|---------------------|
| 5345 austrális L.        | Spanish         | ec | or | ½ mr.jl  | Pu    | Spain     | 1769.   | C | ap | And. hea. vol. 3    |
| 5346 cinérea H. K.       | fine-leaved     | ec | or | 1 jn.3   | Pu    | Britain   | hea.    | L | sp | Eng. bot. 1015      |
| β álba                   | white-flowered  | ec | or | 1 jn.s   | W     | Britain   | hea.    | L | sp |                     |
| 5347 stricta Donn.       | straight-branc. | ec | or | 2 au.n   | Pu    | S. Europe | 1765.   | C | ap | And. hea. vol. 2    |
| 5348 reflexa Lk.         | reflexed        | ec | cu | 1½ my.jn | W     | C. G. H.  | 1820.   | C | sp | Bot. cab. 1787 ?    |
| 5349 cérnua L.           | drooping-flow.  | ec | or | 1 au.d   | Pu    | C. G. H.  | 1791.   | C | sp | Bot. cab. 822       |
| 5350 lanceolata Pers.    | spear-leaved    | ec | or | 1 jn.d   | W     | C. G. H.  | 1791.   | C | sp | W.er.8.p.13.c.ic.   |
| 5351 leucanthéa Andr.    | white-tipped    | ec | or | ¾ ja.my  | W     | C. G. H.  | 1803.   | C | sp |                     |
| 5352 tétralix L.         | cross-leaved    | ec | or | 1 jn.au  | F     | Britain   | moi. h. | C | sp | Eng. bot. 1014      |
| β álba                   | white-flowered  | ec | or | 1 jn.au  | W     |           | .....   | L | sp |                     |
| 5353 cineráscens W. en.  | ash-colored     | ec | or | 1 ap.my  | Pu    | C. G. H.  | 1810.   | C | sp |                     |
| § 5354 urceoláris Thunb. | pitcher-flower. | ec | or | 1½ my.jl | W     | C. G. H.  | 1778.   | C | sp | Ic. hor. kew. 16    |
| 5355 cúbica L.           | cube-flowered   | ec | or | 1 ap.jl  | Pu    | C. G. H.  | 1790.   | C | sp | And. hea. vol. 1    |
| 5356 assúrgens Lk.       | rising          | ec | de | 1 my.jn  | W     | C. G. H.  | 1821.   | C | sp |                     |
| 5357 nudiflora W.        | small-bracted   | ec | or | 2 jl.au  | D.Y   | C. G. H.  | 1783.   | C | sp | Sm. ined. s. t. 57  |
| 5358 incána Wendl.       | hoary           | ec | cu | 1½ jn.au | W     | C. G. H.  | 1810.   | C | sp |                     |
| β rubra                  | red-flowered    | ec | cu | 1½ jn.au | R     | C. G. H.  | 1810.   | C | sp |                     |
| 5359 reger'minans W.     | cluster-flower. | ec | or | 1½ my.au | R     | C. G. H.  | 1791.   | C | sp | Bot. cab. 1728      |
| 5360 scabriuscula Lk.    | roughish        | ec | el | 1 my.jn  | W     | C. G. H.  | 1805.   | C | sp | Bot. cab. 517       |
| 5361 proctoláris Lam.    | many-bracted    | ec | or | 1 mr.jl  | R     | C. G. H.  | 1800.   | C | sp |                     |
| 5362 proctódens Lk.      | protruding      | ec | de | 1 ap.my  | W     | C. G. H.  | 1805.   | C | sp |                     |
| 5363 flexuosa Andr.      | zigzag          | ec | or | 1½ ap.jl | W     | C. G. H.  | 1792.   | C | sp | And. hea. vol. 1    |
| divaricatá Wendl.        |                 |    |    |          |       |           |         |   |    |                     |
| 5364 umbelláta L.        | umbelled        | ec | or | 3 my.jl  | Pu    | Portugal  | 1782.   | C | sp | And. hea. vol. 2    |
| 5365 staminea Andr.      | reflexed-stam.  | ec | or | 2 jn.s   | R     | C. G. H.  | 1799.   | C | sp | And. hea. vol. 3    |
| 5366 latifolia Andr.     | broad-leaved    | ec | or | 2 my.au  | R     | C. G. H.  | 1800.   | C | sp | And. hea. vol. 2    |
| 5367 cárnea L.           | early-fl.-dwarf | ec | pr | ¾ ja.ap  | Pa.pu | Germany   | 1763.   | L | sp | Bot. mag. 11        |
| β herbácea Wendl.        | herbaceous      | ec | pr | ¾ jn.ap  | Pk    | .....     | ...     | L | sp |                     |
| 5368 mediterránea L.     | Mediterranean   | ec | or | ¾ mr.my  | Pu    | Portugal  | 1648.   | C | sp | Bot. mag. 471       |
| 5369 arbúscula Lodd.     | little tree     | ec | pr | 1 f.au   | R     | C. G. H.  | 1810.   | C | sp | Bot. cab. 843       |
| § 5370 vágnans L.        | Cornish         | ec | or | 1 jl.au  | R     | Cornwall  | hea.    | C | sp | Eng. bot. 3         |
| β álba                   | white-flowering | ec | or | 1 jl.au  | W     | .....     | ...     | C | sp |                     |
| 5371 longipedunculata L. | long-stalked    | ec | or | 1 jl.au  | Pk    | C. G. H.  | 1805.   | C | sp | Bot. cab. 103       |
| 5372 ciliáris L.         | ciliated        | ec | pr | 1 jls    | Pu    | Portugal  | 1759.   | C | sp | Bot. mag. 484       |
| 5373 pilósa Lodd.        | pilose          | ec | cu | ¾ jn     | G     | C. G. H.  | 1800.   | C | sp | Bot. cab. 605       |
| 5374 álbens W.           | pallid          | ec | or | 1½ mr.au | W     | C. G. H.  | 1789.   | C | sp | Bot. mag. 440       |
| 5375 propéndens Andr.    | pendent         | ec | or | 1½ jl.au | Pu    | C. G. H.  | 1800.   | C | sp | And. hea. vol. 2    |
| § 5376 pyramidális B. M. | pyramidal       | ec | pr | 1½ f.my  | Pk    | C. G. H.  | 1787.   | C | sp | Bot. mag. 366       |
| 5377 echiiflora Andr.    | Echium-flower.  | ec | el | 1½ f.jn  | Sc    | C. G. H.  | 1798.   | C | sp | And. hea. vol. 3    |
| 5378 filamentósa Andr.   | long-peduncled  | ec | or | 2 ja.d   | Pu    | C. G. H.  | 1800.   | C | sp | Bot. reg. 6         |
| 5379 pulchélla Thunb.    | neat            | ec | de | 1½ jn.s  | R     | C. G. H.  | 1792.   | C | sp | Th. er. n. 24. t. 4 |
| 5380 visciára W.         | clammy-flower.  | ec | el | 2½ mr.jl | R     | C. G. H.  | 1774.   | C | sp | Ic. hort. kew. 1    |
| 5381 flexicaúlis H. K.   | crook-stalked   | ec | or | ¾ ja.my  | Pu    | C. G. H.  | 1800.   | C | sp | And. hea. vol. 2    |
| glandulósa Andr.         |                 |    |    |          |       |           |         |   |    |                     |
| 5382 tenélla Andr.       | delicate        | ec | or | ¾ my.au  | Pu    | C. G. H.  | 1791.   | C | sp | And. hea. vol. 2    |
| 5383 alopecuroídes Wen.  | scurfy          | ec | el | ¾ my.jn  | Pa.pu | C. G. H.  | 1810.   | C | sp | Bot. cab. 874       |
| 5384 furfurósa Sal.      | column-thread.  | ec | or | 1 au.d   | R     | C. G. H.  | 1789.   | C | sp | And. hea. vol. 1    |
| 5385 multiflóra W.       | many-flowered   | ec | or | 2 jn.n   | F     | France    | 1731.   | C | sp | And. hea. vol. 2    |
| 5386 depréssa W.         | depressed       | ec | el | ¾ jn.au  | Y     | C. G. H.  | 1789.   | C | sp | And. hea. vol. 2    |
| rupéstris Andr.          |                 |    |    |          |       |           |         |   |    |                     |
| 5387 nána Sal.           | dwarf           | ec | el | ¾ my.au  | Y     | C. G. H.  | 1792.   | C | sp |                     |
| 5388 palus'tris Andr.    | marsh           | ec | or | 1 my.o   | F     | C. G. H.  | 1799.   | C | sp | And. hea. vol. 2    |
| 5389 formósa W.          | beautiful       | ec | or | 2 jn.s   | R     | C. G. H.  | 1795.   | C | sp | Thu.eri.n.82.L.3    |
| α álba                   | white-flowered  | ec | or | 2 jn.s   | W     | C. G. H.  | 1795.   | C | sp |                     |
| β rubra                  | red-flowered    | ec | or | 2 jn.s   | R     | C. G. H.  | 1795.   | C | sp |                     |
| 5390 flórida W.          | florid          | ec | or | 1 my.au  | R     | C. G. H.  | 1803.   | C | sp | Thu.eri.n.64.t.6    |



History, Use, Propagation, Culture,

the seeds, if fresh, will begin to come up, when the glasses may be removed by degrees, and the pots kept near the glass, and shaded from the mid-day sun till autumn, when they may be transplanted into pots of the smallest size.

Seeds which are saved in this country may be sown as soon as gathered, if they ripen before November; but if after that period, it will be better to preserve them till spring, and then treat them like foreign seeds.

Only a few heaths are propagated by layers, such as *E. Massoni*, *retorta*, *petiolata*, and one or two other delicate sorts, which when layed require two years to throw out roots. On the continent most sorts of heaths are propagated by layers, because there they are ignorant of the easiest mode of managing cuttings.

One of the best growers of heaths in Britain is a gardener of the name of Henderson, at Woodhall, in West Lothian. This judicious cultivator has had an extensive collection of *Erica* for upwards of thirty years under his care, and has given some account of his mode of management in a late volume (vol. iii. p. 323.)

F. OVATE. *Corollas small, not globose.*

- 5345 Anthers crested, Cor. cylindrical, Style exserted, Leaves 3 spreading  
 5346 Anthers crested, Cor. ovate, Leaves 3, Stigma capitate
- 5347 Anth. bearded, Style included, Cor. ovate, Fl. term. umbelled, Leaves 4 lin. horizontal  
 5348 Anth. crested included, Leaves 3 recurved rough at edge, Cal. short, Cor. campanulate viscid  
 5349 Anth. crested, Leaves 4 ovate ciliated, Fl. capitate, Cal. ciliated  
 5350 Anth. crested, Leaves 4 lanc. erect smooth, Fl. capitate cernuous  
 5351 Anth. crested included, Fl. capitate, Leaves 3 or 4 lines long  
 5352 Anth. crested, Cor. ovate, Style included, Leaves 4 ciliated, Fl. capitate
- 5353 Very like *E. cinerea*, but the branches and calyx are downy with long hairs, Leaves 5 ciliated  
 5354 Anth. bearded, Cor. ovate-conical villous, Style included, Sepals lanceolate, Fl. umb. Leaves 3  
 5355 Anth. beardless included, Cor. camp. acute, Style included, Cal. 4 corneled, Leaves 4 spreading  
 5356 Anth. bearded included, Leaves 4 spreading hairy, Cor. dilated at end, Fl. terminal  
 5357 Anth. beardless exsert. Style exsert. Leaves 3, Branches downy  
 5358 Anth. bearded included, Leaves obtuse hairy, Fl. capitate, Bractes remote, Cor. silky
- 5359 Anth. bearded, Cor. ovate, Style included, Cal. acute, Fl. racemose  
 5360 Anth. bearded included, Style included, Cor. slender, Leaves 4 obtuse glandular, Fl. capitate  
 5361 Anth. crested included, Cor. prismatical, Leaves 3, Fl. in bundles, Bractes many imbric. involving the fl.  
 5362 Anth. beardless nearly exserted, Leaves 4 spreading hairy, Fl. terminal umbelled, Sepals ovate  
 5363 Anthers beardless exserted, Cor. oval twice as long as smooth calyx
- 5364 Anthers beardless exserted, Cor. campan. Style exserted, Leaves 3 acerose  
 5365 Anth. exserted, Fl. axill. Leaves linear 3, Filam. very long reflexed  
 5366 Anth. exserted, Fl. axill. Leaves 3 ovate  
 5367 Anth. exserted, Fl. axill. Leaves linear 3 or 4, Bractes in middle of flower-stalks, Cor. conical
- 5368 Anth. exserted, Fl. axill. Leaves 4-5, Bractes above the middle of flower-stalk, Cor. urceolate  
 5369 Leaves short spreading, Fl. terminal urceolate, Style a little spreading  
 5370 Anth. exserted, Fl. axill. Leaves 4-5, Cor. campanulate, Pedunc. the length of cor.
- 5371 Anth. and style much exserted, Flowers axillary on very long slender hairy stalks  
 5372 Cor. conical, Leaves 3 ovate ciliated, Anth. beardless  
 5373 Plant all over hairy, Cor. ovate, Sepals brown at end, Stamens and style exserted  
 5374 Cor. conical, Leaves 3 linear smooth, Anth. beardless  
 5375 Cor. cylindrical, Fl. term. Bractes remote, Anth. beardless, Sepals ovate  
 5376 Cor. cylind. dilated upwards, Fl. term. Bractes remote, Anth. beardless, Sepals subul. from a broad base  
 5377 Cor. cylindrical dilated upwards, Fl. axill. Two bractes next cal. Sepals ovate oblong  
 5378 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles longer than flower  
 5379 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles much shorter than flower  
 5380 Cor. cylindrical dilated upwards, Fl. axill. Sepals linear  
 5381 Cor. conical, Anth. beardless, Leaves 4, Limb of cor. erect
- 5382 Anth. beardless, Leaves linear 4 smooth, Fl. terminal 4  
 5383 Anth. beardless included, Fl. term. Bractes remote, Cor. narrowed upwards  
 5384 Leaves 3, Anthers beardless exserted, Flowers terminal  
 5385 Anth. exserted, Fl. axill. Bractes remote, Leaves lin. 5, Cor. camp. Limb reflex. Ped. twice as long as cor  
 5386 Cor. cylindrical, Fl. term. Bractes remote, Anth. bearded
- 5387 Stem spread on the ground, Leaves obtuse, Cor. dewy outside clavate, Anth. bearded  
 5388 Anth. beardless included, Cor. linear downy, Leaves downy 4  
 5389 Anth. crested, Leaves 3 ovate entire smooth, Fl. umb. furrowed, Cal. spreading entire

5390 Anth. bearded, Style included, Cor. globose, Cal. villous reflexed, Fl. term. umbelled, Leaves 4 hairy

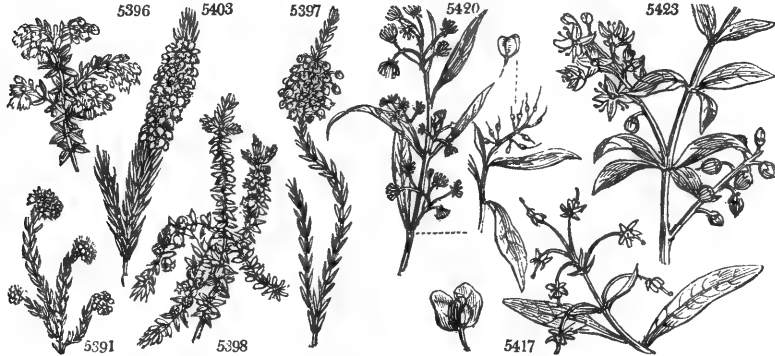


## and Miscellaneous Particulars.

of the Caledonian Horticultural Society's Memoirs. He keeps his *Ericas*, he says, "at all times cool and airy, opening the glasses in winter when there is no frost, and letting the wind blow on them, and using no fire but in time of frost." "Never," he says, "shift any plant till the pot is quite full of roots. When the plants get large, several of them will continue in good health for three or four years without shifting, and flower well. I have plants of *E. retorta* here, in pots seven inches in diameter, which are very bushy, being eighteen inches across, and fourteen inches high above the pot; *E. infundibuliformis*, two feet and a half in diameter, and two feet nine inches high; *Erica pilosa* between five and six feet high and three feet across, in pots eleven inches in diameter: these have not been shifted for five years, and are in high health, and covered with strong fine flowers from the mouth of the pot to the top of the plant." (*Caled. Mem.* iii. 327.)

"A prejudice," Page observes, "having spread that the culture of heaths is difficult, one of the greatest ornaments of the greenhouse has hence of late been neglected; although the method of culture is as easy and nearly as certain as that of the *Geranium*, but requiring a little more delicacy in the execution."

|                                |                 |   |   |    |    |       |      |                    |                  |   |       |                      |
|--------------------------------|-----------------|---|---|----|----|-------|------|--------------------|------------------|---|-------|----------------------|
| 5391 <i>Solan'dra Andr.</i>    | Solander's      | ■ | □ | el | 1  | mr.s  | Pk   | C. G. H.           | 1800.            | C | s.p   | And. hea. vol. 2     |
| 5392 <i>acúta Andr.</i>        | pointed-cupped  | ■ | □ | de | 1  | my.jl | R    | C. G. H.           | 1799.            | C | s.p   | And. hea. vol. 2     |
| 5393 <i>empetroides Andr.</i>  | close-flowered  | ■ | □ | or | 1½ | my.au | L.F  | C. G. H.           | 1788.            | C | s.p   | And. hea. vol. 2     |
| 5394 <i>turrigera Sal.</i>     | Cypress         | ■ | □ | or | 1½ | jn.s  | R    | C. G. H.           | 1796.            | C | s.p   | And. hea. vol. 2     |
| 5395 <i>Bergiana W.</i>        | Bergius's       | ■ | □ | cu | 1½ | ap.au | Pu   | C. G. H.           | 1787.            | C | s.p   | And. hea. vol. 2     |
| <i>quadriflora Andr</i>        |                 |   |   |    |    |       |      |                    |                  |   |       |                      |
| 5396 <i>barbata Andr.</i>      | bearded         | ■ | □ | or | 1  | my.au | W    | C. G. H.           | 1799.            | C | s.p   | And. hea. vol. 2     |
| 5397 <i>retroflex'a Wendl.</i> | jointed         | ■ | □ | el | 1  | jl.s  | W    | C. G. H.           | 1787.            | L | s.p   | W. er. 3.p.7.c. ic.  |
| <i>pulchella Andr.</i>         |                 |   |   |    |    |       |      |                    |                  |   |       |                      |
| <i>articuláris Thunb.</i>      |                 |   |   |    |    |       |      |                    |                  |   |       |                      |
| 5398 <i>thymifolia Andr.</i>   | Thyme-leaved    | ■ | □ | de | ½  | my.au | Pu   | C. G. H.           | 1789.            | C | s.p   | And. hea. vol. 2     |
| 5399 <i>ténuis W. en.</i>      | slender-flower. | ■ | □ | el | 1  | lo    | Pk   | C. G. H.           | 1790.            | C | s.p   | And. hea. vol. 2     |
| 5400 <i>hirta W.</i>           | hairy-leaved    | ■ | □ | or | 2  | ap.jn | R.Pk | C. G. H.           | 1785.            | C | s.p   | Th. er. n. 56. t. 2  |
| 5401 <i>strigosa W.</i>        | dwarf-downy     | ■ | □ | or | 1½ | mr.ap | Pa.R | C. G. H.           | 1775.            | C | s.p   | And. hea. vol. 2     |
| 5402 <i>molléaris Sal.</i>     | soft-leaved     | ■ | □ | de | 1  | ap.o  | R    | C. G. H.           | 1803.            | C | s.p   | Schne. ic. n. 17     |
| 5403 <i>racemifera Andr.</i>   | compact-flow.   | ■ | □ | or | 1½ | ap.jn | R    | C. G. H.           | 1803.            | C | s.p   | And. hea. vol. 3     |
| 5404 <i>pilulifera W.</i>      | ball-bearing    | ■ | □ | cu | 1  | ap.my | R    | C. G. H.           | 1789.            | C | s.p   | And. hea. vol. 2     |
| 5405 <i>catervefólia Sal.</i>  | huddled-leaved  | ■ | □ | or | ½  | ap.jn | R    | C. G. H.           | 1790.            | C | s.p   | And. hea. vol. 2     |
| 5406 <i>tardiflora Sal.</i>    | pubescent       | ■ | □ | cu | 1½ | mr.s  | Pu   | C. G. H.           | 1790.            | C | s.p   | Bot. mag. 480        |
| <i>E. pubescens B. M.</i>      |                 |   |   |    |    |       |      |                    |                  |   |       |                      |
| 5407 <i>parviflora Sal.</i>    | small-fl.-downy | ■ | □ | pr | 1  | mr.s  | Pk   | C. G. H.           | 1790.            | C | s.p   | And. hea. vol. 2     |
| 5408 <i>exigua Sal.</i>        | small-downy     | ■ | □ | pr | 1  | mr.s  | Pk   | C. G. H.           | 1790.            | C | s.p   | And. hea. vol. 2     |
| *893. <i>MENZIESIA. Sm.</i>    | MENZIESIA.      |   |   |    |    |       |      | <i>Rhodoraceæ.</i> | <i>Sp. 5-6.</i>  |   |       |                      |
| 5409 <i>ferruginea W.</i>      | ferrugineous    | ■ | □ | or | ½  | my.jn | Br   | N. Amer.           | 1811.            | L | s.p   | Sm. ic. in. 1. t. 56 |
| 5410 <i>globuláris Ph.</i>     | globular-flow.  | ■ | □ | or | ½  | my.jn | Br   | N. Amer.           | 1806.            | L | s.p   | Par. lond. 44        |
| 5411 <i>pilósa W.</i>          | pilose          | ■ | □ | or | ½  | my.jn | Br   | .....              | 1822.            | L | s.p   | And. hea. vol. 2     |
| 5412 <i>polifolia H. K.</i>    | Irish           | ■ | □ | or | 2  | jn.s  | Pu   | Ireland            | moun.            | L | s.p   | Eng. bot. 35         |
| <i>β nana</i>                  | dwarf           | ■ | □ | cu | ½  | jn.s  | Pu   | Ireland            | ...              | L | s.p   | And. hea. vol. 2     |
| 5413 <i>carúlea L. T.</i>      | Yew-leaved      | ■ | □ | or | ½  | jn.jl | B    | Scotland           | hea.             | L | s.p   | Eng. bot. 2169       |
| 894. <i>CHLORA. W.</i>         | YELLOW-WORT.    |   |   |    |    |       |      | <i>Gentianæ.</i>   | <i>Sp. 1-2.</i>  |   |       |                      |
| 5414 <i>perfoliata W.</i>      | perfoliate      | ○ | □ | or | 1  | jn.jl | Y    | Britain            | ch. so.          | S | s.l   | Eng. bot. 60         |
| 895. <i>MICHAUXIA. W.</i>      | MICHAUXIA.      |   |   |    |    |       |      | <i>Campulanææ.</i> | <i>Sp. 1.</i>    |   |       |                      |
| 5415 <i>campanuloides W.</i>   | rough-leaved    | ■ | □ | or | 4  | jn.au | L.B  | Levant             | 1787.            | S | r.l   | Bot. mag. 219        |
| 896. <i>JEFFERSONIA. Ph.</i>   | JEFFERSONIA.    |   |   |    |    |       |      | <i>Papaverææ.</i>  | <i>Sp. 1.</i>    |   |       |                      |
| 5416 <i>diphylla Ph.</i>       | two-leaved      | ■ | □ | pr | ½  | my    | W    | N. Amer.           | 1792.            | D | s.l   | Bot. mag. 1513       |
| 897. <i>DODONÆA. W.</i>        | DODONÆA.        |   |   |    |    |       |      | <i>Terebintææ.</i> | <i>Sp. 5-17.</i> |   |       |                      |
| 5417 <i>viscosa W.</i>         | clammy          | ■ | □ | un | 6  | jn.jl | G    | S. Amer.           | 1690.            | C | p.l   | Cav. ic. p.4.t.327   |
| 5418 <i>bialata Kth.</i>       | two-winged      | ■ | □ | un | 4  | ...   | G    | S. Amer.           | 1822.            | C | s.p   | And. hea. vol. 2     |
| 5419 <i>oblongifolia Lk.</i>   | oblong          | ■ | □ | un | 4  | ...   | G    | .....              | 1823.            | C | s.p   | And. hea. vol. 2     |
| 5420 <i>triquetra W.</i>       | three-sided     | ■ | □ | un | 5  | jn.au | G    | N. S. W.           | 1790.            | C | s.p   | Bot. rep. 230        |
| 5421 <i>angustifolia W.</i>    | narrow-leaved   | ■ | □ | un | 5  | my.au | G    | Jamaica            | 1758.            | C | s.p   | And. hea. vol. 2     |
| 898. <i>LAWSONIA. W.</i>       | LAWSONIA.       |   |   |    |    |       |      | <i>Salicariæ.</i>  | <i>Sp. 3-6.</i>  |   |       |                      |
| 5422 <i>inermis W.</i>         | Henna-plant     | ■ | □ | cu | 10 | ...   | W    | Egypt              | 1759.            | S | s.p   | Rauw. ic. 60.t. 7    |
| 5423 <i>spinosa W.</i>         | prickly         | ■ | □ | cu | 18 | ...   | W    | E. Indies          | 1759.            | S | s.p   | Rh. mal. 1. t. 40    |
| 5424 <i>purpúrea Lam.</i>      | purple          | ■ | □ | cu | 12 | ...   | Pu   | E. Indies          | 1820.            | S | s.p   | And. hea. vol. 2     |
| 899. <i>OSBECKIA. W.</i>       | OSBECKIA.       |   |   |    |    |       |      | <i>Melastomææ.</i> | <i>Sp. 4-7.</i>  |   |       |                      |
| 5425 <i>zeyláncia W.</i>       | Ceylon          | ■ | □ | pr | 2  | jl.au | Y    | Ceylon             | 1799.            | C | s.p.l | Bot. reg. 565        |
| 5426 <i>Chinénsis W.</i>       | Chinese         | ■ | □ | pr | 2  | jl    | Pu   | China              | 1818.            | C | s.p   | Bot. reg. 542        |
| 5427 <i>stellata Don.</i>      | starry          | ■ | □ | pr | 1  | jn.au | Pk   | Nepal              | 1820.            | C | p.l   | Bot. reg. 674        |
| 5428 <i>nepalénsis Hook.</i>   | Nepal           | ■ | □ | pr | 1½ | jn    | Pu   | Nepal              | 1821.            | C | p.l   | Hook. ex. fl. 31     |



History, Use, Propagation, Culture,

(*Prodromus*, &c. art. *Erica*.) Those who complain of the difficulty of growing the heath, are often, as Loddiges remarks, ignorant people who have never had a heath to grow.

One circumstance in favor of the culture of heaths is, that they are not subject to insects, or at least very rarely so. (*Greenhouse Companion*, p. 62.)

The number of species is here reduced to those which are certainly different from each other. Of those enumerated in garden catalogues many are mere repetitions of each other.

893. *Menziesia*. Named in honor of Mr. Archibald Menzies, an assiduous and successful botanist, who accompanied Vancouver, in the capacity of his surgeon, in his voyage round the world. He is still living, and the ornament of the private circle in which he moves. Small heath-like plants, all hardy, and requiring the same cultivation as *Erica*.

894. *Chlora*. From *χλωρος*, green, in allusion to the color of the dried flower of *C. perfoliata*. The whole plant dyes yellow.

895. *Michauxia*. In memory of Andrew Michaux, botanist to the king of France, who travelled into Syria,

- 5391 Anth. crested included, Flowers capitate campan. cernuous, Leaves 4 cernuous  
 5392 Anth. crested included, Fl. 3, Leaves 4 subulate erect mucronate  
 5393 Anth. bearded, Cor. campan. Fl. whorled, Leaves 6 hairy spiral  
 5394 Leaves narrow, Cal. recurved horizontal, Cor. globose with segm. imbricated at base  
 5395 Anth. crested, Leaves 3 lanceolate rough, Fl. 3, Cal. ciliated reflexed
- 5396 Anth. crested included, Cor. urceolate hairy, Fl. umbelled, Leaves 4 ovate  
 5397 Anth. bearded included, Cor. globose much less than colored calyx, Leaves 3 with a membranous edge
- 5398 Anth. 2 horned included, Cor. axill. solitary, Leaves 3 ovate cordate ciliated  
 5399 Anth. bearded included, Style exserted, Cor. camp. smooth, Fl. term. sol. Leaves 3 lin. Branches hairy  
 5400 Anth. bearded, Leaves 3 linear hispid, Fl. umbelled, Cal. rough  
 5401 Anth. bearded, Cor. camp. smooth, Leaves 4 pubescent ciliated  
 5402 Cal. 4-cleft, Cor. linear smooth urceolate with a recurved limb, Capsule hairy  
 5403 Anth. bearded included, Flowers racemose, Leaves 6 clustered  
 5404 Anth. bearded, Leaves 4 ciliated, Fl. umb. Cal. navicular ciliated at end  
 5405 Anth. bearded perforated, Leaves 4, Stem angular downy, Cor. narrow obovate  
 5406 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with a very short recurved limb, Caps. hairy
- 5407 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubescent, Capsule smooth [smooth  
 5408 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with an oval tube and very short limb, Caps.
- 5409 Leaves obov. lanc. beneath, beyond the nerves smooth, Cal. 4-cleft, Fl. urceol. 8-androus  
 5410 Leaves pubescent beneath, Calyx 4-fid, Cor. with a globose tube  
 5411 Leaves oval pubescent, Fl. term. aggregate nodding  
 5412 Leaves beneath densely downy, Cal. 4-parted, Tube of cor. oval
- 5413 Leaves linear obtuse with cartilaginous teeth, Flowers 5-cleft decandrous
- 5414 Leaves perfoliate
- 5415 The only species
- 5416 The only species
- 5417 Leaves obovate oblong viscous, Fl. racemose, Fruit with 2 or 3 wings longer than stalk  
 5418 Leaves lanc. narrowed at both ends viscid, Racemes branched, Fruit always with 2 wings length of stalk  
 5419 Leaves obl. mucronate entire, Fl. term. sessile  
 5420 Leaves lanceolate narrowed at each end, Branches 3-cornered, Fruit with narrow wings  
 5421 Leaves oblong lanceolate with revolute edge, rather clammy, Flowers in short racemes
- 5422 Unarmed, Leaves subsessile ovate acute at each end  
 5423 Branches spiny  
 5424 Leaves subsessile lanceolate with terminal corymbs of flowers
- 5425 Leaves stalked, Calyx hispid  
 5426 Leaves sessile, Calyx smooth  
 5427 Leaves lanc. obl. acumin. 5 nerved and branches hispid, Cal. covered with entangled radiate hairs  
 5428 Leaves lanceolate sessile, Tube of calyx ciliate scaly



## and Miscellaneous Particulars.

Persia, and North America, and discovered this his genus. It is a handsome biennial, which bears a profusion of shevy flowers bearing some distant resemblance to those of the Passion-flower.

896. *Jeffersonia*. Named after Mr. Jefferson, the celebrated President of the United States. A very curious plant, remarkable for the peculiar mode of dehiscence of its capsule.

897. *Dodonæa*. So named in honor of Rambert Dodoens, professor of medicine, a famous botanist of the sixteenth century, author of *Fragum Historia*, 1552; and *Pemptades*, 1583. He was born at Malines, in 1518, and died in 1585. The species are ugly tropical shrubs, of neither use nor beauty.

898. *Lawsonia*. In memory of Isaac Lawson, M. D. author of *A New Voyage to Carolina*, London, 1709. *L. inermis* is the Henna plant, with the leaves of which the Egyptian women dye their nails pink. It is of easy culture and propagation.

899. *Osbeckia*. So named by Linnæus, in honor of Peter Osbeck, a Swedish clergyman, member of the academy of Stockholm, and of the society of Upsal: author of a voyage to China and the East Indies, in 1751. Englished by Forster, in 1771. Little plants resembling *Melastoma*. Young cuttings strike freely under a hand-glass.

| †900. RHEXIA. W.                    |                   | RHEXIA.         | <i>Melastomaceae.</i> Sp. 7—50. |    |          |                      |                                |
|-------------------------------------|-------------------|-----------------|---------------------------------|----|----------|----------------------|--------------------------------|
| 5429                                | maríána W.        | Maryland        | △                               | pr | ½ jn.au  | Pu N. Amer. 1759.    | D ap Bot. cab. 366             |
| 5430                                | vimínea Don.      | twiggý          | △                               | or | 6 jn.au  | Pu Brazil 1821.      | D ap Bot. reg. 664             |
| 5431                                | clifósa Ph.       | ciliated        | △                               | pr | 1 jn.au  | Cr Carolina 1812.    | D p.l Ph. am. 1. t. 10         |
| 5432                                | bival'vis W.      | two-valved      | △                               | cu | 2 my.jn  | W Guiana 1893.       | S p.l                          |
| 5433                                | virgínicá W.      | Virginian       | △                               | pr | ½ jn.au  | Pu N. Amer. 1759.    | D p.l Bot. mag. 968            |
| 5434                                | aquática W.       | marsh           | △                               | pr | ...      | S. Amer. 1793.       | C p.l Aub. gui. 1. t. 169      |
| 5435                                | holoseríceá Humb. | silky           | △                               | or | 10 jl    | B Brazil 1816.       | C p.l Bot. reg. 323            |
| 5436                                | glomeráta W.      | headed          | △                               | or | 1½ jl    | W B. Indies 1818.    | C p.l Bot. cab. 334            |
| †901. CENOTHERA. W.                 |                   | CENOTHERA.      | <i>Onagraceae.</i> Sp. 32—41.   |    |          |                      |                                |
| 5437                                | biénnis W.        | common          | △                               | or | 4 jn.s   | Y N. Amer. 1629.     | S co Flor. dan. 446            |
| 5438                                | grandiflóra W.    | great-flowered  | △                               | or | 4 jn.au  | Y N. Amer. 1778.     | S co Bot. mag. 2068            |
| 5439                                | parviflóra W.     | small-flowered  | △                               | or | 4 jn.au  | Y N. Amer. 1757.     | S co Meerb. ic. 1. t. 34       |
| 5440                                | muriçáta W.       | prickly-stalked | △                               | or | 3 jl.au  | Y N. Amer. 1789.     | S co M. co. got. 6. t. 1       |
| 5441                                | longiflóra W.     | long-flowered   | △                               | or | 3 jl.s   | Y B. Ayres 1776.     | S co Bot. mag. 365             |
| 5442                                | mollíssima W.     | soft wave-leav. | △                               | or | 2 jn.o   | Y B. Ayres 1732.     | S co Sch. han. 1. t. 105       |
| 5443                                | odoráta W.        | sweet-scented   | △                               | or | 2 ap.au  | Y S. Amer. 1790.     | D co Bot. reg. 147             |
| 5444                                | noctárna W.       | night-smelling  | △                               | or | 2 ap.au  | Y C. G. H. 1790.     | S co Jac. ic. 3. t. 455        |
| 5445                                | villósa W.        | villous         | △                               | or | 2 jl.au  | Y C. G. H. 1791.     | S co                           |
| 5446                                | dentata Lindl.    | toothed         | △                               | or | ½ jn.au  | Y Peru 1818.         | D co Lindl. coll. 10           |
| 5447                                | frucifósa W.      | shrubby         | △                               | or | 3 jn.au  | D.Y N. Amer. 1737.   | D s.p Bot. mag. 332            |
| 5448                                | púmila W.         | dwarf           | △                               | or | ½ my.s   | D.Y N. Amer. 1757.   | D p.l Bot. mag. 355            |
| 5449                                | rósea W.          | rosy-flowered   | △                               | or | 1 my.au  | Pk Peru 1783.        | D p.l Bot. mag. 347            |
| 5450                                | purpúrea W.       | purple-flowered | △                               | or | 1 my.au  | Pu N. Amer. 1794.    | C co Bot. mag. 352             |
| <i>G. Romanzovii</i> Bot. reg. 562. |                   |                 |                                 |    |          |                      |                                |
| 5451                                | corymbósa B. M.   | corymbose       | △                               | or | 3 s      | Y Mexico 1816.       | D co Bot. mag. 1974            |
| 5452                                | stricta Ledebure  | upright         | △                               | or | 1½ jn.jl | Y ..... 1822.        | S co                           |
| 5453                                | média Link.       | intermediate    | △                               | or | 2 jl.au  | Y N. Amer. 1823.     | D p.l                          |
| 5454                                | lineáris Mich.    | linear          | △                               | or | 1½ jn    | Y N. Amer. 1822.     | D co                           |
| 5455                                | sinuáta W.        | scoop-leaved    | △                               | or | 3 jl.au  | Y N. Amer. 1770.     | S s.l M. co. got. 5. t. 9      |
| 5456                                | tetráptera W.     | white-flowered  | △                               | or | 1 jn.au  | W Mexico 1796.       | S s.l Bot. mag. 468            |
| 5457                                | caespitosa B. M.  | turfy           | △                               | or | 1 jn.jl  | W N. Amer. 1811.     | D p.l Bot. mag. 1593           |
| 5458                                | macrocarpa B. M.  | Missouri        | △                               | or | 4 jn.jl  | Y N. Amer. 1811.     | D ap Bot. mag. 1592            |
| 5459                                | glacía Ph.        | glaucous        | △                               | or | 2 my.o   | Y N. Amer. 1812.     | D s.p Bot. mag. 1606           |
| 5460                                | Fraséri Ph.       | Fraser's        | △                               | or | 1½ my.o  | Y N. Amer. 1811.     | D s.p Bot. mag. 1674           |
| 5461                                | tenuifólia Fl. p. | fine-leaved     | △                               | or | 1½ jls   | Y.Pu Peru 1824.      | D co                           |
| 5462                                | acaulis Cav.      | stemless        | △                               | or | ½ my.s   | W Chili 1821.        | D co Bot. reg. 763             |
| 5463                                | tenella Fl. per.  | slender         | △                               | or | ½ ap.au  | Pu Chili 1822.       | S co Bot. mag. 2424            |
| 5464                                | speciósa Hook.    | showy           | △                               | or | 1 m.r.s  | W N. Amer. 1821.     | S co Hook. ex. fl. 80          |
| 5465                                | virgáta Fl. per.  | twiggý          | △                               | or | 1½ jn    | Pu Peru 1823.        | D co Fl. per. t. 15            |
| 5466                                | hirta Lt.         | hairy           | △                               | or | 1 my.jl  | Y California 1823.   | S co                           |
| 5467                                | triloba Nutt.     | three-lobed     | △                               | or | ½ my.s   | Y N. Amer. 1822.     | D co                           |
| 5468                                | albicaulis Ph.    | white-stalked   | △                               | or | ½ my.au  | W N. Amer. 1811.     | S s.p                          |
| †902. GAURA. W.                     |                   | GAURA.          | <i>Onagraceae.</i> Sp. 5—7.     |    |          |                      |                                |
| 5469                                | biénnis W.        | biennial        | △                               | or | 5 au.o   | R.w N. Amer. 1762.   | S p.l Bot. mag. 389            |
| 5470                                | coccínea Ph.      | scarlet         | △                               | or | ½ au.o   | S Louisiana 1811.    | S s.l                          |
| 5471                                | frucifósa W.      | shrubby         | △                               | or | 3 ...    | R.w S. Amer. 1816.   | S s.l Jac. ic. 3. t. 457       |
| 5472                                | mutábilis W.      | changeable      | △                               | or | 1½ jl.au | Y N. Amer. 1795.     | S s.l Bot. mag. 388            |
| 5473                                | tripétala Cav.    | three-petalled  | △                               | or | 1 au     | Pk Mexico 1804.      | S s.l Cav. ic. 4. t. 396. f. 1 |
| 903. EPILOBIUM. W.                  |                   | WILLOW-HERB.    | <i>Onagraceae.</i> Sp. 15—20.   |    |          |                      |                                |
| 5474                                | angustifólium W.  | Rose-bay        | △                               | or | 4 jl.au  | Pu Britain mea.      | D m.s Eng. bot. 1947           |
| 5475                                | angustissimum W.  | linear-leaved   | △                               | or | 2 jl.au  | Pu AL. of Eur. 1775. | D m.s Co. bot. 73              |
| 5476                                | latifólium W.     | Orache-leaved   | △                               | or | 4 jl.au  | R N. Eur. 1779.      | D co Par. lond. 58             |



History, Use, Propagation, Culture.

900. *Rhexia*. A Greek name employed by Pliny to designate a Boragineous plant. It is derived from *ρῆξω*, to burst; that is to say, good against ruptures. The hardy species thrive best in a bed of peat; or they will grow very well in pots.

901. *Cenothera*. Derived from *οἶνος*, wine, and *θηρῶ*, to hunt. The roots of this plant, *O. biennis*, eaten after meals, are incentives to wine-drinking, as olives are. This is an ornamental genus of easy culture in light rich soil, and they increase either by seeds or cuttings. *O. biennis* is called the night primrose, because the flowers usually open between six and seven o'clock in the evening. The mode of their expanding is curious. The petals are held together at top by the hooks at the end of the calyx, the segments of which first separate at bottom and discover the corolla, a long time before it acquires sufficient expansive force to unhook the calyx at top; when it has accomplished this, it expands very fast, almost instantaneously, to a certain point, and then makes a stop, taking a little time to spread out quite flat; it may be half an hour from the first bursting of the calyx at bottom to the final expansion of the corolla; which commonly becomes flaccid in the course of the next day, sooner or later according to the heat or coolness of the weather. The

- 5429 Lvs. sess. lanc. 8-nerved villous ciliated, Cal. stellate hairy  
 5430 Leaves ovate lanc. 5-nerved hairy on each side, Panic. term. loosely many-fl.  
 5431 Leaves finely hispid at edge, Stem quadrangular smooth, Flowers solitary in an involucre  
 5432 Decandrous, Lvs. sessile smooth ovate obtuse 3-nerved, Caps. 2-valved  
 5433 Lvs. sessile lanceolate 3-nerved serrate ciliated, Cal. glandular ciliated  
 5434 Lvs. opp. cordate crenulate hairy, Pan. term. trichotomous, Branches filiform much spreading  
 5435 Leaves cordate oval silky on each side 7-nerved sessile, Pan. term. Flowers with bracts 10-andr.  
 5436 Lvs. stalked ovate entire 3-nerved villous, Fl. terminal clustered
- 5437 Lvs. ovate-lanceolate flat, Stem muricated villous, Stamens shorter than cor.  
 5438 Lvs. ovate-lanceolate, Stamens declinate, Stem shrubby  
 5439 Lvs. ovate-lanceolate flat, Stem smooth subvillous, Stamens longer than cor.  
 5440 Lvs. lanc. flat, Stem purp. muricated, Stamens length of cor.  
 5441 Lvs. toothletted, Stems simple hairy, Petals distant 2-lobed  
 5442 Lvs. lanceolate wavy  
 5443 Lvs. linear lanceolate toothletted wavy pubescent glaucous, Stem hairy  
 5444 Lvs. lanc. repand toothed pubescent, Stem rounded pubescent  
 5445 Lvs. lanc. villous, Stem angular hairy  
 5446 Lvs. sublinear toothletted, Caps. cylindr. very narrow toothed  
 5447 Lvs. lanceol. somewhat toothed acute, Caps. stalked obl. clavate angular  
 5448 Lvs. lanc. entire obtuse, Caps. somewhat stalked ellipt. ovate angular  
 5449 Lvs. ovate narrowed at each end toothed; lower lyrate, Caps. stalked obovate angular  
 5450 Lvs. glaucous smooth lanceolate entire, Caps. sessile ovate angular
- 5451 Stem upright hispid furrowed, Leaves lanc. repand toothletted, Caps. sess. angular cylindrical  
 5452 Stem muricated, Lower lvs. linear very long toothletted; cauline lanceolate  
 5453 Stem erect pubescent, Lvs. lanc. lin. soft pubescent, Caps. obl. rounded sessile  
 5454 Pubescent, Lvs. lin. lanc. acute at each end entire, Fl. term. aggregate, Caps. clavate 4-cornered  
 5455 Lvs. toothed sinuated, Caps. prismatical  
 5456 Lvs. lanc. pinnatifid at base, Caps. obovate with 4 wings  
 5457 Lvs. lanc. cut-toothed, Caps. obl. sessile, Tube of cal. very long, Pet. 2-lobed  
 5458 Stem branched, Lvs. lanc. stalked with distant glandular teeth, Caps. ellipt. 4-winged on short stalks  
 5459 Leaves broad-oval repand toothed leavigated glaucous, Caps. ovate 4-cornered  
 5460 Stem simple below, Leaves ovate stalked glandular toothletted, Racemes leafy, Caps. obovate 4-cornered  
 5461 Lower leaves oblong, upper linear, Caps. cylindrical straight, Petals crenulate  
 5462 Leaves pinnatifid, with the terminal segment large and toothletted  
 5463 Leaves linear obovate, Caps. cylindrical curved  
 5464 Downy, Leaves oblong lanc. toothed subpinnatifid, Raceme naked, Caps. obovate angular  
 5465 Leaves lyrate and lanceolate toothed, Caps. stalked clavate  
 5466 Hairy, Leaves lanc. toothletted, Caps. axillary curved angular acute  
 5467 Very like *Oenothera acaulis*, from which it is chiefly distinguished by its yellow flowers  
 5468 Finely pubescent, Stem and nerves of leaves white, Leaves pinnatifid, Fl. spiked
- 5469 Leaves lanc. toothed, Pet. obovate ascending spreading, Style and stamens declinate  
 5470 Leaves lin. lanc. toothletted, Spike close, Petals as long as cal. Stigma entire  
 5471 Leaves lin. lanc. toothletted, Style and stamens straight  
 5472 Leaves ovate toothed, Pet. ovate acute cruciate, Style and stamens straight  
 5473 Leaves lin. lanc. deeply toothed, Pet. 3 ascending, Stamens 6 declinate
- 5474 Leaves scattered lin. lanc. entire veiny, Fl. unequal  
 5475 Leaves scattered lin. obsolete toothletted veinless, Petals unequal entire  
 5476 Leaves altern. and opposite lanc. ovate nearly entire pubescent veinless, Fl. unequal



## and Miscellaneous Particulars.

uppermost flowers come out first in June; the stalk keeps continually advancing in height, and there is a constant succession of flowers, till late in autumn. The roots are eaten in some countries in the spring.

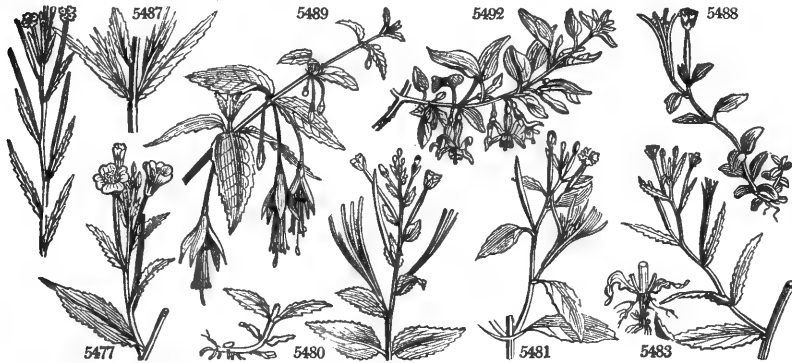
*O. longiflora* has flowers uncommonly large and shewy, which continue from July to October. The dwarf North American herbaceous kinds, are among the most beautiful plants of our borders.

902. *Gaura*. A very curious genus, so called from *γαυρος*, superb. Its flowers are rose colored, in fine terminal spikes. Plants with the habit of *Oenothera*, and requiring the same management.

903. *Epilobium*. From *επι*, upon, and *λοβος*, a pod; that is to say, a flower growing upon a pod. *E. angustifolium* is a native of most parts of Europe, from Lapland to Italy. It is valuable in shrubberies as thriving under the drip of trees, and succeeds every where, even in the smoke of cities, and in parks: it is a good plant to adorn pieces of water, being hardy, of rapid increase, not much relished by cattle, and very shewy when in flower. According to Haller, the young shoots are eatable, although an infusion of the plant stupifies: the pith when dried, is boiled, and becoming sweet, is by a proper process made into ale, and this into vinegar by the Kamtschatdales; it is also added to the cow-parsnip, to enrich the spirit that is prepared



|                          |                        |      |    |       |       |                        |                   |         |     |                |                      |
|--------------------------|------------------------|------|----|-------|-------|------------------------|-------------------|---------|-----|----------------|----------------------|
| 5477 hirsutum W.         | Codlins& Cream         | △ or | 4  | jl.au | Pu    | Britain                | wat.pl.           | D       | co  | Eng. bot. 838  |                      |
| 5478 parviflorum E. B.   | small-flowered         | △ pr | 2  | jl.au | Pu    | Britain                | wat.pl.           | D       | co  | Eng. bot. 795  |                      |
| 5479 villosum W.         | Cape                   | △ or | 2  | jl.au | Pu    | C. G. H.               | 1799.             | D       | co  |                |                      |
| 5480 montanum W.         | broad-smth.lv.         | △ w  | 2  | jn.jl | Pu    | Britain                | woods.            | D       | co  | Eng. bot. 1177 |                      |
| 5481 roseum Sm.          | pale-smooth.lv.        | △ w  | 1½ | jl    | Pk    | England                | mar.              | D       | m.s | Eng. bot. 633  |                      |
| 5482 alsinifolium Sm.    | Chickweed-ldv.         | △ w  | 2  | jl    | Pk    | Britain                | sc. al.           | D       | m.s | Eng. bot. 2000 |                      |
| 5483 tetragonum W.       | square-stalked         | △ w  | 2  | jl    | Pu    | Britain                | mar.              | D       | m.s | Eng. bot. 1948 |                      |
| 5484 coloratum W.        | Pink-flowered          | △ or | 2  | jl    | Pu    | N. Amer.               | 1820.             | D       | Lp  |                |                      |
| 5485 alpestre Schmidt.   | alpine                 | △ pr | ½  | jn.jl | Pu    | Switzerl.              | 1823.             | S       | Lp  |                |                      |
| 5486 dahuricum Fisch.    | Daurian                | △ pr | 3  | jl    | W     | Dauria                 | 1822.             | S       | co  |                |                      |
| 5487 palustre W.         | round-stalked          | △ w  | 3  | jl    | Pu    | Britain                | mar.              | D       | co  | Eng. bot. 346  |                      |
| 5488 alpinum W.          | Alpine                 | △ w  | ½  | jn    | R     | Britain                | al. riv.          | D       | s.l | Eng. bot. 2001 |                      |
| 1904. FUCHSIA. W.        | FUCHSIA.               |      |    |       |       | <i>Santalaceae.</i>    | <i>Sp. 4—18.</i>  |         |     |                |                      |
| 5489 coccinea W.         | scarlet                | ■    | or | 6     | my.au | S.Pu                   | Chili             | 1788.   | C   | p.l            | Bot. mag. 97         |
| 5490 gracilis Lindl.     | slender                | ■    | or | 3     | my.o  | S.Pu                   | Chili             | 1823.   | C   | p.l            | Bot. reg. 847        |
| 5491 excorticata B. M.   | barked                 | ■    | or | 3     | jn.o  | G.Pu                   | N. Zeal.          | 1824.   | C   | p.l            | Bot. reg. 857        |
| 5492 lycioides W.        | Boxthorn-leav.         | ■    | or | 2     | ap.o  | S                      | Chili             | 1796.   | C   | p.l            | Bot. mag. 1024       |
| *905. JAMBOLIFERA. L.    | JAMBOLIFERA.           |      |    |       |       | <i>Terebinthaceae.</i> | <i>Sp. 1—3.</i>   |         |     |                |                      |
| 5493 pedunculata Dec.    | peduncled              | ■ □  | cu | 4     | fd    | G                      | E. Indies         | 1800.   | C   | l.t.l          | Vah. sym. 3. t.61    |
| 906. OXYCOCYUS. P. S.    | CRANBERRY.             |      |    |       |       | <i>Ericace.</i>        | <i>Sp. 3.</i>     |         |     |                |                      |
| 5494 palustris P. S.     | common                 | ■    | fr | ½     | my.jn | Pk                     | Britain           | tur.bo. | L   | p              | Eng. bot. 319        |
| 5495 macrocarpus Ph.     | large-fruited          | ■    | fr | ½     | my.jn | Pu                     | N. Amer.          | 1760.   | L   | p              | Dend. brit. 122      |
| 5496 erythrocarpus P. S. | upright                | ■    | fr | 2     | my.jn | Pk                     | N. Amer.          | 1806.   | L   | p              | Dend. brit. 31       |
|                          | <i>O. erectus</i> Psh. |      |    |       |       |                        |                   |         |     |                |                      |
| 907. VACCINIUM. L.       | WHORTLE-BERRY.         |      |    |       |       | <i>Ericace.</i>        | <i>Sp. 27—30.</i> |         |     |                |                      |
| 5497 myrtillus L.        | Bilberry               | ■    | fr | 1½    | ap.jn | R                      | Britain           | hea.    | L   | p              | Eng. bot. 456        |
| β fructu albo            | white-fruited          | ■    | fr | 1½    | ap.jn | G                      | Britain           | moors.  | L   | p              |                      |
| 5498 palidum H. K.       | pale                   | ■    | or | 2     | my.jn | W                      | N. Amer.          | 1772.   | L   | p              |                      |
| 5499 stamineum L.        | long-stamened          | ■    | or | 2     | my.jn | W                      | N. Amer.          | 1772.   | L   | p              | Pl. al. t. 339. f. 3 |
| 5500 album L.            | white-flowered         | ■    | or | 2     | my.jn | W                      | N. Amer.          | 1772.   | L   | p              | Bot. rep. 263        |
| 5501 caespitosum Mich.   | turfy                  | ■    | fr | ½     | ...   | W                      | Hud. Bay          | 1823.   | L   | p              | Bot. mag. 3429       |
| 5502 uliginosum L.       | Bleaberry              | ■    | fr | 2     | ap.my | Pk                     | Britain           | ...     | L   | p              | Eng. bot. 581        |
| 5503 diffusum H. K.      | tree                   | ■    | or | 20    | my.jl | Pk                     | Carolina          | 1765.   | L   | p              | Bot. cab. 1885       |
| α arboreum Mich.         |                        |      |    |       |       |                        |                   |         |     |                |                      |
| 5504 angustifolium H.K.  | Bluets                 | ■    | or | 2     | ap.my | Pk                     | N. Amer.          | 1776.   | L   | p              | Bot. mag. 3447       |
| β myrtilloides Mich.     |                        |      |    |       |       |                        |                   |         |     |                |                      |
| 5505 dumosum B. M.       | bushy                  | ■    | or | 3     | my.jn | W                      | N. Amer.          | 1774.   | L   | p              | Bot. mag. 1106       |
| 5506 fuscatum H. K.      | clustered-flow.        | ■    | or | 2     | my.jn | Pk                     | N. Amer.          | 1770.   | L   | p              | Bot. rep. 97         |
| β angustifolium          | narrow-leaved          | ■    | or | 2     | my.jn | Pk                     | N. Amer.          | ...     | L   | p              |                      |
| 5507 frondosum L.        | Blue Tangles           | ■    | or | 3     | my.jn | Pu                     | N. Amer.          | 1761.   | L   | p              | Bot. rep. 140        |
| β glaucum Mich.          |                        |      |    |       |       |                        |                   |         |     |                |                      |
| β venosum H. K.          | red-twiggied           | ■    | or | 3     | my.jn | Pk                     | N. Amer.          | 1770.   | L   | p              |                      |
| 5508 ligustrinum L.      | Privet-leaved          | ■    | or | 3     | my.jn | Pu                     | N. Amer.          | ...     | L   | p              |                      |



History, Use, Propagation, Culture,

from that plant; as fodder, goats are said to be extremely fond of it, and cows and sheep to eat it; the down of the seeds mixed with cotton or fur has been manufactured into stockings and other articles of clothing.

*E. hirsutum* is found only in rich moist soil by water. The leaves smell like scalded codlins or gooseberry pye when green, but lose that odor when dry. Cattle are rather fond of the plant both recent and dried.

904. *Fuchsia*. So named in honor of Leonard Fuchs, a famous German botanist, author of *Historia Stirpium*, in 1542, with 516 excellent engravings in wood. *F. coccinea* is one of the most elegant of deciduous greenhouse shrubs; the young wood and nerves of the leaves are tinged with purplish red: the pendent blossoms, like most produced from the axils of the leaves, as the shoots grow, continue during the greater part of the growing season, and are succeeded as they fade by a purple berry. The finest specimen in England of this species is at Salt-Hill.

Many other species have been lately introduced, some of which will probably be very handsome. South America contains some most splendid species, of which we know nothing in this country.

905. *Jambolifera*. From *fero*, to bear, and *Jambol*, the name of a Malabar fruit. Cuttings strike freely in sand under a hand-glass.

906. *Oxycoocus*. From *oxys*, acid, and *coocus*, fruit; on account of its acidity. A genus well distinguished from *Vaccinium*, by the narrow revolute segments of corolla. These are pretty little trailing evergreen plants, to which a peat soil and rather a moist situation are absolutely necessary: they are very little changed by culture.

*O. palustris* bears edible berries which are gathered wild both in England and Scotland, and made into tarts. Lightfoot says, twenty or thirty pounds worth are sold each market day, for five or six weeks together,

- 5477 Leaves opp. and altern. subplexicil. ovate-lanceolate hairy, Stem much branched hairy
- 5478 Leaves sessile lanc. pubescent, Stem simple villous, Root fibrous
- 5479 Leaves altern. lanceolate serrated hairy
- 5480 Leaves opp. ovate toothed
- 5481 Leaves stalked ovate acute toothed, Stem erect branched square, Petals bifid
- 5482 Leaves on short stalks ovate acute toothed shiny, Stem ascending simple, Petals half bifid
- 5483 Leaves lanceolate toothletted: the lower opposite, Stem square
- 5484 Stem round pubescent, Leaves lanc. serrul. opp. upper alternate smooth very
- 5485 Leaves opp. and alt. ovate toothletted sess. stem, Fl. axill. sess. Caps. 4-cornered
- 5486 Stem erect simple, Leaves toothed pubescent, Ovary with scattered hairs
- 5487 Leaves sessile lanc. toothletted, Stem round, Stigma undivided
- 5488 Leaves on short stalks opp. lanc. ellipt. stem entire, Stem ascending few-flowered

- 5489 Peduncles 1-flowered axillary, Leaves in threes serrated
- 5490 Branches slightly downy, Leaves opposite stalked smooth, Flowers much longer than leaves

- 5491 Peduncles axillary 1-flowered, Leaves ovate alternate
- 5492 Flowers stalked axillary, Sepals reflexed, Leaves ovate-lanceolate about 5

- 5493 Leaves oblong lanceolate smooth, Cymes terminal shorter than the leaves

- 5494 Leaves oval revolute at edge acute white beneath, Segm. of cor. oval
- 5495 Leaves oblong flat obtuse, Segm. of cor. lanceolate

- 5496 Leaves oval acuminate serrulate ciliated, Flower not revolute at first

- 5497 Peduncles 1-flowered, Leaves serrate ovate deciduous, Stem angular

- 5498 Leaves ovate acute serrulate smooth, Racemes with bractes, Cor. cylind. camp.
- 5499 Leaves oval ac. ent. glauc. beneath, Pedic. sol. axill. filif. Cor. open camp. Anth. exserted [exserted
- 5500 Lvs. oval or obov. acute ent. glauc. ben. Nerves and veins pub. Ped. axill. sol. filif. Cor. open camp. Anth.
- 5501 Dwarf tufted glabrous, Leaves cuneate rounded deeply sawed membranous, Fl. sol.
- 5502 Leaves small obov. obt. ent. above smooth, beneath veiny pubescent glaucous, Fl. sol. cor. urceolate
- 5503 Leaves stalked obovate acute at each end serrate, Racemes nodd. Cor. cylind. camp. Anth. included

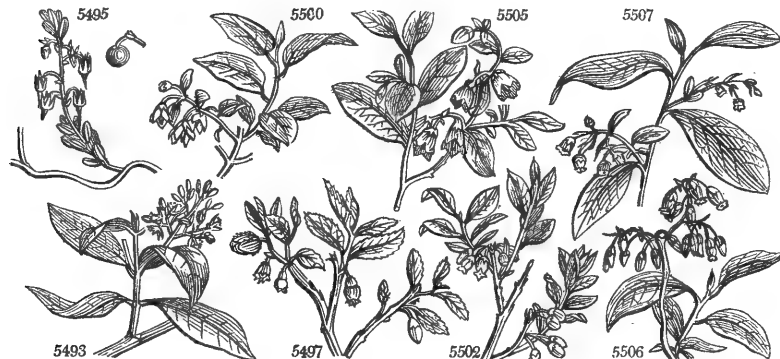
- 5504 Leaves narr. lanceol. membr. ent. Nerves and edge pubescent beneath, Fl. scatt. sol. nearly sessile

- 5505 Branches and lvs. covered with resin. dots, Lvs. obov. ent. Rac. with bractes, Cor. camp. with round. seg.

- 5506 Lvs. obl. acute serrul. smooth, Racemes aggreg. term. corym. Cor. cylind. with short erect seg. Style exsert

- 5507 Leaves obov. blunt ent. glaucous and resinous beneath, Racemes loose, Cor. ovate campanulate

- 5508 Branches ang. Leaves subsess. erect mucron. lanc. Clusters sessile, Cor. oblong ovate, Fl. stalks none



and Miscellaneous Particulars.

in the town of Langtown, on the borders of Cumberland. The plant might no doubt be cultivated with equal ease as the American species.

*O. macrocarpus* furnishes the cranberries sent from America: it was first cultivated in this country by Sir J. Banks, on the margin of a pond (*Hort. Trans.* l. 71.), and subsequently both in moist and dry situations by different cultivators. Peat earth is essential to every mode of culture; but a much less degree of moisture will do than was at first believed. Salisbry found it do very well in pots of bog earth set in the shade; and Milne found "vigorous shoots and abundant crops produced on red beds of peat earth, even in the warm summer of 1822." The American cranberry he found easier to cultivate than the common sort; but Hallet found both the cranberry and bilberry succeed perfectly under such treatment. (*Hort. Trans.* iv. 483, and v. 279.)

907. *Vaccinium*. A name, the derivation of which is not known. Neither are commentators more decided as to what was the *Vaccinium* of the Latins. The only conclusion to which they have come, is that the *Vaccinia nigra* of Virgil are the same as the *μελαν βακκινίδος* of the Greeks. The species are neat little evergreen under shrubs, and inhabitants of moist alpine or subalpine regions in peat earth.

V. *Myrtillus* is an elegant and also a fruit-bearing plant. The young fresh green leaves, and wax-like red flowers appear in May, and towards autumn the leaves grow darker and more firm, and the ripe berries are gathered in the north for tarts, and in Devonshire and Poland are eaten with clotted cream. (*Eng. Bot.*) The berries are very acceptable to children, either eaten by themselves or with milk, or in tarts. The moor-game live upon them in the autumn. The juice stains paper or linen purple. Goats browse upon the plant; sheep are not fond of it; horses and cows refuse it. (*Withering.*) The berries have an astringent quality; and in Arran and the Western Isles are given in diarrheas and dysenteries with good effect. The High-

|      |                                     |                |    |    |    |       |       |                    |            |    |     |                      |
|------|-------------------------------------|----------------|----|----|----|-------|-------|--------------------|------------|----|-----|----------------------|
| 5509 | resinósum H. K.                     | clammy         | se | or | 4  | my.jn | ...   | N. Amer.           | 1772.      | L  | p   | W. am. t. 30. f. 69  |
|      | <i>a. viridescens</i>               | green-flowered | se | or | 3  | my.jn | Y. G. | Canada             | 1772.      | L  | p   |                      |
|      | $\beta$ rubes'cens                  | red-flowered   | se | or | 3  | my.jn | Pk    | N. Amer.           | 1772.      | L  | p   | Bot. mag. 1288       |
|      | $\gamma$ parviflorum Andr.          | small-flowered | se | or | 3  | my.jn | R. v. | N. Amer.           | 1804.      | L  | p   | Bot. rep. 125        |
| 5510 | corymbósum L.                       | corymbose      | se | or | 7  | my    | W     | N. Amer.           | 1806.      | L  | p   | Bot. mag. 3433       |
|      | <i>disomorphum</i> Mich.            |                |    |    |    |       |       |                    |            |    |     |                      |
| 5511 | amoc'num H. K.                      | broad-leaved   | se | or | 6  | my.jn | Pk    | N. Amer.           | 1765.      | L  | p   | Bot. rep. 138        |
| 5512 | virgátum H. K.                      | twiggy         | se | or | 3  | ap.my | Pk    | N. Amer.           | 1767.      | L  | p   | Bot. rep. 181        |
| 5513 | galéans Mich.                       | Gale-leaved    | se | or | 2  | my.jn | W     | N. Amer.           | 1806.      | L  | p   |                      |
| 5514 | tenellum H. K.                      | Pennsylvanian  | se | fr | 1½ | my.jn | Pk    | N. Amer.           | 1772.      | L  | p   | Bot. mag. 3434       |
|      | <i>pensylvanicum</i> Mich.          |                |    |    |    |       |       |                    |            |    |     |                      |
|      | <i>ramulósum</i> W.                 |                |    |    |    |       |       |                    |            |    |     |                      |
|      | <i>hámsle</i> W.                    |                |    |    |    |       |       |                    |            |    |     |                      |
| 5515 | padifólium Sm.                      | Madeira        | se | fr | 4  | jn.au | Pk    | Madeira            | 1777.      | L  | p   | Bot. mag. 974        |
|      | <i>arctosiáphylos</i> B. M.         |                |    |    |    |       |       |                    |            |    |     |                      |
| 5516 | meridionale Swz.                    | Jamaica        | se | or | 2  | mr.jn | W. G. | Jamaica            | 1778.      | L  | p   |                      |
| 5517 | myrtifólium Mich.                   | Myrtle-leaved  | se | pr | 1  | my.jl | W     | Carolina           | 1812.      | L  | p   |                      |
| 5518 | crassifólium Andr.                  | thick-leaved   | se | pr | 1  | jn.jl | Pk    | Carolina           | 1787.      | L  | p   | Bot. mag. 1152       |
| 5519 | Vitis Idæa L.                       | Cow-Berry      | se | pr | ½  | ap.jn | Pk    | Britain            | ...        | Sk | p   | Eng. bot. 598        |
|      | $\beta$ május                       | large          | se | pr | ½  | ap.jn | Pk    | N. Amer.           | ...        | Sk | p   | Bot. cab. 616        |
|      | $\gamma$ máximum                    | largest        | se | pr | ½  | ap.jn | Pk    | N. Amer.           | ...        | Sk | p   |                      |
| 5520 | hispídulum W.                       | Snoberry       | se | fr | ¼  | ap.my | W     | Huds. Bay          | 1815.      | L  | p   | Pursh am. t. 23      |
|      | <i>Gaútheria serpyllifolia</i> Psh. |                |    |    |    |       |       |                    |            |    |     |                      |
| 5521 | nitídum Psh.                        | glossy         | se | pr | 2  | my.jn | Pk    | Carolina           | 1794.      | L  | p   | Bot. rep. 480        |
|      | $\beta$ decumbens                   | decumbent      | se | pr | ½  | my.jn | Pk    | Carolina           | 1794.      | L  | p   | Bot. mag. 1550       |
| 5522 | myrsintés Mich.                     | Myrsine-leaved | se | pr | 1½ | my.jn | Pk    | Carolina           | ...        | L  | p   |                      |
|      | $\beta$ lanceolátum                 | lanceolate     | se | pr | 1  | my.jn | Pk    | Florida            | ...        | L  | p   |                      |
|      | $\gamma$ obtúsium                   | obtuse         | se | pr | 1½ | my.jn | Pk    | Carolina           | ...        | L  | p   |                      |
| 5523 | buxifólium Andr.                    | Box-leaved     | se | cu | 1  | my.jn | Pk    | N. Amer.           | 1794.      | L  | p   | Bot. mag. 928        |
|      | <i>brachycerum</i> Mich.            |                |    |    |    |       |       |                    |            |    |     |                      |
| 908. | MEME'CYLON. W.                      | MEME'CYLON.    |    |    |    |       |       | <i>Santalaceæ.</i> | Sp. 1-6.   |    |     |                      |
| 5524 | capitátum W.                        | Ceylon         | se | or | 10 | jl    | ...   | E. Indies          | 1796.      | L  | p.l | Bur. zeyl. t. 30     |
| 909. | LAGE'TTA. J.                        | LAGE'TTA.      |    |    |    |       |       | <i>Thymelææ.</i>   | Sp. 1.     |    |     |                      |
| 5525 | linteária P. S.                     | lace-bark      | se | cu | 6  | ja.d  | W     | Jamaica            | 1793.      | C  | lp  | Lam. ill. t. 289     |
| 910. | DAP'HNE. W.                         | DAPHNE.        |    |    |    |       |       | <i>Thymelææ.</i>   | Sp. 13-34. |    |     |                      |
| 5526 | Mezé'reum W.                        | Mezereon       | se | m  | 4  | f.ap  | Pk    | England            | woods.     | C  | p.l | Eng. bot. 1381       |
|      | <i>a. rábrum</i>                    | red-flowered   | se | or | 4  | f.ap  | Pk    | England            | woods.     | C  | p.l |                      |
|      | $\beta$ álbum                       | white-flowered | se | or | 4  | f.ap  | W     | .....              | .....      | C  | p.l |                      |
| 5527 | Thymelæ'a W.                        | smooth-leaved  | se | or | 3  | f.ap  | Y     | Spain              | 1815.      | G  | s.l | Pl. al. t. 329. f. 2 |
| 5528 | Tarton-raira W.                     | silvery-leaved | se | or | 3  | my.jl | W     | France             | 1640.      | G  | s.l | Fl. græc. 354        |
| 5529 | alpina W.                           | Alpine         | se | or | 2  | my.jl | W     | Italy              | 1759.      | S  | p.l | Bot. cab. 66         |
| 5530 | Lauréola W.                         | Spurge Laurel  | se | or | 6  | ja.mr | G     | Britain            | woods.     | S  | s.l | Eng. bot. 119        |
| 5531 | póntica W.                          | Pontic         | se | or | 3  | ap.my | G     | Pontus             | 1759.      | C  | s.l | Bot. mag. 1282       |
| 5532 | linifólia W.                        | Bonacc-bark    | se | or | 6  | ...   | ...   | Jamaica            | 1733.      | C  | lp  |                      |
| 5533 | Gnádium W.                          | Flax-leaved    | se | or | 2  | jn.au | W     | Spain              | 1597.      | G  | s.l | Bot. cab. 150        |
| 5534 | odóra W.                            | sweet-scented  | se | or | 3  | mr.d  | Pu    | China              | 1771.      | C  | r.m | Bot. mag. 1587       |
| 5535 | Cneórum W.                          | trailing       | se | or | 1  | ap.s  | Pk    | Austria            | 1752.      | L  | sp  | Bot. mag. 313        |
| 5536 | altáica W.                          | Altaic         | se | or | 3  | ap.my | W     | Siberia            | 1796.      | G  | p.l | Bot. mag. 1875       |
| 5537 | oleoides B. M.                      | Olive-leaved   | se | or | 2  | ja.d  | W     | Crete              | 1815.      | G  | p.l | Bot. mag. 1917       |
| 5538 | collina W.                          | hairy          | se | or | 3  | ja.jn | Pu    | Italy              | 1752.      | L  | s.l | Bot. mag. 428        |
|      | $\beta$ neapolitana Hort.           | Neapolitan     | se | or | 2  | ja.jn | Pu    | Naples             | 1822.      | L  | s.l | Bot. reg. 8:2        |



History, Use, Propagation, Culture,

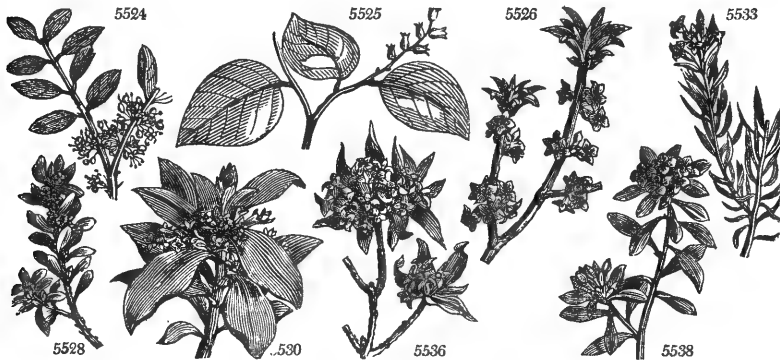
landers eat them with milk, and make them into tarts and jellies, which last they mix with whisky to give it a relish to strangers.

V. uliginosum grows taller than the common bilberry, and has large globular, black, glaucous fruit. These have less flavor, but abound with a weak acid juice. (Eng. Bot.) In large quantities it occasions giddiness, and a slight head-ache, especially when full grown and quite ripe. (Linn. Succ. and Withering.) Many vintners in France are said to make use of the juice to color their wines red. (Withering.) They furnish an ardent spirit which is highly volatile and intoxicating. The Alpine birds feed upon the fruit, and it is very common in their haunts. (Villars.)

V. Vitis idæa is of very humble growth and almost herbaceous, though evergreen. The berries are red, acid, astringent, and bitter. They are scarcely to be eaten raw, and though made into pies in Derbyshire, where they are called cow-berries, their flavor is far inferior to the cranberry. Their best use is for making a rob or jelly, which is eaten with all kinds of roast meat in Sweden, and is far preferable to that of the red currant as a sauce for venison. It is also an excellent medicine in colds, sore throats, and all irritation of the mouth or fauces. (Smith, Brit. and Eng. Bot.) Linnæus says, that they are sent in large quantities from West Bothnia to Stockholm for pickling, and the same thing is confirmed by Dr. Clarke. Müller was informed that this plant was used for edgings in Norway.

V. tenellum is a very good fruit.

- 5509 Lvs. stalked obl. oval blunt entire beneath resin. Racemes lateral one-sided, Cor. ovate conical 5 angular
- 5510 Fl. branches leafless, Lvs. obl. oval acute at each end ent. young ones downy on both sides, Rac. short scaly
- 5511 Flowering branches leafless, Lvs. obl. acute at each end smooth, Racem. clust. bract. Cor. cylind. Cal. refl.
- 5512 Flowering branches oblong leaf. Lvs. lanc. acute at each end serrul. smooth, Rac. sess. corym. obl. bract. Cor. cylind. contracted at mouth
- 5513 Lvs. sessile cuneate-lanc. serrul. veiny pubes. Clust. sess. Cor. ov. much contracted at mouth, Style exert.
- 5514 Branches angular green, Leaves sess. ovate lanc. mucronate, Fasc. clustered term. sessile, Cor. ovate
- 5515 Flowers racemose, Leaves crenulate ovate smooth
- 5516 Leaves ovate obl. acute serrate flat shining, Racemes terminal erect, Cor. prismatical
- 5517 Creeping very smooth, Leaves stalked oval shining, Clusters axill. sessile few-flowered, Cor. glob. camp.
- 5518 Spread. Lvs. obl. lanc. acute at each end serr. rigid smooth, Racem. term. corymb. Fl. nodd. Cor. open camp.
- 5519 Dwarf, Leaves obovate emarginate serrulate shining above dotted beneath, Cor. cylind. camp.
- 5520 Stem creeping hispid, Leaves roundish oval acute bristly at edge
- 5521 Erect much branched, Leaves evergreen obl. lanc. acute at each end rigid, Cor. open camp. deeply 5-toothed.
- 5522 Leaves very small sessile oval mucron. beneath hairy dotted, Clusters term. and lat. Cor. obl. ovate
- 5523 Dwarf, Leaves obovate crenate toothed smooth, Filam. gland. Stigma cap. Cor. short ovate
- 5524 Leaves ovate stalked, Umbels capitate axillary sessile
- Spikes paniced terminal, Leaves ovate acute
- 5526 Flowers sessile three on the stem, Leaves lanceolate deciduous
- 5527 Flowers sessile axillary, Leaves lanceol. Branches simple
- 5528 Flowers sessile lateral aggregate at the base scaly, Leaves obovate nerved silky
- 5529 Flowers sessile lateral aggregate, Leaves lanceolate obtuse downy beneath
- 5530 Racemes axillary 5-flowered, Leaves lanceolate smooth
- 5531 Pedunc. lateral 2-flowered, Leaves lanceol. ovate
- 5532 Racemes compound erect, Flowers terminal clustered, Leaves oblong
- 5533 Racemes term. paniced, Leaves linear lanceolate cuspidate
- 5534 Head terminal sessile many-flowered, Leaves scattered obl. lanceol. smooth
- 5535 Flowers fascicled term. sessile, Leaves lanceol. naked mucronate
- 5536 Flowers term. subsessile, Leaves opp. obl. lanceol. obtuse narrowed at base glabrous
- 5537 Flowers twin terminal sessile, Leaves elliptic lanceol. smooth
- 5538 Flowers fascicled terminal, Leaves obovate obtuse above very smooth beneath villous



and Miscellaneous Particulars.

908. *Memecylon*. The Greek name of the fruit of the Arbutus. The shrub now so called has a certain degree of resemblance to the Arbutus. Young cuttings plunged in sand in heat and covered with a hand-glass will root freely.

909. *Lagetta*. This plant in Jamaica is called *Lagetto*. Ripened cuttings will root in sand under a hand-glass.

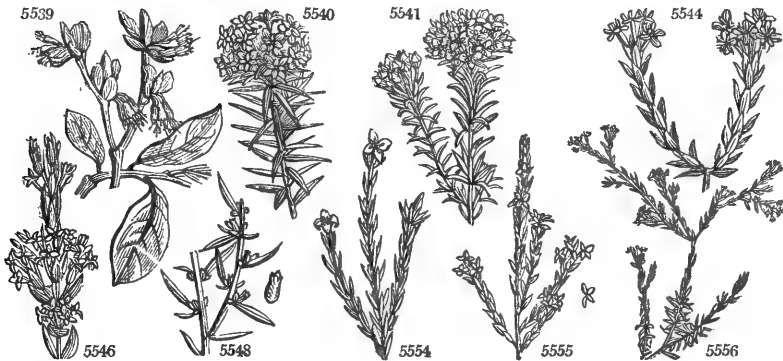
910. *Daphne*. The Greek name of the Laurel. This is a genus of diminutive shrubs, mostly evergreens of great beauty and fragrance in the flower, and with a peculiar velvet texture in the leaf. It is mentioned by Linnaeus as a characteristic of the genus, that the terminating buds of the shoots produce leaves, and the lateral ones flowers. This affords a hint to the cultivator to be sparing of his knife.

*D. Mezereum* (*Mázaryohn* is the Persian name according to Richardson), *Laureole gentille*, Fr., *Kellerhals*, Ger., and *Laureola femina*, Ital., is an old inhabitant of the shrubbery, and deservedly much admired for its precocity and fragrance. It thrives well in loamy soil, and will grow in the shade and even drip of other trees. It is a native of all parts of Europe from Lapland to Sicily, but was first received from Elbing before it was observed to be a native. The roots of *Mezereum* acquire a very large size in proportion to the branches, and have more the character of the fusiform or ramose roots of a herbaceous, than of a ligneous vegetable. They are remarkably hot and acrid, and have long and in most countries been a popular topical

|                          |                 |   |    |    |                     |           |           |       |                         |
|--------------------------|-----------------|---|----|----|---------------------|-----------|-----------|-------|-------------------------|
| 911. DIR'CA. W.          | LEATHER-WOOD.   |   |    |    | <i>Thymelææ.</i>    | Sp. 1.    |           |       |                         |
| 5539 palustris W.        | marsh           | ☞ | ec | 6  | mr.ap               | Y         | Virginia  | 1750. | S s.l Bot. reg. 292     |
| 912. GNYDIA. W.          | GNYDIA.         |   |    |    | <i>Thymelææ.</i>    | Sp. 8—13. |           |       |                         |
| 5540 piniifolia W.       | Pine-leaved     | ☞ | pr | 1  | my.jn               | Pa.Y      | C. G. H.  | 1768. | C s.p Bot. reg. 19      |
| 5541 imberbis H. K.      | smooth-scaled   | ☞ | pr | 1½ | ap.au               | Pa.Y      | C. G. H.  | 1792. | C s.p Bot. mag. 1463    |
| 5542 simplex W.          | Flax-leaved     | ☞ | el | 1  | my.jn               | Pa.Y      | C. G. H.  | 1786. | C s.p Bot. mag. 812     |
| 5543 capitata W.         | purple-twigged  | ☞ | cu | 1  | jn.jl               | Pa.Y      | C. G. H.  | 1788. | C s.p                   |
| 5544 oppositifolia H. K. | opposite-leaved | ☞ | pr | 1  | my.jl               | Pa.Y      | C. G. H.  | 1783. | C s.p Bot. reg. 2       |
| 5545 sericea H. K.       | silky           | ☞ | pr | 1½ | my.jl               | Pa.Y      | C. G. H.  | 1786. | C s.p Bot. rep. 225     |
| 5546 denuadata Lindl.    | shaven          | ☞ | pr | 1½ | my.jl               | Pa.Y      | C. G. H.  | 1820. | C s.p Bot. reg. 757     |
| 5547 lævigata Thunb.     | polished        | ☞ | pr | 1  | my.jl               | Pa.Y      | C. G. H.  | 1822. | C s.p                   |
| 913. STELLE'RA. W.       | STELLERA.       |   |    |    | <i>Thymelææ.</i>    | Sp. 1—3.  |           |       |                         |
| 5548 Passerina W.        | Flax-leaved     | ○ | cu | 1  | jl.au               | W         | S. Europe | 1759. | C s.p Jac. ic. 1. t. 68 |
| 914. PASSERINA. L.       | SPARROW-WORT.   |   |    |    | <i>Thymelææ.</i>    | Sp. 8—19. |           |       |                         |
| 5549 filiformis W.       | filiform        | ☞ | cu | 1  | jn.au               | W         | C. G. H.  | 1752. | C s.p Wen. ob. t.2.f.15 |
| 5550 hirsuta W.          | shaggy          | ☞ | cu | 1½ | jn.s                | W         | S. Europe | 1759. | C p.l Bot. mag. 1949    |
| 5551 tenuiflora W. en.   | slender-flower. | ☞ | cu | ½  | jn.s                | W         | C. G. H.  | ...   | C s.p                   |
| 5552 capitata W.         | headed          | ☞ | cu | 1  | jn.o                | W         | C. G. H.  | 1789. | C s.p Wen. ob. t.2.f.17 |
| 5553 uniflora W.         | one-flowered    | ☞ | cu | ½  | ap.my               | W         | C. G. H.  | 1759. | C s.p Wen. ob. t.2.f.18 |
| 5554 grandiflora W.      | great-flowered  | ☞ | cu | 1  | my.jn               | W         | C. G. H.  | 1789. | C s.p Bot. mag. 292     |
| 5555 spicata W.          | spiked          | ☞ | cu | 1  | my.jn               | W         | C. G. H.  | 1787. | C p.l Bot. cab. 311     |
| 5556 laxa W.             | lax             | ☞ | cu | ½  | jn.jl               | W         | C. G. H.  | 1804. | C p.l Bot. cab. 755     |
| 915. LACHNÆA. W.         | LACHNÆA.        |   |    |    | <i>Thymelææ.</i>    | Sp. 5—28. |           |       |                         |
| 5557 conglomerata W.     | clustered       | ☞ | or | 2  | jn.jl               | W         | C. G. H.  | 1773. | S r.m                   |
| 5558 eriocephala W.      | woolly-headed   | ☞ | or | 2  | jn.jl               | W         | C. G. H.  | 1793. | C p.l Bot. mag. 1295    |
| 5559 purpurea H. K.      | purple-flowered | ☞ | or | 2  | jn.jl               | Pu        | C. G. H.  | 1800. | C p.l Bot. mag. 1594    |
| 5560 glauca H. K.        | glaucous        | ☞ | or | 2  | my.jl               | W         | C. G. H.  | 1800. | C p.l Bot. mag. 1658    |
| 5561 buxifolia Lam.      | green-box-leav. | ☞ | or | 2  | my.jl               | W         | C. G. H.  | 1800. | C p.l Bot. mag. 1637    |
| †916. COMBRETUM. W.      | COMBRETUM.      |   |    |    | <i>Combretaceæ.</i> | Sp. 2—20. |           |       |                         |
| 5562 purpureum W.        | purple          | ☞ | or | 15 | jn.d                | S         | Madagasc. | 1818. | C r.m Bot. mag. 2102    |
| 5563 comosum Hort.       | comose          | ☞ | or | 20 | ...                 | Pu        | S. Leone  | 1821. | C r.m                   |

DIGYNIA.

|                      |             |   |     |    |                      |           |           |       |                        |
|----------------------|-------------|---|-----|----|----------------------|-----------|-----------|-------|------------------------|
| 917. GALE'NIA. W.    | GALENIA.    |   |     |    | <i>Chenopodeæ.</i>   | Sp. 1—3.  |           |       |                        |
| 5564 africana W.     | African     | ☞ | cu  | 2  | jn.au                | W         | C. G. H.  | 1752. | C p.l Lam. ill. t. 31† |
| 918. APHANANTHE. Lk. | APHANANTHE. |   |     |    | <i>Amaranthaceæ.</i> | Sp. 1.    |           |       |                        |
| 5565 celosioides Lk. | Cock's-comb | ☞ | cu  | 1½ | jl                   | W.g       | Brazil    | 1813. | C p.l                  |
| 919. WEINMANNIA. L.  | WEINMANNIA. |   |     |    | <i>Saxifrageæ.</i>   | Sp. 1—12. |           |       |                        |
| 5566 pinnata L.      | pinnate     | ☞ | or  | 6  | my.jn                | W         | Jamaica   | 1815. | C r.m                  |
| 920. MÆHRINGIA. W.   | MÆHRINGIA.  |   |     |    | <i>Caryophyllææ.</i> | Sp. 1—3.  |           |       |                        |
| 5567 muscosa W.      | mossy       | ☞ | △ w | ½  | jn.jl                | L.Pu      | S. Europe | 1775. | s.l Sch. ha. 1. t. 108 |



History, Use, Propagation, Culture,

application for the toothach. The whole plant is extremely acrid, especially when fresh, and if retained in the mouth excites great heat and inflammation, particularly of the throat and fauces. The berries when swallowed prove a powerful poison, not only to man, but to many quadrupeds. Both the bark and the berries of Mezereon in different forms have been long used externally in cases of obstinate ulcers and ill-conditioned sores. In France the bark is used as an application to the skin, which, under certain management, produces a serous discharge without blistering, and is thus rendered useful in chronic cases of a local nature, answering the purpose of what is called a perpetual blister, while it occasions less pain and inconvenience. In our own country the Mezereon has been principally employed in syphilitic cases. The branches make a good yellow dye.

D. Laureola is valuable in the shrubbery as thriving under the shade and drip of other trees, and never growing to an unsightly size and figure, and in the nursery as affording stocks for the more rare species. The roots and other parts of the plant possess similar qualities to those of the Mezereon.

911. *Dirca*. From *dirca*, a fountain. A plant which grows in watery places. *Bois de Plomb*, Fr. This shrub grows in hilly swamps in North America: it is in all its parts remarkably tough, and the twigs are in consequence used for rods, and the bark for ropes, baskets, &c. Layers are generally two years in rooting; cuttings do not succeed, and it does not ripen seeds here. Snails, Sweet observes, are particularly fond of this plant.

912. *Gnidia*. One of the names given by the ancients to the *Daphne*. These plants "thrive well in a sandy peat soil, with their pots well drained with broken potsherds: care must be taken not to over water them, or to let them flag for want of water, as their roots are very tender and are easily killed; the tenderest kinds are *G. oppositifolia*, and *G. piniifolia*. (*Bot. Cult.* p. 198.)

5539 The only species. Flowers appearing before the leaves

5540 Leaves scattered 3-cornered, Flowers in umbellate heads, Scales four bearded  
 5541 Leaves scattered 3-quetrous linear acute; floral lin. lanc. shorter than heads, Scales eight beardless  
 5542 Leaves all linear acute, Flowers terminal sessile, Scales four and cor. smooth  
 5543 Leaves scattered lanc. smooth, Flowers capitate surrounded by bractes, Peduncle naked  
 5544 Leaves opp. lanceolate tomentose, Flowers terminal, Scales 4  
 5545 Leaves opp. ovate tomentose, Flowers terminal, Scales 8  
 5546 Leaves ovate oblong imbricated hairy with naked nerves  
 5547 Leaves opp. ovate smooth, Fl. terminal subcapitate

5548 Leaves linear, Flowers axillary sessile 4-cleft

5549 Leaves lin. convex imbricated in 4 rows, Branches downy  
 5550 Leaves fleshy smooth outside, Stems downy  
 5551 Leaves linear smooth, Fl. sessile in terminal filiform silky heads  
 5552 Leaves linear smooth, Heads stalked downy  
 5553 Leaves lin. opposite, Flowers term. solitary, Branches smooth  
 5554 Quite smooth, Leaves oblong acute concave rugose outside, Fl. term. sessile solitary  
 5555 Leaves ovate villous, Flowers lateral solitary  
 5556 Leaves ovate scattered, Flowers capitate, Branches lax cernuous

5557 Heads clustered, Leaves loose  
 5558 Heads solitary woolly, Flowers imbricated in four rows  
 5559 Leaves opp. imbricated 4 ways, Heads smooth  
 5560 Leaves scattered elliptical ovate, Heads woolly  
 5561 Leaves oval sessile very smooth, Fl. capitate woolly

5562 Leaves opposite ovate acute, Racemes one-sided bracteate, Bractes shorter than peduncle, Fl. decandrous  
 5563 Leaves opp. oblong hairy, Racemes numerous terminal one-sided

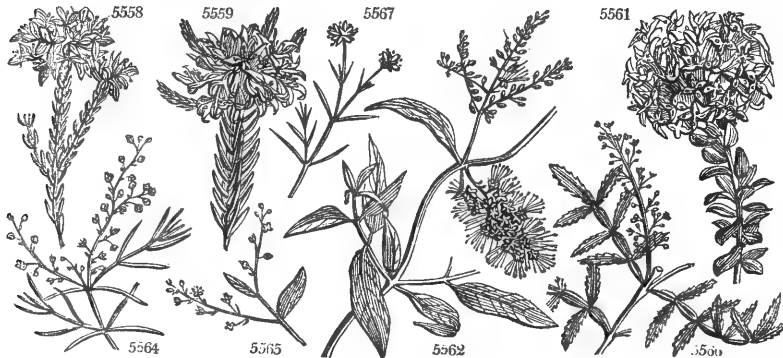
### DIGYNIA.

5564 Erect shrubby, Leaves linear fleshy

5565 Flowers loosely spiked very minute, Bractes lanceolate membranous

5566 Leaves pinnate, Leaflets obovate crenate smooth

5567 Leaves linear connate, Sepals flat the length of the stem-joints lanceol. acute



### and Miscellaneous Particulars.

913. *Stellera*. So named by Gmelin, in memory of Georg. Wilh. Steller, adjunct of the academy at Petersburg, who collected plants in Kamtschatka, and died in Siberia, in 1746. An inconspicuous plant resembling the next genus and requiring the same culture.

914. *Passerina*. From *passer*, a sparrow. Its seed has an appendage at the end like the beak of a sparrow. Young cuttings root freely under a bell-glass in sand.

915. *Lachnæa*. Derived from *λαχνη*, wool, on account of the woolly heads of flowers.

916. *Combretum*. A name employed by Pliny. The plant of the ancients could have no relation to the plant now called by this name, which is a genus of splendid climbing shrubs, with beautiful branches of flowers which are often crimson or purple, and sometimes white. A number of species are found at Sierra Leone. They are all stove plants.

917. *Galenia*. So named by Linnæus from the famous physician Claudius Galenus, born at Pergamus, 133 years before the Christian æra. A coarse-looking shrub, with the leaves obscurely papillose or bladdery, and the stem round.

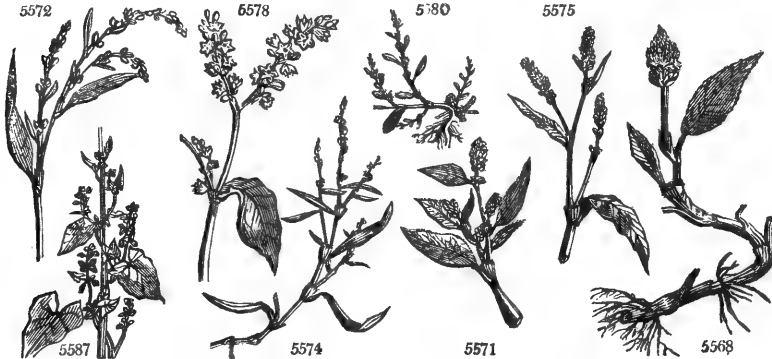
918. *Aphananthe*. A name contrived from *α*, privative, *φανω*, to be remarkable, and *ανθος*, a flower: that is to say, a plant which is not remarkable for the beauty of its flowers. A curious little Brazilian weed.

919. *Weinmannia*. In honor of John William Weinmann, a German botanist, who published in 4 vols. folio, his *Phytanthoza Iconographica*, about the middle of the last century. Handsome shrubs, with pinnated leaves.

920. *Mehringia*. So named by Linnæus, from Paul Henry Gerard Moehring, a physician, author of *Hortus Proprius*, 1736. A little inconspicuous weed-like plant. It suits very well for rock-work, or to be grown in small pots.

TRIGYNIA.

| *921. POLYGONUM. W. PERSICARIA. |                      | Polygoneæ.      |      | Sp. 36—60.  |            |            |          |       |                        |
|---------------------------------|----------------------|-----------------|------|-------------|------------|------------|----------|-------|------------------------|
| 5568                            | amphibium L.         | amphibious      | △ w  | 1 jn.au     | Pk         | Britain    | dit.     | D s.1 | Eng. bot. 436          |
| 5569                            | orecrastrum L.       | spear-leaved    | △ pr | 2 jn.s      | W.g        | Siberia    | 1780.    | D s.1 | Gmel. sib. 3. t. 8     |
| 5570                            | virginianum L.       | Virginian       | △ w  | 3 au.s      | W          | N. Amer.   | 1640.    | D s.1 | Pa. th. 857. f. 6      |
| 5571                            | laphathifolium H. K. | pale-flowered   | ○ w  | 1 jn.s      | G          | England    | dungh.   | S s.1 | Eng. bot. 1382         |
| 5572                            | Hydropiper L.        | Water Pepper    | △ w  | 1 jls       | R          | Britain    | wat. pl. | S s.1 | Eng. bot. 989          |
| 5573                            | inctodium Laureiro   | dyer's          | △ dy | 2 jl.au     | R          | China      | 1776.    | C s.1 |                        |
| 5574                            | minus W.             | small           | ○ w  | 1/2 au.s    | Pk         | England    | wat.co.  | S s.1 | Eng. bot. 1043         |
| 5575                            | Persicaria L.        | spotted         | ○ w  | 2 jl.au     | Pk         | Britain    | dit.     | S s.1 | Eng. bot. 756          |
| 5576                            | incanum Schmidt      | hoary           | ○ w  | 2 jl.au     | W          | Germany    | 1804.    | S s.1 | Pet. h. br. t. 3. f. 8 |
| 5577                            | barbatum L.          | bearded         | △ cu | 2 jn        | W          | China      | 1819.    | S s.1 |                        |
| 5578                            | orientale L.         | common          | ○ or | 6 jl.o      | R          | E. Indies  | 1707.    | S co  | Bot. mag. 213          |
|                                 | β album              | white-flowered  | ○ or | 4 jl.o      | W.g        | E. Indies  | 1781.    | S co  |                        |
| 5579                            | frutescens W.        | shrubby         | ○ or | 2 jl.au     | Pk         | Siberia    | 1770.    | L s.1 | Bot. reg. 254          |
| 5580                            | aviculare L.         | Knot-grass      | ○ w  | 3 ap.o      | G          | Britain    | rubble.  | S co  | Eng. bot. 1252         |
| 5581                            | arenarium Bieb.      | sand            | ○ w  | 1 my.au     | Pu         | Hungary    | 1807.    | S co  | Pl. rar. hu. t. 67     |
| 5582                            | elegans Tenorc.      | elegant         | △ pr | 2 ap.au     | W.g        | Napies     | 1827.    | D co  |                        |
| 5583                            | erectum L.           | upright         | ○ w  | 1 jl.au     | P.r        | N. Amer.   | 1792.    | D s.1 |                        |
| 5584                            | chinense W.          | Chinese         | ○ dy | 6 jl.au     | W.g        | China      | 1785.    | S s.1 | Bur. in. t. 30. f. 3   |
| 5585                            | sagittatum W.        | arrow-leaved    | ○ cu | 6 jl.au     | W.g        | N. Amer.   | 1759.    | S s.1 | Lin. hor. cl. t. 12    |
| 5586                            | arifolium W.         | Arum-leaved     | ○ cu | 6 my.o      | W.g        | N. Amer.   | 1816.    | S s.1 | Pl. am. t. 398. f. 3   |
| 5587                            | Convolvulus L.       | common-climb.   | ○ w  | 3 my.s      | W.g        | Britain    | corn.f.  | S s.1 | Eng. bot. 941          |
| 5588                            | dumetorum L.         | bush            | ○ un | 12 my.s     | W.g        | S. Europe  | 1803.    | S co  | Flor. dan. t. 756      |
| 5589                            | scandens L.          | American-clim.  | ○ un | 12 jls      | Pk         | N. Amer.   | 1749.    | D co  | Pl. al. t. 177. f. 7   |
| 5590                            | littorale Lk.        | sea-shore       | △ un | 1 jn        | W.g        | S. Europe  | ...      | S co  |                        |
| 5591                            | Bellar'di All.       | Bellardi's      | △ un | 1 jn.jl     | W.g        | S. Europe  | ...      | S co  | Al. ped. t. 90. f. 2   |
| 5592                            | acetosum Bieb.       | sour            | △ un | 1/2 d       | W.g        | Crimea     | 1820.    | S co  |                        |
| 5593                            | crispulum B. M.      | upright         | △ pr | 1 1/2 jl.au | W.pk       | Siberia    | 1800.    | C s.1 | Bot. mag. 1065         |
| 5594                            | Bistorta L.          | Snake's-weed    | △ m  | 1 1/2 my.s  | Pk         | Britain    | me.pa.   | D co  | Eng. bot. 509          |
| 5595                            | viviparum L.         | Alpine-Bistort  | △ pr | 1/2 my.s    | W.g        | Britain    | al.pa.   | D s.1 | Eng. bot. 669          |
| 5596                            | divaricatum L.       | divaricating    | △ un | 2 jl.au     | W.g        | Siberia    | 1759.    | D co  | Gm. si. 3.t.11. f. 9   |
| 5597                            | undulatum L.         | wave-leaved     | △ un | 3 jn.jl     | W.g        | Siberia    | 1789.    | D s.1 | Gmel. sib. 3. t. 10    |
| 5598                            | acidulum W. en.      | narrow-leaved   | △ un | 2 jn.jl     | W.g        | Siberia    | 1816.    | D s.1 |                        |
| 5599                            | salignum W. en.      | Willow-like     | △ un | 4 my.au     | W.g        | Siberia    | 1816.    | D s.1 |                        |
| 5600                            | tataricum L.         | Tartarian       | △ un | 2 jl.au     | W.pk       | Siberia    | 1759.    | S s.1 | Gm. si. 3.t.13. f.1    |
| 5601                            | emarginatum Roth.    | notch-seeded    | ○ cu | 2 jl.au     | Pk         | China      | 1796.    | S s.1 |                        |
| 5602                            | Fagopyrum L.         | Buck-Wheat      | △ ag | 2 jl.au     | Pk         | England    | corn.f.  | S s.1 | Eng. bot. 1044         |
| 5603                            | alpinum All.         | alpine          | △ un | 1 my.au     | W          | Swit. erl. | 1816.    | D s.1 | Al. ped. t. 68. f.1    |
| 922.                            | COCCOLO'BA. W.       | SEASIDE-GRAPPE. | △ fr | 60          | Polygoneæ. | Sp. 8—20.  |          |       |                        |
| 5604                            | uvifera W.           | round-leaved    | □ fr | 60          | W.g        | W. Indies  | 1690.    | C r.m | Jac. amer. t. 73       |



History, Use, Propagation, Culture,

921. *Polygonum*. From *πολος*, many, and *γωνη*, knee, many joints. These are nearly all common weeds of temperate climates. *P. Bistorta*, being one of the strongest vegetable astringents, might well be applied to the purpose of tanning leather, if it could be procured in sufficient quantity. The young shoots were formerly eaten in herb-puddings in the north of England, where the plant is known by the name of Easter Giant, and about Manchester they are substituted for greens under the name of Patience Dock. (*Curtis, Wähering.*) The root was formerly considered to be alexipharmic and sudorific.

*P. viviparum* is so named on account of the flowers frequently changing into vegetable bulbs. The roots have the same qualities as those of *P. Bistorta*, and are eaten in Sweden and Lapland, Siberia and Tartary.

*P. amphibium* is one of the most difficult weeds to eradicate from recovered alluvial lands, and has no equal in this respect unless *Equisetum*. The roots, which in the water are properly stems, are found to a great depth in such soils; and though by fallowing or otherwise stirring the surface, the leaves may be prevented from showing themselves for several years; yet if the field be allowed to lie a year in grass, the surface will be found abounding with *Polygonum*. Many tracts in Scotland which have been recovered from rivers and estuaries for an unknown series of years still abound with this plant, and as under such circumstances it never advances so far as to flower and seed, the individuals must be the same which formerly were suspended in the water. As an aquatic, it has a gay, showy appearance, when in flower.

*P. Hydropiper* is a powerful diuretic, and will dye woollen cloth of a yellow color.

*P. tinctorium*, and also *chinense* and *aviculare*, are cultivated in China for dyeing cloth of a beautiful blue or green.

TRIGYNIA.

§ 1. *Flowers pentandrous.*

- 5568 Half digyn. Spike ovate, Stipules lacerate, Leaves oblong or lanceolate
- 5569 Flowers trigynous, Leaves lanceolate
- 5570 Flowers half digynous, Cor. 4-cleft unequal, Leaves ovate

§ 2. *Flowers hexandrous.*

- 5571 Flowers digynous, Stipules unarmed, Pedunc. rough, Seeds depressed on each side
- 5572 Flowers half digynous, Leaves lanc. wavy not spotted, Spikes filiform nodding
- 5573 Flowers trigynous, Spikes twigg, Stipules smooth truncate ciliated, Leaves ovate acute smooth
- 5574 Flowers nearly monogynous, Leaves lin. lanceol. flat, Spikes filiform erect, Stem rooting at base
- 5575 Flowers half digynous, Spikes ovate-oblong erect, Pedunc. smooth, Stipules ciliated
- 5576 Flowers digynous, Spikes oblong, Leaves obl. lanceolate pubescent beneath
- 5577 Flowers trigynous, Spikes twigg, Stipules truncate ciliated, Leaves oblong acute smoothish

§ 3. *Flowers heptandrous.*

- 5578 Flowers digynous, Leaves ovate, Stem erect, Stipules hairy hypocateriform

§ 4. *Flowers octandrous.*

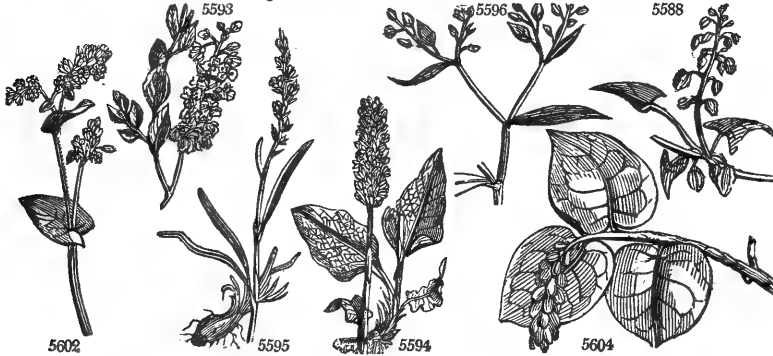
\* *Stem twining.*

- 5579 Leaves lanceolate narrowed each way, Stipule lanceol. shorter than the joint. — *TRAGOPYRUM. Bieb.*
- 5580 Flowers axill. Leaves ellipt. lanceol. rough at edge, Nerves of stipules remote
- 5581 Flowers trigynous, Spikes term. leafless, Leaves lanc. lin. Stems angular declinate herbaceous
- 5582 Flowers large axillary, Spike compact, Stem stout sheathed
- 5583 Flowers trigynous axillary, Leaves oval, Stem erect herbaceous
- 5584 Flowers trigynous, Peduncles rough, Leaves ovate stalked, Bractes cordate sessile
- 5585 Leaves sagittate, Stem prickly
- 5586 Leaves hastate, Stem prickly
- 5587 Leaves cordate sagittate, Stem angular, Segm. of cal. obtusely keeled
- 5588 Leaves cordate, Stem smooth, Leaves keeled winged
- 5589 Leaves cordate, Raceme simple axillary, Stem smooth
- 5590 Stem procumbent, Leaves oblong acute veiny fleshy, Stipules ciliated much shorter than the joints
- 5591 Flowers axill. trigynous, Leaves ellipt. lanceol. Sheaths ciliated
- 5592 Flowers trigynous axillary, Leaves lanceolate fleshy veinless, Stipules 2-parted

\* *Stem not twining.*

- 5593 Leaves stalked obovate mucronulate smooth with a crisp revolute edge
- 5594 Stem simple one-spiked, Leaves ovate wavy running down the stalk
- 5595 Stem simple one-spiked, Leaves revolute lanceolate at edge
- 5596 Flowers trigynous racemose, Leaves lanceolate smooth, Stem divaricating spreading smooth
- 5597 Flowers trigynous panicle, Leaves lanceolate wavy rough above pubescent beneath
- 5598 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth
- 5599 Flowers trigynous racemose-panicled, Leaves linear lanceolate smooth acuminate ciliated at edge
- 5600 Leaves cordate sagittate, Stem unarmed, Seeds toothed
- 5601 Leaves cordate sagittate, Stem unarmed, Seeds truncate at end emarginate winged
- 5602 Leaves cordate sagittate, Stem unarmed, Angles of seeds equal
- 5603 Flowers trigynous racemose-panicled, Leaves ovate lanc. smooth ciliated at edge

5604 Leaves cordate roundish shining



and *Miscellaneous Particulars.*

*P. orientale* is a well known annual, showy, and fit for shrubberies. The seeds were first sent to Europe by Tournefort, who saw it growing in the garden of the monks of the three churches near Mount Ararat. They cultivate this plant there, not only for the beauty of the flowers, but for its medicinal qualities, which are the same with those attributed to our common species. (*Müll. Fig.*) The seeds are farinaceous.

*P.aviculare* is so named from the gratefulness of its seeds to small birds; the English name, knot-grass, from the knottiness of the stem, and because it is eaten by cattle; many such plants having obtained the name of grass, though they bear no similitude to real grasses. Hogs eat it with great avidity, and hence it is known in many countries by the name of hogweed. All other domestic quadrupeds are said to eat it. The seeds are useful for every purpose in which those of buckwheat are employed, but they are much smaller.

*P. Fagopyrum*, (*Fagus*, beech, and *pyros*, corn, its grain is like the mast of beech,) properly beechwheat, *Bled noir* or *Sarrazin*, Fr. Buckwheat is considered a native of Asia and not of Europe, though sometimes found in a seemingly wild state. It will not, however, bear the frosts of our springs or the severity of winter. In China and other countries of the East, it is cultivated as a bread corn. The flower is also used in cookery and bread-making in various parts of Europe, to make cakes and crumpets in England, and as rice or gruel in Germany and Poland. The seed is said to be excellent for horses and poultry; the flowers for bees, and the plant green for soiling cows, cattle, sheep or swine. As an agricultural plant it is valuable, as standing only a short time on the ground; but it produces little straw for manure.

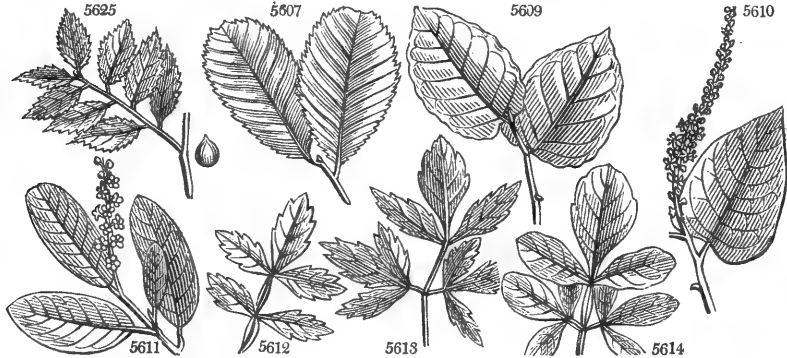
922. *Coccoloba*. From *κακκος*, fruit, and *λαβος*, a lobe; the fruit has three lobes. *C. uvifera* is a common tree in most of the sugar colonies, generally near the sea. It is remarkable for its large leaves, and when of



|  |                |         |        |     |           |       |     |                 |                          |
|--|----------------|---------|--------|-----|-----------|-------|-----|-----------------|--------------------------|
| 5605 latifolia Lam.  | broad-leaved   | ◻ or 20 | ...    | W.g | S. Amer.  | 1812. | C   | r m             | La. il. t. 316. f. 4     |
| 5606 pubescens W.  | downy          | ◻ tm 70 | ...    | W.g | W. Indies | 1690. | C   | r m             | Pl. phy. 232. f. 3       |
| 5607 excoriata W.  | oval-leaved    | ◻ tm 80 | ...    | W.g | W. Indies | 1733. | C   | r m             | Pl. sc. t. 146. f. 1     |
| 5608 punctata W.   | spear-leaved   | ◻ or 15 | ...    | W.g | W. Indies | 1733. | C   | r m             | Jac. am. 114. t. 77      |
| 5609 barbadensis W.  | Barbadoes      | ◻ tm 60 | ...    | W.g | Barbadoes | 1790. | C   | r m             | Jac. obs. 1. t. 8        |
| 5610 diversifolia Jacq.  | various-leaved | ◻ or 20 | au     | W.g | St. Dom.  | 1818. | C   | r m             | Hook. ex. fl. 102        |
| 5611 laurifolia Jacq.  | laurel-leaved  | ◻ or 20 | au     | W.g | Caraccas  | 1822. | C   | r m             | Jac. sch. 3. t. 267      |
| <b>923. PAULLINIA. W. PAULLINIA. Sapindaceae. Sp. 6—39.</b>      |                |         |        |     |           |       |     |                 |                          |
| 5612 pinnata W.  | winged-leaved  | ◻ or 15 | ...    | W.g | W. Indies | 1752. | C   | r m             | Jac. ob. 3. t. 62. f. 12 |
| 5613 curassavica W.  | shining-leaved | ◻ or 18 | ...    | W.g | S. Amer.  | 1739. | C   | r m             | Jac. ob. 3. t. 61. f. 8  |
| 5614 barbadensis W.  | Barbadoes      | ◻ or 16 | ...    | W.g | W. Indies | 1786. | C   | s p             | Jac. ob. 3. t. 62. f. 9  |
| 5615 polyphylla W.   | Supple-Jack    | ◻ or 20 | ...    | W.g | W. Indies | 1739. | R   | s p             | Jac. ob. 3. t. 61. f. 10 |
| 5616 caribaea Jac.   | Caribbean      | ◻ or 10 | ...    | W.g | W. Indies | ...   | C   | s p             | Jac. ob. 3. t. 62. f. 7  |
| 5617 meliæfolia Juss.  | Beadtree-lvd.  | ◻ or 12 | ...    | W.g | Brazil    | 1819. | C   | s p             | Hook. ex. fl. 110        |
| <b>924. SERIANA. W. SERIANA. Sapindaceae. Sp. 2—21.</b>          |                |         |        |     |           |       |     |                 |                          |
| 5618 sinuata W.  | sinuate-leaved | ◻ or 15 | ...    | W.g | S. Amer.  | ...   | C   | co              | Jac. ob. 3. t. 61. f. 2  |
| 5619 caracasana W.   | tooth-leaved   | ◻ or 15 | ...    | W.g | Caraccas  | 1816. | C   | co              | Jac. sch. 1. t. 99       |
| <b>925. CARDIOSPERMUM. W. HEART-SEED. Sapindaceae. Sp. 3—12.</b> |                |         |        |     |           |       |     |                 |                          |
| 5620 Halicacabum W.  | smooth-leaved  | ◻ cu 4  | jl     | W.g | India     | 1594. | S   | co              | Bót. mag. 1049           |
| 5621 Corindum W.   | Parsley-leaved | ◻ cu 4  | jl. au | W.g | Brazil    | 1750. | S   | co              | ...                      |
| 5622 pubescens Lag.  | downy          | ◻ cu 5  | jn     | S.  | N. Spain  | 1823. | S   | co              | ...                      |
| <b>926. SAPINDUS. W. SOAP-BERRY. Sapindaceae. Sp. 6—18.</b>      |                |         |        |     |           |       |     |                 |                          |
| 5623 Saponaria W.  | coramon        | ◻ ec 20 | ...    | W.g | W. Indies | 1697. | S   | p l             | Com. hort. t. 94         |
| 5624 marginatus W. en.   | edged          | ◻ or    | ...    | W.g | Carolina  | ...   | S   | p l             | ...                      |
| 5625 rigidus W.  | Ash-leaved     | ◻ or 25 | jl. s  | W.g | America   | 1759. | S   | p l             | Pl. alm. t. 217. f. 7    |
| 5626 longifolius Vahl.   | long-leaved    | ◻ or 16 | ...    | W.g | E. Indies | 1820. | S   | co              | ...                      |
| 5627 emarginatus Vahl.   | emarginated    | ◻ or 12 | ...    | W.g | E. Indies | 1822. | S   | r m             | ...                      |
| 5628 rubiginosus Roxb.   | rusty          | ◻ or 15 | ...    | W.g | E. Indies | 1     | p l | Rox. cor. 1. 62 |                          |

TETRAGYNIA.

|   |                |        |        |        |            |         |          |     |                   |               |
|---|----------------|--------|--------|--------|------------|---------|----------|-----|-------------------|---------------|
| <b>*927. VEREA. W. VEREA. Sempervivaceae. Sp. 3—8.</b>            |                |        |        |        |            |         |          |     |                   |               |
| 5629 laciniata P. S.  | cut-leaved     | ◻ or 2 | jl. au | Y.     | E. Indies  | 1781.   | Ls       | s l | Plant. grass. 100 |               |
| 5630 crenata W.   | Vere's         | ◻ or 2 | jl. s  | Y.     | S. Leone   | 1793.   | Ls       | s l | Bot. mag. 1436    |               |
| 5631 acutiflora Haw.  | white-flowered | ◻ or 2 | jl. s  | W.     | E. Indies? | 1806.   | Ls       | s l | Bot. rep. 560     |               |
| <b>928. BRYOPHYLLUM. Sal. BRYOPHYLLUM. Sempervivaceae. Sp. 1.</b> |                |        |        |        |            |         |          |     |                   |               |
| 5632 calycinum Sal.   | large-cupped   | ◻ cu 2 | ap. jl | G. Pu  | E. Indies  | 1800.   | Ls       | s l | Par. lond. 3      |               |
| <b>929. PARIS. W. PARIS. Asphodelea? Sp. 1—2.</b>                 |                |        |        |        |            |         |          |     |                   |               |
| 5633 quadrifolia W.   | Herb           | ◻ Δ cu | ½      | my. jn | G          | Britain | woods.   | D   | p l               | Eng. bot. 7   |
| <b>930. ADOXA. W. MOSCHATEL. Saxifrageae. Sp. 1.</b>              |                |        |        |        |            |         |          |     |                   |               |
| 5634 Moschatellina W.   | tuberous       | ◻ Δ cu | ½      | mr. my | G. w       | Britain | woods.   | D   | s p               | Eng. bot. 453 |
| <b>931. ELAÏTINE. W. WATER-WORT. Caryophylleae. Sp. 1—4.</b>      |                |        |        |        |            |         |          |     |                   |               |
| 5635 Hydropiper W.  | small          | ◻ cu   | ½      | au     | G          | England | mar. la. | S   | s l               | Eng. bot. 955 |



History, Use, Propagation, Culture.

a considerable size, its wood is valued for cabinet work. The berries are of the size of grapes, reddish brown or purplish without, with a thin pulp, rather astringent, and a large stone within. All the species grow freely in light loamy soil; and ripened cuttings, taken off at the joint, and placed under a hand-glass, in a pot of sand, will root freely: one cutting under a glass is sufficient, as the leaves must not be shortened. (*Bot. Cult.* 41.)

923. *Paullinia*. So named by Linnæus, from Simon Paulli, professor of botany at Copenhagen; author of *Botanicum Quadrupartitum*, 1640, and *Flora Danica*, 1648. *P. polyphylla* affords a well known walking-stick. In the woods of Jamaica it rises with a slender, woody, tough, flexible stalk, and ascends among the bushes to a considerable height. When the wood is ripe it is cut down, barked, and used as riding or walking sticks.

All the species succeed well in a light loamy soil; and large sized cuttings root in sand under a hand-glass.

924. *Seriana*. Named by Schumacher, after one Paul Serjeant. Cuttings root in sand under a hand-glass.

925. *Cardiospermum*. From *cardia*, a heart, and *spereua*, seed, in allusion to its round seeds, which are marked with a spot like a heart. The plant is remarkable for its inflated membranous capsule, from which it is sometimes called balloon vine.

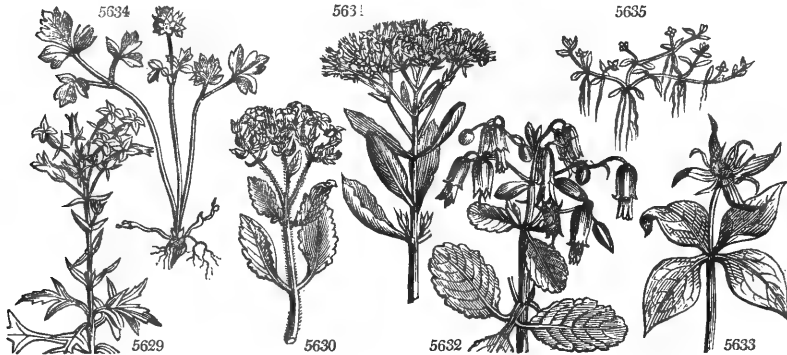
926. *Sapindus*. A syncope of *sapo-indicus*, Indian soap. Its fruit is covered with a pulp, which is used in America for washing linen. *S. Saponaria* bears a berry as large as a cherry, inclosing a nut of a shining black when ripe. These nuts were formerly brought to England for buttons to waistcoats; some of them were tipped with silver, and others with different metals; they were very durable, as they do not wear, and seldom broke. The skin or pulp which surrounds the nut is saponaceous, and is used in America to wash linen; but it is very apt to burn and destroy it, if often used, being of a very acrid nature.

The whole plant, especially the seed-vessel, being pounded and steeped in ponds, rivulets, or creeks, is ob-

- 5605 Leaves entire very broad contracted at base
- 5606 Leaves orbicular pubescent
- 5607 Leaves oblong-ovate acute cordate at base, Racemes pendulous
- 5608 Leaves lanceolate ovate
- 5609 Leaves cordate ovate wavy
- 5610 Leaves of the branchlets ovate, of the branches ovate cordate
- 5611 Leaves oblong obtuse at each end coriaceous flat
  
- 5612 Caps. pyriform, Leaves in 2 pairs with an odd one, Leaflets ovate lanceolate sessile crenate
- 5613 Valves of caps. half orbicordate, Leaves 2 ternate, Leaflets oval crenate, Footstalk edged
- 5614 Valves of caps. half ovate villous, Leaves 2 ternate, Leaflets oval entire and serrated coriaceous
- 5615 Valves of caps. obovate, Leaves supradecomposed, Leaflets ovate cuneate crenate at end
- 5616 Leaves biternate, Leaflets oval toothletted at end, Branches prickly
- 5617 Caps. pyriform 3-winged at end, Leaves in 3 pairs with an odd one, Leaflets subsessile pubescent beneath
  
- 5618 Leaves ternate, Leaflets ovate lanceol. toothed sinuated, Wings of fruit dilated behind
- 5619 Leaves biternate, Leaflets oblong remotely toothed quite smooth, Wings of fruit rounded behind
  
- 5620 Stem stalks and leaves smooth, Leaves biternately cut, Segm. stalked cut-toothed
- 5621 Leaves beneath downy biternately cut, Segments stalked cut obtuse
- 5622 All over pubescent, Capsules obtuse
  
- 5623 Rachis of leaves winged, Leaflets entire lanceol. of 3-4 pairs : the terminal with long points
- 5624 Rachis of leaves winged unarmed, Leaflets lanceolate of 6 pairs
- 5625 Rachis not winged, Leaflets ovate oblong smooth of 3 pairs
- 5626 Rachis not winged, Leaflets lanceolate smooth of 5 pairs : one terminal
- 5627 Rachis not winged, Leaflets oblong emarginate villous beneath
- 5628 Rachis not winged, Leaflets oblong lanceolate acute villous beneath of 3-5 pairs

TETRAGYNIA.

- 5629 Leaves 3-parted toothed : the floral linear entire
- 5630 Leaves obovate doubly crenate
- 5631 Leaves broad lanceolate opposite crenate thick, Segm. of cor. acute
  
- 5632 Leaves oval crenate, Flowers long pendulous cylindrical
  
- 5633 All the parts of the plant green and in fours
  
- 5634 The only species
  
- 5635 Leaves opposite, Flowers alternate stalked tetrapetalous



and Miscellaneous Particulars.

served to intoxicate and kill the fish. Loureiro celebrates the berries, slightly bruised and steeped in water, as a very excellent soap; and remarks that it is only required to use them with prudence, all abstergents being in some degree corrosive.

927. *Vernu*. So named after the late James Vere, Esq., a gentleman of fortune, who patronized gardening, and had once a fine collection of living plants. The species thrive best in sandy loam, and should be plunged in the bark pit to make them flower. The leaves placed on a pot of mould, or on the tan, will shoot out young plants from the notches of the margin. (*Bot. Cult.* 35.)

928. *Bryophyllum*. From βρύω, to grow, and φύλλον, a leaf. If the leaves are laid upon damp earth their notches push forth roots, whence proceed young plants. This plant requires very little water, and the pot to be well drained: it flowers best plunged in a tan heat; rich loamy soil suits it best.

929. *Paris*. According to some authors, this word is derived from *par*, equal; in allusion to the regularity of the parts of the plant. Few plants are more readily distinguished than this, by the proportion and regularity of all the parts.

The regular number is four, or some aliquot part or multiple of that number. There are, however, sometimes only three leaves, and they are even said to vary from one to seven. The calyx also has sometimes three leaves. The leaves and berries are said to partake of the properties of opium; and the juice of the latter to be useful in inflammations of the eyes. Linnæus says, the root will vomit as well as ipecacuanha, given in a double quantity. It is a suspicious plant, which has nevertheless been used in medicine in a great variety of ways.

930. *Adoxa*. From α, privative, and δόξα, glory — inglorious. This plant is minute, and by no means beautiful, and grows in obscure places.

931. *Elatine*. From ελατη, a fir, in Greek. Its fine leaves have been compared to those of a fir-tree.

|                             |                |   |    |                   |          |                 |           |                                   |
|-----------------------------|----------------|---|----|-------------------|----------|-----------------|-----------|-----------------------------------|
| †932. HALORAGIS. W.         | HALORAGIS.     |   |    | <i>Haloragis.</i> | Sp. 1—5. |                 |           |                                   |
| 5636 <i>Cercodia</i> W.     | whorl-flowered | □ | cu | 2                 | ap.s     | G.r             | New Zeal. | 1772. C s.p Jac. ic. 1. t. 69     |
| 933. FORSKÖH'LEA.           | FORSKÖHLEA.    |   |    |                   |          | <i>Urticea.</i> | Sp. 3—5.  |                                   |
| 5637 <i>tenacissima</i> W.  | clammy         | ○ | cu | 1½                | jl.au    | G               | Egypt     | 1767. S lt.1 Jac. vind. 1. t. 48  |
| 5638 <i>cándida</i> W.      | rough          | △ | cu | 1½                | jn.jl    | W.g             | C. G. H.  | 1774. C lt.1                      |
| 5639 <i>angustifolia</i> W. | narrow-leaved  | ○ | cu | 2                 | jl.au    | G.w             | Teneriffe | 1779. S lt.1 M. c. g. p. 24. t. 2 |



*History, Use, Propagation, Culture,*

932. *Haloragis*. From ἅλας, αλος, the sea, and εαξ, the berry of a bunch of grapes. This plant grows on the sea shore, and its fruit is globular like a berry.

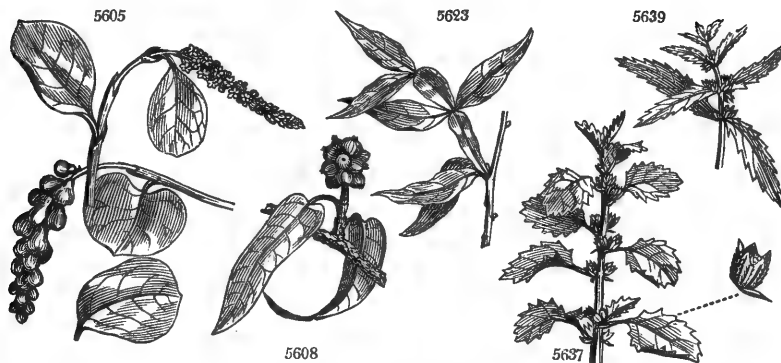
933. *Forsköhma*. In memory of Peter Forsköhl, a Swede, born in 1732; he was professor at Copenhagen;

5636 Leaves serrate, Flowers whorled

5637 Pilose hispid, Leaves elliptical unarmed, Sepals oblong lanceolate acute

5638 Rough, Leaves elliptical wavy unarmed, Sepals ovate obtuse

5639 Strigose, Leaves lanceolate with spiny teeth, Sepals lanceolate subulate



and *Miscellaneous Particulars.*

travelled at the expence of the king of Denmark into Egypt and Arabia, and died in the latter country of the plague in 1763. Inelegant plants, with the aspect of a nettle.













CLASS IX. — ENNEANDRIA. 9 STAMENS.

ONE of the smallest of the Linnean classes; containing, however, three important genera; the Laurel, famous for the valuable spices it produces, and for the beautiful foliage of its insipid species; the Cashew nut, well known at the tables of the great or luxurious; and the Rhubarb, one of the most valuable of medicines. The class itself is extremely unnatural, and the assemblage of genera most incongruous.

Order 1. MONOGYNIA.  9 Stamens. 1 Style.

934. *Laurus*. Cal. 4-6-parted. Nect. 3 glands, with 2 bristles surrounding the ovary. Anthers opening transversely. Valves hinged to the upper side.

MONOGYNIA.

|                              |               |   |    |    |       |      |           |       |   |     |                         |
|------------------------------|---------------|---|----|----|-------|------|-----------|-------|---|-----|-------------------------|
| *934. LAURUS. <i>W.</i>      | LAUREL.       |  | m  | 20 | in.s  | G. v | Ceylon    | 1763. | L | a p | Bot. rep. 596           |
| 5640 Cinnamomum <i>W.</i>    | Cinnamon      |  | m  | 50 | my.s  | W    | E. Indies | 1768. | C | s p | Bot. mag. 1636          |
| 5641 Cassia <i>W.</i>        | tall          |  | or | 30 | ...   | G. y | E. Indies | 1805. | C | s p | Rhe. mal. 5. t. 53      |
| 5642 Malabátrum <i>P. S.</i> | Camphire-tree |  | or | 20 | mr.jn | G. w | Japan     | 1727. | C | s p | Jac. col. 4. t. 3. f. 2 |
| 5643 cámpora <i>W.</i>       | Cogwood-tree  |  | tm | 60 | ...   | G. w | Jamaica   | 1778. | C | s p | Bro. jam. t. 7. f. 1    |
| 5644 chloróxylon <i>W.</i>   | glauous       |  | or | 3  | ja.f  | G. y | China     | 1806. | L | s p | Bot. mag. 2497          |
| 5645 aggregata <i>Sims.</i>  | Sweet-Bay     |  | or | 15 | ap.my | Y. w | Italy     | 1561. | C | s l | Zorn. ic. 52            |
| β undulata                   | wave-leaved   |  | or | 4  | ap.my | Y. w | .....     | ...   | C | s l |                         |
| γ salicifolia                | willow-leaved |  | or | 6  | ap.my | Y. w | .....     | ...   | C | s l |                         |
| 5647 Cutilában <i>L.</i>     | Cutilaban     |  | or | 30 | ...   | G. y | E. Indies | 1823. | C | s l | Rumph. 2. t. 14         |



History, Use, Propagation, Culture,

934. *Laurus*. From the Celtic *blaur* (the *b* is dropped in pronunciation, *laur*), green. The laurel is perpetually green. This genus contains several important spice or drug-bearing trees, besides the poetical laurel and a fruit tree.

*L. Cinnamomum* (*qu.* China Amomum) has a smooth ash-colored bark, a short erect trunk, and wide spreading branches, which form an elegant head. The leaves are of a bright green above, pale beneath, and white veined; the flowers are in panicles, have no shew, and are inodorous, or perhaps somewhat fetid; the fruit is the size of a middling olive, soft, insipid, and of a deep blue; it encloses a nut, the kernel of which germinates soon after it falls, and therefore cannot easily be transported to a distance. The timber is white, and not very solid; the root is thick and branching, and exudes abundance of camphor. The inner bark forms the cinnamon of commerce. There are many varieties, and probably some of them species, especially in the island of Ceylon, but only four are said to be barked. Besides Ceylon, the tree grows plentifully in Malabar, Cochin China, Sumatra, and the Eastern islands. It has been cultivated in the Brazils, the Mauritius, India, Jamaica, and other places. The soil in which it thrives best is nearly pure quartz sand. That of the cinnamon garden near Colombo in Ceylon, was found by Dr. Davy to consist of 98.5 of allicious sand, and of 1.0 only of vegetable matter in 100 parts. "The garden is nearly on a level with the lake of Colombo; its situation is sheltered; the climate is remarkably damp; showers are frequent, and the temperature is high and uncommonly equable." (*Davy's Ceylon*, p. 39.)

The trees that grow in the valleys, in a white sandy soil, are fit to be barked when four or five years old, but those in a wet soil or in shady places, require to be seven or eight years of age. The bark is good for nothing if the tree be older than eighteen years. The tree was formerly propagated by a species of pigeon that ate the fruit and voided the seed; but since Falck, one of the Dutch governors, about the middle of the eighteenth century, raised it from berries sown in his garden, it has been regularly cultivated.

The barking commences early in May, and continues until late in October. Branches of three years old are selected, and topped off with a pruning knife or bill hook. To remove the bark a longitudinal incision is made through it on both sides of the shoot, so that it can be gradually loosened and taken off entire, forming hollow cylinders. The bark in this state, tied up in bundles, is allowed to remain for twenty-four hours, by which a fermentation is produced that facilitates the separation of the epidermis, which, with the green pulpy matter under it is carefully scraped off. The bark now soon dries, contracts, and assumes the quilled form, after which the smaller pieces are put within the larger. The cinnamon, when dry, is tied up in bundles of 30 lbs. weight, and carried to the Government store-house, where the quality is determined by inspection of the bundles. It was formerly chewed for this purpose; and the surgeons who used to be thus employed, had their

935. *Anacardium*. Cal. 5-parted. Petals 5, reflexed. Anthers 9, and one filament barren. Nut reniform, upon a fleshy receptacle.

936. *Cassytha*. Cal. 6-parted. Nect. 3 truncate glands surrounding the ovary. Inner filaments glanduliferous. Drupe 1-seeded.

937. *Eriogonum*. Cal. campanulate, 6-cleft. Nut 1, 3-cornered, covered by the calyx.

Order 2. TRIGYNIA.  9 Stamens. 3 Styles.

938. *Rheum*. Cor. 6-cleft, persistent. Nut 1, 3-cornered.

Order 3. HEXAGYNIA.  9 Stamens. 6 Styles.

939. *Butomus*. Sepals 6. Caps. 6, many-seeded.

### MONOGYNIA.

5640 Leaves 3-nerved ovate-oblong, Nerves vanishing towards the end

5641 Leaves triple-nerved lanceolate

5642 Leaves opp. very long acute at each end triple-nerved veiny across

5643 Leaves triple-nerved lanceolate ovate

5644 Leaves 3-nerved ovate coriaceous, Nerves reaching the end

5645 Leaves ovate acuminate 3-nerved glaucous beneath, Flowers axillary numerous

5646 Leaves lanceolate veiny perennial, Flowers 4-fid dioicous

5647 Leaves triple-nerved opposite



and Miscellaneous Particulars.

mouths so excoriated, as to be unable to continue the process longer than two days together: but tasting is now seldom had recourse to.

Cinnamon bark is astringent, cordial, and tonic. But the principal use of cinnamon is to cover the nauseous state of other remedies. (*Thomson's London Dispensatory*, 354.)

An oil is procured from the leaves and roots of cinnamon; the former is called the oil of cloves, and the latter the oil of camphor: both are powerfully stimulant, and used in cramps of the stomach, flatulent colic, hiccough, toothach, and nervous languor.

According to Sweet *L. Cinnamomum* is the hardest plant of the genus to cultivate in our stoves. "I have scarcely," he says, "ever seen it do well any where but at Messrs. Loddiges," who generally keep their stoves warmer than other gardeners usually do; and the cinnamon likes a warm atmosphere, and very little water in winter. It grows best in a mixture of sandy loam and peat, the pots being well drained with small potsberds. Ripened cuttings soon take root in a pot of sand, plunged under a hand-glass, in a good moist heat. (*Bot. Cult.* 74.)

The plant has regularly flowered and ripened seeds in the hothouse of the Bishop of Winchester for several years past.

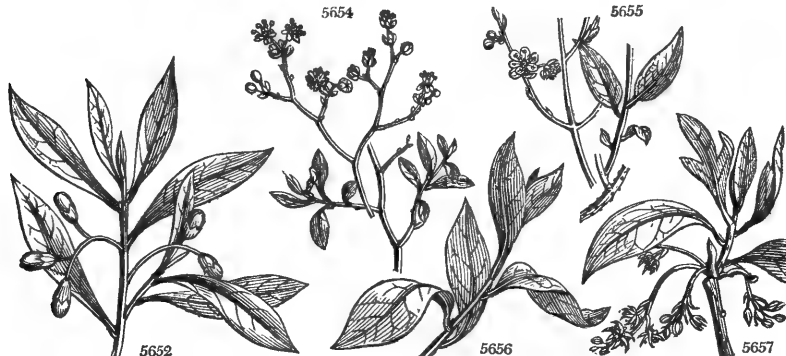
*L. Cassia* is also decorticated like the cinnamon, but it is considered of inferior value, on account of containing a greater proportion of mucilage. What are called *Cassia buds*, are not obtained from this tree, but are the hexangular fleshy receptacles of the seed of the *L. Cinnamomum*. *Cassia bark* and buds are used in the same manner as cinnamon bark: the tree also affords an oil of similar use. In our stoves, the *cassia* grows more readily than the cinnamon; the same kind of soil suits it; and cuttings root freely treated in the same manner. (*Bot. Cult.* 74.)

*L. Camphora*, an alteration of the Arabic name, *kâfûr*, is nearly allied to the cinnamon tree. The roots, wood, and leaves of this tree have a very strong odor of camphor; and from the roots and smaller branches it is obtained by distillation. They are cut into chips, which are suspended in a net within a kind of still or iron pot, the bottom of which is covered with water, and an earthen head fitted to it; heat is then applied, and the steam of the boiling water, penetrating the contents of the net, elevates the camphor into the capital, where it concretes on straws, with which this part of the apparatus is lined. Camphor is stimulant, narcotic, and diaphoretic, but its stimulant powers are very transitory, and followed by sedative effects. In moderate doses it operates as a cordial, increasing the heat of the body, and exhilarating, besides softening, and rendering fuller the pulse, and promoting diaphoresis; in large doses it allays irritation and spasm, abates pain, and induces sleep. But in immoderate doses camphor produces vomiting, vertigo, delirium, convulsions, and other

|                                |                  |   |    |    |       |     |                       |          |   |       |                       |
|--------------------------------|------------------|---|----|----|-------|-----|-----------------------|----------|---|-------|-----------------------|
| 5648 <i>indica</i> W.          | Royal-bay        | ♂ | tm | 20 | mr.o  | G.v | Madeira               | 1665.    | C | lp    | Pl. alm. t. 304. f. 1 |
| 5649 <i>foetens</i> W.         | Madeira, or Til. | ♂ | tm | 30 | mr.o  | G.v | Madeira               | 1760.    | C | lp    |                       |
| 5650 <i>canariensis</i> W. en. | Canary           | ♂ | or | 10 | ...   | G.v | Canaries              | 1815.    | C | lp    |                       |
| 5651 <i>Persea</i> W.          | Alligator Pear   | ♂ | fr | 30 | ...   | G.v | W. Indies             | 1739.    | C | lp    | Pl. alm. t. 267. f. 1 |
| 5652 <i>Borbônia</i> W.        | brd. lvd.-Carol. | ♂ | or | 15 | ap.my | Y.g | N. Amer.              | 1739.    | C | lp    | Cat. car. 1. t. 63    |
| 5653 <i>carolinensis</i> P. S. | Red-Bay          | ♂ | tm | 15 | ap.my | Y.g | N. Amer.              | 1806.    | L | lp    |                       |
| 5654 <i>geniculata</i> Ph.     | flexuose         | ♂ | or | 6  | ap.my | Y   | N. Amer.              | 1759.    | L | lp    | Bot. mag. 1471        |
| 5655 <i>Diöspyrus</i> Ph.      | twiggy           | ♂ | or | 6  | ap.my | G.v | N. Amer.              | 1810.    | L | lp    | Bot. mag. 1470        |
| 5656 <i>Benzóin</i> W.         | Benjamin-tree    | ♂ | m  | 8  | ap.my | Y.g | N. Amer.              | 1683.    | S | p.s.l | Com. hort. 1. t. 97   |
| 5657 <i>Sassafras</i> W.       | Sassafras-tree   | ♂ | m  | 50 | my.jn | G.v | N. Amer.              | 1633.    | S | p.s.l | Cat. car. 1. t. 55    |
| 935. ANACARDIUM.               | W. CASHEW-NUT.   |   |    |    |       |     | <i>Terebintaceae.</i> | Sp. 1. 2 |   |       |                       |
| 5658 <i>occidentale</i> W.     | common           | ♂ | fr | 12 | ...   | R   | India                 | 1699.    | C | r.m   | Cat. car. 3. t. 9     |
| 936. CASSYTHA.                 | CASSYTHA.        |   |    |    |       |     | <i>Lawrinæ.</i>       | Sp. 1—2. |   |       |                       |
| 5659 <i>filiformis</i> W.      | filiform         | ♂ | cu | 3  | ap.au | W   | E. Indies             | 1796.    | C | sp    | Pl. al. t. 172. f. 2  |
| † 937. ERIOGONUM.              | ERIOGONUM.       |   |    |    |       |     | <i>Polygoneæ.</i>     | Sp. 2—3. |   |       |                       |
| 5660 <i>tomentosum</i> Ph.     | woolly           | ♂ | cu | 2  | my.jn | Y   | Carolina              | 1811.    | S | lp    | Mich. am. t. 24       |
| 5661 <i>sericeum</i> Ph.       | silky            | ♂ | cu | 1  | jl    | Y   | Missouri              | 1811.    | S | lp    |                       |

TRIGYNIA.

|                            |          |   |     |   |       |     |                   |           |   |    |                      |
|----------------------------|----------|---|-----|---|-------|-----|-------------------|-----------|---|----|----------------------|
| 938. RHEUM. W.             | RHUBARB. |   |     |   |       |     | <i>Polygoneæ.</i> | Sp. 7—10. |   |    |                      |
| 5662 <i>Rhaponticum</i> W. | common   | ♂ | cul | 4 | my.jn | W.g | Asia              | 1573.     | R | co | Sabb. hort. 1. t. 34 |
| 5663 <i>undulatum</i> W.   | Bucks    | ♂ | cul | 4 | my.jn | W.g | China             | 1734.     | R | co | Amen. ac. 3. t. 4    |



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deleterious effects. The greater part of the camphor brought to Europe is obtained in Sumatra from the *Dryobalanops Camphora*. This tree is cut and split, and the camphor which is found concentered in the heart of it is picked out and washed in a ley of soap. *Zea* describes a variety of camphor which is procured in South America from a tree, the botanical characters of which are not yet known, but which is termed *castrita* by the natives. The camphor exudes from the bark in the form of tears. (*Thomson's London Dispensatory*, 356.)

*L. Chloroxylon* has its specific from the color of the wood, *χλωρον*, green, and *ξύλον*, wood; it is esteemed one of the best timber trees in Jamaica, and used on all occasions where strength and durability are required: being both hard and tough, it answers better than any other wood for the cogs of sugar mills.

*L. nobilis*, the *Laurier*, Fr., *Lorbeerbaum*, Ger., *Alloro*, Ital., *Laurel*, Span., the *Laurus* of the Romans, and *Daphne* of the Greeks, was designated *nobilis* by Linnaeus, because it was consecrated to priests, sacrifices, and heroes in the ages of antiquity, and has been celebrated accordingly. To the poet and sculptor it still affords emblems for victorious heroes; and it is also used in cookery and medicine. In the south of Italy it grows to a sufficient height to be considered a tree; but is so prolific in suckers and low shoots as always to have the character of a shrub. It forms a dense and yet broken and picturesque mass of a very fine deep green, inclining to olive, and is abundantly covered with berries, which are dark purple or black, when ripe. Oil is obtained from the latter by boiling water. Both the leaves and the berries have a sweet fragrant odour, and an aromatic, astringent taste; and the oil, which is of a yellowish green color, has a stronger but similar odor and taste. Water distilled from the leaves shews traces of prussic acid; and it is probably on this component that their medicinal and poisonous property depend. Leaves, berries, and oil are narcotic and carminative. (*Thomson's London Dispensatory*, 360.)

*L. indica* grows in the Canary Isles and Virginia. The wood is of a yellow color, not heavy, good for building, but better still for furniture: it is called *Vignatiaco* in the island of Madeira, and is probably what is imported into England under the name of Madeira mahogany. It is hardly to be distinguished from mahogany, except that it is somewhat less brown. (*Hawksu. Voy. ii. p. 5.*)

*L. Persea* (*Persea* is a name under which Theophrastus describes an Egyptian tree not now known,) has a trunk as large as our common apple tree; the bark is smooth, and of an ash color; the branches are very succulent and soft, beset with pretty large oblong smooth leaves, like those of laurel, of a deep green color. The flowers are, for the most part, produced towards the extremities of the branches. The fruit is the size of one of our biggest pears. The pulp of the fruit is covered with a tough skinny coat, and contains a large rugged seed, which is wrapped up in one or two thin membranous covers. This fruit is held in great esteem in the West Indies: the pulp is of a pretty firm consistence, and has a delicate rich flavor; it gains upon the palate of most persons, and becomes soon agreeable even to those who cannot like it at first; but it is so rich and mild, that most people make use of some spice or pungent substance to give it a poignancy; and, for this purpose, some make use of wine, some of sugar, some of lime-juice, but most of pepper and salt. This fruit seems equally agreeable to the horse, the cow, the dog, and the cat, as well as to all sorts of birds; when plentiful, it makes a great part of the delicacies of the negroes. (*Browne.*)

*L. Borbonea* was regarded by Plumier as a genus distinct from *Laurus*, and he applied what is now its specific name, in memory of Gaston Bourbon, son of Henry IV. and uncle of Louis XIV. It is a very common tree in swamps in Carolina, and affords a fine grained wood excellent for cabinets; some of the best resembles watered satin.

*L. Sassafras* (*Sassafras* is an alteration of the Spanish word *Sassafras*, which signifies *Saxifrage*, the virtues of which are attributed by the Spanish Americans to this plant,) has the flowers often imperfect as to the male and female organs, which, before observation was so accurate and scientific as at present, led to the conclusion

- 5648 Leaves veiny lanceolate perennial flat, Branches scarred, Flowers racemose  
 5649 Leaves veiny elliptical acute perennial, Axils of veins villous beneath, Racemes paniced  
 5650 Leaves veiny oblong acute at each end perennial shining, Pedunc. axill. 3-4-flowered  
 5651 Leaves ovate coriaceous transversely veiny perennial, Flowers corymbose  
 5652 Leaves lanceolate perennial, Calyx of fruit berried  
 5653 Leaves oval lanc. perenn. glaucous beneath, Berries globose  
 5654 Branches divaricating flexuose, Leaves oval obtuse smooth at the base beneath bearded, Anth. 4-celled  
 5655 Twiggly naked-flowering, Leaves decid. oblong beneath veiny downy, Flowers clustered, Buds villous  
 5656 Leaves nerveless ovate acute at each end entire annual  
 5657 Leaves entire and 3-lobed

5658 The only species

5659 Branches filiform lax

5660 Leaves sessile cauline 3-4 cuneate obovate smooth above

5661 Leaves radical stalked lanc. oblong villous above

### TRIGYNIA.

5662 Leaves obtuse smooth, Veins beneath hairy, Leafst. furrowed above rounded at edge

5663 Leaves villous wavy, Leafst. flat above with an acute edge



and Miscellaneous Particulars.

that one plant bore only males and the other only hermaphrodites; it is now found the alleged males are only imperfect hermaphrodites. The wood, root, and bark have a fragrant odor, and a sweetish aromatic taste; their sensible qualities and virtues depend on an essential oil, which can be obtained separate by distilling the chips or the bark with water: it is a stimulating diaphoretic and diuretic, and has been employed in cases of scurvy, chronic rheumatism, gout, and in cutaneous affections; but its effects are very uncertain; and even the diaphoresis which it is supposed to occasion may rather be ascribed to the guaiaic, and other more powerful medicines, with which it is generally combined. (*Thomson's London Dispensatory*, 361.)

The species are well divided into several genera, such as *Laurus*, *Tetranthera*, *Cinnamomum*, and others; but as this division has not been applied to the old species of *Laurus* generally, it has not been practicable to adopt it here.

935. *Anacardium*. From *ana*, in composition, like, and *καρδια*, heart, in allusion to the form of the nut. This is an elegant tree, bearing paniced corymbs of sweet-smelling flowers, succeeded by an edible fruit of the pome kind, of a yellow or red color. This fruit or apple has an agreeable sub-acid flavor, with some degree of astringency. The juice expressed and fermented yields a pleasant wine; and distilled, a spirit is drawn from it, far exceeding arrack or rum, making an admirable punch, and powerfully promoting urine. The dried and broken kernels are occasionally imported for mixing with old Madeira wine, the flavor of which they improve prodigiously. Some planters in the West Indies roast the ripe fruit, or slice one or two into a bowl of punch, to give it a pleasant flavor. The astringency of the juice has recommended it as a very signal remedy in dropsical habits.

The nut protrudes from one end of the apple. (*Long*.) It is of the size and shape of a hare's kidney, but is much larger at the end next the fruit than at the other. The outer shell is of an ash color, and very smooth, under this is another which covers the kernel; between these there is a thick inflammable oil, which is very caustic; this will raise blisters on the skin, and has often been very troublesome to those who have incautiously put the nuts into their mouths to break the shell. This oil has been used with great success in eating off ring-worms, cancerous ulcers, and corns; but it ought to be applied with caution. The kernel when fresh, has a most delicious taste, and abounds with a sweet milky juice. It is an ingredient in puddings, &c. When older it is generally roasted; and in this state is not so proper for costive habits. Ground with cacao it makes an excellent chocolate. When kept too long it becomes shrivelled, and loses its flavor and best qualities. The thick oil of the shell tinges linen of a rusty iron-color, which can hardly be got out; and if any wood be smeared with the oil, it prevents the wood from decaying.

From the body of the tree is procured, by tapping or incision, a milky juice, which will stain linen of a deep black, that cannot be washed out again.

This tree also annually transudes from five to ten or twelve pounds weight of a fine semi-transparent gum, similar to gum arabic, and not inferior to it in virtue or quality, except that it has a slight astringency, which, perhaps, renders it in some respects more valuable. (*Long's Jam*. iii. 725, &c.)

As a stove-plant it grows in light loam or rich mould, and ripe cuttings with their leaves, planted in a pot of sand, and plunged under a hand-glass, will strike root.

936. *Cassytha*. The Greek name of the Cuscutha, which this plant much resembles in habit and characters of analogy. Its affinity, however, is very curious; from a minute analysis of its constituent parts it has been decided by the most learned botanists to be referable to Laurinae.

937. *Eriogonum*. From *εριον*, wool, and *γονον*, a knee. The stem of this plant is very woolly at the joints. The species thrive best in pots, and are principally to be increased by seeds.

938. *Rheum*. This name was ingeniously supposed by Linnæus to have been derived from *ρῆον*, to flow, because the root causes a discharge of bile. It, nevertheless, was formed from *Rha*, the ancient name of the Volga.



|                           |               |       |   |       |     |          |       |      |                     |
|---------------------------|---------------|-------|---|-------|-----|----------|-------|------|---------------------|
| 5664 palmátum <i>W.</i>   | official      | △ m   | 5 | ap.my | W.g | Bucharia | 1763. | R co | Lin. fasc. 7. t. 4  |
| 5665 compactum <i>W.</i>  | thick-leaved  | △ m   | 3 | my.jn | W.g | Tartary  | 1758. | R co | Mill. ic. 2. t. 218 |
| 5666 latárficum <i>W.</i> | Tartarian     | △ m   | 3 | my.jn | W.g | Tartary  | 1793. | R co |                     |
| 5667 Ríbes <i>W.</i>      | warted-leaved | △ cul | 2 | my.jn | W.g | Levant   | 1724. | R co | An. mus. 2. t. 49   |
| 5668 hífyridum <i>W.</i>  | bastard       | △ cul | 5 | my.jn | W.g | Asia     | 1778. | R co | Mur. co. got. t. 1  |

### HEXAGYNIA.

|                           |                 |                 |          |       |    |         |      |       |               |
|---------------------------|-----------------|-----------------|----------|-------|----|---------|------|-------|---------------|
| 939. BU'TOMUS. <i>W.</i>  | FLOWERING-RUSH. | <i>Butomeæ.</i> | Sp. 1—2. |       |    |         |      |       |               |
| 5665 umbellátus <i>W.</i> | umbelled        | △ el            | 2        | ju.jl | Pk | Britain | dit. | D r.l | Eng. bot. 651 |



*History, Use, Propagation, Culture,*

Ammianus Marcellinus, lib. xii., says, "the *Rha* is a river, on the border of which grows a root, which bears its name, and is much renowned in medicine." The construction of the specific names confirms this; *Rha ponticum*, *Rha barbarum*, whence the name *Rhubarb* was obtained.

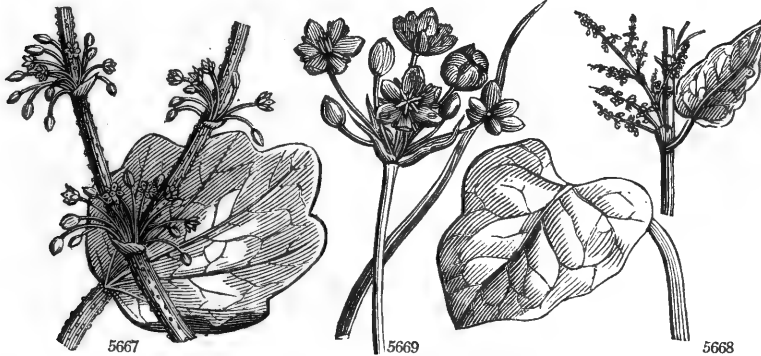
*R. Rhaponticum* was thought to be the true rhubarb of druggists, till Dr. Hope of Edinburgh described the *R. palmatum*, some seeds of which he had received from Russia, as of the genuine species. It is not, however, finally settled, whether these species or the *R. compactum* yield the foreign roots, nor does it appear of much consequence, as these three species agree so nearly in their medical properties, that any of them may be used with equal certainty of success. All the rhubarb of commerce, known under the names Turkey or Russian, and East Indian or Chinese, grows on the declivities of the chain of mountains in Tartary which stretches from the Chinese town Sni to the lake Kokonor near Thibet. The soil is light and sandy; and the Bucharians assert that the best grows in the shade on the southern side of the mountains. Rhubarb, however, is also cultivated in China, in the province of Chen-See, where it is called *Hai-houng*. In Tartary, the roots are taken up twice a-year, in spring and in autumn, and after being cleansed and decorticated, and the smaller branches cut off, the body of the root is divided transversely into pieces of a moderate size, which are placed on tables, and turned three or four times a-day, during five or six days. A hole is then bored through each piece, by which it is hung up to dry, exposed to the air and wind, but sheltered from the sun. In about two months, the roots have lost seven parts in eight of their weight, and are fit for the market. In China, the roots are not dug up till winter; and the cultivators, after cleaning, scraping off the bark, and cutting them, dry the slices by frequently turning them on stone slabs heated by a fire underneath; after which, the drying is completed by hanging them up in the air exposed to the greatest heat of the sun. (*Thomson's London Dispensatory*, 471.)

Rhubarb has been cultivated in different parts of Britain with a view to drying the root for medical purposes with the most perfect success; but such is the prejudice in favor of the foreign article, that sufficient de-

- 5664 Leaves palm. acute roughish, Leafst. above obscurely furrowed rounded at edge  
 5665 Leaves somewhat lobed very obtuse shining finely toothletted smooth  
 5666 Leaves cordate ovate entire flat smooth, Leafst. half-round angular, Panicle furrowed  
 5667 Leaves very obtuse somewhat warty, Veins beneath spinulose, Leafst. flat above rounded at edge  
 5668 Leaves smooth above somewhat lobed acute, Recess of base contracted

*HEXAGYNIA.*

5669 Flowers in handsome terminal umbels



*and Miscellaneous Particulars.*

mand was not produced to encourage the cultivator. The only point in which British culture was rather deficient was in the drying, but that a little experience would soon have overcome.

R. *Rhaponticum* and hybridum, indeed any of the species, are or may be cultivated for the petioles of the leaves in a green state, to be used in tarts and pies, as a substitute or along with gooseberries. All that is required is a dry soil well enriched and trenched two, or better, three feet deep. The plants the year after planting may have half their leaves slipped off for the cook, as soon as they arrive at full growth. Keeping the plants from flowering will obviously strengthen the leaves.

Tart rhubarb may be forced either by taking up the roots and planting them in pots, or by covering them with dung where they grow in the open garden, as is done with sea-kale. It may also be blanched, as is done with that vegetable. (See *Encyc. of Gard. art. Rheum.*)

R. *Ribes* is so called from a rob made from its stalks, and called *Rybès of Serapias*.

It is thought that all the supposed species are reducible to *Rhaponticum*, *undulatum*, *palmatum*, and *ribes*. It is certainly very difficult to distinguish the others.

939. *Bulotus*. From *Bul*, an ox, and *τελευω*, to cut; the sharp leaves of the plant cut and cause to bleed the mouths of cattle feeding upon it.

This is the only plant of the class *Enneandria* that grows wild in Britain. It is an elegant aquatic. "The water-Gladiole, or grassie-Rush," says Gerard, "is of all others the fairest and most pleasant to behold, and serveth very well for the decking and trimming up of houses, because of the beautie and braverie thereof."

The corolla varies in different shades of red, or purple mixed with white, and is sometimes entirely white. The stem at bottom and the peduncles at top are often tinged with red. The number three is evidently predominant in the fructification; the corolla being doubly tripetalous, the stamens thrice three, the pistils six, the capsules six, in a hexagon form, the involucre three-leaved.



## CLASS X. — DECANDRIA. 10 STAMENS.

Tats is the last of the Linnean classes in which the stamens are distinct, and bear any determined relation to the other parts of the flower. It is composed of portions of a considerable number of natural orders, of which the most important is Leguminosæ, with which the class usually is made to commence. These are of two kinds: those which are papilionaceous, and those which have a regular expanded flower. The former are remarkable in their kind for bearing distinct stamens combined with a papilionaceous corolla; the greater part are natives of New Holland or the Cape of Good Hope, a very few of the Northern Hemisphere; and all of them ornamental plants. Of those with regular flowers the most beautiful genus is the *Bauhinia*, which, in the latitudes of the tropics, constitutes the most formidable obstacle to the passage of human beings through the woods, which are interlaced in every direction by the climbing or leaning stems of these and other plants commonly called *Lianes*; the most extensive genus is *Cassia*, the species of which are little esteemed as objects of ornament, but of material importance in medicine; the famous Senna of the shops being the produce of at least three species. The *Hæmatoxylon* and *Swietenia*, the one producing Logwood, the other Mahogany, are included in this class, as are the important *Quassia* drug, and the beautiful tribes of *Kalmias*, *Rhododendrons*, and *Andromedas*.

The second and succeeding orders are chiefly occupied by the most important of the genera of the natural order of Caryophyllæ, the whole of which have lately been remodelled and arranged, under the direction of Decandolle, by M. Seringe, an ingenious Swiss botanist. Of this order the most extensive genus is *Silene*, and the most beautiful *Dianthus*, out of which the fine carnations, pinks, and piccotees of the florist have been obtained

Order 1. MONOGYNIA.  10 Stamens. 1 Style.

## § 1. Leguminosæ. Flowers papilionaceous.

940. *Edwardia*. Cal. 5-toothed. Pod 4-winged, many-seeded.  
 941. *Sophora*. Cal. 5-toothed. Pod necklace-shaped, not winged, many-seeded.  
 942. *Ormosia*. Cal. 5-cleft, 2-lipped. Stigmas 2, approximate, obtuse: one on one side. Pod compressed, woody, 1-3-seeded.  
 943. *Anagyris*. Cal. 5-toothed, 2-lipped. Keel of 2 petals, which are larger than the wings, which are longer than the standard. Pod compressed, many-seeded.  
 944. *Thermopsis*. Cal. oblong 3-5-cleft, 2-lipped, convex behind. Petals of equal length. Standard reflexed at edges. Keel obtuse. Stamens persistent. Pod compressed, linear, many-seeded.  
 945. *Virgilia*. Cal. 5-cleft. Petals of equal length; standard not reflexed at edges. Stigma beardless. Pod compressed, oblong, many-seeded.  
 946. *Cyclopia*. Cal. 5-cleft, unequal, pushed inwards at base. Standard with longitudinal wrinkles: wings with a transverse plait. Stamens deciduous. Stigma bearded on one side. Pod compressed, many-seeded.  
 947. *Baptisia*. Cal. half 4-5-cleft, 2-lipped. Petals of equal length. Standard reflexed at edges. Stamens deciduous. Pod ventricose, stalked, many-seeded.  
 948. *Podalyria*. Cal. 5-cleft, unequal, pushed inwards at base. Standard larger than the rest. Stamens persistent, connate at base. Pod ventricose, many-seeded.  
 949. *Chorosenia*. Cal. half 5-cleft, 2-lipped. Keel ventricose, shorter than wings. Style short, hooked. Stigma oblique, obtuse. Pod ventricose, many-seeded.  
 950. *Podolobium*. Cal. 5-cleft, 2-lipped. Keel compressed, the length of the wings, which are equal to the expanded standard. Ovary many-seeded in a single row. Style ascending. Stigma simple. Pod stalked, linear, oblong, moderately ventricose, smooth inside.  
 951. *Oxylobium*. Cal. deeply 5-cleft, rather 2-lipped. Keel compressed, the length of the wings, which are equal to the open standard. Style ascending. Stigma simple. Pod many-seeded, ventricose, ovate, acute.  
 952. *Callistachys*. Cal. 2-lipped. Standard erect, keel and wings drooping. Style incurved. Stigma simple. Pod stalked, woody before ripening, many-celled.  
 953. *Brachysema*. Cal. 5-cleft, but little unequal, with a ventricose tube. Standard shorter than the compressed keel, which is as long as the wings. Ovary with a stalk, surrounded at base by a little sheath. Style filiform long. Pod many-seeded, ventricose.  
 954. *Gompholobium*. Cal. 5-parted, nearly equal. Standard unfurled. Stigma simple. Pod many-seeded, nearly spherical, very obtuse, smooth.  
 955. *Burtonia*. Cal. deeply 5-cleft. Cor. deciduous. Petals nearly equal. Ovary 2-seeded. Style subulate, dilated at base. Stigma blunt, beardless. Pod roundish, moderately inflated. No appendage to the seed.  
 956. *Jacksonia*. Cal. 5-parted, nearly equal. Corolla and stamens deciduous. Ovary 2-seeded. Style subulate, filiform. Stigma simple. Pod moderately inflated, ovate or oblong, with valves downy inside. No appendage to the seed.  
 957. *Viminaria*. Cal. 5-toothed, angular. Style capillary, a little longer than the 2-seeded ovary. Stigma simple. Pod valveless, ovate. No appendage to the seed.  
 958. *Sphaerolobium*. Cal. 5-fid, 2-lipped. Style on one side at the end, with a membranous appendage, on the other beardless. Stigma terminal. Pod spherical.  
 959. *Aotus*. Cal. 5-cleft, 2-lipped. Stamens deciduous. Ovary 2-seeded. Style filiform. Pod 2-valved. No appendage to the seed.  
 960. *Dillwynia*. Cal. 5-cleft, 2-lipped, narrow at base. Petals and stamens deciduous, inserted into the middle of tube of calyx. Standard twice as broad as long, spreading, 2-lobed. Ovary 2-seeded. Style hooked. Stigma capitate. Pod inflated. Seeds with an appendage.  
 961. *Eutaria*. Cal. 2-lipped. Standard a little broader than long. Ovary 2-seeded. Style hooked. Stigma capitate. Pod moderately ventricose. Seed with an appendage. Leaves opposite.  
 962. *Sclerothamnus*. Cal. 5-cleft, 2-lipped, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style ascending filiform. Stigma simple. Pod ventricose.  
 963. *Gastrolobium*. Cal. 5-cleft, 2-lipped, without bractes. Petals of equal length. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod ventricose. Seeds with an appendage.  
 964. *Euchilus*. Cal. deeply 5-cleft, 2-lipped, the upper lip very large, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod compressed. Appendage of the seed with the hind lobes entire.  
 965. *Pultenæa*. Cal. 5-cleft with even-sized lips, 2-bracted. Ovary sessile, 2-seeded. Style subulate, ascending. Stigma simple. Appendage of the seed with the hind lobes cut.  
 966. *Daviesia*. Cal. angular without bractes. Keel shorter than standard. Ovary stalked, 2-seeded. Style straight. Stigma simple. Pod compressed, angular, opening with elasticity. Appendage of seed entire behind.  
 967. *Mirbella*. Cal. 5-cleft, 2-lipped. Pod 2-celled, with each suture bent inwards.

968. *Cercis*. Cal. 5-toothed. Pod compressed with the seed-bearing suture winged. Seeds obovate, with a straight embryo.  
 969. *Schotia*. Cal. 5-cleft. Petals 5, inserted on the calyx, and approaching the papilionaceous form. Pod stalked.

§ 2. *Leguminosæ. Flowers nearly regular.*

970. *Bauhinia*. Cal. 5-cleft, deciduous. Petals spreading, oblong, clawed; the upper one more distant; all inserted in the calyx.  
 971. *Azalia*. Cal. tubular, with a 4-cleft deciduous limb. Petals 4, with claws: the upper very large. The upper filaments sterile. Pod many-celled. Seed with an arillus at base.  
 972. *Hymenæa*. Cal. 5-parted. Petals 5, nearly equal. Pod filled with a powdery fecula.  
 973. *Cynometra*. Cal. 4-leaved: the opposite leaves largest. Pod 1-seeded, fleshy.  
 974. *Cassia*. Cal. 5-leaved. Petals 5. The three upper anthers sterile: three lower beaked.  
 975. *Cathartocarpus*. Cal. 5-parted, deciduous. Cor. regular, of 5 petals. The lower filaments bowed. Pod long, round, woody, many-celled. Cells filled with pulp.  
 976. *Parinsonia*. Cal. 5-cleft. Petals 5, ovate, the lowest reniform. Style O. Pod necklace-shaped.  
 977. *Potianana*. Cal. 5-parted. Petals 5, clawed; the upper dissimilar. Stamens very long, all fertile. Pod plano-compressed.  
 978. *Cæsalpinia*. Cal. 5-parted, with the lowest segment largest and vaulted. Petals 5. Stamens woolly at base, all fertile. Pod unarmed. Seeds compressed.  
 979. *Gulandina*. Cal. 5-cleft, the lowest segment largest. Petals inserted in the neck of the calyx, nearly equal. Pod prickly. Seeds stony.  
 980. *Hyperanthera*. Cal. 5-parted. Petals inserted in calyx, unequal. Pod 3-valved, torulose. Seeds winged.  
 981. *Hoffmannseggia*. Cal. 5-parted, persistent. Petals 5, clawed, spreading: the upper broader, glandular at base. Filaments glandular. Stigma clavate. Pod linear, compressed, many-seeded.  
 982. *Adenanthera*. Cal. 5-toothed. Petals 5. Anthers with a globose gland at their extremity. Pod membranous. Seeds lentiform.  
 983. *Cadia*. Cal. 5-cleft. Petals 5, equal, obcordate. Pod many-seeded.  
 984. *Prosopis*. Cal. hemispherical, 4-toothed. Pod many-seeded.  
 985. *Hæmatoxylon*. Cal. 5-parted. Petals 5. Caps. lanceolate, 1-celled, 2-valved; valves navicular.  
 986. *Copaifera*. Cal. O. Petals 4. Pod 1-seeded.

§ 3. *Ovary superior. Stamens united in a tube. Flowers complete.*

987. *Trichilia*. Cal. 4-5-toothed. Petals 4-5, ovate or oblong. Stamens sometimes nearly distinct. Caps. 3-celled, 3-valved, with one or two seeded cells. Seeds with a berried arillus.  
 988. *Melia*. Cal. 5-toothed. Petals 5. Drupe with a five-celled nut.  
 989. *Quinisia*. Cal. urceolate, 4-5-toothed. Petals 4-5, short, silky outside. Stamens with a short tube. Stigma capitate. Caps. coriaceous, 4-5-celled, opening at the end into 4-5-valves.  
 990. *Sweetenia*. Cal. 5-cleft. Petals 5. Caps. 5-celled, woody, opening at base. Seeds imbricated, winged.  
 991. *Ekebergia*. Cal. 4-parted. Petals 4. Nect. a ring surrounding the ovary. Berry 5-seeded.  
 992. *Heynea*. Cal. 5-toothed. Petals 5. Style 1. Ovary 2-celled. Caps. 2-valved, 1-celled, 1-seeded. Seed with an arillus not winged.

§ 4. *Ovary superior. Stamens separate. Flowers complete.*

993. *Guaiacum*. Cal. 5-parted, unequal. Petals 5, equal. Caps. angular, 2-5-celled.  
 994. *Zygophyllum*. Cal. 5-leaved. Petals 5. Nect. 10-leaved, covering the ovary and bearing the stamens. Caps. 5-celled.  
 995. *Fagonia*. Cal. 5-leaved. Petals 5, cordate. Caps. 5-celled, 10-valved; with 1-seeded cells.  
 996. *Tribulus*. Cal. 5-parted. Petals 5, spreading. Style O. Caps. 5, gibbous, spiny, many-seeded.  
 997. *Dictamnus*. Cal. 5-leaved, deciduous. Petals 5, clawed, unequal. Filam. declinate, with glandular dots. Caps. 5, united.  
 998. *Ruta*. Cal. 5-parted. Petals concave. Recept. surrounded by 10 honey-spots. Caps. lobed.  
 999. *Crocea*. Cal. 5-parted. Petals 5, sessile. Stamens flat, subulate, connected by entangled hairs. Anthers united lengthwise to the filaments on their inner side. Style from the base of the ovary. Caps. 5, united. Seeds with an arillus.  
 1000. *Codon*. Cal. 10-parted. Cor. campanulate, 10-cleft. Caps. many-seeded.  
 1001. *Gomphia*. Petals 5. Filaments scarcely any. Anthers long, pyramidal, erect, opening at end by a double pore.  
 1002. *Quassia*. Cal. 5-leaved. Petals 5. Nect. 5-leaved. Drupe 5, distant, 2-valved, 1-seeded, inserted on a fleshy receptacle.  
 1003. *Limonia*. Parts of the flower 4 or 5. Stamens free, twice as numerous as petals, or sometimes as many only. Fruit berried, pulpy, 4-5-celled, with 1-celled seeds.  
 1004. *Glycosmis*. Parts of the flower 5. Stamens with flat subulate filaments, and elliptical anthers. Style short, cylindrical. Ovary 5-celled. Fruit fleshy, 1-2-celled, 1-2-seeded. Coat of the seed membranous.  
 1005. *Murraya*. Parts of the flower 5. Cor. campanulate. Stamens with linear subulate stamens, and roundish anthers. Fruit fleshy, berried, 1-2-celled, 1-2-seeded. Coat of the seed thick, woolly.  
 1006. *Cookia*. Parts of the flower 5. Petals navicular, villous. Stamens with linear distinct filaments, and roundish anthers. Fruit berried, globose, 1-5-celled, with one-seeded cells.  
 1007. *Gærtnera*. Cal. 5-parted. Petals 5 torn. Filaments slightly cohering at base: one longer than the rest. Samara 1-seeded, with four unequal wings.  
 1008. *Monotropæa*. Cal. like a corolla, gibbous at the base. Capsule 5-celled, many-seeded.  
 1009. *Dioneæ*. Cal. 5-leaved. Petals 5. Capsule 1-celled, gibbous, many-seeded.  
 1010. *Garuga*. Cal. campanulate, 5-cleft, bearing the stamens. Petals equal. Stigma 5-lobed. Drupe with 2-5 1-seeded nuts.  
 1011. *Kalmia*. Cal. 5-parted. Cor. hypocrateriform, with a limb having 5 horns beneath. Caps. 5-celled.  
 1012. *Leadm*. Cal. 5-cleft. Cor. flat, 5-parted. Caps. 5-celled, bursting at base.  
 1013. *Rhodora*. Cal. 5-toothed. Petals 3. Stamens declinate. Caps. 5-celled.  
 1014. *Rhododendron*. Cal. 5-parted. Cor. somewhat funnel-shaped. Stamens declinate. Caps. 5-celled.  
 1015. *Epigæa*. Outer calyx 3-leaved, inner 5-parted. Cor. salver-shaped. Caps. 5-celled.  
 1016. *Andromeda*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice. Caps. 5-celled: valves contrary to the dissepiment.  
 1017. *Enkianthus*. Cal. small, persistent. Cor. campanulate, with a 5-cleft limb. Nectaries 5, at base of corolla. Anthers 2-horned. Capsule 1.  
 1018. *Gualtheria*. Outer calyx 2-leaved: inner 5-cleft, ovate. Nect. with 10 points. Caps. 5-celled, clothed with an inner berried calyx.  
 1019. *Arbutus*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice; pellicid at base. Berry 5-celled.  
 1020. *Clethra*. Cal. 5-parted. Petals 5. Stigma 3-fid. Caps. 3-celled, 3-valved.  
 1021. *Myllocaryum*. Cal. 5-toothed. Petals 5. Stigma capitate, 3-cornered, sessile. Caps. 3 or 4-winged, 3-celled.  
 1022. *Pyrola*. Cal. 5-parted. Petals 5. Capsule 5-celled, opening at the angles.  
 1023. *Chimaphila*. Cal. 5-parted. Petals 5. Stigma sessile, thick, orbicular, sunk in the ovary. Anthers beaked, opening by a 2-valved cleft. Caps. 5-celled, opening at the angles.

1024. *Inocarpus*. Cal. bifid. Cor. funnel-shaped. Stamens in a double row. Drupe 1-seeded.  
 1025. *Styrax*. Cal. inferior. Cor. funnel-shaped. Drupe 2-seeded.

§ 5. *Ovary inferior. Flowers complete.*

1026. *Jussiaea*. Cal. 4-5-parted. Petals 4-5. Caps. 4-5-celled, oblong, opening at the angles. Seeds numerous, minute.  
 1027. *Getonia*. Cal. 5-leaved, persistent. Filaments alternately broader, 5 in the orifice of the calyx. Seed coated, oblong, crowned by the calyx.  
 1028. *Quisqualis*. Petals 5, inserted on a filiform calyx.  
 1029. *Melastoma*. Cal. 5-cleft, campanulate. Petals 5, inserted in calyx. Berry 5-celled, surrounded by calyx.  
 1030. *Petaloma*. Petals 5, between the segments of the calyx. Berry 1-celled.  
 1031. *Acisanthera*. Cal. ventricose, 5-cleft. Petals 5. Anthers sagittate, versatile. Caps. crowned, 2-celled, many-seeded.

§ 6. *Flowers incomplete, or apetalous.*

1032. *Dais*. Involucre 4-leaved, Cor. 4-5-cleft. Berry 1-seeded.  
 1033. *Bucida*. Cal. 5-toothed, superior. Berry 1-seeded.  
 1034. *Samyda*. Cal. 5-parted, colored. Nect. campanulate, stamen-bearing. Caps. berried inside, 4-valved, 1-celled. Seeds nidulant.

Order 2. DIGYNIA.  10 Stamens. 2 Styles.

1035. *Royena*. Cal. urceolate. Cor. 1-petalous, with a revolute limb. Caps. 1-celled, 4-valved.  
 1036. *Trianthema*. Cal. mucronate under the end. Cor. O. Stam. 5-10. Ovary blunt. Caps. cut round.  
 1037. *Scleranthus*. Cal. 1-leaved. Cor. O. Seeds 2, included in calyx.  
 1038. *Cunonia*. Petals 5. Sepals 5. Capsule 2-celled, acute.  
 1039. *Hydrangea*. Cal. superior, 5-toothed. Petals 5. Caps. 2-celled, 2-beaked, opening by a hole between the beaks.  
 1040. *Chrysosplenium*. Cal. 4-5-cleft, colored. Cor. O. Caps. 2-beaked, 1-celled, many-seeded.  
 1041. *Saxifraga*. Cal. 5-parted. Petals 5. Caps. 2-beaked, 1-celled, many-seeded.  
 1042. *Tiarella*. Cal. 5-parted. Petals 5, inserted in the calyx, entire. Caps. 1-celled, 2-valved; one valve largest.  
 1043. *Mitella*. Cal. 5-cleft. Petals 5, inserted in calyx, pinnatifid. Caps. 1-celled. 2-valved; with equal valves.  
 1044. *Gypsophila*. Cal. 1-leaved, campanulate, angular. Petals 5, ovate, sessile. Caps. globose, 1-celled.  
 1045. *Saponaria*. Cal. 1-leaved, naked. Petals 5, clawed. Caps. 1-celled, oblong.  
 1046. *Dianthus*. Cal. cylindrical, 1-leaved, with scales at the base. Petals 5, clawed. Capsule cylindrical, 1-celled.

MONOGYNIA.

|   |                             |       |   |           |       |        |                     |
|---|-----------------------------|-------|---|-----------|-------|--------|---------------------|
| †940. EDWARDSIA. <i>Sal.</i> EDWARDSIA.     | <i>Leguminosæ. Sp. 3.</i>   |       |   |           |       |        |                     |
| 5670 <i>grandiflora Sal.</i> large-flowered | ♂ or 12                     | my.jn | Y | N. Zeal.  | 1772. | C s.p. | Bot. mag. 187       |
| 5671 <i>chrysophylla Sal.</i> golden-leaved | ♂ or 12                     | my.jn | Y | N. Zeal.  | ...   | C s.p. | Bot. reg. 738       |
| 5672 <i>microphylla Sal.</i> small-leaved   | ♂ or 6                      | my.jn | Y | N. Zeal.  | 1772. | C s.p. | Bot. mag. 1442      |
| 941. SOPHORA. <i>H. K.</i> SOPHORA.         | <i>Leguminosæ. Sp. 4.</i>   |       |   |           |       |        |                     |
| 5673 <i>tomentosa W.</i> downy              | ♀ □ or 12                   | ...   | W | India     | 1690. | C p.l. | Trew. ehret. t.59   |
| 5674 <i>japonica W.</i> Japanese            | ♀ △ or 40                   | au.s  | W | Japan     | 1753. | S s.l. | Bot. rep. 585       |
| 5675 <i>alopeuroides W.</i> Fox-tail        | ♂ △ or 4                    | jl.au | B | Levant    | 1731. | D r.l. | Pall. astr. t. 87   |
| 5676 <i>flavescens W.</i> Siberian          | ♂ △ or 2                    | my.jl | Y | Siberia   | 1785. | D r.l. |                     |
| 942. ORMO'SIA. <i>Jacks.</i> ORMO'SIA.      | <i>Leguminosæ. Sp. 1-4.</i> |       |   |           |       |        |                     |
| 5677 <i>dasycarpa Jacks.</i> smooth-leaved  | ♀ □ or 10                   | ju.jl | B | W. Indies | 1793. | C tl.l | Lin. tran. 10. t.26 |



*History, Use, Propagation, Culture*

940. *Edwardsia*. Named after the late Mr. Sydenham Edwards, a celebrated botanical draughtsman. The reputation of the Botanical Magazine has arisen almost wholly from the skill he displayed in the management of the figures of that work. These plants are hardy enough to survive through our winters out of doors, when they are not very severe; but are best protected under a frame, or planted in a conservatory; they generally ripen seeds, by which, or by young cuttings planted under a bell-glass in sand, they may be readily increased. (*Bot. Cult.* 183.)

Order 3. TRIGYNIA.



10 Stamens. 3 Styles.

- 1047. *Cucubalus*. Cal. 1-leaved, inflated. Petals 5, clawed. Berry superior, 1-celled, many-seeded.
- 1048. *Silene*. Cal. 1-leaved, ventricose. Petals 5, clawed. Caps. 3-celled, opening at end, many-seeded.
- 1049. *Stellaria*. Cal. 5-leaved, spreading. Petals 5, 2-parted. Caps. 1-celled, many-seeded.
- 1050. *Arenaria*. Cal. 5-leaved, spreading. Petals 5, entire. Caps. 1-celled, many-seeded.
- 1051. *Cherleria*. Cal. 5-leaved. Nectaries 5, bifid, petal-like. Every other anther sterile. Caps. 3-valved, 3-celled, 3-seeded.
- 1052. *Brunnichia*. Cal. ventricose, 5-cleft. Cor. O. Caps. 3-cornered, 1-celled, 1-seeded.
- 1053. *Garidella*. Cal. 5-leaved, petaloid. Nect. 5, two-lipped, bifid. Caps. 3, united, many-seeded.
- 1054. *Malpighia*. Sepals 5, with two honey pores at base. Petals 5, roundish, clawed. Filaments cohering at base. Drupe 1-celled, with 3 one-celled nuts.
- 1055. *Banisteria*. Cal. 5-parted, with two honey pores outside at the base. Petals roundish, clawed. Filaments cohering at base. Samaræ 3, 1-seeded, with a single wing at end.
- 1056. *Hiraea*. Cal. without glands. Petals 5, with claws. Samaræ 3, surrounded by two opposite wings.

Order 4. PENTAGYNIA.



10 Stamens. 5 Styles.

- 1057. *Cnests*. Petals 5. Capsules 5, one-seeded.
- 1058. *Averrhoa*. Sepals 5. Petals 5, spreading upwards. Stamens inserted in a nectariferous ring: every other one shorter. Apple 5-cornered, 5-celled.
- 1059. *Spondias*. Cal. 5-toothed. Petals 5. Drupe with a 5-celled nut.
- 1060. *Cotyledon*. Cal. 5-cleft. Cor. 1-petalous. Five honey scales at the base of ovary. Caps. 5.
- 1061. *Scdum*. Cal. 5-cleft. Petals 5. Five honey scales at base of ovary. Caps. 5.
- 1062. *Penthorum*. Cal. 5-cleft. Petals O. to 5. Caps. 5-pointed, 5-celled.
- 1063. *Grietum*. Cal. 5-cleft. Petals 5. Filaments persistent. Pericarps 5, one-seeded.
- 1064. *Biophyton*. Sepals 5. Petals 5. Stamens all distinct; the five outer shortest. Styles 5, emarginate at end. Capsule ovate, round, somewhat 5-cornered.
- 1065. *Oxalis*. Sepals 5, distinct or united at base. Petals 5. Stamens united at base, the five outer shortest. Styles 5, pencil-shaped, or capitate at end. Capsule oblong or cylindrical.
- 1066. *Agrostemma*. Cal. 1-leaved, coriaceous. Pet. 5-clawed. Limb obtuse, undivided. Caps. 1-celled.
- 1067. *Lychnis*. Cal. 1-leaved, oblong, smooth. Petals 5-clawed, with a nearly 2-fid limb. Caps. 5-celled.
- 1068. *Cerastium*. Sepals 5. Petals bifid. Capsule 1-celled, opening at end.
- 1069. *Larbræa*. Cal. 5-cleft, urceolate at base. Petals 5, biparted, perigynous. Styles 5. Ovary 1-celled, many-seeded. Capsule 5-valved at end.
- 1070. *Spergula*. Sepals 5. Petals 5, entire. Capsule ovate, 1-celled, 5-valved.

Order 5. DECAGYNIA.



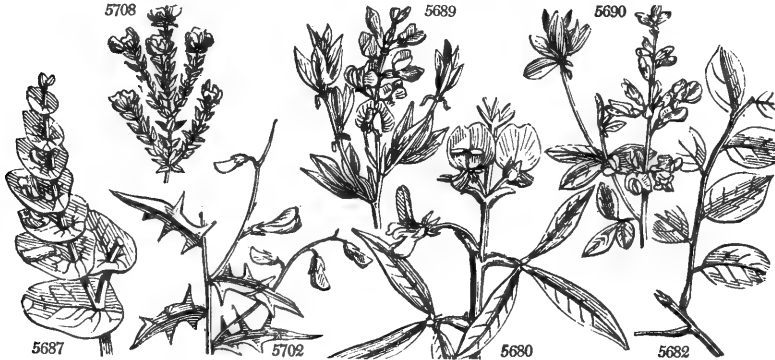
10 Stamens. 10 Styles.

- 1071. *Phytolacca*. Sepals 5. Berry superior, 10-celled, 10-seeded.

MONOGYNIA.

- 5670 Leaflets 13-19 lanceolate oblong
- 5671 Leaflets 8-10 lines long obovate, Pubescence yellowish brown
- 5672 Leaflets 25-41 obovate
  
- 5673 A tree, Leaflets roundish or oval very obtuse at each end as well as the calyx downy
- 5674 A tree, Leaflets oblong ovate acute and pods smooth
- 5675 Herbaceous, Leaflets oblong when full-grown silky above
- 5676 Herbaceous, Leaflets ovate-oblong smoothish

- 5677 Leaflets 9-11 acuminate smooth on each side, Pods downy



and Miscellaneous Particulars.

- 941. *Sophora*. An alteration of the Arabic name *Sophera*. This genus has been much altered from what it formerly was. It now consists chiefly of fine trees, some of which are hardy.
- 942. *Ormosia*. From *ormos*, a necklace, for making which the handsome seeds, red with a black-eye, of the species are well adapted. The kind cultivated in England is exceedingly rare.

|                                 |                                  |    |    |    |       |       |           |                    |                   |     |                      |                     |  |
|---------------------------------|----------------------------------|----|----|----|-------|-------|-----------|--------------------|-------------------|-----|----------------------|---------------------|--|
| *943. ANAGYRIS <i>W.</i>        | BEAN-TREFOIL.                    |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 3.</i>     |     |                      |                     |  |
| 5678 <i>foetida W.</i>          | stinking                         | ♂  | or | 9  | ap.my | Y     | Spain     | 1570.              | C                 | p l | Bot. cab. 740        |                     |  |
| 5679 <i>latifolia W. ex.</i>    | broad-leaved                     | ♂  | or | 10 | ap.my | Y     | Teneriffe | 1815.              | C                 | p l |                      |                     |  |
| 5680 <i>indica Wall.</i>        | Nepal                            | ♂  | or | 8  | jl    | Y     | Nepal     | 1821.              | S                 | p l | Hook ex. fl. 131     |                     |  |
|                                 | <i>Baptisia nepalensis</i> Hook. |    |    |    |       |       |           |                    |                   |     |                      |                     |  |
| 944. THERMOPSIS <i>R. Br.</i>   | THERMOPSIS.                      |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 1—3.</i>   |     |                      |                     |  |
| 5681 <i>lanceolata R. Br.</i>   | sharp-leaved                     | ♂  | Δ  | pr | 1     | jn.jl | Y         | Siberia            | 1776.             | D   | lt l                 | Bot. mag. 1389      |  |
|                                 | <i>Podalyria lupinoides W.</i>   |    |    |    |       |       |           |                    |                   |     |                      |                     |  |
| 945. VIRGILIA <i>Lam.</i>       | VIRGILIA.                        |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 4—7.</i>   |     |                      |                     |  |
| 5682 <i>lutea Ph.</i>           | yellow-flower'd                  | ♂  | Δ  | or | 15    | jn.jl | Y         | N. Amer.           | 1812.             | C   | p l                  | Mich. arb. c. ic.   |  |
| 5683 <i>aurea H. K.</i>         | great-flowered                   | ♂  | or | 6  | jl    | Y     | Abyssinia | 1770.              | C                 | p l | L'H.st. no.1.t.75    |                     |  |
| 5684 <i>intrusa H. K.</i>       | small-flowered                   | ♂  | or | 6  | my.au | Y, w  | C. G. H.  | 1797.              | C                 | p l |                      |                     |  |
| 5685 <i>cypensis H. K.</i>      | vetch-leaved                     | ♂  | or | 2  | jl.au | W     | C. G. H.  | 1767.              | C                 | p l | Bot. mag. 1590       |                     |  |
| 946. CYCLOPIA <i>R. Br.</i>     | CYCLOPIA.                        |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 1—2.</i>   |     |                      |                     |  |
| 5686 <i>genistoides H. K.</i>   | Genista-leaved                   | or |    | 2  | jl.au | Y     | C. G. H.  | 1787.              | C                 | p l | Bot. mag. 1259       |                     |  |
| 947. BAPTISIA <i>R. Br.</i>     | BAPTISIA.                        |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 5—7.</i>   |     |                      |                     |  |
| 5687 <i>perfoliata H. K.</i>    | perfoliate                       | ♂  | Δ  | pr | 3     | au    | Y         | Carolina           | 1732.             | D   | c                    | D.eit. t.102. f.122 |  |
| 5688 <i>villosa Ph.</i>         | villous                          | ♂  | Δ  | or | 2     | jn.jl | Y         | N. Amer.           | 1811.             | D   | c                    |                     |  |
| 5689 <i>australis H. K.</i>     | blue-flowered                    | ♂  | Δ  | or | 4     | jn.jl | B         | N. Amer.           | 1753.             | D   | c                    | Bot. mag. 509       |  |
| 5690 <i>alba H. K.</i>          | white-flowered                   | ♂  | Δ  | or | 2     | jn.jl | W         | N. Amer.           | 1794.             | D   | c                    | Bot. mag. 1177      |  |
| 5691 <i>tinctoria H. K.</i>     | dyer's                           | ♂  | Δ  | or | 1½    | jl.au | Y         | N. Amer.           | 1759.             | D   | c                    | Bot. mag. 1099      |  |
| 948. PODALYRIA <i>R. Br.</i>    | PODALYRIA.                       |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 10—13.</i> |     |                      |                     |  |
| 5692 <i>myrtilifolia W.</i>     | Myrtle-leaved                    | ♂  | or | 6  | ap.jl | Pu    | C. G. H.  | 1795.              | C                 | p l |                      |                     |  |
| 5693 <i>sericea H. K.</i>       | silky                            | ♂  | or | 6  | ja.o  | Pu    | C. G. H.  | 1773.              | C                 | p l | Bot. mag. 1923       |                     |  |
| 5694 <i>cuneifolia V.</i>       | wedge-leaved                     | ♂  | or | 6  | my.au | W     | C. G. H.  | 1804.              | C                 | p l | Vent. cels. t. 99    |                     |  |
| 5695 <i>biflora V.</i>          | two-flowered                     | ♂  | or | 6  | fjn   | Pu    | C. G. H.  | 1789.              | C                 | p l | Bot. mag. 753        |                     |  |
| 5696 <i>calyptrata H. K.</i>    | one-flowered                     | ♂  | or | 6  | ap.jl | Pu    | C. G. H.  | 1792.              | C                 | p l |                      |                     |  |
| 5697 <i>stracifolia B. M.</i>   | Storax-leaved                    | ♂  | or | 6  | my.jl | Pk    | C. G. H.  | ...                | C                 | p l | Bot. mag. 1580       |                     |  |
| 5698 <i>buxifolia W.</i>        | Box-leaved                       | ♂  | or | 2  | my.jl | B     | C. G. H.  | 1790.              | C                 | p l | Bot. reg. 869        |                     |  |
| 5699 <i>oleæfolia P. L.</i>     | Olive-leaved                     | ♂  | or | 2  | my    | Pu    | C. G. H.  | 1804.              | C                 | p l | Par. lond. 114       |                     |  |
| 5700 <i>hirsuta H. K.</i>       | hairy                            | ♂  | or | 2  | jl.au | B     | C. G. H.  | 1774.              | C                 | p l | Bot. rep. 525        |                     |  |
| 5701 <i>cordata H. K.</i>       | heart-leaved                     | ♂  | or | 2  | my.jl | B     | C. G. H.  | 1794.              | C                 | p l |                      |                     |  |
| 1949. CHOROZEMIA <i>Lab.</i>    | CHOROZEMIA.                      |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 3.</i>     |     |                      |                     |  |
| 5702 <i>ilicifolia H. K.</i>    | Holly-leaved                     | ♂  | or | 3  | mr.o  | Y     | N. Holl.  | 1803.              | S                 | ap  | Lab. voy. l. t. 21   |                     |  |
| 5703 <i>nanã H. K.</i>          | dwarf                            | ♂  | or | ¾  | mr.o  | Y     | N. Holl.  | 1803.              | S                 | ap  | Bot. mag. 1032       |                     |  |
| 5704 <i>rhombæa H. K.</i>       | few-flowered                     | ♂  | or | 2  | ap.jn | Y     | N. Holl.  | 1803.              | S                 | ap  | Bot. cab. 1619       |                     |  |
| 1950. PODOLOBIUM <i>H. K.</i>   | PODOLOBIUM.                      |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 1—2.</i>   |     |                      |                     |  |
| 5705 <i>trilobatum H. K.</i>    | common                           | ♂  | or | 2  | ap.jl | Y     | N. S. W.  | 1791.              | S                 | ap  | Bot. mag. 1477       |                     |  |
| *951. OXYLOBIUM <i>H. K.</i>    | OXYLOBIUM.                       |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 3—5.</i>   |     |                      |                     |  |
| 5706 <i>arboræscens H. K.</i>   | tall                             | ♂  | or | 6  | ap.jn | Y     | V. Di. L. | 1805.              | S                 | ap  | Bot. reg. 392        |                     |  |
| 5707 <i>ellipticum H. K.</i>    | oval-leaved                      | ♂  | or | 3  | my.s  | Y     | V. Di. L. | 1805.              | S                 | ap  | Lab. n.h.o. l.t. 135 |                     |  |
| 5708 <i>cordifolium H. K.</i>   | heart-leaved                     | ♂  | or | 3  | aps   | Y     | N. S. W.  | 1807.              | S                 | ap  | Bot. rep. 492        |                     |  |
| 952. CALLISTA'CHYS <i>Vent.</i> | CALLISTACHYS.                    |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 2—3.</i>   |     |                      |                     |  |
| 5709 <i>lanceolata V.</i>       | spear-leaved                     | ♂  | or | 3  | jn.au | Y     | N. Holl.  | 1815.              | S                 | ap  | Bot. reg. 216        |                     |  |
| 5710 <i>ovata B. M.</i>         | oval-leaved                      | ♂  | or | 3  | jn.au | Y     | N. Holl.  | 1815.              | S                 | ap  | Bot. mag. 1925       |                     |  |
| 953. BRACHYSE'MA <i>H. K.</i>   | BRACHYSEMA.                      |    |    |    |       |       |           | <i>Leguminosæ.</i> | <i>Sp. 2.</i>     |     |                      |                     |  |
| 5711 <i>latifolium H. K.</i>    | broad-leaved                     | ♂  | or | 3  | ap.jl | Cr    | N. Holl.  | 1803.              | C                 | ap  | Bot. reg. 118        |                     |  |
| 5712 <i>undulatum Ker.</i>      | wavy-leaved                      | ♂  | cu | 3  | mr.ap | G     | N. S. W.  | 1820.              | C                 | ap  | Bot. reg. 642        |                     |  |



History, Use, Propagation, Culture,

943. *Anagyris*. From *ανα*, like, and *γυρος*, a circle. Its pod is curved inwards at its extremity. Small trees native of the South of Europe and North of Africa, and one doubtful species of Nepal. Young cuttings root in sand under a hand-glass.

944. *Thermopsis*. So named from the resemblance of the flower to that of a Lupine. This genus is cultivated with difficulty: it grows best in a light loamy soil, and may be increased by seed; dividing the root is liable to injure the plant, so that it is increased with difficulty by that means. (*Bot. Cult.* 427.)

945. *Virgilia*. A genus dedicated by Lamarck to the poet Virgil, whose *Georgics* contain many things interesting to botanists.

946. *Cyclopia*. Named by Ventenat, from *κυκλος*, a circle, and *πυς*, a foot, in allusion to the replicate circle which is found about the base of the pods.

947. *Baptisia*. So named from *βαπτισμα*, to dye, in allusion to the economical properties of some species. Herbaceous plants of easy cultivation, and as border flowers ornamental.

948. *Podalyria*. Podalyrus was a son of Æsculapius. Small Cape shrubs, with simple silky leaves and purple blossoms. The species may be grown in leaf mould and peat, or peat loam, and rooted by cuttings in sand, or raised from seeds.

949. *Chorozemia*. M. Labillardière originally discovered this plant upon the south-west coast of New

- 5678 Leaves lanceolate acute  
5679 Leaves elliptical obtuse  
5680 Leaves lanceolate shining silky beneath

5681 Leaflets oblong-lanceolate, Stipules lanceolate twice as long as stalk, Pedicels whorled

- 5682 Leaves pinnate, Leaflets with a short point smooth, Racemes long pendulous  
5683 Stamens persistent, Ovaries downy, Leaflets oval obtuse pointless  
5684 Stamens persistent, Ovaries smooth, Base of calyx pushed inwards, Leaflets oval obt. with a little point  
5685 Stam. decid. woolly at base, Ovaries downy, Keel acuminate, Leaflets lanceolate

5686 Leaflets subulate and sepals pointless, Bractes oblong ovate shorter than peduncle, Branchlets smooth

- 5687 Leaves perfoliate entire roundish  
5688 Stem and leaves very hairy, Leaflets oval obtuse, Raceme terminal spiked  
5689 Leaves ternate stalked, Leaflets cuneate lanceolate, Stipules longer than stalk lanceolate  
5690 Leaves ternate stalked, Leaf. ellipt. obl. Stipules deciduous subulate shorter than stalk, Ovaries smooth  
5691 Leaves ternate stalked, Leaf. roundish obovate, Stipules setaceous obovate

- 5692 Leaves oblong obovate on both sides with the calyxes silky, Pedunc. one-fl. as long as leaves  
5693 Leaves oblong obovate on both sides with the calyxes silky, several times longer than the 1-fl. fl-stalk  
5694 Leaves cuneiform emarginate silky, Pedunc. shorter than leaf  
5695 Leaves oval silky on both sides shorter than 2-fl. peduncle, Cal. downy rough  
5696 Lvs. oval and obov. pubes. beneath netted: when full-grown not silky, Cal. vill. with a scarious refl. limb  
5697 Leaves ovate reticulate, Branches hairy angular striated, Peduncles as long as leaves  
5698 Leaves simple ovate downy, Fl. axillary, Peduncles longer than leaf  
5699 Leaves elliptical-lanceolate, Peduncles 1-fl. shorter than leaves, Calyx deeply split  
5700 Leaves villous stalked: upper ovate; lower roundish, Cal. villous with segments as long as wings  
5701 Leaves cordate roundish subsessile very villous, Segments of villous calyx shorter than wings

5702 Leaves pinnatifid-toothed spiny oblong-lanceolate: with an entire point longer than the teeth

5703 Leaves sinuate-toothed spiny oblong obtuse, Bractes below the end of stalk

5704 Leaves entire flat mucronate: lower rhomboid orbicular; the upper elliptical lanceolate

5705 Lvs. opp. spiny toothed 3-lobed with a transverse base, Lateral lobes much shorter than term. toothed one

5706 Leaves lin. lanc. Bractes adhering to top of the footstalk, Corymb. clust. Pods scarcely longer than cal.

5707 Leaves oval. obl. Bractes deciduous below the end of footstalk, Corymb. clust. Pods twice as long as cal.

5708 Leaves ovate cordate hairy, Umb. terminal sessile

5709 Leaves lanceolate acute

5710 Leaves ternate obovate mucronate silky beneath

5711 Leaves ovate flat, Standard oblong obovate

5712 Leaves elliptical wavy mucronate, Standard oblong cordate



and Miscellaneous Particulars.

Holland, at the foot of the mountains, in a loamy soil, near a spot where, after having been tantalized with finding many salt springs, his party had just met with an ample supply of fresh water. This welcome refreshment, of which he speaks feelingly in his book, seems to have suggested a name for this plant, which he had properly determined to constitute a new genus. He called it *Chorozeria*, evidently from *χορος*, a dance or joyous assembly, and *ζημα*, a drink, in allusion to the circumstance just mentioned. (Smith.)

This genus ripens abundance of seeds, from which it may be readily increased, and also by young cuttings in sand under a bell-glass.

950. *Podalobium*. This and the succeeding names ending in *lobium*, refer in that part of their derivation to their pod; this genus is called from *πυρ ποδος*, a foot, the pod being on a stalk. The species may be treated as *Chorozeria*.

951. *Oxylobium*. From *οξυς*, pointed, the pods being pointed. See *Podolobium*.

952. *Callistachys*. From *καλος*, beautiful, and *σχυς*, a spike, in reference to the fine spikes of yellow flowers. These are handsome conservatory shrubs, which grow rapidly and flower freely. They may be raised from seeds or cuttings in sand under a bell-glass.

953. *Brachysema*. From *βραχυς*, short, and *σημα*, a standard. The standard of the flower of the genus is very short. This is a handsome climber, increased by layers, cuttings in sand, or by seeds.



|  |   |
|--|---|
| 954. GOMPHOLOBIUM. H. K. GOMPHOLOBIUM.   | <i>Leguminosæ. Sp. 7—10.</i>                                |
| 5713 latifolium H. K. broad-leaved       | ■ □ de 2 mr.s Y N. S. W. 1803. C s.p. Ex. bot. 58           |
| <i>G. fimbriatum</i> Sm.                 |   |
| 5714 grandiflorum Sm. large-flowered     | ■ □ de 2 mr.s Y N. S. W. 1803. C s.p. Bot. reg. 484         |
| 5715 marginatum H. K. small-flowered     | ■ □ de 2 mr.s Y N. Holl. 1803. C s.p.                       |
| 5716 polymorphum H. K. variable          | ■ □ de 2 mr.au Y N. Holl. 1803. C s.p. Bot. mag. 1538       |
| 5717 minus Sm. hairy-stalked             | ■ □ de 2 mr.au Y N. S. W. 1812. C s.p.                      |
| 5718 tomentosum H. K. tomentose          | ■ □ de 3 ap.jl Y N. Holl. 1803. C s.p. Labn.ho.lt.134       |
| 5719 venustum H. K. purple-flowered      | ■ □ de 3 ap.jl Pu N. Holl. 1803. C s.p.                     |
| †955. BURTONIA. H. K. BURTONIA.          | <i>Leguminosæ. Sp. 1—3.</i>                                 |
| 5720 scabra H. K. rough-leaved           | ■ □ pr my.jl Y N. Holl. 1803. C s.l.p.                      |
| 956. JACKSONIA. H. K. JACKSONIA.         | <i>Leguminosæ. Sp. 2—4.</i>                                 |
| 5721 scoparia H. K. Broom-like           | ■ □ pr jn.au Y N. S. W. 1803. C s.p. Bot. cab. 427.         |
| 5722 spinosa H. K. spinous               | ■ □ pr ap.s Y N. Holl. 1803. C s.p. Labn.ho.lt.136          |
| 957. VIMINARIA. H. K. RUSH-BROOM.        | <i>Leguminosæ. Sp. 2.</i>                                   |
| 5723 denudata H. K. leafless             | ■ □ cu 3 jn.s Y N. Holl. 1789. C s.p. Bot. mag. 1190        |
| 5724 lateriflora Link. side-flowering    | ■ □ cu 3 jn.s Y N. Holl. 1824. C s.p.                       |
| 958. SPHEROLOBIUM. H. K. SPHEROLOBIUM.   | <i>Leguminosæ. Sp. 2—4.</i>                                 |
| 5725 vimineum H. K. yellow-flowered      | ■ □ or 2 my.au Y N. Holl. 1802. S s.p. Bot. mag. 969        |
| 5726 medium H. K. red-flowered           | ■ □ or 3 jn.au R N. Holl. 1803. S s.p.                      |
| 959. AOTUS H. K. AOTUS.                  | <i>Leguminosæ. Sp. 1—3.</i>                                 |
| 5727 villosa H. K. villous               | ■ □ or 2 ap.jn Y N. Holl. 1790. S s.p. Bot. mag. 949        |
| 960. DILLWYNIA. H. K. DILLWYNIA.         | <i>Leguminosæ. Sp. 6—10.</i>                                |
| 5728 floribunda H. K. close-flowered     | ■ □ or 2 ap.jl Y N. S. W. 1794. C s.l.p. Ex. bot. t. 86     |
| 5729 ericifolia H. K. Heath-leaved       | ■ □ or 2 mr.jl Y N. S. W. 1794. C s.l.p. Ex. bot. t. 25     |
| 5730 glaberrima H. K. smooth             | ■ □ or 2 mr.jl Y N. S. W. 1800. C s.l.p. Bot. mag. 944      |
| 5731 parvifolia B. M. small-leaved       | ■ □ or 2 mr.jl Y N. S. W. 1800. C s.l.p. Bot. mag. 1527     |
| 5732 cinerascens R. Br. grey             | ■ □ or 2 mr.jl Y N. S. W. 1819. C s.l.p. Bot. mag. 2247     |
| 5733 juniperina Lodd. juniper-leaved     | ■ □ pr 2 ap.my Y V. Di. L. 1818. C s.l.p. Bot. cab. 401     |
| 961. EUTAXIA. H. K. EUTAXIA.             | <i>Leguminosæ. Sp. 1—2.</i>                                 |
| 5734 myrtifolia H. K. Myrtle-leaved      | ■ □ pr 1½ mr.jn Y N. Holl. 1803. C s.l.p. Bot. mag. 1274    |
| 962. SCLEROTHAMNUS. H. K. SCLEROTHAMNUS. | <i>Leguminosæ. Sp. 1.</i>                                   |
| 5735 microphyllus H. K. small-leaved     | ■ □ pr 1 my.jn Y N. Holl. 1803. C s.l.p.                    |
| 963. GASTROLOBIUM. H. K. GASTROLOBIUM.   | <i>Leguminosæ. Sp. 1—3.</i>                                 |
| 5736 bilobum H. K. two-lobed             | ■ □ or 2 mr.my Y N. Holl. 1803. C s.l.p. Bot. reg. 411      |
| 964. EUCHYLUS. H. K. EUCHYLUS.           | <i>Leguminosæ. Sp. 1.</i>                                   |
| 5737 obcordatus H. K. heart-leaved       | ■ □ or 2 mr.jn Y N. Holl. 1803. C s.l.p. Bot. cab. 60       |
| †965. PULTENEA. H. K. PULTENEA.          | <i>Leguminosæ. Sp. 13—19.</i>                               |
| 5738 daphnoides H. K. Daphne-leaved      | ■ □ or 2 jn.jl Y N. S. W. 1792. C s.l.p. Bot. mag. 1394     |
| 5739 obcordata H. K. heart-leaved        | ■ □ or 2 my.jl Y V. Di. L. 1808. C s.l.p. Bot. mag. 574     |
| 5740 scabra H. K. rough-leaved           | ■ □ or 1½ my.jl Y N. S. W. 1803. C s.l.p.                   |
| 5741 retusa H. K. blunt-leaved           | ■ □ or 1 ap.my Y N. S. W. 1789. C s.l.p. Bot. reg. 378      |
| 5742 stricta B. M. upright               | ■ □ or 2 ap.jn Y N. S. W. 1803. C s.l.p. Bot. mag. 1588     |
| 5743 linophylla H. K. Flax-leaved        | ■ □ or 2 my.jl Y N. S. W. 1789. C s.l.p. Sch.s.han S. t. 18 |
| 5744 paleacea Sm. chaffy                 | ■ □ or 1½ ap.jl Y N. S. W. 1789. C s.l.p. Bot. cab. 291     |
| 5745 stipularis H. K. scaly              | ■ □ or 2 ap.jl Y N. S. W. 1792. C s.l.p. Bot. mag. 435      |
| 5746 vestita H. K. awned                 | ■ □ or 3 ap.jl Y N. Holl. 1803. C s.l.p.                    |
| 5747 villosa H. K. villous               | ■ □ or 2 ap.my Y N. S. W. 1790. C s.l.p. Bot. mag. 967      |



History, Use, Propagation, Culture.

954. *Gompholobium*. The name of this genus alludes to the tumid shape of the legume, which swells from a narrow base upwards; according to the primary signification of *γομφοσ*, a word thence used to signify a club or wedge, or any thing formed upon a similar principle. Delicate plants, difficult to preserve, requiring a large proportion of sand in the peat, and moderate watering. Young cuttings root under a bell-glass in sand.

955. *Burtonia*. A genus defined in the Hortus Kewensis, without an explanation of the origin of the name. This plant, Sweet observes, requires more than ordinary treatment to keep it in good health; an equal mixture of very sandy loam and peat is the best soil for it, and the pots to be well drained with small potsherds, that the water may pass off freely, as nothing is more injurious to it than too much water. Young cuttings are not difficult to root, planted in sand under a bell-glass; it may also be raised from seeds, which are sometimes produced. (*Bot. Cult.* 156.)

956. *Jacksonia*. Named after Mr. Jackson, formerly librarian to Aylmer Bourke Lambert, and an excellent practical botanist, of whom too little is known. Young cuttings will root in sand under a bell-glass, or ripened ones under a hand-glass.

957. *Viminaria*. From *vimen*, a twig. The appearance of the species which have no leaves is that of a bundle of naked twigs.

5713 Leaves term.-Leaf. lin. or obl. lin. an inch and more long, Stem erect, Keel fringed, Cal. in fruit reflexed

5714 Leaves ternate linear mucronate straight, Branches angular smooth

5715 Leaves ternate, Leaf. obovate edged flat, Stipules as long as leafstalk, Cor. length of calyx

5716 Lvs. tern. and quinat. Leaf. linear recurved at edge, somewhat dilated at end, Stem procum. or twining

5717 Leaves ternate linear smooth mucronate, Branches round hairy, Keel hairy

5718 Leaves pinn. Leaf. subulate linear mucronate rough above, Cal. hairy shorter than pod, Keel silky ciliate

5719 Leaves pinn. of many pinn., Leaf. subulate veiny revolute at edge and calyxes smooth, Cor. purple

5720 Leaves ternate, Cal. smooth, Style beyond the middle beardless

5721 Arborescent unarmed, Branches angular, Racemes terminal

5722 Shrubby, Branches spiny 2-3-chotomous spreading angular, Bractes very short

5723 Segments of calyx straight ovate

5724 Flowers racemose, Segments of calyx lanceolate reflexed

5725 Tube of cal. a little shorter than lips, Style included bowed from the base, Cor. yellow

5726 Tube of cal. twice as short as the lips, Cor. red

5727 Cal. silky with appressed hairs, Pods stalked, Seeds dotted rugose, Leaves rough above

5728 Flowers axillary ternate, Leaves subulate mucronate

5729 Corymbs terminal sessile, Leaves subul. rough with dots divaricate twisted, Branches pubescent

5730 Corymbs terminal stalked, Leaves filiform erect smooth, Mucro weak recurved

5731 Leaves short spreading decussate, Fl. capitate, Pedunc. with two bractes, Stigma capitate

5732 Corymbs terminal sessile, Leaves filiform erect, with a weak short point, Branches silky

5733 Leaves acesose horizontal, Branches weak, Heads 3-9-flowered

5734 Leaves lanceolate or lanceolate-obovate, Peduncles axillary twin, Appendages of wings very short

5735 The only species

5736 Lvs. beneath somew. silky retuse, Lobes round. longer than little point, Stalk of pod as long as tube of cal.

5737 The only species

5738 Heads terminal, Leaves obovate oblong flat quite smooth 3 times as long as broad, Point pungent

5739 Heads term. Leaves cuneate orboid, retuse flat smooth scarcely twice as long as broad, Point pungent

5740 Heads term. few-fl. Leaves cuneate truncate bristly pointed recurved at edge rough above villous beneath

5741 Heads term. Leaves linear retuse blunt flat smooth, Bractes a little longer than cal.

5742 Heads term. Leaves obovate mucronate smooth, Stem upright, Calyx and pods hairy

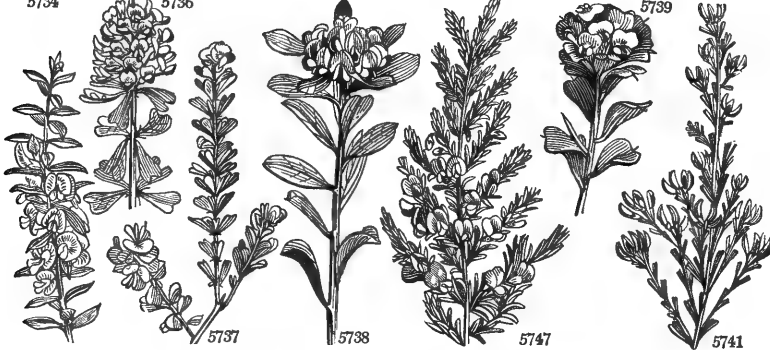
5743 Bractes shorter than 6-8-fl. head, Lvs. lin. with a little point and recurv. edge, Stip. shorter than footstalk

5744 Leaves linear mucronate revolute recurved at end, Stipules solitary 2-nerved with membr. torn sheaths

5745 Heads many-fl. Bractes about as long as cal. Leaves flat linear acute, Stipules biid flat imbricated

5746 Fl. axill. Leaves linear lanceolate mucronate smooth, Stip. imbric. ciliated, Cal. and bractes bearded

5747 Racemes leafy, Leaves linear oblong, above concave, beneath cal. and branchlets pilose



and Miscellaneous Particulars.

958. *Spherolobium*. From *σφαίρα*, a sphere; the pods being nearly spherical. See Jacksonia.

959. *Actis*. From *ἄκτις*, private, and *ἄκτις*, ear, in allusion to the want of the appendages to the calyx in this genus. In *Pultenaea*, to which it is most nearly allied, they are very distinct.

960. *Dillwynia*. Named by Sir James Edward Smith, after Mr. Lewis Weston Dillwyn, whose labors upon Conifers and other parts of British botany are well known. These plants being liable to suffer from wet, the pots must be well drained with sherds and refuse peat siftings. Young cuttings root freely in sand under a bell-glass.

961. *Eutaxia*. From *εὐταξία*, modesty, in allusion to the humble, modest appearance of the plant. Mr. Sweet directs to top the plants frequently when young, otherwise they are apt to run up naked and unsightly.

962. *Sclerothamnus*. From *σκληρός*, hard, and *θάμνος*, a shrub. The species are rigid plants with stiff hard leaves.

963. *Gastrolobium*. From *γάστρις*, the belly; or, in botanical composition, something inflated. The pods of the genus are much swollen.

964. *Euchilus*. From *εὐ*, well, and *χίλος*, a lip; well lipped. The upper lip of the calyx is very large.

965. *Pultenaea*. Named after William Pulteney, M. D., author of a view of the writings of Linnaeus, and

|   |                        |   |    |    |        |     |           |                     |            |                           |     |
|---|------------------------|---|----|----|--------|-----|-----------|---------------------|------------|---------------------------|-----|
| 5748 <i>flexilis</i> H. K.                  | shining-leaved         | ♂ | or | 1½ | ap.jn  | Y   | N. S. W.  | 1801.               | C          | s.l.p                     |     |
| 5749 <i>tenuifolia</i> R. Br.               | thin-leaved            | ♂ | or | 1½ | ap.may | Y   | N. S. W.  | 1817.               | C          | s.l.p Bot. mag. 2086      |     |
| 5750 <i>biloba</i> R. Br.                   | two-lobed              | ♂ | or | 2  | ap.may | Y   | N. S. W.  | 1817.               | C          | s.l.p Bot. mag. 2091      |     |
| 966. DAVIESIA. L. T.                        | DAVIESIA.              |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 6—10.  |                           |     |
| 5751 <i>acicularis</i> Sm.                  | needle-leaved          | ♂ | or | 2  | jn.jl  | Y   | N. S. W.  | 1804.               | C          | s.l.p                     |     |
| 5752 <i>ulicina</i> Sm.                     | Furze-leaved           | ♂ | or | 3  | ap.au  | Y   | N. S. W.  | 1792.               | C          | s.l.p Bot. cab. 44        |     |
| 5753 <i>corymbosa</i> Sm.                   | glaucous-leav'd        | ♂ | or | 2  | my.au  | Y   | N. S. W.  | 1804.               | C          | s.l.p                     |     |
| 5754 <i>mimosoides</i> H. K.                | green-leaved           | ♂ | or | 2  | jn.au  | Y   | N. S. W.  | 1809.               | C          | s.l.p Bot. rep. 611       |     |
|   | <i>D. glauca</i> Lodd. |   |    |    |        |     |           |                     |            |                           |     |
| 5755 <i>latifolia</i> H. K.                 | broad-leaved           | ♂ | or | 3  | my.au  | Y   | N. S. W.  | 1805.               | C          | s.l.p Bot. mag. 1757      |     |
| 5756 <i>alata</i> Sm.                       | winged                 | ♂ | or | 3  | my.au  | Y   | N. S. W.  | 1818.               | C          | s.l.p Bot. rep. 728       |     |
| 1967. MIRBELIA. L. T.                       | MIRBELIA.              |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 2—4.   |                           |     |
| 5757 <i>reticulata</i> L. T.                | reticulated            | ♂ | or | 3  | my.au  | B   | N. S. W.  | 1792.               | C          | s.l.p Bot. mag. 1211      |     |
| 5758 <i>dilatata</i> H. K.                  | lobed-leaved           | ♂ | or | 3  | my.au  | B   | N. Holl.  | 1803.               | C          | s.l.p                     |     |
| 968. CER'CIS. W.                            | JUDAS-TREE.            |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 2.     |                           |     |
| 5759 <i>Siliquastrum</i> W.                 | European               | ♂ | or | 20 | my.jn  | Pu  | S. Europe | 1596.               | L          | co Bot. mag. 1138         |     |
| 5760 <i>canadensis</i> W.                   | American               | ♂ | or | 18 | my.jn  | Gr  | N. Amer.  | 1730.               | L          | co Mill. ic. t. 2         |     |
| 969. SCHO'TIA. W.                           | SCHO'TIA.              |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 3—7.   |                           |     |
| 5761 <i>speciosa</i> H. K.                  | small-leaved           | ♂ | or | 5  | jl.d   | Cr  | C. G. H.  | 1759.               | C          | l.p Bot. rep. 548         |     |
| 5762 <i>tamarina</i> ' <i>diffolia</i> H.K. | Tamarind-leav.         | ♂ | or | 6  | my.s   | Cr  | C. G. H.  | 1795.               | C          | l.p Bot. mag. 1153        |     |
| 5763 <i>stipulata</i> H. K.                 | large-stipuled         | ♂ | or | 5  | my.s   | Cr  | C. G. H.  | 1794.               | C          | l.p                       |     |
| 970. BAUHINIA. W.                           | MOUNTAIN-EBONY.        |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 13—30. |                           |     |
| 5764 <i>scandens</i> W.                     | small-lyd. clim.       | ♂ | or | 30 | ...    | W.Y | E. Indies | 1799.               | C          | l.p Rhe. mal. 8. t. 29    |     |
| 5765 <i>racemosa</i> W.                     | great-leaved           | ♂ | or | 20 | spl    | ... | E. Indies | 1790.               | C          | l.t. Vah. sym. 3. t. 62   |     |
| 5766 <i>aculeata</i> W.                     | prickly-stk'd.         | ♂ | or | 6  | jn.au  | W   | W. Indies | 1737.               | C          | l.t. Plu. ic. t. 44. f. 1 |     |
| 5767 <i>divaricata</i> W.                   | dwarf                  | ♂ | or | 5  | jn.s   | W   | W. Indies | 1742.               | C          | l.t. Hort. cliff. t. 15   |     |
| 5768 <i>aurita</i> W.                       | long-eared             | ♂ | or | 6  | s      | W   | Jamaica   | 1756.               | C          | l.t. Bot. mag. 1708       |     |
| 5769 <i>porrecta</i> W.                     | smooth-leaved          | ♂ | or | 15 | jl     | St  | W. Indies | 1737.               | C          | l.t. Bot. mag. 1708       |     |
| 5770 <i>parviflora</i> W.                   | small-flowered         | ♂ | or | 20 | ...    | W   | E. Indies | 1808.               | C          | l.t.                      |     |
| 5771 <i>variegata</i> W.                    | variegated             | ♂ | or | 20 | jn.jl  | St  | E. Indies | 1690.               | C          | l.t. Rh. mal. 1. t. 32    |     |
| 5772 <i>candida</i> W.                      | white                  | ♂ | or | 10 | my.jn  | W   | E. Indies | 1777.               | C          | l.t.                      |     |
| 5773 <i>purpurea</i> W.                     | purple                 | ♂ | or | 25 | ...    | P   | E. Indies | 1778.               | C          | l.t. Rh. mal. 1. t. 33    |     |
| 5774 <i>tomentosa</i> W.                    | tomentose              | ♂ | or | 12 | ...    | Y.w | E. Indies | 1808.               | C          | l.t. Rh. mal. 1. t. 35    |     |
| 5775 <i>acuminata</i> W.                    | acute-leaved           | ♂ | or | 8  | ...    | W   | E. Indies | 1808.               | C          | l.t. Rh. mal. 1. t. 34    |     |
| 5776 <i>forcicata</i> Link.                 | pincer-leaved          | ♂ | or | 6  | ...    | W   | Brazil    | 1823.               | C          | l.t.                      |     |
| 971. AFZELIA. Sm.                           | AFZELIA.               |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 1.     |                           |     |
| 5777 <i>africana</i> Sm.                    | african                | ♂ | or | tm | 30     | ... | Cr        | S. Leone            | 1821.      | C                         | r.m |
| 1972. HYMENE'A. W.                          | LOCUST-TREE.           |   |    |    |        |     |           | <i>Leguminosae.</i> | Sp. 2.     |                           |     |
| 5778 <i>Coúbaril</i> W.                     | leathery-leaved        | ♂ | or | 20 | ...    | Y.P | W. Indies | 1688.               | C          | p.l La. ill. t. 330. f. 1 |     |
| 5779 <i>verrucosa</i> W.                    | warted-podded          | ♂ | or | 20 | ...    | ... | Madagas.  | 1808.               | C          | p.l La. ill. t. 330. f. 2 |     |



History, Use, Propagation, Culture,

of various other works of merit. These are small New Holland bushes, with numerous yellow flowers, frequently brown on the outside.

966. *Daviesia*. Named after the Rev. Hugh Davies, a Welsh botanist. Plants like furze. The species root best when the cuttings are somewhat ripened and planted in pots of sand, and covered with a hand-glass without bottom heat.

967. *Mirbelia*. In honor of Mr. Mirbel, a distinguished French physiological botanist, whose elucidations of the reticulated structure of vegetables make it proper to consecrate to his merits plants remarkable for their reticulation.

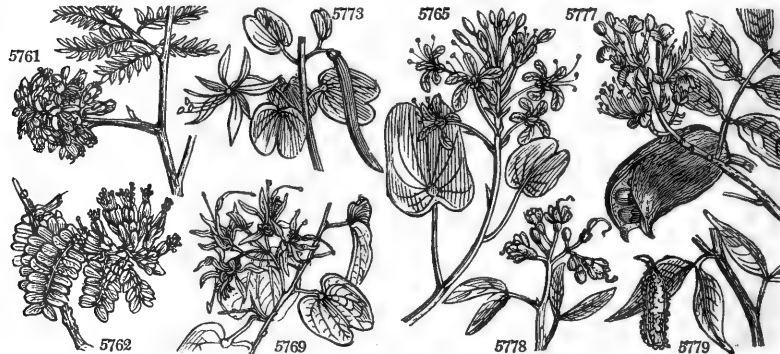
968. *Cercis*. *Kasque* is a name of Theophrastus, supposed to have appertained to the tree now so called. *Gainier* or *Arbre de Judée*, Fr., *Arboid Amor*, Span. Handsome low trees, with singular leaves and fine shewy flowers. These having an agreeable poignancy, and being abundant on the branches, are frequently eaten in salads on the continent, and those of the *C. canadensis* are pickled by the French families in Canada. The wood of both species is finely veined with black and green, and takes a good polish; and the young branches of the Canadian species are said to dye wool of a fine nankeen color. They may be propagated either by layers or seeds: the latter make the best plants. Gerarde, in compliance with the popular notions of his time, says, "this is the tree whereon Judas did hang himself; and not upon the elder tree, as it is said."

969. *Schotia*. So named by Jacquin, in memory of Richard van der Schott, a Dutchman, gardener at Schoenbrunn, and his companion in his travels. This beautiful genus has lately been increased by Burchell, the African traveller. "They require," Sweet observes, "rather more warmth than a common greenhouse, to keep them in good health through the winter. The coldest part of the stove will suit them better; but they should not be plunged in the tan, as they want no bottom heat. A mixture of loam and peat is the best soil for them; and cuttings planted in sand, and plunged in mould (not in tan), under a hand-glass, will strike root." (*Bot. Cult.* 105.)

970. *Bauhinia*. So named by Plumier, in honor of the two famous botanists, John and Caspar Bauhin. The species consist of trees or shrubs, most of them climbing. The leaves are simple, but two-lobed or two-

- 5748 Very smooth, Fl. axill. Leaves oblong linear mucronate flat  
 5749 Heads terminal 2-flowered, Fruit lateral, Leaves subulate linear hairy above concave  
 5750 Heads terminal few-fl. Leaves wedge-shaped at the end dilated 2-lobed above rough beneath silky
- 5751 Leaves linear revolute pungent straight rough, Flowers axillary solitary  
 5752 Branches spiny smooth spreading, Leaves lanceolate or linear, Pedunc. axill. 1-fl. Bractes 8 imbricated  
 5753 Leaves linear oblong flat pointless, Pedunc. axill. twin corymbose many-fl. Calyx regular  
 5754 Branches unarmed, Lvs. long-lanc. with a very short weak point, Corymbs axill. Upper lip of calyx retuse
- 5755 Branches unarmed, Leaves ellipt. or oval veiny attenuated at base, Racemes axillary many-fl.  
 5756 Stem leafless winged, Umbels lateral, Calyx and bractes fringed
- 5757 Leaves lanceolate linear veiny, Ovaries 2-seeded  
 5758 Leaves wedge-shaped at the end dilated-trifid
- 5759 Leaves orbicular cordate  
 5760 Leaves cordate acuminate
- 5761 Leaves 7-10 pairs oval-lanceolate mucronate, Stipules subulate  
 5762 Leaves 8-10 pairs oval obtuse mucronate or not, at the base in front a little swollen  
 5763 Leaves 5 pairs oval acute mucronate, Stipules half-ovate falcate mucronate
- 5764 Stem tendril-bearing, Lobes of leaves attenuated  
 5765 Stem tendril-bearing, Fl. triandr. on outside with stam. at base hairy, Lvs. downy beneath, Lobes rounded  
 5766 Stem prickly  
 5767 Leaves smooth, Lobes divaricate acute 2-nerved, Petals lanceolate  
 5768 Leaves at the base nearly transverse, Lobes lanceolate porrect 3-nerved, Petals lanceolate  
 5769 Leaves cordate, Lobes porrect acute 3-nerved, Petals lanceolate  
 5770 Racemes axill. and term. nodding, Petals linear, Lobes of leaves rounded smooth  
 5771 Cal. 1-leaved bursting, Petals sessile ovate, Lobes of leaves ovate obtuse  
 5772 Leaves cordate downy beneath, Lobes ovate obtuse, Cal. narrowed upwards lengthened  
 5773 Flowers triandrous, Lobes of leaves oval obtuse  
 5774 Leaves cordate, Lobes half orbicular downy  
 5775 Leaves ovate, Lobes acuminate half-ovate spreading  
 5776 Stem prickly, Leaves cordate with porrect 4-nerved lobes
- 5777 Leaves alternate abruptly pinnated, Pod woody, Seeds black with a scarlet arillus

- 5778 Leaflets coriaceous veinless unequal at base, Flowers of panicle stalked  
 5779 Leaves veiny unequal at base, Panicle wavy spreading, Pedunc. many-fl. Pods warted



and Miscellaneous Particulars.

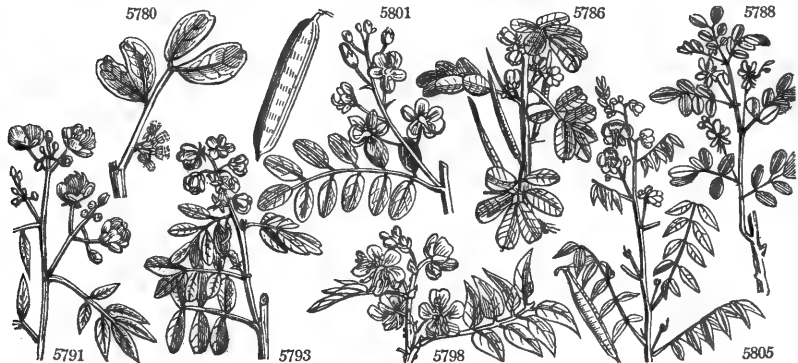
parted, which circumstance gave occasion, it is said, to Plumier to name this genus from the two brothers. They merit a place in the stove, where they are easily cultivated in light loamy soil, and cuttings taken off when the plants are in a growing state, not over ripened, nor yet quite succulent, with their leaves on, will do well in sand under bell-glasses in moist heat. The species rarely flower in this country. In their native woods they are great ornaments of the trees, among which they climb in every direction. The stem of *Bauhinia scandens*, which had twined around a smaller plant, is said to have been the origin of *Esculapius*'s snakes rod, which he brought from India.

971. *Azetta*. Named by Sir J. E. Smith, after Dr. Adam Afzelius, an amiable and excellent Swedish botanist, resident for many years, in the service of the African Company, at the colony of Sierra Leone, and now living at Upsal.

972. *Hymenaea*. A poetical application of this plant, the leaves of which grow in pairs, to Hymen, the god of marriage. *Cowdarit* is a vernacular American name. This tree is abundant in the West Indies, where it grows to a large size, with a spreading head. It has stiff sub-perfoliate leaves obliquely plac'd, and terminal spikes of flowers, which are succeeded by thick, fleshy, brown pods, shaped like those of the garden bean; they are six inches long, and two inches and a half broad, of a purplish brown color, and a ligneous consistence, with a large suture on both edges; they contain three or four roundish compressed seeds, divided by transverse partitions, and inclosed in a whitish substance of fine filaments, as sweet as honey. The Indians eat this substance with great avidity, though it is apt to purge when fresh gathered, but it loses this quality as it grows old.

Between the principal roots of the tree exudes a fine transparent resin, yellowish or red, which is collected in large lumps, is called gum Anime, and makes the finest varnish that is known, superior even to the Chinese lacca: for this latter use it is dissolved in the highest rectified spirits of wine. It burns readily, and with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons laboring with asthmas or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, useful in paises, in cramps, and

| 973. CYNOMETRA. W.         | CYNOMETRA.     | Leguminosæ. | Sp. 1-2.    |           |                  |                               |
|----------------------------|----------------|-------------|-------------|-----------|------------------|-------------------------------|
| 5780 cauliflora W.         | stem-flowering | ♂ or 30     | Y.F         | E. Indies | 1804.            | C a.l.p Lam. ill t. 331       |
| 974. CAS'SIA. W.           | CASSIA         | Leguminosæ. | Sp. 56-149. |           |                  |                               |
| 5781 diphylia W.           | two-leaved     | ♀ (O) pr    | 3 my.jl     | Y         | W. Indies 1781.  | C lt.1 Ca. ic. 5. t. 600. f.1 |
| 5782 Ab'snea W.            | four-leaved    | (O) un      | ½ jn.jl     | Y         | India 1777.      | C lt.1 Burm. zeyl. t. 97      |
| 5783 viminea W.            | twiggy         | ♀ pr        | 3 ...       | Y         | W. Indies 1785.  | S p.1                         |
| 5784 bacillaris W.         | rod            | ♀ or 3      | ...         | Y         | E. Indies 1782.  | C co                          |
| 5785 Tægera W.             | long-podded    | ♀ (O) w     | 1½ jl       | Y         | E. Indies 1803.  | C p.1                         |
| 5786 Tora W.               | ovate-leaved   | (O) w       | 3 au        | Y         | E. Indies 1693.  | C r.m Dill. elt. 63. f. 78    |
| 5787 hicsapulâris W.       | six-leaved     | ♀ or 4      | my.jn       | Y         | W. Indies 1739.  | C p.1 Plu. ic. t. 76. f. 1    |
| 5788 sennoides W.          | Senna-leaved   | ♀ or 3      | jl.au       | Y         | E. Indies 1808.  | S a.p Jac. ic. 1. t. 70       |
| 5789 acuminata W.          | pointed        | ♀ or 8      | ...         | Y         | Surinam 1820.    | S a.p                         |
| 5790 mollissima W. en.     | soft-leaved    | ♀ or 6      | ...         | Y         | S. Amer. 1816.   | S p.1                         |
| 5791 corymbosa W.          | corymbose      | ♀ or 3      | jl          | Y         | B. Ayres 1796.   | C a.p Bot. mag. 633           |
| 5792 emarginata W.         | notch-leaved   | ♀ or 15     | my.jn       | Y         | Jamaica 1759.    | C p.1 S.l.hi.2.t.180.f.1.4    |
| 5793 obtusifolia H. K.     | blunt-leaved   | (O) w       | 2 jl.au     | Y         | Jamaica 1732.    | C p.1 Dil. el. t. 62. f. 72   |
| 5794 pendula W. en.        | pendulous      | ♀ or 3      | jl.au       | Y         | S. Amer. 1820.   | C p.1                         |
| 5795 lævigata W. en.       | smooth         | ♀ pr        | 3 my.au     | Y         | .....            | C lt.1                        |
| 5796 sericea W.            | silky-leaved   | (O) w       | 1½ my.au    | Y         | Jamaica 1731.    | C a.p                         |
| 5797 dispar W. en.         | unequal        | ♀ or 3      | ...         | Y         | S. Amer. 1824.   | C s.p                         |
| 5798 occidentalis W.       | occidental     | ♀ pr        | 1½ my.au    | Y         | W. Indies 1759.  | C p.1 Bot. reg. 83            |
| 5799 pátula W.             | shining        | ♀ pr        | 2 au.s      | Y         | W. Indies 1773.  | C lt.1                        |
| 5800 prostrata W. en.      | prostrate      | ♀ or 3      | my.au       | Y         | S. Amer. 1819.   | C co                          |
| 5801 arboræscens W.        | tree           | ♀ un        | 3 jn.jl     | Y         | E. Indies 1800.  | C p.1 Rh. ma. 6. t. 9,10      |
| 5802 itálica Lam.          | Italian Senna  | (O) or 3    | jn.jl       | Y         | S. Europe ...    | S co Mo. h. 2. t. 24. f.2     |
| 5803 Senna H. K.           | false Senna    | (O) m       | 3 jl.au     | Y         | Egypt 1640.      | S lt.1                        |
| 5804 orientális P. S.      | true Senna     | (O) m       | 3 jl.au     | Y         | Levant ...       | S lt.1 Tabern. ic. 507        |
| 5805 ruscifolia W.         | Ruscus-leaved  | ♀ or 2      | my.jl       | Y         | Madeira 1816.    | C lt.1 Jac. ic. 1. t. 71      |
| 5806 purpúrea Roxb.        | purple         | ♀ or 4      | jn.au       | Y         | E. Indies 1821.  | C co Bot. reg. 856            |
| 5807 ægyptiaca W. en.      | Egyptian       | ♀ or 3      | my          | Y         | Egypt 1822.      | C co                          |
| 5808 biflora W.            | two-flowered   | ♀ or 6      | ap.d        | Y         | W. Indies 1766.  | C p.1 Bot. mag. 810           |
| 5809 chinensis W.          | Chinese        | ♀ or 4      | jn          | Y         | China 1807.      | S p.1 Jac. ic. 1. t. 73       |
| 5810 hirsúta H. K.         | woolly         | ♀ (O) w     | 4 jl        | Y         | America 1778.    | C s.p                         |
| 5811 coromandeliana W. en. | Coromandel     | ♀ or 4      | jn          | Y         | E. Indies 1822.  | C co                          |
| 5812 lanceolata P. S.      | lanceolate     | ♀ pr        | 3 jl        | Y         | W. Indies 1822.  | C co                          |
| 5813 bractæata W.          | bracteate      | ♀ or 6      | ap.d        | Y         | W. Indies 1822.  | C co                          |
| 5814 tomentosa W.          | tomentose      | ♀ or 15     | jl.s        | Y         | W. Indies 1822.  | C co                          |
| 5815 glandulosa W.         | glandular      | ♀ pr        | 4 au.o      | Y         | W. Indies 1822.  | C co Bot. mag. 3435           |
| 5816 grândia W.            | fine           | ♀ or 25     | ...         | Y         | W. Indies 1822.  | C co Brey. cent. t. 14        |
| 5817 planisiliqua P. S.    | flat-podded    | ♀ pr        | 4 my.jl     | Y         | W. Indies 1822.  | C co Plum. spec. t. 77        |
| 5818 robinoides W. en.     | Robinia-like   | ♀ or 10     | jl          | Y         | S. Amer. 1823.   | C co                          |
| 5819 stipulacea W.         | large-stipuled | ♀ or 3      | ...         | Y         | Chili 1786.      | C lt.1 Feu. per. 3. t. 42     |
| 5820 cuspidata W. en.      | cuspidate      | ♀ or 4      | jn.au       | Y         | S. Amer. 1820.   | C co                          |
| 5821 marilandica W.        | Maryland       | ♀ (O) pr    | 4 au.o      | Y         | N. Amer. 1723.   | C a.p Di. el. t. 260. f. 339  |
| 5822 alata W.              | broad-leaved   | ♀ or 12     | ...         | Y         | W. Indies 1731.  | C p.1 Jac. ob. 2. t. 45. f. 2 |
| 5823 ligustrina W.         | Privet-leaved  | ♀ or 6      | jl          | Y         | Baham. Is. 1726. | C p.1 Bot. reg. 109           |
| 5824 multiglandulosa W.    | glandular      | ♀ pr        | 4 jn.au     | Y         | Teneriffe 1779.  | C a.p Jac. ic. 1. t. 72       |
| 5825 frondosa W.           | smooth-shrub.  | ♀ or 3      | mr.ap       | Y         | W. Indies 1763.  | C lt.1 Jac. ic. 1. t. 74      |
| 5826 Sôphera W.            | round-podded   | ♀ or 4      | jl.s        | Y         | E. Indies 1658.  | C lt.1 Rh. ma. 2. t. 62       |
| 5827 reticulata W. en.     | Matapasto      | ♀ or 10     | au.s        | Y         | S. Amer. 1821.   | C co                          |
| 5828 auriculata W.         | eared          | ♀ or 4      | ...         | Y         | E. Indies 1777.  | C lt.1 Pl. alm. t. 314. f. 4  |
| 5829 Chamæcrista W.        | dwarf          | ♀ pr        | 1 jr.s      | Y         | America 1699.    | S r.m Bot. mag. 107           |
| 5830 hirta W. en.          | long-haired    | ♀ or 3      | jl.s        | Y         | S. Amer. 1820.   | C co                          |
| 5831 marginata W. en.      | white-edged    | ♀ el        | 3 my.jl     | Y         | Surinam 1823.    | C co                          |
| 5832 mimosoides W.         | Mimosa-leaved  | ♀ pr        | 2 jn.s      | Y         | Ceylon 1806.     | S lt.1                        |
| 5833 microphylla W.        | small-leaved   | ♀ pr        | 2 jn.s      | Y         | Santa Cr. 1810.  | S lt.1                        |
| 5834 nictitans W.          | Virginian      | ♀ pr        | 2 jl        | Y         | N. Amer. 1800.   | S lt.1 Pl. alm. t. 314. f. 5  |
| 5835 capensis Th.          | Cape           | ♀ or 3      | jn          | Y         | C. G. H. 1816.   | S lt.1 Bot. cab. 511 p        |
| 5836 procumbens W.         | procumbent     | (O) w       | 1½ jn.jl    | Y         | N. Amer. 1806.   | S lt.1 Com. pet. t. 11        |



History, Use, Propagation, Culture.

contractions of the sinews. The solution in spirits has been thought not inferior to Guaiacum in venereal cases. A decoction of the leaves expels flatulency, and gives ease in colicky pains, by gently opening the bowels; and the inward bark is an excellent vermifuge in substance or decoction.

The tree is excellent timber; but it must be very old before it is cut, otherwise the heart will be but small. It is in great request for wheel-work in the sugar-mills, particularly for cogs to the wheels, being extremely hard and tough: it is so heavy, that a foot cube weighs about a hundred pounds, and it will take a fine polish. It is much inhabited by wild honey bees. (*Broune.*)

Besides this locust-tree, there is the American tree of that name, Robinia Pseud-acacia, and the locust-tree of scripture, Ceratonia siliqua.

## 5780 Flowers growing upon the trunk

- 5781 Leaves 1 pair and calyxes smooth, Stipules cordate-lanceolate  
 5782 Leaves 2 pairs obovate, Two subulate glands between the lower pair  
 5783 Leaves 2 pairs ovate oblong acuminate, An obl. gland between the lower pair, Spines obsolete 3-toothed  
 5784 Leaves 2 pairs ovate oblique, An obtuse gland between the lowest, Racemes axill. stalked  
 5785 Leaves 3 pairs : with a gland on the footstalk, Stipules ciliate cordate acuminate  
 5786 Leaves 3 pairs obovate : outer largest, A subulate gland between the lower pair  
 5787 Leaves 3 pairs obovate smooth : the inner roundest with a globose gland between  
 5788 Leaves 3 pairs, Leaflets obtuse elliptical, A gland between the lower leaves  
 5789 Leaves 3 pairs, Leaflets ovate acuminate, A sessile gland between the leaflets  
 5790 Leaves 3 pairs ovate acuminate with soft down on each side  
 5791 Leaves 3 pairs lanceolate subfalcate smooth, A gland between the lowest, Corymbs stalked, Pods cylind.  
 5792 Leaves about 4 pairs ovate, Flowers racemose irregular, Stem arborescent  
 5793 Leaves 3 pairs obovate obtuse beneath very villous outer largest, A gland between lowest, Pods recurved  
 5794 Leaves 3 or 4 pairs obovate the outer largest, A gland between the lower pairs, Pods pendulous rounded  
 5795 Leaves 4 pairs ovate hairy with a subulate gland between the leaflets, Peduncles 4-flowered  
 5796 Leaves 4 pairs obovate pubescent ciliated, A stalked gland between all, Pedunc. 4-fl. Pod jointed  
 5797 Leaves 4 or 5 pairs oblong obtuse : the outer the largest with a gland between every pair  
 5798 Leaves 5 pairs ovate lanceolate rough at edge : outer largest, A gland at foot of leafstalk  
 5799 Leaves 5 pairs oblong acute smooth, A gland at base of footstalk, Branches smooth  
 5800 Leaves 5 pairs elliptical smooth with an obl. gland between the lower, Stip. subul. falcate, Rac. axillary  
 5801 Leaves 5 pairs elliptical smooth, An oblong gland between the lower, Racemes axillary  
 5802 Leaves 5 pairs cordate obtuse, Stalks without glands  
 5803 Leaves 6 pairs obovate smooth, Stalks without glands, Spikes racemose, Pods leafy compressed falc. te  
 5804 Leaves 5 pairs lanceolate equal, Gland above the base of the leafstalks  
 5805 Leaves 6 pairs ovate lanceolate smooth with a gland at the base of the stalk, Pod compressed edged  
 5806 Leaves 8-9 pairs ovate lanceol. hairy with a gland at base of stalk, Racemes many-fl. shorter than leaves  
 5807 Leaves 6 pairs lanceolate acute the outer largest, A gland on leafstalk, Peduncles 2 flowered  
 5808 Leaves 6 pairs obl. smooth : lower smaller with a subulate gland between the lowest, Stalks 2-flowered  
 5809 Leaves 6 pairs ovate acute smooth, with a gland at the base of the stalk, Pod cylindrical hooked  
 5810 Leaves 5-6 pairs ovate acuminate woolly : the outer largest  
 5811 Leaves 6 or 8 pairs lanceolate acute smooth, with a gland on the leafstalk, Pod round smooth  
 5812 Leaves 2 pairs obovate veiny, Stipules lanceolate appressed, Leaflets long equal  
 5813 Leaves 10 pairs oblong obtuse without glands, Racemes long, Bractes ovate tumid imbricated  
 5814 Leaves 6-8 pairs linear obliquely rounded at base above hairy, Panic. axillary, Pod villous  
 5815 Leaves in many pairs with many glands, Stipules subulate  
 5816 Leaves 2 pairs velvety without glands  
 5817 Leaves 5 pairs ovate lanceolate smooth with a gland at the base of the leafstalk  
 5818 Leaves 6-9 pairs lanceolate acuminate smooth, A gland on the leafstalk  
 5819 Leaves 8 pairs ovate-lanceolate, A gland between the lower, Stipules ovate very large  
 5820 Leaves 10 pairs ovate-lanceolate obtuse mucronate smooth, Stalk without gland  
 5821 Leaves 8 pairs ovate-oblong equal, Gland at the base of the leafstalk  
 5822 Leaves 8 pairs oval-oblong : the outer smaller, Leafstalks without glands, Stipules spreading  
 5823 Leaves 7 pairs lanceolate : the outer smallest, A gland at base of leafstalk  
 5824 Leaves 6 pairs oval-obl. obt. hairy : the outer largest, A subulate gland between each pair, Pods linear  
 5825 Leaves 6 pairs oval-obl. smooth obt. A cylindrical gland between the lowest, Footst. with no gland at base  
 5826 Leaves 10 pairs lanceolate with an oblong gland at the base  
 5827 Leaves 10 pairs, Leaflets oblong rounded at each end beneath hoary, No gland on stalk, Pod compressed  
 5828 Leaves 12 pairs obtuse mucronate, Glands many subulate, Stipules reniform bearded  
 5829 Leaves many pairs, Gland of the footstalk stalked, Stipules ensiform  
 5830 Branches hairy, Stipules lanceolate linear with elevated lines, Leaflets cuspidate  
 5831 Leaves 15 pairs, Leaflets with a cartilaginous white edge and a subulate gland between every pair  
 5832 Leaves many pairs linear with an obsolete gland at the base of the leafstalk, Stipules setaceous  
 5833 Leaves many pairs linear mucronate with a gland between the lowest, Pedunc. solitary 1-fl.  
 5834 Leaves many pairs, Flowers pentandrous, Stem erect  
 5835 Leaves many pairs linear, Stem flexuose erect villous. The plant in Bot. Cab. is something else?  
 5836 Leaves many pairs without glands, Stem procumbent



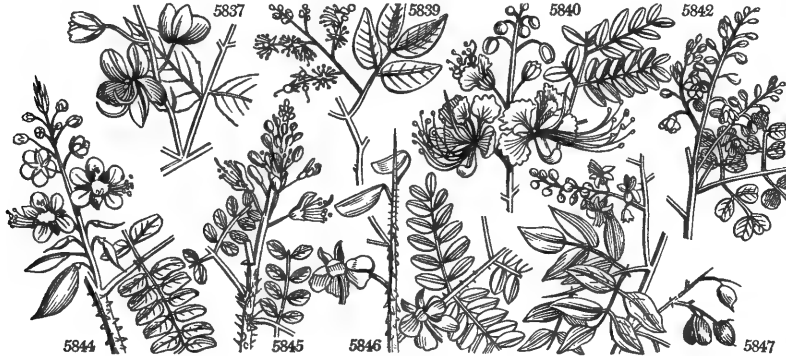
and Miscellaneous Particulars.

973. *Cynometra*. A name contrived to indicate the peculiar form of the pods of this genus, which grow from the old stems and branches of the tree. Large cuttings root best planted in sand, and plunged in heat under a hand-glass.

974. *Cassia*. According to Olaus Celsus, this name is to be traced to the Hebrew, *Ketzioth*, rendered by *Keravay* in the Septuagint, and Latinized by *Cassia*. Cuttings of the species, which do not seed freely, root in pots of sand, in moist heat, and covered by a hand-glass.

Of the trivial names of different species of *Cassia*, that of *Absus* is the name under which it is described by Professor Alpinus, and is supposed to have arisen from a river of Palestine of that name. *Tagera* is a Malabar name, *Sophera*, an Egyptian name, and *Senna*, the Arabic name of the plant — *Senna*.

|                              |                    |             |           |       |       |                 |                          |                            |
|------------------------------|--------------------|-------------|-----------|-------|-------|-----------------|--------------------------|----------------------------|
| 975. CATHARTOCARPUS. P. S.   | CATHARTOCARPUS.    | Leguminosæ. | Sp. 2-5.  |       |       |                 |                          |                            |
| 5837 Ficus P. S.             | purging            | ♂ m         | 3         | jn.jl | Y     | E. Indies 1731. | C 1p Rh. mal. 1. t. 22   |                            |
| 5838 javanicus P. S.         | Java               | ♂ m         | 4         | ...   | Pk    | E. Indies 1779. | C 1p Co. hort. 1. t. 111 |                            |
| 976. PARKINSONIA. W.         | PARKINSONIA.       | Leguminosæ. | Sp. 1.    |       |       |                 |                          |                            |
| 5839 aculeata W.             | prickly            | ♂ or        | 12        | ...   | Or    | W. Indies 1739. | C 1p Jac. amer. t. 80    |                            |
| 1977. POINCIANA. N. A. H. K. | POINCIANA.         | Leguminosæ. | Sp. 2.    |       |       |                 |                          |                            |
| 5840 pulcherrima H. K.       | Flower-fence       | ♂ or        | 10        | jn.s  | R.Y.G | E. Indies 1691. | S r.m Bot. mag. 995      |                            |
| 5841 elata H. K.             | smooth             | ♂ or        | 15        | ...   | Y     | E. Indies 1778. | S r.m                    |                            |
| 1978. CÆSALPINIA. H. K.      | BRASILETTO.        | Leguminosæ. | Sp. 9-18. |       |       |                 |                          |                            |
| 5842 bijuga W.               | broad-leaved       | ♀           | ec        | 15    | ...   | Y               | Jamaica 1770.            | S p.l Slh.2.t. 181.f.2,3   |
| 5843 brasiliensis W.         | smooth             | ♀           | ec        | 20    | ...   | Or              | Jamaica 1739.            | S p.l                      |
| 5844 Sap'pan W.              | narrow-leaved      | ♀           | ec        | 20    | ...   | Y               | E. Indies 1773.          | S p.l Roxb. cor. 1. t. 16  |
| 5845 Crista Sw.              | oval-leaved        | ♀           | ec        | 15    | ...   | W.Y             | Jamaica ...              | S p.l Plu. gen. t. 63      |
| 5846 mimosoides W.           | Mimosa-leaved      | ♂           | pr        | 6     | ...   | Y               | E. Indies 1806.          | S p.l Rh. mal. 6. t. 8     |
| 5847 Nûga H. K.              | acute-leaved       | ♂           | ec        | 10    | ...   | Y               | E. Indies 1801.          | S p.l Rum. am. 5. t. 50    |
| 5848 cassioides W. en.       | Senna-like         | ♂           | or        | 6     | ...   | ...             | S. Amer. 1821.           | S p.l                      |
| 5849 mucronata W. en.        | mucronate          | ♂           | or        | 6     | ...   | ...             | Brazil 1823.             | S p.l                      |
| 5850 punctata W. en.         | dotted             | ♂           | or        | 6     | ...   | ...             | Brazil 1820.             | S p.l                      |
| 979. GUILANDINA. H. K.       | NICKER-TREE.       | Leguminosæ. | Sp. 1-7.  |       |       |                 |                          |                            |
| 5851 Bônduc H. K.            | oval-leaved        | ♂ or        | 12        | ...   | Y     | India 1640.     | C a.p Lam. ill. t. 336   |                            |
| *980. HYPERANTHERA. W.       | HORSE-RADISH-TREE. | Leguminosæ. | Sp. 1-2.  |       |       |                 |                          |                            |
| 5852 Moringa W.              | smooth             | ♂           | or        | 10    | ...   | ...             | E. Indies 1759.          | C p.l Jac. ic. 3. t. 461   |
| 981. HOFFMANSEGGIA. Cav.     | HOFFMANSEGGIA.     | Leguminosæ. | Sp. 1-2.  |       |       |                 |                          |                            |
| 5853 falcata Cav.            | sickle-leaved      | ♂           | cu        | 2     | jl.au | ...             | Chili 1806.              | C s.l.p Cav. ic. t. 392    |
| 982. ADENANTHERA. W.         | ADENANTHERA.       | Leguminosæ. | Sp. 2-5.  |       |       |                 |                          |                            |
| 5854 Pavonina W.             | yellow-flowered    | ♂           | or        | 5     | my.au | Y               | E. Indies 1759.          | C s.l.p                    |
| 5855 falcata W.              | woolly-leaved      | ♂           | or        | 5     | ...   | Y               | E. Indies 1812.          | C s.l.p Ru. amb. 3. t. 111 |
| 983. CADIA. W.               | CADIA.             | Leguminosæ. | Sp. 1.    |       |       |                 |                          |                            |
| 5856 purpurea W.             | purple             | ♂           | cu        | 6     | ja.jl | W.pu            | Arabia 1775.             | C 1t.l Pic. h.p. 9. c. ic. |
| 984. PROSOPIS. Rox.          | PROSOPIS.          | Leguminosæ. | Sp. 1.    |       |       |                 |                          |                            |
| 5857 spicigera L.            | eatable-podded     | ♀           | ec        | 20    | ...   | W.G             | E. Indies 1812.          | C r.m Roxb. cor. 1. t. 63  |
| 985. HÆMATOXYLON. W.         | LOGWOOD.           | Leguminosæ. | Sp. 1.    |       |       |                 |                          |                            |
| 5858 campechianum W.         | common             | ♂           | dy        | 20    | ...   | Y               | S. Amer. 1724.           | C r.m Cat. car. 2. t. 66   |
| 986. COPAITERA. W.           | BALSAM OF CAPEVI.  | Leguminosæ. | Sp. 1.    |       |       |                 |                          |                            |
| 5859 officinalis W.          | official           | ♂           | m         | 20    | ...   | ...             | S. Amer. 1774.           | C a.l Jac. amer. t. 86     |



History, Use, Propagation, Culture,

975. *Cathartocarpus*. From *καθαρτα*, to purge, and *καρπος*, fruit; the fruit of the species being a strong cathartic. The species may be treated as Cassia.

976. *Parkinsonia*. So named by Plumier, in memory of John Parkinson, apothecary, of London, author of *Paradisus Terestris*, 1629, and *Theatrum Botanicum*, 1640. It is a handsome low tree, not unlike the *Laburnum*, and planted in the West Indies near houses, as the latter is in this country.

977. *Poinciana*. So named by Tournefort, in memory of De Poinci, governor of the Antilles, placed by Linnæus among the promoters of botany.

*P. pulcherrima* is a low spiny tree, with an odor, when the leaves are bruised, like savin. It is a native of both Indies, and in Barbadoes is planted in hedges, whence the name of flower-fence, or Spanish carnations, which it is there called. In our stoves they require a strong heat to make them flower well. They are readily increased either by cuttings or seeds.

978. *Cæsalpinia*. So named by Plumier, in honor of Andreas Cæsalius, chief physician to Pope Clement VIII., and the father of systematic arrangement in plants, in his now very scarce work, entitled, *De Plantis, libri sedecim*, Flor. 1583. He died at Rome in 1602. The wood of all the genus may be used in dying. In our stoves the plants are thorny, and, therefore, not being much liked, are seldom suffered to grow large enough to flower freely.

*C. sappan* is a prickly tree, with the heart of the wood red, heavy, and very hard: it dyes a beautiful red, which, however, is said not to stand. It is very durable in sea-water, and exported abundantly by the Chinese for trenails in ship-building, and as a dye.

*C. crista* and *brasiliensis* afford the Brazil wood used in dying, and extensively imported to England from the West Indies. The timber of the last species is elastic, tough, and durable, and takes a fine polish; it is of a beautiful orange-color, full of resin, and yields a fine full tincture by infusion. The best Brazil wood is said to be produced by *Cæsalpinia echinata*. Cuttings, Sweet observes, will not root freely, but will sometimes succeed if taken off in a growing state, but not too young, and plunged in a pot of sand, under a hand-glass, in moist heat. (*Bot. Cult.* 32.)

979. *Guilandina*. Named after Melchior Guilandin, a Prussian traveller in Africa, and demonstrator of Botany at Padua. He died in 1590. The species are all fine trees, with large compound leaves.

980. *Hyperanthera*. From *ὑπερ*, upon, and *ανθηρα*, an anther. The five barren stamens of this

5837 Leaves 5 pairs

5838 Leaves 12 pairs

5839 The only species

5840 Prickly, Calyxes unequal smooth

5841 Unarmed, Calyxes equal downy

5842 Prickly, Leaves doubly in 2 pairs, Leaflets obovate and calyxes smooth, Stam. as long as corolla

5843 Unarmed, Leaflets ovate-oblong, Rachis pubescent, Cal. downy, Stamens shorter than corolla

5844 Prickly, Leaf. obl. oval uneq. sided obt. and cal. smooth, Stamens longer than cor. Upper petal very small

5845 Prickly, Leaflets oval, Racemes simple, Petals ovate shorter than the smooth calyx

5846 Prickly, Leaflets oblong obtuse, Stamens shorter than cor. Pods woolly

5847 First petiole prickly beneath, Leaflets acute and cal. smooth, Pods 1-2-seeded

5848 Stipules spiny, Leaflets oblong retuse, Leafstalks hairy

5849 Prickly, Leaflets oblong obtuse mucronate smooth

5850 Unarmed, Leaflets unevenly bipinnate, Leaflets elliptical obtuse mucronate dotted

5851 The only species

5852 Flowers half decandrous, Leaves about bipinnate, Lower leaflets ternate, Pods 3-cornered

5853 Stem decumbent, Leaves bipinnate ovate glaucous

5854 Leaves decomposed smooth on each side

5855 Leaves decomposed downy beneath

5856 The only species

5857 The only species. Branches spiny, Leaves alternate conjugate

5858 The only species. Leaves abruptly pinnated, Leaflets obovate

5859 The only species



and Miscellaneous Particulars.

genae are surmounted by the five fertile ones. (Vahl.) Cuttings root best under a hand-glass in sand.

981. *Hoffmanseggia*. Named by Cavanilles, after John Charles Hoffmansegg, whom he calls a distinguished naturalist. It may be with some propriety be employed to commemorate the merits of the present distinguished Count Hoffmansegg. Cuttings, somewhat ripened, root under a hand-glass in sand.

982. *Adenantha*. From *ἀδνη*, a gland, and *ἀνθή*, an anther. The essential character of the genus is to have each anther tipped with a gland. Large cuttings, with the leaves not shortened, root best in a pot of sand plunged in heat under a hand-glass. (Bot. Culti. 13.)

983. *Cada*. Contrived by Forskahl, from the Arabic name of the plant, — *qadhy*.

984. *Prosois*. One of the names under which Dioscorides described the Arcium Lappa. The present plant has no sort of resemblance to that of the ancients. It is a leguminous plant, and the pods are eaten as a condiment in India.

985. *Hæmatoxylon*. From *αἷμα*, blood, and *ξύλον*, wood, in allusion to the color of an infusion of its wood. The logwood of commerce. This is a crooked stemmed low tree, with pinnate leaves, originally from the Bay of Campechy; the inner bark and wood red, the latter dark and very hard. It makes an excellent fence, the smaller shoots are cut for hoops, and the stems for exportation for dyeing. The gum is a gentle subastrigent. In our stoves it grows well in loam and leaf-mould, kept rather moist, and cuttings root in sand under a hand-glass in heat.

986. *Copaifera*. This tree is so called from bearing the drug Copaiba, which is the name given to the tree itself by the people of Brazil. *Beauve de Copahu*, Fr., *Kopaiba Balsam*, Ger., *Balsamo del Coppaiiba*, Ital. This is a lofty elegant tree, with a handsome branching head, the extreme branches flexuose at the axils, the bark ash-colored, and the leaves pinnate. It grows abundantly in the woods of Tolu, near Carthagena, and of Quito, in Brazil. The copaiba balsam of the shops is procured by wounding or boring these trees to the pith, near the base of the trunk, when it flows abundantly, in the form of a clear colorless liquid, which is thickened, and acquires a yellowish color by age. The operation is performed two or three times in the same year; and from the older trees the best balsam is obtained.

Copaiba balsam is stimulant, diuretic, and gently purgative. It has been recommended in pulmonary complaints, and it certainly affords considerable relief in hæmorrhoidal affections. (Thompson's London Dispensatory, 285.) It may be increased by ripened cuttings in sand under cover.



|                               |                      |                   |                  |        |            |           |                             |                             |
|-------------------------------|----------------------|-------------------|------------------|--------|------------|-----------|-----------------------------|-----------------------------|
| 987. TRICHILIA. <i>W.</i>     | TRICHILIA.           | <i>Meliaceae.</i> | <i>Sp.</i> 2—18. |        |            |           |                             |                             |
| 5860 glabra <i>W.</i>         | smooth               | ♂ or 10           | jn. jl           | W      | W. Indies  | 1794.     | C 1p J. amer. t. 175. f. 38 |                             |
| 5861 odorata <i>B. R.</i>     | sweet-scented        | ♂ or 10           | jn. jl           | W      | W. Indies  | 1801.     | C 1p Bot. rep. 637          |                             |
| 988. MEYLIA. <i>W.</i>        | BEAD-TREE.           |                   |                  |        |            |           |                             |                             |
| 5862 Azedarach <i>W.</i>      | common               | ♂ or 40           | jn. au           | B      | Syria      | 1656.     | S a1 Bot. mag. 1066         |                             |
| 5863 sempervirens <i>W.</i>   | evergreen            | ♂ or 40           | jn. au           | B      | Jamaica    | 1656.     | C a1 Bot. reg. 643          |                             |
| 5864 Azadirachta <i>W.</i>    | Ash-leaved           | ♂ or 60           | jn. au           | W      | E. Indies  | 1759.     | C a1 Cav. dia. 7. t. 208    |                             |
| 989. QUIVIVISIA. <i>Cav.</i>  | QUIVIVISIA.          |                   |                  |        |            |           |                             |                             |
| 5865 heterophylla <i>Cav.</i> | various-leaved       | ♂ or cu           | ...              | W      | Is. France | 1822.     | C p1 Cav. diss. t. 213      |                             |
| 990. SWIETENIA. <i>W.</i>     | MAHOGANY-TREE.       |                   |                  |        |            |           |                             |                             |
| 5866 Mahogoni <i>W.</i>       | common               | ♂ or tm           | 80               | ...    | R          | W. Indies | 1734.                       | C p1 Cav. dis. 7. t. 209    |
| 5867 febrifuga <i>W.</i>      | Febrifuge            | ♂ or m            | 60               | ...    | R          | E. Indies | 1796.                       | C p1 Rox. cor. 1 t. 17      |
| 991. EKEBERGIA. <i>W.</i>     | EKEBERGIA.           |                   |                  |        |            |           |                             |                             |
| 5868 capensis <i>W.</i>       | Cape                 | ♂ or 20           | jl. au           | W      | C. G. H.   | 1789.     | C p1 Lam. ill. t. 358       |                             |
| 992. HEYNEA. <i>Roz.</i>      | HEYNEA.              |                   |                  |        |            |           |                             |                             |
| 5869 trijuga <i>Rozb.</i>     | Walnut-like          | ♂ or 20           | s                | W      | Nepal      | 1812.     | C 1p Bot. mag. 1738         |                             |
| 993. GUAIACUM. <i>W.</i>      | LIGNUM-VITE-TREE.    |                   |                  |        |            |           |                             |                             |
| 5870 officinale <i>W.</i>     | official             | ♂ or m            | 40               | jl. s  | B          | W. Indies | 1694.                       | C 1p Lam. ill. t. 342       |
| *994. ZYGOPHYLLUM. <i>W.</i>  | BEAN-CAPER.          |                   |                  |        |            |           |                             |                             |
| 5871 cordifolium <i>W.</i>    | heart-leaved         | ♂ or cu           | 6                | o      | O          | C. G. H.  | 1774.                       | C 1p                        |
| 5872 Fabago <i>W.</i>         | common               | ♂ or cu           | 4                | jl. s  | O. W       | Syria     | 1596.                       | C 1p Lam. ill. t. 345. f. 1 |
| 5873 foetidum <i>W.</i>       | fetid                | ♂ or pr           | 4                | jn. au | O. Y       | C. G. H.  | 1790.                       | C 1p Bot. mag. 372          |
|                               | <i>insuave B. M.</i> |                   |                  |        |            |           |                             |                             |
| 5874 maculatum <i>W.</i>      | spotted-flower.      | ♂ or pr           | 4                | o. n   | Y          | C. G. H.  | 1782.                       | C 1p                        |
| 5875 album <i>W.</i>          | white                | ♂ or              | 2                | o. n   | W          | Canaries  | 1779.                       | C 1p Linn. dec. 1. t. 6     |



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987. *Trichilia*. From *τριχίλα*, ternary, nearly all the parts of the plant, the leaves, the stigmas, the cells of capsule, the seeds, being produced by threes. *T. glabra* is a tall branching tree, with an unpleasant fetid smell. The species are rarely seen in collections, and seldom, when cultivated, flower.

988. *Melia*. *Melia* was the Greek name of the manna ash, from *μέλι*, honey. This tree has been thought to resemble the ash in its foliage.

*M. azedarach* (*azadarach*, Arab.) grows to a large tree in the south of Spain and Italy, producing long loose bunches of blue flowers, succeeded by pale yellow berries, about the size of a cherry. These berries consist of a pulp, which is poisonous in a high degree, and mixed with grease, will kill dogs, enclosing a nut which is bored and strung as beads by the Catholics.

*M. sempervirens* is considered by some as only a variety of the Azedarach.

989. *Quivivisia*. The tree is called *Bos de Quivi* in the Isle of France.

990. *Swietenia*. So named by Jacquin, in honor of the illustrious Gerard L. B. Von Swieten, archiater to Maria Theresa, Empress of Germany, who at his persuasion founded the botanical garden at Vienna.

*S. mahagoni*. The mahogany tree is a lofty branching tree, with a wide handsome head, the flower of *Melia*, and the fruit of Cedrela, about the size of a turkey's egg. It grows in the warmest parts of America, as in Cuba, Jamaica, Hispaniola, &c. The trees on the Bahama islands are not so large, but are more curiously veined, and are known in Europe as Madeira wood. They generally grow on the solid rock, where there seems to be no earth for their nourishment. Mahogany, like other timber, varies in durability, firmness of grain, and other circumstances, with the soil on which it is grown. The best is furnished from the rocky soils of St. Domingo and the Bahama islands.

*S. febrifuga* is a lofty tree, in general appearance like the Mahogany. The wood is of a dull red color, remarkably hard and heavy; it is reckoned by the natives the most durable wood they know, and on that account is used for all the wood-work in their temples; it is also very serviceable for various other purposes. The bark is internally of a light red color: a decoction of it dyes brown of various shades, according as the cloth has been prepared. Its taste is a bitter and astringent united, and very strong, particularly the bitter; at the same time not any way nauseous or otherwise disagreeable. In India it is used for the cure of intermittents with considerable advantage, and has also been found efficacious in most of the diseases in which the cinchona bark proves serviceable. (*Thompson's London Dispensatory*, 533.)

991. *Ekebergia*. Charles Gustavus Ekeberg was a Danish naturalist, who travelled in Asia from 1770 to 1771. Cuttings to succeed must have their leaves entire, and be planted in sand and covered.

992. *Heynea*. Named after Dr. Benjamin Heyne, a learned German botanist and physician, who travelled many years in India, where he formed a large collection of dried plants.

993. *Guaiacum*. From *guaiaac*, the name given to the tree by the natives of Guiana. *Gijac*, Fr., *Gujakummi*, Ger., *Gujaco*, Ital. This tree rises forty feet high, and is four or five feet in circumference, with many divided knotted branches, greyish bark, and abruptly pinnate leaves. It has blue flowers, which are succeeded by compressed berries of a roundish form. The tree takes many years to arrive at its full growth. The roots run far into the ground perpendicularly, contrary to the usual growth of timber trees in the West Indies, which generally shoot the largest prongs of their roots in a horizontal direction, and are commonly observed to run very near the surface. The bark is thick and smooth, the wood of a dark olive color, and cross grained, the strata running obliquely into one another, in form of an X. It is a valuable timber where

5860 Leaves pinnated smooth, Outer leaflets largest  
5861 Leaflets lanceolate undulate, Flowers with 4 petals

5862 Leaves bipinnate, Leaflets smooth somewhat quinate  
5863 Leaves bipinnate, Leaves cut rugose shining about 9, Petiole rounded at base  
5864 Leaves pinnate

5865 Leaves alternate oval and obovate entire sinuate-toothed or pinnatifid, Pedicels twin axillary 1-flowered

5866 Leaves pinnate in four pairs, Leaflets ovate-lanceolate equal at base, Panicles axillary  
5867 Leaves pinnate in four pairs, Leaflets elliptical roundish emarginate unequal at base, Panicle terminal

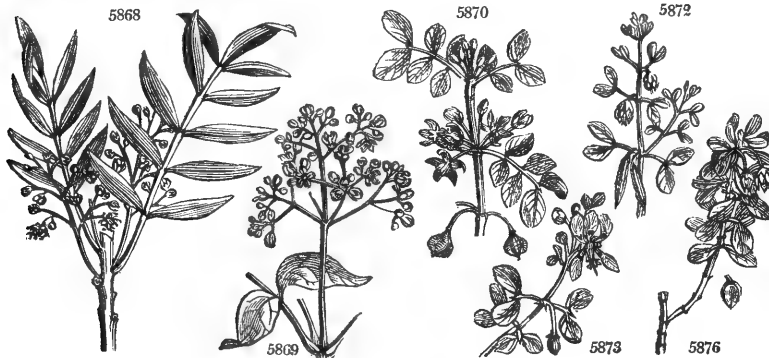
5868 The only species, Leaves pinnated with an odd one, Panicles axillary

5869 Leaves pinnated with an odd one in 3 pairs, Pan. axill. on long stalks

5870 Leaflets of 2 or 3 pairs obtuse, Capsules 2-celled

5871 Leaves simple opposite sessile roundish  
5872 Leaves conjugate stalked, Leaflets obovate, Peduncles erect, Calyx smooth  
5873 Leaves conjugate stalked, Leaflets obovate, Flower nodding, Calyx pubescent

5874 Leaves conjugate stalked, Leaflets linear-lanceolate  
5875 Leaves conjugate stalked, Leaflets clavate fleshy with a cobweb surface



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strength and duration is required, and weight no object. It takes a fine polish, turns well, and is much used for ship blocks. It is one of the most valuable trees of the West Indies; since the timber, the bark, fruit, leaves, and blossom, are all applicable to some useful purpose. The wood yields by incision the peculiar substance called Guaiacum, erroneously termed a gum, of great importance in medicine.

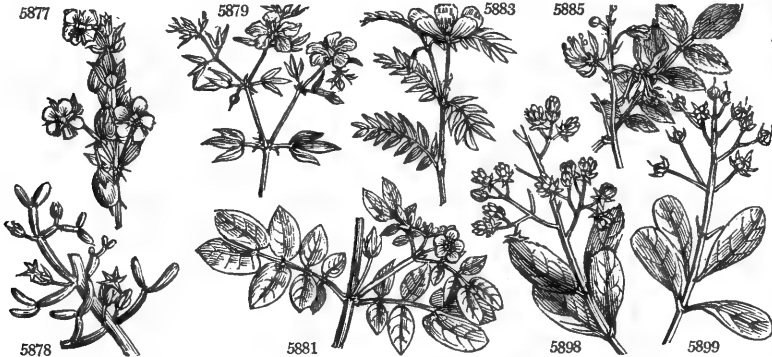
All the parts of this tree possess medicinal qualities; but the wood and the peculiar substance afforded by it are the only parts used: the virtues of the wood depend altogether on the peculiar matter it contains. This is spontaneously exuded from the tree, and is called native gum: it concretes in tears, which are semi-pellucid, and very pure; but the greater part of it is obtained by making incisions into the trunk, or, as it is termed, jaggng the tree. This operation is performed in May; and the juice which flows copiously, is concentered by the sun. It is also obtained by sawing the wood into billets, and boring a hole longitudinally through them; so that, when one end of a billet is laid on a fire, the guaiac melting runs through the hole from the opposite end, and is collected in a calabash. Boiling the chips or rasplings in salt and water also separates the guaiac, which, as it rises to the surface, may be collected by skimming.

Both the wood and the guaiac are stimulant, diaphoretic, diuretic, and purgative. The wood was introduced into Europe by the Spaniards as a remedy for lues venerea in 1506, and gained much celebrity from curing Van Hutten; but it had long before been used for the same purpose by the natives of St. Domingo. It obtained so much reputation, that the exhibition of mercury was discontinued for a considerable length of time, and even in the eighteenth century its specific powers over this disease were maintained by Boerhaave; but frequent disappointments and more correct observations have shown that it possesses no powers of eradicating the venereal virus; and that it is useful only after a successful mercurial course, for repairing the strength and vigor of the system, "and where a thickened state of the ligament, or of the periosteum, remains, or where there are foul indolent ulcers;" (Pearson's Observations, &c. p. 10.) or in suspending the progress of some of the secondary symptoms for a short time, as ulcers of the tonsils, eruptions, and nodes. The decoction of the wood has been found more useful in cutaneous diseases, scrofulous affections of the membranes and ligaments, and in oœna. The guaiac itself is an efficacious remedy in chronic rheumatism and arthritic affections, as well as those diseases for which the decoction of the wood is usually given; and in every respect it may be regarded as the active ingredient of the wood. Its sensible effects are a grateful sense of warmth in the stomach, dryness of the mouth and thirst, with a copious flow of sweat, if the body be kept externally warm, or if the guaiac be united with opium and antimonials: but when the body is freely exposed, instead of producing diaphoresis, it augments considerably the secretion of urine. (Thomson's London Dispensatory, 318.)

Lignum vite in the stove grows freely in loam and peat. "Cuttings," Sweet observes, "are generally supposed to be difficult to root; but I find ripened cuttings, taken off at a joint, root readily, planted thin in a pot of sand, and plunged under a hand-glass in heat. When the cuttings are rooted, which will be easily perceived by their growing at the top, they should be potted off; when great care must be taken not to break off the young roots in taking the sand from them, as they are very small and easily broken. Pot them off in very small pots, and keep them under a close glass or a few days, till they have struck fresh root, when they must be exposed to the air by degrees." (Bot. Cœl. 63.)

584. *Zygophyllum*. From *ζυγος*, a pair, and *φυλλον*, a leaf; all the leaves grow in pairs. *Morgana*, which is the name of one species, is the Syrian name of the plant. These are plants of little ornament, generally with fleshy leaves, and flowers of a yellow or whitish yellow color.

|                                |                       |   |    |     |       |     |                      |                   |   |       |                        |
|--------------------------------|-----------------------|---|----|-----|-------|-----|----------------------|-------------------|---|-------|------------------------|
| 5876 <i>Morgsána W.</i>        | four-leaved           | ☐ | cu | 3   | my.s  | Y   | C. G. H.             | 1732.             | C | l.p   | Di.elt.t.116.f.141     |
| 5877 <i>sessilifolium W</i>    | sessile-leaved        | ☐ | cu | 3   | jl.au | Y   | C. G. H.             | 1713.             | C | l.p   | Bot. mag. 2184         |
| 5878 <i>coccineum L.</i>       | scarlet               | ☐ | or | 3   | ...   | S   | Egypt                | 1823.             | C | s.p   | Forsk. ic. t. 11       |
| 995. <i>FAGO'NIA. W.</i>       | <b>FAGONIA.</b>       |   |    |     |       |     | <i>Zygophyllae.</i>  | <i>Sp. 2—10.</i>  |   |       |                        |
| 5879 <i>crética W.</i>         | Cretan                | ☐ | cu | 1½  | jn.au | Y   | Candia               | 1739.             | S | lt.l  | Bot. mag. 241          |
| 5880 <i>arábica W.</i>         | Arabian               | ☐ | cu | 2   | jn.au | Y   | Arabia               | 1759.             | S | lt.l  |                        |
| 996. <i>TRÍ'BULUS. W.</i>      | <b>CALTROPS.</b>      |   |    |     |       |     | <i>Zygophyllae.</i>  | <i>Sp. 3—7.</i>   |   |       |                        |
| 5881 <i>máximus W.</i>         | great                 | ☐ | pr | 1½  | jn.jl | Y   | Jamaica              | 1728.             | S | al    | Jac. ic. 3. t. 462     |
| 5882 <i>terréstris W.</i>      | small                 | ☐ | cu | 1   | jn.jl | Y   | S. Europe            | 1568.             | S | co    | Lam. ill. t. 346. f. 1 |
| 5883 <i>cistoides W.</i>       | Cistus-like           | ☐ | pr | 1½  | jl    | Y   | S. Amer.             | 1752.             | C | lt.l  | Bot. reg. 791          |
| 997. <i>DICTAM'NUS. W.</i>     | <b>FRAXINELLA.</b>    |   |    |     |       |     | <i>Rutaceae.</i>     | <i>Sp. 2.</i>     |   |       |                        |
| 5884 <i>Fraxinella Link.</i>   | red                   | ☐ | or | 3   | my.jl | Pu  | Germany              | 1566.             | R | p.l   | Jac. aust. 5. t. 428   |
| 5885 <i>álbus L.</i>           | white                 | ☐ | or | 3   | my.jl | W   | Germany              | 1596.             | R | p.l   |                        |
| *998. <i>RU'TA. W.</i>         | <b>RUE.</b>           |   |    |     |       |     | <i>Rutaceae.</i>     | <i>Sp. 10—24.</i> |   |       |                        |
| 5886 <i>graveolens W.</i>      | common                | ☐ | m  | 3   | jn.s  | G.Y | S. Europe            | 1562.             | C | co    | Lam. ill. 345. t. 1    |
| 5887 <i>montána W.</i>         | mountain              | ☐ | un | 2   | aus   | G.Y | S. Europe            | 1565.             | C | co    | Jac. ic. 1. t. 76      |
| 5888 <i>chalepensis P. S.</i>  | brd.-lvd.-Afric.      | ☐ | un | 2   | jn.s  | G.Y | Africa               | 1732.             | C | r.m   |                        |
| 5889 <i>angustifolia P. S.</i> | narrow-leaved         | ☐ | un | 2   | jn.s  | G.Y | Africa               | 1732.             | C | r.m   | Bot. mag. 2311         |
| 5890 <i>pinnáta W.</i>         | winged-leaved         | ☐ | un | 2   | nr.au | G.Y | Canaries             | 1780.             | C | r.m   |                        |
| 5891 <i>pubéscens W. en.</i>   | pubescent             | ☐ | un | 1½  | my.au | G.Y | Spain                | 1816.             | C | co    |                        |
| 5892 <i>linifolia W.</i>       | Flax-leaved           | ☐ | un | 1½  | jn.s  | G.Y | Spain                | 1752.             | C | r.m   | Bot. rep. 565          |
| 5893 <i>patavina L.</i>        | Paduan                | ☐ | un | 1½  | jn.jl | G.Y | Italy                | 1819.             | C | r.m   | Michel. gen. t. 19     |
| 5894 <i>macrophylla Sol.</i>   | large-leaved          | ☐ | un | 3   | jl    | G.Y | Africa               | 1820.             | C | r.m   | Bot. mag. 2018         |
| 5895 <i>albiflora Hook.</i>    | white-flowered        | ☐ | pr | 2   | jl.au | W   | Nepal                | 1823.             | C | r.m   | Hook. ex. fl. 79       |
| 1999. <i>CRO'WEA. Sm.</i>      | <b>CROWEA.</b>        |   |    |     |       |     | <i>Rutaceae.</i>     | <i>Sp. 1.</i>     |   |       |                        |
| 5896 <i>saligna Sm.</i>        | Willow-leaved         | ☐ | or | 3   | jl.d  | Pu  | N. S. W.             | 1790.             | C | s.l.p | Bot. mag. 989          |
| 1000. <i>CO'DON. W.</i>        | <b>CODON.</b>         |   |    |     |       |     | <i>Sp. 1.</i>        |                   |   |       |                        |
| 5897 <i>Royéni W.</i>          | prickly               | ☐ | cu | ... | ...   | ... | C. G. H.             | 1801.             | S | lt.l  | Bot. rep. 325          |
| 1001. <i>GOMPHIA. W.</i>       | <b>BUTTON-FLOWER.</b> |   |    |     |       |     | <i>Ochnaceae.</i>    | <i>Sp. 2—24.</i>  |   |       |                        |
| 5898 <i>nitida W.</i>          | glossy-leaved         | ☐ | el | 4   | ...   | Y   | Jamaica              | 1803.             | C | s.l   | Ann. mus. t. 13        |
| 5899 <i>obtusifolia Dec.</i>   | obtus-leaved          | ☐ | el | 3   | ...   | Y   | Jamaica              | 1803.             | C | s.l   | Ann. mus. t. 3         |
| *1002. <i>QUAS'SIA. W.</i>     | <b>QUASSIA.</b>       |   |    |     |       |     | <i>Simarubaceae.</i> | <i>Sp. 2—4.</i>   |   |       |                        |
| 5900 <i>amára W.</i>           | bitter                | ☐ | m  | 20  | jn.jl | R   | Guiana               | 1790.             | C | p.l   | Bot. mag. 497          |
| 5901 <i>Simaruba W.</i>        | winged-leaved         | ☐ | or | 6   | ...   | R   | W. Indies            | 1799.             | C | p.l   | Aub. gu. 2. t. 331. 2  |



*History, Use, Propagation, Culture,*

995. *Fagonia.* So named by Tournefort, in honor of Mons. Fagon, archiater to Louis XIV, and a great patron of botany. Small prickly plants of no beauty.

996. *Tribulus.* From *tricus*, three, and *balas*, a point, in reference to the points of the capsules. *La Croix du Chenalier*, Fr. The term *Caltrops* is taken from the form of the fruit, which resembles the machines that were formerly cast in the way to obstruct an enemy's cavalry. It is composed of five nuts, united into a subglobular whorl armed with prickles.

T. *terrestris* is a native of most of the hot and temperate parts of the world: it is common about Kingston in Jamaica, where it is called Turkey *Wossom*, and planted in gardens for the sake of its flowers, which have an agreeable smell. The fowls are observed to feed much on them, which is thought both to fatten them and heighten their flavor. In the south of Europe, it is a common weed in arable land, and is troublesome to cattle by the prickly fruit running into their feet. All the species are pretty, though seldom cultivated.

997. *Dictamnus.* An ancient name of what is now supposed to be the *Origanum Dictamnus*. *Fraxinella*, Fr., in allusion to the remarkable similarity which exists between the leaves of the plant and *Fraxinus*, the ash. The whole plant, especially when gently rubbed, emits an odor like that of lemon-peel, but when bruised it has something of a balsamic scent. This fine scent is strongest in the pedicels of the flowers, which are covered with glands of a rusty red color, exuding a viscid juice or resin, which exhales in vapor, and in a dark place may be seen to take fire. The root is used in medicine, and, it is said, with much success, as an opiate and drastic.

998. *Ruta.* This name is nearly the same in all languages. *Purra*, in Greek; *Ruta*, in Latin; *ruiz*, in Runic; *rude*, *ruta*, or *rutu*, in Anglo-Saxon; *rutiza*, in Slavonic; in French and English, *rue*, &c. The root of the word is beyond the ingenuity of etymologists. R. *graveolens* was formerly in much repute as a medicinal plant, and also as emblematical of repentance and grace. In Shakespeare and other old authors, it is called herb of grace, as rosemary is called herb of remembrance. The leaves have a powerful unpleasant odor, and a hot, bitter, nauseous taste. In the recent state they will inflame and blister the skin; but much of this is dissipated in drying. Medicinally, rue is stimulant and antispasmodic, and is supposed to possess emmenagogue powers. It was in high estimation as early as the time of Hippocrates, who frequently ordered it in female complaints. In modern practice, it is chiefly used in hysteria and flatulent colic. (*Thomson's London Dispensatory*, 487.)

999. *Crowea.* So named by the president of the Linnean Society, after his friend James Crowe of Norwich, an excellent British botanist, whose collection of willows we believe still exists. This plant continues in flower the greater part of the year. An equal mixture of sandy loam and peat is the best soil for it, and care must be taken not to over water it, or it will look yellow and unhealthy. It likes an airy situation,

5876 Leaves conjugate stalked, Leaflets obovate, Stem shrubby  
 5877 Leaves conjugate sessile, Leaflets lanceolate oval rough at edge, Stem shrubby  
 5878 Leaves with double leaflets stalked, Leaflets cylindrical fleshy smooth, Petals acuminate

5879 Spiny, Leaflets lanceolate flat smooth  
 5880 Spiny, Leaflets linear convex

5881 Leaflets in 4 pairs: the outer larger, Pericarp 10-seeded blunt  
 5882 Leaflets in 6 pairs nearly equal, Seeds with four horns  
 5883 Leaflets in 8 pairs nearly equal

5884 Leafstalk obscurely edged  
 5885 Leafstalk scarcely edged at all

5886 Leaves supradecomposed, Leaflets oblong terminal obovate, Petals entire  
 5887 Leaves supradecomposed, Leaflets all linear, Petals entire  
 5888 Leaves supradecomposed oblong, Terminal leaflet obovate, Petals toothed  
 5889 Leaves supradecomposed, Lobes oblong cuneate nearly equal, Bractes very small ovate, Petals ciliate  
 5890 Leaves pinnate, Leaves lanceolate attenuate at base serrate crenate, Petals entire  
 5891 Leaves mostly ternate lanceolate pubescent: lateral very short, Cal. and ovaries villous  
 5892 Leaves simple lanceolate smooth, Filaments ciliated, Stem simple herbaceous  
 5893 Leaves in middle ternate linear narrowed at the base entire, Calyx villous  
 5894 Leaves pinnatifid, Segments oblong somewhat stalked: the terminal very large, Petals ciliated  
 5895 Leaves bipinnate with obovate retuse leaflets, Flowers 4-petalous 8-androus

5896 The only species

5897 The only species

5898 Leaves ovate-lanceolate acuminate serrated at end, Cal. as long as cor. Berries ovate  
 5899 Leaves lanceolate entire very obtuse at end, Branches of panicle short angular

5900 Flowers hermaphrodite, Leaves pinnate with an odd one, Leaflets opposite sessile, Stalk jointed winged  
 5901 Flowers monocious, Leaves abruptly pinnated, Leaflets alternate stalked, Stalk naked



and Miscellaneous Particulars.

and not to be crowded amongst other plants. Cuttings strike root freely in sand, under a bell-glass. (*Bot. Cult.* 173.)

1000. *Codon*. From *κωδων*, a bell. The corolla of this plant is globular, and formed like a bell in its upper part. A scarce Cape shrub, of which Thunberg speaks in terms of great delight upon finding a solitary individual growing by the side of a precipice in its native country.

1001. *Gomphia*. From *γομφες*, a club; but the application is not obvious. These are most beautiful tropical bushes, with long spikes of brilliant yellow flowers, and neat serrated shining entire leaves.

1002. *Quassia*. So named by Linnæus, in memory of Quassi, a negro slave of Surinam, who found and discovered to Rolander, a Swede, the wood of *Q. excelsa*, which he had employed with success as a secret remedy in the malignant endemic fevers of Surinam.

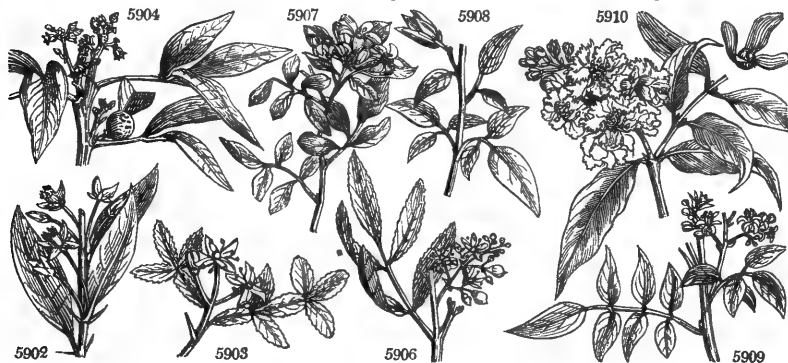
*Q. amara* is a lofty tree with strong branches, white light wood, their bark and leaves not unlike those of the common ash. The flowers are in terminal racemes, of a bright red. The root, wood, bark, and indeed all the parts of this tree are intensely bitter. Linnæus says that the wood of the root is a noble remedy, but that the wood of the small branches, which has since been substituted for it, is good for nothing. The wood of both is now thought to be less intensely bitter than the bark, which is at present regarded as the most powerful medicine. *Quassia* has no sensible odor; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance: it imparts its virtues more completely to watery than spirituous menstrea, and its infusions are not blackened by the addition of martial vitriol. It is said that considerable quantities of this drug are used by the brewers instead of hops.

*Q. Simaruba*, or mountain damson, as it is called in Jamaica, is a tall tree with alternate branches, and a smooth grey bark, maculated with yellow spots. The leaves are pinnate; the flowers are male and female on the same axillary panicles, yellowish white; the fruit consists of five smooth, ovate, black, one-celled berries, on a common receptacle, and open spontaneously when ripe.

The official part of this tree is the bark of the root; it is inodorous, and has a bitter, but not disagreeable taste. The pieces are of a very fibrous texture, rough, scaly, warty, and of a full yellow color in the inside when fresh. Alcohol and water take up all its active matters by simple maceration, at a temperature of sixty degrees of Fahrenheit better than at a boiling heat; it is tonic, and has been employed with advantage in intermittent fever, obstinate diarrhoea, dysentery, and dyspeptic affections. (*Thomson's London Dispensatory*, 462.)

The different species of *quassia* flower freely in the stove; are of easy culture in loam and peat, and are increased by ripened cuttings taken off at a joint, and not deprived of their leaves, and planted in a pot of sand under a hand-glass.

|                         |                     |                       |           |       |           |           |        |                             |
|-------------------------|---------------------|-----------------------|-----------|-------|-----------|-----------|--------|-----------------------------|
| *1003. LIMONIA. W.      | LIMONIA.            | <i>Aurantiaceæ.</i>   | Sp. 2—11. |       |           |           |        |                             |
| 5909 monophylla W.      | simple-leaved       | ☼ □ or                | 4         | ...   | W         | E. Indies | 1777.  | C r.m Rox. cor. 1. t. 83    |
| 5903 crenulata H. K.    | crenulate           | ☼ □ or                | 4         | ...   | W         | E. Indies | 1808.  | C r.m Rox. cor. 1. t. 86    |
| 1004. GLYCOSMIS. Corr.  | GLYCOSMIS.          | <i>Aurantiaceæ.</i>   | Sp. 3.    |       |           |           |        |                             |
| 5904 citrifolia Lindl.  | various-leaved      | ☼ □ fr                | 6         | ja.d  | W         | China     | ...    | C r.m Bot. mag. 2416        |
|                         | B. M.               |                       |           |       |           |           |        |                             |
| 5905 Limonia parviflora | five-leaved         | ☼ □ or                | 20        | jn.jl | W         | E. Indies | 1790.  | C r.m Rox. cor. 1. t. 84    |
| 5906 pentaphylla Corr.  | tree                | ☼ □ or                | 20        | my.au | W         | E. Indies | 1796.  | C r.m Rox. cor. 1. t. 85    |
|                         | tree                |                       |           |       |           |           |        |                             |
| 1005. MURRAYA W.        | MURRAYA.            | <i>Aurantiaceæ.</i>   | Sp. 2.    |       |           |           |        |                             |
| 5907 exotica W.         | Ash-leaved          | ☼ □ ft                | 8         | aus.  | W         | E. Indies | 1771.  | C lt.l Bot. reg. 434        |
| 5908 paniculata Wall.   | panicled            | ☼ □ ft                | 8         | jl    | W         | E. Indies | 1823.  | C r.m Hook. ex. fl. 134     |
| 1006. COOKIA W.         | WAMPRE-TREE.        | <i>Aurantiaceæ.</i>   | Sp. 1—2.  |       |           |           |        |                             |
| 5909 punctata W.        | Chinese             | ☼ □ fr                | 15        | ...   | W         | China     | 1795.  | C lt.l Jac. schœ. 1. t. 101 |
| 1007. GÆRTNERA W.       | GÆRTNERA.           | <i>Malpighiaceæ.</i>  | Sp. 1—3.  |       |           |           |        |                             |
| 5910 racemosa W.        | clustered           | ☼ □ or                | 15        | mr.ap | W         | E. Indies | 1796.  | C pl Bot. rep. 600          |
| 1008. MONOTROPA W.      | YELLOW BIRD'S-NEST. | <i>Monotropeæ.</i>    | Sp. 2—4.  |       |           |           |        |                             |
| 5911 uniflora Mich.     | one-flowered        | ☼ Δ cu                | ↓         | W     | N. Amer.  | 1824.     | S s.p  | Hook. ex. fl. 85            |
| 5912 Hypopitys W.       | common              | ☼ Δ cu                | ↓         | jn.jl | W         | Britain   | woods. | S s.p Eng. bot. 69          |
| 1009. DIONÆA W.         | DIONÆA.             | <i>Droseraceæ.</i>    | Sp. 1.    |       |           |           |        |                             |
| 5913 Muscipula W.       | Venus's Flytrap     | ☼ Δ cu                | ↓         | jl.au | W         | Carolina  | 1768.  | L s.p Bot. mag. 785         |
| 1010. GARUGA Rox.       | GARUGA.             | <i>Terebinthaceæ.</i> | Sp. 1.    |       |           |           |        |                             |
| 5914 pinnata H. K.      | winged-leaved       | ☼ □ or                | 20        | ...   | E. Indies | 1808.     | S pl   | Rox. cor. 3. t. 203         |
| *1011. KALMIA W.        | KALMIA.             | <i>Rhodoraceæ.</i>    | Sp. 4—5.  |       |           |           |        |                             |
| 5915 latifolia W.       | Calico-bush         | ☼ or                  | 8         | my.jl | R         | N. Amer.  | 1734.  | L s.p Bot. mag. 175         |
| 5916 angustifolia W.    | Sheep-Laurel        | ☼ or                  | 5         | my.jl | R         | N. Amer.  | 1736.  | L s.p Bot. mag. 331         |
| β rubra                 | red-flowered        | ☼ or                  | 5         | my.jl | R         | N. Amer.  | .....  | L s.p Bot. cab. 502         |
| 5917 glauca W.          | glaucous            | ☼ or                  | 2         | ap.my | Pu        | N. Amer.  | 1767.  | L s.p Bot. mag. 177         |
| β rosmarinifolia Ph.    | Rosemary-leav.      | ☼ or                  | 2         | ap.my | R         | N. Amer.  | 1812.  | L s.p Bot. mag. 177         |
| 5918 hirsuta W.         | hairy               | ☼ □ or                | 1½        | aus.  | R         | N. Amer.  | 1786.  | L s.p Bot. mag. 138         |



History, Use, Propagation, Culture.

1003. *Limonia*. The general denomination of the citron in Arabia is *lymona*, whence limon and lemon, to which fruits this genus is nearly related. L. monophylla is a small thorny tree, with a berry the size of a small nutmeg, very like a lime, and called by the Hindoos wild lime. Ripened cuttings of the species root in sand, under a hand-glass plunged in a moist heat.

1004. *Glycosmis*. From *glykus*, sweet, and *osmōn*, smell; all the parts of the plant, leaves, flowers, fruit, having an agreeable perfume. G. pentaphylla is an elegant fragrant shrub, very common in most uncultivated lands in Coromandel, but chiefly under large trees, where birds have dropped the seeds. It flowers all the year there. The whole plant, when drying in the shade, diffuses a pleasant permanent scent; the flowers are exquisitely fragrant; birds eat the berries greedily.

G. arborea has also very fragrant flowers.

G. citrifolia is a beautiful stove plant, not, indeed, remarkable for the shewiness of its flowers, but most valuable on account of its fruit, which is about the size of a hazel nut, very juicy and sweet, and produced in profusion in our stoves.

1005. *Murraya*. So named by Koenig, in honor of John Andrew Murray, knight of the Swedish order of Vasa, professor of medicine and botany at Gottingen, and an editor of Linnæus's *Systema Vegetabilium*. The species are trees of the smallest size, with dotted pinnated leaves and fragrant white flowers, quite like those of an orange.

1006. *Cookia*. Named by Sonnerat in honor of our celebrated Captain Cook. The fruit is much esteemed in China, where it arrives at the size of a pigeon's egg, growing in bunches, and it is called Wampee. It grows well in light loam, and ripened cuttings with their leaves on root in sand in a moist heat.

1007. *Gærtnera*. In memory of Joseph Gærtner, M. D. F. R. S. Acad. Imp. Petrop. Memb., author of a most excellent work on the fruits and seeds of plants, Stutt. 1788. It is a large climbing woody shrub, cultivated all over the coast of Coromandel, on account of the beauty and fragrance of its flowers. In the stove it requires a good deal of room to flower freely. It is easily increased in sand under a hand-glass. The genus is now referred to the natural order of Malpighiaceæ, among which it is remarkable for its white flowers.

1008. *Monotropa*. From *monos*, one, and *tropos*, to turn: its flowers are all turned one way. It is parasitical and without leaves, of a pale uniform hue, having a simple scaly stem; allied in habit to Orobanche, to some of the Orchis tribe in its peculiarity of scent, which is like that of primrose, or peans in blossom. The root is fibrous, much branched, and somewhat creeping, growing among dead leaves or in half decaying vegetable mould. Sir J. E. Smith says, he could never find it truly parasitical. In Sweden, Linnæus informs us, it is given dry to sheep affected with a cough.

Its natural affinity, which is certainly to the heath, Pyrola, and similar plants, is very singular and unexpected.

5902 Leaves simple, Spines solitary

5903 Leaves pinnate, Leaflets oblong lanceolate crenulate, Spines solitary

5904 Leaves simple and 3-leaved, Leaflets ovate-oblong acuminate, Peduncles axillary shorter than stalk

5905 Leaves pinnate in 2 pairs, Leaflets elliptical entire

5906 Leaves pinnate in 2 pairs, Leaflets oblong obsolete serrate

5907 Leaflets ovate, Peduncles many-fl. corymbose

5908 Leaflets ovate-acuminate, Pedunc. axill. and solitary

5909 Leaves ovate-lanceolate acuminate nearly equal at base

5910 Leaves pinnated, Leaflets ovate-lanceolate

5911 Large cernuous, Scales close together

5912 Flowers smooth lateral octandrous

5913 The only species

5914 The only species

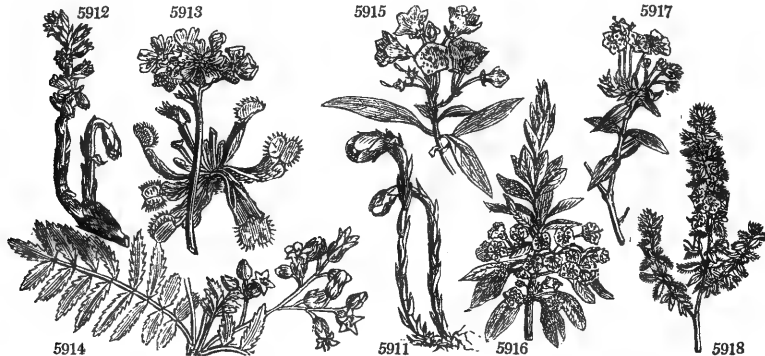
5915 Leaves ovate-elliptical ternate and scattered, Corymbs terminal

5916 Leaves oblong, Corymbs axillary, Bractes linear-lanceolate, Pedunc. and calyx downy with glands

5917 Leaves opposite oblong polished beneath glaucous revolute at edge, Branches 2-edged

β Leaves linear more revolute green beneath

5918 Leaves alternate and opposite ovate-lanceolate and branches hairy, Pedunc. axill. 1-flowered



and Miscellaneous Particulars.

1009. *Dionea*. One of the names of Venus. It is a singular plant in respect of its leaves, which are of an anomalous form, and have a singular motion by which they catch insects, whence the specific name, *muscipula*, a fly-trap. The root is scaly, almost like a bulb, and not prolific in fibres. The leaves have the petiole winged as in the orange; the extreme part, or proper leaf, is the part that operates as a trap. Linnaeus affirms, that when the entrapped insect ceases to struggle and is quiet, the leaf opens and permits it to escape. This does not agree with Ellis's account, for he affirms that the lobes never open again, so long as the animal continues there. He thinks it probable, that a sweet liquor discharged by the red glands tempts the insect to its destruction. He adds, that if a straw or a pin be introduced between the lobes, they will grasp it as fast as if it were an insect. The flowers grow in a corymb resembling an umbel. It is rather difficult to preserve. Sweet finds it "thrive best when planted in a pot of Sphagnum with a little mould at the bottom of the pot, and placed in a pan of water." Shepherd, of the Liverpool botanic garden, finds that leaves of *Dionea* so placed will root and form new plants. In all cases it is necessary that an abundance of fresh cool air should be supplied to the plants.

1010. *Garuga*. *Garugo* is the Telinga name of the plant, which is rare in our stoves, although not of recent introduction.

1011. *Kalmia*. So named by Linnæus in honor of Peter Kalm, professor at Abo in Sweden, author of *Travels in America*. The species are beautiful peat earth shrubs, deserving a place in every American ground. *K. latifolia* is a native of Carolina and other parts of North America, of Pennsylvania, New York, &c. but only in particular places; on rocks, hanging over rivulets, and on the sides of barren hills on the most sterile soil. The noxious qualities of this elegant shrub lessen that esteem which its beauty claims; for though deer feed on its green leaves with impunity, yet when cattle and sheep, by severe winters deprived of better feed, eat the leaves, many die annually. It blossoms in May, and continues in flower a great part of the summer. (*Catesby*.) The flesh of the American partridge is said to be poisonous in the winter from its feeding upon the buds of this plant. But Wilson denies this statement. The Indians use a decoction of the leaves for purposes of self-destruction. A few drops of the tincture poured upon the body of a large and vigorous rattle-snake, killed the reptile in a short time. An ointment made of the powdered leaves has been used with much success in *tenia capitis*, and some other cutaneous affections. (See *Bigelow's Medical Botany*.)

The wood, being very hard, is very useful in smaller works. The Indians are said to make small dishes, spoons, and other domestic utensils out of the roots: these are large, of a soft texture, and easily wrought when green; but when dry become hard and smooth. (*Curtis*.)

*K. angustifolia* is also reputed poisonous to sheep and cattle.

|                               |                  |   |     |                     |             |                     |            |                      |
|-------------------------------|------------------|---|-----|---------------------|-------------|---------------------|------------|----------------------|
| 1012. LE'DUM. W.              | LABRADOR- EA.    |   |     | <i>Rhodoraceae.</i> | Sp. 3.      |                     |            |                      |
| 5919 paléstre W.              | marsh            | ♂ | or  | 2                   | ap.my W     | Europe 1762.        | L' s p     | Bot. cab. 560        |
| ♂ <i>decumbens</i> W.         | dwarf            | ♂ | or  | ♂                   | ap.my W     | Huds. Bay 1762.     | L s p      |                      |
| 5920 latifólium W.            | broad-leaved     | ♂ | or  | 3                   | ap.my W     | N. Amer. 1763.      | L s p      | Bot. cab. 534        |
| 5921 buxifólium W.            | box-leaved       | ♂ | or  | ♂                   | ap.my W     | N. Amer. 1736.      | L s p      | Bot. reg. 531        |
| <i>Ammysine buxifolia</i> Ph. |                  |   |     |                     |             |                     |            |                      |
| 1013. RHO'DORA. W.            | RHOODRA          |   |     |                     |             | <i>Rhodoraceae.</i> | Sp. 1.     |                      |
| 5922 canadénsis W.            | Canadian         | ♂ | or  | 3                   | ap.my Pu    | N. Amer. 1767.      | L p l      | Bot. mag. 474        |
| †1014. RHODODEN'DRON. W.      | RHODODENDRON.    |   |     |                     |             | <i>Rhodoraceae.</i> | Sp. 15—23. |                      |
| 5923 ferrugineum W.           | rusty-leaved     | ♂ | or  | 1½                  | my.jl S     | Switzerl. 1752.     | L s p      | Bot. cab. 65         |
| 5924 hirsútum W.              | hairy-leaved     | ♂ | or  | 1½                  | my.jl S     | Switzerl. 1656.     | L s p      | Bot. mag. 1853       |
| 5925 dauricum W.              | Daurian          | ♂ | or  | 3                   | mr.d Pu     | Siberia 1780.       | L s p      | Bot. mag. 636        |
| ♂ <i>atrovirens</i>           | dark-leaved      | ♂ | or  | 3                   | f.ap Pu     | Siberia ...         | L s p      | Bot. reg. 194        |
| 5926 camtscháticum W.         | Kamtschatka      | ♂ | or  | 2                   | ... Pu      | Kamtsch. 1802.      | L s p      | Pall. ross. l. t. 33 |
| 5927 chamaecísticus W.        | Thyme-leaved     | ♂ | or  | ♂                   | my.jn Pa.pu | Austria 1786.       | C s p      | Bot. mag. 488        |
| 5928 caucásicum W.            | Caucasian        | ♂ | or  | 1                   | au Pu       | Caucasus 1803.      | L s p      | Bot. mag. 1145       |
| 5929 chrysanthum W.           | yellow           | ♂ | or  | ♂                   | in.jl Y     | Siberia 1796.       | L s p      | Par. lond. 80        |
| 5930 punctátum W.             | dotted-leaved    | ♂ | or  | 4                   | in.au Pk    | N. Amer. 1786.      | L s p      | Bot. rep. 36         |
| ♂ <i>májor</i>                | large dotted-ld. | ♂ | or  | 6                   | in.au Pk    | N. Amer. 1786.      | L s p      | Bot. reg. 37         |
| 5931 máximum W.               | large            | ♂ | spl | 20                  | in.au Pk    | N. Amer. 1736.      | L s p      | Bot. mag. 951        |
| ♂ <i>álbum</i> Ph.            | white            | ♂ | or  | 20                  | in.au Pk    | N. Amer. 1811.      | L s p      |                      |
| ♂ <i>purpúreum</i> Ph.        | tree             | ♂ | spl | 25                  | in.au Pu    | N. Amer. ...        | L s p      |                      |
| 5932 catawbiénsis Ph.         | Catawba          | ♂ | or  | 4                   | in.au Pu    | N. Amer. 1809.      | L s p      | Bot. mag. 1671       |
| 5933 pónticum W.              | common           | ♂ | spl | 12                  | my.in Pu    | Gibraltar 1763.     | L s p      | Bot. mag. 650        |
| ♂ <i>obtusum</i>              | obtus.           | ♂ | spl | 12                  | my.jn Pu    | Gibraltar 1763.     | L s p      | Dend. brit. 162      |
| ♂ <i>myrtifólium</i>          | myrtle-leaved    | ♂ | spl | 12                  | my.jn Pu    | Gibraltar 1763.     | L s p      | Bot. cab. 908        |
| 5934 arbóreum Sm.             | tree             | ♂ | spl | 20                  | ... Pu      | Nepal 1820.         | L s p      | Ex. bot. t. 6        |
| 5935 azaloides Hort.          | Thompson's hy.   | ♂ | spl | 3                   | in.au Pk    | .....               | L s p      | Bot. rep. 379        |
| 5936 híbridum B. Reg.         | Herbert's hybr.  | ♂ | spl | 3                   | in.au Pk    | .....               | L s p      | Bot. reg. 195        |
| 1015. EPIGE'Æ. W.             | EPIGEÆ.          |   |     |                     |             | <i>Rhodoraceae.</i> | Sp. 1.     |                      |
| 5937 répens W.                | creeping         | ♂ | pr  | ♂                   | il.au W     | N. Amer. 1736.      | L s p      | Bot. reg. 201        |
| †*1016. ANDRO'MEDA. W.        | ANDROMEDA.       |   |     |                     |             | <i>Ericæe.</i>      | Sp. 26—39. |                      |
| §5938 hypnóides W.            | Moss-like        | ♂ | pr  | ♂                   | in.jl W     | Lapland 1798.       | L s p      | Fl. dan. 10          |
| §5939 mariána W.              | Maryland         | ♂ | or  | 2                   | in.jl W     | N. Amer. 1736.      | L s p      | Pl. m. t. 448. f. 6  |
| ♂ <i>ováis</i>                | oval-leaved      | ♂ | or  | 2                   | in.jl W     | N. Amer. 1736.      | L s p      | Bot. mag. 1579       |
| ♂ <i>oblonga</i>              | oblong-leaved    | ♂ | or  | 2                   | in.jl W     | N. Amer. 1736.      | L s p      |                      |
| §5940 ferruginea Ph.          | rusty-leaved     | ♂ | or  | 3                   | in.jl W     | N. Amer. 1774.      | L s p      | Vent. malm. 80       |
| §5941 rígida Ph.              | rigid            | ♂ | or  | 20                  | ap.my W     | N. Amer. 1784.      | L s p      | Bot. cab. 430        |
| 5942 jamaicénsis W.           | Jamaica          | ♂ | or  | 6                   | ... W       | Jamaica 1793.       | L s p      | Bot. cab. 1873       |
| §5943 speciósa Ph.            | large-flowered   | ♂ | or  | 3                   | ins W       | Carolina 1800.      | L s p      | Bot. cab. 551        |
| ♂ <i>nitida</i>               | smooth-leaved    | ♂ | or  | 3                   | ins W       | Carolina 1800.      | L s p      | Bot. mag. 970        |
| ♂ <i>puberulénta</i>          | mealy-leaved     | ♂ | or  | 3                   | ins W       | Carolina 1800.      | L s p      | Bot. mag. 667        |



History, Use, Propagation, Culture.

1012. *Ledum*. *Ληδον* was the name applied by the ancients to the plant producing the substance called Ladanum, and now known by the name of *Cistus Ledum*. In foliage the *Ledum* of modern botanists agrees with the plant of the ancients. Pretty American plants, very commonly cultivated for the beauty of their flowers.

1013. *Rhodora*. A name of the same meaning as *Rhododendron*. It is all known in shrubbery as remarkable for its purple flowers appearing on the naked shoots before the leaves come out.

1014. *Rhododendron*. From *ῥόδον*, a rose, and *δένδρον*, a tree, because the flowers resemble in color bunches of roses. Some of the species form beautiful and even splendid ornaments to the shrubbery or American ground; and all of them are interesting and deserving of culture.

*R. ferrugineum* and *hirsutum* abound on the high mountains of Switzerland, Austria, Savoy, Piedmont, Dauphiné, and terminate ligneous vegetation as we ascend, and furnish the shepherds with their only fuel. The grouse are said to eat them; and the white hares sometimes gnaw the bark in hard weather; but animals do not seem to feed on them, except from want of other food; and they are suspected of being in a small degree poisonous. The galls of some small insect are frequent on them.

*R. dauricum* is almost peculiar to the subalpine tracts of eastern Asia; it appears first at the mouth of the river Janisca, and beyond that, especially from the river Uda, in the pine woods, it begins to be common; but about Baikal it is most abundant, and extends through the deserts of the Mongols to China and Tibet: at the Lena it becomes more rare, and beyond that it is much lower, with a more slender flower and narrower leaves. (*Pallas*.)

*R. Camtschaticum* is an elegant evergreen under shrub; it grows abundantly in the peninsula of Kamtschatka and *Bépring's* island in muddy places on the mountains.

*R. caucasicum* is a native of the higher rocks of Caucasus, near the perpetual ice, in the highest range of shrubby vegetation, with *Myrtillus* and *Vitis idæa*.

*R. chrysanthum* is a beautiful evergreen, resembling *R. dauricum*, and like it is a native of the alpine regions of Siberia, where it is a noted remedy for rheumatism. It is cultivated in this country with the

5919 Leaves linear revolute at edge beneath downy

5920 Leaves oblong revolute at edge beneath downy, Flowers about pentandrous

5921 Leaves ovate oblong flat smooth

5922 The only species

5923 Leaves smooth leprous beneath, Corolla funnel-shaped

5924 Leaves elliptical acute ciliated dotted beneath, Corolla funnel-shaped

5925 Leaves smooth dotted naked, Corolla rotate

5926 Leaves ciliate nerved, Corollas rotate, Calyxes leafy

5927 Leaves elliptical acute glandular ciliated naked, Cor. rotate, Petals obtuse

5928 Leaves scabrous rusty with down beneath, Umb. terminal, Cor. rotate, Petals roundish

5929 Leaves oblong scabrous beneath discolored smooth, Umbels terminal, Cor. rotate, Pet. obovate irregular

5930 Leaves oblong smooth beneath dotted with resin, Umbels terminal, Cor. funnel-formed

5931 Leaves oblong glabrous discolored beneath, Umb. terminal, Cor. rotate, Petals roundish

♂ Leaves cuneate-lanceolate flat

♀ Leaves larger oblong-elliptical flattish

5932 Leaves short oval rounded at each end smooth discolored beneath, Sepals elong. obl. Cor. campanulate

5933 Leaves oblong smooth : of the same color on both sides, Corymbs terminal, Cor. campan. rotate

5934 Leaves lanceolate acute silvery beneath, Flowers clustered campanulate, Calyxes woolly

5935 Leaves thin rugose lanceolate smooth subdeciduous

5936 Leaves oval coriaceous glaucous beneath

5937 Leaves cordate ovate entire, Cor. cylindrical

5938 Leaves imbricated subulate smooth, Pedunc. solitary terminal, Cor. globose-campanulate

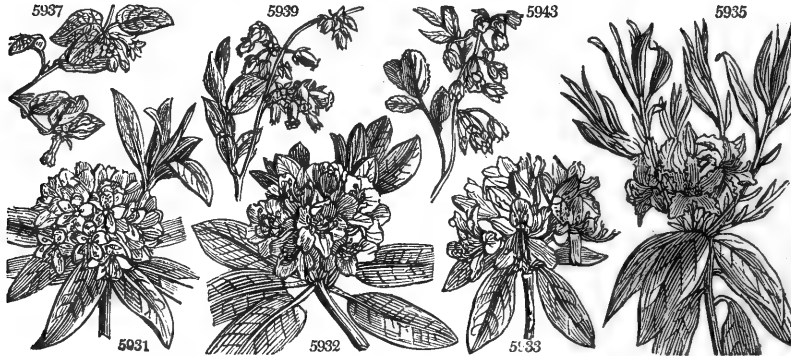
5939 Pedunc. aggregate on the branches, Cor. ovate cylindrical, Leaves oblong-ovate entire deciduous

5940 Pedunc. aggregate axillary, Cor. globose, Leaves ellipt. entire beneath mealy scaly

5941 Arborescent, Lvs. coriaceous cuneate-lanc. acute entire with downy scales beneath, Fl.-stalks scurfy rusty

5942 Pedunc. aggregate, Cor. ovate transparent, Lvs. altern. broad lanc. obtuse entire cinereous beneath

5943 Pedunc. aggregate, Cor. globose campanulate, Leaves oval subserrate shining



and Miscellaneous Particulars.

greatest difficulty. The leaves have an austere, astringent, bitterish taste, and are stimulant, narcotic, and diaphoretic. When taken, they first increase the arterial action and the heat of the body, producing diaphoresis; and these effects, according to Dr. Home's observations, are followed by a proportional diminution of excitement, the pulse in one case having been reduced thirty-eight beats. It has not been much used in this country. (*Thomson's London Dispensatory*, 477.)

R. maximum grows on rocks and in barren soils, where it continues flowering great part of the year, and is very ornamental.

R. ponticum grows in wet places in beech and alder coppices, on rocky mountains, but not on high alps.

Rhododendrons are commonly propagated by layers, but some sorts produce seeds, and seeds of others are obtained from America. The seeds "should be sown early in spring, in flat pans or pots of peat soil, and very thinly covered: they may then be set in a close frame, or at the front of a hothouse, till they come up, watering them slightly when dry; as soon as they are high enough to be laid hold of, they must be pricked out in other pots, which should be placed in a shady situation; they may stand in a frame a few days till they have taken fresh root, but they must not remain long, or it will spoil them. The small kinds may be propagated freely by cuttings, taken off in the young wood, and planted in sand, under a bell-glass." (*Bot. Cult.* 815.)

1015. *Epigaea*. From *epi*, upon, and *gē*, the earth. The stem grows flat upon the ground, and throws out roots all the length of its branches. A very pretty little American plant with delicate white flowers.

1016. *Andromeda*. Named in allusion to the virgin Andromeda, who, like this plant, was confined in a marsh, and surrounded by monsters of the waters. For an ingenious explanation of this application, see Linnaeus's *Flora Lapponica*. The species are neat little plants, and some of them considerable shrubs and trees. They all require peat earth, and a moist situation; for those of them which do not grow naturally in bogs are mostly inhabitants of alpine regions, where the air is always more moist than on plains.

A. hypnoides has the appearance of a moss, spreads over great tracts of ground in the Lapland alps, and adorns them with its beautiful red flowers. The *Andromeda* is generally increased by layers, but may be also raised from seeds. "These must be very thinly covered, as they are small, and would rot if covered deep:



|         |                             |                   |    |    |    |       |      |                   |           |    |       |                       |
|---------|-----------------------------|-------------------|----|----|----|-------|------|-------------------|-----------|----|-------|-----------------------|
| 5944    | <i>polifolia</i> W.         | marsh             | st | or | 1  | my.s  | Pk   | .....             | ...       | L  | s.p   | Eng. bot. 35          |
|         | <i>a. latifolia</i> .       | broad-leaved      | st | or | 1  | my.s  | Pk   | N. Amer.          | ...       | L  | s.p   |                       |
|         | <i>β media</i> .            | Wild Rosemary     | st | or | 1  | my.s  | W    | Britain           | tur.bo.   | L  | s.p   | Eng. bot. 713         |
|         | <i>γ angustifolia</i>       | narrow-leaved     | st | or | 1  | my.s  | Pk   | N. Amer.          | ...       | L  | s.p   | P. r. 2. t. 70. f. 13 |
|         | <i>A. glaucophylla</i> Lk.  |                   |    |    |    |       |      |                   |           |    |       |                       |
|         | <i>δ subulata</i>           | awl-leaved        | st | or | 1  | my.s  | Pk   | .....             | ...       | L  | s.p   |                       |
| 5945    | <i>japonica</i> W.          | Japan             | st | or | 3  | ...   | W    | Japan             | 1806.     | L  | s.p   | Th. jap. t. 22        |
| 5946    | <i>paniculata</i> Ph.       | panicled          | st | or | 3  | my.jn | W    | N. Amer.          | 1748.     | L  | s.p   | Dend. brit. 37        |
| 5947    | <i>salicifolia</i> Wats.    | willow-leaved     | st | or | 4  | jn    | W    | N. Amer.          | ...       | L  | s.p   | Dend. brit. 38        |
| 5948    | <i>spicata</i> Wats.        | spiked            | st | or | 2  | jn    | W    | N. Amer.          | ...       | L  | s.p   | Dend. brit. 36        |
| 5949    | <i>multiflora</i> Wats.     | many-flowered     | st | or | 2  | jl    | W    | N. Amer.          | ...       | L  | s.p   | Dend. brit. 128       |
| 5950    | <i>crispa</i> Link.         | curled            | st | or | 3  | ...   | W    | N. Amer.          | 1824.     | L  | s.p   |                       |
| 5951    | <i>frondosa</i> Ph.         | bristly-flowered  | st | or | 3  | my.jn | W    | N. Amer.          | 1806.     | L  | s.p   |                       |
| 5952    | <i>arborea</i> W.           | Sorrel-tree       | st | or | 40 | jl.s  | W    | N. Amer.          | 1752.     | S  | s.p   | Bot. mag. 905         |
| 5953    | <i>racemosa</i> W.          | branching         | st | or | 3  | jl    | W    | N. Amer.          | 1736.     | S  | s.p   |                       |
| 5954    | <i>Catesbe'i</i> W.         | Catesby's         | st | or | 2  | jn.jl | W    | N. Amer.          | 1793.     | Sk | s.p   | Bot. mag. 1955        |
|         | <i>A. spinulosa</i> Psh.    |                   |    |    |    |       |      |                   |           |    |       |                       |
| 5955    | <i>axillaris</i> W.         | axil-flowering    | st | or | 1  | my.au | W    | N. Amer.          | 1765.     | Sk | s.p   | Duhamel. 1. 39        |
|         | <i>β longifolia</i>         | long-leaved       | st | or | 1  | my.au | W    | N. Amer.          | ...       | Sk | s.p   | Bot. mag. 2357        |
| 5956    | <i>coriacea</i> W.          | thick-leaved      | st | or | 2  | jn.au | Pk   | N. Amer.          | 1765.     | L  | s.p   | Bot. mag. 1095        |
|         | <i>A. nitida</i> Psh.       |                   |    |    |    |       |      |                   |           |    |       |                       |
|         | <i>β rubra</i> Lodd.        | red-flowered      | st | or | 3  | jn.au | R    | N. Amer.          | ...       |    |       | Bot. cab. 672         |
| 5957    | <i>acuminata</i> W.         | acute-leaved      | st | or | 3  | au    | W    | N. Amer.          | 1765.     | L  | s.p   | Ex. bot. 2. t. 89     |
|         | <i>A. lucida</i> Jacq.      | Ripe or stem-w.   |    |    |    |       |      |                   |           |    |       |                       |
|         | <i>A. populifolia</i> Lam.  |                   |    |    |    |       |      |                   |           |    |       |                       |
|         | <i>A. reticulata</i> Walt.  |                   |    |    |    |       |      |                   |           |    |       |                       |
|         | <i>A. laurina</i> Mich.     |                   |    |    |    |       |      |                   |           |    |       |                       |
| 5958    | <i>floribunda</i> Ph.       | many-flowered     | st | or | 3  | my.jn | W    | N. Amer.          | 1812.     | L  | s.p   | Bot. mag. 1566        |
| 5959    | <i>calyculata</i> Ph.       | Box-leaved        | st | or | 1  | f.ap  | W    | N. Amer.          | 1748.     | L  | s.p   | P. r. 2. t. 72. f. 1  |
|         | <i>α ventricosa</i>         | globe-flowered    | st | or | 1  | f.ap  | W    | Russia.           | 1748.     | L  | s.p   | Bot. mag. 1286        |
|         | <i>β latifolia</i>          | broad-leaved      | st | or | 1  | f.ap  | W    | Newfoun.          | 1748.     | L  | s.p   | Bot. cab. 530         |
|         | <i>γ nana</i>               | dwarf             | st | or | 3  | f.ap  | W    | .....             | ...       | L  | s.p   | Bot. cab. 862         |
| 5960    | <i>angustifolia</i> Ph.     | narrow-leaved     | st | or | 3  | f.ap  | W    | N. Amer.          | 1748.     | L  | s.p   |                       |
| 1017.   | ENKIANTHUS.                 | B. M. ENKIANTHUS. |    |    |    |       |      | <i>Ericaceae.</i> | Sp. 1?    |    |       |                       |
| 5961    | <i>quinquefolia</i> B. M.   | Canton            | st | or | 3  | f.s   | Pk   | China             | 1812.     | C  | s.l.p | Bot. mag. 1649        |
| †1018.  | GAULTHERIA.                 | W. GAULTHERIA.    |    |    |    |       |      | <i>Ericaceae.</i> | Sp. 1—3.  |    |       |                       |
| 5962    | <i>procumbens</i> W.        | trailing          | st | or | 1  | jl.s  | W    | N. Amer.          | 1762.     | Sk | s.p   | Bot. rep. 116         |
| †*1019. | ARBUTUS. W.                 | STRAWBERRY-TREE.  |    |    |    |       |      | <i>Ericaceae.</i> | Sp. 8—15. |    |       |                       |
| 5963    | <i>Unedo</i> W.             | common            | st | or | 10 | s.d   | W    | Ireland           | ir. r.    | S  | co    | Eng. bot. 2377        |
|         | <i>β rubra</i>              | red-flowered      | st | or | 10 | s.d   | Pk   | .....             | ...       | L  | co    | Bot. cab. 123         |
|         | <i>γ plena</i>              | double-flowered   | st | or | 5  | s.d   | W.g. | .....             | ...       | L  | co    |                       |
|         | <i>δ integrifolia</i>       | entire-leaved     | st | or | 6  | s.d   | Pk   | .....             | ...       | L  | co    | Bot. mag. 2319        |
| 5964    | <i>canariensis</i> Lam.     | long-leaved       | st | or | 8  | my.jn | W.g. | Canaries          | 1796.     | L  | co    | Bot. mag. 1577        |
| 5965    | <i>Andrache</i> W.          | oriental          | st | or | 6  | mr.ap | W.g. | Levant            | 1724.     | G  | p.l   | Bot. reg. 113         |
| 5966    | <i>alpina</i> W.            | black-berried     | st | or | 1  | ap.my | W.g. | Scotland          | sc. mo.   | Sk | s.p   | Eng. bot. 2030        |
| 5967    | <i>Uva-ur'si</i> W.         | Bear-berry        | st | or | 1  | ap.jn | F    | Britain           | al.hea.   | L  | s.p   | Eng. bot. 714         |
| 5968    | <i>phillyreifolia</i> P. S. | Phyllirea-leav.   | st | or | 1  | ...   | ...  | Peru              | 1812.     | C  | s.p   |                       |
| 5969    | <i>Andrachnoides</i> Link.  | hybrid            | st | or | 8  | f.my  | W.g. | .....             | ...       | C  | s.p   | Bot. reg. 619         |
|         | <i>A. hybrida</i> B. R.     |                   |    |    |    |       |      |                   |           |    |       |                       |
| 5970    | <i>serratifolia</i> Nott.   | serrate           | st | or | 6  | f.mr  | W.g. | .....             | ...       | L  | s.p   | Bot. cab. 580         |



History, Use, Propagation, Culture,

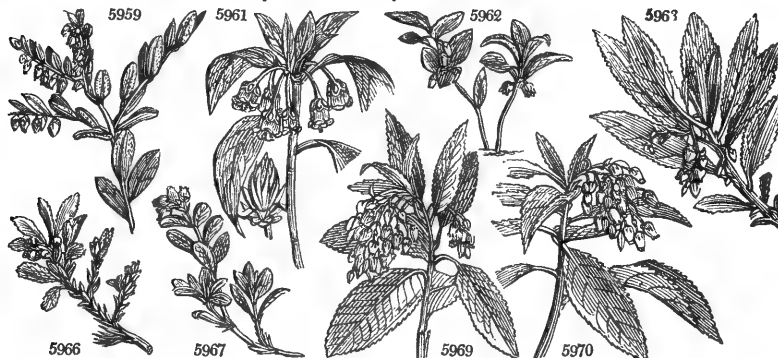
when about an inch high they should be planted out thinly in other pots, where they will grow strong, and, when large enough, may be planted in the open ground. Spring is the best time to plant them out, as the frost and worms are apt to throw them out of the ground in winter, if planted out in autumn. (*Bot. Cult.* 278.)

1017. *Enkianthus*. From *εγκος*, a pregnant woman, a name given to the plant by Loureiro, because the great colored buds appear as if pregnant with the flowers which afterwards appear. This beautiful genus, as Sweet observes, has generally been considered difficult to propagate: the difficulty is now removed, as ripened cuttings root readily planted in pots of sand, and placed under a hand-glass, without bottom heat. The best soil for it is an equal mixture of sandy loam and peat, and care must be taken not to overwater it when not in a growing state: when it gets pretty large it is one of the most ornamental plants for the greenhouse or conservatory. (*Bot. Cult.* 186.) There are several species confounded under the common name *Enkianthus quinquefolia*.

1018. *Gaultheria*. Named after one Gaulthier, a French physician at Quebec. A small evergreen plant, cultivated in the American border for the sake of its ornamental bright scarlet berries. The species may be increased by dividing at the root, by suckers, layers, or from seeds.

1019. *Arbutus*. An ancient name of this plant, said to be traceable to the Celtic *ar doise*, austere bush, in allusion to the roughness of the fruit. In like manner *Unedo* is said by Pliny to have been so called from *unum edo*, I eat one, because, being found disagreeable, no one could eat a second. *L'Arbousier*, Fr., *Landbeere*,

- 5944 Pedunc. aggregate, Cor. ovate, Leaves alternate lanceolate revolute  
 α Leaves oblong  
 β Leaves lanceolate  
 γ Leaves linear-lanceolate  
 δ Leaves subulate
- 5945 Racemes 1-sided paniced terminal, Leaves lanceolate obovate acute serrulate at end  
 5946 Racemes terminal paniced, Cor. roundish, Leaves ovate entire  
 5947 Raceme compound, Leaves lanceolate subserrulate hairy shining  
 5948 Spikes terminal 1-sided, Leaves membranous smooth oval-lanceolate serrulate acute  
 5949 Raceme compound terminal crowded, Leaves narrow lanceolate rough at edge pilose beneath  
 5950 Leaves lanceolate wavy beneath rusty scaly, Cor. campan. finally of 5 petals, Anthers awned  
 5951 Hispid with pubescence, Leaves obov. lanc. acute serrul. Cor. globose hispid, Anthers awned  
 5952 Panicles terminal, Cor. pubescent, Leaves elliptical acuminate toothletted  
 5953 Racemes term. simple bracted, Cor. cylindrical, Leaves obl.-lanceolate serrated  
 5954 Racemes terminal and axillary 1-sided, Cor. ventricose tubular, Leaves oblong lanc. finely serrated
- 5955 Racemes axillary simple, Cor. oblong, Leaves ovate acute serrulate  
 5956 Racemes axillary simple, Leaves ovate entire shining, Branchlets 3-cornered
- 5957 Racemes axillary simple, Leaves ovate lanceolate acuminate serrate
- 5958 Quite smooth, Leaves obl. ovate acute finely serrulate, Racemes axillary and terminal clustered  
 5959 Peduncles solitary axillary 1-sided Bracts 2, Leaves oval scaly dotted obsolete serrated  
 α Cor. ventricose, Leaves obl. lanceolate  
 β Cor. obl. cylindrical, Leaves oblong oval obtuse  
 γ Very dwarf
- 5960 Pedunc. solitary axillary, Bracts 2, Leaves narrow oblong lanceolate, Corolla oblong oval
- 5961 The only species
- 5962 Leaves oblong obovate mucronate toothed crowded, Stem procumbent
- 5963 Stem arborescent, Leaves oblong lanceolate, Panicles smooth nodding, Berries many-seeded
- 5964 Leaves oblong-lanceolate serrated, Panicles vertical hispid glutinous  
 5965 Stem arborescent, Leaves ovate entire or serrated, Pan. pubescent erect, Berries many-seeded  
 5966 Stems procumbent, Leaves rugose serrated  
 5967 Stems procumbent, Leaves entire  
 5968 Stem much branched, Leaves lanceolate acuminate acutely serrate, Flowers axillary  
 5969 Bark deciduous, Ovary smooth. The same as next?
- 5970 Leaves lanceolate serrated very thin a little wavy



and Miscellaneous Particulars.

Ger., and *Arbuto*, Ital. This genus includes one of the most elegant of hardy shrubs, the *A. unedo*. This evergreen is peculiarly beautiful in October and November, covered at once with blossoms and ripe fruits. It is a native of the south of Europe, and is found also near Killarney in Ireland, where it has probably been brought from Spain or Italy at an early period by the priests. It grows there on limestone rocks, in greater luxuriance than it is often to be met with in the woods of Italy: in both countries the fruit is eaten; and in Spain both a sugar and spirit is extracted from it.

*A. uva ursi*, *La Busserole*, Fr., *Barrenbeere*, Ger., and *Uva d'orzo*, Ital., is abundant in many parts of the continent, especially the alpine regions. It dyes an ash color; tans leather; the berries are food for grouse and other game, and the leaves are used in medicine. The fresh leaves are inodorous, and have a slightly bitter astringent taste, leaving a sweet sensation in the mouth. When properly dried and powdered, they acquire an odour similar to that of hyson tea; but the taste remains the same, the degree of bitterness only being increased. (*Thomson's London Dispensatory*, 163.)

It is used sometimes in calculous complaints and ulcerations of the urinary organs.

The dwarf species of this genus and those of *Rhododendron* and *Andromeda*, are very fit plants for rock work. *A. alpina* thrives best in peat kept moist and shaded. All the species may be increased by seeds, or by budding and inarching on each other: the dwarf kinds root readily by layers.

The *Uva ursi* has been brought into notice in modern times as an efficient remedy in nephritic and even in calculous cases. European practitioners have doubted its powers, but it has found many supporters of respect.

|                                |                               |                      |           |    |       |       |              |                   |       |                  |                      |
|--------------------------------|-------------------------------|----------------------|-----------|----|-------|-------|--------------|-------------------|-------|------------------|----------------------|
| 1020. CLETHRA. <i>W.</i>       | CLETHRA.                      | <i>Ericææ.</i>       | Sp. 6-8.  |    |       |       |              |                   |       |                  |                      |
| 5971 alnifolia <i>Ph.</i>      | Woolly-leaved                 | 編                    | or        | 4  | au.o  | W     | N. Amer.     | 1731.             | L s.p | Lam. ill. t. 369 |                      |
| 5972 tomentosa <i>Ph.</i>      | woolly-leaved                 | 編                    | or        | 4  | au.o  | W     | N. Amer.     | 1731.             | L s.p | Dend. brit. 39   |                      |
| 5973 scabra <i>Ph.</i>         | rough-leaved                  | 編                    | or        | 4  | au.o  | W     | Georgia      | 1806.             | L s.p |                  |                      |
| 5974 paniculata <i>W.</i>      | panicled                      | 編                    | or        | 4  | au.o  | W     | N. Amer.     | 1770.             | L s.p |                  |                      |
| 5975 acuminata <i>Ph.</i>      | acute-leaved                  | 編                    | or        | 4  | au.o  | W     | Carolina     | 1806.             | L s.p | Bot. cab. 1427   |                      |
| 5976 arborea <i>W.</i>         | tree                          | 編                    | or        | 8  | au.o  | W     | Madeira      | 1784.             | C p.l | Bot. mag. 1057   |                      |
| β minor                        | dwarf                         | 編                    | or        | 2  | au.o  | W     | Madeira      | ...               | C p.l |                  |                      |
| 1021. MYLOCA'RYUM. <i>W.</i>   | BUCKWHEAT-TREE.               | <i>Ericææ.</i>       | Sp. 1.    |    |       |       |              |                   |       |                  |                      |
| 5977 ligustrinum <i>Ph.</i>    | Privet-like                   | 編                    | or        | 8  | my.jn | W     | Georgia      | ...               | L p.l | Bot. mag. 1625   |                      |
| 1022. PY'ROLA. <i>W.</i>       | WINTER-GREEN.                 | <i>Ericææ.</i>       | Sp. 6-10. |    |       |       |              |                   |       |                  |                      |
| 5978 rotundifolia <i>W.</i>    | round-leaved                  | 編                    | Δ         | cu | ↓     | jn.jl | W            | Britain woods.    | C s.p | Eng. bot. 213    |                      |
| 5979 média <i>E. B.</i>        | intermediate                  | 編                    | Δ         | cu | ↓     | jn.jl | W            | England woods.    | C s.p | Eng. bot. 1945   |                      |
| 5980 minor <i>W.</i>           | lesser                        | 編                    | Δ         | cu | ↓     | jn.jl | R            | Britain moi. w. C | s.p   | Eng. bot. 158    |                      |
| 5981 secunda <i>W.</i>         | serrated                      | 編                    | Δ         | cu | ↓     | jn.jl | W            | Britain moi. w. C | s.p   | Eng. bot. 517    |                      |
| 5982 rosea <i>E. B.</i>        | rose-colored                  | 編                    | Δ         | cu | ↓     | jl.au | Pk           | England woods.    | C s.p | Eng. bot. 2543   |                      |
| 5983 uniflora <i>W.</i>        | single-flowered               | 編                    | Δ         | cu | ↓     | jn.jl | W            | Britain al. wo. C | s.p   | Eng. bot. 146    |                      |
| 1023. CHIMAPHILA. <i>Ph.</i>   | CHIMAPHILA.                   | <i>Ericææ.</i>       | Sp. 11    |    |       |       |              |                   |       |                  |                      |
| 5984 maculata <i>Ph.</i>       | spotted-leaved                | 編                    | Δ         | pr | ↓     | jn    | W            | N. Amer.          | 1752. | Sk s.p           | Bot. mag. 897        |
| 5985 corymbosa <i>Ph.</i>      | corymb-flower.                | 編                    | Δ         | pr | ↓     | jn    | Pk           | N. Amer.          | 1752. | Sk s.p           | Bot. mag. 778        |
|                                | <i>Fyrola umbellata</i> B. M. |                      |           |    |       |       |              |                   |       |                  |                      |
| 1024. INOCAR'PUS. <i>W.</i>    | OTAHEITE-CHESTNUT.            | <i>Sapoteææ.</i>     | Sp. 1.    |    |       |       |              |                   |       |                  |                      |
| 5986 edulis <i>W.</i>          | eatable                       | 編                    | □         | fr | 20    |       | South S. Is. | 1793.             | C l.p | Lam. ill. t. 362 |                      |
| 1025. STY'RAX. <i>W.</i>       | STORAX.                       | <i>Ebenaceææ.</i>    | Sp. 4-6.  |    |       |       |              |                   |       |                  |                      |
| 5987 officinale <i>W.</i>      | official                      | 編                    | or        | 12 | jl    | W     | Italy        | 1597.             | L s.l | Bot. rep. 631    |                      |
| 5988 grandifolium <i>W.</i>    | great-leaved                  | 編                    | or        | 6  | jl    | W     | N. Amer.     | 1765.             | L s.l | Dend. brit. 129  |                      |
| 5989 pulverulentum <i>Ph.</i>  | powdery                       | 編                    | or        | 4  | jn.jl | W     | N. Amer.     | 1794.             | L s.l | Dend. brit. 41   |                      |
| 5990 laevigatum <i>W.</i>      | smooth                        | 編                    | or        | 4  | jl.au | W     | N. Amer.     | 1765.             | L s.l | Dend. brit. 40   |                      |
|                                | <i>S. glabrum</i> Cav.        |                      |           |    |       |       |              |                   |       |                  |                      |
| † 1026. JUSSIÉ'Y. <i>A. W.</i> | JUSSIEA.                      | <i>Onagraricææ.</i>  | Sp. 5-34. |    |       |       |              |                   |       |                  |                      |
| 5991 grandiflora <i>W.</i>     | great-flowered                | 編                    | Δ         | or | 1½    | jl.o  | Y            | Carolina          | 1812. | C s.p            |                      |
| 5992 suffruticosa <i>W.</i>    | tall                          | 編                    | Δ         | or | 1½    | au.s  | Y            | India             | 1808. | C s.p            | Bot. rep. 621        |
| 5993 octovialis <i>P. S.</i>   | spear-leaved                  | 編                    | Δ         | or | 2     | jl.s  | Y            | S. Amer.          | ...   | C s.p            |                      |
| 5994 erecta <i>W.</i>          | upright                       | 編                    | Δ         | or | 3     | jl.s  | Y            | S. Amer.          | 1739. | C s.p            | Pl. ic. t. 175. f. 2 |
| 5995 scabra <i>W. en.</i>      | rough                         | 編                    | Δ         | or | 4     | jl.s  | Y            | S. Amer.          | 1816. | C s.p            |                      |
| 1027. GETO'NIA. <i>Rozb.</i>   | GETONIA.                      | <i>Combretaceææ.</i> | Sp. 1-2.  |    |       |       |              |                   |       |                  |                      |
| 5996 floribunda <i>Rozb.</i>   | many-flowered                 | 編                    | □         | or | 6     |       | Ap           | E. Indies         | 1815. | C l.p            | Rox. cor. t. 87      |



History, Use, Propagation, Culture,

tability in North America. The late professor Barton found the plant of much service in his own case of nephritic paroxysms alternating with gout in the feet. It has also been recommended as a remedy in pulmonary complaints. (See *Bigelow's Med. Botany*.)

1020. *Clethra*. *Κληθρα* was the name given by the Greeks to the Alder, to which, in its leaves, this bears some resemblance. Pretty upright North American plants, with white flowers. One species is a native of Madeira.

1021. *Molocaryum*. From *μύλη*, a mill, and *καρυά*, a kernel or stone; the four wings of the nut may be easily likened to the four sails of a small mill. A North American plant, with the habit of *Andromeda*, or rather of *Clethra*.

1022. *Pyrola*. A diminution of *Pyrus*, to which, in the leaves, this is thought to be similar. A genus of elegant little plants, mostly evergreens. They grow naturally in the shade, and in rocky or very poor soils; in the garden on sand or gravel shaded; and they are increased by seeds or young cuttings, planted under a hand-glass. All the species are powerfully astringent and tonic, and one or more of the American sorts is said to constitute the chief ingredient in the scorbatic draughts of *Whitlaw*.

*P. uniflora*, Sir J. E. Smith says is one of the most curious and elegant of British flowers.

1023. *Chimaphila*. From *χίμα*, winter, and *φίλα*, to love; a sort of translation of the English name winter-green. The species may be treated as *Pyrola*, which they much resemble.

1024. *Inocarpus*. From *ι νος*, fibre, and *καρυά*, fruit. The envelope of the nut is composed of tough interwoven fibres. It is a lofty tree, with alternate subcordate leaves, and flowers in racemes succeeded by by nuts called *Ratta* in Otaheite. The kernel of these, which is kidney-shaped, and about an inch in diameter, is eaten roasted by the inhabitants of the Society and Friendly Isles, the New Hebrides, New Guinea, the Molucca isles, &c. It is sweetish, but less pleasant than the chestnut, harder and less farinaceous. The bark is astringent, and is used in the dysentery. In New Guinea they smear the heads of their arrows with the expressed resinous juice. (*Forst. Escul.*)

1025. *Styrax*. A name altered by the Latins from the Arabic *assthirak*. Pliny says, that the Arabs in his time used the resin to flavor the perfumes of which they are so fond. *S. officinale* is a low tree with slender branches, ovate leaves, flowers in racemes from the sides of the branches, succeeded by ovate globular juiceless drupes, containing one or two angular nuts. From this tree *storax* is obtained in Asiatic Turkey; it issues from incisions made in the bark; and as it was formerly the custom to collect and export it in reeds, it was named *Styrax calamita*. It has a fragrant odour, and a pleasant subacidulous, slightly pungent, and

- 5971 Leaves obovate serrate beneath pubescent, Raceme simple bracted  
 5972 Leaves cuneate obovate acute upwards finely serrated beneath white with down  
 5973 Leaves broad cuneate obovate acute coarsely serrated rough on each side  
 5974 Leaves lanceolate obovate serrated smooth, Panicle narrow bracted  
 5975 Leaves oval acuminate smooth on each side glaucous beneath, Racemes white with down  
 5976 Leaves oblong acuminate serrated smooth, Racemes paniced, Peduncles hairy

5977 Leaves cuneate lanceolate acute, Racemes spiked terminal

- 5978 Stamens ascending, Style declinate, Raceme many-flowered  
 5979 Stamens straight, Style declinate long, Peduncle twisted, Raceme many-flowered  
 5980 Stamens and styles straight, Flowers racemose spreading  
 5981 Raceme 1-sided  
 5982 Stamens and styles straight, Flowers racemose closed, Petals rounded obtuse, Peduncle straight  
 5983 Peduncle 1-flowered

5984 Peduncles 2-flowered  
 5985 Peduncles umbelleted

5986 The only species

- 5987 Leaves ovate beneath villous, Racemes simple shorter than the leaf  
 5988 Leaves obovate villous beneath, Lower peduncles axillary solitary 1-flowered  
 5989 Leaves subsessile oval or obovate beneath powdery, Fl. axill. and term. in threes on short stalks  
 5990 Leaves oblong smooth on each side, Peduncles axillary 1-flowered solitary or twin

- 5991 Root creeping, Stems erect with peduncles and calyxes villous, Lower leaves spatulate upper lanceolate  
 5992 Erect villous, Flowers tetrapetalous octandrous stalked  
 5993 Erect, Flowers tetrapetalous octandrous stalked, Caps. many-valved, Leaves lanceolate  
 5994 Erect smooth, Flowers tetrapetalous octandrous sessile  
 5995 Flowers tetrapetalous octandrous, Stem erect angul. hairy, Leaves oblong hairy

5996 Leaves opposite ovate, Flowers paniced, Bractes lanceolate



and Miscellaneous Particulars.

aromatic taste; is stimulant, and in some degree expectorant. It was formerly much prescribed in asthma, catarrh, phthisis, and menstrual obstructions; but it is now scarcely ever employed, except as an adjunct on account of its fragrance.

Benzoin is obtained from the *S. Benzoin*, by wounding the bark near the origin of the lower branches. The tree is never wounded under six years of age; and cannot sustain these annual incisions above twelve years. (*Thomson's London Dispensatory*, 525.)

As shrubs this genus affords some plants that may be considered pretty and desirable, on account of their small size and free flowering. They grow best in sandy loam, are commonly propagated by layers, and may also be increased by seeds, which they occasionally ripen.

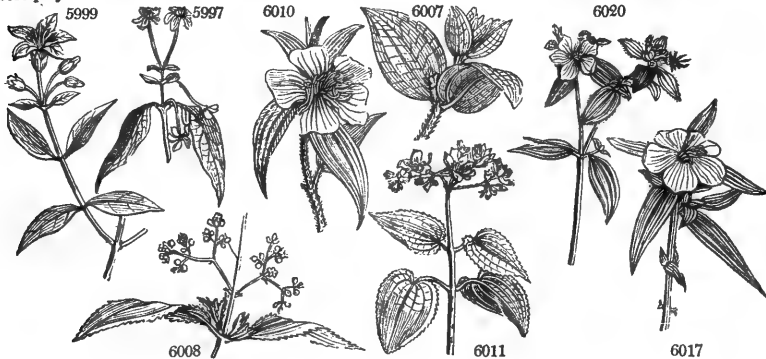
1026. *Jussiaea*. An obscure and most uninteresting genus of plants, selected, not very happily, to commemorate the family of the Jussieus, which has for more than a century and a half been at the head of botanical science. Antoine de Jussieu, born in 1686, and died in 1758, was professor of botany at the Jardin du Roi, and member of the academy of sciences. He published various papers upon exotic plants, and a discourse upon the progress of botany. He also edited the works of Barrelier. Bernard de Jussieu, his brother, born in 1698, died in 1777, was professor at the same garden, and member of the same academy. He also was author of various papers upon plants, a second edition of Tournefort's History of the Plants growing near Paris, and an arrangement of the plants growing in the garden of Trianon, which was published by his nephew. Joseph de Jussieu, a third brother, born in 1704, and died 1779. He was sent to South America by Louis XV., and remained there for six and thirty years. He made many discoveries, and brought home many new plants. Lastly, Antoine Laurent de Jussieu, their nephew, born in 1748, and still living, as demonstrator of botany at the Jardin du Roi, member of the Institute and of every learned body in Europe. He brought, in his *Genera Plantarum*, published in 1789, to a degree of extraordinary perfection, that system, the outlines of which had been traced by the hand of Tournefort, and partially filled up by his uncle Bernard. That system has now superseded, among men of science, all others, and if as yet inapplicable to merely popular purposes, can never be dispensed with in all philosophical investigations.

1027. *Getonia*. A Malabar plant, the meaning of whose name has not been explained. Cuttings root freely in sand, under a hand-glass, and plunged in heat.

|                                    |                          |   |   |    |                               |     |                                   |       |       |                       |
|------------------------------------|--------------------------|---|---|----|-------------------------------|-----|-----------------------------------|-------|-------|-----------------------|
| 1028. <i>QUISQUALIS</i> <i>W.</i>  | <i>QUISQUALIS</i>        |   |   |    | <i>Combretaceae. Sp. 1-4.</i> |     |                                   |       |       |                       |
| 5997 <i>indica W.</i>              | Indian                   | ♂ | □ | or | 20 my.au                      | O.R | E. Indies                         | 1815. | C lp  | Bot. mag. 2033        |
| 5998 <i>pubescens Burm.</i>        | pubescent                | ♂ | □ | or | 20 ...                        | O.R | E. Indies                         | 1815. | C lp  | Bur. ind. t. 35. f.2  |
| †1029. <i>MELASTOMA</i> <i>W.</i>  | <i>MELASTOMA</i>         |   |   |    |                               |     | <i>Melastomaceae. Sp. 23-196.</i> |       |       |                       |
| 5999 <i>aspera W.</i>              | rough                    | ♂ | □ | or | 6 a.un                        | P   | E. Indies                         | 1815. | C lp  | Bur. zeyl. t. 79      |
| 6000 <i>velutina W.</i>            | velvety-leaved           | ♂ | □ | or | 8 j.lo                        | Pu  | W. Indies                         | 1815. | C lp  |                       |
| 6001 <i>trinervia W.</i>           | three-nerved             | ♂ | □ | or | 8 j.l                         | Pu  | Jamaica                           | 1793. | C sp  |                       |
| 6002 <i>octandra W.</i>            | octandrous               | ♂ | □ | or | 3 ...                         | W   | Ceylon                            | 1815. | C lp  |                       |
| 6003 <i>tetrandra W.</i>           | tetrandrous              | ♂ | □ | or | 2 ...                         | ... | Jamaica                           | 1815. | C lp  |                       |
| 6004 <i>hirta W.</i>               | hairy                    | ♂ | □ | or | 6 a.d                         | Pu  | Jamaica                           | 1740. | C sp  | Pl. al. t. 264. f. 1  |
| 6005 <i>Acinodendron W.</i>        | oval-leaved              | ♂ | □ | or | 6 ...                         | Pu  | Jamaica                           | 1804. | C lp  | Plu. ic. 142. f. 2    |
| 6006 <i>cymosa W.</i>              | cyme-flowered            | ♂ | □ | or | 2 a.au                        | Pu  | S. Amer.                          | 1792. | C sp  |                       |
| 6007 <i>rubra W.</i>               | red                      | ♂ | □ | or | 6 my.jn                       | Pu  | Guiana                            | 1793. | C sp  | Au. gui. i. t. 161    |
| 6008 <i>purpurea W.</i>            | purple                   | ♂ | □ | or | 8 ...                         | Pu  | Guiana                            | 1804. | C lp  | Au. gui. i. t. 154    |
| 6009 <i>grassa W.</i>              | large-leaved             | ♂ | □ | or | 12 ...                        | ... | S. Amer.                          | ...   | C lp  |                       |
| 6010 <i>malabathrica W.</i>        | bristly                  | ♂ | □ | or | 6 jn.au                       | Pu  | E. Indies                         | 1793. | C sp  | Bot. mag. 529         |
| 6011 <i>corymbosa H. K.</i>        | corymb-flower.           | ♂ | □ | or | 2 mr.o                        | Pk  | S. Leone                          | 1792. | C sp  | Bot. mag. 504         |
| 6012 <i>ecostata H. K.</i>         | ribless                  | ♂ | □ | or | 4 my.jn                       | Pu  | Jamaica                           | 1793. | C sp  |                       |
| 6013 <i>Tamonea Aubl.</i>          | Fothergill's             | ♂ | □ | or | 20 ...                        | Pu  | S. Amer.                          | 1815. | C sp  | Au. gui. i. t. 175    |
|                                    | <i>Fothergilla Hort.</i> |   |   |    |                               |     |                                   |       |       |                       |
| 6014 <i>albicans Suz.</i>          | white-leaved             | ♂ | □ | or | 6 ...                         | Pu  | Jamaica                           | 1815. | C sp  |                       |
| 6015 <i>laevigata W.</i>           | smooth                   | ♂ | □ | or | 6 ...                         | W.G | S. Amer.                          | 1815. | C sp  | Bot. reg. 663         |
| 6016 <i>discolor W.</i>            | two-colored              | ♂ | □ | or | 15 ...                        | Pu  | W. Indies                         | 1793. | C sp  | Plu. ic. t. 42. f. 1  |
| 6017 <i>nepalensis Lodd.</i>       | Nepal                    | ♂ | □ | or | 2 au                          | Pu  | Nepal                             | 1820. | C pl  | Bot. cab. 707         |
| 6018 <i>heteromalla Don.</i>       | Brazil                   | ♂ | □ | or | 6 ja.d                        | Pu  | Brazil                            | 1819. | C pl  | Bot. reg. 644         |
| 6019 <i>granulosa Lam.</i>         | Commerson's              | ♂ | □ | or | 10 a.u                        | Pu  | Brazil                            | 1819. | C pl  | Bot. reg. 671         |
| 6020 <i>osbeckioides Sims.</i>     | osbeckia-like            | ♂ | □ | or | 2 s.o                         | Pu  | Mauritius                         | 1817. | C pl  | Bot. mag. 2235        |
| 6021 <i>sanguinea Sims.</i>        | bloody                   | ♂ | □ | or | 6 a.o                         | Pk  | China                             | 1818. | C pl  | Bot. mag. 2241        |
| *1030. <i>PETALOMA</i> <i>W.</i>   | <i>PETALOMA</i>          |   |   |    |                               |     | <i>Melastomaceae. Sp. 1-2.</i>    |       |       |                       |
| 6022 <i>myrtilloides Suz.</i>      | Bilberry-like            | ♂ | □ | or | 10 ...                        | W.x | W. Indies                         | 1823. | C pl  | Sl. hist. t. 187. f.3 |
| 1031. <i>ACISANTHERA</i> <i>J.</i> | <i>ACISANTHERA</i>       |   |   |    |                               |     | <i>Salicaria. Sp. 1.</i>          |       |       |                       |
| 6023 <i>quadrata P. S.</i>         | four-sided               | ♂ | □ | cu | 3 ...                         | ... | Jamaica                           | 1804. | C pl  | Br. jam. t. 22. f.1   |
| 1032. <i>DAIS</i> <i>W.</i>        | <i>DAIS</i>              |   |   |    |                               |     | <i>Thymelaeae. Sp. 1-7.</i>       |       |       |                       |
| 6024 <i>ctinifolia W.</i>          | Cotinus-leaved           | ♂ | □ | or | 10 jn.jl                      | W.G | C. G. H.                          | 1776. | R s.l | Bot. mag. 147         |
| 1033. <i>BUCIDATA</i> <i>W.</i>    | <i>OGIVE-BARK-TREE.</i>  |   |   |    |                               |     | <i>Santalaceae. Sp. 1-2.</i>      |       |       |                       |
| 6025 <i>Buceras W.</i>             | Jamaica                  | ♂ | □ | ec | 25 a.us                       | Y.w | Jamaica                           | 1793. | C lp  | Lam. ill. t. 356      |
| †1034. <i>SAMYDA</i> <i>W.</i>     | <i>SAMYDA</i>            |   |   |    |                               |     | <i>Samydeae. Sp. 4-12.</i>        |       |       |                       |
| 6026 <i>nitida W.</i>              | glossy                   | ♂ | □ | un | 7 ...                         | W.G | W. Indies                         | 1793. | C lp  | Br. jam. t. 23. f.3   |
| 6027 <i>pubescens W.</i>           | pubescent                | ♂ | □ | un | 4 my.au                       | ... | W. Indies                         | 1793. | C lp  | Jac. amer. 192        |
| 6028 <i>serrulata W.</i>           | elm-leaved               | ♂ | □ | pr | 3 j.l                         | W   | W. Indies                         | 1793. | C sp  | Ja. co. 2. t. 17. f.1 |
| 6029 <i>rosea H. K.</i>            | rose-colored             | ♂ | □ | pr | 4 jn.jl                       | Pk  | W. Indies                         | 1793. | C sp  | Bot. mag. 550         |

DIGYNIA.

|                                |                |   |   |    |         |     |                             |       |      |                       |
|--------------------------------|----------------|---|---|----|---------|-----|-----------------------------|-------|------|-----------------------|
| 1035. <i>ROYE'NA</i> <i>W.</i> | <i>ROYENA</i>  |   |   |    |         |     | <i>Ebenaceae. Sp. 9-15.</i> |       |      |                       |
| 6030 <i>lucida W.</i>          | shining-leaved | ♂ | □ | cu | 4 my.jn | W   | C. G. H.                    | 1690. | C pl | La. ill. t. 370. f. 1 |
| 6031 <i>villosa W.</i>         | heart-leaved   | ♂ | □ | cu | 6 jn.jl | W   | C. G. H.                    | 1774. | C pl |                       |
| 6032 <i>pallens W.</i>         | pale           | ♂ | □ | cu | 4 jn.jl | W   | C. G. H.                    | 1789. | C pl |                       |
| 6033 <i>glabra W.</i>          | Myrtle-leaved  | ♂ | □ | cu | 4 j.l   | W   | C. G. H.                    | 1731. | C lp | Com. hor. 1. t. 65    |
| 6034 <i>pubescens W. en.</i>   | pubescent      | ♂ | □ | cu | 4 j.lau | W.G | C. G. H.                    | 1752. | C lp | Bot. reg. 500         |
| 6035 <i>hirtata W. en.</i>     | hairy-leaved   | ♂ | □ | cu | 7 j.lau | W   | C. G. H.                    | 1752. | C pl | La. ill. t. 370. f. 2 |
| 6036 <i>angustifolia W.</i>    | Willow-leaved  | ♂ | □ | cu | 4 jn.jl | W   | C. G. H.                    | 1789. | C pl |                       |
| 6037 <i>ambigua Vent.</i>      | obovate-leaved | ♂ | □ | cu | 6 jn.jl | W   | C. G. H.                    | 1815. | C pl | Vent. mal. t. 17      |
| 6038 <i>polyandra W.</i>       | oval-leaved    | ♂ | □ | cu | 6 ...   | W   | C. G. H.                    | 1774. | C pl |                       |



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1028. *Quisqualis*. A Latin word, expressive of uncertainty. It was given by Rumphius to a tree of Amboyna, because it was subject to variation. It is a fine climbing genus of easy culture. The best soil for the species is a mixture of loam and peat; and cuttings root freely in sand, under a hand-glass. (*Bot. Cult.* 100.)

1029. *Melastoma*. From *μελας*, black, and *σoma*, mouth. Many of the species produce black berries similar to gooseberries, and which stain the mouth black. This is a very numerous genus of shrubs and low trees; the species display great unity of character, and may be considered ornamental. They require but little water in winter, and are easily increased in sand, plunged in a moist heat.

1030. *Petaloma*. From *πεταλον*, a petal, and *λωμα*, an edge. Flowers of which the petals are inserted on the edge of the calyx. A small plant with the leaves, but not flowers, of *Melastoma*.

1031. *Acisanthera*. From *ακτις*, a point, the anthers being pointed. Plants with the habit of *Melastoma*.

- 5997 Leaves ovate  
5998 Leaves subcordate pubescent
- 5999 Leaves ovate-lanc. entire 3-nerved rough, Fl. terminal subcorymbose  
6000 Leaves 3-nerved entire sessile ovate acute villous silky, Racemes brachiate, Stems square  
6001 Leaves 3-nerved without a marginal one entire smooth on each side thin, Racemes term. Fla. sessile  
6002 Leaves entire 3-nerved ovate-lanc. smooth, Margin and nerves hispid beneath, Fl. terminal  
6003 Leaves entire 3-nerved oblong emarginate at base, Raceme erect term. Fl. tetrandrous  
6004 Leaves toothletted 5-nerved ovate-lanceolate, Stem hispid  
6005 Leaves ovate acuminate toothletted 5-nerved, Cymes axillary  
6006 Leaves cordate acumin. 5-nerved serrulate pubescent, Cymes terminal, Sepals roundish, Stamens 5 sterile  
6007 Leaves cordate subcrenate beneath rusty with down, Flowers axillary and lateral solitary sessile  
6008 Leaves ovate lanceolate acuminate 5-nerved pilose somewhat toothletted, Branches bifid, Panic. term.  
6009 Leaves entire 5-nerved subcordate scabrous, Cor. little hairy outside  
6010 Leaves entire 5-nerved lanceolate ovate rough  
6011 Leaves 7-nerved ovate subordinate acuminate ciliated with teeth, Corymb terminal, Flowers 1-sided  
6012 Leaves 3-nerved without ribs ovate-lanceol. acuminate toothletted, Corymbs term. trichotomous powdery  
6013 Leaves 5-nerved obl. lanceol. acute entire hoary beneath, Pedunc. umbelled, Bractes double
- 6014 Leaves 5-nerved entire ovate acute smooth above beneath hoary, Flowers clustered sessile  
6015 Leaves entire 5-nerved ovate-oblong smoothish acuminate smooth at edge  
6016 Leaves 5-nerved nearly entire oblong acuminate smooth beneath yellowish, Racemes cymose  
6017 Leaves lanceolate ciliated entire 3-nerved obtuse at base, Stems square, Flowers terminal solitary  
6018 Leaves cordate oval entire stalked beneath woolly, Petals obovate, Petals bowed at base  
6019 Branches winged, Leaves oval-lanceol. with a long point, Petals obovate pointed, Filam. woolly above  
6020 Leaves oblong elliptical 3-nerved ciliated, Calyx setose at end  
6021 Stamens 12, Leaves ovate-lanceolate 5-nerved, Stems and globose ovaries very hispid
- 6022 Peduncles solitary 1-flowered
- 6023 Leaves 3-nerved ovate crenate opposite
- 6024 Leaves obovate obtuse, Flowers 5-cleft decandrous
- 6025 Spikes elongated, Leaves wedge-shaped smooth
- 6026 Flowers octandrous, Leaves cordate smooth  
6027 Flowers dodecandrous, Leaves ovate downy beneath  
6028 Flowers 12-androus, Leaves ovate oblong serrulate  
6029 Flowers 12-androus clustered, Leaves oblong obtuse serrated pubescent on each side

## DIGYNIA.

- 6030 Leaves ovate roughish  
6031 Leaves cordate oblong downy beneath  
6032 Leaves oblong obovate obtuse smooth  
6033 Leaves lanceolate smooth  
6034 Leaves obovate lanceolate pubescent  
6035 Leaves oblong lanceolate very villous  
6036 Leaves lanceolate acute hairy beneath  
6037 Leaves obovate villous coriaceous, Fl. stalked polyandrous polygynous  
6038 Leaves elliptical, Flowers polyandrous polygynous



## and Miscellaneous Particulars.

1032. *Dass.* A name of unknown application. The plant resembles in its leaves the *Rhus cotinus*, whence its specific name. It may be increased by cuttings of the roots placed in a warm situation.

1033. *Bucida.* From *Bucis*, an ox. The form of the fruit when ripe resembles the horn of such an animal. This tree grows in Jamaica in low swampy lands near the coast; it is remarkable for its slender crooked branches, and the tufted disposition of the leaves: it grows to a considerable size, is reckoned an excellent timber tree, and the bark is greatly esteemed by the tanners.

Well ripened cuttings root in sand, plunged in heat, and covered.

1034. *Samyda.* *Σαμυδα* is the Greek name of the birch, to which this genus may be likened in its leaves. The species are rather tardy in growth, but not difficult to root in sand under a hand-glass.

1035. *Boyena.* So named by Linnæus, in honor of Adrian Van Royen, who with his son David were successively professors of botany at Leyden. It consists of shrubs of little beauty, which are increased by ripened cuttings in sand under a hand-glass. They are chiefly natives of the Cape of Good Hope.

|   |                    |        |    |       |       |          |             |         |     |                      |                        |
|---|--------------------|--------|----|-------|-------|----------|-------------|---------|-----|----------------------|------------------------|
| 1036. <b>TRIAN'THEMA.</b> <i>W.</i> <b>TRIAN'THEMA.</b> <i>Portulacæ.</i> <i>Sp. 2-12.</i>      |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6039 <i>monógyina W.</i>  | Purslane-leav.     | ☒ w    | 2  | jl.au | G     | Jamaica  | 1710.       | S       | co  | Plant. grass. 109    |                        |
| 6040 <i>decándra W.</i>   | trailing           | ☒ w    | 1½ | jl.au | G     | India    | 1762.       | S       | co  | Bur. in. t. 31. f. 3 |                        |
| †1037. <b>SCLERAN'THUS.</b> <i>W.</i> <b>KNAWEL.</b> <i>Portulacæ.</i> <i>Sp. 2-3.</i>          |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6041 <i>ánnuus W.</i>   | annual             | △ w    | 1  | jl.au | G     | Britain  | sa. fl.     | S       | co  | Eng. bot. 351        |                        |
| 6042 <i>perénnis W.</i>   | perennial          | △ w    | 1  | aus.  | G     | Britain  | sa.hea.     | D       | co  | Eng. bot. 352        |                        |
| 1038. <b>CUNONIA.</b> <i>W.</i> <b>CUNONIA.</b> <i>Cunoniaceæ.</i> <i>Sp. 1-2?</i>              |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6043 <i>capénsis W.</i>   | Cape               | ♂ L    | 20 | au    | W     | C. G. H. | 1816.       | C       | co  | Bot. reg. 828        |                        |
| †1039. <b>HYDRAN'GEA.</b> <i>W.</i> <b>HYDRANGEA.</b> <i>Saxifragæ?</i> <i>Sp. 5.</i>           |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6044 <i>arboréscens W.</i>  | shrubby            | ♂ or   | 6  | jl.au | W.g   | Virginia | 1736.       | L       | p.l | Bot. mag. 437        |                        |
| 6045 <i>cordáta Ph.</i>   | heart-leaved       | ♂ or   | 8  | jl.au | W.g   | Carolina | 1806.       | L       | p.l | Dend. brit. 42       |                        |
| 6046 <i>nívea Ph.</i>   | white-leaved       | ♂ or   | 5  | jl.au | W.g   | Carolina | 1785.       | L       | p.l | Dend. brit. 43       |                        |
|   | <i>radiáta W.</i>  |        |    |       |       |          |             |         |     |                      |                        |
| 6047 <i>quercifólia W.</i>  | Oak-leaved         | ♂ or   | 4  | jn.s  | W.g   | Florida  | 1803.       | C       | p.l | Bot. mag. 975        |                        |
| 6048 <i>horténsis W.</i>  | changeable         | ♂ or   | 3  | aps.  | Pk    | China    | 1788.       | C       | p.l | Bot. mag. 438        |                        |
| 1040. <b>CHRYSOSPLENIUM.</b> <i>W.</i> <b>GOLDEN SAXIFRAGE.</b> <i>Saxifragæ.</i> <i>Sp. 2.</i> |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6049 <i>alternifólium W.</i>  | alternate-leav.    | ♂ △ cu | 1  | ap.my | Y     | Britain  | w.sh.p      | D       | m.l | Eng. bot. 59         |                        |
| 6050 <i>oppositifólium W.</i>   | opposite-leaved    | ♂ △ cu | 1  | ap.my | Y     | Britain  | w.sh.p      | D       | m.l | Eng. bot. 400        |                        |
| *1041. <b>SAXIFRAGA.</b> <i>W.</i> <b>SAXIFRAGE.</b> <i>Saxifragæ.</i> <i>Sp. 56-70.</i>        |                    |        |    |       |       |          |             |         |     |                      |                        |
| 6051 <i>liguláta W.</i>   | ligulate           | ♀ L    | or | 1     | ap.jn | W        | Nepal       | 1821.   | D   | p.l                  | Bot. cab. 747          |
| 6052 <i>crassifólia W.</i>  | thick-leaved       | ♀ △    | or | 1     | mr.my | P        | Siberia     | 1765.   | D   | s.l                  | Bot. mag. 196          |
| 6053 <i>cordifólia M. n.</i>  | heart-leaved       | ♀ △    | or | 1     | mr.my | P        | Siberia     | 1779.   | D   | s.l                  |                        |
| 6054 <i>Cotylédon W.</i>  | pyramidal          | ♀ △    | or | 2     | my.jl | W.g      | Al. of Eur. | 1596.   | D   | s.l                  | Fl. dan. 241           |
| 6055 <i>récta P. S.</i>   | straight-leaved    | ♀ △    | or | 1     | my.jl | W.g      | Al. of Eur. | 1751.   | D   | s.l                  | Pl. ph. t. 221. f. 1   |
| 6056 <i>Aizóon P. S.</i>  | large-margined     | ♀ △    | or | 1     | my.jl | W.g      | Al. of Eur. | 1751.   | D   | s.l                  | Jac. aus. 5. t. 438    |
| 6057 <i>intácta W. en.</i>  | small-margined     | ♀ △    | or | 1     | my.jl | W.g      | Tyrol       | ...     | D   | s.l                  | Hort. ber. 2. t. 75    |
| 6058 <i>mutáta W. en.</i>   | Saffron-colored    | ♀ △    | or | 1     | jn.jl | L.Y      | Switzerl.   | 1779.   | D   | s.l                  | Bot. mag. 351          |
| 6059 <i>penysylvánica W.</i>  | Pennsylvanian      | ♀ △    | or | 2     | my.jn | G.y      | N. Amer.    | 1732.   | D   | s.l                  | Di. el. t. 253. f. 328 |
| 6060 <i>hieracifólia W.</i>   | Hawkweed-lvd.      | ♀ △    | or | 2     | my.jn | W.g      | Hungary     | 1719.   | D   | s.l                  | Pl. rar. h. 1. t. 18   |
| 6061 <i>erósa Ph.</i>   | jagged-leaved      | ♀ △    | or | 1     | my.jn | Y.g      | N. Amer.    | 1812.   | D   | s.l                  |                        |
| 6062 <i>punctáta W.</i>   | dotted-flowered    | ♀ △    | or | 1     | my.jn | W        | Siberia     | 1699.   | D   | s.l                  | Mo. h. 3. t. 9. f. 17  |
| 6063 <i>umbrósa W.</i>  | London-pride       | ♀ △    | or | 1     | ap.jn | F        | Britain     | mount.  | D   | s.l                  | Eng. bot. 663          |
| 6064 <i>hirsúta W.</i>  | hirsute            | ♀ △    | or | 1     | my.jn | F        | Ireland     | ir.mou. | D   | s.l                  | Eng. bot. 2322         |
| 6065 <i>Géum W.</i>   | kidney-leaved      | ♀ △    | or | 1     | jn.jl | W        | Ireland     | ir.mou. | D   | s.l                  | Eng. bot. 1561         |
| 6066 <i>cuneifólia W.</i>   | wedge-leaved       | ♀ △    | or | 1     | jn.jl | W.g      | Switzerl.   | 1768.   | D   | s.l                  | Pl. rar. h. 1. t. 44   |
| 6067 <i>leucánthemifólia Ph.</i>  | Stock-leaved       | ♀ △    | or | 1     | jn    | W        | N. Amer.    | 1812.   | D   | s.l                  | Bot. mag. 2359         |
| 6068 <i>sarmentosa W.</i>   | Chinese            | ♀ △    | or | 2     | jn.jl | W.B      | China       | 1771.   | D   | s.l                  | Bot. mag. 92           |
| 6069 <i>cuscutifórmis Lodd.</i>   | Dodder-like        | ♀ △    | pr | 1     | jn.jl | W        | China       | 1815.   | D   | s.l                  | Bot. cab. 196          |
| 6070 <i>virginiénsis Ph.</i>  | Virginian          | ♀ △    | or | 1     | my.jl | W        | N. Amer.    | 1790.   | D   | s.l                  | Bot. mag. 1664         |
| 6071 <i>congéstá Sweet</i>  | close-flowered     | ♀ △    | or | 1     | my.jl | W        | N. Amer.    | 1812.   | D   | s.l                  |                        |
|   | <i>nivális Ph.</i> |        |    |       |       |          |             |         |     |                      |                        |



History, Use, Propagation, Culture,

1036. *Trianthema.* From *τρις*, three, and *ανθος*, flower; the flowers growing by threes in the axillæ of the leaves. The species are weeds in their native countries, and of little interest here.

1037. *Scleranthus.* From *σκληρος*, hard, and *ανθος*, a flower; when in seed the envelopes of the flower appear very much indurated. *S. annuus* is common throughout Europe and Siberia on a sandy soil. It flowers about the middle of summer, and sows its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring. (*Eng. Bot.*) The Swedes and Germans receive the vapour arising from a decoction of it into their mouths, to cure the tooth-ache. (*Withering.*)

*S. perennis* in several parts of Europe has its roots attacked by the insect *Coccus Polonicus*, *Lin.* which yields a fine crimson dye, and is said likewise to live on *S. annuus* and some *Potentilla*. Sir J. Smith has "never been able to find this insect on these plants in England." (*Flora Brit.* ii. 283.)

These two species are occasionally found in abundance upon barren heathy wastes.

1038. *Cunonia.* In memory of John Christian Cuno, of Amsterdam, who described his own garden in Dutch verse in 1750. This is a handsome tree, with fine shining green foliage, contrasted by numerous dense elongated branches of small milk-white flowers, and twigs of a red color; having the habit of a tropical rather than of a Cape plant. Its colonial name is *Rood Elze* (red alder), although the tree has not in any point of view the least resemblance to the alder of Europe.

1039. *Hydrangea.* From *υδρα*, water, and *γεννησιον*, a vessel. The common garden species, *H. hortensis*, is quite a marsh plant, and to be managed well should have a very copious supply of water in summer. A large plant will consume ten or twelve gallons daily, in warm weather.

*H. quercifolia* is an elegant plant when in leaf; but as it is barely within the limits of ligneous plants, it dies down to the ground on the approach of frost. *H. hortensis* is much valued on account of the great profusion of its very elegant flowers, which are monstrous in the same manner as the *Viburnum opulus*. It has never

6039 Flowers pentandrous monogynous  
6040 Flowers about decandrous digynous

6041 Calyx of fruit spreading  
6042 Calyx of fruit closed

6043 The only certain species

6044 Cymes naked, Leaves oblong ovate acuminate toothed smooth  
6045 Cymes radiate, Leaves cordate toothed  
6046 Leaves ovate acuminate toothed beneath white with down, Serratures mucronate

6047 Cymes radiate, Leaves oblong sinuate-lobed toothed  
6048 Cymes radiate, Leaves elliptical narrowed at each end toothed smooth

6049 Leaves alternate  
6050 Leaves opposite roundish hairy, Stems decumbent

6051 Leaves orbiculate or oval stalked pimpled ciliate cordate at base, Petals round, Sepals mucronate  
6052 Leaves oval retuse obsoletely serrated stalked, Stem naked, Panicle bearded  
6053 Leaves cordate orbicular serrated stalked, Panicle headed  
6054 Leaves radical lingulate with cartilaginous teeth, Stem panicle leafy, Cal. hairy with glands  
6055 Radical leaves rosed straight glaucous supine crenate, Panicle simple  
6056 Leaves radical lingulate with cartilag. teeth, Stem simple racemose leafy, Cal. smooth  
6057 Radical leaves aggreg. lanc. obov. with cartilaginous teeth, Stem leafy clammy, Calyxes glandular  
6058 Leaves rad. lingulate with a cartilaginous repand edge, Stem racemose leafy, Cal. with gland. hairs  
6059 Leaves obl. lanc. hairy toothletted, Stem naked, Peduncles alternate in corymbose heads  
6060 Leaves obl. lanc. smooth repand toothed, Stem naked, Peduncles 1-flowered aggregate  
6061 Smoothish, Leaves oblong-lanc. acute eroded, Stem naked, Panicle oblong  
6062 Leaves roundish toothed with long stalks, Stem naked  
6063 Leaves obovate retuse with cartilaginous crenae, Stem naked panicle  
6064 Leaves cordate oval retuse with cartilaginous crenae, Stem naked panicle  
6065 Leaves reniform toothed, Stem naked panicle  
6066 Leaves cuneiform very obtuse repand, Stem naked panicle  
6067 Very hairy, Lva. elongate spatulate acutely toothed, Stems divaricate dichotomous, Panc. capillary lax  
6068 Leaves roundish toothed hairy, Runners creeping, Two petals long  
6069 Leaves rhomboid toothed variegated hairy, Runners very weak, Petals nearly equal  
6070 Leaves cuneate obovate somewhat toothed shorter than stalk, Stem panicle  
6071 Leaves roundish cuneate crenate in front, Stem naked simple, Flowers clustered racemose



and Miscellaneous Particulars.

been found in a wild state, but is extensively cultivated in the gardens of China and Japan, from whence it was introduced to Kew by Sir Joseph Banks. The flowers are almost always barren; they are naturally of a rose color, but under certain circumstances of culture they become blue. The yellow loam of Hampstead Heath and some other places, and some sorts of peat earth are found to produce this effect; but the cause is not yet ascertained. Dr. Daalen, of Antwerp, finds that turf-ashes, and, still more effectually, those of the Norway spruce, the wood generally used as fuel by him, applied to the roots of Hydrangea, produced the blue color of the petals. (*Neil's Hort. Journ.* 122.) According to Busch, of Petersburg, "the hydrangea will be turned blue by watering the young plant, the summer before, with alum water. Our grey colored earth, under the black moor-earth, has the same effect, being combined with aluminous salt." (*Hort. Trans.* vol. iv. 568.) Sweet recommends a bed of peat, and says, the longer it remains there the bluer will be the flowers.

The hydrangea, to flower freely, must not be allowed more than three or four strong shoots from the same root; it must have abundance of pot room, and plenty of water when in flower. It is a good plan to shift the plants twice or oftener during the early part of the season. If plunged and turned out of the pot into an open border in the end of May, they will flower vigorously, and will even stand the winter around and south of London, and flower yearly, and if well protected in winter very freely and strongly. The flowers are produced from the extremities of the shoots of the current year.

1040. *Chrysosplenium*. From *spores*, gold, and *splen*, the spleen; a figurative name applied to this plant, with reference to its medicinal qualities. It is said to be a powerful cathartic. In the Vosges the plants are used copiously as a salad, under the name of *Cresson de Roche*.

1041. *Saxifraga Saxum-frango*, to break the stone; a name contrived in reference to supposed medicinal qualities which are now forgotten.

An elegant genus of alpine plants, which have long been favorites in gardens. Many of the species are



|                                |                      |        |         |      |                      |                   |       |                        |
|--------------------------------|----------------------|--------|---------|------|----------------------|-------------------|-------|------------------------|
| 6072 <i>nivalis</i> W.         | clustered-Alp.       | £ Δ or | ½ jn.jl | W    | Britain              | sc. alp.          | D s.l | Eng. bot. 440          |
| 6073 <i>stellaris</i> W.       | starry               | £ Δ or | ½ jn.jl | W    | Britain              | al. riv.          | D s.l | Eng. bot. 167          |
| 6074 <i>bryoides</i> W.        | thrd.-moss-like      | £ Δ or | ½ jn.jl | W    | Switzerl.            | 1752.             | D s.l | Jac. m. 2. t. 5. f. 1  |
| 6075 <i>caesia</i> W.          | gray                 | £ Δ or | ½ my.jn | W    | Switzerl.            | 1752.             | D s.l | Bot. cab. 421          |
| 6076 <i>androsæcea</i> W.      | Androsæce-ld.        | £ Δ or | ½ my.jn | W    | Austria              | 1752.             | D s.l | Jac. aus. 4. t. 389    |
| 6077 <i>oppositifolia</i> W.   | opposite-leaved      | £ Δ or | ½ mr.ap | Pu   | Britain              | al. roc.          | D s.l | Eng. bot. 9            |
| 6078 <i>aspera</i> W.          | rough                | £ Δ or | ½ au    | W    | Switzerl.            | 1752.             | D s.l | Jac. aust. 5. t. 31    |
| 6079 <i>Hirculus</i> W.        | yellow-marsh         | £ Δ or | ½ au    | Y    | England              | tu. bo.           | D s.l | Eng. bot. 1009         |
| 6080 <i>Aizoides</i> Haw.      | smaller-mount.       | £ Δ or | ½ jl.au | Y    | Britain              | al. riv.          | D s.l |                        |
| 6081 <i>autumnalis</i> Haw.    | larger-mount.        | £ Δ or | ½ jl.au | Y.R  | Britain              | ...               | D s.l | Eng. bot. 39           |
| 6082 <i>rotundifolia</i> W.    | round-leaved         | £ Δ or | 1 my.jn | W.R  | Austria              | 1596.             | D s.l | Bot. mag. 424          |
| 6083 <i>granulata</i> W.       | grain-rooted         | £ Δ or | 1 my    | W    | Britain              | me. pa.           | D s.l | Eng. bot. 500          |
| 6084 <i>plena</i>              | double-flowered      | £ Δ or | 1 ap.jl | W    | .....                | .....             | D s.l |                        |
| 6085 <i>cærnea</i> W.          | drooping             | £ Δ or | ½ jl    | W    | Scotland             | sc. alp.          | D s.l | Eng. bot. 664          |
| 6086 <i>rivularis</i> W.       | Alpine-brook         | £ Δ or | ½ jn.jl | W    | Scotland             | sc. alp.          | D s.l | Eng. bot. 2275         |
| 6087 <i>hederæcea</i> W.       | Ivy-leaved           | £ Δ or | ½ jn    | W    | Levant               | 1752.             | S s.l | Jac. ic. 1. t. 81      |
| 6088 <i>pentadactyla</i> Lap.  | five-fingered        | £ Δ or | ½ my.jn | W    | Pyrenees             | 1815.             | D s.l | Lapey. fl. t. 40       |
| 6089 <i>geranioides</i> W.     | Crane's-bill-ld.     | £ Δ or | ½ ap.my | W    | Pyrenees             | 1770.             | D s.l | Lapey. fl. t. 43       |
| 6090 <i>pedatifida</i> L. T.   | pedatifid            | £ Δ or | ½ my.jn | W    | Scotland             | sc. alp.          | D s.l | Eng. bot. 2278         |
| 6091 <i>ceratophylla</i> H. K. | shining-calyxed      | £ Δ or | ½ my.jn | W    | Spain                | 1804.             | D s.l | Bot. mag. 1651         |
| 6092 <i>ajugifolia</i> W.      | Bugle-leaved         | £ Δ or | 1 jn.jl | W    | Pyrenees             | 1770.             | D s.l | Lapey. fl. t. 31       |
| 6093 <i>platypetala</i> L. T.  | broad-petalled       | £ Δ or | 1 jn    | W    | Scotland             | al. roc.          | D s.l | Eng. bot. 2276         |
| 6094 <i>sibirica</i> W.        | Siberian             | £ Δ or | 1 my.jn | W    | Siberia              | 1802.             | D s.l |                        |
| 6095 <i>tridactylites</i> W.   | Rue-leaved           | £ O W  | ½ ap.my | W    | Britain              | walls.            | S s.l | Eng. bot. 501          |
| 6096 <i>petræa</i> W.          | rock                 | £ Δ or | ½ ap.my | W    | Norway               | 1752.             | D s.l | Fl. dan. 68            |
| 6097 <i>ascendens</i> W.       | ascending            | £ Δ or | ½ my    | W    | Pyrenees             | 1752.             | D s.l | Jac. ic. 1. t. 81      |
| 6098 <i>Sternbergii</i> W. en. | large-flowered       | £ Δ or | 1 my    | W    | Germany              | ...               | D s.l |                        |
| 6099 <i>hirta</i> E. B.        | hairy                | £ Δ or | 1 jn    | W    | Scotland             | sc. alp.          | D s.l | Eng. bot. 2291         |
| 6100 <i>palmaria</i> E. B.     | palmaria             | £ Δ or | ½ my.jn | W    | Wales                | wal. p.           | D s.l | Eng. bot. 455          |
| 6101 <i>elongata</i> L. T.     | long-stalked         | £ Δ or | 1 ap.my | W    | Scotland             | sc. alp.          | D s.l | Eng. bot. 2277         |
| 6102 <i>hypnoides</i> W.       | mosy                 | £ Δ or | ½ ap.jn | W    | Britain              | al. roc.          | D s.l | Eng. bot. 454          |
| 6103 <i>moschata</i> W.        | musky                | £ Δ or | ½ my.jn | L.Y  | Pyrenees             | ...               | D s.l | Lapey. fl. t. 37, 38   |
| 6103 <i>pygmæa</i> Haw.        | pigmy                | £ Δ or | ½ my.jn | W.Y  | Scotland             | sc. alp.          | D s.l | Eng. bot. 2314         |
| 6104 <i>caspitosa</i> W.       | tufted               | £ Δ or | ½ my.jn | Cr   | Wales                | w. alp.           | D s.l | Eng. bot. 794          |
| 6105 <i>grenlandica</i> H. K.  | Greenland            | £ Δ or | ½ jl    | W    | Pyrenees             | 1732.             | D s.l | Lapey. fl. t. 19       |
| 6106 <i>muscoidea</i> W.       | Moss-like            | £ Δ or | ½ my.jn | W.Y  | Pyrenees             | ...               | D s.l | Lapey. fl. t. 34       |
| 1042. <i>TIARELLA</i> W.       | TIARELLA.            |        |         |      | <i>Saxifrageæ.</i>   | <i>Sp. 3—10.</i>  |       |                        |
| 6107 <i>cordifolia</i> Ph.     | heart-leaved         | £ Δ or | ½ ap.my | W    | N. Amer.             | 1731.             | D s.p | Bot. mag. 1589         |
| 6108 <i>Menziesii</i> Ph.      | leafy-stemmed        | £ Δ or | 1 ap.my | W    | N. Amer.             | 1812.             | D s.p |                        |
| 6109 <i>biternata</i> Vent.    | biternate            | £ Δ or | 2 my.jn | W    | Carolina             | 1812.             | D s.p | Vent. malm. 54         |
| 11043. <i>MITELLA</i> W.       | MITELLA.             |        |         |      | <i>Saxifrageæ.</i>   | <i>Sp. 3—10.</i>  |       |                        |
| 6110 <i>diphylla</i> W.        | two-leaved           | £ Δ pr | ½ ap.my | W    | N. Amer.             | 1731.             | D p.l | Bot. reg. 166          |
| 6111 <i>cordifolia</i> Ph.     | heart-leaved         | £ Δ pr | ½ ap.my | W    | N. Amer.             | 1812.             | D p.l | La. ill. t. 373. f. 3  |
| 6112 <i>nuda</i> W.            | Kidney-leaved        | £ Δ pr | ½ jn.au | W    | N. Amer.             | 1758.             | D p.l | La. ill. t. 373. f. 2  |
| 1044. <i>GYP SOPHILA</i> W.    | <i>GYP SOPHILA</i> . |        |         |      | <i>Caryophyllææ.</i> | <i>Sp. 16—36.</i> |       |                        |
| 6113 <i>Struthium</i> L.       | fleshy-leaved        | £ Δ or | 2 jl.au | W    | Spain                | 1729.             | D p.l | B. Bar. ic. t. 119     |
| 6114 <i>fastigiata</i> L.      | one-rowed            | £ Δ or | 1 jn.jl | W    | Germany              | 1759.             | D p.l | G. sib. 4. t. 61. f. 1 |
| 6115 <i>arenaria</i> W. & K.   | sand                 | £ Δ or | 1 jl.au | W    | Hungary              | 1801.             | D p.l | Pl. rar. h. t. 41      |
| 6116 <i>viscosa</i> Murr.      | clammy               | £ O or | 1 jn.jl | W    | Levant               | 1773.             | S p.l | Mur. co. g. t. 3       |
| 6117 <i>altissima</i> L.       | upright              | £ Δ or | 1 jl.au | St   | Siberia              | 1759.             | D p.l | Gm. sib. 4. t. 60      |
| 6118 <i>perfoliata</i> L.      | perfoliate           | £ Δ or | 2 jl.au | F    | Spain                | 1732.             | D p.l | Dill. elt. t. 276      |
| 6119 <i>acutifolia</i> Fisch.  | acute-leaved         | £ Δ or | 3 jl.au | W.g  | Siberia              | 1820.             | D co  |                        |
| 6120 <i>paniculata</i> L.      | panicle              | £ Δ or | 4 jn.jl | W    | Siberia              | 1759.             | D p.l | Jac. au. 5. t. ap. 1   |
| 6121 <i>glauca</i> Bieb.       | glaucous             | £ Δ or | 1 jl.s  | W    | Caucasus             | 1822.             | D co  |                        |
| 6122 <i>elegans</i> Bieb.      | elegant              | £ O or | 2 jn.s  | W.pk | Crimea               | 1823.             | S co  | Sch. mon. t. 21        |



History, Use, Propagation, Culture,

quite easy to cultivate, and although naturally mountaineers, not incapable of breathing the more impure air of towns and valleys. The greater part known are delicate and difficult to rear: they are regardless of soil, but suffer from mid and humid weather during the winter months. Most of the species are perennial, with either fibrous or granular roots, and a few are annual. Of the latter one species, *S. tridactylites*, is common upon very old walls in England, flowering in the beginning of the spring. The parts of fructification are extremely variable in this genus, and have given rise to the construction of many supposed genera, the constituents of which have the recommendation of agreeing with one another pretty well in habit. The limits, however, of these genera are too obscure, and the gradations by which they are united so obvious, that they have not yet been adopted by men of science generally. Without interfering with that question, the old mode of considering Saxifrage has been here adhered to, as being the most popular and the best under-

- 6072 Leaves obovate crenate subsessile, Stem naked, Flowers headed  
 6073 Leaves serrate, Stem naked branched, Petals acuminate  
 6074 Leaves lanc. mucronate with a cartilaginous ciliated edge, Stem naked few-fl. Cal. obtuse  
 6075 Leaves linear perforated dotted aggregate recurved, Stem many-fl.  
 6076 Leaves lanc. obtuse hairy, Stem naked 2-flowered  
 6077 Leaves ovate opposite imbricated: the upper ciliated  
 6078 Cauline leaves lanc. alternate ciliated, Stems procumbent  
 6079 Cauline leaves lanc. alternate naked unarmed, Stem erect  
 6080 Cauline leaves lin. subul. scattered naked unarmed, Stem decumbent  
 6081 Cauline leaves linear alternate ciliated: radical aggregate  
 6082 Cauline leaves reniform toothed stalked, Stem panicled  
 6083 Cauline leaves reniform lobed, Stem branched, Root granular
- 6084 Cauline leaves palmate stalked, Stem very simple 1-fl. bulbiferous  
 6085 Cauline leaves palmate: the upper floral ovate, Stem simple about 2-flowered  
 6086 Cauline leaves ovate lobed, Stem filiform weak  
 6087 Leaves cuneiform 3-parted with trifid linear segments, Stem simple ascending, Petals lanceolate  
 6088 Radical leaves reniform 5-lobed many-cleft, Cauline linear, Stem nearly naked branched  
 6089 Rad. lvs. reniform pedatifid 7-lobed, Caul. palmate and lin. Stem nearly naked branched, Pet. lin. obov.  
 6090 Smooth, Radical leaves 3-lobed, Lobes many-cut; lateral segments falcate, Stem panicled, Cal. colored  
 6091 Radic. leaves palm. 5-parted, Cauline linear undivided, Stems ascending many-fl.  
 6092 Leaves hairy trifid or 5-fid bearded, Runners procumbent, Stem leafy, Petals obovate rounded  
 6093 Leaves reniform palm. hairy, Stem and flower-stalks filiform  
 6094 Caul. leaves wedge-shaped trifid alternate, Stem erect branched  
 6095 Leaves wedge-shaped, Radic. entire and 3-toothed, Cauline 5-toothed; upper trifid, Pedunc. about 3-fl.  
 6096 Leaves palmate 3-parted, Segments subtrifid, Stem branched ascending  
 6097 Leaves cuneiform palmate 5-fid ciliated longer than the linear petiole, Runners very short tufted  
 6098 Leaves hairy 3 or 5-parted, Lobes elliptical acute, Runners ascending, Petals obovate 3-nerved  
 6099 Leaves hairy palmate 5-cleft and trifid, Stem leafy panicled, Petals roundish  
 6100 Leaves ciliated cuneate trifid nearly 5-cleft, Pedunc. solitary elongate 1-fl.  
 6101 Cauline leaves lin. entire and trifid, Runners procumbent, Stem erect nearly naked  
 6102 Radic. leaves aggregate entire and trifid acute linear, Stem viscid nearly racemose, Petals length of cal.  
 6103 Radic. leaves aggregate membranous lin. lanceolate entire or trifid, Stem nearly naked about 2-fl.
- 6104 Radic. leaves aggr. linear obtuse trifid cut, Stem erect many-fl. Petals twice as long as cal.  
 6105 Leaves imbric. cuneate-palmate ciliated, Petals round, Styles spreading, Stigmas flat woolly  
 6106 Radical leaves aggregate entire and trifid oblong obtuse, Stem filiform about 2-fl, Pet. as long as calyx
- 6107 Leaves cordate acutely lobed toothed, Scape racemose  
 6108 Leaves ovate cordate acute shortly lobed toothed, Raceme filiform spiked  
 6109 Leaves biternate
- 6110 Leaves cordate about 3-lobed toothed, Scape 2-leaved  
 6111 Leaves orbiculate reniform doubly crenate lucid, Scape setaceous lucid  
 6112 Leaves reniform repand ciliated, Scape naked

## 1. Calyxes not scaly.

- 6113 Flowers clustered, Stems simple roughish, Leaves linear fleshy  
 6114 Flowers corymbose, Stem ascending, Leaves lanc. lin. obsolete 3-cornered obt. 1-sided, Stam. exerted  
 6115 Flowers corymbose, Petals rarely submarginate, Leaves linear fleshy smooth flat  
 6116 Flowers corymbose, Branches divaricating, Leaves ovate lanc. smooth at the base cordate amplexicaul.  
 6117 Branches spreading, Flowers panicled small, Pan. much branched, Fl.-stalks viscid  
 6118 Flowers panicled, Panic. much branched polished, Leaves ovate lanc. half stem-clasping  
 6119 Fl. trichotomous panicled, Pedunc. villous viscid, Petals emarginate twice as long as calyx  
 6120 Fl. panicled very minute dioecious, Peduncles smooth filiform divaricating, Leaves lin. lanc. rough  
 6121 Fl. panicled, Panic. divaricating, Branches few-flowered pubescent viscid, Leaves lin. lanc. obtuse  
 6122 Fl. dichotomous, Panic. smooth, Pet. emarg. twice as long as cal. Leaves lanceolate fleshy



## and Miscellaneous Particulars.

stood. The species are subject to great variation in appearance, and to much diversity of opinion among those who profess to be best acquainted with them. A middle course has here been taken, by which the doubtful kinds have been omitted, and those which are recognized, if not defined, satisfactorily, are alone admitted.

1042. *Tiarella*. From *tia*ra, a particular kind of head-dress, a mitre, in allusion to the form of its capsule. Pretty little North American herbaceous plants, related to saxifrage, and easily cultivated in pots of light sandy peat and loam.

1043. *Mitella*. A diminutive of *mitra*, a mitre; so named for the same reason as the last genus, which it altogether resembles in habit and constitution.

1044. *Gypsophila*. From *γυψος*, chalk, and *φίλας*, to love; most of the species delight in chalky districts.

|                                  |                    |   |    |   |       |      |           |         |   |     |                        |
|----------------------------------|--------------------|---|----|---|-------|------|-----------|---------|---|-----|------------------------|
| 6123 <i>Stevénii Fisch.</i>      | Steven's creeping  | Δ | or | 2 | jl.au | W    | Iberia    | 1822.   | D | co  |                        |
| 6124 <i>répens L.</i>            | doubtful           | Δ | or | 1 | jl.s  | St   | Siberia   | 1774.   | D | p.l | Bot. mag. 1448         |
| 6125 <i>dúbia W.</i>             | trailing           | Δ | or | 1 | my.s  | W    | .....     | 1815.   | D | p.l |                        |
| 6126 <i>prostráta L.</i>         | wall               | Δ | or | 1 | jl.s  | W    | Siberia   | 1759.   | D | p.l | Bot. mag. 1281         |
| 6127 <i>murális L.</i>           | wall               | Δ | or | 1 | jn.o  | F    | Germany   | 1739.   | D | s.l | La. ill. t. 375. f. 1  |
| 6128 <i>Saxifraga L.</i>         | small              | Δ | or | 1 | jl.au | Pk   | Germany   | 1774.   | D | p.l | Ex. bot. 2. t. 90      |
| β <i>rigida Dec.</i>             | rigid              | Δ | or | 1 | jn.au | Pk   | France    | 1769.   | D | s.l |                        |
| †1045. <i>SAPONA'RIA. W.</i>     | SOAPWORT. common   | Δ | or | 2 | jl.o  | Pk   | England   | .....   | D | co  | Eng. bot. 1060         |
| 6129 <i>officinális W.</i>       | double-flower.     | Δ | or | 2 | jl.o  | Pk   | .....     | .....   | D | co  |                        |
| β <i>plena</i>                   | perfoliate         | Δ | or | 2 | jl.au | Pk   | Germany   | 1596.   | S | s.l | Mor. ox. 5. 21. 27     |
| 6130 <i>vaccária W.</i>          | hairy              | Δ | or | 1 | jl.au | Pk   | Levant    | 1680.   | S | s.l | J. vind. 2. t. 109     |
| 6131 <i>pórrigens W.</i>         | Basil-leaved       | Δ | or | 1 | my.jl | R    | France    | 1763.   | R | s.p | Bot. mag. 154          |
| 6132 <i>ocymoides W.</i>         | small-annual       | Δ | or | 1 | jn.au | Pk   | Levant    | 1732.   | R | s.p | Di. et. t. 167. f. 904 |
| 6133 <i>orientális W.</i>        | yellow             | Δ | or | 1 | jn.au | Y    | Switzerl. | 1804.   | R | s.p | Smith spic. t. 5       |
| 6134 <i>lútea W.</i>             | yellow             | Δ | or | 1 | jn.au | Y    | Switzerl. | 1804.   | R | s.p |                        |
| †1046. <i>DIANTHUS. W.</i>       | PINK. proliferosus | ○ | pr | 1 | jl.au | Pk   | England   | gra.pa. | S | p.l | Eng. bot. 956          |
| 6135 <i>prolífer L.</i>          | small-flowered     | ○ | pr | 1 | jl    | Pk   | S. Europe | 1771.   | S | p.l |                        |
| 6136 <i>dimínutus L.</i>         | small-flowered     | ○ | pr | 1 | jl    | Pk   | S. Europe | 1771.   | S | p.l |                        |
| 6137 <i>arméria L.</i>           | Deptford           | ○ | or | 1 | jl.s  | R    | England   | gra.pa. | S | p.l | Eng. bot. 317          |
| 6138 <i>pseud-armeria Bieb.</i>  | false Deptford     | Δ | or | 1 | jl.au | Pu   | Crimea    | 1820.   | C | p.l | Bot. mag. 2288         |
| 6139 <i>discolor Sims.</i>       | two-colored        | Δ | or | 1 | jn.s  | Pu   | Caucasus  | 1803.   | C | s.l | Bot. mag. 1162         |
| 6140 <i>barbátus L.</i>          | Sweet-William      | Δ | or | 1 | jn.jl | Pk   | Germany   | 1373.   | C | r.m | Bot. mag. 207          |
| 6141 <i>latifolius W.</i>        | broad-leaved       | Δ | or | 1 | jl.s  | Pk   | .....     | .....   | C | s.l | Sw. fl. gard. 2        |
| 6142 <i>japónicus Thunb.</i>     | Japanese           | Δ | or | 1 | jn.o  | Pk   | China     | 1804.   | C | p.l | Thunb. jap. t. 23      |
| 6143 <i>cephalotes Ser.</i>      | headed             | Δ | or | 1 | jn.o  | Pk   | .....     | 1823.   | C | p.l |                        |
| 6144 <i>capitátus Dec.</i>       | capitate           | Δ | or | 1 | jn.o  | Pu   | Caucasus  | 1822.   | C | p.l |                        |
| 6145 <i>polymórphus Bieb.</i>    | variable           | Δ | or | 1 | jn.o  | R    | Crimea    | 1822.   | C | p.l |                        |
| β <i>áutíntus Lk.</i>            | variable           | Δ | or | 1 | jn.o  | R    | Crimea    | 1822.   | C | p.l |                        |
| 6146 <i>ferrugíneus L.</i>       | rusty              | ○ | or | 1 | jl.s  | Br   | Italy     | 1756.   | S | p.l | Mi. ic. 1. t. 81. f. 1 |
| 6147 <i>Carthusianórum L.</i>    | Carthusian         | Δ | or | 1 | jl.au | R    | Germany   | 1573.   | C | s.l | Loes. pruss. t. 7      |
| 6148 <i>atrórúbens All.</i>      | dark-red           | Δ | or | 1 | jl.s  | Cr   | Italy     | 1802.   | C | s.l | Jac. ic. 3. t. 467     |
| 6149 <i>arbóreus L.</i>          | tree               | Δ | or | 1 | jn.au | Pk   | Greece    | 1820.   | C | s.l | Bot. cab. 459          |
| 6150 <i>fruticósus L.</i>        | fleshy-leaved      | Δ | or | 1 | jn.s  | Pk   | Greece    | 1815.   | C | r.m | Tourn. it. 1. t. 9     |
| 6151 <i>suffruticósus W.</i>     | shrubby            | Δ | or | 1 | jn.jl | Pk   | Siberia   | 1804.   | C | p.l |                        |
| 6152 <i>caroliníanus Walt.</i>   | Carolina           | Δ | or | 1 | jn.s  | Pu   | N. Amer.  | 1811.   | C | r.m |                        |
| 6153 <i>sáper W.</i>             | rough-stalked      | Δ | or | 1 | jl.s  | Pk   | Switzerl. | 1822.   | C | s.l |                        |
| 6154 <i>collinus W. &amp; K.</i> | hill               | Δ | or | 1 | jl.s  | W    | Hungary   | 1800.   | C | s.l | Par. lond. 62          |
| 6155 <i>campéstris Bieb.</i>     | field              | Δ | or | 1 | jl.au | W. R | Tauria    | 1815.   | C | s.l | Bot. mag. 1276         |
| 6156 <i>ntidus W. &amp; K.</i>   | shining            | Δ | or | 1 | jl.au | R    | Carpath.  | 1822.   | C | s.l |                        |
| 6157 <i>diffúsus Sibth.</i>      | diffuse            | Δ | or | 1 | jl.au | R    | Cyprus    | 1820.   | C | s.l |                        |
| 6158 <i>hir'tus Vill.</i>        | hairy              | Δ | or | 1 | jl.au | R    | France    | 1821.   | C | s.l |                        |
| 6159 <i>guttátus Bieb.</i>       | rough-leaved       | Δ | or | 1 | jl.s  | R    | Caucasus  | 1816.   | C | s.l |                        |
| 6160 <i>versicolor Fisch.</i>    | changeable         | Δ | or | 1 | jl.s  | R. Y | Russia    | 1823.   | C | s.l |                        |
| 6161 <i>praténsis Bieb.</i>      | meadow             | Δ | or | 1 | jl.s  | W. Y | Crimea    | 1820.   | C | s.l |                        |
| 6162 <i>chinénsis L.</i>         | China              | ○ | or | 1 | jl.s  | R    | China     | 1713.   | S | r.m | Bot. mag. 25           |



History, Use, Propagation, Culture.

Some of the species are fine border plants, but the greater part are of little beauty, and only grown in botanic gardens.

1045. *Saponaria*. In allusion to its mucilaginous sap, which is said to be fit for supplying the place of soap, *sapo*. *S. officinalis plena* is considered a border flower, but is inconvenient unless kept in pots, from its spreading very much by the roots, which are underground creepers, like those of couch. The leaves form a lather with soap, and take out spots of grease in the same manner. The whole plant is bitter, and was formerly used to cure the itch and the venereal disease.

1046. *Dianthus*. *Διος ωσθός*, the flower of God, or divine flower; so named on account of its pre-eminent beauty. Most of the species of this genus are highly valued, not only for the beauty of their flowers, but also as being evergreens; their foliage during winter being as abundant and vivid as in summer. The fragrance of some of the species is peculiarly grateful, and no plant in this respect surpasses the carnation. *D. barbatus* is an old inhabitant of the flower garden, and was much esteemed in Gerarde's time "for its beauty to deck up the bosom of the beautiful, and garlands and crowns for pleasure." The varieties are numerous, but as the plant has never been treated by florists as a leading flower, they have not been named or improved. A hybrid variety called the Mule, or Fairchild's Sweet-William, is supposed to have been produced from seeds of the

- 6123 Fl. panic. Stem diffuse, Leaves lin. lanc. grassy carinate cæsious  
 6124 Stems panic, few-fl. Stam. shorter than emarginate petals, Leaves linear smooth  
 6125 Petals obovate emarginate campan. Stamens shorter than corolla, Leaves linear somewhat fleshy  
 6126 Stems panicled, Styles longer than emarginate petals, Leaves lin. lanc. smooth  
 6127 Stem dichotomous panicled much branched, Fl. axill. solitary, Leaves lin. flat as long as fl.-stalks

2. *Calyxes supported by 2-4 scarious scales.*

- 6128 Stems numerous erect stiff, Fl. panicled terminal, Leaves linear rigid

- 6129 Flowers fascicled panicled, Cal. rounded villous yellowish, Leaves ovate lanc. acute or not

- 6130 Fl. panicled, Cal. pyramid. 5-ang. smooth, Bractes membranous acute, Leaves ovate lanc. sessile  
 6131 Stem erect, Branches divaric. with clammy hairs, Fl. on long stalks axill. Leaves lanc. linear  
 6132 Stems erect branched, Fl. panic. and corymbose, Cal. slender glandular purple, Lvs. ovate lanc. 1-nerved  
 6133 Stem dichotomous, Branches divaricating, Fl. axill. Cal. hispid round, Leaves linear spatulate  
 6134 Tufted, Stems 2-leaved, Flowers headed with an involucre, Cal. woolly

§ 1. *Flowers capitate or corymbose, sessile or stalked.*

\* *Bractes ovate, blunt.*

- 6135 Scales of calyx ovate pointless longer than tube, Leaves serrulate  
 6136 Like the last, but the flowers nearly solitary

\*\* *Bractes lanceolate, acute, Calyxes villous.*

- 6137 Flowers loosely bundled, Scales lanc. subul. as long as tube, Leaves subulate, Calyxes hairy  
 6138 Flowers densely bundled, Scales ovate subul. as long as tube, Pet. beard. Lvs. subul. pub. rough upright  
 6139 Fls. aggreg. Scales long. than cal. striat. rough, Lvs. lin. short. than joints rough, Stem simple rough upw.

\*\*\* *Bractes ovate or lanceolate, Calyxes smooth.*

- 6140 Flowers aggregate fascicled, Scales ovate subulate as long as tube, Leaves lanceolate  
 6141 Flowers aggregate racemose corymbose, Scales ovate lanceolate finally longer than calyx, Lvs. obl. lanc.  
 6142 Flowers aggregate fascicled, Scales acute ciliated twice as short as tube, Leaves ovate short  
 6143 Fls. subsess. capitate, Scales imbric. mucron. at end spreading a little short. than tube, Lvs. long narrow  
 6144 Glaucous, Fls. sess. capitate, Scales broad ovate with a long awn longer than head, Upper lvs. dilat. at base  
 6145 Dark green, Flowers sessile capitate, Scales ovate very short pointless, Leaves narrow rough  
 § Flowers panicled fastigate and solitary stalked  
 6146 Fl. aggregate, Involucres and scales scarious rufous oblong awned a little shorter than cal.  
 6147 Fl. aggregate sessile and stalked, Scales ovate awned shorter than tube, Leaves linear 3-nerved  
 6148 Like the last, but flowers aggregate headed sessile 3-8  
 6149 Flowers aggregate, Claws of petals very long, Scales mucronulate closely imbricated, Leaves subul. fleshy  
 6150 Flowers aggregate, Claws of pet. as long as cal. Scales mucr. closely imbric. very short, Leaves lanc. obt.  
 6151 Stems aggregate, Scales ovate subulate thrice as short as tube, Leaves lin. lanc. narrowed at each end  
 6152 Flowers aggregate on long stalks, Scales twice as short as tube

§ 2. *Flowers panicled or solitary.*

\* *Petals toothed.*

- 6153 Flowers fascicled, Scales ovate lanceolate shorter than tube, Petals acutely toothed, Lvs. lin. lanc. rough  
 6154 Like the last, but the flowers more numerous, and the leaves linear lanc.  
 6155 Stem panicled somewhat hairy, Fl. sol. Scales ovate acute twice as short as cal. Leaves subul.  
 6156 Flowers fascicled twin, Scales awned as long as calyx, Petals crenate, Stem decumbent, Lvs. anc. obt.  
 6157 Flowers somewhat corymbose, Scales furrowed mucron. twice as short as tube, Stems diffuse smoothish  
 6158 Flowers nearly sol. Scales 6 ovate mucron. much shorter than cal. Pet. crenate, Lvs. subul. rough at edge  
 6159 Stem panicled smooth, Flowers solitary, Scales ovate awned as long as tube, Leaves subulate nerved  
 6160 Stem many-fl. smooth, Scales cuspid. spreading shorter than tube, Pet. downy at orifice, Lvs. lin. roughish  
 6161 Stem panicled, Fl. sol. Scales acuminate appressed, Petals acutely toothed, Leaves subul. lanc.  
 6162 Stem branched, Fl. sol. Scales linear leafy, Petals toothed, Leaves lin. lanc.



and Miscellaneous Particulars.

carnation impregnated by a Sweet-William. *D. caryophyllus* is considered the source whence have sprung the numerous varieties of the carnation, and some think those also of the pink. The pink, however, is more probably derived from some of the smaller growing species, as *plumarius*, *deltoides*, *armeria*, *carthusianorum*, &c.

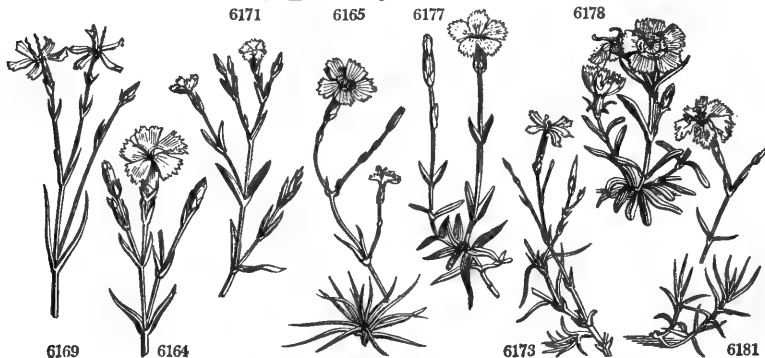
The carnation is rarely found wild in England, but it may be gathered on the south side of the Swiss Alps. It seems to have been unknown to the ancients, at least in its cultivated state, not being mentioned by Pliny, or sung by any of the Roman poets. It has, however, been cultivated from time immemorial in Europe, and is in the highest favor for its beauty and rich spicy odour. It is the principal florist's flower of Germany and Italy, from which countries the British florists procure their best carnation seed, and also some esteemed varieties.

The varieties of carnation amounted to nearly 400 named sorts in the beginning of the eighteenth century, and the number has not since diminished. They are arranged in three classes; *flakes*, *bizarres*, and *picotees*. *Flakes* have two colors only, and their stripes large, going quite through the leaves; *bizarres*, Fr. (*odd*, irregular) are variegated in irregular spots and stripes, and with no less than three colours; *picotees*, Fr. (*piequettée*, pricked or spotted) have a white ground, spotted or pounced with scarlet, red, purple, or other colors. Of

|      |                            |                 |        |         |       |           |         |       |                        |
|------|----------------------------|-----------------|--------|---------|-------|-----------|---------|-------|------------------------|
| 6163 | <i>montanus</i> Bieb.      | two-colored     | ♂ Δ or | ♂ jn.s  | R     | Caucasus  | 1803.   | C s.l |                        |
| 6164 | <i>caryophyllus</i> L.     | Clove           | ♂ Δ or | ♀ jn.au | F     | England   | walls.  | C r.m | Eng. bot. 214          |
|      | <i>β flore pleno</i>       | Carnation       | ♂ Δ or | ♀ jn.au | Cr    | England   | ...     | C r.m | Bot. mag. 39           |
|      | <i>γ fruticosus</i>        | tree-Carnation  | ♂ Δ or | ♀ jn.au | Cr    | England   | ...     | C r.m |                        |
|      | <i>δ imbricatus</i>        | wheat-ear       | ♂ Δ or | ♀ jn.au | F     | England   | ...     | C r.m | Bot. mag. 1692         |
| 6165 | <i>virginus</i> Sims.      | virgin          | ♂ Δ or | ♀ jn.jl | W     | S. Europe | 1732.   | C s.l | Bot. mag. 1740         |
|      | <i>D. sylvestris</i> Jacq. |                 |        |         |       |           |         |       |                        |
| 6166 | <i>monadelphus</i> Vent.   | procumbent      | ♂ Δ or | ♀ jn.jl | Pk    | Levant    | ...     | C s.l | Vent. cels. t. 39      |
|      | <i>D. procumbens</i> Pers. |                 |        |         |       |           |         |       |                        |
| 6167 | <i>syriacus</i> Hoppe      | wood            | ♂ Δ or | ♀ jn.s  | R     | Ratisbon  | 1815.   | S p.l |                        |
| 6168 | <i>pomeridianus</i> L.     | afternoon       | ♂ Δ or | ♀ jn.jl | Y     | Levant    | 1804.   | C s.l | Par. lond. 57          |
| 6169 | <i>leptopetalus</i> W.     | narrow-petalled | ♂ Δ or | ♀ jl    | W     | Caucasus  | 1814.   | C s.l | Bot. mag. 1739         |
| 6170 | <i>pungens</i> L.          | pungent         | ♂ Δ or | ♀ jn.o  | F     | Spain     | 1781.   | C s.l |                        |
| 6171 | <i>deltoides</i> L.        | maiden          | ♂ Δ or | ♀ jn.o  | F     | Britain   | gra.pa. | C s.l | Eng. bot. 61           |
| 6172 | <i>glauca</i> L.           | glaucous-leaved | ♂ Δ or | ♀ jn.o  | W     | Britain   | ...     | C s.l | Di. el. t. 238. f. 348 |
| 6173 | <i>crenatus</i> Thunb.     | long-cupped     | ♂ Δ or | ♀ jn.o  | F     | C. G. H.  | 1817.   | C s.l | Bot. reg. 256          |
| 6174 | <i>rigidus</i> Bieb.       | rigid           | ♂ Δ or | ♀ jn.o  | R     | Casp. Sea | 1802.   | C s.l |                        |
| 6175 | <i>clavatus</i> Spr.       | clavate         | ♂ Δ or | ♀ jn.o  | F     | .....     | ...     | C s.l |                        |
| 6176 | <i>suavis</i> W.           | sweet           | ♂ Δ or | ♀ jn.o  | Pa.pk | .....     | ...     | C s.l |                        |
| 6177 | <i>caesus</i> Sm.          | mountain        | ♂ Δ or | ♀ jn.jl | F     | Britain   | rocks.  | C s.l | Eng. bot. 62           |
| 6178 | <i>alpinus</i> L.          | alpine          | ♂ Δ or | ♀ jn.jl | R     | Austria   | 1759.   | C s.l | Bot. mag. 1205         |
| 6179 | <i>Hornemanni</i> Ser.     | Hornemann's     | ♂ Δ or | ♀ jn.jl | R     | Italy     | ...     | C s.l |                        |
| 6180 | <i>Sternbergii</i> Sibth.  | Sternberg's     | ♂ Δ or | ♀ jn.jl | R     | .....     | ...     | C s.l |                        |
| 6181 | <i>petraeus</i> W. & K.    | rock            | ♂ Δ or | ♀ jn.au | Pk    | Hungary   | 1804.   | C s.l | Bot. mag. 1204         |
| 6182 | <i>gallicus</i> Pers.      | French          | ♂ Δ or | ♀ jn.au | Pu    | S. France | ...     | C s.l |                        |
| 6183 | <i>albans</i> H. K.        | Cape            | ♂ Δ or | ♀ au    | W     | C. G. H.  | 1787.   | C p.l |                        |
| 6184 | <i>plumarius</i> L.        | feathered       | ♂ Δ or | ♀ jn.au | W.pu  | Europe    | 1629.   | C s.l |                        |
| 6185 | <i>hortensis</i> W.        | garden          | ♂ Δ or | ♀ jn.au | St    | Hungary   | 1805.   | C r.m |                        |
| 6186 | <i>caucasicus</i> Sims.    | Caucasian       | ♂ Δ or | ♀ jn.s  | Pu    | Caucasus  | 1803.   | C s.l | Bot. mag. 705          |
| 6187 | <i>fragrans</i> Bieb.      | fragrant        | ♂ Δ or | ♀ jn    | Pu    | Austria   | 1804.   | C r.m | Bot. mag. 2007         |
| 6188 | <i>punctatus</i> Spr.      | dotted          | ♂ Δ or | ♀ jn    | PaLi  | .....     | ...     | C r.m | Bot. cab. 896          |
| 6189 | <i>serotinus</i> W. & K.   | late-flowering  | ♂ Δ or | ♀ jls   | Pu    | Hungary   | 1804.   | C s.l | Pl. rar. h. 2. t. 172  |
| 6190 | <i>arenarius</i> L.        | sand            | ♂ Δ or | ♀ my    | Pu    | Europe    | ...     | C s.l |                        |
| 6191 | <i>imbricatus</i> Bieb.    | fringed         | ♂ Δ or | ♀ jn.au | Li    | Iberia    | 1815.   | C s.l | Bot. mag. 1069         |
|      | <i>D. orientalis</i> Sims. |                 |        |         |       |           |         |       |                        |
| 6192 | <i>plumosus</i> Spr.       | feathered       | ♂ Δ or | ♀ jls   | W.Li  | M. Bald.  | ...     | C s.l |                        |
| 6193 | <i>monsperulianus</i> L.   | Montpelier      | ♂ Δ or | ♀ jn.au | R     | Montpel.  | 1764.   | C p.l |                        |
| 6194 | <i>superbus</i> L.         | superb          | ♂ Δ or | ♀ jls   | W     | Europe    | 1596.   | C s.l | Bot. mag. 1148         |

## TRIGYNIA.

|       |                       |               |       |         |                        |         |           |           |      |
|-------|-----------------------|---------------|-------|---------|------------------------|---------|-----------|-----------|------|
| 1047. | <i>CUCUBALUS</i> L.   | CAMPION.      |       |         | <i>Caryophyllaea</i> . | Sp. 1.  |           |           |      |
| 6195  | <i>baccifer</i> H. K. | berry-bearing | ♂ Δ w | ♀ jn.jl | W                      | England | hed. D co | Eng. bot. | 1577 |



## History, Use, Propagation, Culture.

each class there are numerous varieties, arranged under the farther subdivisions of scarlet flake, pink flake, purple flake, yellow flake, &c.; scarlet bizarre, crimson bizarre, &c.; and purple picotee, yellow picotee, &c.

Picotees are rather smaller flowers than carnations, and are distinguished by the serrated margins of their petals; the colors are principally yellow and white spotted, and the plants are considered hardier than the other sorts. Whatever colors the flower may be possessed of, they should be perfectly distinct, and disposed in long regular stripes, broadest at the edge of the lamina, and gradually becoming narrower as they approach the unguis, or base of the petal, there terminating in a fine point. Each petal should have a due proportion of white, *i. e.* one half, or nearly so, which should be perfectly clear and free from spots. Bizarres, or such as contain two colors upon a white ground, are esteemed rather preferable to flakes, which have but one, especially when their colors are remarkably rich, and very regularly distributed. Scarlet, purple, and pink are the three colors most predominant in the carnation; the two first are seldom to be met with in the same flower, but the two last are very frequently.

New varieties are procured from seeds, and thousands of seedlings are annually blown by florists and amateurs, sometimes without one being found worth keeping. Established or approved varieties are continued by layering and cuttings, or, as they are commonly called, pipings. The soil in which the carnation thrives best is a rich loam rather sandy than otherwise; the climate should be free from extremes of every kind, for which reason they are commonly grown in pots, and protected by a frame during winter, and covered by an awning while in bloom. Carnations grow exceedingly well in beds of properly prepared soil, over which frames are placed in winter, and an awning of canvass or bunting when the plants are in blossom. Those who are curious in blowing their carnations have a great many nice and curious operations to perform when they come into flower. Such petals as are plain, or run from the proper colors of the variety, are extracted by a particular instrument; the remaining petals are next arranged so as to form a convex imbricated surface; the calyx being slit down or tied up as may be necessary to aid this end. Then the flowerstalks are neatly tied to sticks, and the flower supported in a pendant attitude by means of properly formed brass wires.

6163 Stem branch. upw. closely dichotom. Fl. sol. Bract. with a spread. leafy point, Lvs. lin. subul. 3-nerv. hairy  
 6164 Stem branched, Fl. sol. Scales very short ovate, Petals very broad beardless, Lvs. lin. sub. channelled glauc.

6165 Stem branched or simple, Fl. sol. Scales very short 4 ovate, Pet. broad beardless toothed

6166 Stem dichotomous paniced many-fl. glaucous, Fl. sol. Scales 4 pungent spreading shorter than tube

6167 Fl. sol. subcorymb. Soales ov. lanc. short. than tube, Lvs. lin. lanc. obsol. 3-nerv. smooth, Pet. twice toothed  
 6168 Fl. sol. Scales ovate acute very short, Petals emarginate or nearly entire

6169 Stem branched, Fl. sol. Scales ovate acute very short awned, Pet. lanc. narrow, Leaves subul. roughish

6170 Stem few-fl. Fl. sol. Scales very short mucron. spreading, Tube gibbous, Pet. entire, Lvs. caespitose subul.

6171 Stem decumb. branched, Fl. sol. Scales ovate lanc. acute twin, Upper leaves narr. acute : lower oblong obt.

6172 Like the last, but flowers white. Leaves and stem glaucous

6173 Stem branched, Fl. sol. Scales 6 lanc. appressed, Pet. smooth cuneate obovate, Lvs. lin. acum. channelled

6174 Stems tufted few-fl. Fl. sol. Scales ovate acute short, Leaves subul. spreading downy rough

6175 Stem 1-fl. Scales 2 ovate acute short spreading, Cal. contracted in middle, Lvs. lin. chann. roughish at edge

6176 Stem 1-fl. Scales 4 acute short, Petals bearded doubly serrated, Leaves lin. spreading

6177 Stems tufted about 1-fl. Scales roundish short, Pet. crenate downy, Leaves bluntnish rough at edge

6178 Stem 1-fl. Outer scales as long as tube : inner much shorter, Pet. crenate, Leaves obl. obtuse

6179 Pedunc. biind term. Scales lanc. cusp. erect short. than tube, Pet. cut, Lvs. lin. nerved serrul. rough at edge

6180 Stems about 2-fl. Scales 4 ovate acute twice as short as tube, Petals serrate downy, Leaves linear

6181 Stem about 1-fl. Scales obovate mucronate, Pet. beardless many-cut, Leaves subul. entire smooth nerved

\*\* *Petals fringed.*

6182 Stems ascending about 1-fl. Scales short ovate, Pet. toothed many-cut, Leaves lin. ciliated

6183 Fl. sol. Scales 4 lanc. short, Petals emarginate at the end fringed toothed

6184 Glaucous, Stems 2-3-fl. Teeth blunt, Bractes ovate very short pointed, Leaves lin. rough at edge

6185 Like the last, but the petals bearded at their orifice

6186 Stem pan. few-fl. Fl. sol. Scales ovate acum. Petals equally cut crenate, Leaves glaucous rough at edge

6187 Stems 1-fl. Scales ovate lanceolate acuminate shorter than tube, Pet. beardless, Lvs. subul. rough at edge

6188 Stem branched few-fl. Scales 4 blunt short, Petals beardless dotted, Leaves glaucous linear flaccid

6189 Stems 1-fl. Scales ovate obtuse four times as short as calyxes, Pet. naked, Leaves subul. glauc. ciliated

6190 Stems 1-fl. Scales ovate obtuse, Leaves linear

6191 Stem half-shrubby branched at base 2-fl. Scales 6 lanc. shorter than cal. Leaves subul. rough

6192 Fl. scattered solitary, Scales lanc. lin. spreading a little shorter than tube, Leaves lin. nerved flaccid

6193 Stem paniced few-fl. Fl. sol. Scales subul. straight twice as short as tube, Petals digitate, Lvs. lin. serrul.

6194 Stem panic. many-fl. Fl. fastigate, Scales short ov. mucron. Pet. beyond the middle pinn. many-cut hairy

[at orifice

### TRIGYNIA.

6195 Branches divaricating, Leaves ovate, Cal. campanulate, Pet. distant



and Miscellaneous Particulars.

Behind the petals a circle of card paper is sometimes fixed to keep them in position, and the pot in which the plant grows is placed on a particular description of saucer, by which it is surrounded by water, in order to prevent the approach of ground insects, and especially of the earwig. These and a number of other operations will be found described at length in Maddock's Florist's Directory, and in the Encyclopedia of Gardening. (Sec. 6406.)

The pink, as a florist's flower, is of much less antiquity than the carnation : it is scarcely mentioned by Gerard, and Parkinson has given very few varieties. It was chiefly grown as a border flower till within the last fifty years, since which it has been greatly improved and many fine varieties originated. Being one of the hardiest and least expensive of fine flowers, it is much cultivated by operative mechanics and manufacturers round large towns, and no where to such an extent as about Paisley, by the muslin weavers there.

The varieties of pink most cultivated are chiefly those called pheasant's eyes, which seem to have sprung from *D. plumarius*. Cob pinks are a large sort seemingly intermediate between pinks and picotee carnations; red early pinks are smaller plants than cobs, but larger than pheasant's eyes, and seem to have sprung from cobs and *D. armerius* or *deltoides*. The Paisley growers reckon above three hundred varieties of the pheasant's eyes. To garden pinks in general Wildenow gives the appellation of *D. hortensis*.

The propagation and culture of the pink is the same as that of the carnation, excepting that it is less frequently kept in pots or frames, but planted in beds of fresh loamy soil, and the small side shoots reduced in the autumn in order to throw more strength into those intended to produce flowers the following season. Some cover their pink bed with an awning. Not more than eight or ten flowers are ever allowed to expand on one plant, and these, if they shew a tendency to bursting at the calyx, are to be tied as in carnation culture.

1047. *Cucubatus*. A name signifying a bad subject; an evil weed. According to Miller, the berries of this plant are no less deadly than those of Nightshade.

| 1048. SILE'NE L. |                     | CATCHFLY.       | <i>Caryophyllea.</i> |    | <i>Sp.</i> 107-217. |       |    |                 |         |     |                      |                        |
|------------------|---------------------|-----------------|----------------------|----|---------------------|-------|----|-----------------|---------|-----|----------------------|------------------------|
| 6196             | acaulis L.          | stemless        | Δ                    | pr | ½                   | jn.au | Pk | Britain sc.alp. | D       | p.1 | Eng. bot. 1081       |                        |
| 6197             | pumilio Sturm.      | dwarf           | Δ                    | pr | ½                   | jn.au | Pu | Germany         | D       | co  | Stur. d. f. 1. t. 11 |                        |
| 6198             | fimbriata Sims.     | fringed-flower. | Δ                    | pr | ¼                   | my.au | W  | Caucasus        | 1803.   | D   | s.1                  | Bot. mag. 908          |
| 6199             | lácera Sims.        | torn            | Δ                    | pr | ¼                   | my.au | W  | Caucasus        | 1818.   | D   | co                   | Bot. mag. 9255         |
| 6200             | stellata H.K.       | four-leaved     | Δ                    | pr | 1                   | jn.au | W  | N. Amer.        | 1696.   | D   | co                   | Bot. mag. 1107         |
| 6201             | inflata Sm.         | inflated        | Δ                    | cu | 1                   | my.s  | W  | Britain         | co. fi. | C   | co                   | Eng. bot. 164          |
| 6202             | maritima W.         | sea             | Δ                    | cu | ¾                   | au.s  | W  | Britain         | sea sh. | D   | s.1                  | Eng. bot. 957          |
| 6203             | fabiana H. K.       | thick-leaved    | Δ                    | cu | ¾                   | jn.au | W  | Sicily          | 1731.   | S   | co                   | Boc. m. 133. t. 92     |
| 6204             | Béhen L.            | bladder         | Δ                    | w  | 2                   | jn.jl | W  | Crete           | 1713.   | S   | co                   | Di. el. t. 317. f. 409 |
| 6205             | indica Roxb.        | Nepal           | Δ                    | w  | 2                   | jn.jl | Pu | Nepal           | 1823.   | C   | co                   |                        |
| 6206             | viscaginoides Horn. | simple          | Δ                    | cu | ¾                   | jn.jl | Pk | Dauria          | 1824.   | D   | co                   |                        |
| 6207             | procumbens Murr.    | procumbent      | Δ                    | cu | ¾                   | jn.jl | Pk | Siberia         | 1823.   | D   | co                   |                        |
| 6208             | rubella L.          | small-red       | Δ                    | pr | ½                   | my.jn | F  | Portugal        | 1732.   | S   | co                   | Di. el. t. 314. f. 406 |
| 6209             | apétala W.          | petalless       | Δ                    | cu | 1                   | jn.jl | Ap | .....           | 1801.   | S   | co                   |                        |
| 6210             | spergulifolia Bieb. | spurrey-like    | Δ                    | pr | ½                   | jn.jl | W  | Armenia         | 1824.   | D   | co                   |                        |
| 6214             | Gypsophila Desf.    | little          | Δ                    | pr | ½                   | jn.jl | W  | .....           | 1823.   | D   | co                   |                        |
| 6212             | carnea Münch.       | fleshy          | ○                    | w  | 1                   | jn.jl | Pu | .....           | 1823.   | S   | co                   |                        |
| 6213             | Otites Pers.        | Spanish         | Δ                    | cu | 2                   | jl.au | Y  | England         | gra.so. | D   | co                   | Eng. bot. 85           |
| 6214             | volgensis Oth.      | Volga           | Δ                    | pr | 1                   | jl.au | Pk | Volga           | 1824.   | D   | co                   |                        |
| 6215             | parviflora Pers.    | small-flowered  | Δ                    | pr | 1                   | jl.au | Pk | Hungary         | 1792.   | D   | co                   |                        |
| 6216             | effusa Oth.         | effuse          | Δ                    | pr | 1                   | jl.au | Pk | Volga           | 1823.   | D   | co                   |                        |
| 6217             | sibirica Pers.      | Siberian        | Δ                    | cu | ¼                   | jn.au | Pk | Siberia         | 1773.   | D   | co                   | H. g. 1. p. 150. ic.   |
| 6218             | multiflora Pers.    | many-flowered   | ○                    | cu | 1                   | jn.au | R  | Hungary         | 1794.   | S   | co                   | Pl. rar. h. 1. t. 56   |
| 6219             | tatarica Pers.      | Hyssop-leaved   | Δ                    | pr | 2                   | jn.au | Pk | Russia          | 1769.   | D   | co                   |                        |
| 6220             | gigantea L.         | gigantic        | Δ                    | pr | 3                   | jn.jl | R  | Africa          | 1738.   | C   | s.1                  | Walt. ho. t. 11        |
| 6221             | viscosa Pers.       | clammy          | ○                    | or | 2                   | jl    | R  | Levant          | 1739.   | D   | co                   | Tour. it. 2. p. 361    |
| 6222             | cónica L.           | corn            | ○                    | w  | 1                   | jn.jl | Pu | England         | san.fi. | S   | s.1                  | Eng. bot. 922          |
| 6223             | conoides L.         | conoid          | ○                    | pr | 1                   | jn.jl | Pu | S. Europe       | 1683.   | S   | s.1                  | Mor. s. 5. t. 36. f. 6 |
| 6224             | undulata H. K.      | wave-leaved     | Δ                    | cu | ¼                   | au    | R  | C. G. H.        | 1775.   | S   | p.1                  |                        |
| 6225             | anglica L.          | English         | ○                    | w  | ¾                   | jn.jl | W  | Britain         | san.fi. | S   | co                   | Eng. bot. 1178         |
| 6226             | lusitânica L.       | Portugal        | ○                    | pr | 1                   | jn.jl | Pk | Portugal        | 1732.   | S   | co                   | Di. el. t. 311. f. 401 |
| 6227             | tridentata Desf.    | three-toothed   | ○                    | pr | ¾                   | my.jn | Pk | Barbary         | 1823.   | S   | s.1                  |                        |
| 6228             | gállica L.          | French          | ○                    | pr | 1                   | my.jn | Pk | France          | 1683.   | S   | s.1                  | Di. el. t. 310. f. 399 |
| 6229             | ocymoides Desf.     | Basil-like      | ○                    | pr | 1                   | mr.jn | Pu | .....           | 1823.   | S   | co                   |                        |
| 6230             | disticha W.         | two-ranked      | ○                    | pr | ¼                   | jn.jl | R  | .....           | 1817.   | S   | s.1                  | Schra. pl. r. t. 39    |
| 6231             | cerastoides L.      | Cerastium-ldv.  | ○                    | cu | ¾                   | jl.au | W  | S. Europe       | 1732.   | S   | s.1                  | Di. el. t. 309. f. 397 |
| 6232             | quinquevilnera L.   | variegated      | ○                    | or | 1                   | jn.au | Bd | England         | san.fi. | S   | co                   | Eng. bot. 86           |
| 6233             | nocturna L.         | spiked          | ○                    | cu | 2                   | jn.au | Br | S. Europe       | 1683.   | S   | s.1                  | Di. el. t. 310. f. 400 |
| 6234             | reflexa L.          | reflexed        | Δ                    | cu | 1                   | jl.au | Br | S. Europe       | 1795.   | D   | co                   | Mag. mo. 171. ic.      |
| 6235             | micropétala Dec.    | small-petaled   | Δ                    | un | ¾                   | jn.jl | R  | .....           | 1821.   | S   | co                   |                        |
| 6236             | micrantha Lk.       | minute-flower'd | ○                    | un | ¾                   | jn.jl | R  | Portugal        | 1823.   | S   | co                   |                        |
| 6237             | canescens Ten.      | hoary           | Δ                    | un | 1                   | jn.jl | R  | Naples          | 1822.   | D   | co                   |                        |
| 6238             | dichótoma Ehr.      | dichotomous     | ○                    | un | ¼                   | jn.jl | Pk | Hungary         | 1791.   | S   | s.1                  | Pl. rar. h. t. 29      |
| 6239             | nyctántha W.        | various-leaved  | ○                    | cu | ¼                   | jn.au | Br | .....           | 1815.   | S   | co                   |                        |
| 6240             | bellidifolia Jacq.  | Daisy-leaved    | ○                    | pr | 1                   | jn.jl | Pk | .....           | 1794.   | S   | s.1                  | Jac. vind. 3. t. 81    |
| 6241             | vespertina Retz.    | evening         | ○                    | cu | 2                   | jl.au | Br | Barbary         | 1796.   | S   | co                   | Bot. mag. 677          |
| 6242             | crassifolia L.      | thick-leaved    | Δ                    | cu | 1                   | jl.au | Br | C. G. H.        | 1774.   | R   | p.1                  |                        |
| 6243             | grácilis Dec.       | slender         | Δ                    | pr | 1                   | jl.au | W  | .....           | 1823.   | S   | co                   |                        |
| 6244             | jeniseénsis W.      | two-colored     | Δ                    | pr | ¼                   | jn.jl | Pk | Siberia         | 1817.   | D   | s.1                  |                        |
| 6245             | ciliata Pourr.      | ciliated        | Δ                    | pr | ¾                   | jn.au | Pu | Crete           | 1804.   | S   | s.1                  |                        |
| 6246             | péndula L.          | pendulous       | ○                    | or | 1                   | my.jl | R  | Sicily          | 1731.   | S   | s.1                  | Bot. mag. 114          |
| 6247             | quadridéntata Dec.  | four-toothed    | Δ                    | pr | ¾                   | my.jl | W  | Alps            | 1822.   | D   | co                   |                        |
| 6248             | pusilla W. & K.     | dwarf           | Δ                    | un | ¾                   | jn.jl | Pk | Hungary         | 1804.   | D   | s.1                  | Pl. rar. h. 3. t. 212  |
| 6249             | alpestris Jacq.     | Austrian        | Δ                    | un | ¾                   | my.jl | R  | Austria         | 1774.   | D   | s.1                  | Jac. aus. 1. t. 96     |
| 6250             | rupestris L.        | rock            | Δ                    | un | ¾                   | my.jl | R  | Switzerl.       | 1774.   | D   | s.1                  | Fl. dan. 4             |



History, Use, Propagation, Culture,

1048. *Silene*. A poetical name, after the God Silenus, who is represented as always drunk and covered with slaver, as the species of this genus usually are with a viscid secretion. This is a large family of small plants, neither remarkable for use, beauty, or as bad weeds. *S. inflata*, the Cucubalus Behen *L.*, may be used as a substitute for asparagus or green pease, the young shoots having the flavor of both. They ought to be gathered

- § 1. *Tufted, Stems scarcely any, Calyx somewhat inflated, Peduncles 1-flowered.*  
 6196 Smooth, Stems dense, Leaves lin. lanc. Flowers dioecious, Calyx campanulate  
 6197 Stems less dense, Leaves lin. spatulate pubescent, Cal. inflated hairy
- § 2. *Cauliscent, Flowers solitary or panicled, Calyx bladderly inflated.*  
 6198 Pubescent, Leaves large ovate lanc. Fl. in large panicles, Cal. much inflated, Petals fringed  
 6199 Hispid, Leaves ovate lanc. on long stalks wavy, Cal. much inflated, Pet. lacerated crowned  
 6200 Stems erect branched pubescent, Leaves 4 whorled lanc. with long points smooth, Fl. pan. Cal. bladderly  
 6201 Stems branched, Fl. pan. Cal. bladderly ovate, Pet. bifid naked, Styles very long  
 6202 Like the last, but hairy with ovate lanc. leaves  
 6203 Like the last, but creeping with smaller nearly spatulate leaves  
 6204 Smooth branch. Lvs. lanc. : the lower stalk. Fl. pan. Cal. ovate veiny, Pet. with 2 very short lobes crowned  
 6205 Pubescent, Stems very tall branch. Lvs. large lanc. Fl. pan. Cal. ov. netted, Pet. with a claw hairy at base  
 6206 Smooth, Stem erect simple rather leafy, Lvs. lin. scarcely ciliat. Fl. in pan. spikes, Claws of pet. not ciliated  
 6207 Smooth with very leafy branched procumbent stems, Leaves lanc. Fl. axill opp. and terminal, Petals bifid  
 6208 Nearly smooth, Stems little branched, Leaves obovate serrulate-ciliated, Fl. pan. Pet. orbiculate crowned  
 6209 Hoary, Stem erect branched, Leaves lanc. : the upper linear. Fl. few term, Petals 0  
 6210 Stems procumb. diffuse 2-3-chotomous branched, Lvs. small lin. Petals half-bifid with an orbic. crown  
 6211 Nearly smooth, Stems wavy branched leafy, Leaves lin. lanceolate, Petals 2-lobed  
 6212 Smooth, Stem erect, Leaves acute glaucous, Fl. solitary, Pet. lanceolate with a 2-lobed crown

- § 3. *Cauliscent, Flowers spiked in whorls.* [Fl. small dioecious  
 6213 Leaves erect, with a few branches, which are scarcely pubesc. or leafy, Lower lvs. numerous spatul. fleshy,  
 6214 Stem pubesc. branched, Lower leaves large lanc. spatulate : upper lin. long, Fl. panicled with linear petals  
 6215 Hoary, Stems assurgent nearly simple, Leaves spatulate lanc. Cal. spherical 10-stripped  
 6216 Stems erect nearly simple, Lvs. lin. : lower obt. Fl. very numerous and small, Cal. obov. clavate 10-stripped  
 6217 Half-shrubby smooth, Stems much branch. Lvs. lin. lanc. shortly ciliat. numerous, Cal. inf. clav. 10-stripped  
 6218 Stem simple, Lvs. lin. lanc. : lower broader stalk. Cal. clavate cylindr. 10-strip. Pet. 2-part. Stam. very long  
 6219 Smooth, Stems erect simple very leafy, Lvs. lanc. small, Spike dense, Cal. clavate netted, Stam. very long  
 6220 Velvety, Radical leaves cochleate smooth, Cal. tubular 10-stripped, Pet. 2-fid, Stamens very long  
 6221 Pubescent very viscid, Stem simple thick leafy, Leaves large lin. lanc. wavy, Fl. large nodding

- § 4. *Cauliscent, Calyx conoid, at the bottom retracted, with very long teeth.*  
 6222 Pubescent, Leaves linear soft, Cal. short conical  
 6223 Stems pubescent, Leaves lanc. lin. nearly smooth, Cal. long conical  
 6224 Pubescent, Leaves lanceolate wavy : the lower stalked, Fl. large in loose dichotomous panicles

- § 5. *Cauliscent, Flowers spiked, axillary, not opposite, Calyx with 10 stripes.*  
 \* *Calyx cylindrical.*  
 6225 Hairy, Stems branched, Leaves lanc. acute, Cal. ventricose with very long teeth, Petals small crowned  
 6226 Very hairy, Stems much branched, Lower leaves obovate spat. : upper lanc. obtuse, Petals undivided  
 6227 Stems branched, Leaves lin. lanc. Spike 1-sided, Cal. cylindrical with 10 ribs, Teeth long, Pet. 3-toothed  
 6228 Hairy, Stems branched, Lower lvs. spatulate : upper lanc. obtuse, Cal. teeth short, Pet. obov. crowned  
 6229 Hairy, Stems branched, Leaves spatulate, Spike 1-sided few-fl. Cal. very hairy, Pet. obovate crowned  
 6230 Hairy, Stem much branched, Leaves lanc. cusp. Spikes twin dense, Pet. small bifid  
 6231 Stems simple vill. Leaves pub. : lower spatul. : upper lanc. Spike 2-ranked few-fl. Pet. obov. retuse crowned  
 6232 Pubesc. Stems branch. Lvs. lanc. : lower obt. Spike 1-sided. Cal. vill. with short teeth, Pet. roundish crowned  
 6233 Stem branch. hairy below. Lvs. pubesc. with a long fringe at base, Cal. cyl. nearly smooth ribbed and netted  
 6234 Like the last, but flowers few distant, Petals smaller  
 6235 Hairy, Stem branched leafy, Leaves lin. lanc. Flowers terminal, Cal. cylindr. Pet. bifid  
 6236 Hairy, Fl. sessile 1-sided, Cal. cylindr. appressed, Petals small deeply emarginate

- \*\* *Calyx clavate.*  
 6237 Hoary, Stems prostrate branched, Lvs. obovate spatulate ciliated at base, Fl. 1-sided erect, Pet. bifid  
 6238 Stems branch. pubesc. Lvs. scabrous cil. at base : lower spatul. ; upper lanc. Fl. sess. nodding, Pet. 2-parted  
 6239 Pubescent, Lvs. somewhat fleshy : lower spatulate ; upper lanceolate, Cal. long clavate, Petals 2-fid  
 6240 Hairy, Stem erect slender branched, Lvs. lanc. Spikes twin 2-sided, Cal. cylindr. clavate, Pet. bifid  
 6241 Pubesc. Stems branch. Lvs. spatul. obt. Spikes twin 1-sided, Cal. bladderly, Pet. 2-parted with ov. lobes  
 6242 Velvety, Stem procumb. branch. leafy, Lvs. ov. spatul. fleshy, Bract. very small, Pet. with long claws emarg.  
 6243 Smth. Stem erect slender branch. Lvs. lin. scarcely ciliat. : low. ov. Fl. on long stks. Pet. 2-part. with lin. lobes  
 6244 Smooth, Stems usually simple, Lvs. somewhat fleshy lin. lanc. Cal. ov. ventric. Pet. bifid with 4-lob. append.  
 6245 Pubesc. Stems numerous prostrate very leafy at base, Lvs. lin. setaceous ciliated, Ribices of calyx deflexed  
 6246 Pubescent branched supine, Leaves ovate lanc. Fl. axillary pendulous, Petals bifid crowned

- § 6. *Cauliscent, Stems upright, Peduncles filiform, Calyx campanulate or cylindrical.*  
 6247 Tufted, Stems erect slender branched, Lvs. small linear very narrow, Fl. small, Petals short 4-toothed  
 6248 Like the last, but the radical leaves broader, Peduncles long upright  
 6249 Root branched, Stems simple leafy, Lvs. lanc. lin. obt. Fl. large panicled, Petals broad 4-cleft, Seed ciliated  
 6250 Smooth, Stems erect branched, Leaves ovate lanc. Fl. panicled very small, Petals orbiculate



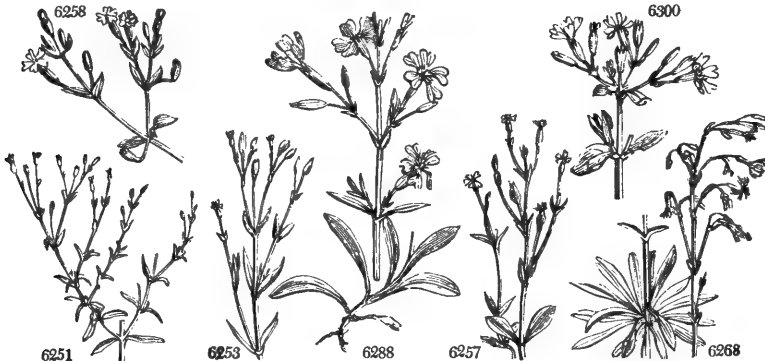
and Miscellaneous Particulars.

when about two inches long, and the more they are blanched the better. Bryant (*Flora Dietetica*) says, its culture would well reward the gardener's trouble. *S. viscosa* is a popular border flower, especially the double variety.

*S. quinquevulnera* was formerly in culture as a border flower, but is now seldom used for that purpose :  
 B b 4



|  |                           |      |   |       |                      |            |         |       |                       |
|--|---------------------------|------|---|-------|----------------------|------------|---------|-------|-----------------------|
| 6251 inapérta L.                           | unopen-flower.            | ○ un | 2 | jn.jl | Br                   | Madeira    | 1732.   | S al  | Di. el. t.315.f.407   |
| 6252 clandestina Jacq.                     | hidden-flower.            | ○ un | 1 | jn.jl | R                    | C. G. H.   | 1801.   | S co  | Jac. col. s. t. 3.f.3 |
| 6253 antirrhina L.                         | Snap-dragon               | ○ un | 1 | jn.jl | R                    | N. Amer.   | 1732.   | S pl  | Di. el. t.313.f.403   |
| 6254 geminiflora W.                        | twin-flowered             | ○ cu | 1 | jn.jl | Pu                   | .....      | 1816.   | S co  |                       |
| 6255 flavescens W. & K.                    | yellowish                 | △ pr | 1 | jn.jl | Y                    | Hungary    | 1804.   | D pl  | Pl. rar. h. 2.t.175   |
| 6256 linifolia W.                          | Flax-leaved               | △ pr | 1 | jl.au | G.y                  | .....      | 1817.   | S s.l |                       |
| 6257 crética L.                            | Cretan                    | ○ pr | 2 | my.au | G.w                  | Candia     | 1732.   | S s.l | D.e.t.314.f.404,5     |
| 6258 sedoifolia Jacq.                      | Sedum-like                | △ cu | 1 | jn.au | G.w                  | Crete      | 1804.   | S co  | Jac. co. s. t.14.f.1  |
| 6259 saxifraga L.                          | Saxifrage                 | △ cu | 1 | jn.au | F                    | France     | 1640.   | D s.l | Bot. cab. 454         |
| 6260 petræa W. & K.                        | rock                      | △ pr | 1 | jn.au | W                    | Hungary    | 1822.   | D co  |                       |
| 6261 campanula Pers.                       | Bell-flowered             | △ pr | 1 | jn.au | G.w                  | Piedmont   | 1823.   | D co  |                       |
| 6262 longipetala Vent.                     | long-petaled              | ○ pr | 1 | jn.au | G.w                  | Barbary    | 1822.   | S co  | Vent. cela. 83        |
| 6263 nitans L.                             | Nottingham                | △ w  | 2 | jn.jl | W                    | Britain    | cal.ro. | D co  | Eng. bot. 465         |
| 6264 saxatilis Sims.                       | stone                     | △ cu | 1 | jn.jl | G                    | Siberia    | 1800.   | D s.l | Bot. mag. 685         |
| 6265 livida W.                             | livid                     | △ pr | 1 | jn.jl | W                    | Carniola   | 1816.   | D s.l |                       |
| 6266 tenuis W.                             | slender                   | △ cu | 1 | jn.jl | G.w                  | Baical     | 1816.   | D pl  |                       |
| 6267 viridiflora L.                        | green-flowered            | △ cu | 2 | jn.jl | G.w                  | Spain      | 1739.   | S pl  | Herm. par. 199        |
| 6268 chlorantha W.                         | pale-flowered             | △ cu | 1 | jn.au | G.w                  | Germany    | 1732.   | D s.l | Di. el. t.316.f.406   |
| 6269 catholica Oth.                        | paniced                   | △ cu | 1 | jl.s  | G.w                  | Italy      | 1711.   | D co  | Jac. vind. 1. t. 59   |
| 6270 elegans Brot.                         | elegant                   | △ pr | 1 | jl.s  | W                    | Portugal   | 1819.   | S co  |                       |
| 6271 repens Dec.                           | creeping                  | △ pr | 1 | jl.s  | Pk                   | Siberia    | 1822.   | D co  |                       |
| 6272 virginica L.                          | Virginian                 | △ or | 1 | my.au | Pu                   | N. Amer.   | 1783.   | D pl  | Pl. alm. t.203. f.1   |
| 6273 stricta L.                            | upright                   | △ pr | 1 | jn.jl | Pu                   | Spain      | 1802.   | S co  |                       |
| 6274 muscipula L.                          | Spanish                   | △ or | 1 | jl.au | R                    | Spain      | 1596.   | S pl  |                       |
| 6275 noctiflora L.                         | night-flowering           | ○ cu | 2 | jl    | Pk                   | England    | san.fi. | S s.l | Eng. bot. 291         |
| 6276 ornata H. K.                          | dark-colored              | △ cu | 1 | my.s  | Pu                   | C. G. H.   | 1775.   | S pl  | Bot. mag. 382         |
| 6277 ægyptiaca L.                          | Egyptian                  | ○ cu | 1 | jl.au | Pk                   | Egypt      | 1800.   | S s.l |                       |
| 6278 sericea All.                          | silky                     | ○ cu | 1 | jn.au | Pk                   | S. Europe  | 1801.   | S s.l | All. ped. t.79. f.3   |
| 6279 picta Pers.                           | painted                   | ○ pr | 1 | jn.au | Pk                   | .....      | 1822.   | S co  |                       |
| 6280 portensis Bon.                        | Oporto                    | ○ cu | 1 | jl.au | Pk                   | Portugal   | 1759.   | S s.l |                       |
| 6281 reticulata Desf.                      | netted                    | ○ cu | 1 | jl.au | Pk                   | Barbary    | 1804.   | S pl  | Desf. atl. 1. t. 99   |
| 6282 pennsylvanica Mich.                   | Pennsylvanian             | ○ or | 1 | jn.jl | R                    | N. Amer.   | 1806.   | D pl  | Bot. reg. 247         |
| 6283 vailleia L.                           | Woolly-leaved             | △ cu | 1 | jn.au | R                    | Switzerl.  | 1765.   | D pl  | Boc. mus. t. 54       |
| 6284 fruticosâ L.                          | shrubby                   | △ pr | 1 | jn.jl | Pk                   | Sicily     | 1629.   | C pl  | Com. hort. t. 33      |
| 6285 caspica Pers.                         | Caspian                   | △ pr | 1 | jn.jl | Pk                   | Caucasus   | 1823.   | D co  |                       |
| 6286 amœna L.                              | Tartarian                 | △ pr | 1 | jl    | W                    | Tartary    | 1779.   | D pl  |                       |
| 6287 supina Bieb.                          | trailing                  | △ pr | 1 | jn.au | Pk                   | Caucasus   | 1804.   | D s.l | Bot. mag. 1997        |
| 6288 paradoxâ L.                           | Dover                     | △ cu | 1 | jl    | Pk                   | Europe     | ...     | D pl  | Jac. vind. 3. t. 84   |
| 6289 chlorœfolia Sm.                       | Armenian                  | △ cu | 1 | au.s  | L.Y                  | Armenia    | 1796.   | D pl  | Bot. mag. 807         |
| 6290 italica Dec.                          | Italian                   | ○ cu | 1 | my.jn | W                    | Italy      | 1759.   | S co  | Jac. obs. 4. t. 79    |
| 6291 pátula Desf.                          | spreading                 | △ pr | 1 | my.jn | Pk                   | Barbary    | 1823.   | D co  |                       |
| 6292 polyphyla L.                          | many-leaved               | △ pr | 1 | jn.jl | R                    | Germany    | ...     | D pl  | Cl. hist. 1. t. 290   |
| 6293 nemoralis W. & K.                     | grove                     | ○ pr | 1 | jn.jl | R                    | Hungary    | 1822.   | S co  |                       |
| 6294 longiflora Ehr.                       | long-flowered             | △ or | 1 | jl.s  | L.Pu                 | Hungary    | 1793.   | D pl  | Pl. rar. h. 1. t. 8   |
| 6295 bupleuroides L.                       | spear-leaved              | △ cu | 2 | jn.jl | W.pu                 | Persia     | 1801.   | C pl  | Tourn. it. t.154      |
| 6296 mollissima Pers.                      | velvet                    | △ cu | 1 | jl.s  | Pk                   | Italy      | 1732.   | D co  |                       |
| 6297 régia Sims.                           | splendid                  | △ or | 1 | my.au | Cr                   | N. Amer.   | 1811.   | D pl  | Bot. mag. 1724        |
| 6298 ascendens Lag.                        | ascending                 | ○ cu | 1 | my.au | Pk                   | Spain      | 1822.   | D co  |                       |
| 6299 caspitosa Stev.                       | tufted                    | △ pr | 1 | my.au | Pk                   | Caucasus   | 1824.   | D co  |                       |
| 6300 atónica Murr.<br>orchidea L. f.       | orchis-flowered           | △ pr | 1 | my.jl | Pk                   | Levant     | 1781.   | S al  | Jac. vind. 3. t. 32   |
| 6301 arméria L.<br>β alba                  | Lobel's<br>white-flowered | ○ or | 1 | jl.s  | Pk                   | England    | cor.fi. | S al  | Eng. bot. 1386        |
| 6302 compacta Fisch.                       | compact                   | ○ or | 1 | jl.s  | Pk                   | Caucasus   | 1823.   | S co  | Bot. cab. 1638        |
| 1049. STELLA'RISA. W.                      | STITCH-WORT.              |      |   |       | <i>Caryophylleæ.</i> | Sp. 18—56. |         |       |                       |
| 6303 némorum W.                            | wood                      | △ w  | 1 | ap.jn | W                    | Britain    | mol.wo. | D co  | Eng. bot. 92          |
| 6304 latifolia P. S.                       | broad-leaved              | △ w  | 1 | jn.au | W                    | Germany    | 1816.   | D co  |                       |
| 6305 média E. B.<br><i>Alsine média</i> W. | chickweed                 | ○ w  | 1 | ja.d  | W                    | England    | rubb.   | S co  | Eng. bot. 537         |



History, Use, Propagation, Culture,

being very low and prolific in flowers, it is well adapted for sowing in pots. S. Armeria is one of the annual border flowers of the seed shops.

1049. *Stellaris*. The parts of the flower are stellate. The species are grassy-looking plants of the easiest

- 6251 Smooth, Stems erect branched, Lvs. lanc. acute: lower obt. Petals not opening obovate, Stam. usually 5  
 6252 Pubesc. Stem erect much branched slender, Lower lvs. obl. obt.: upper lanc. narrow, Pet. short erect bifid  
 6253 Nearly smooth, Stem erect branched somewhat leafy, Leaves lanc. acute ciliated, Fl. small panicle  
 6254 Pubescent, Stems branched, Lower leaves ellipt. spatulate: upper lanc. Fl. term. twin, Petals bifid  
 6255 Pubescent, Stems erect branch. straight, Low. lvs. lanc. spat.: up. linear, Fl. loosely panicle, Pet. 2-lobed  
 6256 Stems branched, Leaves lin. spatulate, Fl. term. Cal. cylindr. clavate, Petals 2-fid  
 6257 Smooth, Stems erect branched, Low. lvs. ov. stalked obt.: up. lin. acute, Fl. loosely panic. Cal. ov. clavate  
 6258 Viscid pubesc. Stems erect much branch. Lvs. fleshy: low. spatul.: up. ov. Fl. small, Pet. obcord. crowned  
 6259 Tufted, Stems assurgent, Lvs. lin. acute, Peduncles very long, Cal. long clavate, Petals 2-fid crowned  
 6260 Tufted shortly bristly, Stems assurgent, Leaves lin. with bristly teeth, Fl. small, Petals 2-fid crowned  
 6261 Smth. Stems erect or assurg. somew. branch. leafy at base, Lvs. lanc. lin. acute: low. spat. Pet. 2-part. naked

§ 7. *Cauliscent, Flowers panicle, rarely solitary, Pedicels opposite short, Calyx tubular.*

\* *Flowers nodding, Calyces cylindrical.*

[reflexed

- 6262 Smooth viscid, Stems erect, Lvs. somewhat fleshy lin.-lanc. fringed with fine bristles, Pet. very long 2-part.  
 6263 Pubesc. Stems leafy at base, Radical lvs. spatul.: upper lanc. lin. Pet. 2-parted reflexed with a long crown  
 6264 Like the last, but smooth, less branched, and less leafy, Leaves linear, Petals often green  
 6265 Like the last, but stems flexuose broken down, Petals white above beneath livid green  
 6266 Smooth, Leaves lin. lanc. ciliated at base, Fl. pan. erect, Cal. ventricose cylindr. Petals 2-parted  
 6267 Hairy soft, Stem branch. leafy, Lvs. large ov. acum. Fl. in large nodding panicles, Pet. with very long claws  
 6268 Smooth, Stems erect simple scarcely leafy, Petals 2 parted with filiform lobes [crowned

\*\*\* *Flowers erect, Calyces clavate.*

- 6269 Velvety glutinous upwards, Stem erect branched leafy, Fl. small loosely panicle, Stamens very long  
 6270 Stem short about 2-flowered pubescent, Radic. leaves lanc. lin. acute, Cauline very short, Pet. bifid  
 6271 Creeping pubesc. Root long creeping, Stem erect almost simple, Lvs. lin. grassy acute, Fl. few erect panic.  
 6272 Viscid pubesc. Stem procumb. assurgent branch. Fl. large panic. Cal. large clavate, Pet. broad bifid crowned  
 6273 Scarcely pubesc. Stem upright branched, Lvs. lin. lanc. Fl. panicle erect, Cal. netted, Pet. small emarginate  
 6274 Smoothish viscid, Stem erect, Alternate branches long, Cal. large clavate netted, Petals bifid  
 6275 Visc. pubes. Stems erect branch. Lvs. large, Fl. large panic.: every other stripe of cal. veiny, Teeth very long  
 6276 Pubes. Stems erect branch. Lvs. lanc. obt. Fl. panic.: every other stripe of cal. veiny, Pet. with broad tooth  
 6277 Subtomentose, Stems branch. Lvs. obov. stalked, Fl. term. erect, Pet. obcord. 2-toothed at base [lobes  
 6278 Silky, Stems branched, Lvs. with a long fringe at base, Fl. large term. Pet. 2-parted crowned  
 6279 Stems much branch. scarcely pubesc. Lower lvs. obov. spatul. Lvs. lin. acute, Cal. clavate striped with red  
 6280 Tufted smooth subviscid, Stems branched at base, Lvs. lin. Fl. panic. Cal. netted, Pet. bifid with lanc. lobes

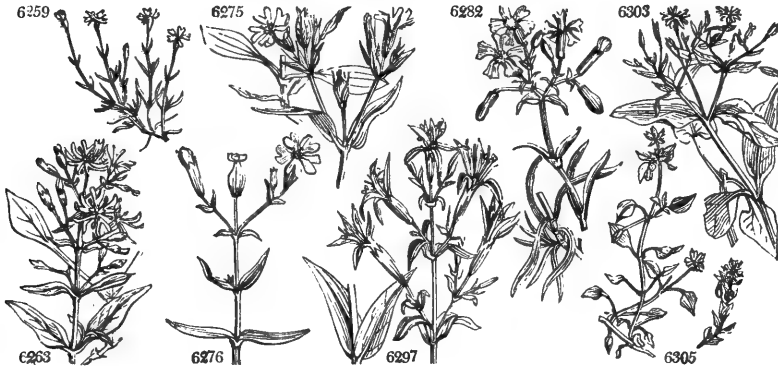
\*\*\* *Flowers erect, Calyces long clavate.*

[at base

- 6281 Smooth viscid. Stems branch. Lvs. lanc. lin. Cal. very long. clav. nett. Pet. obcord. with a tooth on each side  
 6282 Viscid pubescent, Stems procumbent, Leaves lin. long, Cal. long tubular, Petals slightly emarg. crenate  
 6283 Tufted viscid pubesc. Root woody, Stems low assurgent little branched, Cal. long netted, Petals bifid  
 6284 Suffruticose, Stems suberect smooth branched at base, Cal. long cylindr. viscid-villous, Petals 2-lobed  
 6285 Scabrous, Stems bran. Fl. term. in the dichotomies, Cal. long cylin. Pet. 2-part. tooth, on each side at base  
 6286 Pubescent, Root woody, Stems diffuse branched, Leaves soft numerous below, Petals half bifid  
 6287 Tufted viscid pubescent, Stems woody supine branched, Lvs. lin. acute, Petals with narrow diverging lobes  
 6288 Stems erect pub. Lvs. roughish scarcely ciliat. Fl. large pan. Pet. with broad obov. lobes & 2-part. append.  
 6289 Very smooth glaucous, Stems branched, Leaves roundish acuminate, Fl. large, Cal. not striped  
 6290 Pilose pubesc. Stems much branch. Lower lvs. ovate spatul.: up. lin. Fl. in large panic. Pet. 2-lob. naked  
 6291 Pubesc. viscid. Stems erect branch. Branch. spread. Low. lvs. ov. spatul. Cal. long narrow, Pet.  $\frac{1}{2}$  bifid crowned  
 6292 Pubescent, Stems assurgent much branched leafy, Leaves linear acute, Cal. clavate, Petals bifid  
 6293 Stem simple pubescent, Leaves pubescent: lower large rounded stalked, Petals 2-parted crowned  
 6294 Smooth, Stem twiggy, Leaves lin. lanc. radical very long, Cal. very long, Petals 2-parted crowned  
 6295 Smooth clammy, Stem assurgent branch. Lvs. lin. lanc. acute: lower very long, Upper bracts with a broad  
 6296 Silky, Stems erect branch. Lvs. wavy, Calyces long clavate, Pet. 2-part. crowned [membranous margin  
 6297 Viscid pubescent, Lvs. lanceol. Cal. long tubular, Petals lanceolate crowned, Stamens very long  
 6298 Villous viscid, Lvs. lin. lanceol. obt. ciliated, Peduncle 1-fl. spreading in seed, Cal. circularly reflexed at base

§ 8. *Cauliscent, Flowers corymbose, Cal. clavate, 10-stripped.*

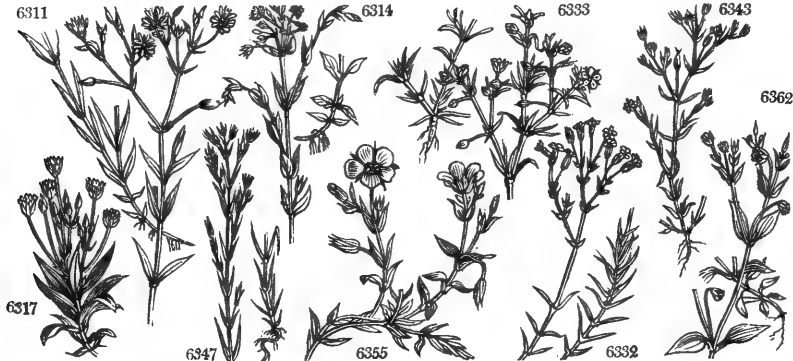
- 6299 Tufted roughish, Root thick woody branch. Stems simple slender very leafy at base, Lvs. small lin. acute  
 6300 Viscid, Stem much branch. pubesc. Lvs. round subciliated: the lower on long stalks, Fl. loosely corymb.  
 6301 Very smooth glaucous viscid, Leaves ovate-lanc. Fl. in panicle corymb, Petals obovate crowned  
 6302 Smooth, Stems erect branched, Upper leaves lanceolate: lower linear lanc. Umbel dense, Petals obovate  
 6303 Lower leaves cordate stalked: upper lanc. sessile, Petals twice as long as calyx  
 6304 Stems diffuse dichotomous rooting at base, Lower lvs. ovate stalked cord.: upper sess. Pet. shorter than cal.  
 6305 Stems procumbent with a lateral 1-sided hairy line, Leaves lanc. very tender, Fruit deflexed



and Miscellaneous Particulars.

culture. *S. media* is a well known weed, never found but on rich friable soils in a state of culture: the seeds and flower buds are a favorite food of finches and other small birds.

|       |                             |                  |   |    |       |       |       |                                  |           |         |     |                         |                   |
|-------|-----------------------------|------------------|---|----|-------|-------|-------|----------------------------------|-----------|---------|-----|-------------------------|-------------------|
| 6306  | <i>dichstoma W.</i>         | forked           | Δ | w  | 1 1/2 | ja.d  | W     | Britain                          | clt. gr.  | S       | co  |                         |                   |
| 6307  | <i>bulbosa Wolf.</i>        | bulbous          | Δ | w  | 1     | ja.d  | W     | Carinthia                        | 1823.     | S       | co  | Jacq. icon. t. 468      |                   |
| 6308  | <i>viscida Bieb.</i>        | clammy           | Δ | o  | w     | 1     | ja.d  | W                                | Hungary   | 1820.   | S   | co                      | Wal. & Kit. t. 22 |
| 6309  | <i>Holstæna W.</i>          | greater          | Δ | w  | 1     | ap.jn | W     | Britain                          | woods.    | D       | co  | Eng. bot. 511           |                   |
| 6310  | <i>Laxmâna Fisch.</i>       | Laxmann's        | Δ | w  | 1     | ap.jn | W     | Siberia                          | 1823.     | S       | co  |                         |                   |
| 6311  | <i>graminea W.</i>          | lesser           | Δ | w  | 1     | ap.jn | W     | Britain                          | hed. b.   | D       | co  | Eng. bot. 803           |                   |
| 6312  | <i>glauca H. K.</i>         | glaucous marsh   | Δ | w  | 2     | my.au | W     | Britain                          | moi. m.   | D       | p.l | Eng. bot. 325           |                   |
| 6313  | <i>crassifolia Ehrh.</i>    | thick-leaved     | Δ | w  | 1     | my.au | W     | Germany                          | ...       | D       | co  |                         |                   |
| 6314  | <i>uliginosa H. K.</i>      | bog              | Δ | w  | 1     | jn.jl | W     | Britain                          | rivul.    | S       | co  | Eng. bot. 1074          |                   |
| 6315  | <i>cerastoides W.</i>       | Alpine           | Δ | w  | 1     | jn.jl | W     | Scotland                         | sc. alp.  | D       | co  | Eng. bot. 911           |                   |
| 6316  | <i>Arenaria W.</i>          | sand             | Δ | w  | 1     | jn.jl | W     | Spain                            | 1799.     | S       | co  |                         |                   |
| 6317  | <i>scapigera W.</i>         | naked-stalked    | Δ | w  | 1     | jn.jl | W     | Scotland                         | sc. rivu. | D       | co  | Eng. bot. 1269          |                   |
| 6318  | <i>dahurica W.</i>          | daurian          | Δ | w  | 1     | jn.jl | W     | Dahuria                          | 1818.     | S       | co  |                         |                   |
| 6319  | <i>murâlis Link.</i>        | wall             | Δ | w  | 1     | jn.jl | W     | Candia                           | 1824.     | S       | co  |                         |                   |
| 6320  | <i>longipes Hook.</i>       | long-stalked     | Δ | w  | 2     | jn.jl | W     | N. Amer.                         | 1820.     | S       | p.l |                         |                   |
| 1050. | ARENARIA. W. SANDWORT.      |                  |   |    |       |       |       | <i>Caryophyllea. Sp. 45—140.</i> |           |         |     |                         |                   |
| 6321  | <i>segetalis Lam.</i>       | corn             | o | w  | 2     | jn.o  | W     | France                           | 1805.     | S       | co  | Vail. par. t. 3. f. 3   |                   |
|       | <i>Aisine segetalis W.</i>  |                  |   |    |       |       |       |                                  |           |         |     |                         |                   |
| 6322  | <i>purpurea Pers.</i>       | purple           | o | cu | 1     | jl    | Pu    | Spain                            | 1823.     | S       | s.l |                         |                   |
| 6323  | <i>rubra L.</i>             | red              | o | cu | 1     | jn.au | Pu    | Britain                          | san. fi.  | S       | s.l | Eng. bot. 852           |                   |
| 6324  | <i>marina Roth.</i>         | marine           | Δ | o  | cu    | 1     | jn.jl | Pu                               | Britain   | sea co. | D   | s.l                     | Eng. bot. 958     |
| 6325  | <i>msdia L.</i>             | downy            | Δ | o  | w     | 1     | jl    | W                                | France    | 1795.   | S   | co                      |                   |
| 6326  | <i>canadensis Pers.</i>     | Canada           | o | w  | 2     | jn.jl | W     | N. Amer.                         | 1812.     | S       | p.l |                         |                   |
| 6327  | <i>graminifolia Schr.</i>   | grass-leaved     | Δ | pr | 1     | jn.jl | W     | Siberia                          | 1815.     | D       | co  | Sch. gott. t. 5         |                   |
| 6328  | <i>longifolia Bieb.</i>     | long-leaved      | Δ | pr | 1     | jn.jl | W     | Siberia                          | 1823.     | D       | co  | Gmel. si. t. 63. f. 2   |                   |
| 6329  | <i>rigida Bieb.</i>         | stiff            | Δ | pr | 1     | jn.jl | W     | Siberia                          | 1823.     | D       | co  |                         |                   |
| 6330  | <i>pinifolia Bieb.</i>      | pine-leaved      | Δ | cu | 1     | jl.au | W     | Caucasus                         | 1823.     | D       | s.p |                         |                   |
| 6331  | <i>subulata Ser.</i>        | subulate         | Δ | pr | 1     | jl.au | W     | Caucasus                         | 1822.     | D       | s.p |                         |                   |
| 6332  | <i>juniperina L.</i>        | Juniper-leaved   | Δ | pr | 1     | jn.jl | W     | Armenia                          | 1800.     | D       | s.p | Sm. ined. i. t. 35      |                   |
| 6333  | <i>stricta Mich.</i>        | upright          | Δ | pr | 1     | my.jn | W     | N. Amer.                         | 1812.     | D       | s.p |                         |                   |
| 6334  | <i>laricifolia L.</i>       | Larch-leaved     | Δ | pr | 1     | au    | W     | Britain                          | ...       | D       | s.p | Jac. aus. 3. t. 272     |                   |
|       | <i>rostrata W. &amp; K.</i> |                  |   |    |       |       |       |                                  |           |         |     |                         |                   |
| 6335  | <i>striata Vill.</i>        | striated         | Δ | pr | 1     | jn.au | W     | Switzerl.                        | 1683.     | D       | s.p | All. pe. 2. t. 26. f. 4 |                   |
| 6336  | <i>Austrîaca Jacq.</i>      | Austrian         | Δ | pr | 1     | jn.s  | W     | Austria                          | 1793.     | D       | s.p | Jac. aus. 3. t. 270     |                   |
| 6337  | <i>triâora L.</i>           | three-flowered   | Δ | pr | 1     | ap.jl | W     | S. Europe                        | 1816.     | D       | s.p | C. ic. 3. t. 249. f. 2  |                   |
| 6338  | <i>grandiflora L.</i>       | great-flowered   | Δ | pr | 1     | jn.s  | W     | Switzerl.                        | 1783.     | D       | s.p | All. ped. 10. f. 1      |                   |
| 6339  | <i>vârna L.</i>             | vernal           | Δ | w  | 2     | my.au | W     | Britain                          | mount.    | D       | s.p | Eng. bot. 512           |                   |
| 6340  | <i>Gerardi W.</i>           | Gerard's         | Δ | pr | 1     | my.au | W     | Britain                          | ...       | D       | s.p |                         |                   |
| 6341  | <i>saxatilis L.</i>         | rock             | Δ | pr | 1     | jl.au | W     | Germany                          | 1793.     | D       | s.p | Gm. si. 4. t. 63. f. 2  |                   |
| 6342  | <i>péndula W. &amp; K.</i>  | pendulous        | Δ | pr | 1     | jn.jl | W     | Hungary                          | 1816.     | D       | s.p | Pl. rar. h. 2. t. 87    |                   |
| 6343  | <i>tenuifolia L.</i>        | fine-leaved      | o | pr | 1     | jn.jl | W     | England                          | san. fi.  | S       | co  | Eng. bot. 219           |                   |
| 6344  | <i>mediterranea Lk.</i>     | Mediterranean    | Δ | pr | 1     | jn.jl | W     | Mediterr.                        | 1823.     | S       | co  |                         |                   |
| 6345  | <i>recurva All.</i>         | recurved         | Δ | pr | 1     | jn.jl | W     | Alps                             | 1822.     | D       | co  | Jac. col. t. 16         |                   |
| 6346  | <i>setacea Thuill.</i>      | setaceous        | Δ | pr | 1     | jn.jl | W     | France                           | ...       | S       | co  |                         |                   |
| 6347  | <i>fasciculata Gouan.</i>   | level-topped     | Δ | pr | 1     | jn    | W     | Scotland                         | sc. mo.   | S       | s.p | Eng. bot. 1744          |                   |
| 6348  | <i>filifolia Forsk.</i>     | thread-leaved    | Δ | pr | 1     | jn.jl | W     | Arabia                           | ...       | D       | s.p | Vah. sym. i. t. 12      |                   |
| 6349  | <i>mucronata Dec.</i>       | bristly          | Δ | pr | 1     | jn    | W     | S. Europe                        | 1777.     | S       | co  | Hall. hist. i. t. 17    |                   |
|       | <i>Aisine mucronata W.</i>  |                  |   |    |       |       |       |                                  |           |         |     |                         |                   |
| 6350  | <i>polygonoïdes Jacq.</i>   | knotgrass-like   | Δ | cu | 1     | jl.au | W     | Switzerl.                        | 1822.     | S       | co  | All. ped. t. 64. f. 4   |                   |
| 6351  | <i>verticillata W.</i>      | whorled          | Δ | pr | 1     | jl    | W     | Armenia                          | 1823.     | C       | s.p |                         |                   |
| 6552  | <i>tétrâquetra L.</i>       | square           | Δ | pr | 1     | au    | W     | Pyrenees                         | 1731.     | D       | s.p | All. p. 2. t. 89. f. 1  |                   |
| 6353  | <i>lanceolata All.</i>      | lanceolate       | Δ | pr | 1     | au    | W     | Switzerl.                        | 1823.     | D       | s.l | All. ped. t. 26. f. 5   |                   |
| 6354  | <i>cherlerioïdes Vill.</i>  | cherleria-leaved | Δ | pr | 1     | jl.au | W     | France                           | ...       | D       | s.p |                         |                   |
| 6355  | <i>montana L.</i>           | mountain         | Δ | pr | 1     | ap.jl | W     | France                           | 1800.     | D       | s.p | Bot. mag. 1118          |                   |
| 6356  | <i>serpyllifolia L.</i>     | thyme-leaved     | Δ | pr | 1     | jn.jl | W     | Britain                          | walls.    | S       | co  | Eng. bot. 923           |                   |
| 6357  | <i>pubescens Dec.</i>       | pubescent        | Δ | pr | 1     | jl    | W     | .....                            | ...       | S       | co  |                         |                   |
| 6358  | <i>breviculâs Stern.</i>    | short-stalked    | Δ | pr | 1     | jn.jl | W     | Alps                             | 1823.     | D       | co  |                         |                   |
| 6359  | <i>scabra Poir.</i>         | rough            | Δ | pr | 1     | jn.jl | W     | Alps                             | 1822.     | D       | co  |                         |                   |
| 6360  | <i>ciliata L.</i>           | fringed          | Δ | pr | 1     | mr.au | W     | Ireland                          | ir. mou.  | S       | s.p | Eng. bot. 1745          |                   |
| 6361  | <i>multiculâs Jacq.</i>     | many-stalked     | Δ | pr | 1     | jl.au | W     | Europe                           | 1794.     | D       | s.p | J. co. i. t. 17. f. 1   |                   |
| 6362  | <i>trinêrvîs L.</i>         | Plantain-leaved  | o | w  | 2     | my.jn | W     | Britain                          | woods.    | S       | s.p | Eng. bot. 1483          |                   |



History, Use, Propagation, Culture.

1050. *Arenaria*. From *arena*, sand, in which most of the species are found. They are of most difficult discrimination, and are chiefly diminutive weeds found almost exclusively on sandy soils. The flowers vary

- 6306 Hairy, Lvs. cord. ovate stem-clasping, Stem dichotomous, Fl. solitary, Sepals lanc. ac. longer than petals  
 6307 Leaves ovate lanceol. nearly veinless, Pedunc. 1-f. Sepals lanc. acute twice as short as petals  
 6308 Villous viscid, Leaves lin. lanc. Stems dichotomous diffuse, Petals and capsule longer than calyx  
 6309 Lvs. lanc. acum. serrulate roughish : the upper broader and shorter, Pedunc. filiform very long, Pet. 2-fid  
 6310 Stem erect few-fl. Lvs. linear acute entire smoothish, Pedunc. filiform very long, Petals 2-parted  
 6311 Leaves linear smooth at edge, Stems diffuse, Fl. paniced divaricating, Petals the length of calyx  
 6312 Glaucescous, Leaves lin. lanc. smooth at edge, Floral scarious, Petals twice as long as cal. Stem erect weak  
 6313 Leaves ovate-lanceol. entire smooth thick, Sepals ovate-lanceol. much shorter than petals  
 6314 Leaves ovate-obl. Pet. deeply divided shorter than calyx, Caps. ovate oblong longer than calyx  
 6315 Leaves obl. pubescent, Pedunc. 1-f. twin, Pet. larger than cal. Caps. obl. nearly twice as long as sepals  
 6316 Leaves spatulate, Stem erect bifid viscid, Branches alternate, Petals emarginate  
 6317 Leaves linear lanc. obtuse very dense, Pedunc. 1-f. and umbelled, Pet. scarcely longer than calyx  
 6318 Leaves lanc. entire sessile acute, Base and stem pubescent, Fl. axill. solitary  
 6319 Glandular pubescent, Stem procumbent, Leaves ovate fleshy, Petals scarcely longer than calyx cut  
 6320 Very smooth, Leaves linear-lanc. Pedunc. terminal dichotomous bracted, Pet. broad ovate 2-parted

§ 1. *Caps. 3-valved, Leaves linear, with scarious stipules at base.*

- 6321 Smooth, Stem erect, Leaves subulate 1-sided, Petals shorter than calyx

[Calyx

- 6322 Hispid, Stem erect, Branches divaricating, Lvs. setaceous twice as short as joints, Pet. obt. shorter than  
 6323 Stems prostrate hairy, Leaves filiform shorter than the joint, Sepals lanceolate obtuse scarious at edge  
 6324 Like the last, but nearly smooth  
 6325 Stems prostrate, Leaves half cylindrical fleshy as long as joints, Seeds with a membranous wing  
 6326 Pilose subhispid, Leaves filiform longer than joint, Stamens 5, Seeds oboord. compressed, Caps. globose

§ 2. *Leaves grassy, linear, lanceolate or rounded, without stipules, Caps. 3-valved.*

\* *Leaves grassy.*

- 6327 Stems erect simple, Lvs. subul. filiform rough, Panic. trichotomous pubescent lax, Calyxes very obtuse  
 6328 Leaves subulate-filiform serrulate, Stems erect simple, Panicle trichotomous smooth compact  
 6329 Lvs. lin. setaceous ciliated rough, Stems erect rigid simple, Sepals acute scarcely longer than corolla  
 6330 Stems ascending few-fl. pubescent, Lvs. setaceous rigid, Culine straight, Sepals obtuse striated villous  
 6331 Leaves setaceous rigid mucronate striated, Stems paniced few-fl. Sepals lanc. much shorter than corolla

\*\* *Leaves subulate or linear.*

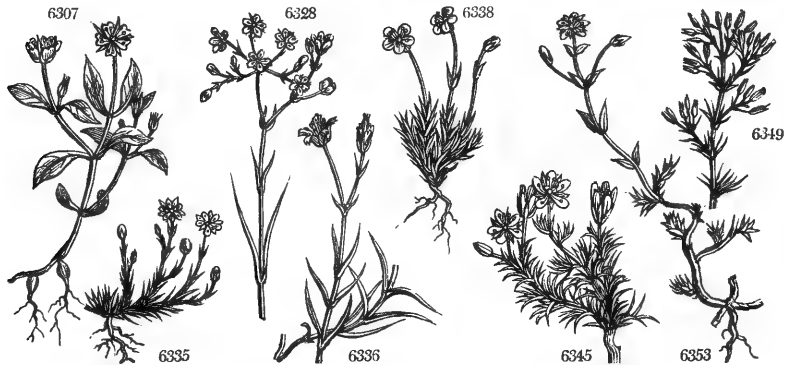
- 6332 Lvs. subulate rigid spiny : lower fascicled ; upper distant, Stems erect firm, Pet. obov. twice as long as cal.  
 6333 Erect smooth many-stemmed, Leaves subulate linear erect, Pan. few-fl. Petals conspicuously striated  
 6334 Leaves subulate tooth-ciliated, Stems ascending 3-6-fl. roughish, Cal. cylindrical, Sepals 3-nerved hairy

- 6335 Like the last, but stems rigid few-fl. Leaves long straight, Pedunc. and calyx viscid hairy  
 6336 Lvs. lin. subul. 3-nerved, Stem paniced, Pedunc. terminal very long twin downy, Pet. obt. emarginate  
 6337 Like the last, but stems 2-4-fl. Leaves narrow recurved  
 6338 Lvs. subulate broadish flat 3-nerved ciliated, Radical clustered, Stems 1-f. Pedunc. very long pubescent  
 6339 Tufted many-stemmed, Leaves subulate obtuse nerved, Stems paniced elongated  
 6340 Erect branched, Leaves linear subulate 3-nerved, Pedunc. twin terminal 1-flowered  
 6341 Leaves subulate, Stems paniced, Sepals ovate  
 6342 Stems filiform rooting very long diffuse, Flowering branches erect few-fl. Lvs. lin. flat acute fascicled  
 6343 Leaves subulate setaceous, Stem branched dichotomous, Sepals subulate striated much longer than petals  
 6344 Stem much branched, Leaves lin. recurved, Sepals with a long point and membranous edge  
 6345 Radical lvs. clustered recurved subul. 1-sided, Stems tufted simple 3-f. Sepals and peduncles hairy gland.  
 6346 Stem much branched, Fl. paniced fastigiate, Leaves setaceous fascicled 1-sided ciliated at base  
 6347 Leaves subulate fascicled setaceous, Stems erect straight simple, Sepals acuminate with 2 lines  
 6348 Leaves setaceous fascicled with 2 stripes, Stems subfruticose dichotomous, Pedunc. term. 1-2-flowered  
 6349 Lvs. setaceous not ciliated at base, Stems tufted prostrate at base, Pedunc. longer than leaf, Sepals awned

- 6350 Procumbent, Leaves linear obt. Peduncles 2 or 3 1-flowered with 2 bractes at base, Sepals without nerves  
 6351 Leaves subulate rigid spiny and flowers whorled, Pedunc. 4-fl. capitate

\*\*\* *Leaves lanceolate, oval or rounded.*

- 6352 Leaves ovate carinate recurved edged imbricated 4 ways, Stems straight downy, Sepals rigid acute keeled  
 6353 Tufted villous, Branches ascending, Leaves lanceolate narrow acute rigid nerved  
 6354 Like the last, but smaller, with creeping and tufted stems, and imbricated leaves  
 6355 Pubescent, Leaves lanc. linear, Barren stems very long procumbent, Pedunc. terminal long 1-flowered  
 6356 Leaves ovate acute sessile regular ciliated and smooth, Sepals lanceolate 3-nerved acute green opaque  
 6357 Pubescent, Lvs. ovate acute stalked, Stems spreading branched elongated, Sepals acute shorter than cor.  
 6358 Leaves oblong acute 3-nerved ciliated imbricated, Stem prostrate, Sepals lanceolate acuminate striped  
 6359 Leaves lanc. acute spreading hard rough, Stem simple short, Sepals ovate acuminate striped  
 6360 Leaves ovate and obovate blistered rugose more or less nerved and ciliated, Stems procumbent  
 6361 Like the last, but leaves pulpy thick and sepals scarcely nerved  
 6362 Stem slender branched, Lvs. ovate acute stalked ciliated nerved, Pedunc. long bent down after flowering



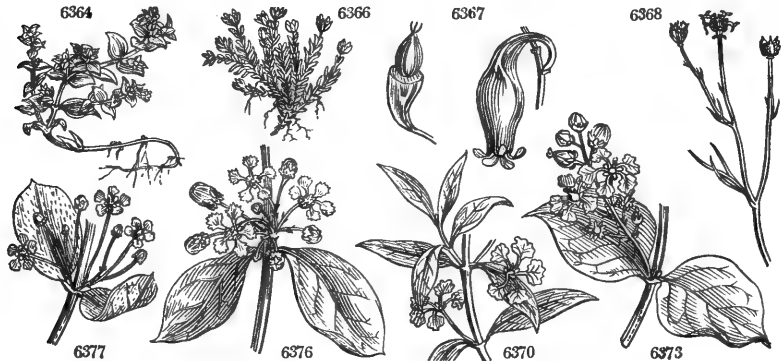
and Miscellaneous Particulars.

considerably in the number of their stamens, more generally falling short of than exceeding the regular number.

|  |                             |        |              |                                 |       |                          |
|--|-----------------------------|--------|--------------|---------------------------------|-------|--------------------------|
| 6363 baleárica L.                      | Majórea                     | ♂ Δ pr | ♂ mr.au W    | Majorea 1787.                   | D a.p | L. h. stir. 1. t. 15     |
| 6364 peploides L.                      | Sea-chickweed               | ♂ Δ pr | ♂ my.jl W    | Britain sea sh.                 | D s.p | Eng. bot. 189            |
| 6365 procumbens Vahl.                  | procumbent                  | ♂ Δ pr | ♂ jl.au R    | Egypt 1801.                     | D s.p | Vahl. sy. 2. t. 33       |
| 1051. CHERLERIA. W. CHERLERIA.         |                             |        |              | <i>Coryophylleæ.</i> Sp. 1—2.   |       |                          |
| 6366 sedoides W.                       | dwarf                       | ♂ Δ or | ♂ jl.au Y.w  | Scotland sc. alp.               | D s.l | Eng. bot. 1219           |
| 1052. BRUNNICHIA. W. BRUNNICHIA.       |                             |        |              | <i>Polygoneæ.</i> Sp. 1.        |       |                          |
| 6367 cirrhæa W.                        | Carolina                    | ♂ Δ or | 6 ... Pk     | Carolina 1787.                  | C l.p | Gær. s. l. t. 45. f. 2   |
| 1053. GARIDEL/LA. W. GARIDELLA.        |                             |        |              | <i>Ranunculaceæ.</i> Sp. 1—2.   |       |                          |
| 6368 Nigellastrum W.                   | Nigella-leaved              | ○ or   | 1½ jn.jl B.g | France 1736.                    | S co  | Bot. mag 1266            |
| *1054. MALPIGHIA. W. BARBADOES CHERRY. |                             |        |              | <i>Malpighiaceæ.</i> Sp. 18—70. |       |                          |
| 6369 glabra W.                         | smooth-leaved               | ♂ □ fr | 16 mr.jl R   | W. Indies 1757.                 | C p.l | Bot. mag. 813            |
| 6370 puniceifolia W.                   | Pomegran.-lvd.              | ♂ □ or | 12 ... Pk    | W. Indies 1690.                 | C p.l | Plum. i. c. t. 166. f. 2 |
| 6371 polystachia H. K.                 | many-spiked                 | ♂ □ or | 10 mr.my Y   | W. Indies 1806.                 | C p.l | Bot. rep. 604            |
| 6372 média H. K.                       | intermediate                | ♂ □ or | 10 mr.my Y   | W. Indies 1790.                 | C p.l |                          |
| 6373 glandulifera Jacq.                | quadriglandular             | ♂ □ or | 10 mr.my Y   | W. Indies 1806.                 | C p.l | Jac. ic. 3. t. 469       |
| 6374 glandulosa W.                     | biglandular                 | ♂ □ or | 10 ... Y     | W. Indies 1804.                 | C p.l | Ca. dis. 8. t. 239. f. 2 |
| 6375 nitida W.                         | glossy-leaved               | ♂ □ or | 6 mr.au Pk   | W. Indies 1733.                 | C p.l | Ca. dis. 8. t. 239. f. 1 |
| 6376 fucata E. Reg.                    | painted                     | ♂ □ or | 8 mr.au R    | ..... 1814.                     | C p.l | Bot. reg. 189            |
|  | <i>M. macrophylla</i> Desf. |        |              |                                 |       |                          |
| 6377 urens W.                          | stinging                    | ♂ □ fr | 3 jl.o Pk    | S. Amer. 1737.                  | C p.l | Bot. reg. 96             |
| 6378 angustifolia W.                   | narrow-leaved               | ♂ □ or | 7 jl.au Pk   | W. Indies 1737.                 | C p.l | Bot. cab. 321            |
| 6379 canescens W.                      | downy-leaved                | ♂ □ or | 20 ... ..    | W. Indies 1742.                 | C p.l |                          |
| 6380 crassifolia W.                    | thick-leaved                | ♂ □ or | 20 au Y      | S. Amer. 1793.                  | C p.l | Aub. gu. 1. t. 182       |
| 6381 Mouréila Aubl.                    | yellow-spiked               | ♂ □ or | 20 au Y      | S. Amer. 1823.                  | C p.l | Aub. gu. 1. t. 183       |
| 6382 lucida W.                         | wedge-leaved                | ♂ □ or | 6 my.au Pk   | W. Indies 1759.                 | C p.l | Bot. mag. 2462           |
| 6383 coriacea W.                       | leathery-leaved             | ♂ □ or | 30 my.au Pk  | Jamaica 1814.                   | C p.l | Sto. h. 2. t. 163. f. 1  |
| 6384 volubilis Sims.                   | twining                     | ♂ □ or | 10 aus Y     | W. Indies 1793.                 | C p.l | Bot. mag. 809            |
| 6385 aquifolium W.                     | Holly-leaved                | ♂ □ or | 7 aus Pk     | S. Amer. 1759.                  | C p.l | C. di. 8. t. 236. f. 2   |
| 6386 coccifera W.                      | Kermes-Oak-lv.              | ♂ □ or | 2 ... Pk     | W. Indies 1733.                 | C p.l | Bot. reg. 568            |
| †1055. BANISTERIA. W. BANISTERIA.      |                             |        |              | <i>Malpighiaceæ.</i> Sp. 9—60.  |       |                          |
| 6387 ciliata W.                        | ciliated                    | ♂ □ or | 10 ... Y     | Brazil 1796.                    | C a.l | Cav. dis. 9. t. 254      |
| 6388 purpurea W.                       | purple                      | ♂ □ or | 10 ... Pu    | W. Indies 1759.                 | C a.l | C. di. 9. t. 246. f. 1   |
| 6389 chrysophylla W.                   | Star-apple-lvd.             | ♂ □ or | 10 ... Y     | Brazil 1793.                    | C r.m | Jac. sch. 1. t. 105      |
| 6390 laurifolia W.                     | Bay-leaved                  | ♂ □ or | 10 jl.au Y   | Jamaica 1733.                   | C a.l |                          |
| 6391 nitida W.                         | glossy                      | ♂ □ or | 10 ... ..    | S. Amer. 1809.                  | C a.l | Cav. dias. t. 244        |
| 6392 sericea P. S.                     | silky                       | ♂ □ or | 10 ... Y     | Brazil 1810.                    | C a.l | Cav. dis. 9. t. 238      |
| 6393 fulgens W.                        | shining-fruited             | ♂ □ or | 6 ... Y      | W. Indies 1759.                 | C r.m |                          |
| 6394 heterophylla W.                   | various-leaved              | ♂ □ or | 10 ... Y     | S. Amer. 1812.                  | C a.l | Cav. dis. t. 253         |
| 6395 brachiata W.                      | cross-branched              | ♂ □ or | 10 ... Y     | W. Indies 1759.                 | C a.l |                          |
| 1056. HIRÆ/A. W. HIRÆA.                |                             |        |              | <i>Malpighiaceæ.</i> Sp. 1—19.  |       |                          |
| 6396 reclinata W.                      | reclined                    | ♂ □ or | 10 ... Y     | W. Indies ...                   | C a.l | Jac. am. t. 176          |
| 1057. CNES/TIS. Lam. CNESTIS.          |                             |        |              | <i>Connaraceæ.</i> Sp. 1—9.     |       |                          |
| 6397 glabra Lam.                       | smooth                      | ♂ □ or | 10 ... W.g   | Mauritius 1823.                 | C a.l | Lam. il. t. 387. 1       |

PENTAGYNIA.

|                              |                |        |            |                               |       |                     |
|------------------------------|----------------|--------|------------|-------------------------------|-------|---------------------|
| 1058. AVERRHŌA. W. AVERRHŌA. |                |        |            | <i>Terebintaceæ.</i> Sp. 2—3. |       |                     |
| 6398 Bilimbi W.              | Bilimbi-tree   | ♂ □ fr | 8 aus R.Y  | E. Indies 1791.               | C a.l | Cav. dis. 7. t. 219 |
| 6399 Carambóia W.            | Carambola-tree | ♂ □ fr | 14 ... G.R | E. Indies 1793.               | C a.l | Cav. dis. 7. t. 220 |



History, Use, Propagation, Culture,

1051. *Cherleria*. John Henry Cherler was an assistant of John Bauhin in preparing his *Historia Plantarum*. A little obscure weed.

1052. *Brunnichia*. A catalogue of the books upon natural history was published by one Mr. F. Brunnich, a Danish naturalist, in 1793.

1053. *Garidella*. So named by Tournefort, in honor of Pierre Garidel, M. D., physician at Aix in Provence, author of *Histoire des Plantes qui naissent en Provence*, 1719, with many figures. A plant of little curiosity or beauty. Small inconspicuous plants of the easiest management.

1054. *Malpighia*. So named by Plumier in honor of Marcello Malpighi, professor of medicine at Bologna, author of *Anatome Plantarum*, 1765 and 1769; a celebrated work, the best of its time on the structure of vegetables. The species are handsome evergreen trees and shrubs, some of them fruit-bearing and others climbers. *M. glabra* is grown for its fruit in the West Indies, and the fruit of *M. urens* is also eaten under the name of Barbadoes cherry, but that of both species is much inferior to European cherries. All the species have the under sides of their leaves covered with prickly bristles which when handled run into the fingers. Ripened cuttings root freely in sand under cover.

1055. *Banisteria*. So named by Dr. Houstoun, in memory of the Rev. John Banister, a curious botanist, who lost his life in search after plants in Virginia. The species are chiefly evergreen climbers and twiners; some of them, as *B. fulgens* and *chrysophylla*, have fine shewy foliage as well as beautiful flowers.

6368 Tufted creeping, Leaves ovate shining fleshy ciliated, Pedunc. long 1-f. Flowers cernuous  
 6364 Leaves ovate acute fleshy approximated, Fl. solitary on short stalks, Sepals obl. acute as long as cor.  
 6365 All over pubescent, Leaves lin. lanceol. Stems prostrate much branched, Seeds very minute

6366 Leaves spreading

6367 Leaves cordate sagittate

6368 Petals sessile spreading, Stamens 10-12

6369 Leaves ovate entire smooth, Peduncles umbelled

6370 Leaves ovate entire smooth, Peduncles 1-flowered

6371 Leaves entire oblong acute smooth shining with 2 glands beneath at the base

6372 Leaves entire oblong lanceolate acute smooth with 2 glands at a distance from the base

6373 Leaves ovate nearly entire with hairs on both sides, Fl.-stalks with a truncate gland at top

6374 Leaves ovate elliptical acuminate entire smooth with 2 glands at base

6375 Leaves oblong acuminate entire smooth, Racemes axillary, Fl. monogynous

6376 Leaves elliptical shining hairy beneath, Fl. axillary corymbose

6377 Leaves obl. ovate with decumbent stiff bristles, Peduncles 1-f. aggregate

6378 Leaves lin. lanceol. with decumbent bristles on each side, Peduncles umbelled

6379 Leaves obl. obtuse pubescent, Racemes axillary compound

6380 Leaves ovate entire obtuse downy beneath, Racemes terminal

6381 Leaves ovate downy beneath acute, Flowers yellow spiked

6382 Leaves obovate wedge-shaped entire veinless shining, Raceme terminal

6383 Leaves ovate acute entire smooth on each side, Racemes terminal spiked

6384 Leaves oval acuminate shining, Racemes corymbose terminal

6385 Leaves lanceol. toothed-spiny hispid beneath

6386 Leaves subovate toothed-spiny

6387 Leaves orbicular cordate ciliate toothletted smooth, Petioles with 2 glands

6388 Leaves roundish ovate obtuse smooth, Racemes axillary and terminal, Seeds erect

6389 Leaves ovate oblong acutish towards the end obsolete ciliated beneath shining gold-colored

6390 Leaves ovate-oblong rigid, Racemes terminal

6391 Leaves ovate oblong entire beneath shining, Panicle terminal leafy

6392 Branches 2-edged, Leaves ovate downy beneath, Petioles with 2 glands

6393 Leaves subovate downy beneath, Racemes brachiate, Peduncles umbelled

6394 Leaves downy beneath orbicular cordate, Branches divaricating roundish, Petioles with 2 glands

6395 Leaves subovate, Branches brachiate, Seeds narrower inwards

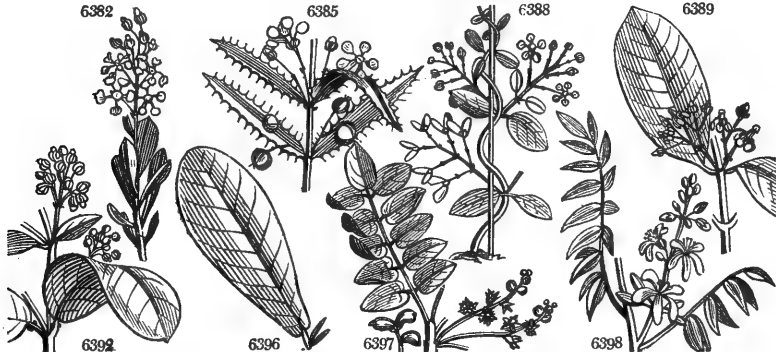
6396 Leaves simple obovate obtuse pubescent above smooth beneath

6397 Leaves pinnated, Leaflets ovate stalked smooth on each side, Racemes fascicled

### PENTAGYNIA.

6398 Leaves pinnated, Leaflets ovate-lanceolate, Fruit oblong with obtuse angles

6399 Leaflets ovate unequal acuminate, Fruit obl. acute-angled



and Miscellaneous Particulars.

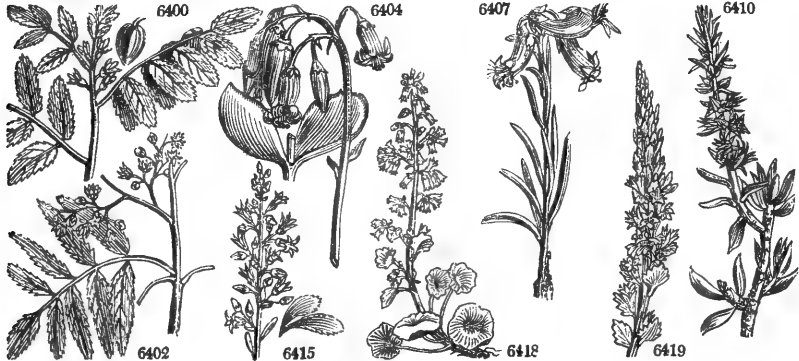
All of them root freely in ripened wood in sand under a hand-glass. In most respects they resemble the last genus.

1056. *Hiræa*. Named after John Nicholas de la Hire, a French physician, who died in 1727. Plants with the appearance of *Banisteria*.

1057. *Cnestis*. From *κνήθη*, to scratch. The capules, covered with hairs, excite a troublesome itching. Fine evergreen stove shrubs.

1058. *Averrhoa*. So named in honor of Ebn Elvelid Ebn Rushad, commonly called Averrhoes, of Corduba in Spain, a famous commentator on Aristotle and Avicenna. He also published Calliget, or the plants used in food, &c. He died at the beginning of the thirteenth century. The specific names are vernacular appellations. The species are evergreen trees, singular for the fruit growing frequently on the trunk itself, below the leaves: the flowers grow in racemes; the fruit is a five-celled pome. A. Bilimbi is a beautiful tree with a green fleshy oblong fruit the thickness of the finger, filled with a grateful acid juice; the substance and seeds not unlike those of cucumber. They make a syrup of the juice, and a conserve of the flowers, which are esteemed excellent in fevers and bilious disorders. A. carambola bears a fruit the size of a hen's egg, with a pulpy subacid juice, used ripe and also pickled green, and employed also in dying, and other economical purposes. The petioles and branches of this tree are said to have a peculiar sensitive quality, of which an account is given by Dr. Bruce in the Philosophical Transactions,

| 1059. SPONDIAS. W.     |  | Hog Plum.         |   |      | Terebinthaceæ. Sp. 3-7. |       |     |                   |  |
|------------------------|--|-------------------|---|------|-------------------------|-------|-----|-------------------|--|
| 6400                   | Mômbin W.                                | flat-stemmed      | 辛 | □ pr | 10                      | ...   | Yg  | W. Indies 1817.   |  |
| 6401                   | Myrobálanus W.                           | yellow            | 辛 | □ pr | 30                      | ...   | Yg  | W. Indies 1739.   |  |
| 6402                   | dúlcis W.                                | Otaheite-apple    | 辛 | □ pr | 50                      | ...   | Yg  | Society Is. 1793. |  |
| †*1060. COTYLE'DON. W. |  | NAVEL-WORT.       |   |      | Sempervivæ. Sp. 17-20.  |       |     |                   |  |
| 6403                   | orbiculata Haw.                          | round-leaved      | 辛 | □ cu | 2                       | jl.au | R   | C. G. H. 1789.    |  |
| 6404                   | ovata Haw.                               | ovate-leaved      | 辛 | □ cu | 2                       | jl.o  | R   | C. G. H. 1789.    |  |
| 6405                   | papillaris L.                            | conical           | 辛 | □ cu | 1                       | jl.au | R   | C. G. H. 1822.    |  |
| 6406                   | oblonga Haw.                             | oblong-leaved     | 辛 | □ cu | 2                       | jl.s  | R   | C. G. H. 1830.    |  |
| 6407                   | curviflora                               | curve-flowered    | 辛 | □ cu | 1                       | jl.o  | Or  | C. G. H. 1818.    |  |
| 6408                   | ramosissima Mill.                        | many-branched     | 辛 | □ cu | 2                       | ...   | ... | C. G. H. 1768.    |  |
| 6409                   | fasciculáris W.                          | cluster-leaved    | 辛 | □ cu | 1                       | jl.s  | ... | C. G. H. 1759.    |  |
| 6410                   | coccinea W.                              | scarlet           | 辛 | □ o  | 2                       | o     | Sc  | C. G. H. 1816.    |  |
| 6411                   | decussata Sims.                          | cross-leaved      | 辛 | □ cu | 1                       | jl.au | Sc  | C. G. H. 1819.    |  |
| 6412                   | hemisphærica W.                          | thick-leaved      | 辛 | □ cu | 1                       | jn.jl | ... | C. G. H. 1731.    |  |
| 6413                   | spúria W.                                | narrow-leaved     | 辛 | □ cu | 1                       | jl.au | ... | C. G. H. 1731.    |  |
| 6414                   | cæspitosa Haw. <i>linguæformis</i> H. K. | tongue-leaved     | 辛 | □ cu | 1                       | jn.au | Y   | California 1796.  |  |
| 6415                   | serrata W.                               | notch-leaved      | 辛 | △ cu | 1                       | jn.jl | Y   | Siberia 1732.     |  |
| 6416                   | hispanica W.                             | Spanish           | 辛 | □ pr | 1                       | jn.jl | Y   | Spain 1796.       |  |
| 6417                   | Malacophýllum W.                         | annual            | 辛 | □ pr | 1                       | jn.jl | P.y | Davuria 1815.     |  |
| 6418                   | umbilicus W.                             | Penny-wort        | 辛 | □ pr | 1                       | jn.jl | Y   | Britain sha.roc.  |  |
| 6419                   | lutea W.                                 | Portuguese yellow | 辛 | □ pr | 1                       | jn.jl | Y   | Portugal 1823.    |  |
| 6419                   | lutea W.                                 | Portuguese yellow | 辛 | □ pr | 1                       | jn.jl | Y   | England moiro.    |  |
| †*1061. SEDUM. W.      |  | STONE-CROP.       |   |      | Sempervivæ. Sp. 41-60.  |       |     |                   |  |
| 6420                   | verticillátum W.                         | whorl-leaved      | 辛 | △ or | 1                       | jl.s  | Pk  | S. Europe ...     |  |
| S. triphýllum Haw.     |  |                   |   |      |                         |       |     |                   |  |
| 6421                   | máximum Haw.                             | great-purple      | 辛 | △ or | 2                       | jl.s  | W   | Spain 1794.       |  |
| 6422                   | álbicans Haw.                            | great-white       | 辛 | △ or | 2                       | jl.s  | W   | Europe 1794.      |  |
| 6423                   | Telephium E. B.                          | common Orpine     | 辛 | △ or | 2                       | jl.s  | Pu  | Britain bor.fi.   |  |
| 6424                   | Telephióides Mich.                       | Rhodiola-lvd.     | 辛 | △ or | 1                       | jl.s  | Pu  | N. Amer. 1810.    |  |
| 6425                   | Anacámpseros W.                          | evergreen         | 辛 | △ or | 1                       | jl.au | Pk  | France 1596.      |  |
| 6426                   | divaricatúm W.                           | spreading         | 辛 | △ or | 1                       | jl.s  | Y   | Madeira 1777.     |  |
| 6427                   | Aizón W.                                 | yellow            | 辛 | △ or | 1                       | jl.s  | Y   | Siberia 1759.     |  |
| 6428                   | spórium W. en.                           | fringed           | 辛 | △ or | 1                       | jl.s  | Pk  | Caucasus 1816.    |  |
| 6429                   | oppositifolium B.M.                      | opposite-leaved   | 辛 | △ or | 1                       | jl.s  | W   | Caucasus ...      |  |
| 6430                   | hybridum W.                              | Germander-lvd.    | 辛 | △ or | 1                       | my.jl | Pu  | Siberia 1766.     |  |
| 6431                   | populifolium W.                          | Poplar-leaved     | 辛 | △ or | 1                       | jl.au | W   | Siberia 1780.     |  |
| 6432                   | ternátum Ph.                             | Purslane-leaved   | 辛 | △ or | 1                       | jl.au | W   | N. Amer. 1789.    |  |
| 6433                   | stellátum W.                             | starry            | 辛 | △ or | 1                       | jn.jl | W   | S. Europe 1640.   |  |
| 6434                   | spathulátum W. en.                       | spathulate        | 辛 | □ or | 1                       | jn.jl | W   | Hungary 1815.     |  |
| 6435                   | Cepæa W.                                 | punicated         | 辛 | □ or | 1                       | jl.au | W   | France 1640.      |  |
| 6436                   | spinósum W. en.                          | spiny             | 辛 | △ or | 1                       | jl.au | W   | Siberia 1790.     |  |
| Crásmula spinósa W.    |  |                   |   |      |                         |       |     |                   |  |
| 6437                   | dasyphýllum W.                           | thick-leaved      | 辛 | △ pr | 1                       | jn.jl | W   | England walls.    |  |
| 6438                   | reflexum E. B.                           | reflex-leaved     | 辛 | △ or | 1                       | jn.jl | Y   | Britain walls.    |  |
| 6439                   | gláucum E. B.                            | glaucous          | 辛 | △ or | 1                       | jl.au | Y   | England bar.sa.   |  |
| 6440                   | collinum W. en.                          | hill              | 辛 | △ or | 1                       | jn.au | Y   | ..... 1815.       |  |
| 6441                   | viréscens W. en.                         | greenish-flower.  | 辛 | △ or | 1                       | jn.au | G.y | ..... 1815.       |  |
| 6442                   | septanguláre Haw.                        | seven-rowed       | 辛 | △ or | 1                       | jn.jl | Y   | ..... 1795.       |  |
| 6443                   | virens W.                                | green             | 辛 | △ or | 1                       | jn.jl | Y   | Portugal 1774.    |  |
| 6444                   | rupéstre W.                              | rock              | 辛 | △ pr | 1                       | jl.au | Y   | England rocks.    |  |
| 6445                   | Forsterianum H. K.                       | Forster's         | 辛 | △ or | 1                       | jl.au | Y   | Wales w. roc.     |  |
| 6446                   | cæruleum Vahl.                           | pale-blue         | 辛 | △ or | 1                       | jl.au | P.b | Africa 1822.      |  |
| 6447                   | sempervivoides Bieb.                     | Semperviv.-like   | 辛 | △ or | 1                       | jl.au | R   | Iberia 1823.      |  |



History, Use, Propagation, Culture,

Both species form handsome plants in our stoves ; they grow freely, and ripened cuttings root readily in sand under a hand glass.

1059. Spondias. One of the Greek names of the plum. The plants of this genus bear fruit like plums, which are also called hog plums in the West Indies. These are deciduous fruit-bearing trees, natives or cultivated in both Indies. S. Mombin (the South American name) flowers from the sides of the branches, and is known by its oblong or ovate fruit like a plum, having a luscious thin pulp covering a large fibrous stone. The skin is yellow, purple, or variegated; the pulp is yellow and thin, having a singular but not unpleasant taste, and a sweet smell. The seed scarcely ever ripens, but it is so easily increased by cuttings, that if a branch laden with young fruit be set in the ground, it will grow, and the fruit will soon come to maturity. In St. Domingo they make hedges of the boughs, which flower and bear fruit in a few months. It is also cultivated for the sake of the fruit, though it is not in much esteem in Jamaica.

The flowers of S. Myrobálanus (the Myrobálanus of Dioscorides was an Egyptian or Arabian tree, which

- 6400 Common petiole compressed  
 6401 Common petiole round, Leaves shining acuminate  
 6402 Common petiole round with 6 pairs of leaflets which are serrated and ribbed
- 6403 Leaves orbicular spatulate powdery obtuse with a point, Fl. paniced, Stem erect branched  
 6404 Leaves ovate spatulate obtuse powdery with a point edged with red, Fl. paniced, Stem erect branched  
 6405 Leaves opp. rounded ovate, Flowers corymbose  
 6406 Leaves obl. spatulate obtuse smooth with a point, Fl. paniced, Stem erect branched  
 6407 Leaves semicylindrical scattered, Fl. paniced nodding, Tube curved  
 6408 Leaves ovate spatulate obtuse with a point powdery, Fl. paniced, Stem much branched divaricating  
 6409 Leaves wedge-shaped fascicled, Stem thickened, Branches fleshy conical  
 6410 Leaves obovate acute fleshy, Spike leafy terminal  
 6411 Leaves crossing rounded mucronate glaucous, Fl. paniced pendulous  
 6412 Leaves half orbicular scurfy dotted flat above, Fl. few small sessile  
 6413 Leaves spatulate obtuse naked with a point  
 6414 Leaves glaucous narrow tongue-shaped at the end obtuse mucronate, Fl. cymose, Stem leafy
- 6415 Leaves oval crenate, Stem spiked  
 6416 Leaves oblong nearly round, Flowers fascicled  
 6417 Leaves lanceolate acute fleshy, Spike cylindrical terminal leafless  
 6418 Leaves peltate crenate, Stem nearly simple, Fl. pendulous, Bractes entire
- 6419 Leaves peltate crenate, Stem nearly simple, Flowers erect, Bractes toothed
- 6420 Leaves whorled 4
- 6421 Leaves amplexicaul. cordate ovate obtuse unequally and deeply serrated  
 6422 Leaves amplexicaul. cordate oblong obtusely serrated whitish  
 6423 Leaves flattish serrated, Corymb leafy, Stem erect  
 6424 Leaves flat ovate acute at each end toothed, Flowers in corymbose fascicles  
 6425 Leaves wedge-shaped narrowed at the base subsessile, Stems decumbent, Fl. corymbose  
 6426 Leaves wedge-shaped rhomboid emarginate stalked, Stems branched, Pan. term. divaricating  
 6427 Leaves lanceolate serrated flat, Stem erect, Cyme sessile terminal  
 6428 Leaves roundish obovate flat crenated at end with a cartilaginous muricated edge  
 6429 Leaves flat opposite spatulate toothed  
 6430 Leaves wedge-shaped concave somewhat toothed aggregate, Branches creeping, Cyme terminal  
 6431 Leaves flat cordate toothed stalked, Corymbs terminal  
 6432 Leaves whorled obovate entire smooth, Cyme in three divisions  
 6433 Leaves flattish angular, Fl. lateral subsessile solitary  
 6434 Stems branched, Leaves entire: lower spatulate, Stigmas acute  
 6435 Leaves flat lanceolate, Stem branched, Flowers paniced, Petals acute awned  
 6436 Radical leaves obovate with a long mucronate point, Stem simple, Spike term. long
- 6437 Leaves opposite ovate obtuse fleshy, Stem weak, Fl. scattered  
 6438 Leaves subulate scattered separate at base: the lower recurved  
 6439 Leaves glaucous subulate scattered separate at base, Fl. cymose, Cal. lanceolate  
 6440 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme recurved  
 6441 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme compact  
 6442 Leaves subulate in 7 rows glaucous very close distinct at base  
 6443 Leaves subulate scattered separate at base, Fl. in cymes, Petals half as long as lanceolate calyx  
 6444 Leaves subulate scattered separate at base glaucous, Fl. in cymes, Petals twice as long as calyx  
 6445 Leaves subulate spreading in many rows close, Cal. short obtuse  
 6446 Leaves oblong alternate obtuse separate at base, Cyme bifid smooth  
 6447 Leaves flat spatulate ovate acute entire pubescent, Corymb hemispherical



and Miscellaneous Particulars.

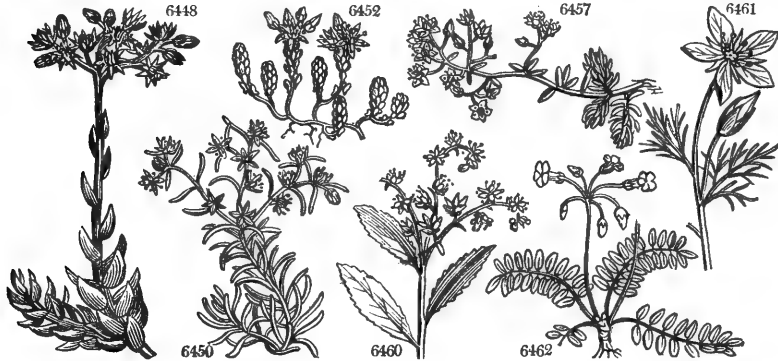
bore a perfumed fleshy fruit. Jacquin applied the name to this South American plant, which is nearly similar in properties) come out before the leaves make their appearance, and are succeeded by yellow plums the size of a pigeon's egg, which are eaten by children, and considered excellent food for hogs. It grows by large cuttings as freely as the other. *S. gulcis* is a handsome tree; the pulp of the fruit is firmer than that of the others, and tastes like a Reinette apple. It is cultivated in the Society and Friendly islands, especially in Otaheite; the fruit is of a gold color, hangs in little nodding bunches, and is esteemed both tasteful and wholesome: its flavor resembles that of the pine-apple.

1060. *Cotyledon*. From *κωτύλον*, a vessel or cup. Many of the species of this genus have cup-shaped leaves. The species are succulents of little beauty, and of the easiest culture in light earth and lime rubbish, or in sand and loam.

1061. *Sedum*. From *σέδωρ*, to sit: these plants growing upon the bare rock, look as if sitting upon it. The species are low succulents, some of them pretty, others curious; but none of them remarkable in any way.



|        |                                  |                 |        |          |       |                     |             |       |                          |
|--------|----------------------------------|-----------------|--------|----------|-------|---------------------|-------------|-------|--------------------------|
| 6448   | altissimum P. S.                 | tall            | ♂ Δ or | jl.au    | P.v   | S. Europe           | 1769.       | D s.l | Jac. vind. 1. t.81       |
|        | <i>Sempervivum sedifforme</i> W. |                 |        |          |       |                     |             |       |                          |
| 6449   | quadrifidum W.                   | four-cleft      | ♂ Δ or | ½ jl     | Y     | N. Asia             | 1800.       | D s.l | Pa. it. 3. a. t. P. f. 1 |
| 6450   | hispanicum W.                    | Spanish         | ♂ Δ or | ½ jn. jl | P.y   | Spain               | 1732.       | D s.l | Jac. au. 5. t. a. 47     |
| 6451   | album W.                         | white           | ♂ Δ pr | ½ jn. jl | W     | England rocks.      |             | D s.l | Eng. bot. 1378           |
| 6452   | acre W.                          | biting          | ♂ Δ pr | ½ jn     | Y     | Britain walls.      |             | D s.l | Eng. bot. 839            |
| 6453   | sexangulare W.                   | insipid         | ♂ Δ pr | ½ jn. jl | Y     | England walls.      |             | D s.l | Eng. bot. 1946           |
| 6454   | anglicum W.                      | English         | ♂ Δ pr | ½ jl.au  | W     | Britain rocks.      |             | D s.l | Eng. bot. 171            |
| 6455   | annuum W.                        | annual          | ♂ ○ pr | ½ au     | W     | N. Europe           | 1739.       | S s.l |                          |
| 6456   | villosum W.                      | hairy           | ♂ Δ pr | ½ jn. jl | Pk    | Britain             | m. a. p.    | D s.l | Eng. bot. 394            |
| 6457   | mongrelense P. S.                | clammy          | ♂ Δ pr | ½ jn. jl | W     | S. Europe           | 1816.       | D s.l | Bot. cab. 464            |
| 6458   | atratum W.                       | dark-annual     | ♂ ○ pr | ½ au     | Fu    | Italy               | 1795.       | S s.l | Jac. aus. 1. t. 8        |
| 6459   | nudum W.                         | naked-branch.   | ♂ ○ pr | ½ jl.au  | W     | Madeira             | 1777.       | R s.l |                          |
| 1062.  | PENTHORUM. W.                    | PENTHORUM.      |        |          |       | <i>Semperviveæ.</i> | Sp. 1.      |       |                          |
| 6460   | sedoides W.                      | American        | ♂ Δ cu | 1 jl.au  | G.y   | Virginia            | 1768.       | D s.l | Lam. ill. t. 390         |
| 1063.  | GRIETUM. W.                      | GRIETUM.        |        |          |       | <i>Rosaceæ.</i>     | Sp. 1.      |       |                          |
| 6461   | tenuifolium W.                   | slender-leaved  | ♂ Δ un | 2 ap. my | Y     | C. G. H.            | 1790.       | R p.l | Sw. ger. 2. t. 171       |
| 1064.  | BIO-PHYTUM. D. C.                | BIO-PHYTUM.     |        |          |       | <i>Oxalidæ.</i>     | Sp. 1—2.    |       |                          |
| 6462   | sensitivum D. C.                 | sensitive       | ♂ □ pr | ½ jls    | Y     | China               | 1823.       | S s.l | Jac. ox. t. 78. f. 4     |
|        | <i>Oxalis sensitiva</i> L.       |                 |        |          |       |                     |             |       |                          |
| †1065. | OX'ALIS. W.                      | OXALIS.         |        |          |       | <i>Oxalidæ.</i>     | Sp. 72—154. |       |                          |
| 6463   | Plumieri Jacq.                   | Plumier's       | ♂ □ or | 2 ja. d  | Y     | S. Amer.            | 1823.       | C p.l | Bot. reg. 810            |
| 6464   | perennans Haw.                   | perennial       | ♂ Δ or | 2 my. s  | Y     | N. S. W.            | ...         | O s.p |                          |
| 6465   | Dilleni Jacq.                    | annual          | ♂ ○ pr | 2 my. au | Y     | America             | 1798.       | S s.p | Dill. elt. t. 221        |
|        | <i>β florida</i> Salisb.         | free-flowering  | ♂ ○ pr | 2 my. au | Y     | America             | 1798.       | S s.p |                          |
| 6466   | stricta L.                       | upright         | ♂ Δ pr | 1½ jn. o | Y     | N. Amer.            | 1638.       | O s.p | Jac. ox. t. 4            |
| 6467   | corniculata L.                   | procumbent      | ♂ Δ pr | ½ my. o  | Y     | Britain             | sh. roc.    | O s.p | Eng. bot. 1726           |
| 6468   | microphylla Poir.                | red-flowered    | ♂ □ pr | ½ ...    | Y     | N. S. W.            | ...         | S s.p |                          |
|        | <i>rubens</i> Haw.               |                 |        |          |       |                     |             |       |                          |
| 6469   | repens Thunb.                    | creeping-stalk. | ♂ Δ pr | 1 mr. ap | Y     | C. G. H.            | 1793.       | O s.p | Jac. ox. t. 78. f. 1     |
| 6470   | rosea Jacq.                      | rosy            | ♂ Δ pr | ½ mr. ap | R     | Chili               | 1823.       | O s.p | Bot. mag. 2415           |
| 6471   | lateriflora Jacq.                | lateral         | ♂ Δ pr | ½ mr. ap | Pu    | C. G. H.            | 1824.       | C s.p | Jac. sch. t. 304         |
| 6472   | macrostylis Jacq.                | long-styled     | ♂ Δ or | ½ o. n   | Pk    | C. G. H.            | 1793.       | O s.p | Jac. ox. t. 9            |
| 6473   | tubiflora Jacq.                  | tube-flowered   | ♂ Δ or | 1 o. n   | Pu    | C. G. H.            | 1790.       | O s.p | Jac. ox. t. 10           |
| 6474   | secunda Jacq.                    | side-flowering  | ♂ Δ or | ½ o. n   | Li    | C. G. H.            | 1790.       | O s.p | Jac. ox. t. 12           |
| 6475   | hirta L.                         | hairy-stalked   | ♂ Δ or | ½ o. n   | Li    | C. G. H.            | 1787.       | O s.p | Jac. ox. t. 13           |
| 6476   | multiflora Jacq.                 | many-flowered   | ♂ Δ or | ½ fmr    | Li    | C. G. H.            | 1789.       | O s.p | Jac. ox. t. 15           |
| 6477   | rubella Jacq.                    | branching-red   | ♂ Δ or | ½ s. n   | Pk    | C. G. H.            | 1791.       | O s.p | Bot. mag. 1031           |
| 6478   | rosea Jacq.                      | rose-colored    | ♂ Δ pr | ½ s. n   | Pk    | C. G. H.            | 1793.       | O s.p | Bot. mag. 1698           |
| 6479   | reptatrix Jacq.                  | creeping-rooted | ♂ Δ pr | ½ n. d   | F     | C. G. H.            | 1795.       | O s.p | Jac. ox. t. 20           |
| 6480   | incarnata L.                     | flesh-colored   | ♂ Δ pr | ½ ap. jn | F     | C. G. H.            | 1739.       | O s.p | Jac. ox. t. 71           |
| 6481   | sericea L.                       | silky           | ♂ Δ or | ½ ap. my | Y     | C. G. H.            | 1794.       | O s.p | Jac. ox. t. 77. f. 1     |
| 6482   | violacea L.                      | violet-colored  | ♂ Δ or | ½ my. jn | L. Pu | N. Amer.            | 1772.       | O s.p | Jac. ox. t. 80. f. 2     |
| 6483   | caprina L.                       | Goat's-foot     | ♂ Δ or | ½ mr. jn | F     | C. G. H.            | 1757.       | O s.p | Jac. ox. t. 76. f. 1     |
| 6484   | cœrnea Thunb.                    | drooping        | ♂ Δ or | ½ f. my  | Y     | C. G. H.            | 1757.       | O s.p | Jac. ox. t. 6            |
| 6485   | compressa Jacq.                  | compressed      | ♂ Δ or | ½ ja. d  | Y     | C. G. H.            | 1794.       | O s.p | Jac. ox. t. 78. f. 3     |
| 6486   | dentata Jacq.                    | toothed         | ♂ Δ or | ½ n. d   | F     | C. G. H.            | 1793.       | O s.p | Jac. ox. t. 7            |
| 6487   | livida Jacq.                     | livid           | ♂ Δ or | ½ o. n   | F     | C. G. H.            | 1793.       | O s.p | Jac. ox. t. 8            |
| 6488   | lobata Sims.                     | lobed           | ♂ Δ pr | ½ o. n   | Y     | C. G. H.            | 1823.       | O s.p | Bot. mag. 2386           |



History, Use, Propagation, Culture,

They seem destined by nature to clothe rocks and dry arid places, after a certain portion of vegetable soil has been generated by lichens and mosses.

*Oxalis* is the French name of two or three species. *S. album* is said to have the same virtues as used to be attributed to the houseleek, *Sempervivum tectorum*: it is pickled by some in the manner of samphire. *S. acre* is considered antiscorbatic; its juice applied to the skin blisters it, taken inwardly it vomits, and applied externally to gangrenes promotes suppuration.

1062. *Penthorum*. From *πεντα*, five, in allusion to the five-marked angles of the capsules. Succulent North American plants of no beauty whatever.

1063. *Grietum*. A small uninteresting Cape plant, with yellow flowers and hoary leaves like southernwood. Derived from *γριος*, old, in allusion to its hoary aspect.

1064. *Biophytum*. *Βι φωνος*, plant of life, in allusion to the lively irritable nature of the foliage. This genus, the *Oxalis sensitiva* of Jacquin, has been lately divided by M. De Candolle from *Oxalis*, chiefly on

6448 Petals 8, Leaves scattered: the lower rounded; upper depressed

6449 Leaves scattered rounded obtuse, Stem simple, Fl. in umbels with 4 petals

6450 Leaves linear rounded depressed scattered, Cyme open, Petals 4

6451 Leaves oblong obtuse roundish sessile spreading, Cyme branched

6452 Leaves subovate adnate-sessile gibbous nearly erect alternate, Cyme trifid

6453 Leaves subovate adnate-sessile gibbous nearly erect imbricated six ways

6454 Leaves subovate adnate-sessile gibbous alternate, Cyme branched bifid

6455 Stem erect solitary annual, Leaves ovate sessile gibbous alternate, Cyme recurved

6456 Leaves oblong flatish above and peduncles axillary about 1-fl. pubescent, Petals ovate obtuse

6457 Leaves whorled linear, Stem procumbent paniced, Peduncles villous viscid

6458 Stem erect, Flowers corymbose fastigiate

6459 Leaves scattered oblong-cylindrical obtuse, Stems shrubby much branched, Cymes terminal

6460 The only species

6461 Peduncles simple 1-fl. Leaves tripartite multifid linear downy

6462 Peduncles many-fl. at end

§ 1. *Peduncles many-flowered, Stems suffruticose, Cells of ovary usually 1 seeded.*

6463 Stem erect leafy, Umbel 4-fl. the length of leaves, Leaflets entire ovate obtuse

§ 2. *Cauliscent, Leaves palmate 3-foliolate, Leaflets all sessile, obovate.*

6464 Pedunc. 2-3-fl. somewhat longer than leaf-st. Lvs. 2-lobed obov. ciliated, Styles a little longer than inner

6465 Stem hairy, Umb. 5-6-fl. longer than leaves, Lvs. obovate, Styles longer than both stamens [stamens

§ Stem decumbent, Peduncles 2 or 3-flowered

6466 Stem erect, Umbels 2-6-fl. about as long as leaves, Leaf. obov. Styles the length of inner stamens

6467 Stem rooting, Peduncles shorter than leafst. Leaf. obovate, Styles the length of inner stamens

6468 Smoothish, Pedunc. 2-fl. longer than leafst. Leaf. 2-lobed, Styles the length of inner stamens

6469 Stem rooting, Pedunc. 2-fl. the length of leafst. Leaflets obovate, Styles middling

6470 Stem erect, Pedunc. axill. four times as long as leaf at the end corymbose racemose, Leaf. obovate

6471 Stem naked at base, Pedunc. lateral umbell. at end, Leaf. cun. emarg. Styles shorter than outer stamens

§ 3. *Cauliscent, Leaves sessile, 3-leaved, villous, not glandular, Pedunc. axillary, 1-flowered.*

6472 Stem branch. Ped. much long. than lvs. Bractes next cal. Leaf. lin. emarg. Styles long, than inner stam.

6473 Ped. 4 times as long as lvs. Bractes appressed to cal. Leaf. lin. cun. obt. Styles shorter than outer stamens

6474 Stem declined, Branches 1-sided, Leaf. lin.-cuneiform, Peduncles scarcely longer than leaves

6475 Leaf. lin. cun. ret. Ped. much long. than lvs. Bractes remote from cal. Stam. with neither teeth nor glands

6476 Stem much branched, Leaf. lin. cuneate obt. Pedunc. much shorter than lvs. Bractes remote from cal.

6477 Leaf. lin. cuneate, Pedunc. much longer than leaves, Bractes remote from cal. Styles intermediate

6478 Leaf. obl. cuneiform, Pedunc. much longer than leaves, Bractes remote from cal. Styles intermediate

§ 4. *Cauliscent, sparingly leafy, Leaves stalked, 3-5-leaved, Pedunc. axill. 1-flowered.*

6479 Stem short, Leaves on long stalks, Leaf. 3 ovate-rounded, Styles very short

6480 Stem branched, Leaves stalked in fascicled whorls with 3 obovate leaflets, Styles very long

§ 5. *Stemless, Pedunc. 1-2 or many-flowered, Leaves radical, many-leaved, usually 3-leaved.*

6481 Leaf. 3 obovate silky, Umbel longer than leaves, Fl. nodding, Styles intermediate

6482 Leaf. 3 obovate smooth, Umb. 3-9. fl. Styles very short, Fl. nodding

6483 Leaf. 3 obovate 2-lobed smooth, Umb. 2-4-fl. Flowers erect, Styles very short

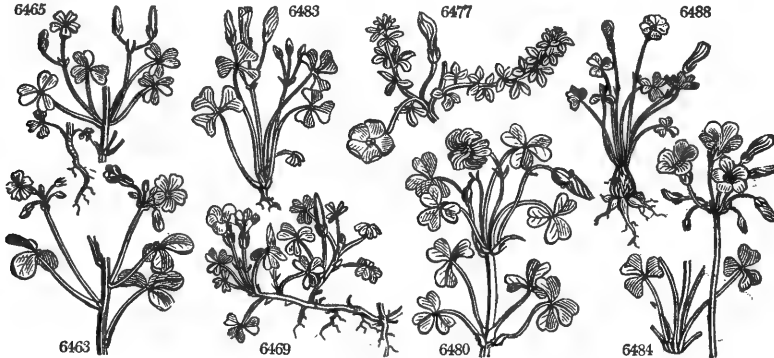
6484 Leaf. 3 obovate 2-lobed smooth subciliated, Umb. many-fl. Fl. drooping, Styles very short

6485 Petiole flatish, Leaf. 3 obovate pubescent, Umb. 2-fl. Sepals entire, Styles very long

6486 Leaf. 3 obovate smooth subciliate, Umb. 2-5-fl. Sepals 3-toothed at end, Styles very long

6487 Leaf. 3 obovate 2-parted beneath violet, Umbel 2-fl. Styles middling

6488 Smooth, Pedunc. 1-fl. longer than leaf, Leaflets obovate, Root tuberous



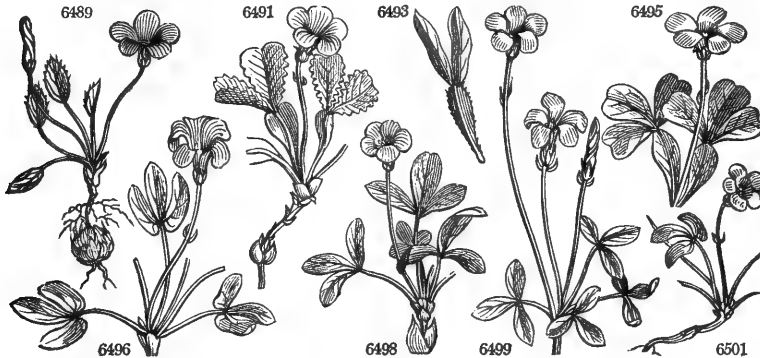
and Miscellaneous Particulars.

account of its irritable pinnated foliage, and its stamens being distinct, and five of them only being perfect. It is a very pretty annual, and if well managed so as to acquire, as in China, a stem six or nine inches high, is quite a remarkable object. Cultivated in common earth, and propagated by seeds, which it produces in abundance.

1065. *Oxalis*. The *Oxalis* of the ancients, which was named from *oxys*, sharp, or sour, was a very different plant from this, which is thought to have been the *Oxys* of Pliny. The name employed by Linnaeus has, however, been adopted by his followers, although Clusius, Ray, Plumier, Tournefort, Haller, and others, called the genus *Oxys*.

This is a tribe of pretty little plants, of which most of the species flower freely, but all of them are without their leaves half the year. The root is commonly bulbous; in some species only thick and fleshy; in a few branched: the bulbs consist of fleshy scales, sometimes closely imbricate, sometimes loose and diverging. In a few the subterranean stipe and the terminating fibre of the bulb produce little dog-toothed bulbs, in such

|                           |                 |                            |                     |       |          |       |       |                      |
|---------------------------|-----------------|----------------------------|---------------------|-------|----------|-------|-------|----------------------|
| 6489 monophylla L.        | simple-leaved   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | Y     | C. G. H. | 1774. | O s.p | Jac. ox. t. 79. f. 8 |
| 6490 rostrata Jacq.       | beaked          | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | P.v   | C. G. H. | 1795. | O s.p | Jac. ox. t. 22       |
| 6491 crispa Jacq.         | curled          | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | W     | C. G. H. | 1793. | O s.p | Jac. ox. t. 23       |
| 6492 leporina Jacq.       | hare's-eared    | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | W     | C. G. H. | 1795. | O s.p | Jac. ox. t. 25       |
| 6493 asinina Jacq.        | ass's-eared     | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ n.d   | Y     | C. G. H. | 1792. | O s.p | Jac. ox. t. 24       |
| 6494 lanceifolia Jacq.    | spear-leaved    | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | Y     | C. G. H. | 1795. | O s.p | Jac. ox. t. 25       |
| 6495 fabefolia Jacq.      | Bean-leaved     | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | Y     | C. G. H. | 1794. | O s.p | Jac. ox. t. 27       |
| 6496 laburnifolia Jacq.   | Laburnum-lvd.   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.o   | Pu    | C. G. H. | 1793. | O s.p | Jac. ox. t. 28       |
| 6497 sanguinea Jacq.      | bloody-leaved   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.d   | Y     | C. G. H. | 1795. | O s.p | Jac. ox. t. 29       |
| 6498 tricolor Jacq.       | three-colored   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.d   | W.R   | C. G. H. | 1794. | O s.p | Jac. ox. t. 47       |
| 6499 ciliaris Jacq.       | ciliate-leaved  | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.n   | Pu    | C. G. H. | 1793. | O s.p | Jac. ox. t. 30       |
| 6500 arcuata Jacq.        | bowled          | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.n   | V     | C. G. H. | 1795. | O s.p | Jac. ox. t. 31       |
| 6501 fasciata Jacq.       | flaccid         | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | W.R   | C. G. H. | 1812. | O s.p | Jac. ox. t. 51       |
| 6502 ambigua Jacq.        | ambiguous       | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.d   | W     | C. G. H. | 1790. | O s.p | Jac. ox. t. 43       |
| 6503 undulata Jacq.       | wave-leaved     | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | W     | C. G. H. | 1795. | O s.p | Jac. ox. t. 44       |
| 6504 fuscata Jacq.        | brown-spotted   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ my.jn | Y     | C. G. H. | 1795. | O s.p | Jac. ox. t. 45       |
| 6505 sulphurea Jacq.      | sulphur-color.  | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | P.r   | C. G. H. | 1795. | O s.p | Jac. ox. t. 63       |
| 6506 speciosa W.          | purple          | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.n   | Pu    | C. G. H. | 1690. | O s.p | Jac. ox. t. 60       |
| 6507 variabilis Jacq.     | variable        | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.d   | W.R   | C. G. H. | 1795. | O s.p | Jac. ox. t. 52       |
| $\beta$ grandiflora Jacq. | great-flowered  | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.d   | W     | C. G. H. | 1790. | O s.p | Jac. ox. t. 54       |
| $\gamma$ Simsii D. C.     | Sims's          | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.d   | W     | C. G. H. | 1790. | O s.p | Bot. mag. 1683       |
| 6508 purpurea W.          | purple          | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | Pu    | C. G. H. | 1812. | O s.p | Jac. ox. t. 56       |
| 6509 convexula Jacq.      | convex-leaved   | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ n.ja  | Pk    | C. G. H. | 1789. | O s.p | Jac. ox. t. 55       |
| 6510 marginata Jacq.      | green-edged     | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.d   | W     | C. G. H. | 1812. | O co  | Jac. ox. t. 68       |
| 6511 pulchella Jacq.      | beautiful       | $\frac{1}{2}$ $\Delta$ el  | $\frac{1}{2}$ o.n   | W     | C. G. H. | 1795. | O co  | Jac. ox. t. 69       |
| 6512 obtusa Jacq.         | blunt-leaved    | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.n   | R     | C. G. H. | 1812. | O s.p | Jac. ox. t. 79. f. 1 |
| 6513 lanata L.            | woolly-leaved   | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.n   | W     | C. G. H. | 1791. | O s.p | Jac. ox. t. 77. f. 2 |
| 6514 acetosella L.        | common          | $\frac{1}{2}$ $\Delta$ cul | $\frac{1}{2}$ ap.my | F     | Britain  | gro.  | O co  | Eng. bot. 762        |
| 6515 americana Dec.       | American        | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ ap.my | W     | N. Amer. | ...   | O co  |                      |
| 6516 tenella Jacq.        | slender         | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ ap.my | Li    | C. G. H. | 1793. | O s.p | Jac. ox. t. 19       |
| 6517 natanus L.           | floating        | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.d   | W     | C. G. H. | 1795. | O s.p | Jac. ox. t. 76. f. 2 |
| 6518 filiculis Jacq.      | bilobed-leaved  | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.o   | V     | C. G. H. | 1815. | O s.p | Jac. sch. 2. t. 205  |
| 6519 bifida Thunb.        | cloven-leaved   | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.o   | V     | C. G. H. | 1791. | O s.p | Jac. ox. t. 79. f. 4 |
| 6520 cuneifolia Jacq.     | wedge-shaped    | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ ap.my | W     | C. G. H. | 1793. | O s.p | Jac. ox. t. 41       |
| 6521 linearis Jacq.       | linear-shaped   | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.n   | V     | C. G. H. | 1795. | O s.p | Jac. ox. t. 32       |
| 6522 reclinata Jacq.      | reclining       | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.n   | Pk    | C. G. H. | 1795. | O s.p | Jac. ox. t. 34       |
| 6523 glabra Thunb.        | smooth          | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ my.jn | Pu    | C. G. H. | 1795. | O s.p | Jac. ox. t. 76. f. 3 |
| 6524 versicolor L.        | striped-flower. | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ ja.mr | Cr    | C. G. H. | 1774. | O s.p | Bot. mag. 155        |
| 6525 elongata Jacq.       | elongated       | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ s.o   | W     | C. G. H. | 1791. | O s.p | Jac. ox. t. 37       |
| 6526 tenuifolia Jacq.     | fine-leaved     | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ o.n   | W.R   | C. G. H. | 1790. | O s.p | Jac. ox. t. 38       |
| 6527 polyphylla Jacq.     | many-leaved     | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ ja.s  | Pa.pu | C. G. H. | 1791. | O s.p | Jac. ox. t. 39       |
| 6528 filifolia Jacq.      | thread-leaved   | $\frac{1}{2}$ $\Delta$ or  | $\frac{1}{2}$ ja.s  | Pk    | C. G. H. | 1832. | O s.p | Jac. sch. t. 273     |
| 6529 pentaphylla Sims.    | five-leaved     | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ f.n   | Pk    | C. G. H. | 1800. | O s.p | Bot. mag. 1549       |
| 6530 lupinifolia Jacq.    | Lupine-leaved   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ o.n   | Y     | C. G. H. | 1791. | O s.p | Jac. ox. t. 72       |
| 6531 flava L.             | narrow-leaved   | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ mr.ap | Y     | C. G. H. | 1775. | O s.p | Bot. reg. 117        |
| 6532 pectinata Jacq.      | pectinated      | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.n   | Y     | C. G. H. | 1790. | O s.p | Jac. ox. t. 75       |
| 6533 habellifolia Jacq.   | fan-leaved      | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ s.n   | Y.a   | C. G. H. | 1789. | O s.p | Jac. ox. t. 74       |
| 6534 tomentosa L.         | downy-leaved    | $\frac{1}{2}$ $\Delta$ pr  | $\frac{1}{2}$ ap.my | W     | C. G. H. | 1791. | O s.p | Jac. ox. t. 81       |



History, Use, Propagation, Culture,

abundance as to fill the whole pot to the very bottom, as in purpurea, cernua, reptatrix. Sometimes the bulb strikes very deep, as in tomentosa; the original bulb near the surface striking a radical fibre downright from its base, which puts out from its side a new bulb, producing the next year's plant, whilst the former perishes. Sometimes fusiform, thick and long fibres spring in a monstrous form from the bulbs, as in glandulosa, and some others. Some of the species have a proper stem (*Caulis*), when it bears all the leaves and peduncles alternately, and not in a terminating umbel: this is either branched or quite simple, and that for the most part inconstantly. Others have a stipe; the leaves and flowers being aggregate together at the end of the stalk; this bears none or very few leaves along it, seldom many. In some species the stipe is always subterranean, as in breviscapa, purpurea, &c.; in others it is always above ground, as in gracilis, versicolor, tenuifolia. Stipes are commonly quite simple; some, however, are branched, the branches terminating in umbels, as in incarnata and polyphylla. Hence the division of the species into caulescent and stipitate. The leaves are not, perhaps, truly sessile in any of the species; they are subsessile in a few, but in most are petioled. They are simple in three species, bipinate in four, digitate in six, in the rest ternate: almost all of them have an acid

§ 6. *Stemless, Leaves simple.*

- 6489 Leaves ellipt obtuse, Scape 1-f. Filam. smooth, Styles middling covered with glandular hairs  
 6490 Leaves obovate retuse, Scape 1-f. Styles very short, Filaments glandular

§ 7. *Stemless, Leaves 2 or 3-leaved, Stalks winged.*

- 6461 Leaf. 2 roundish obovate emarginate wavy at edge, Styles very long and filaments glandular  
 6462 Leaf. 2 ellipt. ovate with a cartilaginous toothletted edge, Filam. glandular  
 6463 Leaf. 2 lanceolate with a cartilaginous toothletted edge, Filam. glandular  
 6464 Leaf. 2-3 with a cartilaginous scabrous edge, Filam. smooth  
 6465 Leaf. 3 obovate emarg. mucronate, Styles and filaments glandular

§ 8. *Stemless, Leaves stalked, 3-leaved, Stalks not winged.*

- 6496 Pubescent, Lateral leaflets obliquely oblong: middle lanceolate, Scares higher than petioles  
 6497 Pubescent, Leaf. obl. obt.: middle cuneate at base, Scares length of petiole  
 6498 Pubescent, Leaf. obl. obt.: middle subcuneate, Scares longer than petiole  
 6499 Pubesc. Leaf. obl. obt. subemarg. Pedunc. longer than petiole with 2 bractes immediately below the cal.  
 6500 Pubescent, Leaf. obl. emarg. Pedunc. length of petiole with 2 bractes immediately below the cal.  
 6501 Pubescent, Leaf. obl. retuse: middle cuneate, Peduncles twice as long as leaves with 2 bractes in middle  
 6502 Subhirsute, Leaf. obov. obl. obt. Pedunc. equal to petiole with 2 bractes in their middle, Styles glandular  
 6503 Subhirsute, Leaf. obov. obl. obt. Ped. longer than petioles with 2 bractes below their middle, Styles hairy  
 6504 Pubesc. Leaf. obl. lateral ovate: midd. cuneate, Pedunc. twice as long as petiole with 2 bractes in midd.  
 6505 Pubesc. Leaf. roundish, Pedunc. as long as pet. with 2 bractes at base, Calyx with clavate hairs at edges  
 6506 Pub. Leaf. roundish, Ped. as long as pet. with 2 bractes below mid. Cal. with simple and glan. hairs mixed  
 6507 Pub. Leaf. round.: mid. cun. at base, Ped. as long as lvs. or long. with 2 bractes below mid. Styles very short

β Flowers large, Leaves red beneath

γ Flowers large, Leaves green on both sides

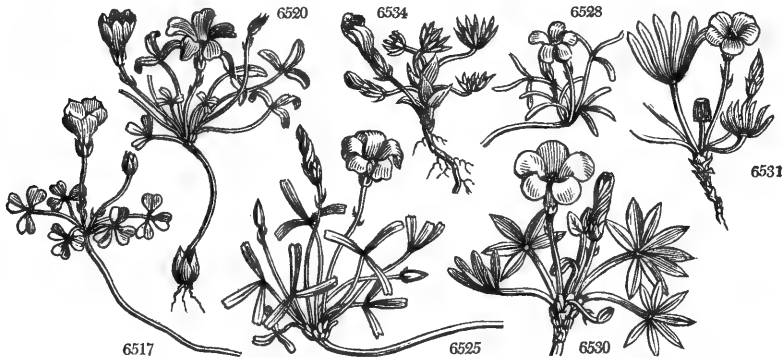
- 6508 Pubesc. Leaf. roundish, Scares longer than leaf with 2 bractes below the middle  
 6509 Smooth, Leaf. roundish dotted, Stipules dilated acuminate, Bractes alternate  
 6510 Pub. Leaf. obov. roundish, Scares nearly twice as short as pet. with 2 bractes in mid. Styles intermediate  
 6511 Pub. Leaf. obov. roundish, Scares thrice as short as petiole with 2 bractes in mid. Styles very long  
 6512 Densely pubesc. Leaf. obovate, Scape longer than leaves with 2 bractes above middle, Cal. obtuse  
 6513 Woolly, Leaf. obovate, Ca. acute  
 6514 Root toothed creeping, Leaf. obov. downy, Scape longer than leaves, Petals oval obtuse  
 6515 Root toothed creeping, Leaf. obov. downy, Scape longer than leaves, Pet. obl. unequally emarginate  
 6516 Smoothish, Leaflets obovate, Scape longer than the leaves, Styles very short  
 6517 Leaflets obovate smooth, Pedunc. the length of leaves, Styles very short  
 6518 Leaf. obov. 2-lobed, smooth, Pedunc. longer than leaf, Styles intermediate  
 6519 Leaf. obov. 2-lobed smooth, Pedunc. longer than leaf, Styles very long  
 6520 Leaf. cuneate emarg. hairy, Pedunc. the length of petiole, Styles very short, Filam. glandular  
 6521 Leaf. lin. emarg. downy, Pedunc. shorter than petiole with 2 bractes at summit, Styles very long  
 6522 Leaflets linear subcuneate emarginate, Pedunc. as long as petiole, Style intermediate

§ 9. *Leaves 3 or 5-leaved, glandular at end.*

- 6523 Leaflets 3 linear cuneiform emarginate ciliated with many glands beneath  
 6524 Leaflets 3 linear emarginate with 2 glands beneath, Styles and filaments glandular  
 6525 Leaflets 3 linear emarginate with 2 calli at end, Styles very short  
 6526 Leaflets 3 linear emarginate with many glands beneath, Styles very short, Inner filaments glandular  
 6527 Leaflets 3 linear emarginate with 2 glands beneath, Styles intermediate and filaments glandular  
 6528 Leaflets 3 linear entire at end and glandular, Styles very long and inner filaments glandular  
 6529 Leaflets 5 linear at the end nearly entire with 2 callous glands, Styles intermediate

§ 10. *Leaves palmate or peltate, many-leaved, not glandular at end.*

- 6530 Leaflets 7 lanceolate acutish smooth spotted at base, Petioles compressed, Styles very short  
 6531 Leaflets 6-7 smooth linear channelled acute, Styles very short, Filam. glandular  
 6532 Leaflets 7 smooth lin. lanc. obtuse, Cal. appressed, Styles very long and filaments glandular  
 6533 Leaflets 7-9 smooth lin. emarg. Cal. reflexed at end, Styles intermediate  
 6534 Leaflets 9-19 all over downy lanceolate cuneate emarginate



and Miscellaneous Particulars.

taste; whence their names of Oxalis or Oxys, wood Sorrel, &c. The partial stem bearing the flower is a peduncle in the caulescent, a scape in the stipitate species.

Many of the species ripen seeds, from which, or from offsets, they are readily propagated, and grown in light sandy soil: care being taken to give the pots little or no water when the plants are in a dormant state. An excellent work has been written on the genus by Jacquin, in which ninety-six species are described. All that were known in Europe at that time, were cultivated in the Imperial gardens of Schönbrunn with great success, under the immediate inspection of Jacquin, by whom the following directions are given for their management. They are best kept in pots which will hold a good many roots. The earth should be so light and sandy as never to become hard, but always to be soft enough not to resist the point of the finger when pressed upon it; when the flowering time is passed, the pots should be placed aside, where they require neither care nor water; but are well protected from mice. In the beginning of August they should be placed in the open air and moderately watered. About the end of that month, or a little later, the leaves should appear. About the middle of September, earlier or later, according to the weather, they should be placed in a very sunny, airy greenhouse,

|                           |                      |      |    |                      |               |                      |                   |   |     |
|---------------------------|----------------------|------|----|----------------------|---------------|----------------------|-------------------|---|-----|
| †1066. AGROSTEMMA. W.     | ROSE-CAMPION.        |      |    | <i>Caryophyllea.</i> | <i>Sp. 4.</i> |                      |                   |   |     |
| 6535 Githago W.           | Corn-cockle          | ○ w  | 3  | jn.jl                | W             | Britain              | cor. fl.          | S | co  |
| β <i>nicaeensis</i> W.    | Italian              | ○ or | 3  | jn.jl                | W             | Italy                | 1794.             | S | co  |
| 6536 coronaria W.         | common               | Δ or | 3  | jn.s                 | R             | Italy                | 1596.             | S | co  |
| β <i>alba</i>             | white-flowered       | Δ or | 3  | jn.s                 | W             | .....                | ...               | S | co  |
| γ <i>plena</i>            | double-flowered      | Δ or | 1½ | jn.s                 | R             | .....                | ...               | C | r.m |
| 6537 Flos-jóvis           | umbelled             | Δ or | 1½ | jl                   | R             | Germany              | 1726.             | S | co  |
| 6538 Cæli-rosa            | smooth-leaved        | ○ or | 1  | jl.au                | F             | Levant               | 1713.             | D | cl  |
| 1067. LYCHNIS. W.         | LYCHNIS.             |      |    |                      |               | <i>Caryophyllea.</i> | <i>Sp. 9-12.</i>  |   |     |
| 6539 chalcédonica W.      | scarlet              | Δ or | 2  | jn.jl                | R             | Russia               | 1596.             | D | p.l |
| β <i>alba</i>             | white-flowered       | Δ or | 2  | jn.jl                | W             | Russia               | ...               | C | p.l |
| γ <i>plena</i>            | double-flowered      | Δ or | 2  | jn.jl                | B             | Russia               | ...               | C | p.l |
| 6540 Flos-cuculi W.       | Ragged-Robin         | Δ or | 1½ | jn.s                 | Pk            | Britain              | m. me.            | D | co  |
| 6541 coronata W.          | Chinese              | Δ or | 1½ | jn.s                 | R             | China                | 1774.             | C | p.l |
| 6542 fulgens Fisch.       | splendid             | Δ or | 1½ | jn.jl                | Sc            | Siberia              | 1822.             | C | p.l |
| 6543 viscaria W.          | viscid               | Δ or | 1  | my.jn                | Pk            | Britain              | rocks.            | D | co  |
| β <i>plena</i>            | double               | Δ or | 1  | ap.my                | Pk            | Scotland             | sc.roc.           | D | p.l |
| 6544 alpina W.            | Alpine               | Δ or | 1  | jl                   | F             | Portugal             | 1778.             | C | s.l |
| 6545 læta W.              | small                | ○ or | 2  | jn.jl                | Pu            | Britain              | ...               | D | co  |
| 6546 diurna With.         | red-flowered         | Δ or | 2  | jn.jl                | W             | Britain              | wa.&f.            | D | co  |
| 6547 vespertina With.     | white-flowered       | Δ or | 2  | jn.jl                | W             | Britain              | wa.&f.            | D | co  |
| 6548 dioica W. en.        |                      |      |    |                      |               |                      |                   |   |     |
| 1068. CERASTIUM. W.       | MOUSE-EAR CHICKWEED. |      |    |                      |               | <i>Caryophyllea.</i> | <i>Sp. 18-69.</i> |   |     |
| 6548 perfoliatum W.       | perfoliate           | ○ w  | 2  | jn.jl                | W             | Greece               | 1725.             | S | co  |
| 6549 vulgatum W.          | common               | ○ w  | 2  | ap.jn                | W             | Britain              | san.pl.           | S | co  |
| 6550 viscosum W.          | narrow-leaved        | Δ w  | 1  | ap.s                 | W             | Britain              | pas.              | D | co  |
| 6551 diffusum P. S.       | spreading            | Δ w  | 1  | ap.s                 | W             | .....                | ...               | D | co  |
| 6552 brachypetalum P. S.  | small-flowered       | Δ w  | 1  | ap.my                | W             | .....                | 1816.             | D | co  |
| 6553 semidecandrum W.     | least                | Δ w  | 1  | mr.ap                | W             | Britain              | walls.            | S | co  |
| 6554 tetrandrum H. K.     | tetrandrous          | ○ w  | 1  | my.jn                | W             | Scotland             | san.sh.           | D | co  |
| 6555 arvensis W.          | field                | Δ w  | 1  | my.au                | W             | Britain              | cor. fi.          | D | co  |
| 6556 dichotomum W.        | forked               | ○ w  | 1  | jn.jl                | W             | Spain                | 1725.             | S | co  |
| 6557 alpinum W.           | Alpine               | Δ w  | 1  | jn.jl                | W             | Britain              | w. alp.           | D | co  |
| 6558 ovatum W. en.        | oval-leaved          | Δ w  | 1  | jn.jl                | W             | Carinthia            | 1816.             | D | co  |
| 6559 strictum W.          | upright              | Δ w  | 1  | my.jl                | W             | Austria              | 1793.             | D | co  |
| β <i>suffruticosum</i> W. | suffruticose         | Δ w  | 1  | my.jl                | W             | S. Europe            | 1796.             | D | co  |
| 6560 maximum W.           | greatest             | ○ w  | 2  | jn.jl                | W             | Siberia              | 1792.             | S | co  |
| 6561 dahuricum Fisch.     | glaucous             | Δ w  | 1  | my.s                 | W             | Siberia              | 1815.             | D | co  |
| 6562 dioicum W.           | Spanish              | Δ w  | 1  | jn.jl                | W             | Spain                | 1766.             | D | co  |
| 6563 latifolium W.        | broad-leaved         | Δ w  | 1  | jn.jl                | W             | Britain              | w. alp.           | D | co  |
| 6564 tomentosum W.        | white                | Δ w  | 1  | jn.jl                | W             | S. Europe            | 1648.             | D | co  |
| 6565 manticum W.          | long-peduncled       | ○ w  | 1  | jn.jl                | W             | Hungary              | 1801.             | S | co  |
| 1069. LARBEA. St. Hll.    | LARBREA.             |      |    |                      |               | <i>Caryophyllea.</i> | <i>Sp. 1.</i>     |   |     |
| 6566 aquatica St. Hll.    | water                | Δ w  | 1  | jl                   | W             | Britan               | wat. pl.          | D | co  |



History, Use, Propagation, Culture,

when they will flower well. Oxalis monophylla and rostrata will not, however, blossom unless placed in a very hot stove.

O. Acetosella, la petite oseille or surelle, Fr., is used as a salad plant, and is more delicate than the Rumex salads: its acid approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in its medical effects, being esteemed refrigerant, antiscorbatic, and diuretic. An infusion of the leaves, or a whey made by boiling the plant in milk, given in ardent fevers, is said to allay inordinate heat, and to quench thirst.

The expressed juice depurated, properly evaporated, and set in a cool place, affords a crystalline acid salt in considerable quantity, which may be used whenever vegetable acids are wanted. It is employed to take iron moulds and ink stains out of linen, and is sold under the name of essential salt of lemons. (Withering.) This salt when genuine, which it seldom is, consists of the vegetable alkali and a peculiar acid, which, according to Bergman, seems more allied to the acid of sugar than that of tartar. What is sold for it in this country, appears sometimes to consist of C. Tart., with the addition of a small quantity of vitriolic acid. For taking out spots in linen, the stained part is dipped in water, sprinkled with a little of the salt powdered, then rubbed on a pewter plate, after which the spot is washed out with warm water. (Curtis, from Neum. Chem. by Lewis.) Twenty pounds of leaves fresh yield six pounds of juice, from which two ounces, two drachms, and one scruple of salt have been obtained. (Lewis.)

1066. Agrostemma. Ayeu sylvana, crown of the field. The beauty of the flowers of the common cockle weed well entitles it to such a distinction. The foreign species are very pretty annuals. A. Githago (git or gith) was the name of certain black and aromatic grains, supposed to have been of Nigella sativa, which were employed by the Romans in cookery. The seeds of the plant Githago are externally similar) is an ornamental weed, and along with corn poppy and blue bottle makes a fine appearance in the fields of the slovenly husbandman, where the soil is dry and gravelly.

- 6535 Hairy, Stem dichotomous, Flowers on long stalks, Leaves linear  
 $\beta$  A slight variety, with longer divisions to the calyx  
 6536 Downy, Stem dichotomous, Peduncles long 1-f. Cal. campanulate ribbed
- 6537 Downy, Flowers in umbellate heads, Cal. cylindr. clavate ribbed  
 6538 Smooth, Stem dichotomous panicled erect, Flowers terminal solitary
- 6539 Smoothish, Flowers fascicled, Cal. cylindr. clavate ribbed, Petals 2-lobed
- 6540 Stems ascending smoothish, Fl. dichotomous fascicled, Cal. camp. 10-ribbed, Pet. torn with an appendage  
 6541 Smooth, Flowers terminal and axillary 1-3, Cal. rounded clavate ribbed, Petals torn  
 6542 Hairy, Fl. 2-3 fastigate, Cal. rounded clavate woolly, Petals 4-cleft  
 6543 Stem viscid about the joints, Limb of petals nearly entire, Leaves linear spatulate
- 6544 Smooth, Stems tufted upright, Fl. in dense capitate umbels, Cal. camp. Petals bifid  
 6545 Fl. solitary, Cal. with ten keels, Petals bifid, linear-lanc. subciliated  
 6546 Fl. dichotomous panicled diceious, Petals  $\frac{3}{4}$ -bifid, Lobes narrow diverg. Caps. round
- 6547 Fl. dichotomous panicled diceious, Petals  $\frac{3}{4}$ -bifid, Lobes broad avoroximating, Caps. conical
- 6548 Smooth glaucous, Stem erect branched or simple, Leaves lanceolate connate obtuse  
 6549 Hairy pale green viscid, Leaves ovate, Petals length of calyx, Fl. longer than fl.-stalk  
 6550 Hairy viscid diffuse, Leaves lanceolate oblong  
 6551 Stem much branched villous, Leaves ovate-lanc. hispid, Flowers numerous in dichotomous panicles  
 6552 Leaves ovate, Flowers panicled, Cal. villous longer than petals, Caps. scarcely longer than sepals  
 6553 Hairy viscid, Flowers pentandrous, Petals emarginate  
 6554 Hairy subviscid, Flower 4-fid 4-androus, Pet. bifid shorter than calyx  
 6555 Leaves linear lanceolate obtuse ciliated at base, Pet. twice as long as calyx  
 6556 Glutinous hairy, Fl. solitary in the dichotomies, Sepals lanc. acute the length of petals, Leaves lanc.  
 6557 Leaves ellipt. naked or hairy, Pan. dichotomous few-fl. with bractes, Caps. oblong recurved  
 6558 Stems prostrate, Leaves ovate acute subciliated smooth, Flowers terminal subcorymbose  
 6559 Leaves sublinear acuminate smooth, Peduncles glandular, Pet. twice as large as calyx  
 $\beta$  Leaves very narrow and smooth  
 6560 Downy, Leaves lanc.-lin. acute, Flowers very large in dichotomous umbels, Pet. crenate and 2-lobed  
 6561 Leaves cordate ovate, Stem clasping, Peduncles in fruit very long deflexed
- 6562 Hairy viscid, Leaves lanceolate, Fl. diceious, Petals thrice as long as calyx  
 6563 Leaves elliptical scabrous, Pedunc. terminal simple subsolitary, Caps. ovate  
 6564 Leaves oblong spatulate hoary, Sepals hoary scarious at edge, Caps. cylindr. longer than calyx  
 6565 Very smooth, Leaves lanc. linear, Pedunc. very long, Caps. acute shorter than corolla

6566 This is the *Cerastium aquaticum* of English botany



and Miscellaneous Particulars.

*A. coronaria* and *flos-jovis* are shewy border flowers, the first generally increased by seeds, and the other by cuttings or division of the plant.

1067. *Lychnis*. From *Lycyris*, a lamp, in allusion to the cottony leaves of some species, which have been used as wicks to lamps. *L. chalcedonica*, *Croix de Malthe*, Fr. and Portug. *Croce de Covatiere*, Ital., and *C. de Jerusalem*, Span., is an old and much esteemed border flower, the double varieties of which require some care in cultivation, to prevent their returning to the single state, and to propagate them by cuttings. *L. fulgens* and *coronata* are also very handsome species. "They do best in a light rich loamy soil, but they must be often taken up and divided, or they dwindle away; the best time of doing this is early in spring. *L. coronata* thrives and flowers abundantly if planted out in the open ground in spring; but it requires to be taken up in autumn and potted, or the severe frosts in winter will kill it, or injure it very much. All may be raised by cuttings planted under hand-glasses, or by seeds, which often ripen in abundance. (*Bot. Cult.* 389.)

*L. viscaria* and *fiosoculi* are more hardy, and grow in common garden soil, and increase abundantly by division: they are both old inhabitants of the flower garden. *L. diurna* and *vespertina* are also border flowers in their double varieties.

1068. *Cerastium*. Derived from *κερας*, a horn, in allusion to the cornute form of the capsule of many species. Most of the annual species, and some of the others, are weeds; a few may be grown in pots or on rock-work, for both of which they seem well adapted. They are very prolific in seeds, and contribute materially to the support of small birds.

1069. *Larbrca*. A genus founded by Aug. St. Hilaire, in the second volume of *Mémoires du Muséum*, upon the *Cerastium aquaticum* of Linnæus. He named it after the Abbé de Larbre, who at the age of 80, published a *Flora of Auvergne*.

|                    |                  |   |   |                     |           |   |          |          |      |                |
|--------------------|------------------|---|---|---------------------|-----------|---|----------|----------|------|----------------|
| 1070. SPERGULA. W. | SPURRY.          |   |   | <i>Caryophyllæ.</i> | Sp. 5—14. |   |          |          |      |                |
| 6567 arvensis W.   | rough-seeded     | ○ | w | ‡                   | jl.au     | W | Britain  | san. fi. | S co | Eng. bot. 1535 |
| 6568 pentandra W.  | smooth-seeded    | ○ | w | ‡                   | jn.jl     | W | England  | san. fi. | S co | Eng. bot. 1536 |
| 6569 nodosa W.     | knotted          | △ | w | ‡                   | jl.au     | W | Britain  | san. he. | D co | Eng. bot. 694  |
| 6570 saginoides W. | smooth-awl-sh.   | △ | w | ‡                   | jn.au     | W | Scotland | sc. alp. | D co | Eng. bot. 2105 |
| 6571 subulata W.   | ciliated-awl-sh. | △ | w | ‡                   | jn.jl     | W | Britain  | san. he. | D co | Eng. bot. 1082 |

DECAGYNIA

|                        |                 |   |     |   |       |                   |           |       |       |                     |
|------------------------|-----------------|---|-----|---|-------|-------------------|-----------|-------|-------|---------------------|
| 1071. PHYTOLACCA. W.   | PHYTOLACCA.     |   |     |   |       | <i>Chenopodæ.</i> | Sp. 6.    |       |       |                     |
| 6572 octandra W.       | white-flowered  | △ | or  | 6 | jl.n  | W.g               | Mexico    | 1732. | C s.l | Di. el. t.239.f.308 |
| 6573 abyssinica W.     | African         | □ | or  | 6 | my.jn | W.g               | Africa    | 1775. | R s.l | Hoff. c. goet. t.2  |
| 6574 dodecandra W. en. | recurved-leaved | △ | or  | 6 | my.jn | R                 | .....     | ...   | C s.l |                     |
| 6575 decandra W.       | Virginian Poke  | △ | cul | 5 | aus.s | L.Pu              | Virginia  | 1615. | C s.p | Bot. mag. 931       |
| 6576 icosandra W.      | red             | △ | or  | 3 | jl.n  | W                 | E. Indies | 1758. | C s.p | Mill. ic. t. 207    |
| 6577 dioica W.         | tree            | □ | or  | 8 | ...   | W.g               | S. Amer.  | 1768. | C s.p | L'her. st. no. t.70 |



History, Use, Propagation, Culture.

1070. *Spergula*. From *spargere*, to scatter, because it scatters its seeds abroad, to the great profit of the farmer in Holland, who obtains from it meadows affording the most delicious butter. *S. arvensis* is a common weed in sandy soils, in Scotland called yarr, and in Norfolk pickpurse. In the Netherlands and in Germany it is sown on corn stubbles, to supply a bite for sheep during winter. It may be sown and reaped in eight weeks, either in autumn or spring. It is said to enrich the milk of cows, so as to make it afford excellent butter; and the mutton fed on it is preferable to that fed on turnips. Hens eat spurry greedily, and it is supposed to make them lay a great number of eggs, whether in hay, or cut green, or pasture. Von Thæer observes, it is the most nourishing, in proportion of its bulk, of all forage, and gives the best flavored milk and butter. It has been recommended to be cultivated in England; but it is not likely that such a plant can ever pay the expense of seed and labour in this country, even on the poorest soil; or at all events, as Professor Martyn observes, we have many better plants for such soils.

1071. *Phytolacca*. From *peru*, a plant, and *lacca*, lac; that is to say, a plant whose fruit gives out a fine red color like lac. The English-American name Poke, applied to one species, is a corruption of Pocan, the name by which it was formerly known in Virginia.

*P. decandra* has large ramose roots, shoots half an inch in diameter, and five or six feet high; the leaves five inches long, and two and a half inches broad, smooth and of a deep green. It grows vigorously in a good deep soil, and furnishes ample supplies of young shoots, which in America and the West Indies are boiled and eaten as spinach. (*Correa de Serra, in Hort. Trans. iv. 446.*)

- 6567 Leaves whorled, Pedunc. in fruit reflexed, Seeds reniform angular rough  
 6568 Leaves whorled, Flowers pentandrous, Seeds depressed winged smooth  
 6569 Leaves opposite subulate smooth : upper fascicled, Cal. not nerved  
 6570 Leaves opposite subulate blunt naked, Pedunc. solitary very long smooth  
 6571 Leaves opposite subulate awned ciliated, Pedunc. very long solitary hairy

## DECAGYNIA.

- 6572 Flowers octandrous octogynous  
 6573 Flowers decandrous pentagynous  
 6574 Flowers dodecandrous octogynous, Leaves ovate obl. with a recurved point  
 6575 Flowers decandrous decagynous  
 6576 Flowers icosandrous decagynous  
 6577 Flowers diceious

*and Miscellaneous Particulars.*

An ounce of the dried root, infused in a pint of wine, and given to the quantity of two spoonfuls, operates kindly as an emetic, and is preferable to most others, as it hardly alters the taste of the wine. In its medicinal properties, the *Phytolacca* approaches nearer to *Ipecacuanha* than to any other vegetable; but it is slower in its effects, and it remains longer in action, although it may be checked by an opiate. Sometimes its operation produces vertigo and stupor. The powder of the leaves possesses the same virtues as the root, but in a weaker degree. It is one of the plants which have had a temporary reputation for the cure of cancer, and some sensible men have been converts to its efficacy. The fermented berries give out a liquor which yields alcohol by distillation. From half a bushel of the berries, six pints of spirits were obtained, sufficiently strong to take fire and burn with readiness. Two ounces of this given to a dog occasioned nausea and drowsiness, with slight spasmodic motions, but no vomiting. Poultry are fond of the berries, but if eaten in large quantities, they give the flesh a disagreeable flavor. The juice stains paper and linen of a beautiful purple color, but it will not last long; if a method could be found of fixing the dye, it might be very useful. The vignerons in Portugal for many years used the juice of the berries of the elder-bush to give a deep color to the Port wines, to which it was thought to communicate a disagreeable taste when mixed in too great a quantity. Complaint of this practice having been made to government, orders were given that the stems of that plant should be cut down and destroyed before they produced berries: but they forgot to include the *Phytolacca* in the proscription, so that the berries of that plant supply the same purpose in a much worse manner.





CLASS XI. — DODECANDRIA. 12 STAMENS.

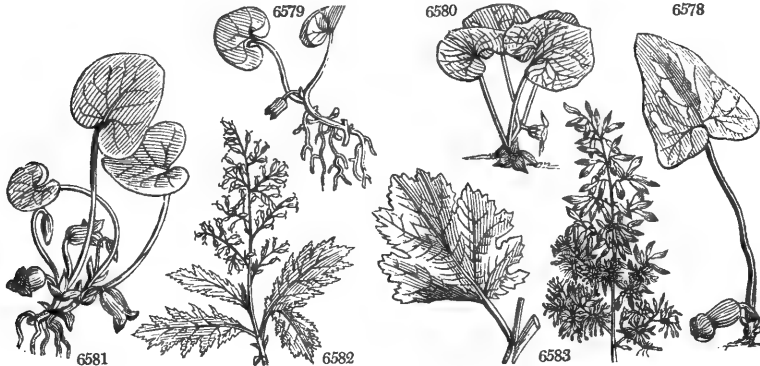
This is a small incongruous class, containing no extensive genus of importance except Euphorbia. Some botanists have been of opinion that it ought to be cancelled, but it is probable that Linnæus understood the application of his own principles as well as some of his more pretending followers, and it is certain that if the Linnean plan can be made to act successfully, its artificial arrangement must be rigorously observed. Euphorbia and Reseda, which are usually referred hither, should more properly be referred, the former to Monœcia, and the latter to Polygamia.

Order 1. MONOGYNIA.  12 Stamens. 1 Style.

- 1072. *Asarum*. Cal. 3-4-cleft, superior. Cor. O. Capsule coriaceous, crowned.
- 1073. *Bocconia*. Cal. 2-leaved. Cor. O. Style bifid. Caps. 2-valved, 1-seeded.
- 1074. *Bassia*. Sepals 4. Cor. 8-cleft, with an inflated tube. Stamens 16. Drupe 5-seeded.
- 1075. *Blakea*. Sepals 6, inferior, with a superior entire calyx. Petals 6. Caps. 6-celled, many seeded.
- 1076. *Bejaria*. Cal. 7-cleft. Petals 7. Stamens 14. Berry 7-celled, many-seeded.
- 1077. *Agathophyllum*. Petals 6. Calyx truncate. Drupe 1-seeded.
- 1078. *Rhizophora*. Cal. 4-parted. Cor. 4-parted. Stigmas 2. Seed 1 very long, fleshy at base.
- 1079. *Garcinia*. Sepals 4, inferior. Petals 4. Berry 8-seeded, crowned by the peltate stigma.
- 1080. *Grangeria*. Cal. 5-cleft. Petals 5. Stamens 15. Drupe 3-cornered. Nut 3-cornered, bony, 1-seeded.
- 1081. *Halesia*. Cal. 4-toothed, superior. Cor. 4-cleft. Nut quadrangular, 2-seeded.
- 1082. *Decumaria*. Sepals 8-12, superior. Petals 8-12. Caps. 8-celled, many-seeded.
- 1083. *Eurya*. Cal. 5-leaved, with 2 bracts at base. Petals 5. Caps. 5-celled, many-seeded.
- 1084. *Aristotelia*. Sepals 5. Petals 5. Style trifid. Berry 3-celled. Seeds twin.
- 1085. *Canella*. Cal. 3-lobed. Petals 5. Anthers 16, united to an urceolate nectary. Berry 1-celled, 2-4-seeded.
- 1086. *Cratæva*. Petals 4. Cal. 4-cleft. Berry 1-celled, many-seeded.
- 1087. *Triumfetta*. Petals 5. Sepals 5. Capsule hispid, opening in four.
- 1088. *Peganum*. Petals 5. Sepals 5, or O. Capsules 5-celled, 3-valved, many-seeded.
- 1089. *Hudsonia*. Petals 5. Sepals 3, tubular. Stamens 15. Capsules 1-celled, 3-valved, 3-seeded.
- 1090. *Nitraria*. Petals 5, vaulted at end. Cal. 5-cleft. Stamens 15. Drupe 1-seeded.
- 1091. *Portulaca*. Petals 5. Cal. 2-fid. Capsule 1-celled, cut across.
- 1092. *Tainum*. Petals 5. Sepals 2. Capsule 3-6-valved, many-seeded. Leaves without stipules. Seeds not winged.
- 1093. *Anacampteros*. Like *Tainum*, but having stipules and winged seeds.
- 1094. *Lythrum*. Cal. 12-toothed, tubular, unequal at base. Petals 6, inserted in calyx. Caps. 2-celled, many-seeded.
- 1095. *Nesaea*. Like *Lythrum*, but calyx campanulate.
- 1096. *Heimia*. Cal. 12-toothed. Petals 6. Capsule 4-celled.

MONOGYNIA.

|                                    |                |                        |  |
|------------------------------------|----------------|------------------------|--|
| 1072. <i>ASARUM</i> . <i>W.</i>    | ASARABACCA.    | <i>Aristolochia</i> .  | Sp. 4-5.                               |
| 6578 <i>arifolium</i> Mich.        | arum-leaved    | ½ Δ cu ½ in Br         | N. Amer. 1823. D pl Hook. ex. fl. 40   |
| 6579 <i>europæum</i> <i>W.</i>     | common         | ½ Δ m ½ my P           | England woods. D pl Eng. bot. 1083     |
| 6580 <i>canadense</i> <i>W.</i>    | Canadian       | ½ Δ cu ½ spjl Br       | Canada 1713. D pl Bot. oab. 889        |
| 6581 <i>virginicum</i> <i>W.</i>   | sweet-scented  | ½ Δ cu ½ sp.my Br      | Virginia 1759. D pl Sweet fl. gard. 18 |
| *1073. <i>BOCCONIA</i> . <i>W.</i> | BOCCONIA.      | <i>Papaveraceæ</i> .   | Sp. 2-3.                               |
| 6582 <i>frutescens</i> <i>W.</i>   | Tree Celandine | 10 ja.ap W.v W. Indies | 1739. S r.m Bot. cab. 83               |
| 6583 <i>cordata</i> <i>W.</i>      | heart-leaved   | 6 my.au W.v China      | 1795. C s.l Bot. mag. 1905             |



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1072. *Asarum*. An ancient name, said to have been formed from *α*, privative, and *ερα*, bandage, because it was not used in garlands of which the ancients were so fond; in that case it should be *Asarum*. The common name, *Asarabacca*, is Latin, *qs* = the berry of *Asarum*? Little inconspicuous herbaceous plants. The leaves of *A. europæum* are emetic, cathartic, and diuretic; and, perhaps, as Dr. Cullen has remarked, they form the most useful species of emetic stimulants. A proper dose snuffed up the nose for a few successive evenings at

1097. *Cuphea*. Cal. 6-12-toothed, occasionally gibbous at base. Pet. 6, inserted in calyx, or O. Caps. 1-celled, opening on one side longitudinally along with the calyx.  
 1098. *Kleinohia*. Sepals 5. Petals 5. Nect. campanulate, 5-toothed, stamiferous, united to the column of ovary. Ovary stalked. Caps. with 5-angles and 5-cells inflated, cells 1-seeded.

Order 2. DIGYNIA  12 Stamens. 2 Styles.

1099. *Callicoma*. Flowers in round heads. Calyx 4-5-leaved. Corolla O.  
 1100. *Heliocarpus*. Sepals 4. Petals 4. Styles simple. Caps. 2-celled, compressed, radiating on each side longitudinally.  
 1101. *Agrimonia*. Cal. 5-toothed, surrounded by another. Petals 5. Grains 2, in the bottom of the calyx.

Order 3. TRIGYNIA.  12 Stamens. 3 Styles.

1102. *Reseda*. Involucre many-leaved spreading. Hermaphrodite flower central, apetalous, surrounded by several fringed petaloid barren flowers.  
 1103. *Euphorbia*. Involucre 1-leaved, ventricose, regular. Flowers naked, aggregate. Female floret surrounded by many monandrous male florets.  
 1104. *Pedilanthus*. Like Euphorbia, but involucre calceiform.  
 1105. *Visnea*. Cal. 5-leaved, inferior. Petals 5. Stigmas 3. Nut 2-3-celled, half inferior.

Order 4. TETRAGYNIA.  12 Stamens. 4 Styles.

1106. *Caligonum*. Cal. 5-parted. Corolla O. Filaments about 16, united at base. Ovary superior, 4-cornered. Styles 4. Nut with a many winged crust, 1-celled.

Order 5. PENTAGYNIA.  12 Stamens. 5 Styles.

1107. *Glinus*. Sepals 5. Cor. O. Nectary with bifid bristles. Caps. 5-angular, 5-celled, 5-valved, many-seeded.  
 1108. *Blackwellia*. Cal.  $\frac{1}{2}$ -superior, persistent, at the base turbinate, many-parted; with villous ciliated segments. Petals 15. Capsule 1-celled, many-seeded.  
 1109. *Gastonia*. Cal. entire. Petals 5-6. Stam. 10-12: two opposite each petal. Styles 10-12, very small, united at base. Capsules 10-12-celled.

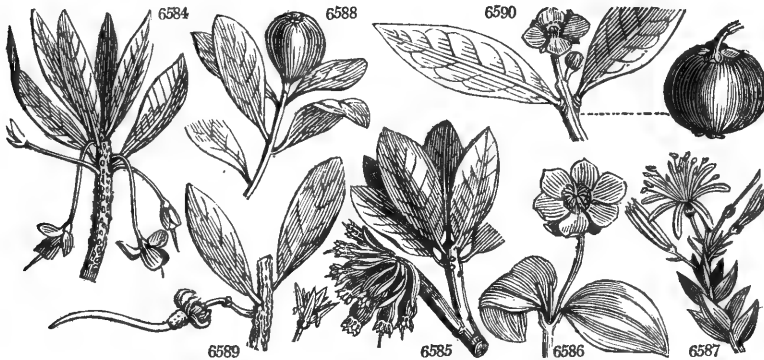
Order 6. DODECAGYNIA.  12 Stamens. 12 Styles.

1110. *Sempervivum*. Cal. 12-parted. Petals 12. Caps. 12, many-seeded.

MONOGYNIA.

6578 Leaves subhastate cordate, Calyx tubular shortly trifid  
 6579 Leaves reniform obtuse twin  
 6580 Leaves reniform mucronate  
 6581 Leaves cordate obtuse smooth stalked

6582 Leaves oblong sinuated  
 6583 Leaves cordate somewhat lobed

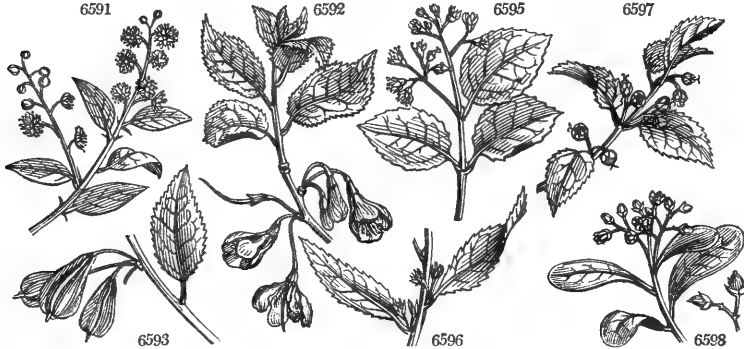


and Miscellaneous Particulars.

bed time occasions a copious discharge from the nostrils, which continues to flow for several days. (*London Dispensatory*, 185.) The herb was formerly employed to correct the effects of excessive drinking, whence in French it is still called *cubaret*.

1073. *Bocconia*. In memory of Paolo Boccone, M. D., a Sicilian, and Cistercian monk under the name of Sylvius; author of *Icones et Descriptiones rariorum Plantarum Siciliae, Melitae, Galliae, et Italiae*; pub-

|                                |                    |   |       |             |                                |       |           |                 |       |
|--------------------------------|--------------------|---|-------|-------------|--------------------------------|-------|-----------|-----------------|-------|
| 1074. BAS'SIA. <i>W.</i>       | BASSIA.            |   |       |             | <i>Sapotæe. Sp. 2—4.</i>       |       |           |                 |       |
| 6584 longifolia <i>W.</i>      | long-leaved        | ♂ | □     | or 40       | ...                            | Y     | E. Indies | 1811.           | C p.l |
| 6585 latifolia <i>W.</i>       | broad-leaved       | ♂ | □     | or 40       | ...                            | Y     | E. Indies | 1799.           | C p.l |
| 1075. BLA'KEA. <i>W.</i>       | BLAKEA.            |   |       |             | <i>Melastomeæ. Sp. 1—4.</i>    |       |           |                 |       |
| 6586 trinervia <i>W.</i>       | three-ribbed       | ♂ | □     | or 14       | ju. pl                         | W     | Jamaica   | 1789.           | L s.p |
| 1076. BEJA'RIA. <i>Ph.</i>     | BEJARIA.           |   |       |             | <i>Rhodoracæe. Sp. 1—3.</i>    |       |           |                 |       |
| 6587 racemosa <i>Ph.</i>       | sweet-scented      | ♂ | □     | or 4        | ju. pl                         | Pu    | Florida   | 1810.           | C l.p |
| 1077. AGATHOPHYLLUM. <i>W.</i> | MADAGASCAR-NUTMEG. |   |       |             | .....                          | ..... | .....     | .....           | ..... |
| 6588 aromaticum <i>W.</i>      | aromatic           | ♂ | □     | or 30       | ...                            | W     | Madagasc. | 1823.           | C p.l |
| 1078. RHIZOPHORA. <i>W.</i>    | MANGROVE.          |   |       |             | <i>Rhizophoreæ. Sp. 1—9.</i>   |       |           |                 |       |
| 6589 Man'gle <i>W.</i>         | common             | ♂ | □     | cu 10       | ...                            | ...   | E. Indies | 1820.           | C p.l |
| 1079. GARCYNIA. <i>W.</i>      | MANGOSTEEN.        |   |       |             | <i>Guttiferæ. Sp. 1—3.</i>     |       |           |                 |       |
| 6590 Mangostana <i>W.</i>      | common             | ♂ | □     | fr 20       | ...                            | Pu    | Java      | 1789.           | C r.m |
| 1080. GRANGERIA. <i>Lam.</i>   | GRANGERIA.         |   |       |             | .....                          | ..... | .....     | .....           | ..... |
| 6591 borbonica <i>Lam.</i>     | Bourbon            | ♂ | □     | or 40       | ...                            | W     | Bourbon   | 1823.           | C p.l |
| 1081. HALE'SIA. <i>W.</i>      | SNOWDROP-TREE.     |   |       |             | <i>Ebenacæe. Sp. 2—4.</i>      |       |           |                 |       |
| 6592 tetraptera <i>W.</i>      | four-winged        | ♂ | or 6  | ap. my W    | Carolina                       | 1756. | C p.l     | Bot. mag.       | 910   |
| 6593 diptera <i>W.</i>         | two-winged         | ♂ | or 6  | ap. my W    | N. Amer.                       | 1758. | C p.l     | Cav. dia. 6. t. | 187   |
| 1082. DECUMARIA. <i>W.</i>     | DECUMARIA.         |   |       |             | <i>Myrtacæe. Sp. 2.</i>        |       |           |                 |       |
| 6594 bárbara <i>Ph.</i>        | smaller            | ♂ | or 4  | jlau W      | Carolina                       | 1785. | L p.l     |                 |       |
| 6595 sarmentosa <i>Ph.</i>     | larger             | ♂ | or 30 | jlau W      | Carolina                       | 1758. | L p.l     | Act. par. 1. t. | 13    |
| 1083. EU'RYA. <i>Thunb.</i>    | EURYA.             |   |       |             | <i>Ternströmecæe. Sp. 1—4.</i> |       |           |                 |       |
| 6596 chinensis <i>W.</i>       | Chinese            | ♂ | □     | pr 2        | f. d                           | W     | China     | 1823.           | C p.l |
| 1084. ARISTOTELIA. <i>W.</i>   | ARISTOTELIA.       |   |       |             | <i>Rhamneæ? Sp. 1.</i>         |       |           |                 |       |
| 6597 Mácqui <i>W.</i>          | shining-leaved     | ♂ | or 4  | ap. my W. g | Chili                          | 1733. | C l.p     | Dend. brit.     | 44    |
| 1085. CANEL'LA. <i>W.</i>      | CANELLA.           |   |       |             | <i>Guttiferæ. Sp. 1.</i>       |       |           |                 |       |
| 6598 álba <i>W.</i>            | Laurel-leaved      | ♂ | □     | or 40       | ...                            | W     | W. Indies | 1735.           | L r.l |



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lished by Morrison at Oxford, 1764, quarto, and other works. *B. frutescens* is very ornamental in its foliage. The Indian kings, Hernandez tells us, planted it in their gardens, which must have been for its beauty, as it is neither culinary nor medicinal, though the juice is acrid, and used in the West Indies to take off warts.

1074. *Bassia*. So named by Koenig, in honor of Ferdinando Bassi, curator of the botanic garden at Bologna. Tall trees, natives of the hottest parts of the East Indies, with tufted alternate leaves growing only at the end of the shoots. Ripened cuttings root freely in sand.

1075. *Blakea*. So named by Dr. Patrick Browne, after Mr. Martin Blake of Antigua, a great promoter of useful knowledge, and a patron of the doctor's Natural History of Jamaica. This is one of the most beautiful plants of the West Indies. It supports itself for a time by the help of some neighboring shrub or tree, but it grows gradually more robust, and at length acquires a pretty moderate stem, which divides into a thousand weakly declining branches, well supplied with beautiful rosy blossoms on all sides. It cannot display itself to so great advantage in our stoves; but it flowers freely, and thrives well in loam and peat, well supplied with water. Ripe cuttings root in sand in moist heat and covered.

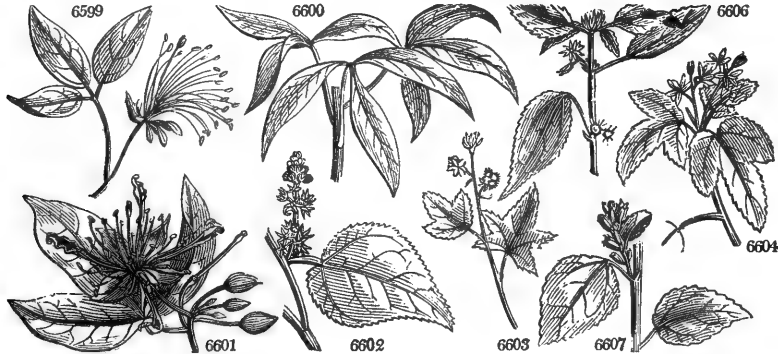
1076. *Bejaria*. So named by Mutis, in honor of Bejar, a Spanish botanist. The original species are natives of New Grenada. That in gardens, which is a native of the southern states of North America, is a beautiful shrub from three to four feet high, with pink flowers of an agreeable scent. It is found upon the banks of swamps and ponds, and requires the protection of a frame or greenhouse.

1077. *Agathophyllum*. From *αγαθος*, good, and *φυλλον*, a leaf. The leaf has a pleasant smell like cloves. In Madagascar, where it is called *Ravenisara*, it forms a large tree with a rufous aromatic bark, and a heavy insipid wood. The leaves are alternate and coriaceous. The dried fruit is very aromatic.

1078. *Rhizophora*. From *ρίζα*, a root, and *φάρα*, to bear, in allusion to the numerous roots which are emitted by the seeds, which vegetate among the branches of the tree while yet adhering to their footstalk. This is the common Mangrove, which covers immense tracts of coast within the tropics, rooting and vegetating even as far as low water mark.

1079. *Garcinia*. So named in honor of Laurent Garcin, M. D., F. R. S., who travelled into the East Indies. *Mangostans* is the Malayan name. This tree bears a fruit, which in the East Indies ranks with that of the pine-apple. It rises with a taper stem, sending out many branches, not unlike a fir-tree, with oval leaves, seven or eight inches long. The flower is like that of a single rose; the fruit round, the size of a middling orange; the shell is like that of the pomegranate, the inside of a rose color, divided by thin partitions, as in oranges, in which the seeds are lodged, surrounded by a soft juicy pulp, of a delicious flavor, partaking of the strawberry and the grape, and is esteemed one of the richest fruits in the world. It is a native of the Molucca islands, whence it has been transplanted to Java and Malacca. The head of the tree is in the form of a parabola, so fine and regular, and the leaves so beautiful, that it is looked upon in Batavia as the tree most proper for adorning a garden, and affording an agreeable shade. It was introduced to England in 1789. According to Dr. Garcin, (*Phil. Trans.*) "it is esteemed the most delicious of the East Indian fruits, and a

- 6584 Leaves lanceolate, Peduncles 1-flowered very long horizontal axillary  
 6585 Leaves elliptical acute, Peduncles 1-flowered nodding terminal
- 6586 Calyxes two, Leaves with three nerves finely striated across beneath
- 6587 Leaves ovate-lanceolate smooth, Flowers terminal in paniced racemes
- 6588 Leaves stalked alternate obovate obtuse coriaceous entire smooth
- 6589 Leaves acute, Fruit subulate-clavate
- 6590 Leaves ovate, Peduncles 1-flowered
- 6591 Leaves alternate stalked ovate entire smooth veiny
- 6592 Leaves ovate acuminate, Veins hairy beneath, Wings of the fruit equal  
 6593 Lvs. obl. ovate obtusely pointed green on both sides very soft beneath, Wings of fruit alternately larger
- 6594 Leaves all ovate, Stem climbing  
 6595 Lower leaves rounded : upper ovate-lanceolate, Stem sarmentose
- 6596 Branches at end pubescent, Leaves cuneate oval, Flowers axillary
- 6597 Leaves opposite evergreen ovate shining serrated
- 6598 Leaves oblong obtuse shining, Racemes terminal



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great deal of it may be eaten without any inconvenience; it is the only fruit which sick people are allowed to eat without scruple. It is given with safety in almost every disorder; and we are told that Dr. Solander, in the last stage of a putrid fever in Batavia, found himself insensibly recovering by sucking this delicious and refreshing fruit. The pulp has a most happy mixture of the tart and sweet, and is no less salutary than pleasant. It is propagated by ripe cuttings in sand in moist heat. But the plant rarely survives long after its importation.

1080. *Grangeria*. Named after N. Granger, a traveller in Egypt, Persia, &c. who died at Bassora in 1733. His voyage into Egypt was published in 1745. This is a tree the size of an oak, with alternate ovate entire leaves. The flowers are small, in small terminal and axillary racemes.

1081. *Halesia*. So named by Ellis, in honor of the learned and venerable Stephen Hales, D. D., F. R. S., author of *Vegetable Staticks*, 1727. The species are very ornamental shrubs, valuable for blossoming early in the season. The flowers hang in small bunches all along the branches, each bud producing from four to eight or nine; they appear before the leaves, are of a pure snowy whiteness, and last for two or three weeks; they are succeeded by pretty large winged juiceless drupes, hanging likewise in bunches. The leaves of *H. diptera* are six times the size of those of *H. tetraptera*, and the fruit has two large wings and two minute ones. They are propagated by cuttings of the roots.

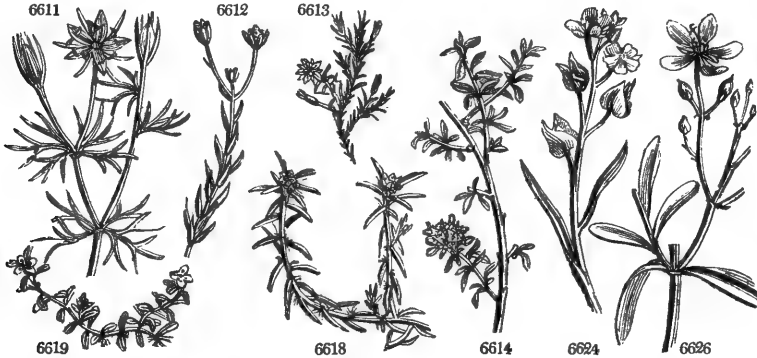
1082. *Decumaria*. Derived from *decem*, ten, all the parts of fructification answering to the number 10. It is commonly propagated by layers, but will grow by cuttings in sand under a hand-glass.

1083. *Eurya*. A name of Thunberg's, supposed to have been formed from *europs*, broad; its application no one has been able to discover. The *Eurya chinensis* is a little evergreen bush, bearing many whitish flowers on the under side of the branches and hidden by the leaves. It is easily propagated by cuttings.

1084. *Aristotelia*. After the celebrated ancient philosopher and naturalist Aristotle. Macqui is the name of this shrub in Chili. It grows freely in a sheltered situation; but its flowers are of little beauty. They are succeeded by small berries of a purple or black color, slightly acid and eatable: the inhabitants of Chili make a wine from them, which they give in fevers, and for curing the plague. It is increased by layers or ripened cuttings.

1085. *Canella*. A name given by Murray, on account of the resemblance between its wood and the aromatic flavor of *Canella*, Cinnamon. This tree rises very straight, from ten to fifty feet in height. The branches are erect, not spreading, and only at the top of the tree; furnished with petiolated leaves of a dark green color, thick, and shining like those of the laurel, and emitting a similar odor. The flowers, which exhale a powerful aromatic perfume, are small, seldom open, and in bunches. The inner bark of the branches is freed from the cuticle, and dried in the shade. This bark is stimulant, and slightly tonic. It is a useful adjunct to bitters in some cases of dyspepsia and atonic gout; but it is employed chiefly on account of its flavor, and to correct the griping quality of the resinous cathartics. It is said to prove useful in scurvy (*London Dispensatory*, 207.)

|                         |                 |  |    |        |        |           |           |          |       |                          |                    |               |
|-------------------------|-----------------|--|----|--------|--------|-----------|-----------|----------|-------|--------------------------|--------------------|---------------|
| *1086. CRATEVA W.       | GARLICK-PEAR.   | <input type="checkbox"/> or            | 12 | ...    | W, pu  | Jamaica   | 1789.     | C        | r m   | Plu. alm. t. 147. f. 6   |                    |               |
| 6599 gynandra W.        | thin-leaved     | <input checked="" type="checkbox"/> or | 30 | ...    | W      | India     | 1752.     | C        | r m   | Com. hort. 1. t. 67      |                    |               |
| 6600 Tápia W.           | smooth          | <input type="checkbox"/> or            | 6  | jn. jl | W      | S. Leone  | 1795.     | C        | r m   | Bot. mag. 596            |                    |               |
| §6601 frágrans H. K.    | sweet-scented   | <input checked="" type="checkbox"/> or | 6  | jn. jl | W      | S. Leone  | 1795.     | C        | r m   | Bot. mag. 596            |                    |               |
| 1087. TRIUMFETTA W.     | TRIUMFETTA.     | <input type="checkbox"/> un            | 6  | jl. au | Y. g   | Jamaica   | 1739.     | C        | l p   | Plum. ic. t. 255         |                    |               |
| 6602 Láppula W.         | prickly-seeded  | <input checked="" type="checkbox"/> un | 3  | jn. jl | Y. g   | E. Indies | 1739.     | C        | l p   | Ru. am. 6. t. 25. f. 2   |                    |               |
| 6603 Bártrámia W.       | Currant-leav'd  | <input type="checkbox"/> un            | 6  | jl     | Y      | W. Indies | 1773.     | C        | co    | Jac. vind. 3. t. 67      |                    |               |
| 6604 semitriloba W.     | mallow-leaved   | <input type="checkbox"/> un            | 3  | ...    | Y      | W. Indies | 1810.     | C        | co    |                          |                    |               |
| 6605 grandiflora W.     | large-flowered  | <input checked="" type="checkbox"/> un | 3  | ...    | Y      | W. Indies | 1810.     | C        | co    |                          |                    |               |
| 6606 an'ua W.           | annual          | <input type="checkbox"/> un            | 2  | aus.   | Y      | E. Indies | 1760.     | C        | co    | Bot. mag. 2296           |                    |               |
| 6607 rhombodea Jacq.    | rhomboidal      | <input checked="" type="checkbox"/> un | 3  | aus.   | Y      | Peru      | 1818.     | C        | co    | Lind. coll. 29           |                    |               |
| 6608 macrophylla Vahl.  | large-leaved    | <input checked="" type="checkbox"/> un | 3  | aus.   | Y      |           | 1820.     | S        | co    |                          |                    |               |
| 6609 trichoclada Link.  | hairy-branched  | <input type="checkbox"/> un            | 3  | aus.   | Y      | Nepal     | 1823.     | S        | co    |                          |                    |               |
| 6610 oblongata Wall.    | oblong          | <input type="checkbox"/> un            | 2  | aus.   | Y      | Nepal     | 1823.     | S        | co    |                          |                    |               |
| 1088. PEGANUM W.        | PEGANUM.        | <input checked="" type="checkbox"/> Δ  | cu | 1      | jl. au | W         | Spain     | 1570.    | C     | co                       | Lam. ill. 401      |               |
| 6611 Hármala W.         | Syrian-Rue      | <input checked="" type="checkbox"/> Δ  | cu | 1      | jl. au | W         | Siberia   | 1816.    | C     | s l                      | Gm. sib. 4. t. 68  |               |
| 6612 dauricum W.        | Milkwort-lvd.   | <input checked="" type="checkbox"/> Δ  | cu | 1      | jl. au | W         | Siberia   | 1816.    | C     | s l                      | Gm. sib. 4. t. 68  |               |
| 1089. HUDSONIA W.       | HUDSONIA.       | <input checked="" type="checkbox"/> pr |    |        |        |           |           |          |       |                          |                    |               |
| 6613 ericoides W.       | Heath-leaved    | <input checked="" type="checkbox"/> pr |    |        | ½      | my. jl    | Y         | N. Amer. | 1805. | L                        | s p                | Bot. cab. 192 |
| 1090. NITRARIA W.       | NITRARIA.       | <input checked="" type="checkbox"/> cu | 1½ | my. au | P. B   | Siberia   | 1778.     | C        | s l   | Dend. brit. 130          |                    |               |
| 6614 Schobéri W.        | thick-leaved    | <input checked="" type="checkbox"/> cu | 1½ | my. au | P. B   | Siberia   | 1778.     | C        | s l   | Dend. brit. 130          |                    |               |
| †1091. PORTULACA W.     | PURLANE.        | <input type="checkbox"/> cul           | 1½ | aus.   | Y      | S. Amer.  | 1652.     | S        | co    |                          |                    |               |
| 6615 sativa H. S.       | garden          | <input type="checkbox"/> cul           | 1½ | aus.   | Y      | S. Amer.  | 1652.     | S        | co    |                          |                    |               |
| 6616 oleracea H. S.     | small-leaved    | <input type="checkbox"/> cu            | ½  | jn. jl | Y      | Europe    | 1582.     | S        | r m   | Plant. grass. 123        |                    |               |
| 6617 parvifolia H. S.   | small-leaved    | <input type="checkbox"/> cu            | ½  | jn. jl | Y      | Jamaica   | 1793.     | S        | s l   |                          |                    |               |
| 6618 pilosa W.          | hairy           | <input type="checkbox"/> cu            | ½  | jn     | Pk     | W. Indies | 1690.     | S        | s l   | Bot. reg. 792            |                    |               |
| 6619 quadrifida W.      | creeping        | <input type="checkbox"/> cu            | ½  | aus.   | Y      | E. Indies | 1773.     | S        | s l   | Jac. col. 2. t. 17. f. 4 |                    |               |
| 6620 Meridiána W.       | noonday         | <input type="checkbox"/> pr            | ½  | my. jn | Y      | E. Indies | 1791.     | S        | s l   |                          |                    |               |
| 6621 foliosa Lindl.     | Guinea          | <input type="checkbox"/> pr            | ½  | jn     | Y      | Guinea    | 1822.     | S        | s l   | Bot. reg. 793            |                    |               |
| 6622 mucronata Link.    | mucronate       | <input type="checkbox"/> pr            | ½  | jn     | Y      | .....     | 1822.     | S        | s l   |                          |                    |               |
| †1092. TALINUM W.       | TALINUM.        | <input checked="" type="checkbox"/> Δ  | pr | 1      | au     | Pu        | N. Amer.  | 1823.    | D     | s l                      | Bot. cab. 819      |               |
| 6623 keratífolum Psh.   | round-leaved    | <input checked="" type="checkbox"/> Δ  | pr | 1      | au     | Pu        | Chili     | 1823.    | S     | s p                      | Hook. ex. 4. 82    |               |
| §6624 ciliatum R. & P.  | ciliated        | <input checked="" type="checkbox"/> Δ  | pr | ½      | aus.   | W         | W. Indies | 1793.    | C     | p l                      | Jac. obs. 1. t. 23 |               |
| 6625 triangulare W.     | triangular      | <input checked="" type="checkbox"/> pr | 1  | aus.   | R      | .....     | 1800.     | C        | p l   | Jac. vind. 3. t. 52      |                    |               |
| 6626 crassifolium W.    | thick-leaved    | <input checked="" type="checkbox"/> pr | 1  | au. o  | R      | S. Amer.  | 1776.     | C        | p l   | Bot. rep. 253            |                    |               |
| 6627 pástens W.         | spreading-flow. | <input checked="" type="checkbox"/> pr | 1  | au. o  | Y      | S. Amer.  | 1800.     | C        | p l   | Bot. mag. 1543           |                    |               |
| 6628 reféxum H. S.      | yellow-flower.  | <input checked="" type="checkbox"/> pr | 1  | au. o  | Y      | S. Amer.  | 1800.     | C        | p l   | Bot. mag. 1543           |                    |               |
| 1093. ANACAMP'SEROS L.  | ANACAMP'SEROS.  | <input checked="" type="checkbox"/> cu | ½  | jl. s  | Pk     | C. G. H.  | 1732.     | C        | s l   | Bot. cab. 591            |                    |               |
| 6629 rotundifolia B. M. | round-leaved    | <input checked="" type="checkbox"/> cu | ½  | jl. s  | Pk     | C. G. H.  | 1790.     | C        | s l   | Bot. mag. 1368           |                    |               |
| 6630 arachnoides B. M.  | cobweb          | <input checked="" type="checkbox"/> cu | ½  | jl. s  | Pk     | C. G. H.  | 1796.     | C        | s l   | Bot. mag. 1367           |                    |               |
| 6631 rúbens Haw.        | red-leaved      | <input checked="" type="checkbox"/> cu | 1  | aus.   | R      | C. G. H.  | 1795.     | C        | s l   | Bot. mag. 1367           |                    |               |
| 6632 filamentosa B. M.  | thready         | <input checked="" type="checkbox"/> cu | 1  | aus.   | Pk     | C. G. H.  | 1796.     | C        | s l   |                          |                    |               |
| 6633 lanceolata Haw.    | spear-leaved    | <input checked="" type="checkbox"/> Δ  | cu | 1      | aus.   | Pk        | C. G. H.  | 1796.    | C     | s l                      |                    |               |



History, Use, Propagation, Culture.

1086. *Cratæva*. In honor of Cratævus, a Greek botanist and contemporary of Hippocrates. *C. Tapia*, an American name, produces a fruit about the size of an orange, with a mealy pulp and a strong smell of garlic, which is communicated to the animals that feed on it. All the species prefer a rich loamy soil, and may be increased by cuttings in sand under a hand-glass.

1087. *Triumfetta*. So named by Plumier, in memory of Giov. Battista Triumfetti, prefect of the botanic garden at Rome, author of *Hortus Romanus*, 1681, and other works. *T. semitriloba* has a tough strong bark which serves for ropes and other conveniences of that kind in the inland parts of the West Indies. The whole plant is mucilaginous and emollient. Cuttings root in sand under a hand-glass. All the species are uninteresting weed-like shrubs of tropical countries.

1088. *Peganum*. *Πυγανος* was the Greek name of the rue, which the modern plant resembles. *Harmala* is the Arabic name (*harmel*) of the species so called. The species are of easy culture and propagation in any light soil.

1089. *Hudsonia*. So named by Linnaeus, in honor of William Hudson, apothecary of London, F. R. S., and author of *Flora Anglica*, 1762 and 1778, octavo. It is a heath-like plant which grows in peat soil, and young cuttings are rooted in sand under a bell-glass. It is extremely rare in gardens.

1090. *Nitvaria*. So named by Schreber, who first found it in Siberia near the nitre works, with other saline vegetables. This is a curious thorny shrub, peculiar to the salt deserts of Siberia. Pallas informs us, that the berries, though saltish and insipid, are eaten in the Caspian desert, but in that arid soil they are almost the only luxury. Camels feed on the twigs. Linnaeus had the shrub twenty years before it flowered in Sweden;

6599 Unarmed, Leaves entire, Flowers gynandrous  
 6600 Leaflets ovate acuminate, Petals ovate roundish obtuse with globose ovaries  
 6601 Stem twining, Cor. regular, Petals very long wavy, Peduncles capitate-racemose

6602 Leaves emarginate at base, Flowers without calyx  
 6603 Leaves entire at base undivided  
 6604 Leaves half three lobed, Flowers complete  
 6605 Leaves subcordate ovate entire serrated rather hairy: the floral ones lanceolate, Branches hairy  
 6606 Leaves ovate undivided rarely lobed  
 6607 Leaves rhomboid: the upper lanceolate ovate, Flowers complete  
 6608 Leaves ovate cordate entire unequally serrated acuminate downy glandular at base, Fl. complete  
 6609 Leaves ovate cordate 7-nerved acuminate serrate hairy, Flowers clustered  
 6610 Leaves oblong serrate 5-nerved softly hairy, Fl. terminal clustered

6611 Leaves multifid, Stem herbaceous  
 6612 Leaves oblong acute, Stem herbaceous

6613 Leaves subulate aceroso hairy, Calyx erect pubescent

6614 Leaves entire obtuse

6615 Leaves wedge-shaped fleshy, Fl. sessile, Stem and branches nearly erect  
 6616 Leaves wedge-shaped fleshy, Fl. sessile, Branches prostrate  
 6617 Much branched prostrate, Leaves wedge-shaped minute fleshy, Fl. on long stalks and sessile  
 6618 Leaves subulate alternate hairy at the axilla, Flowers sessile terminal  
 6619 Bractes 4, Flowers 4-fid, Joints of the stem hairy  
 6620 Leaves elliptical fleshy flat, Joints hairy, Flowers sessile terminal  
 6621 Leaves subulate, Cal. hairy, Involucre many-leaved, Flowers about 3, Petals retuse  
 6622 Axils hairy, Leaves obversely oblong, Involucre 8-leaved

6623 Leaves cylindrical fleshy, Corymbs terminal stalked  
 6624 Leaves linear oblong ciliated, Flowers solitary  
 6625 Leaves flat chann. wedge-shaped emarg. mucronate, Raceme simple with a 3-cornered peduncle  
 6626 Leaves flat obovate mucronate, Corymb long, Peduncle 3-cornered  
 6627 Leaves ovate flat, Panicle terminal, Peduncle dichotomous  
 6628 Leaves lanc. ovate sessile opposite, Panicle branched

6629 Leaves ovate difform smooth green, Peduncles round long panicled

6630 Leaves ovate acuminate difform green shining cobwebbed, Raceme simple, Peduncles round long  
 6631 Leaves ovate acuminate difform shining cobwebbed dark-red, Rac. simple, Pedunc. very long  
 6632 Leaves imbricated expanded dark-green cobwebbed rugose above, Threads axillary longer than leaves  
 6633 Leaves lanceolate fleshy convex beneath, Scape leafy short 1-flowered



and Miscellaneous Particulars.

and during ten years having in vain tried to make it flower in the garden at Upsal, he at length succeeded by watering the plant with salt water; it flowered, however, at Gottingen without this assistance. Murray expresses a surprise that it has not been used in its native soil for making soda: but perhaps it does not grow in sufficient quantity, or there may be an ample harvest in that salt region of plants that answer the same purpose.

In this country it thrives in sandy loam with a little salt put round it, and is increased by layers, or cuttings in sand under a hand-glass.

1091. *Portulaca*. An ancient name of unknown origin. The species are succulents of the easiest culture. *P. sativa* and *oleracea* were formerly cultivated as potherbs, salads, for garnishings and pickling, though now little used for any of these purposes.

1092. *Talinum*. One of those names invented by Adanson, which probably were the mere creations of that botanist's erratic brain. This is a succulent genus allied in habits to *Portulaca*, and of the easiest culture.

1398. *Anacampteros*. *Ανακαμπερος* was the name of a plant, to which the ancients attributed the quality of restoring the passion of love, for which purpose it was used in philtres and incantations: from *ανακαμπερος*, to return, and *εως*, love. The species are succulents, and grow freely in a sandy loam mixed with a little lime rubbish, and require but little water. Cuttings root readily, but should be laid to dry a few days before being planted. Leaves taken off close to the plants, and laid to dry a few days, and then planted, will root, and shoot out young plants at their base.

|                                 |                 |                   |                  |                           |
|---------------------------------|-----------------|-------------------|------------------|---------------------------|
| 1094. LYTHRUM. <i>W.</i>        | LYTHRUM.        | <i>Salicaria.</i> | Sp. 5—10.        |                           |
| 6634 <i>Salicaria W.</i>        | common          | 4 jl.au Pu        | Britain riv. ba. | D co Eng. bot. 1061       |
| 6635 <i>virgatum W.</i>         | fine-branched   | 3 jn.s Pu         | Austria 1776.    | D co Bot. mag. 1003       |
| 6636 <i>alatum Ph.</i>          | winged-stalked  | 3 my.n Pu         | N. Amer. 1812.   | D s.l Bot. mag. 1812      |
| 6637 <i>lineare W.</i>          | white-flowered  | 1 1/2 jl.au W     | N. Amer. 1812.   | D s.l                     |
| 6638 <i>hyssopifolium W.</i>    | Hyssop-leaved   | 1 au Pu           | England wat.pl.  | S s.l Eng. bot. 292       |
| *1095. <i>Nesaea A. Kunth.</i>  |                 | <i>Salicaria.</i> | Sp. 2—3.         |                           |
| 6639 <i>triflora Kunth.</i>     | three-flowered  | 2 au B            | America 1802.    | D p.l                     |
| <i>Lythrum triflorum W.</i>     |                 |                   |                  |                           |
| 6640 <i>verticillata Kunth.</i> | whorl-flowered  | 2 jls Pu          | N. Amer. 1759.   | D p.l                     |
| 1096. <i>HEIMIA. Link.</i>      | HEIMIA.         | <i>Salicaria.</i> | Sp. 1.           |                           |
| 6641 <i>salicifolia Link.</i>   | willow-leaved   | 5 aus Y           | Mexico 1821.     | C p.l                     |
| 1097. <i>CUPHEA. Jacq.</i>      | CUPHEA.         | <i>Salicaria.</i> | Sp. 7—19.        |                           |
| 6642 <i>viscosissima W.</i>     | clammy          | 1 jl.au Pu        | America 1776.    | C s.l Sw. fl. gard. 60    |
| 6643 <i>procumbens Cav.</i>     | procumbent      | 1 jls Papu        | Mexico 1816.     | S s.l Bot. reg. 182       |
| 6644 <i>lancoelata H. K.</i>    | smooth-styled   | 1 1/2 ... Pu      | Mexico 1796.     | C s.l                     |
| 6645 <i>decandra H. K.</i>      | decandrous      | 1 1/2 jn.o Pu     | Jamaica 1789.    | C s.l                     |
| 6646 <i>circæoides Sims.</i>    | Circæa-like     | 1 1/2 s Pu        | S. Amer. 1821.   | C s.l Bot. mag. 2201      |
| 6647 <i>multiflora Lodd.</i>    | many-flowered   | 1 1/2 s Pu        | Trinidad 1820.   | C p.l Bot. cab. 808       |
| 6648 <i>Melvilla Lindl.</i>     | scarlet & green | 2 au Sc           | Guiana 1823.     | C p.l Bot. reg. 852       |
| 1098. <i>KLEINHOFIA. W.</i>     | KLEINHOFIA.     | <i>Malvacea.</i>  | Sp. 1.           |                           |
| 6649 <i>Hospita W.</i>          | heart-leaved    | 20 ... Pu         | E. Indies 1800.  | C p.l Cav. dis. 5. t. 146 |

DIGYNIA.

|                                |                |                     |                  |                          |
|--------------------------------|----------------|---------------------|------------------|--------------------------|
| 1099. <i>CALICOMA. B. R.</i>   | CALLICOMA.     | <i>Cunoniaceae.</i> | Sp. 1.           |                          |
| 6650 <i>serratifolia B. R.</i> | saw-leaved     | 4 my.au Y           | N. S. W. 1793.   | C s.p Bot. rep. 566      |
| 1100. <i>HELIOCARPUS. W.</i>   | HELIOCARPUS.   | <i>Tiliaceae.</i>   | Sp. 1—2.         |                          |
| 6651 <i>americanus W.</i>      | American       | 16 ... Pu           | Vera Cruz 1733.  | C p.l Lam. ill. t. 409   |
| 1101. <i>AGRIMONIA. W.</i>     | AGRIMONY.      | <i>Rosaceae.</i>    | Sp. 6—9.         |                          |
| 6652 <i>Eupatoria W.</i>       | common         | 3 jn.jl Y           | Britain bor. fl. | D co Eng. bot. 1335      |
| 6653 <i>odorata W.</i>         | sweet-scented  | 4 jl Y              | Italy 1640.      | D co                     |
| 6654 <i>repens W.</i>          | creeping       | 2 jls Y             | Levant 1737.     | D co                     |
| 6655 <i>parviflora W.</i>      | small-flowered | 2 jl Y              | N. Amer. 1766.   | D co                     |
| 6656 <i>striata Ph.</i>        | white-flowered | 2 jn.au W           | N. Amer. 1812.   | D co                     |
| 6657 <i>Agrimonia W.</i>       | three-leaved   | 1 1/2 jn.au Y       | Italy 1739       | D co Col. exp. 1. t. 144 |

TRIGYNIA.

|                            |             |                    |                |                     |
|----------------------------|-------------|--------------------|----------------|---------------------|
| 1102. <i>RESEDA. W.</i>    | RESEDA.     | <i>Resedaceae.</i> | Sp. 19—23.     |                     |
| 6658 <i>Luteola W.</i>     | Dyer's-weed | 2 jn.jl Ap         | Britain wa.gr. | S s.l Eng. bot. 330 |
| 6659 <i>crispata Link.</i> | curled      | 2 jn.jl Ap         | Portugal 1823. | S co                |



History, Use, Propagation, Culture,

1094. *Lythrum*. From *λυθρον*, black blood, in allusion to the color of the flowers. *L. Salicaria* (willow-like, from *Salix*) although a common British plant, is considered a handsome border flower, and several varieties, differing chiefly in size, are in cultivation. The whole plant is astringent, and has been used in medicine and tanning.

1095. *Nesæa*. Plants formerly referred to *Lythrum*, from which they seem to be satisfactorily distinguished.

1096. *Heimia*. Named by Link, in honor of Dr. Heim, a celebrated Berlin physician. A beautiful stove shrub with fine spikes of yellow flowers.

1097. *Cuphea*. From *κυφος*, curved, in reference to the form of its capsule. Pretty herbaceous or shrubby plants, resembling *Lythrum* in aspect. *C. Melvilla* is a very handsome stove shrub resembling *Bouvardia coccinea*.

1098. *Kleinhofta*. So named by Linnæus, after Kleinhoff, formerly director of the botanic garden in Java. The leaves when bruised smell like violets; the flowers appear the greater part of the year, and the tree is seldom without fruit in all its different stages. Cuttings root in sand under a hand-glass.

1099. *Callicoma*. From *καλος*, beautiful, and *κομη*, hair, in allusion to the tufted yellow heads of flowers, for which the plant is remarkable. Ripened cuttings root in sand under a hand-glass.

1100. *Heliocharpus*. From *ήλιος*, the sun, and *καρπος*, fruit. The valves of its round and elegantly ciliated capsule resemble a little sun surrounded by its rays. Cuttings root in sand under a hand-glass; and Miller found the seeds to vegetate after being kept ten years.

1101. *Agrimonia*. A corruption of the word *Argemone*, by which name the ancients distinguished a plant reputed useful in cataract of the eye, which in Greek was termed *argema*. *A. Eupatoria* was formerly regarded as a remedy of much importance as a tonic and deobstruent; but though still retained in the London *Materia Medica*, is seldom or never prescribed. The root in spring is sweet scented, and the flowers fresh

- 6634 Leaves opp. cordate lanceolate, Flowers spiked 12-androus  
 6635 Leaves opp. lanc. Panicle virgate, Flowers 12-androus 3 together  
 6636 Leaves opp. ovate obl. acute cordate at base closely sessile, Branches 4-winged, Fl. axil. sol. 6-androus  
 6637 Leaves opposite linear, Flowers opp. hexandrous  
 6638 Leaves alternate linear, Flowers hexandrous

6639 Smooth, Leaves opp. subsessile lanceolate entire, Pedunc. axill. opposite, Head 3-flowered

6640 Leaves opp. somewhat downy stalked, Flowers whorled linear

6641 Leaves linear-lanceolate acute, Flowers axillary

6642 Fl. axill. solitary, Leaves ovate-lanceolate scabrous above, Stem erect hispid, Style hairy

6643 Branches decumbent viscous, Leaves ovate lanceolate hispid on short stalks

6644 Fl. axill. sol. Lvs. lanc. hairy, Stem erect hairy, Style smooth, The ♀ long filam. having a tuft of wool longer [than anthers]

6645 Raceme term. Leaves ellipt. and branches pubesc. Stem shrubby, Fl. decandrous

6646 Raceme term. Pedicels scattered, Bractes linear, Leaves ovate stalked pubescent

6647 Leaves small lanceolate, Flowers small solitary terminal, Bush compact

6648 Leaves lanceolate scabrous narrowed at each end, Racemes term. Cal. long bowed, Petals O

6649 A smooth tree, with broad cordate acuminate entire leaves

### DIGYNIA.

6650 The only species

6651 The only species

6652 Fruit hispid, Cauline leaves pinn.-with obl. ovate leaflets, Spikes elevated, Pet. twice as long as calyx

6653 Fruit hispid, Leaves pinnate with obl. leaflets the lower veiny short, Pet. twice as long as calyx

6654 Fruit hispid, Cauline leaves pinnate with obl. leaflets, Spikes subsessile, Petals 3 times as long as calyx

6655 Fruit hispid, Cauline leaves pinnate with many lanceol. leaflets, Petals half as long again as calyx

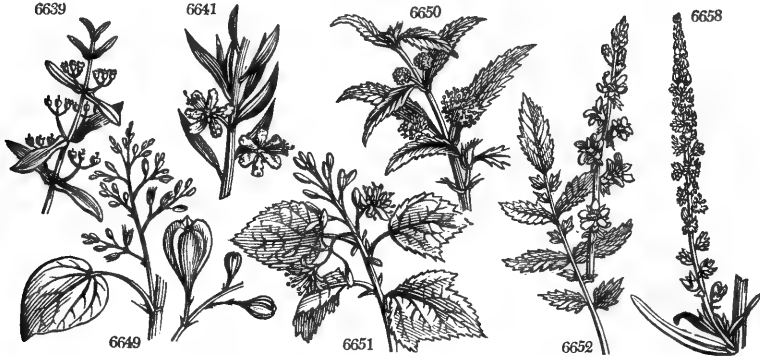
6656 Spikes virgate, Fruit reflexed turbinate furrowed crowned with hairs

6657 Fruit smooth, Cauline leaves ternate, Stamens usually 8

### TRIGYNIA.

6658 Leaves lanc. entire with a tooth on each side at base, Cal. 4-fid

6659 Leaves lanceolate wavy entire with two glands at base



and Miscellaneous Particulars.

gathered smell like apricots. When the plant is coming into flower it will dye wool a full nankeen color, and gathered in September a darker yellow. It has been used for dressing leather. Sheep and goats eat it, but kine, horses, and swine refuse it.

1102. *Reseda*. From *resedo*, to calm, to appease. The Latins thought it useful as a topical application in external bruises. *R. Luteola*, a diminutive of *lutea*, yellow, is used by dyers, especially in France. (Chaptal's *Chimie appliqué à l'Agriculture*, &c.) It affords a most beautiful yellow dye for cotton, woollen, mohair, silk and linen. Blue cloths are dipped in a decoction of it, in order to become green. The yellow color of the paint called Dutch Pink, is obtained from this plant. The entire plant, when it is about flowering, is pulled up and employed both fresh and dried. Mr. Swayne observes, that it is one of the first plants which grow on the rubbish thrown out of coal pits. It flowers in June and July. The root and bottom leaves are formed from the fallen seeds before winter; and thus it happens in this, as in many other cases, that the wild plant is biennial, whilst the cultivated plant, growing from seeds sown in the spring, is annual. It is an observation of Linnaeus's, that the nodding spike of flowers follows the course of the sun, even when the sky is covered; pointing towards the east in a morning, to the south at noon, westward in the afternoon, and to the north at night.

*R. odorata* is a well known and universal favorite. The flowers are highly odoriferous, and there are very few to whom this odor is offensive. The plant is in great demand in London for rooms and placing in balconies, and forms for these purposes an extensive article of culture among the florists and market gardeners. The plants are in many cases sown and transplanted into pots, three or four plants to a pot four inches in diameter. To obtain plants for blowing from December to February, a sowing should be made in July in the open ground, and the plants potted in September. The crop for March, April, and May, should be sown not later than the twenty-fifth of August, the plants from this sowing will not suffer by exposure to rain, whilst they are young; they must, however, be protected from early frosts, like the winter crop; they are to



|                        |                 |    |    |       |       |    |           |         |   |     |                        |
|------------------------|-----------------|----|----|-------|-------|----|-----------|---------|---|-----|------------------------|
| 6660 canescens W.      | hoary           | Δ  | un | 1     | my.jl | Ap | Spain     | 1597.   | D | s.l | Cl. his. 1. t. 295     |
| 6661 glauca W.         | glaucous        | Δ  | un | 1     | my.jl | Ap | S. Europe | 1700.   | D | s.l | Pl. atm. t. 107. f. 2  |
| 6662 dipétala W.       | Flax-leaved     | Δ  | un | 1 1/2 | au    | Ap | C. G. H.  | 1774.   | C | s.l |                        |
| 6663 scopária Brouss.  | Broom-like      | un | un | 1 1/2 | au.s  | Ap | Teneriffe | 1815.   | C | s.l |                        |
| 6664 sesamoides W.     | spear-leaved    | o  | un | 1     | jl.au | Ap | France    | 1787.   | S | s.l | All. p. 2. t. 88. f. 3 |
| 6665 virescens Horn.   | green           | o  | un | 1 1/2 | jl.au | Ap | Spain     | 1820.   | S | co  |                        |
| 6666 fruticulosa W.    | shrubby         | un | un | 1     | s     | Ap | Spain     | 1794.   | C | s.l | Jac. ic. 3. t. 474     |
| 6667 álba W.           | upright-white   | o  | un | 3     | my.o  | Ap | S. Europe | 1596.   | C | s.l | Lob. ic. 222           |
| 6668 pruinosa Delisle. | frosted         | Δ  | cu | 1     | jn    | Ap | Egypt     | 1824.   | C | s.l |                        |
| 6669 undáta W.         | wave-leaved     | Δ  | un | 1     | jn.au | Ap | Spain     | 1739.   | D | s.l | Bar. rar. t. 587       |
| 6670 bipinnáta W.      | bipinnate-leav. | un | un | 2     | jn.au | Ap | Spain     | 1816.   | C | s.l |                        |
| 6671 saxatilis Pourr.  | rock            | Δ  | un | 1 1/2 | jn.au | Ap | Spain     | 1816.   | D | s.l |                        |
| 6672 ramosisíma W.     | branching       | Δ  | un | 2     | jn.au | Ap | Spain     | 1816.   | D | s.l |                        |
| 6673 látea W.          | Base-rocket     | Δ  | un | 3     | jl.au | Ap | Britain   | ch. so. | C | s.l | Eng. bot. 321          |
| 6674 Phytóma W.        | trifid          | o  | un | 1 1/2 | jn.s  | Ap | S. Europe | 1752.   | S | s.l | Jac. aust. 2. t. 132   |
| 6675 mediterránea W.   | Mediterranean   | o  | un | 1 1/2 | jn.s  | Ap | Palestine | 1791.   | S | s.l | Lind. coll. 22         |
| 6676 odoráta W.        | Mignonette      | o  | ft | 1     | jn.o  | Ap | Egypt     | 1752.   | S | r.m | Bot. mag. 29           |
| 6676 odoráta W.        | tree-mignonette | un | or | 2     | jn.o  | Ap | Egypt     | 1752.   | S | r.m | Bot. reg. 227          |

|                       |                  |                                    |    |     |       |    |           |       |   |     |                      |
|-----------------------|------------------|------------------------------------|----|-----|-------|----|-----------|-------|---|-----|----------------------|
| †1103. EUPHORBIA. W.  | SPURGE.          | <i>Euphorbiaceae. Sp. 135—160.</i> |    |     |       |    |           |       |   |     |                      |
| 6677 uncináta Dec.    | twin-spined      | un                                 | gr | 1/2 | jn.au | Ap | C. G. H.  | 1794. | C | s.l | Plant. grass. 151    |
| 6678 trigóna Haw.     | upright-triang.  | un                                 | gr | 9   | jl.au | Ap | E. Indies | 1768. | C | s.l |                      |
| 6679 antiqúorum Haw.  | spreading-trian. | un                                 | gr | 9   | jl.au | Ap | E. Indies | 1688. | C | s.p | Rh. mal. 2. t. 42    |
| 6680 látea Haw.       | marbled          | un                                 | gr | 4   | jl.au | Ap | E. Indies | 1804. | C | s.p |                      |
| 6681 canariénsis W.   | Canary           | un                                 | gr | 20  | mr.ap | Ap | Canaries  | 1697. | C | s.p | Plant. grass. 140    |
| 6682 heptagóna W.     | seven-angled     | un                                 | gr | 3   | jl.n  | Ap | C. G. H.  | 1731. | C | s.p | Brad. suc. 2. 13     |
| 6683 enneagóna Haw.   | nine-angled      | un                                 | gr | 3   | jl.o  | Ap | C. G. H.  | 1790. | C | s.p |                      |
| 6684 mammilláris W.   | warty-angled     | un                                 | gr | 2   | jl.au | Ap | C. G. H.  | 1759. | C | s.p | Com. pral. t. 9      |
| 6685 cerefórmis W.    | naked            | un                                 | cu | 2   | jn.jl | Ap | C. G. H.  | 1731. | C | s.p | Bur. afr. t. 9. f. 3 |
| 6686 officinárum W.   | official         | un                                 | m  | 6   | jn.jl | Ap | Africa    | 1597. | C | s.p | Plant. grass. 77     |
| 6687 polygóna Haw.    | many-angled      | un                                 | gr | 3   | jl.s  | Ap | C. G. H.  | 1790. | C | s.p | Bot. cab. 1344       |
| 6688 nerifólia W.     | Oleander-ldv.    | un                                 | gr | 3   | jn.jl | Ap | India     | 1690. | C | s.p | Plant. grass. 46     |
| 6689 Hystrix W.       | Porcupine        | un                                 | gr | 6   | jn.au | Ap | C. G. H.  | 1695. | C | s.p | Jac. sch. 2. t. 107  |
| 6690 váriana Haw.     | variable-stem'd  | un                                 | gr | 4   | ...   | Ap | E. Indies | 1800. | C | s.p |                      |
| 6691 grandifólia Haw. | great-leaved     | un                                 | cu | 6   | ...   | Ap | S. Leone  | 1798. | C | s.p |                      |



History, Use, Propagation, Culture,

be thinned in November, leaving not more than eight or ten plants in each pot; and at the same time, the pots being sunk about three or four inches in some old tan or coal ashes, should be covered with a frame, which it is best to place fronting the west; for then the lights may be left open in the evening, to catch the sun whenever it sets clear. The third, or spring crop, should be sown in pots, not later than the twenty-fifth of February; these must be placed in a frame, on a gentle heat, and as the heat declines the pots must be let down three or four inches into the dung-bed, which will keep the roots moist, and prevent their leaves turning brown, from the heat of the sun, in April and May. The plants thus obtained, will be in perfection by the end of May, and be ready to succeed those raised by the autumnal sowing. (*Risbon in Hort. Trans. ii. 372.*)

R. odorata frutescens, if left to itself, hardly appears a distinct variety, but trained against a wall or to a stick it, and also the common mignonette, may be made to assume a frutescent character. According to Sabine, the tree mignonette is to be propagated from seeds sown in spring; it may also be increased by cuttings, which will readily strike. The young plants should be put singly into small pots, and brought forward by heat, that of a gentle hot-bed being preferable, but they will grow well without artificial heat. As they advance, they must be tied to a stick; taking care to prevent the growth of the smaller side shoots, by pinching them off, but allowing the leaves of the main stem to remain on for a time to support and strengthen it. When they have attained the height of about ten inches or more, according to the fancy of the cultivator, the shoots must be suffered to extend themselves from the top, but must be occasionally stopped at the ends, to force them to form a bushy head, which by the autumn will be eight or nine inches in diameter, and covered with bloom.

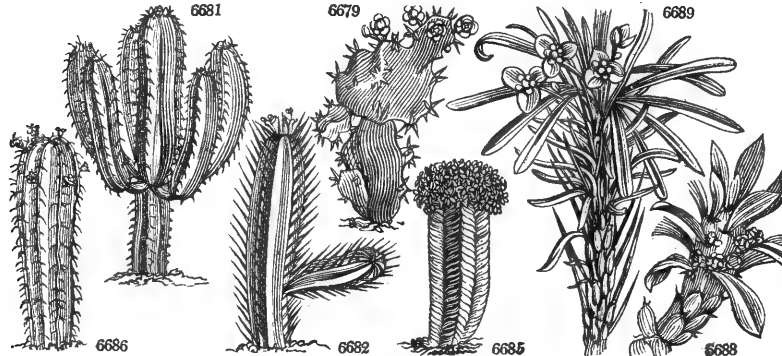
Whilst the plants are attaining their proper size, they should be shifted progressively into larger pots, and may ultimately be left in those of about six inches in diameter at top. (*Hort. Trans. iii. 181.*)

Mr. Lindley's theory of the nature of the inflorescence of this genus being remarkable, and only explained in his *Collectanea Botanica*, which is in few hands, it is here transcribed entire. "The usual idea of the flower of *Rosa* has been, that it is furnished with a calyx of a variable number of divisions, with as many petals, proceeding from their surface certain anomalous appendages, and with an ovary and stamens inserted on a great fleshy body, called nectary by Linnæan botanists, squama by others, and raised to the rank of a distinct organ by M. Mirbel, under the name of Gynophore. To us, however, it has always appeared, that this could by no means be the real structure of the plant, and that by a slight alteration of terms it not only might be much more satisfactorily explained, but its real affinity ascertained with some degree of probability. For even allowing for a moment an analogy between the nectary of this plant and the discus of others, particularly of some *Tiliaceae*, there is still a great difficulty remaining to be overcome in the anomalous structure of the supposed petals, of which we can imagine no probable explanation. We are therefore of opinion, that a much more natural mode of understanding *Rosa* is to consider it as having compound flowers; taking the calyx of authors for an involucreum, their petals for neutral florets, and their nectary for the calyx of a fertile

- 6660 Leaves lanceolate wavy hairy  
 6661 Leaves linear toothed at base, Styles 4  
 6662 Leaves linear entire, Styles 4, Barren florets 2  
 6663 Leaves linear entire, Fl. trigynous, Fruit clavate, Stem twiggly  
 6664 Leaves lanceolate entire, Fruit stellate  
 6665 Nearly related to *R. luteola*, but the leaves are not toothed at base  
 6666 Leaves pinnate recurved at end, Styles 4, Involucre 5-parted spreading, Stem half shrubby  
 6667 Leaves pinnate, Styles 4, Involucres 6-parted  
 6668 Branches above and younger leaves covered with large distinct blisters  
 6669 Leaves pinnate wavy, Styles 3 or 4  
 6670 Leaves bipinnatifid very rough, Flowers spiked  
 6671 Leaves all trifid: segments of the upper leaves linear flat; of the lower lanceol. wavy, Stem quite simple  
 6672 Leaves linear simple or trifid, Stem erect branched, Fruit obovate  
 6673 Leaves all trifid: the lower pinnate  
 6674 Leaves entire and 3-lobed, Involucres 6-parted very large  
 6675 Leaves entire and 3-lobed, Involucres shorter than florets  
 6676 Leaves entire and 3-lobed, Involucres as long as florets

§ 1. *Stem thick, fleshy, naked, or with a few leaves, Flowers dispersed.*  
 \* Prickly.

- 6677 Fleshy prickly compressed channelled inflexed at end, Prickles twin diverging  
 6678 Naked erect prickly triangular jointed, Branches erect somewhat channelled  
 6679 Prickly nearly naked triangular jointed, Branches spreading  
 6680 Naked prickly jointed with 3-cornered expanded branches obsolete marbled with white  
 6681 Prickly naked nearly quadrangular, Prickles twin hooked, Fl. subsessile  
 6682 Prickly naked with 7 angles, Prickles solitary subulate flower-bearing  
 6683 Prickly naked erect with 9 angles, Prickles solitary flower-bearing ascending fuscous, Branches pendulous  
 6684 Prickly half naked, Angles warted with spines between, The young warts leafy  
 6685 Prickly naked with many angles, Prickles solitary subulate  
 6686 Prickly naked with many angles, Prickles twin  
 6687 Prickly naked with numerous simple erect 10-13-angled stems, Prickles dark  
 6688 Prickly half naked, Prickles twin, Angles obliquely warted leafy upwards, Leaves oblong  
 6689 Stem round half naked leafy upwards, Leaves lanc. linear, Peduncle 1-f. at length spiny  
 6690 Prickles twin, Stem rounded or angular, Angles obliquely warted, Leaves nearly oblong  
 6691 Prickles twin horizontal, Stem rounded simple, Leaves oblong spatulate very large



and Miscellaneous Particulars.

floret in the middle. In support of this opinion, we may observe, firstly, that there is a difference in the time of expansion of the neutral florets, and of the stamens of the fertile one; the former being quite open, in very many capituli, before one anther of the latter has burst in a single flower. Secondly, that there is an evident analogy between the appendages of the neutral florets, and the stamens of the perfect florets; inasmuch as in *Reseda odorata* those of the upper sterile florets are of nearly the same number as the real stamens; because in *Reseda alba*, and some others, in which a union of filaments takes place in the perfect floret, there is a corresponding but more complete union of the sterile appendages; and because occasionally, in *Reseda odorata*, stamens are changed into bodies altogether similar to the sterile appendages, and in *Reseda Phyteuma* the same appearance is always assumed by the perfect stamens after the anthers have performed their functions. Thirdly, that there is an equal analogy between the calyx of the neutral florets, and that of the perfect floret; because both have a peculiar glandular margin; the same form; both produce their stamens from their surface; and because the upper edge of the calyx in sterile florets has the same relation to the axis of each particular head, as that of the perfect floret has to the axis of the whole inflorescence. In *Reseda Phyteuma*, which has the margin of its neutral florets rolled back, the same thing occurs in the perfect floret. Fourthly, that there is no instance of the same analogy existing between the discus and petals of other plants. We may also observe, that in *Reseda Phyteuma*, there is a campanulate tube to the calyx, into the upper edge of which the stamens are inserted.

"To determine the affinity of *Reseda* to other orders, will not be so easy as to explain its structure. One cannot avoid remarking the resemblance between its calyx and the squama of *Amentaceæ* and *Ulmaceæ*. *Ficoideæ*, *Grossellaceæ* and *Cacti*, on account of placentation and structure of seed, may be supposed to have a certain relation to it: as may *Chenopodeæ* with regard to inflorescence, absence of petals, and habit. But we are disposed to believe its real place in the system is in the neighbourhood of *Euphorbiaceæ*, where we have placed it in *Flora Scotica*. They agree with it in having the same sort of aggregation of flowers, similar habit, no corolla, and ternary division of ovarium. The insertion of their ovula is the same, as is also the direction of the radicle. They differ, however, firstly, in the presence of albumen; which yet is not entirely absorbed in *Reseda* till the seed is perfectly ripe, and which exists even after that time in the seed of *R. alba*, where it is fleshy as in *Euphorbiaceæ*. Secondly, in their solitary seeds; in which respect *Resedaceæ* may be supposed to bear the same relation to *Euphorbiaceæ* as *Campanulaceæ* do to *Compositæ*; or as some sections of *Rubiaceæ* to the others. In *R. suffruticulosa* the ovules appeared to be reduced to a single row, and the same is said to obtain in *Ochradenus*. Thirdly, in elastic dehiscence of capsule; but as this is not universal in *Euphorbiaceæ*, it is not, strictly speaking, an objection of importance." (*Lindley's Coll. Bot.*)

1103. *Euphorbia*. *Euphorbus* was physician to Juba, king of Mauritania, and first used this plant in medicine. This is a genus of grotesque and curious plants, few of them of either beauty or use, and most of

|                          |                  |     |    |    |       |    |                 |          |                |                         |
|--------------------------|------------------|-----|----|----|-------|----|-----------------|----------|----------------|-------------------------|
| 6692 cucumerina W.       | Cucumber-like    | st. | gr | 3  | ...   | Ap | C. G. H.        | ...      | C s p          | Vail. it. t. 5          |
| 6693 magnimama Haw.      | large-warted     | st. | gr | 3  | ...   | Ap | Mexico          | 1823.    | C s p          |                         |
| 6694 lanifera Haw.       | wool-bearing     | st. | gr | 3  | ...   | Ap | Mexico          | 1823.    | C s p          |                         |
| 6695 geminispinna Haw.   | double-spined    | st. | gr | 3  | ...   | Ap | Mexico          | 1823.    | C s p          |                         |
| 6696 meloformis W.       | Melon-like       | st. | gr | 2  | my.s  | Ap | C. G. H.        | 1774.    | C s p          | Bot. rep. 617           |
| 6697 Caput-medusae W.    | gr. Med. Head    | st. | gr | 2  | au    | Ap | Africa          | 1731.    | C s p          | Com. præl. t. 7         |
| 6698 tessellata Haw.     | chequer'd M.H.   | st. | gr | 1  | au    | Ap | .....           | 1788.    | C s p          |                         |
| 6699 frutescens Haw.     | small Hed. Hd.   | st. | gr | 2  | au    | Ap | C. G. H.        | 1731.    | C s p          | Plant. grass. 150       |
| 6700 procumbens Haw.     | least M. Hd.     | st. | gr | 1  | au    | Ap | C. G. H.        | 1768.    | C s p          | Bur. afr. t. 10. f. 1   |
| 6701 anacantha W.        | scaly            | st. | gr | 1  | s.o   | Ap | C. G. H.        | 1727.    | C s p          | Plant. grass. 144       |
| 6702 clava W.            | club             | st. | gr | 1  | mr.au | Ap | C. G. H.        | 1774.    | C s p          | Jac. ic. 1. t. 85       |
| 6703 bupleurifolia W.    | cone-shaped      | st. | gr | 1  | jn.jl | Ap | C. G. H.        | 1791.    | C s p          | Jac. sch. 1. t. 106     |
| 6704 mauritanica W.      | Barbary          | st. | cu | 1  | jn.au | Ap | Africa          | 1732.    | C s p          | Di. el. t. 289. f. 373  |
| 6705 hamata Haw.         | hooked           | st. | cu | 1  | ...   | Ap | C. G. H.        | 1795.    | C s p          | Bur. afr. t. 6. f. 3    |
| 6706 Ornithopus Jacq.    | Bird's-foot      | st. | gr | 1  | jn.au | Ap | C. G. H.        | 1816.    | C s p          | Jac. frag. t. 120       |
| 6707 aphylla Brouss.     | leafless         | st. | cu | 1  | jn.au | Ap | Teneriffe       | 1815.    | C s p          |                         |
| 6708 balsamifera W.      | Balsam           | st. | cu | 1  | ...   | Ap | Canaries        | 1779.    | C s p          |                         |
| 6709 Tirucalli W.        | Indian-Tree      | st. | gr | 3  | ...   | Ap | India           | 1690.    | C s p          | Rh. mal. 2. t. 44       |
| 6710 atropurpurea W. en. | dark-purple      | st. | cu | 3  | ...   | Ap | Teneriffe       | 1815.    | C s p          | Bot. mag. 3321          |
| 6711 piscicaria W.       | smth. spear-lvd. | st. | cu | 3  | ...   | Ap | Canaries        | 1777.    | C s p          |                         |
| 6712 bracteata Jacq.     | bracteated       | st. | cu | 1  | ...   | Ap | .....           | 1808.    | C s p          | Jac. sch. 2. t. 276     |
| 6713 pendula Haw.        | pendulous        | st. | cu | 1  | ...   | Ap | .....           | 1808.    | C s p          |                         |
| 6714 dendroides W.       | tree-like        | st. | cu | 1  | ...   | Ap | Italy           | 1768.    | C s p          | Mo. 10. t. 1. f. 11. 12 |
| 6715 cyathophora W.      | colored          | st. | pr | 1  | jl.au | Ap | S. Amer.        | 1806.    | C s p          | Bot. reg. 765           |
| 6716 repanda Haw.        | waved            | st. | cu | 2  | au    | Ap | E. Indies       | 1808.    | C s p          |                         |
| 6717 biglandulosa Haw.   | twin-glanded     | st. | cu | 3  | s     | Ap | Bourbon         | 1808.    | C s p          |                         |
| 6718 nudiflora Jac.      | naked-flowered   | st. | cu | 6  | au    | Ap | .....           | 1800.    | C s p          | Jac. ic. 3. t. 470      |
| 6719 cotinifolia W.      | Cotinus-leaved   | st. | or | 10 | jl.au | Ap | S. Amer.        | 1690.    | C s p          | Hook. ex. fl. 59        |
| 6720 petiolaris Sims.    | long-stalked     | st. | cu | 3  | my.jn | Ap | W. Indies       | 1800.    | C s p          | Bot. mag. 883           |
| 6721 mellifera W.        | honey-bearing    | st. | pr | 6  | ap.my | Ap | Madeira         | 1784.    | C s p          | Bot. mag. 1305          |
| 6722 lunariifolia W.     | Toad-flax-lvd.   | st. | cu | 3  | ...   | Ap | .....           | 1794.    | C s p          | Jac. ic. 1. t. 86       |
| 6723 variegata B. M.     | pie-bald         | st. | cu | s  | ...   | Ap | Louisiana       | 1811.    | S s l          | Bot. mag. 1747          |
| 6724 prunifolia Jacq.    | Plum-leaved      | st. | cu | 2  | jn.jl | Ap | .....           | 1799.    | S s l          | Jac. sch. 3. t. 277     |
| 6725 ocythoidea W.       | Basil-leaved     | st. | w  | 1  | jn.au | Ap | S. Amer.        | 1733.    | S s l          |                         |
| 6726 dentata Michx.      | toothed          | st. | w  | 1  | jn.jl | Ap | N. Amer.        | 1806.    | S s l          |                         |
| 6727 hypericifolia W.    | Hypericum-lv.    | st. | w  | 1  | jn.s  | Ap | America         | 1727.    | S s l          | Hook. ex. fl. 36        |
| 6728 Humboldtii W. en.   | Humboldt's       | st. | w  | 1  | jl.o  | Ap | S. Amer.        | 1802.    | C s l          |                         |
| 6729 prostrata W.        | trailing red     | st. | w  | 1  | jl.o  | Ap | W. Indies       | 1758.    | S s l          |                         |
| 6730 rosea W.            | resy             | st. | w  | 1  | au    | Ap | E. Indies       | 1808.    | S s l          |                         |
| 6731 maculata W.         | spotted          | st. | w  | 1  | jl    | Ap | S. Amer.        | 1690.    | S s l          | Jac. vin. 2. t. 186     |
| 6732 picta W.            | painted          | st. | w  | 1  | my.jl | Ap | S. Amer.        | 1789.    | S s l          | Jac. ic. 3. t. 477      |
| 6733 pilulifera W.       | globular         | st. | w  | 1  | jn.au | Ap | E. Indies       | 1800.    | C s l          | Jac. ic. 3. t. 478      |
| 6734 hyssopifolia W.     | Hyssop-leaved    | st. | w  | 1  | au.s  | Ap | W. Indies       | 1787.    | C s l          |                         |
| 6735 thymifolia W.       | Thyme-leaved     | st. | w  | 1  | jl.au | Ap | India           | 1699.    | S s l          | Pl. alm. t. 113. f. 2   |
| 6736 chamæsyce W.        | scollop-leaved   | st. | w  | 1  | jl.au | Ap | S. Europe       | 1752.    | S s l          | Mo. h. 10. t. 2. f. 19  |
| 6737 Péplus W.           | purple           | st. | w  | 1  | jl.au | Ap | England sea.sh. | S s l    | Eng. bot. 2002 |                         |
| 6738 polygonifolia W.    | not-grass-lvd.   | st. | w  | 1  | jn.jl | Ap | N. Amer.        | 1794.    | S s l          | Jac. co. s. t. 13. f. 3 |
| 6739 Ipecacuanha W.      | Ipecacuanha      | st. | w  | 2  | jn.jl | Ap | N. Amer.        | 1812.    | D s l          | Bot. mag. 1424          |
| 6740 canaliculata Pers.  | channelled       | st. | w  | 1  | jn.jl | Ap | Carthagin.      | 1819.    | S co           | Bot. cab. 727           |
| 6741 Péplus W.           | petty            | st. | w  | 1  | jl.au | Ap | Britain         | clt. gr. | C s l          | Eng. bot. 959           |
| 6742 falcata W.          | sickle-leaved    | st. | w  | 1  | jn.au | Ap | S. Europe       | 1699.    | C s l          | Jac. aus. 2. t. 121     |
| 6743 exigua W.           | dwarf            | st. | w  | 1  | jl    | Ap | Britain         | cor. fl. | C s l          | Eng. bot. 1336          |



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the annuals poisonous weeds. One species (*E. edulis*), not yet introduced, is said to be used as a pot-herb in Cochín China; one (*E. punicea*) is a very splendid plant, and the *E. officinarum*, and one or two other species gathered along with it, are used in medicine. They are all milky, mostly herbaceous, several however shrubby, upright for the most part, very few of them creeping; some are leafless, but most of them are leafy. Stems angular or tubercled, or more frequently cylindric or columnar; unarmed, or in the angular sorts resembling the upright Cactuses, and armed with prickles, which are either solitary or in pairs, placed in a single row on the top of the ridges. Such as have leaves have them simple, most frequently alternate and naked; in some sorts, however, they are opposite, and are then commonly attended with stipules, and in a few they are placed by threes in whorls. Peduncles in the leafless sorts naked, bearing from one to three flowers; in the leafy ones axillary, but more frequently from two to five or more in a terminating umbel; each some-

- 6692 Prickly elliptical obtuse furrowed, Prickles subsolitary, Peduncles 3-flowered  
 6693 Warts very large green downy at end, Spines about 4 strong black at end  
 6694 Simple rounded obovate with warts woody at end [than the rest  
 6695 Columnar, Warts small numerous with many small spines between, Two spines in each cluster longer  
 \*\* Unarmed.

- 6696 Unarmed globose with many angles  
 6697 Unarmed imbricated, Warts with one leaf, Flowers somewhat stalked, Divisions palmate  
 6698 Stem closely tessellated with warts upwards thickly branched  
 6699 Unarmed imbricated with warts bearing a linear leaf  
 6700 Unarmed with round procumbent branches, Warts 4-cornered  
 6701 Unarmed imbricated, Warts with a roundish leaflet, Fl. term. solitary sessile with palmate segments  
 6702 Unarmed imbricated, Warts with a lanceolate leaflet, Fl. stalked with entire segments  
 6703 Unarmed imbricated capitate, Warts rhomboid with lanceolate stalked leaves, Segm. of flower entire  
 6704 Unarmed half naked shrubby filiform flaccid, Leaves alternate  
 6705 Warts large imbricated hooked at end: the upper having an oval leaflet at length withering  
 6706 Unarmed warted, Warts with a deciduous leaf, Pedunc. solitary or 3 terminal 1-flowered  
 6707 Unarmed naked leafless branched, Branches square, Fl. solitary terminal  
 6708 Unarmed shrubby upright, Head terminal, Leaves lanceolate smooth glaucous  
 6709 Unarmed half naked shrubby filiform erect, Branches spreading regularly clustered

§ 2. *Stem uniform, shrubby, upright, Flowers scattered or aggregate, not in umbels.*

- 6710 Unarmed, Leaves lanceolate clustered entire, Umbel terminal sessile, Invol. connate colored  
 6711 Unarmed shrubby upright, Umbel 5-fid term. Invol. oblong, Leaves lanc. smooth  
 6712 Unarmed shrubby, Leaves oblong alternate distichous, Bractes persistent  
 6713 Unarmed shrubby naked, Branches rounded effuse dependent jointed  
 6714 Umbel multifid dichotomous, Invol. subcordate: the first 3-leaved  
 6715 Unarmed, Leaves panduriform ovate, Fl. term. suberect, Invol. colored  
 6716 Villous, Leaves with long stalks alternate broadly ovate repand-toothed, Stem erect striated  
 6717 Leaves opp. minute stalked obovate entire, Two glands on the stem at the base of petioles  
 6718 Unarmed shrubby, Leaves ovate entire, Cyme axillary naked  
 6719 Leaves opp. subcordate stalked emarginate entire, Stem shrubby  
 6720 Stalks whorled longer than the orbicular leaf, Fl. solitary, Stem unarmed naked  
 6721 Leaves scattered lanceolate acute smooth, Pedunc. dichotomous, Caps. muricate  
 6722 Unarmed shrubby, Leaves scattered lanc. mucron. Fl. solitary term. with a 3-leaved invol. Caps. muricate  
 6723 Leaves oval entire wavy edged with white, Caps. smooth, Stem hairy  
 6724 Dichotomous, Leaves ovate serrate acute villous, Fl. solitary, Upper dichotomies cymose

§ 3. *Dichotomous, herbaceous, Flowers solitary or aggregate, not umbelled.*

- 6725 Unarmed branched, Leaves subcordate entire shorter than their stalk, Fl. solitary  
 6726 Dwarf hairy, Leaves opp. oval toothed, Flowers clustered at the end of branches  
 6727 Dichotomous, Leaves serrate oval-obl. smooth, Corymbs terminal, Branches divaricate  
 6728 Dichotomous, Leaves ovate obl. acute at each end smooth stalked entire, Capsules smooth  
 6729 Dichotomous, Leaves oval obsol. serrated, Pedunc. axill. 3-flowered, Stems diffuse smooth  
 6730 Dichotomous diffuse, Lvs. obov. oblique somewhat cord. at base toothletted at end, Pedunc. 1-fl. axillary  
 6731 Dichotomous, Leaves serrate oblong hairy, Fl. axill. solitary, Branches spreading  
 6732 Dichotomous, Leaves ovate hairy stalked entire, Pedunc. axill. 1-fl. Caps. smooth  
 6733 Dichotomous, Leaves serrate oval oblong, Pedunc. 2-headed axillary, Stem erect  
 6734 Dichotomous, Leaves subcrenate linear, Fl. fascicled term. Stem erect  
 6735 Dichotomous, Leaves serrate oval-obl. Heads axill. clustered subsessile, Stems procumbent  
 6736 Dichotomous, Leaves crenulate roundish smooth, Fl. solitary axill. Stems procumbent  
 6737 Dichotomous, Leaves entire half cordate, Fl. solitary axillary, Stems procumbent  
 6738 Leaves opp. entire lanceolate obtuse, Fl. solitary axillary, Stems procumbent  
 6739 Dichotomous, Leaves entire lanceolate, Peduncles axillary 1-fl. as long as leaves, Stem erect  
 6740 Branches alternate dichotomous channelled filiform, Leaves ovate stalked pubescent

§ 4. *Flowers umbelled with an involucre.*

\* *Umbel trifid.*

- 6741 Dichotomous, Invol. ovate, Leaves entire obovate stalked  
 6742 Dichotomous, Invol. subcordate mucronate, Leaves lanceol. obtuse  
 6743 Dichotomous, Invol. lanceolate, Leaves linear

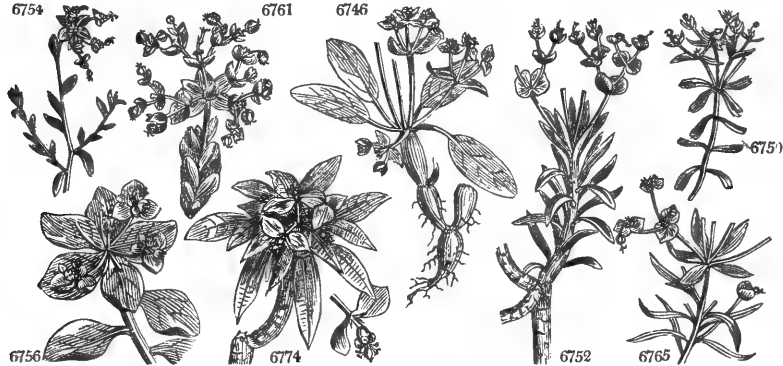


*and Miscellaneous Particulars.*

times in a many-flowered head, but more often dichotomous, trichotomous, or even tetrachotomous, with single flowers between the divisions at the base and in the forkings; having bractes in number the same with the peduncles, forming a sort of involucre. The juice of every species of Spurge is so acrid that it corrodes and ulcerates the body wherever it is applied; so that it is seldom used internally. Externally it is dropped on warts or corns to remove them, and in the hollow of a decayed tooth, to remove the pain by destroying the nerve, or it is rubbed behind the ears to give relief in the tooth-ache by blistering.

*E. officinarum*, and also *antiquorum* and *canariensis*, furnish the Euphorbium of the *Materia Medica*. In the lower regions of Mount Atlas, the inhabitants collect the concreted gum resin, which they call *Surbinne*, in September. It is obtained by making slight incisions in the branches of the plant with a knife, from which a milk-like juice exudes, and forms into tears of an oblong or roundish form. The quantity yielded is so

|                                    |                  |       |       |       |    |           |          |       |                        |
|------------------------------------|------------------|-------|-------|-------|----|-----------|----------|-------|------------------------|
| 6744 minima <i>Haw.</i>            | least            | ○ w   | 1     | jl.s  | Ap | .....     | 1800.    | C s.l |                        |
| 6745 micrantha <i>W.</i>           | small-flowered   | ○ w   | 1     | jl.s  | Ap | Persia    | 1803.    | C s.l |                        |
| 6746 tuberosa <i>W.</i>            | tuberous         | ■ cu  | 2     | o.d   | Ap | Ethiopia  | 1800.    | C s.l | Bur. afr. 9. t. 4      |
| 6747 acuminata <i>Bieb.</i>        | pointed          | ○ w   | 1     | o.d   | Ap | Albania   | 1820.    | S co  | Boc. sic. t. 13. f. 1. |
| 6748 Lathyrus <i>W.</i>            | Capser           | ✓ Δ   | 3     | my.o  | Ap | England   | d.st.pl. | S co  | Eng. bot. 2925         |
| 6749 valentina <i>Pers.</i>        | Spanish          | ✓ Δ   | 1 1/2 | jl.au | Ap | Spain     | 1804.    | S s.l |                        |
| 6750 diffusa <i>W.</i>             | diffuse          | ○ w   | 1 1/2 | jl.au | Ap | Austria   | 1798.    | S s.l | Jac. ic. 1. t. 88      |
| 6751 A'pius <i>W.</i>              | Pear-rooted      | ✓ Δ   | 1     | jn.jl | Ap | Candia    | 1596.    | D s.l |                        |
| 6752 læta <i>W.</i>                | Mezereon-lvd.    | ■ cu  | 1     | jn.jl | Ap | .....     | 1758.    | C s.l | Jac. ic. 1. t. 87      |
| 6753 genistoides <i>W.</i>         | Genista-like     | ■ cu  | 1     | jl.au | Ap | C. G. H.  | 1808.    | C s.l |                        |
| 6754 spinosa <i>W.</i>             | prickly          | ■ cu  | 2     | my.s  | Ap | Levant    | 1710.    | C s.l | Dend. brit. 45         |
| 6755 nummulariæfolia <i>W. en.</i> | Money-w. lvd.    | ■ cu  | 1     | jl    | Ap | .....     | 1800.    | C co  |                        |
| 6756 epithymoides <i>W.</i>        | broad-leaved     | ✓ Δ   | 1     | my.jn | Ap | Austria   | 1805.    | D co  | Bot. rep. 616          |
| 6757 dulcis <i>W.</i>              | sweet            | ✓ Δ   | 1     | my.jn | Ap | S. Europe | 1759.    | D co  | Jac. aus. 3. t. 213    |
| 6758 carnifolia <i>W.</i>          | Carniolian       | ✓ Δ   | 1     | au    | Ap | Carniola  | 1795.    | D co  | Scop. carn. t. 21      |
| 6759 Pithyusa <i>W.</i>            | Juniper-lvd.     | ✓ Δ   | 1     | jn.jl | Ap | S. Europe | 1741.    | C s.l | Boc. sic. t. 5         |
| 6760 portlandica <i>W.</i>         | Portland         | ✓ Δ   | 1     | pr    | Ap | Britain   | sea.sh.  | D s.l | Eng. bot. 441          |
| 6761 Paralias <i>W.</i>            | sea              | ✓ Δ   | 1     | jl.s  | Ap | England   | sea.sh.  | C s.l | Eng. bot. 195          |
| 6762 rigida <i>Haw.</i>            | shrubby-sea      | ■ cu  | 1     | jl.s  | Ap | .....     | ...      | C s.l |                        |
| 6763 juncea <i>W.</i>              | rigid            | ■ cu  | 2     | jl.au | Ap | .....     | 1795.    | C s.l |                        |
| 6764 aleppica <i>W.</i>            | rushy            | ✓ Δ   | 1     | jl.au | Ap | Madeira   | 1779.    | D s.l | Jac. sch. 1. t. 107    |
| 6765 segetalis <i>W.</i>           | Allepjo          | ✓ Δ   | 1     | jl.au | Ap | Crete     | 1739.    | D s.l | Alp. exot. t. 64       |
| 6766 bumbellata <i>Pers.</i>       | corn             | ○ w   | 1 1/2 | jl.au | Ap | S. Europe | 1699.    | D s.l | Jac. aus. 5. t. 450    |
| 6767 angustifolia <i>Haw.</i>      | double-umbell.   | ✓ Δ   | 1     | au    | Ap | Barbary   | 1780.    | D s.l | Po. it. ed. ger.t.1    |
| 6768 multicoeymbosa <i>Ha.</i>     | narrow-leaved    | ✓ Δ   | 1     | jl    | Ap | .....     | 1780.    | D s.l |                        |
| 6769 provincialis <i>W.</i>        | many-flowered    | ○ w   | 1     | jl    | Ap | .....     | 1805.    | D s.l |                        |
| 6770 luncoides <i>Haw.</i>         | linear-leaved    | ○ w   | 1 1/2 | au.n  | Ap | S. Europe | 1800.    | S s.l |                        |
| 6771 helioscopia <i>W.</i>         | Rush-like        | ○ w   | 1     | jl    | Ap | .....     | 1800.    | S s.l |                        |
| 6772 serrata <i>W.</i>             | Wart-wort        | ○ w   | 3     | jl.au | Ap | Britain   | co.f.    | S s.l | Eng. bot. 883          |
| 6773 cretica <i>Haw.</i>           | narr. notch-lvd. | ✓ Δ   | 1     | jl    | Ap | S. Europe | 1710.    | D s.l | Jac. ic. 3. t. 488     |
| 6774 punicea <i>W.</i>             | Cretan hoary     | Δ un  | 3     | ...   | Ap | Levant    | 1768.    | C r.m |                        |
| 6775 verrucosa <i>W.</i>           | scarlet-flowered | ■ spl | 6     | ja.s  | Ap | Jamaica   | 1778.    | C s.l | Bot. reg. 190          |
| 6776 corollata <i>W.</i>           | warted           | ✓ Δ   | 1     | un    | Ap | France    | 1800.    | C s.l | Mor. s. 10. t. 3. f. 3 |
| 6777 spatulifolia <i>Haw.</i>      | great-flowered   | ✓ Δ   | 1 1/2 | jl.s  | Ap | N. Amer.  | 1803.    | D s.l | Bot. cab. 390          |
| 6778 corallioides <i>W.</i>        | spatula-leaved   | ■ cu  | 2     | au    | Ap | .....     | 1800.    | C s.l |                        |
| 6779 androsæmifolia <i>Donn.</i>   | Coral-stalked    | Δ un  | 1     | jn.s  | Ap | S. Europe | 1752.    | D s.l |                        |
| 6780 pilosa <i>W.</i>              | Tutsan-leaved    | ✓ Δ   | 2     | jl.s  | Ap | Hungary   | 1804.    | D s.l |                        |
| 6781 orientalis <i>W.</i>          | hairy            | Δ un  | 1 1/2 | my.au | Ap | Siberia   | 1758.    | D s.l | Gm. sib. 2. t. 93      |
| 6782 platyphyllos <i>W.</i>        | oriental         | Δ un  | 1     | jn.jl | Ap | Levant    | 1739.    | D s.l |                        |
| 6783 atricla E. B.                 | annual-warty     | ○ w   | 1     | jl.au | Ap | England   | co.f.    | S co  | Jac. aust. t. 376      |
| 6783 literata <i>W.</i>            | upright-warty    | ○ w   | 1 1/2 | jl.au | Ap | England   | ...      | S co  | Eng. bot. 333          |
| 6784 E'sula <i>W.</i>              | blotch-leaved    | ○ w   | 1     | au    | Ap | .....     | 1790.    | S co  | Jac. ic. 3. t. 482     |
| 6785 sylvatica <i>W.</i>           | leaf-branched    | ✓ Δ   | 1 1/2 | my.jl | Ap | Britain   | woods.   | S co  | Eng. bot. 1599         |
| 6786 Erythrina <i>Link.</i>        | wood             | Δ un  | 2     | jl.s  | Ap | S. Europe | 1768.    | D co  |                        |
| 6787 glareosa <i>Bieb.</i>         | fleshy           | ✓ Δ   | 1     | jl.s  | Ap | C. G. H.  | 1823.    | D co  |                        |
| 6788 bialata <i>Link.</i>          | sandy            | ✓ Δ   | 1     | jl.s  | Ap | Tauria    | 1822.    | D co  |                        |
| 6789 uralensis <i>Fisch.</i>       | two-winged       | ✓ Δ   | 2     | jl.s  | Ap | .....     | 1823.    | S co  |                        |
| 6790 micrantha <i>Bieb.</i>        | Ural             | ✓ Δ   | 3     | jl.s  | Ap | Ural      | 1821.    | D co  |                        |
| 6791 crispata <i>Horn.</i>         | small-flowered   | ○ un  | 1 1/2 | my    | Ap | Tauria    | 1822.    | S co  | Bux. cen. 2. t. 25     |
| 6792 condylocarpa <i>Bieb.</i>     | crisp            | ✓ Δ   | 1     | un    | Ap | .....     | 1821.    | D co  |                        |
| 6793 fragifera <i>Link.</i>        | Heart-leaved     | ✓ Δ   | 1     | my    | Ap | Caucasus  | 1823.    | D co  |                        |
|                                    | berry-bearing    | ✓ Δ   | 2     | my    | Ap | Italy     | 1820.    | D co  |                        |
| 6794 Gerardiana <i>W.</i>          | Gerard's         | ✓ Δ   | 1     | jl    | Ap | Germany   | 1801.    | C co  | Jac. aust. t. 436      |
| 6795 Cyparissias <i>W.</i>         | Cypress          | Δ pr  | 2     | my.s  | Ap | England   | woods.   | D co  | Eng. bot. 840          |
| 6796 virgata <i>W. &amp; K.</i>    | twiggy           | ✓ Δ   | 1     | jl    | Ap | Hungary   | 1807.    | D co  | Pl. rar. h. t. 162     |
| 6797 myrsinites <i>W.</i>          | glaucous         | Δ un  | 1     | ap.jn | Ap | S. Europe | 1570.    | D s.l | Lobel.ic. t. 355. f. 1 |
| 6798 imbricata <i>P. S.</i>        | imbricated       | ■ cu  | 1     | au.s  | Ap | Portugal  | 1804.    | C s.l |                        |
| 6799 nicænsis <i>W.</i>            | sharp-leaved     | ✓ Δ   | 1 1/2 | ...   | Ap | Spain     | 1809.    | D s.l | Jac. ic. 3. t. 485     |



History, Use, Propagation, Culture,

considerable, that the plants are cut once only in four years; the supply then obtained being sufficient for that space of time for all Europe. The recent juice is so corrosive as to erode the skin wherever it touches; and the people who gather the gum are obliged to tie a cloth over their mouth and nostrils, to protect them from the acrid dust of the withered branches, which induces the most violent sneezing. It is inodorous; and, when first chewed, has little taste, but it soon gives a very acrid burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportable. Euphorbium possesses powerful cathartic, emetic, errhine, and rubeefacient properties. It has been given as a hydragogue in dropsies; but, owing to the violence of its effects, its internal use is now exploded: neither as an errhine can it be used alone, for it occasions so

- 6744 Dichotomous, Umbel trifid, Invol. broad obovate, Leaves entire obovate spatulate on long stalks  
 6745 Dichotomous, Leaves lanceolate obovate serrate, Invol. cordate, Caps. warted  
 6746 Invol. 4-leaved, Stem naked, Leaves oblong emarginate  
 6747 Umbel subtrifid, Leaves mucronate, Cauline spatulate lanc. Invol. ovate, Caps. smooth

\*\*\* Umbel 4 or 5-fid.

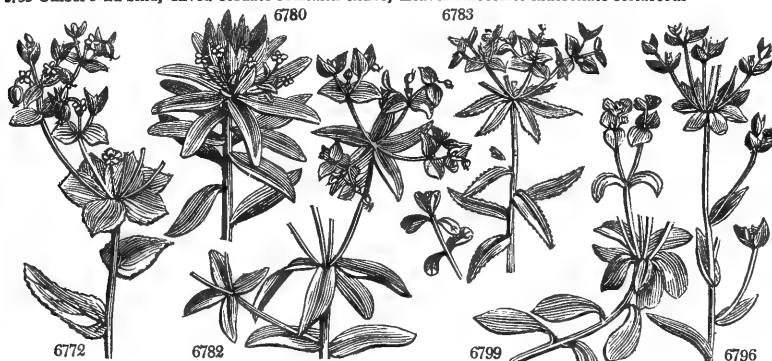
- 6748 Umbel 4-fid dichotomous, Leaves opposite entire  
 6749 Umbel 4-fid trifid, Invol. ovate acute, Leaves lanc. : lower spatulate  
 6750 Umbel 4-fid dichotomous, Invol. obtuse, Leaves altern. lin. cuneate emarginate mucron. Stem diffuse  
 6751 Umbel 4-fid bifid, Invol. reniform: the first obovate  
 6752 Umbel 4 or 5-fid twice dichotomous, First invol. oblong: upper rhomboid-roundish, Leaves lin. lanceol.  
 6753 Umbel 5-cleft bifid, Invol. ovate, Leaves linear erect  
 6754 Umbel 5-cleft simple, Invol. ovate: first 3-leaved, Leaves oblong entire  
 6755 Umbel 5-cleft bifid, Upper leaves rounded obovate serrulate mucronate: lower lanc. reflexed  
 6756 Umbel 5-cleft bifid, Invol. ovate toothletted, Leaves entire lanc. oblong villous beneath  
 6757 Umbel 5-cleft bifid, Invol. subovate toothletted, Leaves lanc. obtuse, Caps. warted hairy  
 6758 Umbel 5-cleft bifid, Rays nodding, Invol. ovate entire, Leaves lanc. acute, Caps. warted smooth  
 6759 Umbel 5-cleft bifid, Invol. ovate mucronate, Leaves lanc.: the lower involute imbricated downwards  
 6760 Umbel 5-cleft dichotomous, Invol. subcordate concave, Leaves lin. lanc. acute smooth spreading  
 6761 Umbel 5-cleft bifid, Invol. cordate reniform, Leaves imbricated upwards

- 6762 Branches filiform, Leaves numerous linear oblong retuse. Rib mucronate, Fl. solitary terminal  
 6763 Umbel 5-cleft dichotomous, Leaves and invol. linear lanceolate acute  
 6764 Umbel 5-cleft dichotomous, Invol. ovate lanceolate mucronate, Lower leaves setaceous  
 6765 Umbel 5-cleft dichotomous, Invol. cordate acute, Leaves lin. lanceolate: the upper broadest  
 6766 Umbel multifid double, Invol. subcordate, Leaves linear  
 6767 Umbel multifid clustered, Invol. subcordate, Leaves numerous close very narrow  
 6768 Umbel multifid dichotomous, Invol. half orbicular cordate, Sterile branches many, Lvs. lin. lanc. obtuse  
 6769 Umbel 5-cleft bifid, Invol. cordate mucronate, Leaves oblong  
 6770 Umbel 5-cleft bifid, Invol. half orbic. cordate submucronate, Leaves linear imbricated backwards  
 6771 Umbel 5-cleft bifid dichotomous, Invol. obovate, Leaves cuneiform serrate smooth, Caps. smooth  
 6772 Umbel 5-cleft trifid dichotomous, Invol. 2-leaved reniform, Leaves amplexicaul. cordate serrate  
 6773 Umbel multifid bifid, Invol. orbicular, Leaves linear lanc. villous  
 6774 Umbel 5-cleft trifid, Invol. oval acuminate colored, Caps. smooth, Leaves glaucous beneath  
 6775 Umbel 5-cleft trifid, Invol. ovate, Leaves lanc. serrulate villous, Caps. warted  
 6776 Umbel 5-cleft trifid dichotomous, Invol. and leaves oblong obtuse, Divisions of invol. white  
 6777 Umbel 4-fid bifid, Invol. obovate, Leaves spatulate lanc. entire reflexed, Stem half shrubby branched  
 6778 Umbel 5-cleft trifid dichotomous, Invol. ovate, Leaves lanceolate, Caps. woolly  
 6779 Naked smooth, Umbel 5-cleft bifid, Leaves sessile lanceolate veiny on each side  
 6780 Umbel 5-cleft trifid bifid, Invol. ovate entire, Leaves lanc. hairy subserulate at end  
 6781 Umbel 5-cleft 4-fid dichotomous, Invol. roundish acute, Leaves lanceolate  
 6782 Umbel 5-cleft 3-fid dichotomous, Invol. with a hairy keel, Leaves serrate lanceolate, Caps. warted

- 6783 Umbel 5-cleft 3-fid dichotomous, Invol. lanceolate, Leaves lanc. toothed pubescent, Caps. smooth warted  
 6784 Umbel multifid bifid, Invol. subcordate 2-horned, Barren branches with 1-shaped leaves  
 6785 Umbel 5-fid bifid, Invol. perfoliate cordate acute, Leaves lanc. entire  
 6786 Leaves lanc. obtuse, Umbel 5-fid dichotomous, Invol. ovate obtuse 2-horned  
 6787 Umbel 5-fid bifid, Leaves spatulate lanc. mucronate coriaceous serrulate, Invol. ovate, Caps. smooth  
 6788 Leaves obversely obl. Invol. oblong and ovate serrulate at end, Umbel 5-fid dichotomous. Caps. keeled twice  
 6789 Leaves linear with long points entire smooth, Umbel 5-fid bifid, Invol. lanceolate, Leaves 2-horned  
 6790 Umbel trifid dichotomous, Leaves serrate somewhat hairy: lower spatulate; upper and invol. spatulate  
 6791 Upper branches hairy, Leaves smooth lanceolate, Caps. warted, Invol. cordate  
 6792 Umbel sub-5-fid bifid, Caul. leaves and invol. cordate lanceolate obtuse toothletted, Invol. reniform  
 6793 Leaves lanceolate, Umbel 5-fid, Invol. oval obtuse, Caps. rammentaceous hairy

\*\*\* Umbel 6-many-fid.

- 6794 Umbel multifid dichotomous, Invol. roundish entire, Branches none  
 6795 Umbel multifid dichotomous, Invol. subcordate, Branches sterile, Leaves setaceous, Cauline lanceolate  
 6796 Umbel multifid bifid, Invol. subtriangular, Leaves sessile erect, Caps. rough  
 6797 Umbel 8-fid bifid, Invol. subovate, Leaves spatulate spreading fleshy mucronate rough at edge  
 6798 Umbel dichotomous bifid, Invol. roundish mucronate, Leaves obovate imbricate serrulate  
 6799 Umbel 5-fid bifid, Invol. cordate roundish entire, Leaves lanceolate mucronate coriaceous



and Miscellaneous Particulars.

much inflammation as to produce hæmorrhage from the nostrils, and swells the integuments of the head. When properly diluted, however, with starch or any other inert powder, and cautiously used, it is an effectual and excellent erethic in lethargy, deafness, palsy, amaurosis, and similar cases. (*London Dispensatory*, 298.)

E. *Lathris* has seeds about the size and color of caper buds, and in Paris is sometimes substituted for that pickle. Eaten in any quantity they must prove highly deleterious.

E. *helioscopia* has a peculiarly acrid milky juice, which is often applied by country people to eat off warts; but should be used with caution where the parts are tender. According to Linnaeus, sheep eat it, and are purged by it, and their flesh acquires a bad taste; but this is not the case with cows.

|  |               |        |    |       |    |                       |           |       |                   |
|--|---------------|--------|----|-------|----|-----------------------|-----------|-------|-------------------|
| 6800 <i>palustris</i> W.                       | marsh         | ☿ Δ un | 4  | my.au | Ap | Sweden                | 1570.     | D s.l | Fl. dan. 866      |
| 6801 <i>emarginata</i> W.                      | freckled      | ☿ Δ un | 2  | jl.au | Ap | Italy                 | 1758.     | D co  |                   |
| 6802 <i>hibérnica</i> W.                       | Irish         | ☿ Δ cu | 1  | my.jn | Ap | Britain               | fields.   | D co  | Eng. bot. 1337    |
| 6803 <i>salicifolia</i> W.                     | willow-leaved | ☿ Δ w  | 2  | my.jn | Ap | Hungary               | 1804.     | D co  | Pl. rar. h. t. 55 |
| 6804 <i>amygdaloides</i> W.                    | Almond-leav.  | ☿ or   | 2  | mr.jn | Ap | England               | woods.    | D co  | Eng. bot. 256     |
| 6805 <i>characias</i> W.                       | upright-red   | ☿ pr   | 4  | mr.jn | Ap | England               | mo. pl. C | co    | Eng. bot. 442     |
| 6806 <i>glaucescens</i> W.                     | glaucous      | ☿ Δ un | 1  | mr.jn | Ap | .....                 | 1823.     | D co  |                   |
| 6807 <i>agraria</i> Bieb.                      | field         | ☿ ○ w  | 1  | jn    | Ap | Crimea                | 1821.     | S co  |                   |
| 6808 <i>pallida</i> W.                         | pale          | ☿ Δ un | 1½ | jn    | Ap | Hungary               | 1822.     | D co  |                   |
| 6809 <i>procera</i> Bieb.                      | tall          | ☿ Δ un | 2  | au    | Ap | Crimea                | 1819.     | D co  | Gmel. sib. t. 94  |
| 6810 <i>ceratocarpa</i> Ten.                   | horn-fruited  | ☿ Δ un | 1  | jl.au | Ap | Naples                | 1823.     | D co  | Ten. neap. t. 63  |
| 6811 <i>salicifolia</i> Hort.                  | willow-leaved | ☿ Δ un | 1½ | jn    | Ap | Hungary               | 1820.     | D co  |                   |
| 1104. <b>PEDILANTHUS.</b> Neck. SLIPPER PLANT. |               |        |    |       |    | <i>Euphorbiaceae.</i> | Sp. 1—3.  |       |                   |
| 6812 <i>tithymaloides</i> Kunth.               | Myrtle-leaved | ☿ □ cu | 1½ | jl.au | Ap | S. Amer.              | 1820.     | C co  | Bot. reg. 837     |
| 6813 <i>carinatus</i> Donn.                    | keeled        | ☿ □ cu | 1½ | jl.au | Ap | .....                 | 1817.     | C co  | Bot. mag. 2514    |
| 1105. <b>VISNEA.</b> W.                        | VISNEA.       |        |    |       |    | <i>Ebenaceae.</i>     | Sp. 1.    |       |                   |
| 6814 <i>Mocanera</i> W.                        | Canary        | ☿ □ or | 5  | ...   | W  | Canaries              | 1815.     | C 1p  |                   |

TETRAGYNIA.

|   |         |      |   |    |     |                   |          |      |                    |
|---|---------|------|---|----|-----|-------------------|----------|------|--------------------|
| 1106. <b>CALLIGONUM.</b> W. CALLIGONUM. |         |      |   |    |     | <i>Polygonae.</i> | Sp. 1—5. |      |                    |
| 6815 <i>Pallasia</i> W.                 | Caspian | ☿ or | 4 | au | G.w | Casp. Sea         | 1780.    | C 1p | Pall.ros.2.t.77,78 |

PENTAGYNIA.

|  |               |        |    |      |     |                    |          |       |                        |
|--|---------------|--------|----|------|-----|--------------------|----------|-------|------------------------|
| 1107. <b>GLYNUS.</b> W.                      | GLYNUS.       |        |    |      |     | <i>Ficoideae.</i>  | Sp. 1—3. |       |                        |
| 6816 <i>lotoides</i> W.                      | hairy         | □   un | 1½ | jl   | Y   | S. Europe          | 1783.    | S s.l | Boc. sic. 21. t. 11    |
| 1108. <b>BLACKWELLIA.</b> Juss. BLACKWELLIA. |               |        |    |      |     | <i>Homalinee.</i>  | Sp. 1—6. |       |                        |
| 6817 <i>integrifolia</i> Lam.                | entire-leaved | ☿ □ or | 6  | ...  | W   | Madagascar.        | 1823.    | C s.p | Lam. ill. t. 412. f. 2 |
| †1109. <b>GASTONIA.</b> Juss. GASTONIA.      |               |        |    |      |     | <i>Araliaceae.</i> | Sp. 1—2. |       |                        |
| 6818 <i>palmata</i> Wall.                    | palmate       | ☿ □ or | 4  | f.mr | W.G | .....              | 1818.    | C p.l | Bot. reg. 894          |

DODECAGYNIA.

|  |                  |        |    |       |      |                      |         |       |                      |
|--|------------------|--------|----|-------|------|----------------------|---------|-------|----------------------|
| *1110. <b>SEMPERVIVUM.</b> W. HOUSELEEK. |                  |        |    |       |      | <i>Semperviveae.</i> | Sp. 20. |       |                      |
| 6819 <i>arborescens</i> W.               | tree             | ☿ □ or | 9  | mr.d  | Y    | Levant               | 1640.   | C s.l | Bot. reg. 99         |
| β <i>variegatum</i>                      | striped-leaved   |        |    |       |      |                      |         |       |                      |
| 6820 <i>canariense</i> W.                | Canary           | ☿ □ or | 1½ | jn.jl | Y    | Canaries             | 1699.   | R s.l | Plant. grass. 141    |
| 6821 <i>glutinösium</i> W.               | clammy           | ☿ □ or | 1½ | jl.au | Y    | Madeira              | 1777.   | C s.l | Bot. mag. 1963       |
| 6822 <i>glandulosum</i> W.               | glandulous-ld.   | ☿ □ or | 1  | mr.my | Y    | Madeira              | 1777.   | C s.l |                      |
| 6823 <i>ciliatum</i> W. ex.              | white-flowered   | ☿ □ or | 1½ | ...   | W    | Teneriffe            | 1815.   | C s.l | Bot. mag. 1978       |
| 6824 <i>Smithii</i> Sims.                | Smith's          | ☿ □ or | 1  | jl.au | Y    | Teneriffe            | 1815.   | C s.l | Bot. mag. 1980       |
| 6825 <i>tabulariforme</i> Haw.           | table-shaped     | ☿ □ or | 1½ | jl.au | Pa.Y | Teneriffe            | 1817.   | C s.l | Bot. cab. 1328       |
| 6826 <i>flagelliforme</i> Fisch.         | running          | ☿ Δ or | ½  | jl.au | R    | Siberia              | 1823.   | C s.l |                      |
| 6827 <i>tortuosum</i> W.                 | gouty            | ☿ □ or | ½  | jl.au | Y    | Canaries             | 1779.   | C s.l | Bot. mag. 296        |
| 6828 <i>villosum</i> W.                  | villous          | ○ or   | ½  | jn.jl | Y    | Madeira              | 1777.   | D s.l | Bot. mag. 1809       |
| 6829 <i>stellatum</i> Sm.                | starry           | ☿ □ or | ½  | jl.au | Y    | M. Baldo             | 1790.   | D s.l | Seg. veron. 2. t. 17 |
| 6830 <i>tectorum</i> W.                  | common           | ☿ Δ or | 1  | jn.s  | F    | Britain              | roofs.  | D s.p | Eng. bot. 1320       |
| 6831 <i>africanum</i> Haw.               | African          | ☿ Δ or | 1  | ...   | ...  | C. G. H.             | 1768.   | D s.l |                      |
| 6832 <i>dodrantale</i> W. ex.            | smith.-lvd.-ann. | ☿ □ or | 1  | jl.au | Pk   | Teneriffe            | 1815.   | S s.l |                      |
| 6833 <i>hirtum</i> L.                    | hairy            | ☿ Δ or | 1  | jn.jl | W    | Italy                | 1804.   | D s.p | Schmidt. ic. t. 17   |
| 6834 <i>soboliferum</i> B. M.            | Hen & Chicken    | ☿ Δ or | ½  | jn.jl | Pa.Y | Germany              | ...     | D s.p | Bot. mag. 1457       |



History, Use, Propagation, Culture,

Many of the stove species of this genus are succulents, and will thrive the better if a little lime rubbish be added to their sandy loam. They are somewhat difficult to strike. Sweet says, "The way I have succeeded best, is to stick them in the tan amongst the pots in a good heat, and not cover them with any glass." (*Bot. Cult.* 55.)

The inflorescence of this genus is not now considered to consist of twelve stamens surrounding an ovary; but almost as in *Reseda*, of a number of monandrous naked male florets surrounding a naked female floret. This manner of understanding *Euphorbia* was first indicated by Jussieu, and afterwards correctly explained by Mr. Brown.

1104. *Pedilanthus*. From *παιδιλον*, a slipper, and *ανθος*, a flower, in allusion to the form of the involucre. A genus resembling *Euphorbia* in properties and appearance.

1105. *Visnea*. This seems to be a blunder of the younger Linnæus for *Visnea*, which now is the name of a distinct genus, which see. Ripened cuttings root freely in sand.

- 6800 Umbel multifid 3-fid bifid, Invol. ovate, Leaves lanceolate, Branches barren
- 6801 Umbel multifid bifid, Invol. broadly cord. Leaves obl. emarg. smooth, Stem branched, Capsules warted
- 6802 Umbel 6-fid dichotomous, Invol. oval, Leaves entire, Branches none, Capsules warted
- 6803 Umbel multifid dichotomous, Invol. reniform cordate, Leaves lanceolate villous
- 6804 Umbel multifid dichotomous, Invol. perfoliate orbiculate, Leaves obtuse
- 6805 Umbel multifid bifid, Invol. perfoliate emarginate, Leaves lanceolate entire
- 6806 Leaves linear lanceolate entire close together, Capsules smooth
- 6807 Umbel multifid bifid, Cauline leaves and involucre cordate oblong rough at edge subserrulate
- 6808 Umbel multifid trifid, Invol. roundish, Leaves lanc. attenuated, Stem simple, Caps. smooth
- 6809 Umb. 5-fid 3-fid dichotomous, Leaves lanceolate hairy serrulate at end, Capsules smooth
- 6810 Leaves lanceolate entire smooth, Caps. warted smooth, otherwise like *E. palustris*
- 6811 Leaves entire lanceolate villous, Umb. multifid, Inv. reniform cordate

- 6812 Leaves ovate acuminate
- 6813 Leaves ovate acuminate keeled beneath

6814 The only species

*TETRAGYNIA.*

6815 Fruit winged, Wings membranous crisp toothed

*PENTAGYNIA.*

6816 Stem hairy, Leaves obovate

6817 Leaves ovate obtuse usually entire, Fl. terminal paniced

6818 Leaves palmate, Stem aculeate

*DODECAGYNIA.*

6819 Stem arborescent smooth branched, Leaves cuneiform smoothish ciliated, Ciliæ spreading smooth

- 6820 Stem shrubby, Leaves orbicular-spatulate villous, Nectaries nearly square truncate
- 6821 Stem shrubby, Leaves cuneiform viscid ciliated, Ciliæ cartilaginous appressed
- 6822 Stem shrubby, Leaves orbicular-spatul. glutinous at edge with globose glands and cuneiform trunc. necta.
- 6823 Leaves obovate acute smooth with a cartilaginous edge, Cymes clustered
- 6824 Stem with dense spreading bristles, Leaves curved with longitudinal green spots beneath
- 6825 Leaves closely packed together in a broad flat disk
- 6826 Suckers spreading lateral, Leaves ovate mucronate warted, Branches of cyme bifid
- 6827 Leaves obovate gibbous beneath villous, Necta. 2-lobed
- 6828 Leaves spatulate cuneiform obtuse villous, Necta. palmate
- 6829 Stem pubescent, Leaves spatulate scattered
- 6830 Leaves ciliated, Suckers spreading, Necta. cuneiform with a swelling
- 6831 Margins of leaves serrate toothed, Offsets spreading
- 6832 Leaves entire obovate smooth stalked, Cymes spreading, Pedunc. and calyx hairy
- 6833 Leaves stem and petals hairy at end
- 6834 Leaves ciliated, Offsets short round nearly sessile, Petals 6 fringed



and Miscellaneous Particulars.

1106. *Calligonum*. From *καλος*, beautiful, and *γων*, a knee or joint. This plant produces, instead of leaves, curious greenish excrescences disposed in joints, which give it a remarkable appearance.

1107. *Glinus*. A name employed by Theophrastus to designate a kind of maple. This plant is, however, more like a purslane.

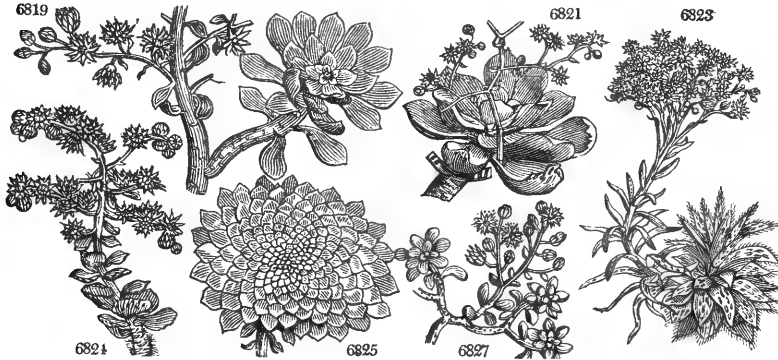
1108. *Blackwellia*. Named after Elizabeth Blackwell, who published an Herbari in 1735, containing figures of between two and three hundred plants, drawn and engraved by herself. Curious stove plants with pretty foliage, but inconspicuous spikes of whitish green flowers.

1109. *Gastonia*. Named by Commerson after Gaston de Bourbon, son of Henry IV. In the Isle de Bourbon it is called *Bois d'éponge*.

1110. *Sempervivum*. From *semper vivere*, to live for ever, in allusion to the tenacity of life common to plants of the genus. This is a succulent genus, some species of which are ornamental or singular, and others



|      |                        |              |          |         |   |           |       |       |                   |
|------|------------------------|--------------|----------|---------|---|-----------|-------|-------|-------------------|
| 6835 | <i>globiferum</i> W.   | globiferous  | ☿ Δ or ♀ | ‡ jn.jl | Y | Germany   | 1731. | D s.p | Bot. mag. 507     |
| 6836 | <i>montanum</i> W.     | mountain     | ☿ Δ or ♀ | ‡ jn.jl | R | Switzerl. | 1752. | D s.l | Plant. grass. 105 |
| 6837 | <i>arachnoideum</i> W. | cobweb       | ☿ Δ or ♀ | ‡ jn.jl | R | Italy     | 1689. | D s.p | Bot. mag. 68      |
| 6838 | <i>monanthos</i> W.    | one-flowered | ☿ Δ j cu | ‡ jl.s  | R | Canaries  | 1777. | D s.l | Bot. mag. 93      |



*History, Use, Propagation, Culture,*

curious. *S. tectorum*, common on the roofs of buildings, is used by country people as an application to burns, inflammations, and ulcers, alone, in a bruised state, or mixed with cream. Linnæus informs us, that house-



CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

To gardeners this is one of the most interesting of the Linnæan classes, containing a greater proportion than any other of objects which come within their observation and management. It also consists of genera for the most part naturally allied; and comprises not only the most remarkable portion of Ficoideæ, all Cacti, and the chief of the Myrtaceæ, but almost every genus of the beautiful and hardy tribes of Rosaceæ. Its characters are well defined, and depend upon the insertion of a number of distinct stamens, exceeding twenty, into the inner surface of the calyx; modifications of which organ are here found to be of more than ordinary importance in characterising the genera.

The genera are extremely natural, and have been all studied with unusual attention. Some difference of opinion exists among botanists as to the limits which ought to be assigned to them, and great diversity of nomenclature has thence arisen. "But," as has been observed by a modern author, "in a class so strictly natural as this is, greater difficulty is always to be expected in finding characters for genera, than in those of which our knowledge is more imperfect, and whose series of individuals may therefore be considered less complete." In the apple and pear tribe, Pomaceæ, where the greatest difficulty is thought to exist, we adopt Mr. Lindley's arrangement, as published in the Transactions of the Linnæan Society, which we find admitted by all botanists of authority.

But if it is difficult to ascertain the definite limits of the genera of Icosandria, it is yet more perplexing to arrive at a satisfactory conclusion respecting the species of which the genera are constituted. Having all been, as long as gardens have existed, the objects of cultivation, it has happened that many individuals have, under the action of domestication, wandered so far from their original types, as to have acquired new characters for themselves, of so peculiar a kind as to have rendered it impossible at the present day to refer them with certainty to the source from which they originally sprung. To remedy this confusion, which has been thus increasing for ages, some persons have thought it necessary to distinguish the species by such artificial characters as they are now found to possess, without reference to any changes the genera may have undergone; but it has been found that no facilities of discrimination have been gained by multiplying distinctions in consideration of differences which are neither permanent or remarkable, nor connected with natural habit, but purely artificial. To others it has appeared proper to endeavour to reduce the aberrant forms which now exist to those from which, upon mature consideration, they may be presumed to have been derived, and to simplify the arrangement and discrimination of the species by confining them within their primitive limits. As we think the latter to be the most simple principles of arrangement, and as they are certainly the most philosophical, we shall here follow those authors who have adopted them.

It is usual in this class to distinguish the orders with two and three styles from that with five: but the different species vary so much in the same genus in this respect, that we have only separated the genera into those with one style, Monogynia; with two, three, or five styles, Di-Pentagynia; and with many styles, Polygynia.

Order 1. MONOGYNIA.  Many perigynous Stamens. 1 Style.

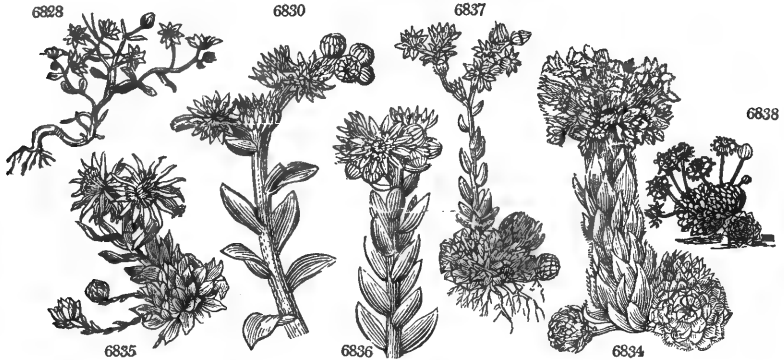
§ 1. Ovary inferior.

1111. *Cactus*. Cal. imbricated. Petals numerous, in many rows: the inner the largest. Stigma many-cleft. Berry many-seeded.

1112. *Rhipsalis*. Cal. 3-4 parted, very short. Teeth acuminate, membranous, very fine. Berry 1-celled, pelucid. Seeds 12, in the centre.

1113. *Bartonia*. Cal. 5-cleft. Petals many. Caps. cylindrical, 1-celled at the end with 3-5 lid-like valves. Plantas 3-5, parietal, bearing seeds in a double row.

- 6835 Leaves ciliated, Offsets globose  
 6836 Leaves entire, Offsets spreading  
 6837 Leaves with entangled hairs, Offsets round  
 6838 Leaves rounded clavate clustered, Pedunc. naked 1-fl. Nects. obcordate



and Miscellaneous Particulars.

leek is a preservative to the coverings of houses in Smoland. It may easily be made to cover the whole roof of a building, whether of tiles, thatch, or wood, by sticking the offsets on with a little earth or cow dung.

1114. *Philadelphus*. Cal. 4-5-parted. Petals 4-5. Style 4-cleft. Caps. half-superior, 4-5-celled, many-seeded. Seeds with an arillus.  
 1115. *Leptospermum*. Cal. persistent at base, 5-cleft, half-superior. Petals 5, clawed, round, longer than stamens. Stigma capitate. Caps. depressed, 4-5-celled. Seeds angular, slender.  
 1116. *Fabricia*. Cal. 5-cleft, half-superior. Petals 5, sessile. Stigma capitate. Capsule many-celled. Seeds winged.  
 1117. *Metrosideros*. Cal. 5-cleft, half-superior. Petals 5. Stamens very long, separate. Stigma simple. Caps. 3-4-celled.  
 1118. *Psidium*. Cal. 5-cleft. Petals 5. Berry soft, pulpy, many-seeded. Cotyledons leafy, very small. Radicle very large, arcuate. Testa bony.  
 1119. *Eugenia*. Cal. 4-5-parted, superior. Petals 4-5. Fruit fleshy, 1-celled, 1-seeded. Cotyledons half-cylindrical. Radicle very small. Testa membranous.  
 1120. *Caryophyllus*. Cal. funnel-form. Fruit dry, 1 or 2-celled. Otherwise like *Eugenia*.  
 1121. *Myrtus*. Cal. 5-cleft. Petals 5. Berry 2 or 3-celled, many-seeded. Radicle and cotyledons distinct.  
 1122. *Catyptranthus*. Cal. truncate, before flowering covered with an hemispherical deciduous lid. Cor. O. Berry 1-celled, 4-seeded.  
 1123. *Pimenta*. Cal. 5-fid. Petals 5. Ovary 2-celled. Ovules solitary, appense. Style straight. Stigma somewhat capitate.  
 1124. *Olymnia*. Cal. 5-cleft. Petals 5. Stigma hooked. Berry 1-celled. Seeds angular. Embryo conferruminate.  
 1125. *Stravadium*. Cal. 4-cleft. Petals 4. Fruit 4-cornered, 1-seeded. Flowers in terminal racemes. Leaves alternate.  
 1126. *Eucalyptus*. Cal. truncate, covered with an entire deciduous lid. Cor. O. Capsule 4-celled, opening at end, many-seeded.  
 1127. *Punica*. Cal. 5-cleft. Petals 5. Berry many-celled, many-seeded. Seeds berried, Placenta parietal.
- § 2. *Ovary superior*.
1128. *Amygdalus*. Cal. 5-cleft. Petals 5. Drupe with a nut perforated on its surface.  
 1129. *Prunus*. Cal. 5-cleft. Petals 5. Drupe with a hard smooth nut.  
 1130. *Chrysobalanus*. Cal. 5-cleft. Petals 5. Drupe with a 5-furrowed, 5-valved nut.

## Order 2. DI-PENTAGYNIA.



Many perigynous Stamens. 2 to 5 Styles.

§ 1. *Ovary inferior*

1131. *Mespilus*. Cal. 5-parted, with leafy divisions. Disk arge, honey-bearing. Styles smooth. Apple turbinate, open, 5-celled, with a bony putamen.  
 1132. *Crataegus*. Cal. 5-toothed. Petals spreading, orbicular. Ovary 2-5-celled. Styles smooth. Apple fleshy, oblong, closed by the teeth of the cal., or by the thickened disk. Putamen bony.  
 1133. *Pyrus*. Cal. 5-toothed. Petals roundish. Apple closed, 5-celled, with a cartilaginous putamen. Cells 2-seeded. Testa cartilaginous.  
 1134. *Cydonia*. Cal. 5-parted, with leafy divisions. Apple closed, many-seeded. Testa mucilaginous.  
 1135. *Photinia*. Cal. 5-toothed. Petals reflexed. Ovary half-superior, villous, 2-celled. Styles 2, smooth. Pericarp 2-celled, included in the fleshy calyx. Testa cartilaginous.  
 1136. *Raphiotepis*. Cal. with a funnel-shaped deciduous limb. Filaments filiform. Ovary 2-celled. Apple closed by the thickened discus, with a papery putamen. Seeds gibbous.  
 1137. *Eriobotrya*. Cal. woolly, bluntly 5-toothed. Petals bearded. Stamens erect, the length of teeth. Styles 5, filiform, included, hairy. Apple closed, 3-5-celled. Chalaza none. Radicle included between the bases of cotyledons.  
 1138. *Amelanchier*. Cal. 5-toothed. Petals lanceolate. Ovary 10-celled. Ovules solitary. Apple 3-5-celled, with a cartilaginous putamen.

1139. *Cotoneaster*. Flowers polygamous. Cal. turbinate, bluntly 5-toothed. Petals short, erect. Stamens length of teeth. Styles smooth, shorter than stamens. Achenopses parietal, included in calyx.

§ 2. *Ovary superior.*

1140. *Waldsteinia*. Cal. 10-cleft; the alternate segments smaller. Petals 5. Styles clavate, deciduous. Grains 2, obovate.

1141. *Spiraea*. Cal. spreading, 5-cleft. Petals 5. Caps. 1-celled, 2-valved, opening inwards, 1-3-seeded.

1142. *Gillenia*. Cal. infundibuliform, 5-toothed. Petals 5. Stamens very short. Capsule 5-celled.

1143. *Sesuvium*. Cal. 5-parted, colored. Petals O. Caps. ovate, 3-celled, cut round, many-seeded.

1144. *Aizoon*. Cal. 5-parted. Pet. O. Caps. 5-celled, 5-valved.

Order 3. POLYGYNIA.



Stamens many; perigynous. Styles many.

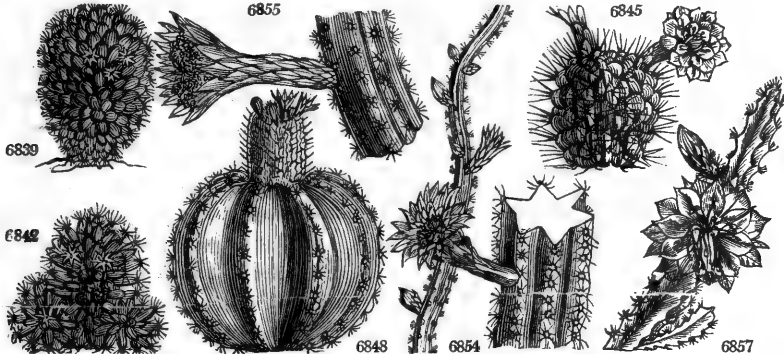
1145. *Tetragonia*. Cal. 3-5-parted. Petals O. Drupe inferior, with a 3-8-celled nut.

1146. *Mesembryanthemum*. Cal. 5-cleft. Petals many, linear. Capsule turbinate, fleshy, inferior, many-seeded.

1147. *Hymenogyne*. Styles about 12, united in a delicate tube. Caps. 1-celled, many-seeded. Otherwise like *Mesembryanthemum*.

MONOGYNIA.

| †1111. CACTUS. W. |                          | CACTUS.             |    |       | <i>Cacti.</i> | <i>Sp.</i> | 68—90.    |       |       |                   |
|-------------------|--------------------------|---------------------|----|-------|---------------|------------|-----------|-------|-------|-------------------|
| 6839              | <i>mammillaris L.</i>    | small red-spin'dex. | fr | 1     | jl.au         | W          | W. Indies | 1698. | C s.p | Plant. grass 111  |
| 6840              | <i>coronatus W.</i>      | garland             | gr | 5     | ...           | ...        | S. Amer.  | 1820. | C s.p |                   |
| 6841              | <i>depressus Dec.</i>    | depressed           | gr | ...   | ...           | ...        | S. Amer.  | 1789. | C s.p | Bot. cab. 1673    |
| 6842              | <i>stellaris W.</i>      | hoary               | cu | 1/2   | my.jn         | Pk         | S. Amer.  | 1815. | C s.p | Bot. cab. 79      |
| 6843              | <i>viviparus Pursh.</i>  | viviparous          | cu | 1/2   | ...           | R          | Louisiana | 1811. | C s.p |                   |
| 6844              | <i>gibbosus Haw.</i>     | gibbous             | gr | 1/2   | jl.au         | W          | .....     | 1808. | C s.p | Bot. reg. 137     |
| 6845              | <i>magnimam'mus Haw.</i> | large-teated        | gr | 1/2   | ...           | ...        | Mexico    | 1823. | C s.p |                   |
| 6846              | <i>lanifer Haw.</i>      | woolly              | gr | 1/2   | ...           | ...        | Mexico    | 1823. | C s.p |                   |
| 6847              | <i>geminispinus Haw.</i> | two-spined          | gr | 1/2   | ...           | ...        | Mexico    | 1823. | C s.p |                   |
| 6848              | <i>Melocactus L.</i>     | Turk's Cap          | fr | 1 1/2 | jl.au         | W.         | Indies    | 1688. | C s.p | Plant. grass. 112 |
| 6849              | <i>recurvus Mill.</i>    | recurved            | gr | 2     | ...           | ...        | .....     | 1768. | C s.p |                   |
| 6850              | <i>orbilis Haw.</i>      | crook-spined        | gr | 2     | ...           | ...        | Mexico    | 1796. | C s.p |                   |
| 6851              | <i>senilis Haw.</i>      | old                 | gr | 1/2   | ...           | ...        | Mexico    | 1823. | C s.p |                   |
| 6852              | <i>latispinus Haw.</i>   | broad-spined        | gr | 1/2   | ...           | ...        | Mexico    | 1823. | C s.p |                   |
| 6853              | <i>macracanthus Haw.</i> | long-spined         | gr | 1 1/2 | ...           | ...        | S. Amer.  | 1820. | C s.p |                   |



History, Use, Propagation, Culture,

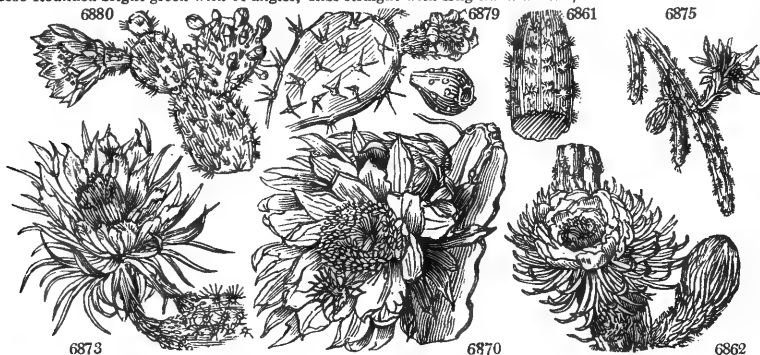
1111. *Cactus*. A name under which Theophrastus describes a spiny plant, an article of food, which grew in Sicily. This genus consists of succulent plants, permanent in duration, singular and various in structure; generally without leaves, and having the stem or branches jointed; for the most part armed with spines in bundles, with which, in many species, bristles are intermixed. These bundles of spines are placed on the top of the tubercles in the smaller melon thistle, which is tubercled all over, and produces its flowers between the tubercles. In the great melon thistle the spines are ranged in a single row on the ridge of the ribs. These are of an ovate or globular form. The torch thistle, on the contrary, are slender, rise up high, are jointed and branched; many of them are almost cylindrical, with from five to ten shallow ribs; some, however, are square or three cornered. The structure of the creeping *Cereuses* is the same with these, except that the stems are weak and cannot support themselves; they therefore seek support from trees, and throw out roots from the stem, like ivy. In the Indian figs the branches are jointed, and flatted like the sole of a shoe; the bundles of spines or bristles are scattered over the surface, and the flowers are produced from the edge of the extreme branches. In the *Phyllanthus* the branches are thinner, they are indented along the edge, and the flowers come out singly from the indentures. This seldom has any spines. *Perekia* has a round stalk with leafy branches; the leaves alternate, flat, and thick; the prickles are large and stiff, and come out in bundles on the stalk and branches, chiefly at the axilla; the flowers are produced several together from the axilla also. In this and the Indian figs the flowers are pitcher-shaped; in the other species they are subcylindrical and longer; in *Phyllanthus* very long. The fruit in some of the sorts is small, like currants; but in most it is larger, and shaped like a fig, whence their name of Indian fig.

*C. melocactus*, the great melon thistle or Turk's cap, appears like a large fleshy green melon, with deep ribs, set all over with strong sharp thorns. When it is cut through the middle, the inside is found to be a soft, green, fleshy substance, very full of moisture. The flowers and fruit are produced in circles round the upper part of the cap. Some of those which have been brought to England, have been more than a yard in circumference, and two feet and half high including the cap. But in the West Indies there are plants near twice as large. Linnæus observes, that this plant resembles a hedge-hog in its form and spines; and on the top has a discoid, convex, villous body, from which the flowers proceed.

1148. *Rosa*. Cal. urceolate, 5-cleft, fleshy, contracted at orifice. Petals 5. Grains bony, hairy, included in the fleshy tube of calyx.
1149. *Rubus*. Cal. 5-cleft. Petals 5. Berry composed of many cohering fleshy grains. Receptacle nearly dry.
1150. *Dalibarda*. Cal. 5-cleft. Petals 5. Berry dry. Styles 5, long, deciduous.
1151. *Fragaria*. Cal. 10-cleft. Pet. 5. Grains inserted upon a fleshy deciduous receptacle.
1152. *Comarum*. Cal. 10-cleft. Petals 5, less than calyx. Receptacle ovate, spongy, persistent.
1153. *Potentilla*. Cal. 10-cleft. Petals 5. Grains rugose, roundish, naked, fixed to a small dry receptacle.
1154. *Tormentilla*. Like *Potentilla*, but cal. 8-cleft. Petals 4.
1155. *Geum*. Cal. 10-cleft. Sepals unequal. Petals 5. Grains generally with a jointed awn.
1156. *Kerria*. Cal. 5-cleft. Pet. 5, orbicular. Ovaries 5-8, smooth, globose. Ovules solitary. Styles filiform. Capsules globose.
1157. *Calycanthus*. Stamens unequal, deciduous; the 12 outer fertile. Grains many.
1158. *Chimonanthus*. Stamens equal, persistent; the 5 outer fertile, in maturity closing the orifice of the calyx by their united bases.
1159. *Dryas*. Cal. simple, 8-cleft. Petals 8. Grains with a hairy tail.
1160. *Coluria*. Like *Sieversia*, but the style jointed with the top of ovarium and deciduous, and the achenia angular, included in the long turbinate tube of the calyx.
1161. *Sieversia*. Cal. 10-cleft. Petals 5. Stamens indefinite. Ovaries indefinite, with an ascending ovule. Styles terminal, continuous. Achenia awned with the persistent style. Embryo erect.

## MONOGYNIA.

- 6839 Roundish covered with ovate bearded tubercles
- 6840 Simple clavate, Tubercles ovate with woolly spines at end, Wool shorter than spines
- 6841 Roundish depressed with ten angles
- 6842 Proliferous, Warts small cylindrical, Spines fine whitish the lowest like hairs
- 6843 Roundish multiplex, Warts cylindrical bearded above furrowed proliferous
- 6844 Roundish deeply 16-angled, Angles with a remarkable swelling below each parcel of spines
- 6845 Warts large very green downy at end, Spines about 4 strong expanded
- 6846 Simple rounded obovate, Warts woolly at end with more than 20 spines
- 6847 Columnar, Warts small very numerous with little spines between, 2 in each parcel much longer than rest
- 6848 Roundish with about 14 angles
- 6849 Roundish with 15 angles, Spines broad recurved numerous
- 6850 Oblong with many angles, Angles and spines middle-sized straight
- 6851 Oblong with about 20 angles, Rays of spines capillary long
- 6852 Depressed spheroidal with about 21 angles, Rays of spines variable the lowest very broad flat deflexed
- 6853 Rounded bright green with 14 angles, Ribs straight with long thick white spines



## and Miscellaneous Particulars.

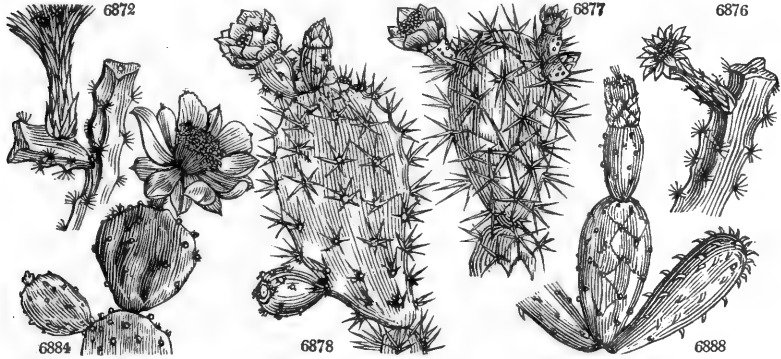
*C. melocactus*, *mammillaris*, and *proliferus*, by many thought to be but one species, grow upon the steep sides of rocks in the hottest parts of America, where they seem to be thrust out of the apertures, having little or no earth to support them: their roots shooting down into the fissures of the rocks to a considerable depth, so that it is troublesome to get the plants up. As they delight in such rocky places, they seldom live long when transplanted into a better soil. In times of great drought the cattle repair to the barren rocks where these plants grow, rip them up with their horns, tear off the outside skin, and greedily devour all the fleshy moist part. The fruit is frequently eaten by the inhabitants of the West Indies. It is about three quarters of an inch in length, of a taper form, drawing to a point at the bottom, but blunt at the top: the taste is an agreeable acid.

*C. repandus* has a fruit about the size and shape of a Bergamot pear, having many soft spines on the skin; the outside is a pale yellow, the inside very white, full of pulp, having a great number of small black seeds lodged in it. It frequently flowers in July, and in warm seasons will perfect its fruit, which has very little flavor in this country, but is frequently served up at table in the West India islands.

The fruit of *lanuginosus* and *peruvianus* are also occasionally eaten where they are natives.

*C. grandiflorus* and *flagelliformis* have flowers remarkable for their beauty and sweetness. *C. grandiflorus*, when arrived to a sufficient strength, will produce many exceeding large, beautiful, sweet scented flowers, like most of this kind, of very short duration, scarcely continuing six hours full blown: nor do the flowers ever open again when once closed. They begin to open between seven and eight of the clock in the evening, are fully blown by eleven, and by three or four in the morning they fade, and hang down quite decayed; but during their short continuance, there is scarcely any flower of greater beauty, or that makes a more magnificent appearance; for the calyx of the flower, when open, is near a foot diameter; the inside of which, being of a splendid yellow color, appears like the rays of a bright star; the outside is of a dark brown; the petals being of a pure white, add to the lustre; the vast number of recurved stamens surrounding the style in the centre of the flower make a fine appearance: add to all this the fine scent of the flower, which perfumes the air to a considerable distance. There is scarce any plant which deserves a place in the hothouse so much as this, especially as it may be trained against the wall, where it will not take up any room. The usual season of its

|                            |                  |   |     |    |       |      |           |       |   |     |                      |
|----------------------------|------------------|---|-----|----|-------|------|-----------|-------|---|-----|----------------------|
| 6854 hexagónus L.          | four-angled      | ♂ | gr  | 35 | jlau  | W    | Surinam   | 1690. | C | s.p | Bot. rep. 513        |
| 6855 peruvíanus W.         | Peruvian         | ♂ | fr  | 3  | au    | W    | Peru      | 1728. | C | s.l | Plant. grass. 58     |
| 6856 tetragónus L.         | six-angled       | ♂ | gr  | 3  | jl    | W    | S. Amer.  | 1710. | C | s.p |                      |
| 6857 speciosissimus Desf.  | beautiful        | ♂ | or  | 3  | jl    | Cr   | S. Amer.  | 1816. | C | s.p | Bot. reg. 486        |
| 6858 pentagónus L.         | five-angled      | ♂ | gr  | 3  | jl    | W    | S. Amer.  | 1769. | C | s.l |                      |
| 6859 Royéni L.             | nine-angled      | ♂ | fr  | 2  | ...   | ...  | S. Amer.  | 1728. | C | s.l |                      |
| 6860 albispinus Salm.      | white-spined     | ♂ | or  | 2  | ...   | ...  | S. Amer.  | 1820. | C | s.l |                      |
| 6861 lanuginósus L.        | woolly           | ♂ | fr  | 1  | jl    | W    | W. Indies | 1690. | C | s.p | Herm. par. t.115     |
| 6862 repándus L.           | wavy-angled      | ♂ | fr  | 20 | au    | W    | W. Indies | 1728. | C | s.p | Bot. reg. 336        |
| 6863 obtúsus Haw.          | blunt            | ♂ | cu  | 3  | ...   | ...  | .....     | 1820. | C | s.p |                      |
| 6864 imbricátus Haw.       | imbricated       | ♂ | cu  | 3  | ...   | ...  | .....     | 1820. | C | s.p |                      |
| 6865 niger Salm.           | black            | ♂ | cu  | 3  | ...   | ...  | .....     | 1820. | C | s.p |                      |
| 6866 cylíndricus L.        | cylindrical      | ♂ | cu  | 3  | ...   | ...  | Peru      | 1799. | C | s.p | Bot. mag. 3301       |
| 6867 serpentinus W.        | serpentine       | ♂ | gr  | 4  | ...   | ...  | Peru      | ..... | C | s.l |                      |
| 6868 multanguláris W.      | many-angled      | ♂ | gr  | 4  | ...   | ...  | S. Amer.  | 1815. | C | s.l |                      |
| 6869 heptagónus W.         | seven-angled     | ♂ | gr  | 3  | jl    | ...  | W. Indies | 1728. | C | s.l |                      |
| 6870 trianguláris L.       | great-triangular | ♂ | fr  | 1  | jlau  | W    | W. Indies | 1690. | C | s.p | Bot. mag. 1884       |
| 6871 triquetér W.          | least-triangular | ♂ | cu  | 3  | ...   | ...  | S. Amer.  | 1794. | C | s.p |                      |
| 6872 trigónus Haw.         | small-triangular | ♂ | cu  | 1  | ...   | W    | S. Amer.  | 1809. | C | s.p | Plu.am. t.200. f.2   |
| 6873 grandifórus L.        | night-flowering  | ♂ | spl | 1  | jn.au | W.y  | Jamaica   | 1700. | C | s.p | Bot. rep. 508        |
| 6874 réptans W.            | trailing         | ♂ | cu  | 2  | ...   | ...  | .....     | 1813. | C | s.l |                      |
| 6875 flagellifórmis L.     | creeping         | ♂ | or  | 6  | mr.jn | Pk   | Peru      | 1690. | C | s.l | Bot. mag. 17         |
| 6876 quadranguláris Haw.   | quadrangular     | ♂ | or  | 3  | ...   | ...  | S. Amer.  | 1809. | C | s.l | Plu.am. t.199. f.1   |
| 6877 elátior W.            | great-bk. spin'd | ♂ | gr  | 6  | jlau  | Y    | S. Amer.  | 1731. | C | s.l | Dil.el. t.294. f.379 |
| 6878 Túna L.               | yellow-spined    | ♂ | clt | 3  | jlau  | Pa.Y | S. Amer.  | 1731. | C | s.l | Plant. grass. 138    |
| 6879 nígricans Haw.        | lesser-bk. spin. | ♂ | cu  | 3  | au    | Pk   | S. Amer.  | 1735. | C | s.l | Bot. mag. 1557       |
| 6880 polycáthus Haw.       | many-flowered    | ♂ | cu  | 3  | jlau  | Y    | S. Amer.  | 1811. | C | s.l | Plant. grass. c.c.   |
| 6881 brasiliénsis W.       | thin-branched    | ♂ | cu  | 6  | jlau  | Y    | Brazil    | 1816. | C | s.l |                      |
| 6882 húmilis Haw.          | humble           | ♂ | cu  | 1½ | ...   | ...  | .....     | 1795. | C | s.l |                      |
| 6883 Dilléni Ker.          | Dillenius's      | ♂ | cu  | 5  | o     | Pa.Y | .....     | 1810. | C | s.l |                      |
| 6884 opántia L.            | Indian Fig       | ♂ | fr  | 2  | jlau  | Y    | S. Europe | 1596. | C | s.p | Bot. mag. 2393       |
| 6885 strictus Haw.         | oval-upright     | ♂ | gr  | 3  | jlau  | ...  | .....     | 1796. | C | s.l | Plant. grass. c.c.   |
| 6886 decumánus W.          | great-oblong     | ♂ | gr  | 10 | ...   | ...  | S. Amer.  | 1768. | C | s.l |                      |
| <i>Opuntia máxima</i> Haw. |                  |   |     |    |       |      |           |       |   |     |                      |
| 6887 tuberculátus W.       | warted           | ♂ | cu  | 1  | ...   | ...  | .....     | 1818. | C | s.l |                      |
| 6888 cochínillifer L.      | Cochineal Fig    | ♂ | clt | 5  | jl.s  | Pu   | S. Amer.  | 1688. | C | s.l | Bot. rep. 533        |
| 6889 monacánthus W.        | single-spined    | ♂ | cul | 2  | ...   | ...  | .....     | 1816. | C | s.l |                      |
| 6890 elongátus W.          | long             | ♂ | cu  | 3  | ...   | ...  | .....     | 1817. | C | s.l |                      |
| 6891 triacáthos W.         | three-spined     | ♂ | gr  | 2  | ...   | ...  | S. Amer.  | ..... | C | s.l |                      |
| 6892 lanceolátus Haw.      | spear-shaped     | ♂ | gr  | 2  | jl    | Y    | S. Amer.  | 1796. | C | s.l |                      |
| 6893 tomentósus Link.      | downy            | ♂ | cu  | 2  | ...   | ...  | .....     | 1820. | C | s.l |                      |
| 6894 subinérmis Link.      | few-spined       | ♂ | cu  | 2  | ...   | ...  | .....     | 1819. | C | s.l |                      |
| 6895 spinosissimus L.      | cluster-spined   | ♂ | gr  | 20 | jl    | ...  | Jamaica   | 1732. | C | s.p |                      |
| 6896 férox W.              | fierocious       | ♂ | gr  | 3  | ...   | ...  | S. Amer.  | 1817. | C | s.p |                      |
| 6897 curassávicus L.       | Pin-pillow       | ♂ | gr  | 6  | jn.jl | ...  | Curassao  | 1690. | C | s.p | Knor.the.2 t.s.2     |
| 6898 frágilis Nutt.        | brittle          | ♂ | gr  | 2  | ...   | ...  | N. Amer.  | 1814. | C | s.p |                      |
| 6899 foliósus W.           | glaucous         | ♂ | gr  | 2  | ...   | Y    | S. Amer.  | 1817. | C | s.p |                      |
| 6900 pusillus Haw.         | small Indi. Fig  | ♂ | fr  | ¼  | jn    | Y    | S. Amer.  | 1805. | C | s.p |                      |
| 6901 phyllánthus L.        | Spleenwort       | ♂ | gr  | 2  | jn    | Pk   | S. Amer.  | 1710. | C | s.p | Plant. grass. 145    |
| 6902 phyllanthoides Dec.   | winged           | ♂ | gr  | 2  | ...   | Pk   | Jamaica   | 1817. | C | s.p | Bot. mag. 2092       |



History, Use, Propagation, Culture,

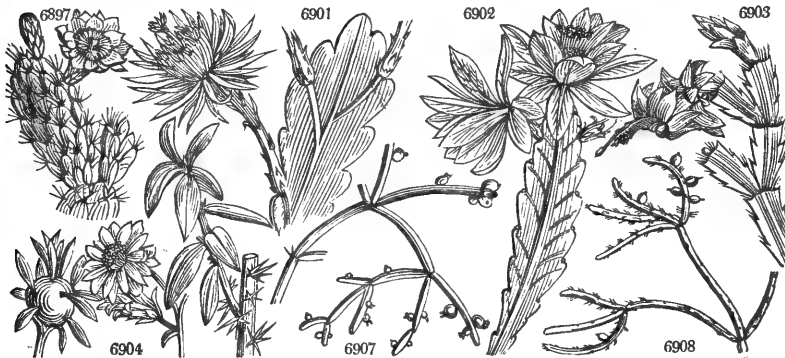
flowering is in July, and when the plants are large, many flowers will open the same night, and there will be a succession of them for several nights together. Sometimes six, eight, or ten flowers open at the same time on one plant, making a most magnificent appearance by candle-light: but none of them are succeeded here by any appearance of fruit.

*C. flagelliformis* produces a greater number of flowers than the foregoing sort: they come out in May, and sometimes earlier, when the season is warm. The petals are of a fine pink color both within and without; they are not so numerous, and the tube of the flower is longer than that of the other. These flowers keep open three or four days, provided the weather, or the place where the plants stand, be not too warm; and during their continuance they make a fine appearance. This sort has very slender trailing branches, which require a support: they are not jointed, nor do they extend so far as those of the other sort. Fruit sometimes succeeds the flowers, but seldom ripens.

*C. triangularis*, the strawberry pear, *Poirer de Chardon*, Fr., bears the best flavored fruit of any of the sorts; it is slightly acid, and at the same time sweet, pleasant, and cooling; in Martinique and other West India islands it is much esteemed.

*C. opuntia*, native of the country of the Opuntians, whose chief town was Opus, in the vicinity of Phœcis, though like the others a native of America, is now found growing wild on the sides of the roads between Rome and Naples and other parts of Italy, and even in the Valais. Gerarde says, it was brought from Virginia into England, and Collinson had it from Newfoundland. It was fruited in Scotland in a stove by

- 6854 Erect with deep furrows long with 6 distant angles  
 6855 Erect with deep furrows long with about 8 obtuse angles  
 6856 Erect with deep furrows long with 4 compressed angles  
 6857 Erect with deep furrows long slightly quadrangular with toothed angles  
 6858 Erect with deep furrows long jointed with about 5 angles  
 6859 Erect slender with shallow furrows jointed with 9 angles, Joints ovate, Spines as long as wool  
 6860 Erect slender with shallow furrows jointed with 9 angles not glaucous, Spines white; a variety of the last  
 6861 Erect slender with shallow furrows long with 9 obsolete angles, Spines shorter than wool  
 6862 Erect slender with shallow furrows long with 8 compressed wavy angles, Spines longer than wool  
 6863 Erect slender with shallow furrows, Branches jointed few bluntly triangular  
 6864 Erect slender with shallow furrows, Scarcely ang. Surface covered with variously imbric. lobed divisions  
 6865 Erect slender with shallow furrows black with numerous brown spines longer than the wool  
 6866 Erect slender with shallow furrows weak cylindrical, Surface covered with netted crossing furrows  
 6867 Erect rounded below long elegant with about 9 angles, Spines snow-white weak, Wool very short  
 6868 Erect with 18 close obtuse angles with bristly yellowish spines longer than the wool  
 6869 Erect with deep furrows oblong with 7 angles  
 6870 Creeping triangular rooting  
 6871 Decumbent rooting 3-cornered, Spines fasciated divaricating seven two or three lines long  
 6872 Creeping rooting 3-cornered with scarcely channelled angles, Spines 5-7 in stellate fascicles  
 6873 Creeping rooting with about 5 angles  
 6874 Creeping 5-cornered with subulate spines longer than the wool  
 6875 Creeping rooting hispid with 10 angles  
 6876 Creeping with 3 or 4 angles which are scarcely channelled, Spines 5-7 in stellate parcels  
 6877 Erect, Joints broadly ovate-oblong, Spines subulate very long blackish  
 6878 Erect, Joints broadly ovate-oblong, Spines subulate long yellow  
 6879 Erect, Joints oblong and lanceolate, Spines of various shapes brownish black  
 6880 Joints oblong and ovate, Spines of various shapes yellow, Fl. numerous solitary  
 6881 Stem rounded, Branches ovate compressed flat, Spines solitary or 3 together subulate strong  
 6882 Joints cuneate obovate decumbent, Spines variously shaped yellow  
 6883 Erect, Joints obovate roundish glaucous, Stigma 6-lobed  
 6884 Creeping prostrate, Joints ovate, Spines even numerous hair-shaped  
 6885 Erect, Joints ovate elliptical, Spines even numerous short  
 6886 Joints ovate oblong very thick, Spines unequal
- 6887 Jointed proliferous, Joints oval, Warts with a cluster of spines the length of the wool  
 6888 Joints ovate oblong unarmed  
 6889 Erect, Joints lanceolate-oblong, Clusters of spines fuscous weak with one strong white spine  
 6890 Erect, Joints oblong or oval, Spines numerous variable brown; one very long straw-colored  
 6891 Jointed proliferous, Joints ovate oblong with strong white spines longer than wool  
 6892 Nearly erect, Joints lanceolate with even short spines, Leaves 3 lines long  
 6893 Branches oblong with short soft hairs, Spines small  
 6894 Branches oblong scarcely spiny  
 6895 Joints very long slender compressed, Spines very long slender clustered white  
 6896 Joints oblong with numerous stiff spines of which one is very long and white at base  
 6897 Joints brittle cylindrical ventricose compressed much divaricating  
 6898 Joints brittle compressed short, Spines numerous variable white erect  
 6899 Jointed proliferous, Joints lanceolate-glaucous, Spines bristly longer than wool  
 6900 Joints brittle linear-lanceolate divaricating, Spines unequal  
 6901 Proliferous smooth branched ensiform compressed serrated with a central woody rib  
 6902 Branches ensiform compressed obovate with spreading teeth, Spines few setaceous longer than wool

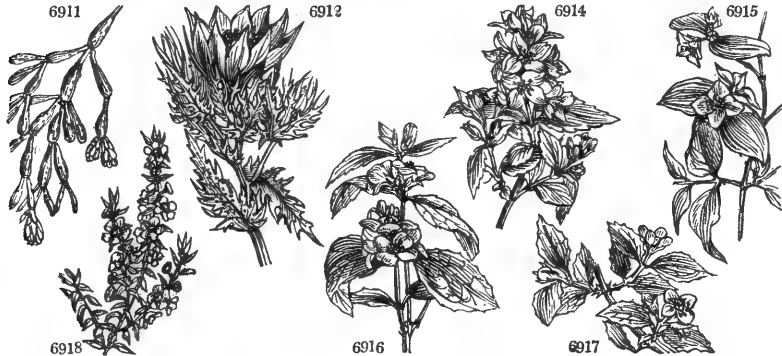


and Miscellaneous Particulars.

Justice, in 1750, and recently by Braddick, near London, in the open air. This active horticulturist, having eaten with pleasure of the prickly pear in Virginia, was desirous of cultivating it here. He recollected that the plant in its wild state delighted in a dry soil, amongst rocks, near the skirts of the sunny sides of the forests; and having heard that it would stand the open air in this country, he planted it in the compost described below, placed in a sheltered situation open to the sun. "The first plant that I turned out has lived in the open ground of this country for six or seven years, during which period it has endured one exceeding hard winter, and several trying springs; and in all, except the two first years, it has never failed to ripen its fruit and seeds, so that it may be now considered decidedly acclimated. The compost used by me for growing the Cactus Opuntia, is the following: one half is carbonate of lime, for which lime-rubbish from old buildings will answer; the remaining half consists of equal portions of London clay and peat-earth, having the acid neutralised by barilla: these are intimately blended and sifted. One square yard of this compost I conceive to be sufficient for one plant, which must be placed in the middle of a small artificial hillock, raised eighteen inches above the surface of the ground, which ground should be rendered perfectly dry, if not naturally so, by under-draining. Neither the leaves, flowers, nor fruit should ever be suffered to touch the ground, but they should as constantly as they are produced be kept from the earth by placing stones, pebbles, flints, or bricks under them, in imitation of artificial rock-work." (*Hort. Trans.* ii. 238.)

C. *Ficus indica* is very common in Jamaica, and on it feed the wild sort of cochineal insect. The fruit is large and of a deep purple color, and when eaten dyes the urine of a bloody color.

|        |                                      |                    |         |    |       |     |           |       |   |     |                          |
|--------|--------------------------------------|--------------------|---------|----|-------|-----|-----------|-------|---|-----|--------------------------|
| 6903   | <i>truncatus Link.</i>               | truncate           | 2. — gr | 1  | jn    | Pk  | Brazil    | 1818. | C | s p | Bot. reg. 696            |
| 6904   | <i>Pereskia L.</i>                   | Barbad. Gooseb.    | 2. — gr | 5  | o.n   | W   | W. Indies | 1696. | C | s p | Dil. el. t. 927. f. 294  |
| 6905   | <i>grandifolius Haw.</i>             | large-leaved       | 2. — gr | 3  | ...   | ... | Brazil    | 1818. | C | s p |                          |
| 6906   | <i>longispinus Haw.</i>              | long-spined        | 2. — gr | 2  | ...   | ... | S. Amer.  | 1808. | C | s p |                          |
| †1112. | <i>RHIP'SALIS Gært.</i>              | <i>RHIP'SALIS.</i> |         |    |       |     |           |       |   |     |                          |
| 6907   | <i>Cassútha G.</i>                   | naked              | 2. — cu | 1  | s     | Y   | W. Indies | 1758. | C | s p | Hook. ex. fl. 20         |
|        | <i>Cactus pëndulus W.</i>            |                    |         |    |       |     |           |       |   |     |                          |
| 6908   | <i>parasiticus Haw.</i>              | parasitic          | 2. — cu | 1  | ...   | Y   | S. Amer.  | 1800. | C | s p | Plant. grass. 59         |
| 6909   | <i>grandiflorus Haw.</i>             | large-flowered     | 2. — cu | 1  | jl    | W   | .....     | 1818. | C | s p |                          |
| 6910   | <i>fasciculátus W. en.</i>           | bundled            | 2. — cu | 1  | ...   | Y   | S. Amer.  | 1817. | C | s p |                          |
| 6911   | <i>salicornoides Haw.</i>            | salt-wort          | 2. — cu | 1½ | jn    | Y   | E. Indies | 1817. | C | s p | Bot. mag. 2461           |
| †1113. | <i>BARTONIA Ph.</i>                  | <i>BARTONIA.</i>   |         |    |       |     |           |       |   |     |                          |
| 6912   | <i>ornáta Ph.</i>                    | naked-seeded       | 2. — or | 2  | jl.s  | W   | Missouri  | 1811. | C | s p | Bot. mag. 1487           |
| 6913   | <i>núda Ph.</i>                      | winged-seeded      | 2. — or | 2  | jl.s  | W   | Missouri  | 1811. | C | s p |                          |
| †1114. | <i>PHILADELPHUS W. SFRINGA.</i>      |                    |         |    |       |     |           |       |   |     |                          |
| 6914   | <i>coronarius W.</i>                 | common             | 2. — or | 8  | my.jn | W   | S. Europe | 1596. | L | co  | Bot. mag. 391            |
|        | <i>β nánus</i>                       | dwarf              | 2. — or | 2  | my.jn | W   | .....     | ..... | L | co  |                          |
| 6915   | <i>inodórus W.</i>                   | scentless          | 2. — or | 2  | jn.jl | W   | Carolina  | 1738. | L | co  | Bot. mag. 1478           |
| 6916   | <i>grandiflorus Ph.</i>              | large-flowered     | 2. — or | 6  | jn.jl | W   | Carolina  | 1811. | L | co  | Bot. reg. 570            |
| 6917   | <i>hirsútus Nutt.</i>                | hairy              | 2. — or | 3  | jn    | W   | N. Amer.  | 1820. | L | co  | Dend. brit. 47           |
| 1115.  | <i>LEPTOSPERMUM W. LEPTOSPERMUM.</i> |                    |         |    |       |     |           |       |   |     |                          |
| 6918   | <i>scoparius W.</i>                  | New Zeal. Tea      | 2. — or | 6  | jn.jl | W   | New Zeal. | 1772. | C | p.l | Bot. rep. 682            |
| 6919   | <i>flavescens W.</i>                 | yellowish          | 2. — or | 5  | my.jl | Y   | N. S. W.  | 1787. | C | p.l | Sch. s. ha. 24. t. 14    |
| 6920   | <i>attenuátum W.</i>                 | fine-branched      | 2. — or | 5  | my.jl | W   | N. S. W.  | 1795. | C | p.l |                          |
| 6921   | <i>lanigerum H. K.</i>               | hoary              | 2. — or | 5  | jn.jl | W   | N. S. W.  | 1774. | C | p.l | Bot. cab. 1192           |
| 6922   | <i>pubescens W.</i>                  | pubescent          | 2. — or | 5  | jn.jl | W   | N. S. W.  | 1774. | C | p.l |                          |
| 6923   | <i>grandifólium L. T.</i>            | large-leaved       | 2. — or | 5  | jn.jl | W   | N. S. W.  | 1803. | C | p.l | Bot. mag. 1810           |
| 6924   | <i>parvifólium W.</i>                | small-leaved       | 2. — or | 5  | jn.jl | W   | N. S. W.  | 1789. | C | p.l |                          |
| 6925   | <i>stellátum Cav.</i>                | short-leaved       | 2. — or | 5  | jn.jl | Y   | N. S. W.  | 1790. | C | p.l | Cav. ic. 4. t. 330       |
| 6926   | <i>arachnoideum W.</i>               | cobweb             | 2. — or | 3  | my.jl | Y   | N. S. W.  | 1795. | C | p.l | Gær. sem. 1. t. 35       |
| 6927   | <i>flexuósum Link.</i>               | flexuose           | 2. — or | 10 | my.jl | W   | N. S. W.  | 1823. | C | p.l |                          |
| 6928   | <i>juniperinum W.</i>                | Juniper-leaved     | 2. — or | 2  | jn.jl | W   | N. S. W.  | 1790. | C | p.l | Vent. malin. 89          |
| 6929   | <i>baccátum W.</i>                   | berry-fruited      | 2. — or | 3  | jn.jl | W   | N. S. W.  | 1790. | C | p.l | Ca. ic. 4. t. 331. f. 2  |
| 6930   | <i>porophyllum Cav.</i>              | dotted             | 2. — or | 3  | jn.jl | W   | N. S. W.  | 1800. | C | p.l |                          |
| 6931   | <i>triloculáre V.</i>                | trilocular         | 2. — or | 9  | jn.jl | W   | N. S. W.  | 1800. | C | p.l | Bot. cab. 791            |
| 6932   | <i>ambiguum W.</i>                   | hook-leaved        | 2. — or | 3  | jn.jl | W   | N. S. W.  | 1791. | C | p.l | Exot. bot. 1. t. 59      |
| 1116.  | <i>FABRICIA W. FABRICIA.</i>         |                    |         |    |       |     |           |       |   |     |                          |
| 6933   | <i>myrtifolia W.</i>                 | opposite-leaved    | 2. — or | 3  | ...   | Y   | N. Holl.  | ...   | C | s p | Gær. se. 1. t. 355. f. 4 |
| 6934   | <i>laevigata W.</i>                  | smooth-leaved      | 2. — or | 3  | my.jn | Y   | N. S. W.  | 1788. | C | s p | Bot. mag. 1304           |



History, Use, Propagation, Culture,

*C. tuna* (yn the Arabic name for fig) is used as a hedge plant in Spain, South America, and the West Indies. When the island of St. Christopher was to be divided between the English and the French, three rows of the tuna were planted by common consent between the boundaries. (Sloane.) Sir J. E. Smith informs us, that the stamens of the flower are very irritable; and that if a feather be drawn through them, in two or three seconds they begin to lie down gently on one side, and in a short time become recumbent at the bottom of the flower.

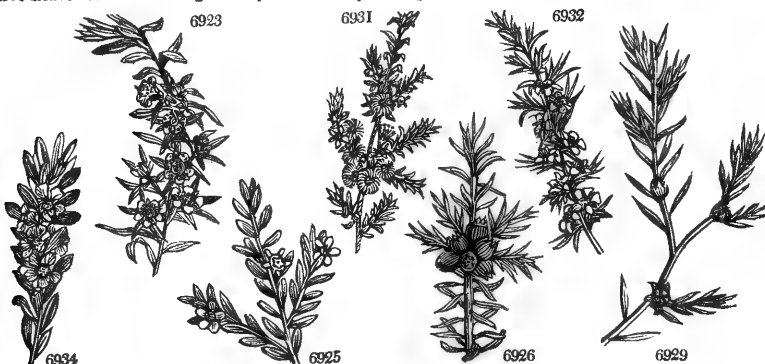
*C. cochiniifera* is the species on which the cochineal insect chiefly feeds. The insect feeds on other succulent plants besides those of the *Cactus* genus, but this species is cultivated because least annoying by its prickles. It produces an edible fruit larger than that of *C. opuntia*. On the top of the fruit there grows a red flower: this when the fruit is ripe, falls down on the top of it, and covers it so that no rain or dew can wet the inside. A day or two after the flower being scorched up by the heat of the sun, the fruit opens wide, and the inside appears full of small red insects. The Indians, when they perceive the fruit open, spread a large linen cloth, and then with sticks shake the plant, to disturb the insect, so that they take wing to be gone, but keep hovering over the plant, till by the heat they fall down dead on the cloth, where the Indians let them remain two or three days till they are dry. The cochineal plants are called by the Spaniards *Toona*. They are planted in the country about Guatimala, Chiapa, and Guaxaca, in the kingdom of Mexico.

The difference, in point of goodness, observable in the cochineal, is entirely owing to the plant it feeds upon. The prickly pear (*C. tuna*) so abundant in Jamaica, is covered with the insects, but not having their proper food, they are in general diminutive, and have very little red tincture in their bodies. The delicate red colored juice of the fruit is the natural food of the insect. The exuvia and animal salts of the insect are, from the minuteness of its parts, inseparable from the essential principles of the dye, and must diminish the brilliancy of the color: and this has put some persons upon inspissating the juice of the fruit itself. The ripe fruit is said to check fluxes by its mild restraining; it is also a powerful diuretic, and sometimes imparts a tinge to the urine.

*C. pereskia*, so called from the generic name of Plumier, who made this species a distinct genus, in memory of N. F. Peiresk, of Aix, whose name, as Tournefort says, is his only monument, has fruit about the size of a walnut, having tufts of small leaves on it, and within a whitish mucilaginous pulp.

In our stoves, according to Sweet, "sandy loam, or loam mixed with a little brick rubbish, is the best soil for all the *Cacti*: the pots should be as small as the plants will allow, and well drained with potsherds. They

- 6903 Branched, Joints short oblong truncated  
 6904 Leaves elliptical fleshy, Spines about  $\frac{1}{2}$  an inch long, Buds little woolly  
 6905 Spines numerous variable strong, Leaves lanc. oblong with a strong rib beneath  
 6906 Leaves elliptical fleshy, Spines  $\frac{1}{2}$  an inch long, Buds very woolly  
 6907 Branches pendulous whorled round smooth naked green  
 6908 Branches pendulous whorled round green the younger covered with bundles of white hairs  
 6909 Branches round as thick as a quill, Spines scarcely any  
 6910 Pendulous, Branches rounded fasciated, Hairs bundled in six lines  
 6911 Jointed erect, Branches round and angular, Young spines in minute inconspicuous parcels  
 6912 Ovary leafy, Seeds naked  
 6913 Ovary naked, Seeds winged  
 6914 Leaves somewhat toothed ovate oblong  
 6915 Leaves quite entire  
 6916 Leaves ovate acuminate toothletted, Axils of veins hairy, Stigmas 4 linear  
 6917 Leaves hairy oblong-ovate acute sharply and angularly toothed  
 6918 Leaves ovate mucronate obsolete 3-nerved, Cal. smooth with colored membranous teeth  
 6919 Leaves lin.-lanc. obtuse nerveless, Cal. smooth with membranous naked teeth  
 6920 Leaves lanc. lin. acute 3-nerved, Cal. silky villous, with membr. colored naked teeth  
 6921 Leaves oblong or oval mucr. pubescent on each side obsolete 3-nerved, Branches villous, Cal. very vil.  
 6922 Leaves lanc. oblong hairy oblique reflexed at end  
 6923 Leaves oval lanceolate, Young shoots colored, Flowers large, Teeth of calyx colored  
 6924 Leaves obovate nerveless, Branches and calyxes hairy with membranous colored teeth  
 6925 Leaves ovate lanceolate short three nerved, Fl. sol. sessile, Cal. entire persistent  
 6926 Leaves subulate pungent, Branches hairy, Calyxes and teeth villous  
 6927 Branches flexuose, Flowers sessile fasciated, Cal. hairy  
 6928 Leaves lin.-lanc. pungent, Branches silky, Cal. smooth with membranous colored naked teeth  
 6929 Leaves lin.-lanc. pungent, Branches hairy, Cal. smooth with membranous col. pubescent teeth  
 6930 Leaves oblanc. densely dotted, Fl. sol. terminal, Sepals deciduous  
 6931 Leaves acicular rigid fasciated, Flowers solitary, Teeth of calyx colored  
 6932 Leaves linear recurved at end, Cal. smoothish, Teeth leafy lanc. naked, Stamens longer than cor.  
 6933 Leaves lanceolate obovate opp. Teeth of calyx round  
 6934 Leaves obovate altern. glaucous, Teeth of calyx triangular



and Miscellaneous Particulars.

require very little water. The best way to flower them is to expose them to the air all the summer, which makes them get plump and throws them into flower-bud. Most of the species are fine flowers. Cuttings, after they are taken off, should be left to dry a few weeks till they are shrivelled, then potted, and they will root immediately. (*Bot. Cult.* 31.)

112. *Rhipsalis*. From  $\rho\upsilon\lambda\alpha\varsigma$ , a willow branch, in allusion to the flexible decumbent branches of the genus. Curious, branched, jointed, leafless, prostrate plants. Culture as in Cactus.

113. *Bartonia*. Named by Pursh, in honor of Dr. B. S. Barton of Philadelphia, an American botanist. Beautiful plants, with alternate pinnatifid rough glaucous leaves, and large white flowers, which open during the night, and spread a most agreeable odor. Very rare, if they yet exist, in collections.

114. *Philadelphus*. A name used by Athenæus for a tree which is now unknown. Bauhin applied it to this genus. The species are free flowerers, well adapted for the shrubbery. The native country of *P. coronarius* is not known; it is generally referred to the south of Europe, but it has only been found twice in Italy, and then in situations where it might have been planted. The flowers have the appearance and odor of those of the orange, but the odor in near contact is much more powerful. Seeds are seldom produced in this country. The leaves taste like fresh cucumbers. *P. grandiflorus* is a very showy plant. All the species grow freely in common soil, and are increased by layers.

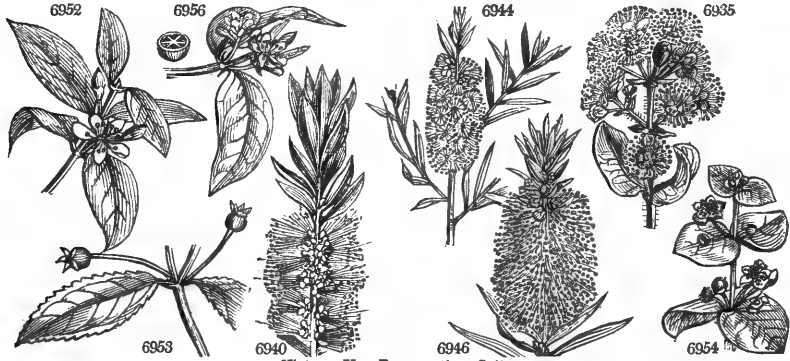
115. *Leptospermum*. From  $\lambda\epsilon\pi\tau\omicron\varsigma$ , slender, and  $\sigma\pi\epsilon\rho\mu$ , seed, in allusion to the extreme tenuity of the seeds. Pretty New Holland plants. *L. scoparium* grows commonly in dry places near the shores in New Zealand, and the underwood in Adventure Bay, Van Dieman's Land, chiefly consists of this shrub. The leaves were used by Captain Cook's ships' crews as tea, whence they named it the tea plant. The leaves have a very agreeable bitter flavor, with a pleasant smell, when fresh; but lose something of both, when dry. If the infusion was made strong, it proved emetic to some, in the same manner as green tea. It was also used with spruce leaves, in equal quantity, to correct their astringency in brewing beer from them; and they rendered the beer exceedingly palatable.

Young cuttings of all the species will root readily in sand, under a bell-glass: the species may also be raised from seeds; but plants from cuttings are best, as they flower young, and the seedlings do not flower till they attain a considerable size. (*Bot. Cult.* 214.)

116. *Fabricia*. Dedicated by Gartner to John Christian Fabricius, the famous Entomologist. The species



|   |  |                   |   |                   |    |       |     |                   |                   |                        |
|---|--|-------------------|---|-------------------|----|-------|-----|-------------------|-------------------|------------------------|
| *1117. METROSIDE'ROS. <i>W.</i> METROSIDEROS. |  | <i>Myrtaceae.</i> |   | <i>Sp.</i> 16—20. |    |       |     |                   |                   |                        |
| §6935   | <i>hispidia Sm.</i>                    | rough             | ♣ | or                | 6  | my.au | Y   | N. S. W. 1789.    | C s.l             | Exot. bot. 1. t. 42    |
| §6936   | <i>floribunda Sm.</i>                  | many-flowered     | ♣ | or                | 6  | jl.au | W   | N. S. W. 1788.    | C s.l             | Vent. mal. t. 75       |
| §6937   | <i>costata Sm.</i>                     | ribbed            | ♣ | or                | 6  | ...   | Y   | N. S. W. 1816.    | C s.l             | Ga. se. 1. t. 34. f. 2 |
| 6938  | <i>glomulifera W.</i>                  | cluster-flowered  | ♣ | or                | 15 | my.jn | Y.g | N. S. W. 1805.    | C s.l             |                        |
| 6939  | <i>angustifolia W.</i>                 | narrow-leaved     | ♣ | or                | 6  | ...   | Y.g | C. G. H. 1787.    | C s.l             |                        |
| 6940  | <i>marginata P. S.</i>                 | margined          | ♣ | or                | 6  | ...   | P.y | N. S. W. 1816.    | C s.l             | Cav. ic. 4. t. 332     |
| §6941   | <i>linearis W.</i>                     | linear-leaved     | ♣ | or                | 6  | jn.jl | W   | N. S. W. 1788.    | C s.l             | Ser. han. 19. t. 11    |
| §6942   | <i>pinifolia W. en.</i>                | Pine-leaved       | ♣ | or                | 6  | jn.jl | G   | N. S. W. ...      | C s.l             | Bot. mag. 1821         |
| §6943   | <i>viminialis W.</i>                   | long-leaved       | ♣ | or                | 10 | mr.jn | R   | N. S. W. 1800.    | C s.l             | Ga. se. 1. t. 34. f. 4 |
| §6944   | <i>saligna W.</i>                      | willow-leaved     | ♣ | or                | 6  | my.jn | R   | N. S. W. 1788.    | C s.l             | Bot. mag. 1821         |
| §6945   | <i>lanceolata W.</i>                   | spear-leaved      | ♣ | or                | 10 | jn.n  | Cr  | N. S. W. 1788.    | C s.l             | Bot. mag. 260          |
| §6946   | <i>speciosa B. M.</i>                  | splendi           | ♣ | or                | 10 | mr.jn | Cr  | N. S. W. 1803.    | C s.l             | Bot. mag. 1761         |
| §6947   | <i>vera Lindl.</i>                     | true Iron-wood    | ♣ | or                | 20 | mr.jn | G   | E. Indies 1819.   | C s.l             | Lindl. coll. 18        |
| §6948   | <i>sempervirens Lodd.</i>              | ever-blowing      | ♣ | or                | 6  | mr.jn | Cr  | N. S. W. 1818.    | C p.l             | Bot. cab. 523          |
| §6949   | <i>linearifolia Link.</i>              | linear-leaved     | ♣ | or                | 10 | mr.jn | R   | N. S. W. 1820.    | C p.l             |                        |
| §6950   | <i>rugulosa W.</i>                     | wrinkled          | ♣ | or                | 6  | mr.jn | Pk  | N. S. W. 1821.    | C p.l             |                        |
| 1118.   | PSI'DIUM. <i>W.</i>                    | GUAVA.            |   |                   |    |       |     | <i>Myrtaceae.</i> | <i>Sp.</i> 7—10.  |                        |
| 6951  | <i>pyriferum W.</i>                    | white             | ♣ | fr                | 7  | jn.jl | W   | W. Indies 1656.   | C r.m             | Rum. am. 1. t. 47      |
| 6952  | <i>pomiferum W.</i>                    | red               | ♣ | fr                | 20 | jn.jl | W   | W. Indies 1692.   | C r.m             | Bot. mal. 3. t. 35     |
| 6953  | <i>aromaticum W.</i>                   | aromatic          | ♣ | or                | 5  | ...   | W   | W. Indies 1779.   | C r.m             | Aub. gui. 1. t. 191    |
| 6954  | <i>cordatum B. M.</i>                  | cordate           | ♣ | fr                | 5  | my.jl | W   | W. Indies 1811.   | C r.m             | Bot. mag. 1779         |
| 6955  | <i>montanum W.</i>                     | mountain          | ♣ | fr                | 4  | ...   | W   | W. Indies 1779.   | C r.m             |                        |
| 6956  | <i>polycarpum And.</i>                 | clustered         | ♣ | fr                | 3  | my    | W   | Trinidad 1810.    | C r.m             | Bot. reg. 653          |
| 6957  | <i>Cattleianum Lindl.</i>              | purple            | ♣ | fr                | 20 | my.jn | W   | S. Amer. 1818.    | C r.m             | Lundl. coll. 16        |
| *1119.  | EUGENIA. <i>W.</i>                     | EUGENIA.          |   |                   |    |       |     | <i>Myrtaceae.</i> | <i>Sp.</i> 14—37. |                        |
| §6958   | <i>malaccensis W.</i>                  | Malay Apple-tr.   | ♣ | fr                | 25 | my.au | S   | E. Indies 1768.   | C s.p             | Bot. rep. 458          |
| §6959   | <i>Jambos W.</i>                       | narrow-leaved     | ♣ | fr                | 25 | fjl   | G.y | E. Indies 1768.   | L s.p             | Bot. mag. 1696         |
| 6960  | <i>baruensis W.</i>                    | many-flowered     | ♣ | or                | 20 | ...   | W   | S. Amer. ...      | L s.p             | Jac. ic. 3. t. 486     |
| §6961   | <i>myrtifolia Ker.</i>                 | myrtle-leaved     | ♣ | or                | 8  | ap.jl | W   | N. Holl. 1818.    | L s.p             | Bot. reg. 627          |
|   | <i>M. australis B. M.</i>              |                   |   |                   |    |       |     |                   |                   |                        |
| 6962  | <i>axillaris W.</i>                    | axillary          | ♣ | or                | 10 | s     | W   | Jamaica 1793.     | C s.p             |                        |
| 6963  | <i>fragrans W.</i>                     | sweet-scented     | ♣ | or                | 10 | ap.my | W   | Jamaica 1790.     | C s.p             | Bot. mag. 1242         |
| 6964  | <i>Mini W.</i>                         | small-fruited     | ♣ | or                | 10 | ...   | W   | Guiana 1803.      | C s.p             | Au. gui. 1. t. 197     |
| 6965  | <i>elliptica W.</i>                    | round-fruited     | ♣ | or                | 8  | my.s  | W   | N. S. W. 1790.    | C s.p             | Bot. mag. 1872         |
| 6966  | <i>ligustrina W.</i>                   | privet-leaved     | ♣ | or                | 8  | au    | W   | Hispaniol. 1798.  | C s.p             |                        |
| 6967  | <i>uniflora W.</i>                     | one-flowered      | ♣ | or                | 7  | ja.mr | W   | Brazil 1759.      | C s.p             | Bot. mag. 473          |
| §6968   | <i>zeylanica W.</i>                    | Ceylon            | ♣ | or                | 10 | jn.jl | W   | Ceylon 1798.      | C s.p             | Bot. rep. 619          |
| 6969  | <i>latifolia W.</i>                    | broad-leaved      | ♣ | or                | 10 | ...   | W   | Guiana 1793.      | C s.p             | Aub. gui. 1. t. 199    |
| 1120.   | CARYOPHYLLUS. <i>P. S.</i> CLOVE-TREE. |                   |   |                   |    |       |     | <i>Myrtaceae.</i> | <i>Sp.</i> 1      |                        |
| 6970  | <i>aromaticum P. S.</i>                | aromatic          | ♣ | cul               | 20 | ...   | W   | Moluccas 1797.    | C l.p             | Ru. amb. 2. t. 1.2     |
| †1121.  | MYRTUS. <i>W.</i>                      | MYRTLE.           |   |                   |    |       |     | <i>Myrtaceae.</i> | <i>Sp.</i> 10—35. |                        |
| 6971  | <i>communis W.</i>                     | common            | ♣ | or                | 6  | jl.au | W   | S. Europe 1597.   | C r.m             | Du. ar. e. n. t. 43    |
|   | <i>o romána</i>                        | broad-leaved      | ♣ | or                | 6  | jl.au | W   | S. Europe 1597.   | C r.m             | Mil. ic. t. 184. f. 1  |
|   | <i>o tarentina</i>                     | Box-leaved        | ♣ | or                | 6  | jl.au | W   | S. Europe 1597.   | C r.m             |                        |



History, Use, Propagation, Culture,

requiring to grow to a good size before they produce flowers are well adapted for a conservatory: the culture and propagation as in *Leptospermum*.

1117. *Metrosideros*. From *metros*, the heart of a tree, and *sidneon*, iron, in allusion to the hardness of the wood. One species (*M. vera*) is called Iron wood. The Chinese make their rudders and anchors of it; and among the Japanese it is so scarce and valuable that it is only allowed to be manufactured in the service of their king. The bark is used as a remedy for fluor albus and diarrhoea, being mixed with Pinang, and a small quantity of cloves and nutmegs. This is a genus distinguished at eight by the peculiar character of the shrubs of Australasia, with both sides of the leaf alike. *M. hispidia*, *lanceolata*, and *speciosa*, are beautiful plants, but not free flowerers. They are rather difficult to strike. Sweet recommends "ripened wood planted under a bell-glass in sand."

1118. *Psidium*. One of the Greek names of the Pomegranate. In English it is called *Guava*, a corruption of the American name *Guayaba*. Most of the species are cultivated in the tropics for their fruit, which also ripens freely in this country, though it is of little merit. *P. pyriferum* bears fruit the size of a hen's egg, yellowish, with a peculiar smell. The rind is brittle and fleshy; pulp rather firm, full of bony seeds, flesh colored, sweet, aromatic, and pleasant. In the West Indies it is eaten with avidity, not only by the natives, but by Europeans: with those who are not accustomed to it, the Guava is apt to occasion a slight flux; but Jacquin affirms, that when he has been thirsty on a journey he has eaten of it to satiety without suffering any harm. It is eaten raw in the dessert, but the seeds are scarcely separable. It is also preserved with sugar. *P. pomiferum* has fruit like a pomegranate, which is seldom eaten, though eatable, and being astringent is counted strengthening for the stomach. *P. Cattleianum* is reckoned one of the best of the Guavas; the fruit is of a fine deep claret color, and the pulp in consistence and flavor bears a considerable resemblance to the strawberry.

All the species are of easy culture in light and rather rich loam, and are increased readily by seeds, layers, or cuttings in sand under a hand-glass.

- 6935 Leaves opposite cordate at base stem-clasping, Branches calyxes and peduncles hispid  
 6936 Leaves opposite stalked ovate lanceolate, Panicle brachiate, Pedic. umbellal  
 6937 Leaves opposite stalked lin.-lanc. acuminate oblique, Panicle brachiate decomposed  
 6938 Leaves opposite ovate netted veiny beneath pubescent, Heads lateral stalked and bracts downy  
 6939 Leaves opposite lin.-lanc. naked, Pedunc. axillary umbellal, Bracts lanc. smooth  
 6940 Leaves alternate lanceolate 3-nerved, Fl. racemose clustered terminal smooth  
 6941 Leaves scattered linear channelled acute rigid, Fl. lateral clustered sessile  
 6942 Leaves alternate lin. filiform rigid mucronate channelled rough, Fl. clustered sessile  
 6943 Leaves alternate linear-lanceolate, Fl. clustered lateral pubescent  
 6944 Leaves alternate lanceolate narrowed at each end mucronate, Fl. lateral clustered sessile smooth  
 6945 Leaves alternate lanceolate mucronate, Fl. lateral clustered sessile pubescent  
 6946 Leaves scattered lanceolate veiny glandular mucronate, Caps. downy at end  
 6947 Leaves ovate-lanceolate acuminate quite smooth, Cymes stalked many-flowered  
 6948 Very like *M. lanceolata*, but the blossoms appear more copiously  
 6949 Leaves alternate lin.-lanceolate with a long acute point  
 6950 Leaves lin.-lanceolate with a long point dotted rough

- 6951 Leaves elliptical pubescent beneath, Peduncles 1-flowered  
 6952 Leaves oblong lanceolate pubescent beneath, Peduncles 3-flowered  
 6953 Leaves oblong acuminate smooth, Peduncles 1-flowered  
 6954 Leaves sessile cordate rounded smooth on each side, Pedunc. 1-fl. clustered  
 6955 Leaves oblong acuminate crenulate shining, Peduncles many-fl.  
 6956 Leaves ovate oblong acute sub-crenate, pubescent above rugose beneath, Branches reclinate  
 6957 Leaves obovate smooth coriaceous, Fruit purple

- 6958 Leaves entire oblong, Peduncles 4-fl. lateral  
 6959 Leaves entire lanceolate, Pedunc. 4-fl. terminal  
 6960 Leaves entire ovate-lanceolate, Ped. many-fl. axillary shorter than petiole  
 6961 Leaves elliptical, Pedunc. trichotomous lateral and terminal, Stamens much longer than petals

- 6962 Leaves entire oblong acuminate obtuse flat, Pedunc. axill. many-fl. the length of petioles  
 6963 Leaves entire roundish ovate obtuse, Pedunc. axill. many-fl. trichotomous the length of leaves  
 6964 Leaves entire oblong-lanceolate acuminate, Pedunc. axillary many-fl. racemose shorter than leaf  
 6965 Leaves entire elliptical acuminate, Pedunc. panic. axill. and terminal, Fruit globose  
 6966 Leaves entire lanceolate narrowed at base obtuse veinless, Pedunc. 1-fl. solitary terminal  
 6967 Leaves entire ovate-lanceolate, Pedunc. 1-flowered solitary lateral  
 6968 Leaves entire oblong acuminate coriaceous not dotted, Pedunc. 1-fl. filiform  
 6969 Leaves entire ovate oblong acuminate netted with veins, Pedunc. 1-fl. about 3 in fruit nodding

6970 The only species

- 6971 Flowers solitary, Involucre 2-leaved  
 α Leaves ovate longer than the peduncles  
 β Leaves ovate with round berries



and Miscellaneous Particulars.

1119. *Eugenia*. In honor of Prince Eugene of Savoy, who was a protector and encourager of botany, and possessed a botanic garden. Some of the species bear edible fruits: that of *E. malaccensis* is ovate, an inch and a half in diameter, flesh smelling like the rose, agreeable to the taste, and wholesome. It is generally cultivated between the tropics. *E. Jambos* bears smaller fruit, edible, but not so much esteemed; it is nevertheless excellent, resembling in appearance and flavor a Brussels apricot, and produced in great abundance in the stove. All the species grow freely in two-thirds loam and one-third peat, and flower abundantly when the plants are of a good size. Ripened cuttings strike root freely in sand under a hand-glass.

1120. *Caryophyllus*. The Arabs, who have been acquainted from all antiquity with the clove, called it *qarunfel*, which the Greeks altered into *Caryophyllon*. *Girofiter*, Fr. The fruit is thought to bear some resemblance to a nail, and hence is called clove, *clou*, Fr., *Chiode*, Ital., *Clavo*, Span., *Naghel*, Ger. and Dutch. The whole tree is aromatic, and the fruit or clove is considered as one of the hottest and most acrid substances of the aromatic class, and as such is often used, not only internally, but externally, as a stimulant; as in paralytic cases for example, in which the oil of cloves has been administered to advantage: it is also made use of in the tooth ache, in which it often succeeds in suddenly abating and subduing the pain. A tincture of cloves in rectified spirit is kept in the shops, as well as the essential oil, which latter is perhaps seldom free from sophistication. For culinary purposes, the uses of cloves are innumerable. The Dutch, who had for a long time the monopoly of the spice trade, prevented while they could the tree from being removed from the Moluccas and other islands, where it grows naturally; but the French now cultivate it in Cayenne and St. Domingo. There are a few specimens in the British gardens. It grows freely in loam and peat, and ripened cuttings are not difficult to root in sand, in moist heat under a hand-glass.

1121. *Myrtus*. From *μύρτος*, perfume. *Mugros* of the Greeks. *Le Myrte*, Fr., *Myrtle*, Ger., *Myrtus*, Dutch, *Mirto*, Ital. and Span., *Myrta*, Portug., *Myrtler*, Dan. and *Myrten*, Swed. The common myrtle is a well known popular shrub, which has been in English gardens for an unknown length of time; evidently from

|                                  |                           |   |   |     |     |       |     |                  |            |                           |
|----------------------------------|---------------------------|---|---|-----|-----|-------|-----|------------------|------------|---------------------------|
| <i>γ ήλικα</i>                   | <i>Italian, or spr.</i>   | ♂ | □ | or  | 6   | jl.au | W   | S. Europe 1597.  | C          | r m                       |
| <i>δ βε'ηικα</i>                 | <i>Orange-leaved</i>      | ♂ | □ | or  | 6   | jl.au | W   | S. Europe 1597.  | C          | r m Blackwell, t. 114     |
| <i>ι λυσι'ανικα</i>              | <i>Portugal</i>           | ♂ | □ | or  | 6   | jl.au | W   | S. Europe 1597.  | C          | r m Clus. hist. 1. t. 1   |
| <i>ζ βελγικα</i>                 | <i>Broad-ld., Dutch</i>   | ♂ | □ | or  | 6   | jl.au | W   | S. Europe 1597.  | C          | r m                       |
| <i>η μυκρονάτα</i>               | <i>Rosemary-ld.</i>       | ♂ | □ | or  | 2   | jl.au | W   | S. Europe 1597.  | C          | r m                       |
| 6972 <i>tomentosa</i> W.         | <i>woolly-leaved</i>      | ♂ | □ | or  | 6   | jn.jl | Pu  | China 1776.      | C          | s p Bot. mag. 250         |
| 6973 <i>biflora</i> W.           | <i>two-flowered</i>       | ♂ | □ | or  | 10  | ap.my | W   | Jamaica 1759.    | L          | s p Br. jam. t. 25. f. 3  |
| 6974 <i>lucida</i> W.            | <i>shining</i>            | ♂ | □ | or  | 6   | ...   | W   | Surinam 1793.    | L          | s p                       |
| 6975 <i>dumosa</i> W.            | <i>bushy</i>              | ♂ | □ | or  | 3   | jn.jl | W   | W. Indies 1793.  | L          | s p                       |
| 6976 <i>gregi</i> W.             | <i>Gregg's</i>            | ♂ | □ | or  | 6   | ...   | W   | Dominica 1776.   | L          | s p Gæ. se. 1. t. 33 f. 3 |
| 6977 <i>virgultosa</i> W.        | <i>twiggly</i>            | ♂ | □ | or  | 6   | jl.au | W   | Jamaica 1787.    | L          | s p Ph. ic. t. 208. f. 1  |
| §6978 <i>acris</i> W.            | <i>Wild Clove-tree</i>    | ♂ | □ | or  | 10  | my.jl | W   | Jamaica 1759.    | L          | s p Pl. alm. t. 155. f. 3 |
| 6979 <i>coriacea</i> W.          | <i>Sumach-leaved</i>      | ♂ | □ | or  | 30  | ...   | W   | Hispaniol. 1759. | L          | s p Pl. ic. t. 208. f. 2  |
| §6980 <i>pimentoides</i> Lindl.  | <i>Allspice-like</i>      | ♂ | □ | or  | 20  | my    | W   | W. Indies ...    | L          | s p Bot. cab. 178         |
| *1122. CALYPTRANTHES. W.         | CALYPTRANTHES.            |   |   |     |     |       |     | <i>Myrtaceæ.</i> | Sp. 4-6.   |                           |
| 6961 <i>Zuzygium</i> W.          | <i>oval-leaved</i>        | ♂ | □ | tm  | 20  | my.jl | W   | W. Indies 1778.  | L          | s p Br. jam. t. 7. f. 2   |
| §6982 <i>Jambolana</i> W.        | <i>Jambolana-tree</i>     | ♂ | □ | or  | 20  | ...   | W   | E. Indies 1796.  | L          | s p Ph. amb. 1. t. 42     |
| 6983 <i>Chytracolia</i> W.       | <i>forked</i>             | ♂ | □ | or  | 20  | mr.my | W   | Jamaica 1778.    | L          | s p Br. jam. t. 37. f. 2  |
| §6984 <i>caryophyllifolia</i> W. | <i>clove-leaved</i>       | ♂ | □ | or  | 20  | ...   | W   | E. Indies 1822.  | L          | s p Ru. amb. 1. t. 41     |
| 1123. PIMENTA. Lindl.            | PIMENTA.                  |   |   |     |     |       |     | <i>Myrtaceæ.</i> | Sp. 1.     |                           |
| 6985 <i>vulgaris</i> Lindl.      | <i>Allspice-Tree</i>      | ♂ | □ | cul | 30  | my.jl | W   | W. Indies 1723.  | L          | s p Bot. mag. 1236        |
|                                  | <i>Myrtus Pimenta</i> L.  |   |   |     |     |       |     |                  |            |                           |
| 1124. OLYN'THIA. Lindl.          | OLYN'THIA.                |   |   |     |     |       |     | <i>Myrtaceæ.</i> | Sp. 1.     |                           |
| 6986 <i>disticha</i> Lindl.      | <i>globe-berried</i>      | ♂ | □ | or  | 2   | ap.jl | W   | Jamaica 1793.    | L          | s p Bot. mag. 867         |
|                                  | <i>Myrtus disticha</i> W. |   |   |     |     |       |     |                  |            |                           |
| 1125. STRAVADIUM. Juss.          | STRAVADIUM.               |   |   |     |     |       |     | <i>Myrtaceæ.</i> | Sp. 1-2.   |                           |
| 6987 <i>acutangulum</i> Juss.    | <i>sharp-angled</i>       | ♂ | □ | or  | 20  | ...   | ... | E. Indies 1822.  | L          | s p Rumph. 3. t. 116      |
| 1126. EUCALYPTUS. W.             | EUCALYPTUS.               |   |   |     |     |       |     | <i>Myrtaceæ.</i> | Sp. 30-40. |                           |
| 6988 <i>robusta</i> Sm.          | <i>Brown Gum-tr.</i>      | ♂ | □ | tm  | 30  | au.s  | W   | N. S. W. 1794.   | L          | lp Sm. no. hol. t. 13     |
| 6989 <i>rostrata</i> Cav.        | <i>beaked</i>             | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1804.   | L          | lp Cav. ic. 4. t. 342     |
| 6990 <i>pilularis</i> Sm.        | <i>narrow-leaved</i>      | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1804.   | L          | lp                        |
| 6991 <i>tereticornis</i> Sm.     | <i>long-horned</i>        | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1804.   | L          | lp                        |
| 6992 <i>resinifera</i> Sm.       | <i>Red Gum-tree</i>       | ♂ | □ | tm  | 30  | ap.jl | W   | N. S. W. 1789.   | L          | lp Bot. rep. 400          |
| 6993 <i>marginata</i> Sm.        | <i>thick-edged</i>        | ♂ | □ | tm  | 30  | ap.jl | W   | N. Holl. 1794.   | L          | lp                        |
| 6994 <i>capitellata</i> Sm.      | <i>headed</i>             | ♂ | □ | tm  | 30  | ...   | W   | N. Holl. 1804.   | L          | lp Sm. n. holl. 42        |
| 6995 <i>saligna</i> Sm.          | <i>willow-like</i>        | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1804.   | L          | lp                        |
| 6996 <i>botryoides</i> Sm.       | <i>bunched</i>            | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1804.   | L          | lp Cav. ic. 4. t. 341     |
| 6997 <i>botryoides</i> Sm.       | <i>glaucous-leaved</i>    | ♂ | □ | tm  | 30  | ap.jl | W   | N. Holl. 1803.   | L          | lp Cav. ic. 4. t. 341     |
| 6998 <i>hemastoma</i> Sm.        | <i>red-mouthed</i>        | ♂ | □ | tm  | 30  | ...   | W   | N. Holl. 1803.   | L          | lp                        |
| 6999 <i>piperita</i> Sm.         | <i>Peppermint-tr.</i>     | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1788.   | L          | lp                        |
| 7000 <i>obliqua</i> W.           | <i>oblique-leaved</i>     | ♂ | □ | tm  | 100 | jl.au | W   | V. Diem. 1774.   | L          | lp Par. lond. 15          |
| 7001 <i>corymbosa</i> W.         | <i>corymbus-flow.</i>     | ♂ | □ | tm  | 30  | ...   | W   | N. S. W. 1788.   | L          | lp Cav. ic. 4. t. 340     |



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what Gerarde and Evelyn say, before the invention of greenhouses, and probably in that case preserved by covering or housing in rooms. It was a great favorite among the ancients, for its elegance, and its evergreen sweet leaves. It was sacred to Venus, either on this account, or perhaps because it flourishes most in the neighbourhood of the sea. Myrtle-wreaths adorned the brows of bloodless victors, and were the symbol of authority for magistrates at Athens. Both branches and berries were put into wine, and the latter were used in the cookery of the ancients. The myrtle was also one of their medicinal plants. All parts of it are astringent, but it is discarded from modern practice.

*M. coriacea*, sometimes called wild cinnamon, is a most elegant tree, with a handsome ash-colored straight trunk, and pyramidal head. It grows slowly, and flowers late twice a year. In old trees, the bark becomes white, and hangs down in shreds which have an aromatic quality. The timber is red, very hard, and used in mill-work. The berries, which are the size of peas, and of an agreeable aromatic smell and taste, are used in culinary purposes.

1122. *Calyptanthus*. From *καλυπτρον*, a lid, and *ανθος*, a flower, in allusion to the peculiar manner in which the segments of the calyx, being grown together, fall off.

*Zuzygium*, is so called from *συζυγος*, coupled, in allusion to the manner in which the branches and leaves are united by pairs. *C. Jambolana*, frequently called the Java plum, bears a black esculent berry. Cuttings of this genus, Sweet observes, "do not strike freely; ripened ones strike best in sand under a bell-glass; but the plants root best from layers." (*Bot. Cult.* 34.)

1123. *Pimenta*. A genus readily distinguishable from *Myrtus* by the structure of its ovary. It is a handsome tree, common in the hilly parts of the north side of Jamaica. The flowers are without shew, and are succeeded by spherical purple berries crowned with a persistent calyx; they are called Jamaica pepper or all-spice, from their taste being thought to resemble a composition of all other spices. The berries are gathered before being ripe, and are carefully dried on mats or terraced floors in the shade. In ten or twelve

- γ Leaves ovate-lanceolate acute  
 δ Leaves ovate-lanceolate close together  
 ε Leaves lanceolate ovate acute  
 ζ Leaves lanceolate acuminate  
 η Leaves lin.-lanceolate acuminate. Very small  
 6972 Peduncles 1-flowered, Leaves 3-nerved downy beneath  
 6973 Peduncles 2-flowered, Leaves lanceolate  
 6974 Peduncles about 3-fl. Leaves subsessile lanceolate attenuated  
 6975 Racemes axillary very short, Leaves stalked broad lanceolate acuminate  
 6976 Peduncles axillary many-fl. Leaves ellipt. acute entire pubescent beneath  
 6977 Racemes lateral and terminal, Leaves broad lanceolate attenuated  
 6978 Peduncles axillary terminal and corymb. trichotomous, Leaves ellipt. convex coriaceous veiny dotted  
 6979 Peduncles 3-chotomous terminal, Leaves roundish elliptical convex coriaceous veinless dotted  
 6980 Leaves elliptical flat with close parallel transverse veins, Cymes stalked few-flowered shorter than leaves  
  
 6981 Pedunc. axillary 3-chotomous spreading, Leaves ovate obtuse, Branches dichotomous  
 6982 Panic. subterminal, Leaves ovate emarginate  
 6983 Peduncles terminal paniced trichotomous downy, Leaves ovate attenuated at end  
 6984 Panicles lateral, Leaves elliptical ovate entire  
  
 6985 Flowers trichotomous paniced, Leaves oblong lanceolate acuminate  
  
 6986 Leaves distichous deflexed ovate-lanceolate  
  
 6987 Leaves crenate, Raceme very long, Drupe ovate

- 6988 Lid conical contracted in middle broader than calyx, Leaves ovate  
 6989 Lid rostrate, Umbels lateral, Leaves ovate-lanceolate attenuate oblique  
 6990 Leaves linear lanceolate, Lid conical contracted in middle, Umb. lateral  
 6991 Lid conical rounded very smooth membranous, Umb. lateral solitary  
 6992 Lid conical rounded coriaceous twice as long as calyx, Umb. lateral solitary  
 6993 Leaves ovate thickened at edge, Umbels lateral  
 6994 Leaves ovate-lanceolate, Heads lateral solitary, Fruit globose  
 6995 Leaves lin.-lanceolate, Heads lateral solitary, Fruit turbinate  
 6996 Lid hemispherical obtuse, Heads lateral solitary, Fruit turbinate  
 6997 Heads lateral solitary, Pedunc. cuneate compressed, Fruit turbinate  
 6998 Umb. lateral and terminal, Pedunc. compressed, Branches angular  
 6999 Pedunc. compressed, Branches angular, Umbels lateral paniced or solitary  
 7000 Pedunc. and branches round, Umb. lateral solitary  
 7001 Umb. corymbose paniced terminal, Calyx round, Lid hemispherical mucronulate



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days they become wrinkled, dry, and of a dark brown color, and are then packed in bags or casks for sale. Some kiln-dry them by which the same object is sooner effected. The berries have an agreeable aromatic substringent taste, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm pungent taste of the cloves; qualities which reside chiefly in the cortical part of the dried berry, and are better extracted by a watery infusion, than by spirit or distillation. They are much used in the kitchen, and also by the druggists to cover the disagreeable taste of other remedies, or to give them warmth. An oil is obtained by distillation which is said to be nearly equal to that of oil of cloves, and sometimes substituted for it.

1124. *Olynthia*. So named from *αλυθα*, a little fig or berry. A genus separated from *Myrtus* on account of the singular manner in which all the parts of the seed are consolidated. A small stove plant common in collections.

1125. *Stravadium*. The Malabar name of this plant is *Tsjera samstravadi*, from which *Stravadium* has been contrived. A fine tree with racemose flowers, and large, four-cornered, oblong fruit. A delicate stove plant rarely seen.

1126. *Eucalyptus*. From *eu*, well, and *καλυπτω*, to cover as with a lid; a name, therefore, with the same meaning as *Calyptranthes*, No. 1122. This genus consists of the loftiest timber trees of New Holland. Botanists knowing them principally from dried specimens, their respective heights cannot be stated correctly. They are all of the tallest habit, and soon grow beyond the limits of our stoves. In Van Dieman's Island a manufactory has been established for the preparation of extract of tannin from the bark of various species of *Eucalyptus*. A considerable quantity of the substance has been imported into England recently, and it is said to have been found by the tanners to be twice as powerful in its operation as oak-bark.

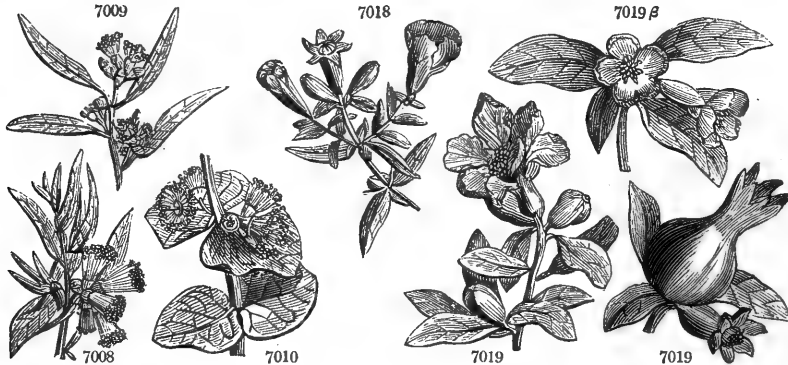
*E. resinifera* produces a gum resin something like the Kino of druggists (obtained from a species of *Pterocarpus*), and for all medical purposes full as efficacious.

All the species, Sweet observes, "are fine plants for a large conservatory, as they grow very fast, and are

|                          |                |   |   |    |    |     |   |          |       |   |      |                    |
|--------------------------|----------------|---|---|----|----|-----|---|----------|-------|---|------|--------------------|
| 7002 paniculáta L. T.    | panicked       | ♂ | □ | or | 30 | ... | W | N. S. W. | 1804. | L | s. p |                    |
| 7003 cornúta Lab.        | horned         | ♂ | □ | or | 30 | ... | W | N. Holl. | 1803. | L | s. p | Lab. voy. i. t. 20 |
| 7004 reticuláta Link.    | netted         | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7005 longifolia Link.    | long-leaved    | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7006 média Link.         | intermediate   | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7007 mucronáta Link.     | mucronate      | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7008 triántha Link.      | three-flowered | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7009 persicifolia Lodd.  | Peach-leaved   | ♂ | □ | or | 30 | jl  | W | N. Holl. | 1817. | L | co   | Bot. cab. 501      |
| 7010 pulverulénta Link.  | powdery        | ♂ | □ | or | 30 | jn  | W | N. Holl. | 1816. | L | co   | Bot. mag. 2087     |
| 7011 elongáta Link.      | long           | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7012 myrtifolia Link.    | myrtle-leaved  | ♂ | □ | or | 6  | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7013 microphylla Link.   | small-leaved   | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7014 stenophylla Link.   | narrow-leaved  | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7015 hypericifolia Dum.  | Hypericum-lvd. | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7016 hirsúta Link.       | hairy          | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |
| 7017 purpuráscenta Link. | dark-branched  | ♂ | □ | or | 30 | ... | W | N. Holl. | 1823. | L | co   |                    |

|                  |                 |   |    |    |      |        |           |           |       |      |                      |               |
|------------------|-----------------|---|----|----|------|--------|-----------|-----------|-------|------|----------------------|---------------|
| 1127. PUNICA. W. | POMEGRANATE.    |   |    |    |      | Myrti. | Sp. 2.    |           |       |      |                      |               |
| 7018 nána W.     | dwarf           | ♂ | □  | or | 5    | jl.s   | R         | W. Indies | 1723. | C    | r. m                 | Bot. mag. 634 |
| 7019 Granátum W. | common          | ♂ | fr | 18 | jn.s | S      | S. Europe | 1548.     | C     | r. m | Bot. mag. 1832       |               |
| β álba           | white-flowered  | ♂ | or | 10 | jn.s | S      | China     | ...       | C     | r. m | Bot. rep. 96         |               |
| γ pléna          | double-flowered | ♂ | or | 10 | jn.s | S      | S. Europe | ...       | C     | r. m | Tr. ehr. t. 71. f. 2 |               |

|                              |                 |   |    |    |        |          |          |       |   |      |                     |  |
|------------------------------|-----------------|---|----|----|--------|----------|----------|-------|---|------|---------------------|--|
| *1128. AMYGDALUS. W.         | ALMOND.         |   |    |    |        | Rosacea. | Sp. 6.   |       |   |      |                     |  |
| §7020 Pérsica W.             | common Peach    | ♀ | fr | 15 | ap. my | R        | Persia   | 1562. | B | h. l |                     |  |
| β Nectarina                  | Nectarine       | ♀ | fr | 15 | ap. my | R        | Persia   | 1562. | B | h. l |                     |  |
| γ pléna                      | double-flowered | ♀ | or | 15 | ap. my | R        | Persia   | ...   | B | h. l |                     |  |
| 7021 comúnis W.              | Sweet-almond    | ♀ | fr | 15 | mr. ap | R        | Barbary  | 1548. | S | h. l |                     |  |
| β amára                      | Bitter-almond   | ♀ | fr | 15 | mr. ap | R        | Barbary  | 1548. | S | h. l | Blackw. t. 195      |  |
| 7022 nána W.                 | common-dwarf    | ♀ | or | 2  | mr. ap | R        | Russia   | 1683. | B | s. l | Bot. mag. 161       |  |
| 7023 incána W.               | woolly          | ♀ | or | 2  | mr. ap | R        | Caucasus | ...   | B | s. l | Pall. ross. 1. t. 7 |  |
| 7024 orientális W.           | silvery-leaved  | ♂ | or | 10 | mr. ap | R        | Levant   | 1756. | B | s. l | Bot. cab. 1137      |  |
| 7025 púmila W.               | double-dwarf    | ♀ | or | 4  | my. jn | R        | China    | 1683. | L | s. l | Bot. mag. 2176      |  |
| <i>Prúnus sinénsis</i> P. S. |                 |   |    |    |        |          |          |       |   |      |                     |  |



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generally well clothed with beautiful foliage; they will also flower freely, when of a moderate size. The best soil for them is a mixture of loam and peat; and cuttings of them may be struck in sand under a bell-glass; but they are not so free to root, as most of this natural order are. (*Bot. Cult.* 189.)

1127. *Punica*. This fruit was called by the ancients *Malum Punicum*, Carthaginian apple; because, as Pliny tells us, the tree was first known to grow in the vicinity of Carthage. Hence has the term *Punica* been constructed. *P. nana* has very small fruit and flowers, and is used in the West Indies as a hedge-plant, as *P. Granatum* (from *granum*, grain, on account of the numerous grains of its fruit) is in the south of France and in Italy. The latter, in its wild state, is a thorny bush not unlike our hawthorn: the flowers have a fine appearance, and the fruit is very ornamental. It will produce fruit, trained against a south wall, in many parts of England; and under a glass-case, or against a fluted wall, it is probable, the fruit might be as highly flavored as that imported from Genoa and Leghorn. The flowers come out at the ends of the branches, singly, or three or four together; and, therefore, in pruning, care must be had to bring into action only the strongest buds. For this purpose, all the weak shoots should be cut out, and the stronger ones shortened, so as to produce bearing-shoots over the whole tree. The best soil is a rich strong loam.

The double-flowering varieties are to be treated in the same manner, and are highly ornamental.

1128. *Amygdalus*. The Greek name of the almond. The species are fruit-trees, or ornamental trees and shrubs, both much esteemed for the gay color and early appearance of their flowers. *A. Persica*, the peach and nectarine, bears the most exquisitely delicious of European fruits; it is more gratifying to the palate by its mass of juicy pulp than the grape, and more delicate than the melon. Some, however, prefer the grape and melon to the peach and nectarine; but the most delicate of taste consider the latter as surpassed only by the pine-apple. The varieties of peach and nectarine are numerous, and by raising from seed might easily be rendered innumerable. The best varieties have been raised in France, at Montreuil, a village of peach growers for the Paris market. Some good varieties have been raised in England by Mr. Knight, and other members of the Horticultural Society. The peach, to attain its proper flavor, must be protected by glass during the spring and earlier summer months, and exposed to the direct influence of the weather during the ripening process. Ripened under glass, unless very liberal supplies of air are given, the flavor will be very inferior. Mr. Knight considers that the direct rays of the sun (without the intervention of glass) are of great advantage to the proper ripening, and essential to the coloring of the peach.

Linnaeus divides the *A. Persica* into two varieties; that with downy fruit, or the peach, and that with smooth fruit, or the nectarine. There are various instances on record (*Hort. Trans.* vol. i. p. 103.) of both fruits growing on the same tree, even on the same branch; and one case has occurred of a single fruit partaking of the nature of both. The French consider them as one fruit, arranging them in four divisions; the *pêches*, or free-stone peaches, the flesh of whose fruit separates readily from the skin and the stone; the *pêches lisses*, or free-stone nectarines, or free-stone smooth peaches; the *pavies*, or cling-stone peaches, whose flesh is firm, and adheres

- 7002 Lid hemispherical obtuse, Cal. angular, Umb. panicled terminal  
 7003 Lid very long and cornute, Heads lateral solitary, Style persistent 3-4-fid at base, Leaves lin. lanceolate  
 7004 Leaves lanceolate subfalcate acuminate subovate at base oblique netted with veins beneath  
 7005 Leaves lanceol. unequal at base, on one side rounded with an incurved point, Branches axillary many-f.  
 7006 Leaves lanceolate with a long point at the base subovate oblique with parallel nerves beneath  
 7007 Leaves lanceol. with a short point wavy with parallel nerves beneath and a marginal nerve on both sides  
 7008 Leaves obl. unequal at base attenuated somewhat falcate with axillary 3-f. peduncles and sessile flowers  
 7009 Leaves lanceolate stalked, Pedunc. short axillary 6-12-flowered  
 7010 Leaves amplexicaul. with a short point glaucous beneath  
 7011 Leaves lanc. attenuated with a filiform point netted with veins beneath  
 7012 Leaves acute reticulated, the nerves united at the margin  
 7013 Leaves falcate at end, those on the branchlets small clustered  
 7014 Leaves linear narrowed at base obtuse veiny with nerves united on this side the edge  
 7015 Leaves 6 lines long and 1½ broad with the lateral parallel nerves united on this side the edge  
 7016 Leaves stalked cordate obtuse with nerves downy beneath, Branches and peduncles strigose  
 7017 Leaves amplexicaul. lanceolate with a long point glaucous beneath

- 7018 Leaves linear, Stem shrubby  
 7019 Leaves lanceolate, Stem arborescent

7020 Leaves with all the serratures acute, Flowers sessile solitary

7021 Lower serratures of the leaves glandular, Flowers scssile in pairs

- 7022 Leaves ovate attenuate at base simply and finely serrate  
 7023 Leaves oblong lanceolate serrate downy beneath  
 7024 Leaves lanceolate entire silvery perennial shorter than footstalk  
 7025 Leaves lanceolate doubly serrated



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both to the skin and stone; and the *brignons*, or nectarines, or cling-stone smooth peaches. *Knight. (Hort. Trans. iii. 1.)*

The double-blossomed peach is one of the most ornamental of spring-flowering trees; its blossoms appear about three weeks later than those of the common peach.

*A. communis* and *amara*, and especially the former, are employed as ornamental trees in front of shrubberies, and in suburban gardens. In the south of France, Italy, Spain, and different parts of the Levant, they are cultivated for their fruit. In France they have above a dozen species or varieties, besides a hybrid called the almond-peach. (See *Duhamel*.) The common and bitter almond are only to be distinguished by the taste of the kernels of their fruit. The Jordan almonds, which come from Malaga, are the best sweet almonds brought to England; the bitter come chiefly from Magadore. The bitter cuticle of almonds is taken off by immersion in boiling water. The almond eaten as food is not very digestible, and requires to be well masticated.

Robertson (*Hort. Trans. iii. 382.*) and various botanists consider the peach and almond as one species.

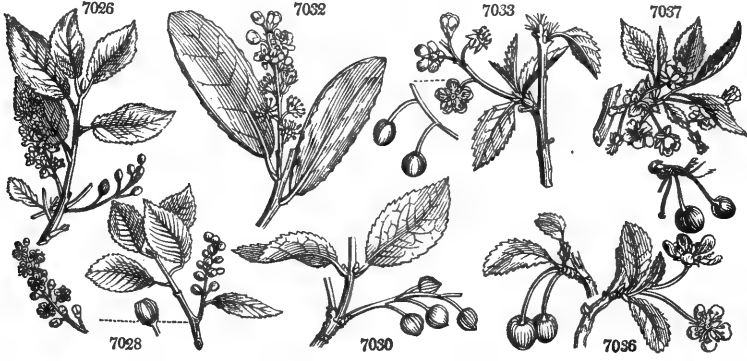
Four distinguished and ingenious attempts have been made to class the varieties of peaches and nectarines by the leaf and flower as well as the fruit: the first is by Poiteau, in the *Bon Jardinier*; the next by Count Lelieur, in his *Pomone Française*; the third by Robertson, nurseryman, of Kilkenny, whose arrangement is founded on the glands of the leaves; and the fourth, and most important, by Mr. George Lindley, in the fifth volume of the Horticultural Society's Transactions. The latter writer has, in a peculiarly distinct manner, arranged no fewer than 155 sorts of peaches and nectarines in well defined divisions or sections.

The bitter almond contains less fixed oil, than the sweet almond, and a portion of prussic acid or hydrocyanic acid, upon which its narcotic power is supposed to depend. This variety is said to operate as a poison on dogs and some other animals, but not generally on the human species. The distilled water exerts an action not less deleterious than that of laurel water on the human frame. It produces vertigo, head-ache, tinnitis aurium, dizziness of sight, and vomiting, when taken to the extent of thirty drops only; and a drachm of it has killed a stout dog. When a large doze is taken, death almost instantly follows. In order to counteract its poisonous effects recourse is had to diffusibles, as brandy and ammonia; or three or four spoonfuls of oil of turpentine may be given at intervals of half an hour. The fixed oil, which both varieties of the almond yield by expression in large quantity, is insipid and inodorous when heat has not been employed.

Sweet almonds are used more as food than as medicine, but they afford little nourishment. Heartburn is said to be relieved by eating six or eight of them decorticated. When triturated with water, milky mixtures or emulsions are formed; and they are also used in pharmacy for assisting, by trituration, the combination of substances, such as camphor and the resins with water. Bitter almonds are scarcely ever used medicinally. (*London Dispensatory*, 151.)

*A. nana* and *pumila* are very ornamental shrubs, both in their double and single varieties.

|                            |                    |          |            |          |          |                           |
|----------------------------|--------------------|----------|------------|----------|----------|---------------------------|
| *1199. PRUNUS. W.          | PLUM & CHERRY.     | Rosacea. | Sp. 33-47. |          |          |                           |
| §7026 Pádus W.             | Bird-cherry 辛辛     | or 30    | ap.my W    | Britain  | woods. L | co Eng. bot. 1383         |
| β rúbra W.                 | Cornish-Bird 辛辛    | or 30    | ap.my W    | Britain  | L        | co Will. ar. t. 4. f. 2   |
| §7027 virginiana Ph.       | Virginian 辛辛       | or 30    | my.jn W    | Virginia | 1724. L  | co Will. ar. t. 5. f. 2   |
| §7028 serótina W.          | American-Bird 辛辛   | or 30    | my.jn W    | N. Amer. | 1629. L  | co Dend. brit. 46         |
| §7029 occidentális W.      | West Indian 辛辛     | or 20    | ja.d W     | Jamaica  | 1784. L  | co                        |
| §7030 lusitánica W.        | Portugal Laurel 辛辛 | or 20    | jn W       | Portugal | 1648. S  | co Mill. ic. t. 196. f. 1 |
| §7031 caroliniana W.       | Evergreen Bird 辛辛  | or 30    | my W       | Carolina | 1759. L  | co                        |
| §7032 Laurocerasus W.      | common Laurel 辛辛   | or 12    | ap.my W    | Levant   | 1629. C  | co Duh. ar. t. 1. t. 133  |
| §7033 Mahaleb W.           | perfumed 辛辛        | or 20    | ap.my W    | Austria  | 1714. G  | co Jac. aust. 3. t. 227   |
| §7034 púmila W.            | dwarf 辛辛           | or 2     | my W       | N. Amer. | 1756. L  | s.1 Mill. ic. t. 89. f. 2 |
| §7035 hycmális P. S.       | Black choke-ch. 辛辛 | or 4     | my W       | N. Amer. | 1805. L  | s.1                       |
| §7036 chamacérasus W.      | bastard-cherry 辛辛  | or 8     | my W       | Austria  | 1597. L  | s.1 Jac. ic. 1. t. 90     |
| §7037 Cérasus W.           | common-cherry 辛辛   | fr 20    | ap.my W    | England  | woods. G | s.1 Eng. bot. 706         |
| §7038 Pséúdo-cérasus Lind. | Chinese-cherry 辛辛  | fr 6     | ap.my Pk   | China    | 1821. G  | co Bot. reg. 800          |
| §7039 semperflorens Ehr.   | Toussaint-ch. 辛辛   | fr 20    | ap.my W    | .....    | ... G    | co Dend. brit. 131        |
| §7040 ávium W.             | Corone-cherry 辛辛   | or 50    | ap.my W    | England  | ..... S  | co Blackw. t. 425         |
| §7041 pensylvánica W.      | Pensylvanian 辛辛    | or 30    | my W       | N. Amer. | 1773. G  | co Bot. mag. 1117         |
| §7042 nígra W.             | black 辛辛           | or 20    | ap.my W    | N. Amer. | 1773. G  | co Bot. reg. 27           |
| §7043 japónica P. S.       | Japan 辛辛           | or 2     | mr.my Pk   | Japan    | 1810. G  | co                        |
| §7044 brigantiaca Vill.    | Briançon Apr. 辛辛   | fr 20    | ap.my W    | Dauphiny | 1823. G  | co                        |
| 7045 doméstica W.          | common-Plum 辛辛     | fr 20    | ap W       | England  | hed. G   | r.m Eng. bot. 1783        |
| 7046 insitítia W.          | Bullace-tree 辛辛    | fr 20    | ap W       | Britain  | hed. S   | co Eng. bot. 841          |
| 7047 cerasífera W.         | Myrobalan 辛辛       | or 8     | ap.my W    | N. Amer. | 1629. L  | r.m                       |
| 7048 depréssa Ph.          | Sand-cherry 辛辛     | or 4     | my W       | N. Amer. | 1805. L  | s.1 Bot. cab. 1607        |
| §7049 Chicasa Ph.          | Chicasaw-Plum 辛辛   | or 6     | ap.my W    | N. Amer. | 1806. L  | s.1                       |
| 7050 marítima Ph.          | sea 辛辛             | or 4     | my W       | N. Amer. | 1800. L  | s.1                       |
| 7051 Susquihánna Ph.       | glaucous-leaved 辛辛 | or 6     | my W       | N. Amer. | 1800. L  | s.p                       |
| 7052 apínosa W.            | Sloe-tree 辛辛       | or 15    | mr.ap W    | Britain  | hed. S   | co Eng. bot. 842          |
| §7053 prostráta W.         | Birch-leaved 辛辛    | or 1     | ap.my Pk   | Crete    | 1802. L  | s.1 Bot. reg. 136         |
| §7054 boreális Mich.       | Choke-cherry 辛辛    | or 20    | my.jn W    | N. Amer. | 1822. L  | co Bot. cab. 1598         |
| §7055 pygmæa W.            | pigmy 辛辛           | or 4     | my W       | N. Amer. | 1823. B  | co                        |
| §7056 armeniaca L.         | common-apric. 辛辛   | fr 15    | f.mr W     | Levant   | 1548. L  | b Lam. ill. t. 431        |



History, Use, Propagation, Culture,

1199. *Prunus*. The origin of this name is wholly unknown. The Greeks called it *περουν*, and the Latins *prunus*. From this genus has been obtained the principal characters of that section of the natural order Rosacea, which is called Amygdaleæ or Prunaceæ, and which is curiously and chemically known by the presence of Prussic acid all in the species, and in all their parts.

*P. Padus* (a name of Theophrastus), the bird-cherry, is an ornamental tree, by its purple bark, leafy bunches of white flowers, and berries successively green, red, and black. It is common in the native woods of Scotland and Sweden, and in both countries the berries are infused in spirits in order to give them an agreeable flavor. The fruit is nauseous to the taste, though greedily eaten by birds. The bark is used by the Finlanders to cure venereal complaints, and also with success by regular practitioners in Stockholm for the same purpose. (*Stockholm Acts*.) The tree is very leafy, and dislikes a wet soil; but bears lopping as copsewood. The wood is beautifully veined, and used for cabinet work in France, as is that of *P. virginiana* in America.

*P. rubra* greatly resembles *P. Padus*. *P. caroliniana* is an imperfect evergreen.

*P. Lauro-cerasus* is one of our most popular evergreens. It was first brought from Constantinople to Holland in 1576; the first we read of in England was one at Highgate, in the garden of Mr. James Cole, a merchant of London, who, as Parkinson informs us, used to cover it in winter with a blanket. In less than half a century afterwards (1688), Ray informs us, the laurel was common in English gardens. It is now as universal in shrubberies as the rose. The kernel-like flavor of the fresh leaves has led to their use in flavoring custards and other culinary preparations; but as these leaves are poisonous, they ought to be used with caution. To brute animals the effect of the distilled water of laurel leaves is almost instant death; and two women in Dublin, and Sir T. Boughton in England, have been poisoned by it.

*P. lusitana* is a most beautiful evergreen shrub, nearly as universal as the lauro-cerasus. It was brought to England from Portugal, but does not appear to be a native of that country; probably of Madeira or some other islands possessed by the Portuguese in the sixteenth or seventeenth centuries.

*P. Mahaleb* (*Mahaleb* the Arabic name) flowers profusely, and disperses an odor resembling that of Clematis for a considerable distance around. Its fruit is round, shining black, and so hard that it has been bored for beads by the catholics. The wood is perfumed and used by the French in cabinet-work, especially in the village of St. Lucie, near Commercy, whence, among the French, the plant has obtained the name of *Bois de St. Lucie*.

*P. Cerasus*, the cultivated cherry, is by some considered a distinct species, and by others only a variety of *P. avium*, the cean or wild black cherry. Lucullus is said to have first introduced the cultivated cherry to Italy, in 73 A. C. from a town in Pontus in Asia, called *Cerasus*, whence its specific name, and it was introduced to Britain 120 years afterwards. Many suppose that the cherries introduced by the Romans into Britain were lost, and that they were re-introduced in the time of Henry VIII. by Richard Haines, the fruiterer to that monarch. But though we have no proof that cherries were in England at the time of the Norman conquest, or for some centuries after it; yet Warton has proved, by a quotation from Lidgate, a poet who wrote about

- 7026 Flowers racemose, Racemes pendulous, Lvs. decid. doubly serrat. somewhat rugose, Petioles with 2 glands  
 β Serratures of leaves less, Racemes more erect
- 7027 Flowers racemose, Racemes erect, Leaves deciduous doubly toothed smooth, Stalks with 4 glands
- 7028 Flowers in loose racemes, Lvs. decid. simply serrated: lower serratures glandular, Rib beard. towards base
- 7029 Flowers in lateral racemes, Leaves without glands oblong acuminate entire smooth on each side
- 7030 Flowers racemose, Racemes lateral, Leaves evergreen without glands oblong acuminate entire
- 7031 Flowers racemose, Leaves evergreen ovate-lanceolate serrated without glands
- 7032 Flowers racemose, Leaves evergreen with two glands at back
- 7033 Flowers corymbose terminal, Leaves ovate
- 7034 Umbels sessile aggregate few-flowered, Cal. acute, Branches virgate round, Leaves narrow lanceolate
- 7035 Umbels sessile aggregate few-fl. Sepals lanc. Stipules setaceous compound, Lvs. obl. oval suddenly pointed
- 7036 Umbels sessile, Leaves obovate obtuse smooth with glandular serratures
- 7037 Umbels somewhat stalked, Leaves ovate-lanceolate smooth folded together
- 7038 Leaves obovate acuminate flat serrated, Racemes pubescent
- 7039 Flowers racemose, Calyxes serrated, Leaves ovate serrated glandular at base
- 7040 Umbel sessile, Leaves ovate-lanceolate pubescent beneath folded together
- 7041 Umbel subsessile aggregate many-fl. at length panicle, Leaves obl. lanceolate serrated smooth
- 7042 Umbel sessile solitary few-fl. Leaves deciduous ovate acuminate finely serrated, Petioles with 2 glands
- 7043 Peduncles solitary, Leaves ovate acuminate smooth, Branches unarmed
- 7044 Fl. lateral clustered, Leaves doubly serrated roundish acute
- 7045 Peduncles subsolitary, Leaves lanceolate ovate convolute, Branches not spiny
- 7046 Peduncles twin, Leaves ovate villous beneath convolute, Branches spiny
- 7047 Peduncles solitary, Leaves elliptical smooth, Fruit pendulous, Branches nearly unarmed
- 7048 Umbel sessile clustered few-fl. Cal. obtuse, Branches angular prostrate, Lvs. can. lanc. glaucous beneath
- 7049 Buds clustered 2-fl. Ped. very short, Cal. smooth, Leaves oblong acum. serrulate, Branches spiny
- 7050 Pedunc. subsolitary, Leaves obovate-oblong acuminate doubly serrated
- 7051 Peduncles solitary, Leaves obovate obl. beneath glaucous serrated entire at base
- 7052 Peduncles solitary, Leaves ellipt. lanceolate pubescent beneath, Branches spiny
- 7053 Peduncles twin, Leaves ovate cut serrate without glands beneath white, Stem prostrate
- 7054 Flowers corymbose, Ped. elongated, Leaves oval oblong eroded membranous smooth
- 7055 Umbels sessile aggregate few-fl. Leaves ovate ellipt. acute smooth on each side with 2 glands at base
- 7056 Flowers sessile, Leaves subordinate



and Miscellaneous Particulars.

or before 1415, that the hawkers in London were wont to expose cherries for sale in the same manner as is now done early in the season. The tree is now very generally cultivated both as a wall and standard fruit, and has been forced for upwards of two centuries.

The Romans had eight varieties of cherry: in the British gardens are upwards of forty sorts. The French divide their cherries into *griottes*, or tender-fleshed; *bigarreaux*, or hard-fleshed; and *guignes*, or small fruits. The fruit of many varieties is somewhat heart-shaped, hence the very general cognomen; why some sorts are called dukes is not so obvious. The Morello cherry is very distinct from the other varieties, bearing almost exclusively on the preceding year's wood, and the pulp of the fruit having the consistence and flavor of the Morel, whence the name. Cherries are grafted or budded on seedlings from cherry-stones, or better from seedlings of the wild cherry. For dwarfing, they are worked on the bird cherry or perfumed cherry: the latter is preferred in Holland.

Cherry trees are very ornamental in shrubberies and woods, and valuable as encouraging the different species of thrush. The gum of cherry trees is eatable, and equal to that of gum arabic; the wood is hard and tough, and used by the turner and cabinet maker.

*Frumus Pesado*, Cerasus, the Chinese cherry, is of recent introduction, and most valuable on account of its bearing an excellent fruit, and producing it abundantly in a forcing-house.

*P. avium*, the gean, *guigne*, Fr., attains a large size, and its timber is of considerable value: the black corone cherry is supposed to be an improved variety of it, as are the different geans.

*P. domestica* is generally considered the original of the plum tree, *Prune*, Fr., *Pflaumen*, Ger., and *Prugno*, Ital. Many, however, conjecture that *P. insititia*, spinosa, and domestica, are the same species. There are several sorts of plums found wild in Britain, independently of the sloe, such as the bulcæ, damson, muscle, and winesour. The plum is said to love a lofty exposure, and to be favorable to the growth of grass under it. The bark dyes yellow, the wood is used in turnery, and the dried fruit or prune is formed into electuaries and gentle purgatives. Prunes were originally brought from Damascus, whence their name of damask, but are now chiefly imported from France.

There are a great many varieties of the plum in France, and in British gardens nearly a hundred sorts. By far the best dessert plum is the greengage, *Reine Claude*, Fr., *Regina Claudio*, Ital. It is well known throughout Europe, and perfectly distinct from every other variety. The damson is the best baking plum, and the winesour the best for sweetmeats. Plums are generally grafted or budded on muscle or damson stocks.

*Frumus Armeniaca*, *Abricot*, Fr., *Abricosenbaum*, Ger., *Albicocco*, Ital., *Albarcoque*, Portug. is a fruit tree next in esteem to the peach. From its trivial name, it is generally supposed to have originated in Armenia, but Regnier and Siedler assign it a parallel between the Niger and the Atlas; and Pallas states it to be a native of the whole of the Caucasus; the mountains there, to the top, being covered with it, Thunberg describes it as a very large, spreading, branchy tree in Japan. Grossier says, that it covers the barren mountains to the west of Pekin, that the Chinese have a great many varieties of the tree double-



|                                     |                   |    |    |       |    |                   |       |   |     |                     |
|-------------------------------------|-------------------|----|----|-------|----|-------------------|-------|---|-----|---------------------|
| \$7057 sibirica W.                  | Siberian-apric. 雄 | fr | 6  | ap    | Pk | Siberia           | 1788. | L | r.m | Pall. ross. 1. t. 8 |
| \$7038 dasycarpa Ehr.               | Black-apricot ♀   | fr | 15 | ap    | W  | Siberia           | 1800. | B | co  |                     |
| †1130. CHRYSOBALANUS W. COCOA PLUM. |                   |    |    |       |    | Rosaceæ. Sp. 2-4. |       |   |     |                     |
| 7059 Icaëco W.                      | West Indian 雄     | fr | 15 | ...   | W  | W. Indies         | 1752. | L | r.m | Jac. amer. t. 94    |
| 7060 oblongifolius Ph.              | American 雄        | or | 3  | my,jn | W  | Georgia           | 1812. | C | l.p | Bartr. iter. c. ic  |

DI-PENTAGYNIA.

|                          |                    |    |    |       |   |                     |        |   |     |                      |
|--------------------------|--------------------|----|----|-------|---|---------------------|--------|---|-----|----------------------|
| 1131. MESPILUS. Lindl.   | MEDLAR. 雄          | fr | 12 | my,jl | W | England             | hed.   | G | h.l | Eng. bot. 1523       |
| 7061 germanica W.        | common-eatabl. ♀   | or | 12 | my,jn | W | .....               | 1800.  | L | co  | Ex. bot. 1. t. 18    |
| 7062 grandiflora H. K.   | large-flowered ♀   |    |    |       |   |                     |        |   |     |                      |
| †*1132. CRATÆGUS L.      | HAWTHORN. 雄        |    |    |       |   | Rosaceæ. Sp. 21-32. |        |   |     |                      |
| \$7063 coccinea W.       | Scarlet-fr. Haw ♀  | or | 20 | ap,my | W | N. Amer.            | 1683.  | B | co  | Dend. brit. 62       |
| 7064 cordata W.          | Maple-leaved ♀     | or | 20 | my    | W | N. Amer.            | 1738.  | B | co  | Dend. brit. 63       |
| 7065 pyrifolia W.        | Pear-leaved ♀      | or | 15 | jn    | W | N. Amer.            | 1765.  | B | co  | Dend. brit. 61       |
| C. edulis Hort.          |                    |    |    |       |   |                     |        |   |     |                      |
| 7066 elliptica W.        | oval-leaved ♀      | or | 20 | my    | W | N. Amer.            | 1765.  | B | co  |                      |
| 7067 glandulosa W.       | hollow-leaved ♀    | or | 20 | my,jn | W | N. Amer.            | 1750.  | B | co  | Dend. brit. 58       |
| 7068 flavia W.           | yell. Pear-berr. ♀ | or | 20 | my    | W | N. Amer.            | 1724.  | B | co  | Dend. brit. 59       |
| 7069 parvifolia W.       | Gooseberry-lvd. ♀  | or | 15 | my,jn | W | N. Amer.            | 1704.  | B | co  | Dend. brit. 65       |
| 7070 punctata W.         | spotted-thorned ♀  | or | 15 | my    | W | N. Amer.            | 1746.  | B | co  | Dend. brit. 57       |
| 7071 Crus-galli W.       | Cocksbur-fruited ♀ | or | 20 | my,jn | W | N. Amer.            | 1691.  | B | co  | Dend. brit. 56       |
| β pyracanthifolia        | Pyracantha-lv. ♀   | or | 20 | my,jn | W | N. Amer.            | ....   | B | co  |                      |
| γ salicifolia            | Willow-leaved ♀    | or | 20 | my,jn | W | N. Amer.            | ....   | B | co  |                      |
| 7072 Pyracantha Lindl.   | Evergr.-thorn 雄    | or | 10 | my    | W | S. Europe           | 1629.  | S | s.l | Schm. arb. t. 90     |
| 7073 spathulata Ph.      | spatula-leaved ♀   | or | 15 | my,jn | W | N. Amer.            | 1806.  | B | co  |                      |
| 7074 apiifolia Ph.       | Parsley-leaved ♀   | or | 15 | my,jn | W | N. Amer.            | 1812.  | B | co  |                      |
| 7075 Oxycantha E. B.     | common-Haw. 雄      | or | 15 | my,jn | W | Britain             | hed.   | S | co  | Eng. bot. c. ic.     |
| β rosea                  | red-flowered 雄     | or | 15 | my,jn | R | .....               | ....   | B | co  |                      |
| γ major                  | great-fruited 雄    | or | 15 | my,jn | W | .....               | ....   | B | co  |                      |
| δ præcox                 | Glastonbury 雄      | or | 15 | my,jn | W | .....               | ....   | B | co  |                      |
| ε plena                  | double-flowered 雄  | or | 15 | my,jn | W | .....               | ....   | B | co  |                      |
| ξ atrea                  | yellow-berried 雄   | or | 15 | my,jn | W | .....               | ....   | B | co  |                      |
| 7076 eriocarpa Lindl.    | woolly-fruited 雄   | or | 15 | my,jn | W | Britain             | woods. | B | co  |                      |
| 7077 monogyna Pall.      | one-styled 雄       | or | 15 | my,jn | W | Siberia             | ....   | B | co  | Pall. ross. 1. t. 12 |
| 7078 Azarölus W.         | Azarole 雄          | or | 15 | my,jn | W | S. Europe           | 1640.  | B | co  | Bot. rep. 579        |
| 7079 tanacetifolia B. R. | Tansy-lv. Azar. 雄  | or | 15 | my,jn | W | Greece              | 1789.  | B | co  | Bot. rep. 591        |
| 7080 odoratissima B. R.  | sweet-sc. Azar. 雄  | or | 15 | my,jn | W | Crimea              | ....   | B | co  | Bot. rep. 590        |
| 7081 pentagyna W. & K.   | five-styled 雄      | or | 15 | my,jn | W | Hungary             | 1820.  | B | co  |                      |
| 7082 torminialis W.      | Wild-service 雄     | tn | 50 | ap,my | W | England             | woods. | S | co  | Eng. bot. 298        |
| 7083 nigra W. & K.       | black 雄            | or | 20 | ap,my | W | Hungary             | 1819.  | G | co  | Dend. brit. 64       |
| †1133. PYRUS. Sm.        | PYRUS. 雄           |    |    |       |   | Rosaceæ. Sp. 24-30. |        |   |     |                      |
| 7084 arbutifolia Ph.     | red-berried 雄      | or | 4  | my,jn | W | N. Amer.            | 1700.  | G | co  | Mill. ic. 100        |
| 7085 melanocarpa Ph.     | black-fruited 雄    | or | 4  | my,jn | W | N. Amer.            | 1700.  | S | co  | Schm. arb. t. 86     |



History, Use, Propagation, Culture,

blossomed, which they plant on little mounts for ornament, and dwarfs in pots for their apartments. It appears from Turner's Herbal, that the apricot was cultivated here in 1562; and in Hackluyt's Remembrancer, 1582, it is affirmed, that the apricot was procured out of Italy by Wolfe, a French priest, gardener to Henry VIII. The fruit seems to have been known in Italy in the time of Dioscorides, under the name of *Præcocia*, probably, as Regnier supposes, from the Arabic, *Berkock*; whence the Tuscan, *Bacchoe* or *Albicocco*, and the English *Apricock*; or, as Professor Martyn observes, a tree when first introduced, might have been called a *præcox*, or early fruit; and gardeners, taking the article *a* for the first syllable of the word, might easily have corrupted it to *apricocks*. The orthography seems to have been finally changed to *apricot* about the end of the last century.

There are fifteen or twenty excellent varieties of apricot, besides the peach apricot, a large fruit supposed to be a hybrid between a peach and an apricot. The trees are generally budded on plum stocks, and always trained against walls. Apricots do not force freely.

1130. *Chrysohalanus*. From χρυσος, gold, and ἄλανος, an acorn; in allusion to the size, color, and form of its fruit. C. Icaëco (the West Indian name) bears flowers and fruit not unlike the plum, which is sold in the markets of the West Indies, and eaten both raw and preserved. Both species grow well in a sandy loam. Large cuttings root best, taken off at a joint, and planted thinly in a pot of sand, without having their leaves injured, and a hand-glass placed over them. (*Bot. Cult.* 39.)

1131. *Mespilus*. In Greek μεσπύλη, from μέσος, half, and πύλος, bullet; the fruit resembling half a bullet or round ball. In French it is called *nefle*, from the Celtic *naff*, which also signifies truncate. M. Germanica, bears a turbinate berry, which is eaten raw in a state of incipient decay. It is little cultivated, but one or two trees are generally introduced in shrubberies or in complete orchards. There are one or two varieties besides the wild sort; what is called the Dutch medlar is reckoned the best. It is grafted on seedlings of the

7057 Flowers sessile, Leaves ovate acuminate simply serrate, Petioles without glands  
7058 Flowers sessile, Leaves ovate acuminate doubly serrate, Petioles with glands

7059 Leaves orbicular alternate, Flowers in loose racemes  
7060 Leaves wedge-shaped hoary beneath, Stamens smooth, Flowers in large panicles

## DI-PENTAGYNIA.

7061 Unarmed, Leaves lanceolate downy beneath, Flowers sessile solitary  
7062 Leaves cuneate oblong woolly beneath, Petals roundish or oval, Stamens smooth, Fruit obl. ovate

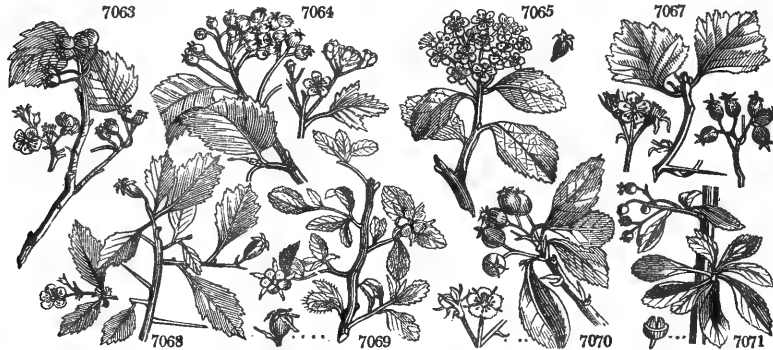
7063 Spiny, Leaves cordate ovate cut angular smooth, Petioles and cal. glandular, Styles 5  
7064 Spiny, Leaves cordate ovate cut angular smooth, Pet. and cal. without glands, Styles 5  
7065 Spiny or not, Lvs. ovate ellipt. cut serrate somewhat plaited and hairy, Cal. villous, Sep. lin.-lanc. Styles 3

7066 Spiny, Leaves ellipt. unequally serr. smooth, Pet. and cal. glandular, Berries round with 5 seeds  
7067 Spiny, Lvs. ov. wedge-shaped ang. smooth shining, Pet. stip. and cal. glandular, Berries oval with 5 seeds  
7068 Spiny, Lvs. obov. cuneiform angul. smooth shining, Pet. stip. and cal. glandular, Berries turbin. 4-seeded  
7069 Spiny, Leaves cuneiform ovate cut serrate, Sepals lanc. cut the length of pet. Styles 5  
7070 Spiny or not, Leaves obovate cuneiform smooth serrated, Cal. villous, Sepals subulate entire  
7071 Spiny, Leaves obovate cuneiform subsessile shining coriaceous, Sepals lanc. serrate, Styles 2

7072 Spiny, Leaves lanc. ovate crenate, Cal. of fruit obtuse  
7073 Spiny, Leaves fascicled small very much narrowed downwards subsapulate trifid, Cal. downy  
7074 Spiny, Leaves deltoid cut-lobed, Tube of calyx oblong with serrated sepals  
7075 Leaves obtuse subtrifid serrated smooth, Pedunc. and cal. nearly smooth, Sepals lanc. acute

7076 Leaves obtuse 3-lobed serrated smooth, Pedunc. and calyx covered with wool  
7077 Spiny, Leaves 5-cleft cut wedge-shaped, Lower lobes divaricating, Stipules half cordate  
7078 Leaves obtuse subtrifid toothed pubescent, Sepals ovate  
7079 Leaves pinnatifid hairy on both sides, Segments serrate, Flowers with bractes  
7080 Leaves pinnatifid downy on both sides, Segments trifid  
7081 Leaves ovate trifid serrated: at the axilla of the veins beneath hairy, Pedunc. and cal. pubesc. Styles 5  
7082 Leaves cordate ovate cut-lobed serrated, Lower lobes divaricating, Flowers corymbose  
7083 Leaves lobed sinuate serrated: at the base truncate cuneate beneath villous, Calyxes villous, Styles 5

7084 Unarmed, Lvs. obovate obl. acute crenate toothed downy beneath, Rachis glandular above, Cal. downy  
7085 Unarmed, Lvs. obovate obl. acuminate serrated smooth beneath, Rachis glandular above, Cal. smooth



## and Miscellaneous Particulars.

wild medlar, or on any other species of the same genus: often on the common thorn. The other species bears fruit similar to *M. germanica*, but more dry.

1132. *Crataegus*. From *καρτος*, force, on account of the extreme hardness of the wood of the original *Crataegus*, which appears to be what is now called *Pyrus aria*, the beam-tree. This is a very ornamental genus of small hardy trees, valuable for the neatness of their foliage, the earliness of their flowers in spring, and the rich colors of their berries in autumn.

*C. oxyacantha*, *αξυρ*, *αξυρδα*, sharp-spine, is the best hedge plant in Europe, and also furnishes some highly ornamental varieties, especially the double-blossomed and scarlet-blossomed.

The fruit of *C. odoratissima* is very agreeable. That of the Azarole (*al z'aroadr* Arabic, according to Castel and John de Souza) is much esteemed in the South of Europe. In this country it rarely arrives at perfection.

1133. *Pyrus*. From the Celtic *peren*, the Anglo-Saxons made *pere*, the English, *pear*, the French, *poire*, and the Latins, *pyrus*, or for the fruit, *pyrum*. From the Celtic word *api*, which also signified a fruit resembling an apple, the Greeks obtained *απις*, the English, *apple*, the Germans, *apfel*. To this day the French distinguish a tribe of small fruited apples by the name *api*.

*P. malus*, *Pomme*, Fr., *Apfel*, Ger., and *Pomo*, Ital., is the most popular of British fruits. None can be brought to so high a degree of perfection with so little trouble; and of no other are there so many excellent varieties in general cultivation, calculated for almost every soil, situation, and climate, which our islands afford. Very good apples are grown in the Highlands and Orkneys, and even in the Shetland isles, (*Caled. Hort. Mem.* vol. ii.) as well as in Devonshire and Cornwall; some sorts are ripe in the beginning of July, and others, which ripen later, will keep till June. Unlike other fruits, those which ripen latest are the best.

The tree attains a great age, is in general very prolific, and the timber is valuable for the turner, millwright

|                                   |  |   |    |    |       |    |            |        |   |     |                     |
|-----------------------------------|--|---|----|----|-------|----|------------|--------|---|-----|---------------------|
| 7086 <i>communis</i> W.           | common-Pear                                | 辛 | or | 30 | ap    | W  | England    | woods. | G | co  | Eng. bot. 1784      |
| 7087 <i>Pollveria</i> W.          | woolly-leaved                              | 辛 | or | 15 | ap.jn | W  | Germany    | 1786.  | G | co  |                     |
| 7088 <i>salicifolia</i> W.        | Willow-leaved                              | 辛 | or | 20 | my.jn | W  | Russia     | 1780.  | G | co  | Bot. reg. 514       |
| 7089 <i>nivalis</i> W.            | white-leaved                               | 辛 | or | 6  | my    | W  | Austria    | ...    | L | p.l | Jac. aus. 2. t. 107 |
| 7090 <i>Malus</i> W.              | Apple-tree                                 | 辛 | fr | 20 | ap.my | W  | Britain    | woods. | G | r.m | Eng. bot. 179       |
| 7091 <i>spectabilis</i> W.        | Chinese-apple                              | 辛 | fr | 20 | my    | Pk | China      | 1780.  | G | co  | Bot. mag. 267       |
| 7092 <i>prunifolia</i> W.         | Siberian-crab                              | 辛 | fr | 20 | ap.my | Pk | Siberia    | 1758.  | G | co  | Mill. ic. 2. t. 969 |
| 7093 <i>baccata</i> W.            | small-fruited                              | 辛 | or | 15 | ap.my | Pk | Siberia    | 1784.  | G | co  | Dend. brit. 51      |
| 7094 <i>coronaria</i> W.          | sweet-sc. crab                             | 辛 | or | 20 | my    | Pk | Virginia   | 1774.  | G | co  | Bot. mag. 2009      |
| 7095 <i>angustifolia</i> W.       | narrow-leaved                              | 辛 | or | 20 | my    | Pk | N. Amer.   | 1750.  | G | co  | Dend. brit. 132     |
| 7096 <i>A.ria</i> W.              | white Beam-tr.                             | 辛 | tm | 40 | my.jn | W  | Britain    | moi.w. | G | co  | Eng. bot. 1858      |
| 7097 <i>intermedia</i> W.         | Swedish Bm-tr.                             | 辛 | tm | 40 | ap.my | W  | Sweden     | 1789.  | G | co  | Fl. dan. 301        |
| 7098 <i>hybrida</i> Mönch.        | hybrid                                     | 辛 | tm | 40 | ap.my | W  | .....      | ...    | S | co  | Mönch weis. t. 9    |
| 7099 <i>pinnatifida</i> E. B.     | Bastard Serv.                              | 辛 | tm | 40 | my.jn | W  | England    | rocks. | S | co  | Eng. bot. 2231      |
| <i>Sorbus hybrida</i> W.          |  |   |    |    |       |    |            |        |   |     |                     |
| 7100 <i>domestica</i> E. B.       | True Service                               | 辛 | fr | 30 | my.jn | W  | England    | moi.w. | S | co  | Eng. bot. 350       |
| 7101 <i>aucuparia</i> E. B.       | Mountain Ash                               | 辛 | or | 30 | my.jn | W  | Britain    | moi.w. | S | co  | Eng. bot. 337       |
| 7102 <i>americana</i> Ph.         | purple-berried                             | 辛 | or | 15 | my.jn | W  | Canada     | 1782.  | L | co  | Dend. brit. 54      |
| 7103 <i>microcarpa</i> Ph.        | small-fruited                              | 辛 | or | 10 | my.jn | W  | N. Amer.   | ...    | L | co  |                     |
| 7104 <i>Chamae Mespilus</i> Li.   | Bastard Quince                             | 辛 | or | 8  | my.jn | W  | Pyrenees   | 1683.  | L | co  | Schm. arb. t. 87    |
| 7105 <i>sinaica</i> Thoun.        | Mt. Sinai Medl.                            | 辛 | fr | 20 | my.jn | W  | Levant     | 1820.  | G | co  | Dend. brit. 49      |
| 7106 <i>edulius</i> W.            | eatable                                    | 辛 | fr | 10 | ap.my | W  | France     | 1816.  | G | co  | Dend. brit. 52      |
| 7107 <i>dioica</i> W.             | diaceous                                   | 辛 | cu | 10 | ap.my | W  | .....      | 1818.  | G | co  |                     |
| 1134. <b>CYDO'NIA. Juss.</b>      | <b>QUINCE. Rosaceae. Sp. 3-4.</b>          |   |    |    |       |    |            |        |   |     |                     |
| 7108 <i>vulgaria</i> W. en.       | common                                     | 辛 | fr | 20 | my.jn | W  | Austria    | 1573.  | L | h.l | Jac. aus. 4. t. 342 |
| 7109 <i>japonica</i> P. S.        | Japan                                      | 辛 | or | 4  | ja.d  | S  | Japan      | 1815.  | L | r.l | Bot. mag. 622       |
|                                   | <i>β alba</i>                              | 辛 | or | 4  | ja.d  | Pk | .....      | ...    | L | r.l | Bot. cab. 541       |
| 7110 <i>chinensis</i> Thoun.      | Chinese                                    | 辛 | fr | 15 | my.jn | Pk | China      | 1818.  | L | co  | Bot. reg. 1243      |
| †1135. <b>PHOTO'NIA. Lindl.</b>   | <b>PHOTINIA. Rosaceae. Sp. 3-5.</b>        |   |    |    |       |    |            |        |   |     |                     |
| 7111 <i>serrulata</i> Lindl.      | smooth-leaved                              | ♀ | or | 10 | ap.jl | W  | China      | 1804.  | C | p.l | Bot. reg. 2105      |
|                                   | <i>Crataegus glabra</i> B.                 |   |    |    |       |    |            |        |   |     |                     |
| 7112 <i>arbutifolia</i> Lindl.    | Arbutus-lvd.                               | ♀ | or | 10 | jl.au | W  | California | 1796.  | G | p.l | Bot. reg. 491       |
| 7113 <i>dubia</i> Lindl.          | doubtful                                   | ♀ | or | 10 | ...   | W  | Nepal      | 1821.  | L | p.l | Linn. tr. 13. t. 10 |
|                                   | <i>Mesp. bengalensis</i> Hort.             |   |    |    |       |    |            |        |   |     |                     |
| 1136. <b>RAPHIOLE'PIS. Lindl.</b> | <b>INDIAN HAWTHORN. Rosaceae. Sp. 4-6.</b> |   |    |    |       |    |            |        |   |     |                     |
| 7114 <i>indica</i> Lindl.         | common                                     | 辛 | or | 4  | f.au  | W  | China      | 1806.  | C | p.l | Bot. mag. 2461      |
| 7115 <i>rubra</i> Lindl.          | red  | 辛 | or | 4  | f.au  | W  | China      | 1820.  | C | p.l | Lindl. coll. 3      |
| 7116 <i>phaeostemon</i> Lindl.    | long-stamened                              | 辛 | or | 4  | f.au  | W  | China      | 1820.  | C | p.l | Bot. reg. 468       |
| 7117 <i>salicifolia</i> Lindl.    | willow-leaved                              | 辛 | or | 3  | f.au  | W  | China      | 1831.  | C | p.l | Bot. reg. 652       |
| †1137. <b>ERIOBOTRYA. Lindl.</b>  | <b>QUOAT. Rosaceae. Sp. 1-4.</b>           |   |    |    |       |    |            |        |   |     |                     |
| 7118 <i>japonica</i> Lindl.       | common                                     | ♀ | fr | 15 | o     | W  | Japan      | 1787.  | G | a.l | Vent. malm. 19      |
|                                   | 7088                                       |   |    |    |       |    | 7089       |        |   |     |                     |
|                                   |  |   |    |    |       |    |            |        |   |     | 7095                |



History, Use, Propagation, Culture,

and cabinet maker. The Romans had twenty-two varieties, and there are now several hundreds in Britain and France, and some excellent sorts from America. They are usually divided into dessert, baking, and cyder fruits; the first high flavored, the second such as fall or become mellow in baking or boiling, and the third austere, and generally fruits of small size. Besides this division, apples are classed as pippins or seedlings, pearmain or somewhat pear-shaped fruits, rennets or queens, specked fruits, calvilles or white-skinned fruits, russets or brown fruits, codlings or falling fruits, and burknots, which grow readily by cuttings. Most sorts of apple form ugly trees as standards, but are otherwise very ornamental in shrubberies from their blossoms. The crabs, and especially the varieties obtained from the Siberian crab, form much the handsomest heads, and have also more brilliant blossoms. The apple may be propagated by layers, and many sorts by cuttings; but the usual mode is by grafting on crab-stocks, and for dwarfing on stocks of the paradise apple.

*P. communis*, Poirier, Fr., *Birnbaum*, Ger., and *Pero*, Ital., is a fruit-tree next in popularity and value to the apple tree. It is a greatly superior dessert fruit, but not so valuable for culinary purposes and the press. There are fewer good sorts of pears, in proportion to the number of current varieties, than of apples; but a few, as the Jargonelles, Bergamots, Beurrees, Chaumontelles, &c. are most exquisite dessert fruits, and are much easier of digestion than the apple. It arrives in greater perfection in France and the north of Italy than in England. The Chaumontelles of Guernsey are in high repute, as are the St. Germain's and other sorts of Picardy, and the Beurrees of Milan. The Romans had thirty-six varieties, and there are many hundreds in the French and British nurseries, most of them good for little. Professor Van Mons, of Brussels, and M. Duquessie, of Mons, fruited about 8000 seedling pears, from which they obtained nearly 800 sorts worth cultivating. (Nesill's Hort. Tour.) The var. eties are divided into dessert and baking fruits; and also into melting or butter pears, *beurrees*, Fr., breaking pears, *crevers*, Fr., and perry, *poirée*, Fr., fruits. The tree is grafted on seedlings of the same species, and for dwarfing and precocity on the quince. It is a much handsomer upright growing tree than the apple, more durable, and its wood hard and valuable for the turner and millwright; but its blossoms being white, are less shewy than those of the apple.

*P. domestica*, and the other species of service are very ornamental trees; their leaves are mostly white

- 7086 Leaves ovate serrated, Pedunc. corymbose  
 7087 Leaves serrated downy beneath, Flowers corymbose  
 7088 Leaves lin. lanc. hoary white with down beneath, Fl. axillary solitary subsessile  
 7089 Leaves ovate stalked entire silky beneath, Flowers corymbose  
 7090 Umbel sessile, Leaves ovate oblong acuminate serrated smooth, Claws shorter than cal. Styles smooth  
 7091 Umbel sessile, Leaves oval oblong serrated smooth, Claws longer than cal. Styles woolly at base  
 7092 Umbel sessile, Pedunc. pubescent, Styles woolly at base, Leaves ovate acuminate  
 7093 Leaves equally serrulate, Pedunc. clustered, Apples like berries, Cal. deciduous  
 7094 Leaves cordate cut-serrate angular smooth, Pedunc. corymbose  
 7095 Leaves lanc. oblong shining tooth-serrated narrowed at base entire, Pedunc. corymbose  
 7096 Leaves roundish ovate cut serrate hoary beneath, Flowers corymbose  
 7097 Leaves ovate lanceolate cut-lobed toothed beneath snow-white, Flowers corymbose  
 7098 Leaves pubescent beneath pinnated with the last pinna very large pinnatifid and simple  
 7099 Leaves half pinnated downy beneath
- 7100 Leaves pinnated villous beneath  
 7101 Leaves pinnated smooth on both sides  
 7102 Leaves pinnated, Leaflets acute almost equally serrated and common petiole smooth  
 7103 Lvs. pinnated, Leaflets acuminate unequally cut serrated and common petiole smooth, Serratures bristly [mucronate]  
 7104 Leaves oval acutely serrated smooth, Fl. in corymbose heads  
 7105 Leaves ovate oblong entire somewhat downy, Peduncle simple downy corymbose  
 7106 Leaves oblong cuneate at base unequally and doubly serrated hoary beneath, Fl. corymbose  
 7107 Leaves oval serrated, Fl. solitary dioecious, Pet. linear the length of calyx
- 7108 Leaves downy deciduous  
 7109 Leaves smooth shining evergreen
- 7110 Leaves smooth deciduous
- 7111 Leaves oblong acute serrulate, Pedicels longer than calyx
- 7112 Leaves oblong lanc. distantly toothed, Pedicels shorter than calyx  
 7113 Leaves lanceolate distantly serrated, Panicle hairy
- 7114 Raceme imbricated with persistent foliaceous bractes, Petals roundish  
 7115 Leaves ovate lanceolate acuminate at each end, Pet. lanc. Stamens upright shorter than calyx  
 7116 Leaves long lanceolate, Stamens spreading longer than the calyx  
 7117 Leaves linear lanceolate, Sepals subulate much longer than stamens, Panicle contracted
- 7118 Leaves lanceolate serrated



and Miscellaneous Particulars.

underneath, and they are generally profusely covered with blossoms and fruit. Of *P. domestica* there are two varieties, the pear and apple-shaped, cultivated in some parts of France and near Genoa for their fruits. Those like the medlar and quince are not eaten till in a state of incipient decay. There are but few of the true service in English gardens, but the *P. hybrida* and *pinnatifida* are common, and their fruit, which resembles that of the mountain ash, is sometimes made use of.

*P. aucuparia* and *Americana* are handsome trees for shrubberies, the former very popular in suburban gardens.

1134. *Cydonia*. So called from being native of the ancient town Cydon in the Island of Crete; or perhaps it may be a corruption of *malus-cotonea*, by which the Latins designate the fruit. *C. vulgaris* is a deformed low tree, sometimes cultivated for its fruit, which is a pome with a persisting calyx like the medlar. It is used as a marmalade for flavoring apple-tarts. It prefers moist loam, and is raised by layers. It is most in use, however, as a stock for the pear. *C. japonica* is a beautiful low bush, remarkable for the brilliancy of its blossoms, which vary from the richest scarlet to the most delicate bluish color. It is hardy, and well adapted for single plants, upon grass, or for forming ornamental hedges in flower gardens.

1135. *Photinia*. So named, we believe, from *φωσ φωτος*, light, in allusion to the lucid surface of the leaves of the species. *P. serrulata* and *arbutifolia* are elegant shrubs, and nearly hardy. The latter succeeds perfectly against a south wall.

1136. *Raphiolepis*. From *ραφίς*, a needle, and *λεπίς*, a scale, in allusion to the numerous, subulate, persistent bractes, which are mixed among the racemes of flowers. Pretty Chinese small shrubs, formerly known under the collective name of *Crataegus indica*.

1137. *Eriobotrya*. From *ερίον*, wool, and *κόρυς*, a bunch of grapes, in allusion to the wooliness of its raceme. This genus is excellently characterized by the structure of its seed, of which the radicle is retracted within the cotyledons, not exerted as in all the other genera of Pomaceae. *E. japonica* produces an agreeable fruit about the size of a gooseberry, of a fine yellow color, and, according to Sir Joseph Banks, as good as the mango. To ripen it with flavor, it requires the temperature of the stove, and comes into use in March. It may be grafted on any species of the genus, or on the hawthorn.

|                                   |                  |                   |                           |                 |       |     |                       |                    |
|-----------------------------------|------------------|-------------------|---------------------------|-----------------|-------|-----|-----------------------|--------------------|
| 1138. AMELAN'CHIER. <i>Lindl.</i> | AMELANCHIER.     | <i>Rosaceae.</i>  | Sp. 3-4                   |                 |       |     |                       |                    |
| 7119 vulgaris <i>Lindl.</i>       | Alpine           | or                | 6 ap.my W                 | S. Europe       | 1596. | L   | co                    | Bot. mag. 2430     |
| 7120 Botryspium <i>Lindl.</i>     | snowy            | or                | 12 ap.my W                | N. Amer.        | 1746. | L   | co                    | Schm. arb. t. 84   |
| 7121 ovalis <i>Lindl.</i>         | oval-leaved      | or                | 8 ap.my W                 | N. Amer.        | 1800. | L   | co                    |                    |
| 1139. COTONEASTER. <i>Lindl.</i>  | COTONEASTER.     | <i>Rosaceae.</i>  | Sp. 4-5.                  |                 |       |     |                       |                    |
| 7122 vulgaris <i>Lindl.</i>       | dwarf            | or                | 4 ap.my Pk                | Europe          | 1636. | L   | co                    | Schm. arb. t. 89   |
| 7123 tomentosa <i>Lindl.</i>      | quince-leaved    | or                | 4 ap.my Pk                | .....           | 1759. | L   | co                    |                    |
| 7124 acuminata <i>Lindl.</i>      | taper-pointed    | or                | 4 ap.my Pk                | Nepal           | 1820. | L   | co                    | Linn. tr. 13. t. 9 |
| 7125 affinis <i>Lindl.</i>        | downy Nepal      | or                | 4 ap.my Pk                | Nepal           | 1820. | L   | co                    | Bot. cab. 1592     |
| 1140. WALDSTEINIA. <i>W.</i>      | WALDSTEINIA.     | <i>Rosaceae.</i>  | Sp. 1.                    |                 |       |     |                       |                    |
| 7126 geoides <i>W.</i>            | Avens-like       | or                | $\frac{2}{3}$ jn.jl       | Y Hungary       | 1804. | D   | lp                    | Bot. cab. 492      |
| 1141. SPIRÆA. <i>W.</i>           | SPIRÆA.          | <i>Rosaceae.</i>  | Sp. 23-34.                |                 |       |     |                       |                    |
| 7127 levigata <i>W.</i>           | smooth-leaved    | or                | 4 ap.jn R                 | Siberia         | 1774. | L   | pl                    | Sch. arb. 1. t. 49 |
| <i>S. altaica</i> <i>Pall.</i>    |                  |                   |                           |                 |       |     |                       |                    |
| 7128 salicifolia <i>W. en.</i>    | willow-leaved    | or                | 5 jn.au Pk                | Britain moi.h.  | L     | co  | Eng. bot. 1468        |                    |
| <i>β alba</i>                     | white-flowered   | or                | 5 jn.au W                 | N. Amer. ...    | L     | co  | Mil. ic. t. 257. f. 2 |                    |
| 7129 carpiniifolia <i>W. en.</i>  | Hornbeam-lvd.    | or                | 4 jn.au W                 | N. Amer. ...    | L     | co  | Dend. brit. 66        |                    |
| 7130 tomentosa <i>W.</i>          | tomentose        | or                | 5 au.s Pk                 | N. Amer. 1736.  | Sk    | p.l | Sch. arb. 1. t. 21    |                    |
| 7131 alpina <i>W.</i>             | Alpine           | or                | 3 jl W                    | Siberia 1806.   | Sk    | p.l | Pall. ros. 1. t. 80   |                    |
| 7132 hypericifolia <i>W.</i>      | Italian May      | or                | 5 ap.my W                 | N. Amer. 1640.  | L     | co  | Sch. arb. 1. t. 26    |                    |
| 7133 chamaecristifolia <i>W.</i>  | Germander-lvd.   | or                | 1 $\frac{1}{2}$ jn.jl W   | Siberia 1789.   | L     | p.l | Pall. ros. 1. t. 15   |                    |
| 7134 ulmifolia <i>W.</i>          | Elm-leaved       | or                | 3 jn.jl W                 | Carniola 1790.  | L     | p.l | Jac. vin. 2. t. 140   |                    |
| 7135 betulifolia <i>Pall.</i>     | Birch-leaved     | or                | 2 jn.jl Pk                | N. Amer. 1812.  | L     | p.l | Sch. arb. 1. t. 55    |                    |
| 7136 crenata <i>W.</i>            | Hawthorn-lvd.    | or                | 2 ap.my W                 | Siberia 1739.   | L     | p.l | Dend. brit. 68        |                    |
| 7137 oblongifolia <i>W. en.</i>   | oblong-leaved    | or                | 3 my.jn W                 | Hungary 1816.   | L     | p.l | Pl. rar. h. 3. t. 535 |                    |
| 7138 triloba <i>W.</i>            | three-lobed      | or                | 3 my W                    | Siberia 1801.   | L     | p.l | Dend. brit. 68        |                    |
| 7139 thalictroides <i>W.</i>      | MeadowRue-lv.    | or                | 2 my W                    | Siberia 1790.   | Sk    | p.l | Pall. ros. 1. t. 18   |                    |
| 7140 obovata <i>W. en.</i>        | obovate-leaved   | or                | 3 my.jn W                 | Hungary 1816.   | Sk    | p.l |                       |                    |
| 7141 opulifolia <i>W.</i>         | Guel'd. Rose-lv. | or                | 5 jn.jl W                 | N. Amer. 1690.  | L     | co  | Sch. arb. 1. t. 52    |                    |
| 7142 sorbifolia <i>W.</i>         | pinnated         | or                | 4 au W                    | Siberia 1759.   | Sk    | co  | Bot. mag. 2426        |                    |
| <i>β alpina</i>                   | large-flowered   | or                | 3 au W                    | Siberia 1817.   | Sk    | co  | Pall. ros. 1. t. 25   |                    |
| 7143 bella <i>Sims.</i>           | pretty           | or                | 2 jl.au R                 | Nepal 1820.     | L     | co  | Bot. cab. 671         |                    |
| 7144 corymbosa <i>Lodd.</i>       | corymbose        | or                | 1 $\frac{1}{2}$ jl.au W   | N. Amer. 1819.  | L     | co  | Bot. cab. 671         |                    |
| 7145 cratægifolia <i>Link.</i>    | Hawthorn-lvd.    | or                | 3 jl.au W                 | .....           | 1823. | L   | co                    |                    |
| 7146 Arctus <i>W.</i>             | Goat's-beard     | or                | 4 jn.jl W                 | Siberia 1633.   | D     | p.l | Pall. ros. 1. t. 26   |                    |
| 7147 Filipéndula <i>W.</i>        | Dropwort         | or                | 2 jn.o W                  | Britain m. pas. | D     | co  | Eng. bot. 284         |                    |
| <i>β pléna</i>                    | double-flowered  | or                | 1 $\frac{1}{2}$ jn.o W    | N. Amer.        | D     | co  |                       |                    |
| 7148 Ulmaria <i>W.</i>            | Meadow-sweet     | or                | 2 jn.o W                  | Britain m. me.  | D     | co  | Eng. bot. 900         |                    |
| <i>β pléna</i>                    | double-flowered  | or                | 2 jn.o W                  | Britain m. me.  | D     | p.l |                       |                    |
| 7149 lobata <i>W.</i>             | palmed           | or                | 2 jl.au R                 | Siberia 1765.   | D     | p.l | Jac. vin. 1. t. 88    |                    |
| 1142. GILLE'NIA. <i>Mönch.</i>    | GILLENIA.        | <i>Rosaceae.</i>  | Sp. 2.                    |                 |       |     |                       |                    |
| 7150 trifoliata <i>Mönch.</i>     | three-leaved     | or                | 2 jn.au R.w               | N. Amer.        | 1713. | D   | p.l                   | Bot. mag. 489      |
| 7151 stipulacea <i>W.</i>         | large-stipuled   | or                | 2 jn.au R.w               | N. Amer.        | 1805. | L   | co                    |                    |
| 1143. SESU'VIUM. <i>W.</i>        | SESUVIUM.        | <i>Ficoideae.</i> | Sp. 5-7.                  |                 |       |     |                       |                    |
| 7152 Portulacæstrum <i>W.</i>     | Purslane-lvd.    | or                | 2 jn.jl R.w               | W. Indies 1692. | C     | r.m | La. ill. t. 434. f. 1 |                    |
| 7153 sessile <i>P. S.</i>         | sessile-flowered | or                | 3 jn.jl R.w               | W. Indies ...   | C     | r.m | Plant. grass. 9       |                    |
| 7154 revolutifolium <i>W. en.</i> | revolute-leaved  | or                | 1 $\frac{1}{2}$ jl.au R.w | S. Amer. ...    | D     | lp  | Bot. mag. 1701        |                    |
| 7155 longifolium <i>W. en.</i>    | long-leaved      | or                | 1 $\frac{1}{2}$ jl.au R.w | S. Amer. 1816.  | S     | lp  |                       |                    |
| 7156 repens <i>W. en.</i>         | creeping         | or                | 1 jl.au R.w               | E. Indies 1816. | S     | lp  | R. am. 5. t. 72. f. 1 |                    |
| 1144. AIZO'ON. <i>W.</i>          | AIZOON.          | <i>Ficoideae.</i> | Sp. 4-16.                 |                 |       |     |                       |                    |
| 7157 canariense <i>W.</i>         | Purslane-lvd.    | or                | 1 jl.au Y                 | Canaries 1731.  | S     | r.m | Bot. rep. 201         |                    |
| 7158 glinoides <i>W.</i>          | hairy            | or                | 1 jn.au C. G. H.          | 1774.           | C     | r.m |                       |                    |
| 7159 hispanicum <i>W.</i>         | Spanish          | or                | $\frac{1}{2}$ jl.au Ap    | Spain 1728.     | S     | r.m | Plant. grass. 30      |                    |
| 7160 lanceolatum <i>W.</i>        | spear-leaved     | or                | $\frac{1}{2}$ au Pk       | C. G. H. 1792.  | S     | r.m |                       |                    |



History, Use, Propagation, Culture.

1138. *Amelanchier*. According to Cusius, *Amelanchier* is the old Savoy name of the plant. It has been adopted by Mr. Lindley as the title of a small group of plants nearly related to *Pyrus*, but curiously distinguished by the 10-cells of the ovary.

1139. *Cotoneaster*. Named in allusion to the cottony nature of the fruit and young branches of the most common species. Small inconspicuous bushes, with solitary pink flowers almost hidden among the leaves.

1140. *Waldsteinia*. Named by Willdenow, in honor of Franz de Waldstein, a distinguished German botanist. Plants with the aspect of *Potentilla* or rather *Geum*.

1141. *Spiræa*. *Sarica*, signifies a cord. *Spiræon* is Pliny's name for a plant the blossoms of which are used in garlands. That plant is thought to have been the *Viburnum Lantana*. This genus affords some orna-

7119 Leaves roundish elliptical acute pubescent beneath, Sepals smooth, Germen villous  
 7120 Leaves oblong elliptical cuspidate smooth, Sepals smooth, Germen pubescent  
 7121 Leaves roundish elliptical acute smooth, Petals obovate, Sepals and germen pubescent

7122 Leaves ovate rounded at base, Cal. and pedunc. naked  
 7123 Leaves elliptical obtuse at each end, Cal. and pedunc. woolly  
 7124 Leaves ovate acuminate a little hairy on each side, Cal. and pedunc. naked  
 7125 Leaves ovate attenuate at base, Cal. and pedunc. woolly

7126 Leaves radical stalked 5-lobed

7127 Leaves lanceolate entire sessile, Racemes compound

7128 Leaves oblong serrated smooth, Racemes decomound

7129 Leaves ovate elliptical acute at each end smooth coarsely serrated, Racemes spreading paniced

7130 Leaves lanceolate unequally serrate downy beneath, Flowers doubly racemose

7131 Leaves linear-lanceolate toothlitted smooth, Corymbs lateral

7132 Leaves obovate entire, Umbels sessile

7133 Leaves obovate cut-toothed at end, Corymbs stalked

7134 Leaves ovate lanceolate doubly toothed, Corymbs stalked

7135 Leaves broad ovate cut-serrate smooth, Corymbs terminal compound leafy

7136 Leaves obovate acute toothed at end 3-nerved, Corymbs close stalked

7137 Leaves oblong lanceolate serrated at end and entire, Corymbs stalked

7138 Leaves roundish bluntly lobed toothed, Umbels stalked

7139 Leaves obovate obtuse 3-lobed, Umbels lateral sessile

7140 Leaves obovate obtuse at the end bluntly and unequally 3-nerved, Corymbs axillary sessile

7141 Leaves ovate 3-lobed serrated, Corymbs stalked

7142 Leaves pinnated, Leaflets even serrated, Flowers paniced

7143 Leaves ovate acute smooth serrated stalked glaucous beneath, Cymes pubescent

7144 Leaves oblong bluntly and irregularly serrated, Flowers in dense corymbs

7145 Leaves obovate obtuse forwards doubly serrated smooth, Corymbs terminal compound, Flowers capitata

7146 Leaves supra-decompound, Spikes paniced, Flowers diiccious

7147 Leaves pinnated, Leaflets even serrated, Flowers corymbose

7148 Leaves pinnated downy beneath, The end lobe larger and 3-lobed; the side ones undivided

7149 Leaves pinnated smooth, The end lobe 7-lobed; the lateral 3-lobed, Corymbs proliferous

7150 Stipules linear entire, Calyx tubular campanulate

7151 Stipules leafy ovate cut-toothed, Calyx campanulate

7152 Leaves spatulate oblong, Joints of stem tumid, Fl. stalked

7153 Flowers sessile, Leaves linear oblong flat

7154 Leaves linear lanc. revolute at edge, Fl. terminal sessile

7155 Leaves lin. spatulate, Joints of stem equal, Fl. stalked

7156 Leaves lanc. spatulate, Joints of stem creeping filiform, Fl. stalked

7157 Leaves cuneiform ovate, Flowers sessile

7158 Leaves roundish cuneiform pilose, Fl. sessile, Cal. hairy

7159 Leaves lanceolate, Flowers sessile apetalous

7160 Leaves lanceolate, Flowers paniced



and Miscellaneous Particulars.

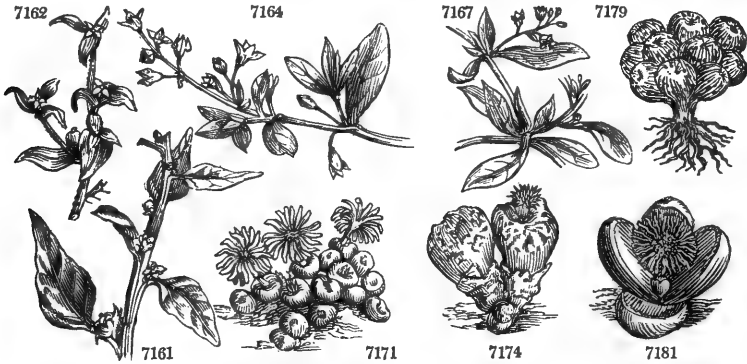
mental shrubs, free flowerers, and of easy culture; as *S. salicifolia*, *hypericifolia*, *tomentosa*, &c. The herbaceous species, especially *filipendula*, *ulmaria*, and *aruncus*, are also very ornamental.

1142. *Gallenia*. A genus well divided by Monch from *Spiraea*, from which it differs in so many respects as to make it astonishing that the species should ever have been referred to that genus, even by the most unreasonable advocate of the exploded doctrines of synthetical botany. Pretty North American plants with lobed discolored leaves, and white flowers.

1143. *Securinum*. Meaning of the name unknown. Inelegant plants with the habit of purslane.

1144. *Azoon*. From *αει*, always, and *ζωον*, alive, always alive, or evergreen. A name given by the Greeks to the *Sempervivum*. This is an uninteresting genus, only known among the curious.

| 1145. TETRAGONIA.          |                                  | <i>W.</i> TETRAGONIA. | <i>Ficoideae.</i> | <i>Sp.</i> 10—16    |          |                                       |
|----------------------------|----------------------------------|-----------------------|-------------------|---------------------|----------|---------------------------------------|
| 7161                       | <i>expansa</i> <i>W.</i>         | N. Zeal. spinage      | □ cul 6 au.s      | G                   | N. Zeal. | 1772. C s.l. Bot. mag. 2362           |
| 7162                       | <i>crystallina</i> <i>W.</i>     | Diamond               | □ un 2 ju         | G                   | Peru     | 1788. S s.l. Plant. grass. 34         |
| 7163                       | <i>fruticosa</i> <i>W.</i>       | shrubby               | □ un 2 jls        | G                   | C. G. H. | 1712. C s.l. Mil. ic. 2. t. 263. f. 2 |
| 7164                       | <i>decumbens</i> <i>W.</i>       | trailing              | □ un 1 jls        | G                   | C. G. H. | 1758. C s.l. Plant. grass. 23         |
| 7165                       | <i>Tetrapteris</i> <i>Haw.</i>   | winged-seeded         | □ un 2 jls        | G                   | C. G. H. | 1795. C s.l.                          |
| 7166                       | <i>spicata</i> <i>W.</i>         | spiked                | □ un 1 jl         | G                   | C. G. H. | 1795. C s.l.                          |
| 7167                       | <i>herbacea</i> <i>W.</i>        | herbaceous            | □ un 3 ju. jl     | G                   | C. G. H. | 1752. C s.l. Co. hort. 2. t. 102      |
| 7168                       | <i>echinata</i> <i>W.</i>        | Hedge-hog             | □ un 1 my. au     | G                   | C. G. H. | 1774. C s.l. Plant. grass. 113        |
| 7169                       | <i>linearis</i> <i>Haw.</i>      | linear                | □ un 1 s          | G                   | C. G. H. | 1819. C s.l.                          |
| 7170                       | <i>obovata</i> <i>Haw.</i>       | obovate               | □ un 1 1/2 ...    | ...                 | C. G. H. | 1821. C s.l.                          |
| 1146. MESEMBRYANTHEMUM. L. |                                  | <i>FIG-MARIGOLD.</i>  | <i>Ficoideae.</i> | <i>Sp.</i> 291—350. |          |                                       |
| 7171                       | <i>minutum</i> <i>Haw.</i>       | minute                | □ un lin s.n      | Pk                  | C. G. H. | 1795. C s.l. Bot. mag. 1376           |
| 7172                       | <i>minimum</i> <i>Haw.</i>       | small                 | □ un lin s.d      | Pa. Y               | C. G. H. | 1776. C s.l.                          |
| 7173                       | <i>perpusillum</i> <i>Haw.</i>   | very small            | □ un 1/2 s.d      | Pa. Y               | C. G. H. | 1819. C s.l.                          |
| 7174                       | <i>obcordellum</i> <i>Haw.</i>   | obcordate             | □ un 1/2 f.o      | W                   | C. G. H. | 1776. C s.l. Bot. mag. 1647           |
| 7175                       | <i>obconellum</i> <i>Haw.</i>    | conical               | □ un 1/2 f.o      | W                   | C. G. H. | 1786. C s.l.                          |
| 7176                       | <i>ficiforme</i> <i>Sal.</i>     | fig-like              | □ un lin f.o      | ...                 | C. G. H. | 1819. C s.l.                          |
| 7177                       | <i>truncatellum</i> <i>Haw.</i>  | truncated             | □ un lin f.o      | Pa. Y               | C. G. H. | 1795. C s.l.                          |
| 7178                       | <i>abuliforme</i> <i>Haw.</i>    | cloth-button          | □ un lin ...      | ...                 | C. G. H. | 1795. C s.l.                          |
| 7179                       | <i>uvaeforme</i> <i>Haw.</i>     | berry-like            | □ un lin ...      | ...                 | C. G. H. | 1820. C s.l. Bur. dic. t. 10. f. 2    |
| 7180                       | <i>nuciforme</i> <i>Haw.</i>     | Nut-shaped            | □ un lin ...      | ...                 | C. G. H. | 1790. C s.l.                          |
| 7181                       | <i>testiculare</i> <i>Al.</i>    | short white-ld.       | □ un 1/2 n        | W                   | C. G. H. | 1774. C s.l. Bot. mag. 1573           |
| 7182                       | <i>octophyllum</i> <i>Haw.</i>   | eight-leaved          | □ un 1/2 n        | Y                   | C. G. H. | 1819. C s.l.                          |
| 7183                       | <i>obtusum</i> <i>Haw.</i>       | obtuse-cloven         | □ un 1/2 mr. ap   | Pk                  | C. G. H. | 1792. C s.l.                          |
| 7184                       | <i>fissum</i> <i>Haw.</i>        | cleft-leaved          | □ un 1/2 ...      | ...                 | C. G. H. | 1776. C s.l.                          |
| 7185                       | <i>digitiforme</i> <i>Thunb.</i> | finger-leaved         | □ un 1/2 ...      | ...                 | C. G. H. | 1775. C s.l.                          |
| 7186                       | <i>magnipunctum</i> <i>Sal.</i>  | large-dotted          | □ un 1/2 ...      | Y                   | C. G. H. | 1822. C s.l.                          |
|                            | <i>β uncial</i>                  | small                 | □ un 1/2 ...      | Y                   | C. G. H. | 1822. C s.l.                          |
|                            | <i>γ affine</i>                  | allied                | □ un 1/2 ...      | Y                   | C. G. H. | 1822. C s.l.                          |
| 7187                       | <i>canum</i> <i>Haw.</i>         | hoary                 | □ un lin ...      | Y                   | C. G. H. | 1795. C s.l.                          |
| 7188                       | <i>aloides</i> <i>Haw.</i>       | aloe-like             | □ un 1/2 ...      | Y                   | C. G. H. | 1819. C s.l.                          |
| 7189                       | <i>caninum</i> <i>Haw.</i>       | dog-chap              | □ un 1/2 au. o    | Y                   | C. G. H. | 1717. C s.l. Plant. grass. 95         |
| 7190                       | <i>lupinum</i> <i>Haw.</i>       | wolf's-chap           | □ un 1/2 au. o    | Y                   | C. G. H. | 1795. C s.l.                          |
| 7191                       | <i>vulpinum</i> <i>Haw.</i>      | fox-chap              | □ un 1/2 au. o    | Y                   | C. G. H. | 1795. C s.l.                          |
| 7192                       | <i>hybridum</i> <i>Haw.</i>      | bastard               | □ un 1/2 au. o    | Y                   | C. G. H. | 1795. C s.l.                          |
| 7193                       | <i>albidum</i> <i>L.</i>         | white                 | □ un 1/2 j. au. o | Y                   | C. G. H. | 1714. C s.l. Bot. mag. 1824           |
| 7194                       | <i>tigrinum</i> <i>Haw.</i>      | tiger-chap            | □ un 1/2 s. n     | Y                   | C. G. H. | 1790. C s.l. Bot. reg. 260            |
| 7195                       | <i>felinum</i> <i>Haw.</i>       | cat-chap              | □ un 1/2 s. n     | Y                   | C. G. H. | 1730. C s.l. Plant. grass. 152        |
| 7196                       | <i>mustellinum</i> <i>Haw.</i>   | weasel-chap           | □ un 1/2 s        | Y                   | C. G. H. | 1820. C s.l.                          |
| 7197                       | <i>murinum</i> <i>Haw.</i>       | mouse-chap            | □ un 1/2 s        | Y                   | C. G. H. | 1790. C s.l.                          |
| 7198                       | <i>dolabriforme</i> <i>Haw.</i>  | hatchet-leaved        | □ un 1/2 my. n    | Y                   | C. G. H. | 1705. C s.l. Plant. grass. 6          |
| 7199                       | <i>scapigerum</i> <i>Haw.</i>    | great-scaped          | □ un 1/2 au. s    | Y                   | C. G. H. | 1823. C s.l.                          |
| 7200                       | <i>carinans</i> <i>Haw.</i>      | keeled                | □ un 1/2 ...      | ...                 | C. G. H. | 1818. C s.l.                          |
| 7201                       | <i>denticulatum</i> <i>Haw.</i>  | toothed               | □ un 1/2 ap       | Y                   | C. G. H. | 1793. C s.l.                          |
|                            | <i>β glaucum</i>                 | glaucous              | □ un 1/2 ap       | Y                   | C. G. H. | ...                                   |
|                            | <i>γ candidissimum</i>           | fair                  | □ un 1/2 ap       | Y                   | C. G. H. | ...                                   |
| 7202                       | <i>robustum</i> <i>Haw.</i>      | robust                | □ un 1/2 ...      | Y                   | C. G. H. | ...                                   |
| 7203                       | <i>compactum</i> <i>H. K.</i>    | compact               | □ un 1/2 n        | Y                   | C. G. H. | 1795. C s.l.                          |
| 7204                       | <i>quadrifidum</i> <i>Haw.</i>   | quadrifid             | □ un 1/2 n        | Y                   | C. G. H. | 1780. C s.l.                          |
| 7205                       | <i>bifidum</i> <i>Haw.</i>       | bifid                 | □ un 1/2 n        | Y                   | C. G. H. | 1795. C s.l.                          |
| 7206                       | <i>bibracteatum</i> <i>Haw.</i>  | double-bracted        | □ un 1/2 ap. n    | Y                   | C. G. H. | 1803. C s.l.                          |
| 7207                       | <i>rostratum</i> <i>L.</i>       | heron-beaked          | □ un 1/2 ap       | Y                   | C. G. H. | 1732. C s.l. Di. el. t. 186. f. 229   |
| 7208                       | <i>tuberculatum</i> <i>Mill.</i> | warted                | □ un 1/2 ap       | Y                   | C. G. H. | 1732. C s.l.                          |
| 7209                       | <i>ramulosum</i> <i>Haw.</i>     | small heron-be.       | □ un 1/2 mr. n    | Y                   | C. G. H. | 1791. C s.l.                          |
| 7210                       | <i>pisiforme</i> <i>Haw.</i>     | Pea-shaped            | □ un 1/2 ...      | W                   | C. G. H. | 1796. C s.l.                          |



History, Use, Propagation, Culture,

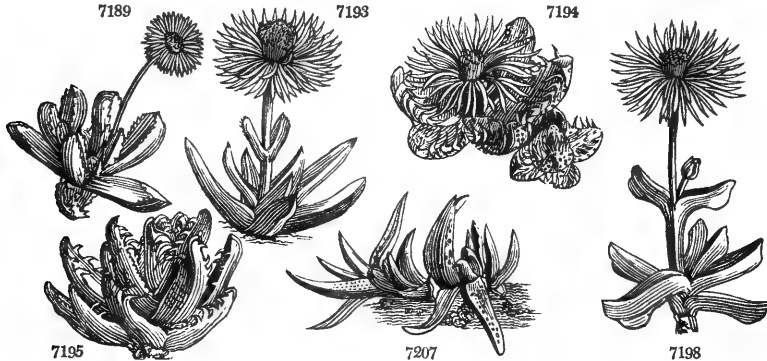
1145. *Tetragonia*. From *τετρας*, quaternary, and *γωνια*, an angle, in allusion to the four angles of the body pericarpium. The species are succulent trailers of no beauty, but possibly all fit to be used, like *Chenopodium*, as a spinage. *T. expansa* has been so used by Captain Cook when visiting New Zealand, and lately introduced for the same purpose in British gardens; as a summer spinage, it is as valuable as the orache, or perhaps more so. Every gardener knows the plague that attends the frequent sowing of common spinage through the the warm season of the year; without that trouble it is impossible to have it good, and with the utmost care it cannot always be obtained exactly as it ought to be, (particularly when the weather is hot and dry,) from the rapidity with which the young plants run to seed. The New Zealand spinage, if watered, grows freely, and produces leaves of the greatest succulency in the hottest weather. Anderson, one of its earliest cultivators, had only nine plants, from which, he says, "I have been enabled to send in a gathering for the kitchen every other day since the middle of June, so that I consider a bed with about twenty plants quite sufficient to give a daily supply, if required, for a large table."

- 7161 Herbaceous, Leaves ovate rhomboid, Fruit with 4 horns  
 7162 Frosted, Leaves ovate sessile, Fruit not horned  
 7163 Shrubby, Leaves linear, Fruit winged  
 7164 Shrubby frosted, Leaves obovate, Fruit winged  
 7165 Procrumbent, Leaves sessile lanceolate decumbent, Wings of fruit 8 alternately smaller  
 7166 Smooth herbaceous erect, Lower leaves ovate: upper lanceolate smooth, Fl. racemose  
 7167 Smooth herbaceous, Leaves ovate stalked, Fruit winged  
 7168 Herbaceous, Leaves rhomboid ovate, Fruit ubinate  
 7169 Leaves alternate linear revolute at edge with a dorsal line above  
 7170 Leaves alternate frosted obovate with winged decumbent stalks

§ 1. Stem none or very short, Root perennial, Leaves large.

- 7171 Whitish polished unarmd, Flower with a long tube  
 7172 Smooth rather glaucous with branched confluent spots, Ovary exerted  
 7173 Smooth green with great confluent branched spots, Ovary included  
 7174 Glaucous, Spots branched confluent, Ovary included  
 7175 Green, Spots confluent wart-like, Ovary included  
 7176 Pyriform glaucous retuse at end, Spots generally distinct green and obsolete  
 7177 Very depressed and rather glaucous, Spots nearly distinct, Ovary exerted  
 7178 Somewhat hoary and pubescent much depressed  
 7179 Nearly globose pale green berry-shaped with little dark scarcely confluent spots  
 7180 Glaucous smooth, Ends of the leaves unequally distinct flat above  
 7181 Leaves about 4 broadly ovate or parabolic half rounded expanded  
 7182 Leaves 6-8 oblong-ovate half round erect  
 7183 Green, Leaves unequally half rounded acinaciform obtuse  
 7184 Whitish, Leaves equally half rounded very blunt  
 7185 Stemless, Leaves rounded very smooth  
 7186 Leaves perfect about 4 clavate 3-cornered very thick glaucous with many large dots
- 7187 Leaves hoary at the base half rounded and thin upwards gibbous and keeled  
 7188 Stemless, Leaves entire half round green marbled at the end keeled 3-cornered  
 7189 Stemless, Lvs. glaucous towards the end and the bractes incurved and toothed, Pedunc. length of leaves  
 7190 Leaves glaucous, Marginal fringes numerous very deep  
 7191 Nearly seml. Lvs. glauc. towards end entire or with large teeth, Bractes entire, Pedun. longer than leaves  
 7192 Stemless smooth whitish, Lvs. half round entire at end keeled 3-cornered little thickened with a recurved  
 7193 Stemless very smooth white, Leaves thick subulate 3-cornered obtuse with a point [point  
 7194 Green stemless, Leaves cordate ovate expanded marbled with white and with a deep fringe  
 7195 Stemless glaucous, Leaves deeply tooth-fringed obsolete dotted with a cartilaginous keel at end  
 7196 Stemless green with clear spots, Leaves 3-cornered towards the end with a shortly toothed fringe  
 7197 Nearly stemless glaucous, Leaves with 3 rows of toothed fringe and small dots  
 7198 Leaves exactly hatchet-shaped, The old stem nearly six inches high and erect  
 7199 Leaves keeled 3-cornered green, Scape strong paniced 2-edged  
 7200 Leaves erect incurved keeled upwards long glaucous rugose with large dots  
 7201 Leaves very glaucous triquetrous compressed at the end with a dilated keel which is often toothletted

- 7202 Leaves obt. dotted with gibbous pustules at the base in the inside, Stem strong short decumbent branch.  
 7203 Stemless, Leaves connate dotted half round at the end triquet. reflexed acute. Fl. sessile, Cal. cylin. 6-fid  
 7204 Nearly stemless, Leaves hoary glaucous obtuse towards the end with a few spots, Cal. 4-fid  
 7205 Nearly stemless, Leaves glaucous very blunt with many dots, Cal. 2-4-fid  
 7206 Nearly stemless branched, Leaves subul. elong. dott. very glauc. Bractes 4 crossing shorter than scape  
 7207 Stemless, Leaves subulate elongated acute glauc. much dott. Bractes 2 longer than scape  
 7208 Like the last, but leaves half cylindr. connate warted outside  
 7209 Leaves obl. at the base inside with elevated pustules, Old stem three inches long decumbent  
 7210 Leaves papulose iced, the first pisiform, the next half round, the stem much branched corky



and Miscellaneous Particulars.

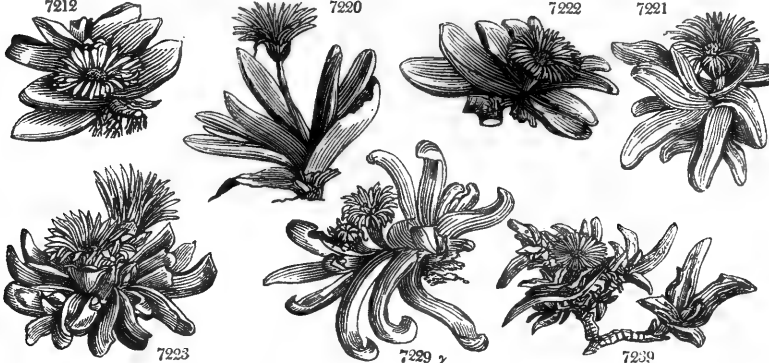
The seed should be sown in the latter end of March in a pot, which must be placed in a melon-frame; the seedling plants, while small, should be set out singly in small pots, and kept under the shelter of a cold frame, until about the twentieth of May, when the mildness of the season will probably allow of their being planted out, without risk of being killed by frost. The plants must be put out three feet apart in very rich soil. In five or six weeks from the planting, their branches will have grown sufficiently to allow the gathering of the leaves for use. In dry seasons, the plants will probably require a good supply of water. They put forth their branches vigorously as soon as they have taken to the ground, and extend before the end of the season three feet on each side.

1145. *Mesembryanthemum*. From *uservu2610*, the mid-day: on account of the flowers usually expanding at that time: the termination *anthemum*, which signifies flowering, is, to say the least of it, superfluous. The species of this extensive genus are singular, yet beautiful, and some even splendid plants. Their leaves are of odd shapes, and the habits of most of the sorts slovenly and insignificant, though some are grotesque; but the



|                           |                 |     |    |   |       |   |          |       |       |                        |
|---------------------------|-----------------|-----|----|---|-------|---|----------|-------|-------|------------------------|
| 7211 moniliforme Haw.     | bracelet        | Y Δ | or | 1 | mr.ap | W | C. G. H. | 1791. | C s.l |                        |
| 7212 scalpratum Haw.      | great-tongue    | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1714. | C s.l | Di. el. t. 183. f. 224 |
| 7213 fragrans Salm.       | fragrant        | Y Δ | or | 1 | ...   | Y | C. G. H. | ...   | C s.l |                        |
| 7214 prapin'gue Haw.      | soft-tongue     | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1792. | C s.l |                        |
| 7215 médium Haw.          | intermediate    | Y Δ | or | 1 | au.o  | Y | C. G. H. | ...   | C s.l |                        |
| 7216 cultratum Haw.       | cultrate        | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1820. | C s.l |                        |
| 7217 lúcidum Mill.        | shining         | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1732. | C s.l |                        |
| 7218 ascéndens Haw.       | ascend.-tongue  | Y Δ | or | 1 | au.n  | Y | C. G. H. | 1805. | C s.l |                        |
| 7219 pustulatum Haw.      | blistered       | Y Δ | or | 1 | au    | Y | C. G. H. | 1818. | C s.l |                        |
| 7220 lngum Haw.           | long-tongue     | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1725. | C s.l | Plant. grass. 71       |
| α depressum B. M.         | depressed       | Y Δ | or | 1 | au.o  | Y | C. G. H. | ...   | C s.l |                        |
| β declive Haw.            | sloping         | Y Δ | or | 1 | au.o  | Y | C. G. H. | ...   | C s.l |                        |
| γ angustius Haw.          | tufted          | Y Δ | or | 1 | au.o  | Y | C. G. H. | ...   | C s.l |                        |
| δ purpurascens Haw.       | purple-green    | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1819. | C s.l |                        |
| ε unctum Haw.             | leaden-green    | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1819. | C s.l |                        |
| ζ attolens Haw.           | narrow-drop     | Y Δ | or | 1 | au.o  | Y | C. G. H. | 1819. | C s.l |                        |
| 7221 linguiforme Haw.     | common-tong.    | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1732. | C s.l | Bot. cab. 1307         |
| β rufescens Haw.          | reddish-green   | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1732. | C s.l |                        |
| γ subcruciatum Haw.       | subcruciate     | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1820. | C s.l |                        |
| δ prostratum Haw.         | prostrate       | Y Δ | or | 1 | mr.n  | Y | C. G. H. | ...   | C s.l |                        |
| ε assurgens Haw.          | upright         | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1819. | C s.l |                        |
| 7222 látum Haw.           | blunt-tongue    | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1820. | C s.l | Di. el. t. 184. f. 225 |
| β breve Haw.              | short           | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1802. | C s.l |                        |
| 7223 depressum Haw.       | depressed-tong. | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1795. | C s.l | Bot. mag 1866          |
| β lividum Haw.            | livid           | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1819. | C s.l |                        |
| 7224 cruciatum Haw.       | cross-leaved    | Y Δ | or | 1 | my.n  | Y | C. G. H. | 1792. | C s.l |                        |
| 7225 taurinum Haw.        | Bull's-horn     | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1795. | C s.l |                        |
| 7226 Salmii Haw.          | Salmian         | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1818. | C s.l |                        |
| β semicruciatum Sal.      | half-crossed    | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1818. | C s.l |                        |
| γ angustifolium Haw.      | narrow-leaved   | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1823. | C s.l |                        |
| 7227 surrectum Haw.       | erect           | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1819. | C s.l |                        |
| δ brevifolium Haw.        | short-leaved    | Y Δ | or | 1 | s.n   | Y | C. G. H. | 1819. | C s.l |                        |
| 7228 heterophyllum Haw.   | various-leaved  | Y Δ | or | 1 | ...   | Y | C. G. H. | 1795. | C s.l |                        |
| 7229 angustum Haw.        | slender-tongue  | Y Δ | or | 1 | mr.o  | Y | C. G. H. | 1790. | C s.l |                        |
| β pallidum Haw.           | pale            | Y Δ | or | 1 | mr.o  | Y | C. G. H. | 1790. | C s.l |                        |
| γ heterophyllum Jack.     | variable        | Y Δ | or | 1 | mr.o  | Y | C. G. H. | 1790. | C s.l | Bot. rep. 540          |
| 7230 difforme Haw.        | deformed        | Y Δ | or | 1 | au    | Y | C. G. H. | 1732. | C s.l | Di. el. t. 194. f. 242 |
| 7231 bidentatum Haw.      | two-toothed     | Y Δ | or | 1 | au    | Y | C. G. H. | 1818. | C s.l |                        |
| β majus Haw.              | large           | Y Δ | or | 1 | au    | Y | C. G. H. | 1818. | C s.l |                        |
| 7232 semicylindricum Haw. | semi-cylindric  | Y Δ | or | 1 | mr.n  | Y | C. G. H. | 1732. | C s.l | Di. el. t. 194. f. 241 |
| 7233 gibbosum Haw.        | gibbous         | Y Δ | or | 1 | ja.ap | R | C. G. H. | 1780. | C s.l |                        |
| 7234 luteoviride Haw.     | yellow-green    | Y Δ | or | 1 | ja    | R | C. G. H. | 1795. | C s.l |                        |
| 7235 perviride Haw.       | dark-green      | Y Δ | or | 1 | ja.my | R | C. G. H. | 1792. | C s.l |                        |
| 7236 pubescens Haw.       | downy           | Y Δ | or | 1 | ja.my | R | C. G. H. | 1792. | C s.l | Plant. grass. 5        |
| 7237 calamiforme L.       | quill-shaped    | Y Δ | or | 1 | jl.s  | W | C. G. H. | 1717. | C s.l |                        |
| 7238 obusulatum Haw.      | reverse-quilled | Y Δ | or | 1 | ...   | W | C. G. H. | 1793. | C s.l |                        |
| 7239 cylindricum Haw.     | cylindrical     | Y Δ | or | 1 | fs    | R | C. G. H. | 1792. | C s.l |                        |
| 7240 teretifolium Haw.    | round-quilled   | Y Δ | or | 1 | fs    | R | C. G. H. | 1794. | C s.l |                        |
| 7241 teretisculum Haw.    | turgid          | Y Δ | or | 1 | ...   | R | C. G. H. | 1794. | C s.l |                        |
| 7242 bellidiflorum L.     | Daisy-flowered  | Y Δ | or | 1 | jn.au | R | C. G. H. | 1717. | C s.l | Di. el. 189. f. 253    |
| β subulatum Mill.         | great-green     | Y Δ | or | 1 | jn.au | R | C. G. H. | 1717. | C s.l |                        |
| γ viride Haw.             | Pea-green       | Y Δ | or | 1 | jn.au | R | C. G. H. | 1717. | C s.l |                        |
| 7243 acutum Haw.          | great-awl-leav. | Y Δ | or | 1 | ap.n  | R | C. G. H. | 1793. | C s.l |                        |
| 7244 punctatum Haw.       | spotted awl-ld. | Y Δ | or | 1 | ap.n  | R | C. G. H. | 1793. | C s.l |                        |
| 7245 diminutum Haw.       | diminutive      | Y Δ | or | 1 | ap    | R | C. G. H. | 1789. | C s.l |                        |
| β cauliculatum Haw.       | small-stemmed   | Y Δ | or | 1 | ap    | R | C. G. H. | 1789. | C s.l |                        |

|                       |                  |     |    |   |      |      |          |       |       |                        |
|-----------------------|------------------|-----|----|---|------|------|----------|-------|-------|------------------------|
| 7246 lóreum Dil.      | leathery-stkd.   | Y Δ | or | 1 | s    | Pa.Y | C. G. H. | 1732. | C s.l | Di. el. t. 200. f. 255 |
| 7247 diversifolium L. | short horned-iv. | Y Δ | or | 1 | mr.o | Pa.Y | C. G. H. | 1819. | C s.l | Di. el. t. 198. f. 252 |
| β glaucius Haw.       | glaucous         | Y Δ | or | 1 | au   | Pa.Y | C. G. H. | 1726. | C s.l |                        |
| γ brevifolium Haw.    | short-leaved     | Y Δ | or | 1 | au   | Pa.Y | C. G. H. | ...   | C s.l |                        |
| δ late-virens Haw.    | bright-green     | Y Δ | or | 1 | au   | Pa.Y | C. G. H. | ...   | C s.l |                        |
| ε atro-virens Haw.    | dark-green       | Y Δ | or | 1 | au   | Pa.Y | C. G. H. | ...   | C s.l |                        |
| 7248 decipiens Haw.   | middle           | Y Δ | or | 1 | au   | Pa.Y | C. G. H. | 1820. | C s.l |                        |
| 7249 dábium Haw.      | round-stalked    | Y Δ | or | 1 | my.n | Pa.Y | C. G. H. | 1800. | C s.l | Brad. suc. 4. t. 40    |



History, Use, Propagation, Culture,

flowers make ample amends by their profusion, the brilliancy of their colors, and the length of time the species continue in flower. Few are annual, fewer biennial, many are perennial, but most are shrubby,

- 7211 First leaves connate spheroidal, next half round subulate very long recurved green  
 7212 Leaves sloping graver-shaped very broad thickest on one edge at the base inside pimpled, Fl. sessile  
 7213 Nearly steml. Lvs. tongue-shaped thick; one convex blunt at end, the other with a long keel, Fl. stlkd. frag.  
 7214 Leaves obliquely tongue-shaped pale green very soft, the younger ciliated pubesc. hooked inwards at end  
 7215 Nearly stemless, Lvs. tongue-shaped sloping 4-inches long, 1-broad cultrate, Pedunc. an inch long  
 7216 Nearly stemless, Lvs. distichous tongue-shaped at the edge and end cultrate, Fl. stalked  
 7217 Leaves long very green and polished, Pedunc. longer than calyx, Caps. small depressed  
 7218 Leaves broad tongue-shaped ascending obtuse green longer than peduncles  
 7219 Leaves tongue-shaped ascending 5-6-in. long, 3-11-lines broad, with large pimples at the base inside  
 7220 Leaves long tongue-shaped shining thinner, Flowers subsessile, Caps. large depressed

7221 Leaves unequally tongue-shaped thick green partially keeled, Caps. little elevated subsessile

7222 Leaves tongue-shaped obtuse thick often sloping and a little hollowed, Caps. large conical subsessile

7223 Prostrate, Lvs. narr. tongue-shaped obt. recurved depressed variously bent inwards at end, Caps. depressed

7224 Leaves lin. tongue-shaped half cylindr. very soft cruciate, Old stem three inches long

7225 Leaves bifarious obliquely crossed half round obt. very thick yellowish green incurv. Old stem 6 in. high

7226 Stemless, Lvs.  $\frac{3}{4}$  cylin. subul. variously obliquely hooked blunt with broad smooth spots at base, Caps. flat  
 [half included]

7227 Lvs. crossing suberect or spreading half round subulate acute soft often pustulate at base, Ovary exerted

7228 Stemless, Leaves green deformed the upper longest [stalked]

7229 Leaves linear linguiform half cylindrical very long

7230 Lvs. obliquely cruciate long variously obliquely deformed with one or more obscure teeth, Old stem 3-6-in.

7231 Lvs.  $\frac{3}{4}$  cylin. thick soft with two large opp. fleshy teeth beyond the midd. at the end variously and obliquely  
 [deformed]

7232 Lvs. very narr. tongue-shap.  $\frac{3}{4}$  round towards end oblique with 1 or 2 obsolete teeth, Old stem branch. 6 in.

7233 Nearly stemless, Leaves yellowish green spreading ovate half cylindrical rarely keeled at end

7234 Stem weak two or three inches long, Lvs. obl.  $\frac{3}{4}$ -cylindr. upwards 3-cornered yellowish green

7235 Stem weak two or three inches long, Leaves half-cylindr. 3-cornered or subovate very green

7236 Leaves downy hoary or silky smooth

7237 Leaves subulate glaucous at the base above flat, Styles 8

7238 Leaves obsubulate thick obtuse green

7239 Leaves 3-cornered cylindr. subglaucous dotted 3 inches long, The old stem 3 inches closely branched

7240 Lvs. 4 in. long green roundish or cylindr. : the younger polished  $\frac{3}{4}$  round very green the old stems 6 in.

7241 Leaves 3-cornered rounded very thick green dotted two inches long [polished]

7242 Leaves 3-cornered blunt with three rows of teeth at end, The old stem branched half shrubby

7242 Leaves half round subulate incurved with clear spots, Spots obsolete not wrinkled

7244 Leaves half round subulate incurved with clear spots, Spots large numerous with a white head

7245 Leaves half round subulate incurved with clear spots, Spots nearly middle sized with a little white point

$\frac{1}{2}$  2. Cluster-leaved. Stem about a foot high decumbent perennial, Leaves in capitate clusters, Flowers polygamous, Calyx 5-leaved.

7246 Lvs. capit. closely clustered  $\frac{3}{4}$  cylindr. 3-cornered elong. recurv. somewhat glaucous, Stems roundish white

7247 Lvs. capitate closely clustered long 3-cornered half cylindr. glaucous or green, Stems angular red

7248 Lvs. somewhat clustered long  $\frac{3}{4}$ -cylindr 3-cornered minutely wrinkled, Stems prostrate with distant joints

7249 Leaves clust. longish broad erect half cylindr. 3-cornered shining, Joints close, Styles 12



and Miscellaneous Particulars.

especially towards the base. Leaves mostly opposite, seldom alternate, thick, or succulent, of various forms. Flowers solitary, axillary, or extra-axillary, but more frequently terminating. The fruit is some-

|      |                      |                   |     |    |   |       |       |           |       |   |     |                        |
|------|----------------------|-------------------|-----|----|---|-------|-------|-----------|-------|---|-----|------------------------|
| 7250 | corniculatum Haw.    | long-horned       | ♂ Δ | or | 1 | mr.my | Pa.Y  | C. G. H.  | 1732. | C | a.l |                        |
|      | β isophyllum Dec.    | equal-leaved      | ♂ Δ | or | 1 | mr.my | Pa.Y  | C. G. H.  | 1732. | C | a.l | Plant. grass. 108      |
| 7251 | procumbens Haw.      | procumbent        | ♂ Δ | or | 1 | mr.my | Pa.Y  | C. G. H.  | 1820. | C | a.l |                        |
| 7252 | tricolorum Haw.      | three-colored     | ♂ Δ | or | 1 | o     | Y.a   | C. G. H.  | 1794. | C | a.l | Bot. mag. 2144         |
| 7253 | pugionifforme L.     | long dagger-ldv.  | ♂   | or | 1 | jl.s  | Pa.Y  | C. G. H.  | 1714. | S | a.l | Dill. elth. f. 269     |
|      | β carneum Haw.       | flesh-colored     | ♂   | or | 1 | jl.s  | Pk    | C. G. H.  | 1714. | S | a.l |                        |
|      | γ purpureum Haw.     | purple            | ♂   | or | 1 | jl.s  | Pu    | C. G. H.  | 1714. | S | a.l |                        |
|      | δ bienne Haw.        | biennial          | ♂   | or | 1 | jl.s  | Pa.Y  | C. G. H.  | 1714. | S | a.l |                        |
| 7254 | capitatum Haw.       | short dagger-ldv. | ♂   | or | 1 | jl.s  | Pa.Y  | C. G. H.  | 1717. | S | a.l | Bot. reg. 494          |
| 7255 | brevicaule Haw.      | dwarf dagg. lvd.  | ♂   | or | 1 | jl.s  | Pa.Y  | C. G. H.  | 1820. | S | a.l |                        |
| 7256 | coriscans Haw.       | glittering-dagg.  | ♂   | or | 1 | jl.s  | Pa.Y  | C. G. H.  | 1812. | S | a.l |                        |
| 7257 | elongatum Haw.       | dwarf-tuberous    | ♂   | or | 1 | my    | Pa.Y  | C. G. H.  | 1793. | S | a.l |                        |
|      | β minus Haw.         | small             | ♂   | or | 1 | my    | Pa.Y  | C. G. H.  | 1793. | S | a.l | Bot. reg. 493          |
|      | γ fusiforme Haw.     | fusiform          | ♂   | or | 1 | my    | Pa.Y  | C. G. H.  | 1793. | S | a.l |                        |
| 7258 | geminiflorum Haw.    | small pale        | ♂   | or | ♂ | ...   | Pk    | C. G. H.  | 1819. | C | a.l | Jacq. frag. 50         |
| 7259 | simile Haw.          | short-jointed     | ♂   | or | 1 | ...   | Pk    | C. G. H.  | 1819. | C | a.l |                        |
| 7260 | laxum W.             | long-jointed      | ♂   | or | 1 | my    | Pk    | C. G. H.  | 1820. | C | a.l |                        |
| 7261 | sarmentosum Haw.     | sarmentose        | ♂   | or | 1 | ap    | Pk    | N. Holl.  | 1805. | C | a.l |                        |
| 7262 | rigidicaule Haw.     | stiff-stemmed     | ♂   | or | 1 | my.jn | Pk    | C. G. H.  | 1819. | S | a.l |                        |
| 7263 | Schöllii Salm.       | large-rough       | ♂   | or | 1 | my.jn | Pk    | C. G. H.  | 1810. | S | a.l | Jac. frag. t.51.f.2    |
| 7264 | filamentosum Haw.    | thready           | ♂   | or | 1 | mr.ap | Pk    | C. G. H.  | 1732. | C | a.l | Di. el. t.212.f.273    |
| 7265 | serrulatum Haw.      | saw-leaved        | ♂   | or | 1 | nd    | Pk    | C. G. H.  | 1795. | C | a.l |                        |
|      | β viridius Haw.      | greener           | ♂   | or | 1 | nd    | Pk    | C. G. H.  | ...   | C | a.l |                        |
| 7266 | rubricaulis Haw.     | red-stalked       | ♂   | or | 1 | fd    | Pk    | C. G. H.  | 1802. | C | a.l |                        |
|      | β densius Haw.       | crowded           | ♂   | or | 1 | ...   | Pk    | C. G. H.  | 1818. | C | a.l |                        |
|      | γ subvirens Haw.     | tall-green        | ♂   | or | 1 | ...   | Pk    | C. G. H.  | 1818. | C | a.l |                        |
| 7267 | acinacifforme L.     | scymetar-leav.    | ♂   | or | 1 | aus.  | Pk    | C. G. H.  | 1714. | C | a.l | Bot. rep. 580          |
|      | β longum Haw.        | long              | ♂   | or | 1 | aus.  | Pk    | C. G. H.  | ...   | C | a.l |                        |
| 7268 | laevigatum Haw.      | polished          | ♂   | or | 1 | jn    | Pk    | C. G. H.  | 1802. | C | a.l |                        |
| 7269 | rubroinctum Haw.     | red-bordered      | ♂   | or | 1 | ...   | Pk    | C. G. H.  | 1811. | C | a.l |                        |
|      | β compressum Haw.    | compressed        | ♂   | or | 1 | au    | Pk    | C. G. H.  | ...   | C | a.l |                        |
|      | γ tenerum Haw.       | delicate          | ♂   | or | 1 | au    | Pk    | C. G. H.  | ...   | C | a.l |                        |
| 7270 | subulatum Haw.       | pale Daisy-flow.  | ♂ Δ | or | 1 | ...   | Pk    | C. G. H.  | 1768. | C | a.l | Plant. grass. 41       |
| 7271 | edule L.             | Hottentots' fig   | ♂   | or | 1 | jl.au | Pk    | C. G. H.  | 1690. | C | a.l | Di. el. t.212.f.272    |
| 7272 | dimidiatum Haw.      | Lesser Hot. fig   | ♂   | or | 1 | ...   | Pk    | C. G. H.  | 1811. | C | a.l | Plant. grass. 89       |
| 7273 | glaucescens Haw.     | glaucescent       | ♂   | or | 1 | jl    | Pk    | N. Holl.  | 1804. | C | a.l |                        |
| 7274 | Rössii Haw.          | Ross's            | ♂   | or | 1 | ...   | Pk    | V. Di. L. | 1820. | S | a.l |                        |
| 7275 | virescens Haw.       | virescent         | ♂   | or | 1 | jn    | Pk    | N. Holl.  | 1804. | C | a.l |                        |
| 7276 | aequilaterale Haw.   | equal-sided       | ♂   | or | 1 | jn    | Pk    | N. Holl.  | 1791. | C | a.l |                        |
| 7277 | virens Haw.          | upright-green     | ♂   | or | 1 | jn    | Pk    | C. G. H.  | 1821. | C | a.l |                        |
| 7278 | repens H. K.         | creeping          | ♂   | or | 1 | jl.au | Pk    | C. G. H.  | 1774. | C | a.l |                        |
| 7279 | australe Haw.        | New Zealand       | ♂   | or | 1 | ...   | Pk    | N. Zeal.  | 1773. | C | a.l |                        |
| 7280 | crassifolium L.      | thick-leaved      | ♂   | or | 1 | my.au | Pk    | C. G. H.  | 1727. | C | a.l | Di. el. t.201.f.297    |
| 7281 | clavellatum Haw.     | club-leaved       | ♂   | or | 1 | jn.jl | Pk    | N. Holl.  | 1803. | C | a.l |                        |
|      | β minus Haw.         | small             | ♂   | or | 1 | jl.au | Pk    | C. G. H.  | 1810. | S | a.l |                        |
| 7282 | forficatum L.        | scissar-leaved    | ♂   | or | 1 | so    | Pk    | C. G. H.  | 1758. | C | a.l | Jac. vind. 1. t. 26    |
| 7283 | geminatum Haw.       | twin-shooted      | ♂   | or | 1 | ...   | W     | C. G. H.  | 1792. | C | a.l |                        |
| 7284 | marginatum Haw.      | white-edged       | ♂   | or | 1 | ...   | W     | C. G. H.  | 1793. | C | a.l |                        |
| 7285 | rostellum Haw.       | little-beak       | ♂   | or | 1 | jn    | W.pk  | C. G. H.  | 1820. | S | a.l |                        |
| 7286 | perfoliatum Mill.    | great-perfoliate  | ♂   | or | 1 | jn.au | Pa.pu | C. G. H.  | 1714. | C | a.l | Di. el. t. 192. f. 240 |
|      | β monacanthum Bradl. | one-spined        | ♂   | or | 1 | jn.au | Pa.pu | C. G. H.  | ...   | C | a.l |                        |
| 7287 | uncinellum Haw.      | small-hooked      | ♂   | or | 1 | jn.au | Pa.pu | C. G. H.  | 1819. | C | a.l | Dill. elth. f. 239     |
| 7288 | uncinatum Haw.       | lesser-perfoliate | ♂   | or | 1 | au    | Pa.pu | C. G. H.  | 1725. | C | a.l | Plant. grass. 54       |
| 7289 | semidentatum Haw.    | slender-hooked    | ♂   | or | 1 | au    | Pa.pu | C. G. H.  | ...   | C | a.l |                        |
| 7290 | vire Haw.            | green-perfoliate  | ♂   | or | 1 | jl    | Pa.pu | C. G. H.  | 1792. | C | a.l |                        |
| 7291 | acutangulum Haw.     | acute-angled      | ♂   | or | 1 | ...   | W     | C. G. H.  | 1821. | C | a.l |                        |
| 7292 | curtum Haw.          | short-sheathed    | ♂   | or | 1 | ...   | W     | C. G. H.  | ...   | C | a.l |                        |
|      | β majus Haw.         | large             | ♂   | or | 1 | ...   | W     | C. G. H.  | ...   | C | a.l |                        |
|      | γ politum Haw.       | polished          | ♂   | or | 1 | ...   | W     | C. G. H.  | ...   | C | a.l |                        |
|      | δ minus Haw.         | small             | ♂   | or | 1 | ...   | W     | C. G. H.  | ...   | C | a.l |                        |
| 7293 | vaginatum Haw.       | sheathed          | ♂   | or | 1 | jl.au | W     | C. G. H.  | 1802. | C | a.l |                        |
|      | β parviflorum Haw.   | small-flowered    | ♂   | or | 1 | jl.au | W     | C. G. H.  | ...   | C | a.l |                        |



times shaped like a fig. Linnaeus arranged the species from the color of the flower; Haworth chiefly from the leaves.

7250 Leaves clust. 3-cornered  $\frac{1}{2}$  cylindr. very long glaucous incurved, Stems scarcely angular, Joints distant

7251 Leaves in pairs coriuculate Incurved  $\frac{1}{2}$  cylindr. 3-cornered glaucous, Stems flexuose procumbent

7252 Leaves exactly cylindr. three inches long acute green, Styles 20

7253 Leaves glaucous about a foot long 3-cornered, Angles dilated with a broad furrow, Stem simple

7254 Leaves somewhat glaucous 6-7 inches long 3-cornered, Old stem simple

7255 Leaves green 3-4 inches long 3-cornered, Old stem two inches high simple erect

7256 Leaves dagger-shaped long glittering, Stem shrubby perennial

7257 Leaves glauc. about a span long bluntly 3-cornered channelled or half round, Root large tuberous fleshy

§ 3. *Trailers. Stems prostrate or creeping, angular, Calyx 5-leaved, Flowers polygynous, Leaves connate at base acutely 3-cornered.*

7258 Branches long slender spreading, Lvs. equilateral 3-corn. green hooked a little outwards at end, Fl. 3 or 2

7259 Lvs. equilateral 3-corn. glauc. much dotted straight at end lon. than joints, Edges not serr. Stems firm proc.

7260 Lvs. conn. comp. 3-corn. very green warts often short. than joints, Edges finely tooth. Branches very sen.

7261 Runners  $\frac{1}{2}$  foot long slender rooting, Lvs. clustered compressed 3-corn. bright green not rough at edge

7262 Leaves long equilateral 3-cornered straight roughish at edge, Stem firm procumbent

7263 Leaves compressed 3-cornered large recurved serrulate very rough, Old stems firm decumbent [decum.

7264 Lvs. bright green clust. thick comp. 3-corn. acinacif. dott. lon. than joints with rough edges, Stems short

7265 Lvs. comp. 3-corn. acinacif. glauc. not serrated and scarcely cartilaginous at edge generally lon. than joints

7266 Lvs. comp. 3-corn. greenish rugose the edges with cartilaginous serratures generally shorter than joints

7267 Leaves acinaciform, Edges curled wavy rough

7268 Leaves acinaciform polished glaucous with entire cartilaginous edges

7269 Leaves acinaciform with the edges and keel rough and red

7270 Leaves compressed 3-cornered acinaciform and equilateral, Every edge roughish

7271 Old leaves equilateral 3-cornered green incurved three inches long blistered inside at base, Keel serrulate

7272 Leaves about two inches sharply 3-cornered, the old ones comp. with their keel upwards serrulate burnt

7273 Young lvs. incurved equilateral 3-cornered soft glauc. with a cartilaginous smoothish white edge, Styles 7

7274 Leaves acinaciform or compressed 3-cornered glauc. with a pink smooth cartilag. edge, Stems prostrate

7275 Leaves not equilateral 3-cornered greenish, Stems prostrate, Pedunc. terminal solitary winged, Styles 8

7276 Leaves equilateral 3-cornered greenish, Edges smooth cartilaginous, Stems weak prostrate

7277 Lvs. comp. 3-corn. acinacif. smooth dotted green, in the inside at the base blistered, Keel roughish at edge

7278 Leaves clustered 3-cornered acute glaucous with large rough pellucid dots, Stems filiform very weak

7279 Leaves glaucous dotted 3-cornered incurved smooth

7280 Leaves 3-cornered not dotted smooth very green half cylindrical at base

7281 Leaves clustered obsoletely 3-cornered clavate obtuse green with a little point

§ 4. *Perfoliate. Leaves connate sheathing generally three-cornered upwards, usually hooked at end, Calyx 5-leaved.*

7282 Leaves 3-cornered compressed green prickly at end, Stem 2-edged decumbent

7283 Leaves erect white smooth 3-cornered thick sheathing beyond their middle with a cartilaginous edge

7284 Leaves 3-cornered subacinaciform white at edge, Keel dilated

7285 Leaves beaked connate half round subulate recurved dotted green, Stems prostrate branched knotty

7286 Leaves white thick hard dotted usually with about three spines beneath, Branches few

7287 Leaves whitish thick dotted recurved at end usually with one spine beneath, Branches many

7288 Leaves greenish with two spines beneath at the end

7289 Branches simple slender upright hard, Lvs. 3-cornered dotted white with 1-4 teeth at the back upwards

7290 Leaves quite entire very green smooth thick hooked backwards at the end

7291 Leaves acute-angled 3-cornered acum. incurved recurved green rough at edge

7292 Erect, Lvs. usually close recurved smooth green with the angles roughish above, Sheath often sharp

7293 Erect roughish, Lvs. about an inch long spreading straight recurv. at end, Sheaths green smooth, Angles [rough upwards



and Miscellaneous Particulars.

Most of the species are so hardy, that on dry rock-work, in a sheltered part of the garden, they will endure ordinary winters. Every thing, however, depends on keeping them dry. Among the hardy sorts may be reckoned

|                         |                  |    |          |        |          |       |       |
|-------------------------|------------------|----|----------|--------|----------|-------|-------|
| 7294 parviflorum Haw.   | small-flowered   | or | 3 au     | W      | C. G. H. | 1800. | C s.1 |
| 7295 rigidum Haw.       | rigid            | or | 1½ au    | W      | C. G. H. | 1793. | C s.1 |
| 7296 tenellum Haw.      | least-perfoliate | or | 1½ au    | W      | C. G. H. | 1792. | C s.1 |
| 7297 imbricatulum H. K. | imbricated       | or | 3 jl     | W      | C. G. H. | 1792. | C s.1 |
| β mediolum Haw.         | intermediate     | or | 3 jl     | W      | C. G. H. | ...   | C s.1 |
| γ viride Haw.           | green            | or | 3 jl     | W      | C. G. H. | ...   | C s.1 |
| 7298 multiflorum Haw.   | many-flowered    | or | 3 jls    | W      | C. G. H. | 1792. | C s.1 |
| β minus Haw.            | small            | or | 3 jls    | Pk     | C. G. H. | ...   | C s.1 |
| γ rābrum Haw.           | red-flowered     | or | 3 jls    | Pk     | C. G. H. | ...   | C s.1 |
| δ patens W.             | spreading        | or | 3 jls    | W      | C. G. H. | 1820. | C s.1 |
| ε nitens Haw.           | shining          | or | 3 ...    | ...    | C. G. H. | ...   | C s.1 |
| 7299 umbellatum Haw.    | umbel-flowered   | or | 3 jns.   | W      | C. G. H. | 1727. | C s.1 |
| β anomalum W.           | anomalous        | or | 3 jns.   | W      | C. G. H. | ...   | C s.1 |
| 7300 tumidulum Haw.     | tumid            | or | 3 mr     | Pk     | C. G. H. | 1802. | C s.1 |
| β minus Haw.            | small            | or | 3 mr     | Pk     | C. G. H. | 1820. | C s.1 |
| 7301 foliosum Haw.      | leafy            | or | 3 s      | Pk     | C. G. H. | 1802. | C s.1 |
| 7302 lineolatum Haw.    | lined            | or | ½ jls    | ...    | C. G. H. | 1819. | C s.1 |
| β la've Thunb.          | smooth           | or | ½ jls    | ...    | C. G. H. | 1819. | C s.1 |
| γ nitens Haw.           | shining          | or | ½ jls    | ...    | C. G. H. | 1819. | C s.1 |
| 7303 serratum L.        | saw-keeled       | or | 2 jn.jl  | Pk     | C. G. H. | 1707. | C s.1 |
| 7304 gladiatum Jacq.    | purple-serrate   | or | 2 jn     | Pk     | C. G. H. | 1792. | C s.1 |
| 7305 glaucinum Haw.     | various-petaled  | or | 2 my.au  | Pk     | C. G. H. | 1794. | C s.1 |
| β crassum Haw.          | thick-leaved     | or | 1½ jl.au | Pk     | C. G. H. | ...   | C s.1 |
| 7307 mutabile Haw.      | changeable       | or | 1½ jl.au | Pk     | C. G. H. | 1792. | C s.1 |
| 7308 inclaudens Haw.    | open-flowered    | or | 1½ jns.  | Pk     | C. G. H. | 1805. | C s.1 |
| 7309 caulescens Mill.   | smooth delta-lv. | or | 1½ ny.jl | Pk     | C. G. H. | 1731. | C s.1 |
| 7310 deltoideum Haw.    | great delta-lvd. | or | 1½ my    | Pk     | C. G. H. | 1731. | C s.1 |
| 7311 muricatum Haw.     | small delta-lvd. | or | 1½ my    | Pk     | C. G. H. | 1731. | C s.1 |
| β minus Haw.            | less             | or | 1½ my    | Pk     | C. G. H. | ...   | C s.1 |
| 7312 microphyllum Haw.  | small-leaved     | or | ½ my     | Pk     | C. G. H. | 1795. | C s.1 |
| 7313 mucronatum Haw.    | mucronated       | or | ½ ...    | Pk     | C. G. H. | 1794. | C s.1 |
| 7314 pygmaeum Haw.      | pigmy            | or | ½ ...    | Pk     | C. G. H. | 1805. | C s.1 |
| 7315 pulchellum Haw.    | neat             | or | ½ ap     | Pk     | C. G. H. | 1793. | C s.1 |
| β revolutum Haw.        | revolute         | or | ½ ap     | Pk     | C. G. H. | ...   | C s.1 |
| 7316 maximum Haw.       | moon-leaved      | or | 1½ mr.au | Pk     | C. G. H. | 1787. | C s.1 |
| 7317 lunatum W.         | lunate           | or | 1 jl     | Pk     | C. G. H. | 1812. | C s.1 |
| 7318 falcatum L.        | sickle-leaved    | or | 1 jn.au  | Pk     | C. G. H. | 1727. | C s.1 |
| 7319 decumbens Haw.     | decumbent        | or | 1 my.o   | Pa. R. | C. G. H. | 1759. | C s.1 |
| β incurvum Haw.         | incurved         | or | 1½ jn    | Pk     | C. G. H. | 1802. | C s.1 |
| γ diladians Haw.        | gibbous-keeled   | or | 1½ jn    | Pk     | C. G. H. | ...   | C s.1 |
| δ pallidius Haw.        | pale             | or | 1½ jn    | Pk     | C. G. H. | ...   | C s.1 |
| ε densifolium Haw.      | dense-leaved     | or | 1½ jn    | Pk     | C. G. H. | 1819. | C s.1 |
| ρ roseum W.             | rosy             | or | 1½ jn    | Pk     | C. G. H. | ...   | C s.1 |
| 7321 confertum Haw.     | crowded-leaved   | or | 1½ s.o   | Pk     | C. G. H. | 1805. | C s.1 |
| 7322 falciforme Haw.    | sickle-shaped    | or | 1½ jl.au | Pk     | C. G. H. | 1805. | C s.1 |
| 7323 glomeratum L.      | clustered        | or | 1½ jn.au | Pk     | C. G. H. | 1732. | C s.1 |
| 7324 inflexum Haw.      | inflexed         | or | 1 jn.au  | Pk     | C. G. H. | 1819. | C s.1 |
| 7325 scabrum L.         | scabrous         | or | 1½ jl    | Pk     | C. G. H. | 1731. | C s.1 |
| 7326 versicolor Haw.    | changeable-fl.   | or | 1 my.au  | Pk     | C. G. H. | 1795. | C s.1 |
| 7327 retroflexum Haw.   | white-barked     | or | 1½ my.o  | Pk     | C. G. H. | 1794. | C s.1 |
| 7328 imbricans Haw.     | imbricating      | or | 2 my.o   | Pk     | C. G. H. | 1818. | C s.1 |
| 7329 deflexum H. K.     | deflexed         | or | 1 jl.o   | Pk     | C. G. H. | 1774. | C s.1 |
| 7330 leptaleon Haw.     | slender          | or | 1½ jl.o  | Pk     | C. G. H. | 1819. | C s.1 |
| 7331 polyanthon Haw.    | copious-flower.  | or | 1 au     | Pk     | C. G. H. | 1803. | C s.1 |
| 7332 flexile Haw.       | flexile          | or | 1½ au    | Pk     | C. G. H. | 1820. | C s.1 |
| 7333 polyphllum Haw.    | many-leaved      | or | 2 jn.o   | Pk     | C. G. H. | 1819. | C s.1 |
| 7334 violaceum Dec.     | violet           | or | 2 jn.o   | Pu     | C. G. H. | 1820. | C s.1 |
| 7335 emarginatum L.     | notch-flowered   | or | 2 jn.au  | Pk     | C. G. H. | 1732. | C s.1 |
| 7336 dilatatum Haw.     | dilated          | or | 3 jn.au  | W      | C. G. H. | 1820. | C s.1 |
| 7337 virgatum Haw.      | twiggy           | or | 3 f.ap   | Pk     | C. G. H. | 1793. | C s.1 |
| 7338 bracteatum Haw.    | bracted          | or | 1½ jl.o  | Y      | C. G. H. | 1774. | C s.1 |
| 7339 anceps Haw.        | two-edged        | or | 1½ s.o   | Pk     | C. G. H. | 1811. | C s.1 |
| β pallidum Haw.         | pallid           | or | 1½ n     | P. Pk  | C. G. H. | 1819. | C s.1 |



History, Use, Propagation, Culture,

M. hispidum, striatum, barbatum, crassifolium, glaucum, uncinatum, corniculatum, &c. Hardy, and yet showy sorts, are M. inclaudens, aurantium, perfoliatum, deltoides, barbatum, &c. These will grow and

- 7294 Leaves half an inch long smooth suberect, Keel not serrulate, Stem three feet high and branches erect  
 7295 Lvs. about three lines long horiz. and sheaths smooth, Keel rough at end, Branches very stiff and spread.  
 7296 Lvs. 3 lines long and more spreading thin and sheaths rough at edge, Branches filiform decumbent  
 7297 Lvs. somewhat compressed 3-cornered glauc. about one inch long, Branches many erect, Cal. turbinate

7298 Leaves somewhat compressed 3-cornered glaucous and the branchlets spreading

7299 Leaves distant roundish somewhat glaucous roughish with dots, Sheaths tumid at end

7300 Leaves remote greenish smooth about an inch and half long recurved at end, Sheaths tumid at end

7301 Leaves somewhat glaucous smooth clustered obtuse an inch long with a recurved point

7302 Leaves connate incurve-recurved blunt, Keel roughish at end with a sheathing line at base

§ 5. *Delta-leaved. Leaves more or less deltoid or hatchet formed. Flowers pink.*

7303 Leaves subulate 3-cornered dotted with the keel serrated backward

7304 Leaves glaucous compressed 3-cornered gladiate, Keel cartilaginous torn, Petals much longer than calyx

7305 Lvs. clust. not dotted glauc. shortly falcate gladiate, Angles cartilag. Petals much shorter than calyx

7306 Lvs. clust. compressed 3-cornered shortly acinaciform glauc. entire dotted with a cartilaginous edge

7307 Leaves distinct clust. equilaterally 3-corn. shortly acinaciform green dotted with a cartilaginous edge

7308 Lvs. subdelt. smooth very green with a gibb. entire keel, Pet. not closing: the inner imbricate very short

7309 Leaves clustered glaucous long 3-cornered deltoid, The sides not toothed, Keel entire

7310 Leaves clust. very glauc. 3-corn. deltoid toothed in three rows, Keel of the bractes and sepals entire

7311 Leaves clust. deltoid with the bractes and sepals 3-cornered glaucous toothed in three rows

7312 Leaves 3-corn. acuminate awned green blistered inside at the base, Branches much clustered

7313 Leaves obl. ovate acute glaucous 3-corn. with a little white point at end

7314 Leaves connate at base oblong ovate half round not pointed, the winter leaves joined almost to the end

7315 Leaves acute equilaterally 3-corn. cymbiform grey obsoletely dotted with a downy fringe and recurv. point

§ 6. *Triquetrous. Leaves more or less 3-cornered distinct. Cal. 5-leaved. Styles 5.*

7316 Leaves large clustered much compressed 3-corn. incurved very glaucous, Stem woody erect bushy

7317 Leaves small much clust. somewhat connate compressed 3-corn. closely incurved, Branches clustered

7318 Leaves minute distinctly compressed 3-cornered falcate, Branches numerous filiform

7319 Leaves much compressed 3-corn. very glauc. attenuate at each end incurved, Branches much clustered

7320 Leaves compressed 3-corn. very glaucous attenuate at each end acinaciform, Stem erect

7321 Leaves 3-corn. clust. robust incurved very glaucous, Stem erect much branched

7322 Leaves much clustered thick acinaciform falcate with large spots glaucous

7323 Lvs. bluntly 3-corn. comp. glauc. incurv. atten. at each end, Pedunc. and branches erect filiform comp.

7324 Lvs. clustered falcate inflexed from 3-cornered half round compressed subglaucous smooth

7325 Leaves subtriquetrous green shining warted very rough, Sepals ovate acuminate, Petals crenate at end

7326 Leaves subtriquetrous glaucescent warted very rough, Sepals ovate-acuminate, Petals two toothed at end

7327 Leaves subtriquetrous very glaucous rough, Sepals and petals distant reflexed, Stamens clust. Bark white

7328 Erect woody, Leaves lin. obsoletely 3-corn. smoothish glauc. white imbricated at the ends of old branches

7329 Leaves subtriquetrous glauc. roughish attenuated downwards, Stems clust. deflexed, Pet. very numerous

7330 Leaves subtriquetrous glauc. attenuated upwards smooth, Keel roughish, Branches distant filiform

7331 Leaves small glauc. 3-corn. rough, Branches bushy clust. The young bark brown, Flowers panicled

7332 Leaves small often longer than the joints but inwards by pairs glauc. 3-corn. obtuse smooth

7333 Leaves much clust. strong incurved-recurved clavate compressed dotted glaucous, Branches bushy

7334 Leaves compressed bluntly 3-corn. roughish with dots glaucous, Sepals like spines spreading

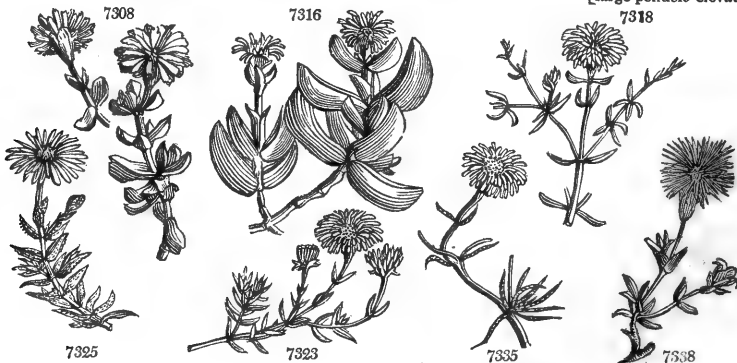
7335 Leaves subglaucous subtriquetrous rough, Calyxes spiny, Petals deeply emarginate

7336 Leaves distinct remote subrecurved triquetrous much comp. dotted glauc. Keel gibbous above middle

7337 Leaves distinct distant triquetrous compressed acute subglaucous dotted, Branches twiggy

7338 Leaves green, Bractes 4 broadly ovate keeled embracing the calyx, Pet. white at base, Branches fuscous

7339 Branches decumbent 2-edged brown, Leaves acinacif. 3-corn. with sides membranous downwards, Dots [large pellucid elevated



and Miscellaneous Particulars.

flower vigorously if planted in a bed in the open air and protected during winter, or if planted in a common pit, and matted over during frost.

|                              |                 |    |             |     |          |       |       |
|------------------------------|-----------------|----|-------------|-----|----------|-------|-------|
| 7340 <i>gracile</i> Haw.     | starry          | or | 1 1/2 au.n  | R   | C. G. H. | 1794. | C s.l |
| <i>stellatum</i> Haw.        |                 |    |             |     |          |       |       |
| 7341 <i>radiatum</i> Haw.    | rayed           | or | 1 1/2 au.n  | R   | C. G. H. | 1732. | C s.l |
| 7342 <i>compressum</i> Haw.  | compressed      | or | 1 1/2 jls.  | D.R | C. G. H. | 1792. | C s.l |
| 7343 <i>patulum</i> Haw.     | spreading       | or | 1 1/2 o.n   | Pk  | C. G. H. | 1811. | C s.l |
| 7344 <i>asperum</i> Haw.     | rough           | or | 1 1/2 ...   | ... | C. G. H. | 1818. | C s.l |
| <i>β cœrulescens</i> Haw.    | blue            | or | 1 1/2 ...   | ... | C. G. H. | 1820. | C s.l |
| 7345 <i>formosum</i> Haw.    | white-eyed      | or | 1 au.s      | Cr  | C. G. H. | 1820. | C s.l |
| 7346 <i>spectabile</i> Haw.  | showy           | or | 1 my.au     | Cr  | C. G. H. | 1787. | C s.l |
| 7347 <i>conspicuum</i> Haw.  | dark-showy      | or | 1 s.o       | Cr  | C. G. H. | 1806. | C s.l |
| 7348 <i>blanum</i> Haw.      | bland           | or | 1 1/2 jn    | Pk  | C. G. H. | 1810. | C s.l |
| 7349 <i>curviflorum</i> Haw. | curve-flowered  | or | 2 jn        | W   | C. G. H. | 1818. | C s.l |
| 7350 <i>aëreum</i> L.        | golden-flower'd | or | 1 mr.o      | Y   | C. G. H. | 1750. | C s.l |
| 7351 <i>cymbifolium</i> Haw. | boat-leaved     | or | 1 ...       | Y   | C. G. H. | 1822. | C s.l |
| 7352 <i>aurantium</i> Haw.   | orange-flower'd | or | 1 jn.au     | Y   | C. G. H. | 1793. | C s.l |
| 7353 <i>glacium</i> L.       | glaucous-leav'd | or | 1 1/2 jn,jl | Or  | C. G. H. | 1696. | C s.l |
| 7354 <i>strictum</i> Haw.    | erect           | or | 3 ...       | Y   | C. G. H. | 1795. | C s.l |
| 7355 <i>cymbiforme</i> Haw.  | boat-shaped     | or | 1 1/2 ...   | Y   | C. G. H. | 1793. | C s.l |
| 7356 <i>graniforme</i> Haw.  | grain-leaved    | or | 1 s.o       | Y   | C. G. H. | 1727. | C s.l |
| 7357 <i>molic</i> H. K.      | soft-leaved     | or | 1 o         | Pk  | C. G. H. | 1774. | C s.l |

|                               |                  |    |             |     |          |       |       |
|-------------------------------|------------------|----|-------------|-----|----------|-------|-------|
| 7353 <i>coccineum</i> Haw.    | scarlet-flowered | or | 1 1/2 my.s  | S   | C. G. H. | 1696. | C s.l |
| 7353 <i>bicolorum</i> L.      | two-colored      | or | 1 1/2 my.s  | Or  | C. G. H. | 1732. | C s.l |
| <i>β pdulum</i> Haw.          | spreading        | or | 1 my.s      | Or  | C. G. H. | ...   | C s.l |
| <i>γ minus</i> Haw.           | small            | or | 1 my.s      | Or  | C. G. H. | ...   | C s.l |
| 7360 <i>inaequale</i> Haw.    | unequal-cupped   | or | 1 my.s      | Or  | C. G. H. | 1716. | C s.l |
| 7361 <i>tenuifolium</i> L.    | slender-leaved   | or | 1 jn.s      | S   | C. G. H. | 1700. | C s.l |
| <i>β erectum</i> Haw.         | erect            | or | 1 1/2 jn.s  | S   | C. G. H. | ...   | C s.l |
| 7362 <i>variabile</i> Haw.    | variable         | or | 1 1/2 jn.au | Y   | C. G. H. | 1796. | C s.l |
| 7363 <i>spiniforme</i> Haw.   | thorn-leaved     | or | 1 s.o       | Pk  | C. G. H. | 1793. | C s.l |
| <i>β subaduncum</i> Haw.      | hooked           | or | 1 s.o       | Pk  | C. G. H. | ...   | C s.l |
| 7364 <i>curvifolium</i> W.    | crooked-leaved   | or | 1 o         | Pk  | C. G. H. | 1789. | C s.l |
| 7365 <i>flexifolium</i> Haw.  | bent-leaved      | or | 1 o         | Pk  | C. G. H. | 1820. | C s.l |
| 7366 <i>aduncum</i> Haw.      | hook-leaved      | or | 1 f.mr      | Pk  | C. G. H. | 1795. | C s.l |
| 7367 <i>filiacte</i> Haw.     | thread-stalked   | or | 1 s.s       | Pk  | C. G. H. | 1800. | C s.l |
| 7368 <i>spinosum</i> L.       | thorny           | or | 1 1/2 jn.s  | Pk  | C. G. H. | 1714. | C s.l |
| 7369 <i>stipulaceum</i> L.    | upright-shrub.   | or | 1 1/2 my.jn | Pk  | C. G. H. | 1723. | C s.l |
| 7370 <i>corallinum</i> Thunb. | coral            | or | 1 my.jn     | Pk  | C. G. H. | 1820. | C s.l |
| 7371 <i>productum</i> Haw.    | long-calyxed     | or | 1 my.jn     | Pk  | C. G. H. | 1822. | C s.l |
| 7372 <i>Haworthii</i> Donn.   | Haworth's        | or | 1 ja.jn     | Br  | C. G. H. | 1793. | C s.l |
| 7373 <i>læve</i> H. K.        | white-wooded     | or | 1 1/2 jls.  | ... | C. G. H. | 1774. | C s.l |
| 7374 <i>verruculatum</i> L.   | spot-leaved      | or | 1 1/2 my.jn | Y   | C. G. H. | 1731. | C s.l |
| <i>β Candollei</i> Pl. gr.    | Decandolle's     | or | 1 1/2 my.jn | Y   | C. G. H. | ...   | C s.l |
| 7375 <i>insitium</i> W.       | purple and saff. | or | 1 au.o      | Fu  | C. G. H. | 1780. | C s.l |
| <i>β purpureo-crœcum</i> Haw. | yellow and saff. | or | 1 au.o      | Y   | C. G. H. | 1816. | C s.l |
| <i>β flavo-crœcum</i> Haw.    | small            | or | 1 1/2 au.o  | Y   | C. G. H. | ...   | C s.l |
| <i>γ minus</i>                |                  |    |             |     |          |       |       |

|                                 |                  |    |             |    |          |       |       |
|---------------------------------|------------------|----|-------------|----|----------|-------|-------|
| 7376 <i>crystallinum</i> L.     | Ice-plant        | or | 1 my.au     | W  | Greece   | 1727. | S s.l |
| 7377 <i>glaciæ</i> Haw.         | frozen           | or | 1 1/2 my.au | W  | Greece   | ...   | S s.l |
| 7378 <i>pinnatifidum</i> L.     | jagged           | or | 1 my.o      | Y  | C. G. H. | 1774. | S s.l |
| 7379 <i>sessiliflorum</i> H. K. | sessile-flowered | or | 1 1/2 jl    | Y  | C. G. H. | 1774. | S s.l |
| <i>β album</i> Haw.             | white            | or | 1 1/2 jl    | W  | C. G. H. | ...   | S s.l |
| 7380 <i>humifusum</i> H. K.     | narrow-lvd. icy  | or | 1 1/2 jl.au | W  | C. G. H. | 1774. | S s.l |
| 7381 <i>Aitoni</i> Jacq.        | Aiton's          | or | 1 jn.o      | Pk | C. G. H. | 1774. | S s.l |
| 7382 <i>lanceolatum</i> Haw.    | spear-leaved     | or | 1 1/2 my.au | W  | C. G. H. | 1795. | S s.l |
| <i>β roseum</i> Haw.            | pink             | or | 1 1/2 my.au | Pk | C. G. H. | 1813. | S s.l |
| 7383 <i>cordifolium</i> L.      | heart-leaved     | or | 1 1/2 my.s  | Pk | C. G. H. | 1774. | S s.l |
| 7384 <i>pomeridianum</i> L.     | great yellow-fl. | or | 1 jl.au     | Y  | C. G. H. | 1774. | S s.l |
| <i>β glabrum</i>                | smooth           | or | 1 jl.au     | Y  | C. G. H. | ...   | S s.l |
| 7385 <i>Candollei</i> Haw.      | Decandolle's     | or | 1 au        | Y  | C. G. H. | 1815. | S s.l |
| 7386 <i>pilosum</i> Haw.        | hairy-yellow     | or | 1 1/2 jn.au | Y  | C. G. H. | 1800. | S s.l |
| 7387 <i>calendulaceum</i> Haw.  | Pot-marigold     | or | 1 1/2 au    | Y  | C. G. H. | 1819. | S s.l |
| 7388 <i>Helianthoides</i> H.K.  | Sun-flower       | or | 1 au.o      | Y  | C. G. H. | 1774. | S s.l |
| 7389 <i>limpidum</i> H. K.      | transparent      | or | 1 jl        | R  | C. G. H. | 1774. | S s.l |



History, Use, Propagation, Culture,

M. nodiflorum grows wild in Italy and Egypt, and in the latter country is burnt for potash, which it produces in excellent quality.

- 7340 Leaves glauc. slender roughish, Bractes ovate acute almost surrounding the calyx, Branches very slender [straight]
- 7341 Leaves glaucous, Bractes broad ovate, Branchlets clustered, Stem hoary
- 7342 Leaves glauc. equilateral 3-corn. very rough, Bractes ovate acute embracing the peduncles upwards
- 7343 Leaves 6-12 lines long half erect glauc. with little pellucid rough dots
- 7344 Leaves compressed 3-corn. longish bluish-green with rough pellucid dots, Keel usually onetoothed
- 7345 Low, Leaves green sparkling in the sun and branches very dense, Flower-stems decumbent
- 7346 Lowish, Lvs. glauc. 3-corner. and branches very close, Fl.-stems ascending or erect, Styles obovate twice [as short as stamens]
- 7347 Leaves green sparkling in the sun and branches close, Flower-stems erect
- 7348 Lvs. close compressed 3-cornered very green, Ped. longer than bract, Flowers spreading flat in the sun
- 7349 Leaves compressed 3-cornered glaucous, Branches stout, Pedunc. clavate, Corolla incurved
- 7350 Leaves cylindrical 3-cornered, Petals orange, Styles dark purple
- 7351 Lvs. cymbiform pale-green with large dots, Branches few 2-edged hoary
- 7352 Lvs. very glauc. 3-corn. compressed, Sepals obl. ovate, Pet. deep orange imbricated, Styles purple outside
- 7353 Lvs. acutely 3-corn. much compressed glauc. roughish, Sepals ovate cordate, Pet. sulphur, Styles yellow
- 7354 Leaves 3-cornered obtuse expanded glaucous with large spots, Stem much branched woody stiff erect
- 7355 Leaves 3-cornered spreading cymbiform glaucous, Stems branched, Branches filiform nearly erect close
- 7356 Lvs. distinct 3-corn. ovate granular 3 lines long, Flowers yellow opening in the evening, Stems expanded
- 7357 Leaves spreading turgid 3-cornered hoary bluntly dotted at edge, Branches clustered 2-edged decumbent
- § 7. *Slender, Leaves distinct, dotted, rounded, without warts, Flowers opening in the morning, red, orange, or yellow.*
- 7358 Lvs. rounded 3-corn. somewhat compressed obt. glauc. Pedunc. smooth at base, Sepals obt. nearly equal
- 7359 Leaves 3-cornered acute green, Pedunc. and cal. unequal rough, Petals yellow inside
- 7360 Leaves about 3-cornered very green, Pedunc. in fruit clavate, Sepals very unequal, Branches loose
- 7361 Leaves half round subcompressed subulate green smooth longer than joints, Stems erect or procumbent
- 7362 Lvs. 3-corn. compressed glauc. rough, Sepals unequal, Petals changing from yellow to pink, Stems effuse
- 7363 Branches and lvs. cylindrical subul. spiniform erect recurved at end, Pedunc. and keels of bractes rough
- 7364 Lvs. distant expanded at base incurv. half round subul. Branch. firm suberect roughish angul. compressed
- 7365 Lvs. 3-cornered subulate incurved below hooked at end, Branches filiform compressed wavy decumbent
- 7366 Leaves clustered half cylindrical acuminate much recurved at end, Branches erect very close
- 7367 Tufted, Leaves clustered half cylindrical acuminate with filiform very weak creeping stems
- 7368 Leaves rounded 3-cornered dotted distinct, Spines branched
- 7369 Leaves long rounded 3-cornered subulate incurved glaucous edged at base
- 7370 Leaves rounded incurved smooth thickest in middle glaucous, Stem straight branched
- 7371 Flowers terminal 5, Two sepals deeply divided
- 7372 Leaves subulate rounded 3-cornered acute somewhat incurved very glaucous, Bark chestnut-colored
- 7373 Leaves clustered cylindrical obtuse arcuate glaucous smooth
- 7374 Leaves connate at base very close and glaucous 3-cornered cylindrical soapy, Flowers afternoon
- 7375 Leaves clustered 3-cornered half cylindrical mealy obtuse shorter than joint soapy, Sepals very unequal

§ 8. *Warted, Leaves and branches almost always more or less warted, Root biennial or annual.*

- 7376 Leaves large ovate acute wavy frosted with three nerves beneath, Root biennial
- 7377 Leaves large altern. ovate much wavy, as are the stems and cal., bespangled with ice drops, Root annual
- 7378 Leaves oblong pinnatifid pimpled, Petals minute yellow
- 7379 Leaves flat spatulate and stems pimpled, Branches divaricating, Fl. sessile
- 7380 Leaves amplexicaul. spatulate keeled, Pimples conical rough, Petals very minute
- 7381 Leaves opp. and altern. ovate spatulate wavy pimpled, Branches and calyxes angular, Fl. afternoon
- 7382 Leaves altern. lanceolate bluntnish pimpled, Calyxes stalked crystalline
- 7383 Leaves stalked cordate ovate, Stems procumbent spreading, Cal. 4-cleft 2-horned
- 7384 Leaves broad lanceolate flattish smooth ciliated distinct, Stem peduncle and ovaries hairy
- 7385 Leaves opp. lanc. acute subciliate, Pedunc. solitary subterminal very long hairy, Sepals lanceolate
- 7386 Lvs. lin.-lanc. ciliated, Stems branched effuse, Pedunc. bractes and cal. shorter than flower woolly villous
- 7387 Leaves lin.-lanc. scarcely spatulate and calyx ciliated, Sepals linear thick or turgid, Pedunc. scabrous
- 7388 Leaves spatulate flat smooth, Pedunc. very long, Cal. flat at base angular
- 7389 Leaves opp. spatulate blunt rough, Pimples oblong, Sepals oblong blunt contracted in middle



and Miscellaneous Particulars.

M. crystallinum is a popular hothouse annual, which does well in the open air in the summer season.  
 M. umbellatum forms one of the handsomest shrubs of the genus, standing without support with a stout  
 F f 4



|      |                     |                   |   |    |   |       |      |          |       |   |     |                        |
|------|---------------------|-------------------|---|----|---|-------|------|----------|-------|---|-----|------------------------|
| 7390 | tricolor Haw.       | three-colored     | □ | or | 1 | jl    | R    | C. G. H. | 1795. | S | a.l |                        |
|      | β roseum Haw.       | pink              | □ | or | 1 | jl    | Pk   | C. G. H. | 1795. | S | a.l |                        |
|      | γ lineare Thunb.    | linear            | □ | or | 1 | jl    | W    | C. G. H. | 1819. | S | a.l |                        |
| 7391 | villosum L.         | villous           | ■ | or | 1 | jl    | Ap   | C. G. H. | 1759. | C | a.l |                        |
| 7392 | caducum H. K.       | deciduous         | ■ | or | 1 | jlau  | Pk   | C. G. H. | 1774. | S | a.l |                        |
| 7393 | apetalum H. K.      | dwarf-spread.     | ■ | or | 1 | jlau  | Ap   | C. G. H. | 1774. | S | a.l | Jaar. vind. 3. t. 6    |
| 7394 | nodiflorum L.       | knot-flowered     | □ | or | 1 | au.o  | W    | Egypt    | 1739. | S | a.l | Plant. grass. 88       |
| 7395 | ciliatum H. K.      | ciliated          | □ | or | 1 | ...   | W    | C. G. H. | 1774. | C | a.l |                        |
| 7396 | geniculiflorum L.   | joint-flowering   | □ | or | 1 | jls   | W    | C. G. H. | 1727. | C | a.l | Plant. grass. 17       |
| 7397 | Triplolium L.       | Aster-leaved      | ■ | or | 1 | jno   | Pa.Y | C. G. H. | 1700. | C | a.l | Di. el. t. 179. f. 220 |
| 7398 | expansum L.         | Houseleek-lvd.    | ■ | or | 1 | jlau  | Pa.Y | C. G. H. | 1705. | C | a.l | Plant. grass. 94       |
| 7399 | varians Haw.        | varying           | ■ | or | 1 | jno   | Pa.Y | C. G. H. | 1704. | C | a.l | Pet. gaz. t. 78. f. 10 |
| 7400 | tortuosum L.        | twisted-leaved    | ■ | or | 1 | jno   | Pa.Y | C. G. H. | 1705. | C | a.l | Di. el. t. 181. f. 232 |
| 7401 | pálens H. K.        | pale-flowered     | ■ | or | 1 | jlau  | Pa.Y | C. G. H. | 1774. | C | a.l | Plant. grass. 47       |
| 7402 | loratum Haw.        | lorate            | ■ | or | 1 | jlau  | W    | C. G. H. | 1819. | C | a.l |                        |
| 7403 | relaxatum W.        | livid strap-leav. | ■ | or | 1 | jlau  | Pk   | C. G. H. | 1815. | C | a.l |                        |
| 7404 | crassicaule Haw.    | thick-leaved      | ■ | or | 1 | jlau  | Pa.Y | C. G. H. | 1815. | C | a.l |                        |
| 7405 | anatómicum Haw.     | skeleton-leaved   | ■ | or | 1 | jlau  | W    | C. G. H. | 1803. | C | a.l |                        |
|      | β frágle Haw.       | brittle           | ■ | or | 1 | jlau  | W    | C. G. H. | 1803. | C | a.l |                        |
| 7406 | rectum Haw.         | straight          | ■ | or | 1 | jlau  | W    | C. G. H. | 1819. | C | a.l |                        |
| 7407 | crassuloides Haw.   | Crasula-like      | ■ | or | 1 | jlau  | Pk   | C. G. H. | 1819. | C | a.l |                        |
| 7408 | incómputum Haw.     | per-sistent       | ■ | or | 1 | jlau  | W    | C. G. H. | 1819. | C | a.l | Bot. cab. 1311         |
| 7409 | splendens L.        | shining           | ■ | or | 1 | jn.au | W    | C. G. H. | 1716. | C | a.l | Plant. grass. 35       |
| 7410 | flexuosum Haw.      | zigzag            | ■ | or | 1 | jlau  | W    | C. G. H. | 1785. | C | a.l |                        |
| 7411 | acuminatum Haw.     | acuminate         | ■ | or | 2 | aus   | W    | C. G. H. | 1820. | C | a.l |                        |
| 7412 | sulcatum Haw.       | sulcate           | ■ | or | 3 | aus   | W    | C. G. H. | 1819. | C | a.l |                        |
| 7413 | fastigiatum Haw.    | level-topped      | ■ | or | 1 | jls   | W    | C. G. H. | 1794. | C | a.l |                        |
|      | β reflexum Haw.     | reflexed          | ■ | or | 1 | aus   | W    | C. G. H. | 1792. | C | a.l |                        |
| 7414 | umbelliflorum W.    | umbellate         | ■ | or | 1 | aus   | W    | C. G. H. | 1820. | C | a.l |                        |
| 7415 | pallescens Haw.     | pallid            | ■ | or | 1 | aus   | W    | C. G. H. | 1820. | C | a.l |                        |
| 7416 | micrónthum Haw.     | small-blossom.    | ■ | or | 1 | ...   | W    | C. G. H. | 1804. | C | a.l |                        |
|      | parvisflorum Jacq.  |                   |   |    |   |       |      |          |       |   |     |                        |
| 7417 | júnceum Haw.        | Rush-leaved       | ■ | or | 1 | au.o  | Pk   | C. G. H. | 1800. | C | a.l |                        |
| 7418 | granulicáule Haw.   | granulated        | ■ | or | 1 | ...   | ...  | C. G. H. | 1820. | C | a.l |                        |
| 7419 | ténue Haw.          | slender           | ■ | or | 1 | ...   | ...  | C. G. H. | 1819. | C | a.l |                        |
| 7420 | longispinulum Haw.  | long-spined       | ■ | or | 1 | au.n  | Pa.Y | C. G. H. | 1820. | C | a.l |                        |
| 7421 | spinuliferum Haw.   | spinulescent      | ■ | or | 1 | jn.o  | Pa.Y | C. G. H. | 1794. | C | a.l |                        |
| 7422 | griseum Haw.        | grey              | ■ | or | 1 | au.o  | Pa.Y | C. G. H. | 1774. | C | a.l |                        |
| 7423 | salmonicum Haw.     | salmon-colored    | ■ | or | 3 | au.o  | Pa.Y | C. G. H. | 1819. | C | a.l |                        |
| 7424 | canaliculatum Haw.  | channel-leaved    | ■ | or | 2 | jlo   | Pk   | C. G. H. | 1794. | C | a.l |                        |
| 7425 | viridiflorum H. K.  | green-flowered    | ■ | or | 2 | jln   | Gr   | C. G. H. | 1820. | C | a.l | Bot. mag. 326          |
| 7426 | tenuiflorum Jacq.   | slender-flower.   | ■ | or | 2 | jln   | Pk   | C. G. H. | 1774. | C | a.l |                        |
| 7427 | nitidum Haw.        | nitid             | ■ | or | 2 | jlo   | Y    | C. G. H. | 1790. | C | a.l |                        |
| 7428 | brachiatum H. K.    | three-forked      | ■ | or | 1 | jn.au | Y    | C. G. H. | 1774. | C | a.l |                        |
| 7429 | subincanum Haw.     | hoary             | ■ | or | 2 | aus   | W    | C. G. H. | 1820. | C | a.l |                        |
| 7430 | testaceum Haw.      | tile-colored      | ■ | or | 3 | aus   | Or   | C. G. H. | 1820. | C | a.l |                        |
| 7431 | tuberosum L.        | tuberous-rooted   | ■ | or | 3 | jno   | Or   | C. G. H. | 1714. | C | a.l | Dill. eth. f. 264      |
| 7432 | noctiflorum L.      | night-flowering   | ■ | or | 2 | jn.au | W.pk | C. G. H. | 1714. | C | a.l | Bot. cab. 495          |
|      | β stramineum Haw.   | straw-colored     | ■ | or | 2 | jn.au | Str  | C. G. H. | 1792. | C | a.l |                        |
| 7433 | fulvum Haw.         | grey-barked       | ■ | or | 2 | jn.au | Str  | C. G. H. | 1820. | C | a.l |                        |
| 7434 | defoliatum Haw.     | clubbed           | ■ | or | 2 | jn.au | W.pk | C. G. H. | 1820. | C | a.l |                        |
| 7435 | horizontale Haw.    | horizontal-lvd.   | ■ | or | 2 | jn.au | Str  | C. G. H. | 1795. | C | a.l |                        |
| 7436 | speciosum Haw.      | specious          | ■ | or | 1 | my.o  | S    | C. G. H. | 1793. | C | a.l |                        |
| 7437 | micans L.           | glittering        | ■ | or | 1 | my.au | S    | C. G. H. | 1704. | C | a.l | Bot. mag. 448          |
| 7438 | maculatum Haw.      | spotted-stalked   | ■ | or | 1 | ...   | ...  | C. G. H. | 1792. | C | a.l |                        |
| 7439 | flavum Haw.         | small-yellow      | ■ | or | 1 | au    | Pk   | C. G. H. | 1820. | C | a.l |                        |
| 7440 | obliquum Haw.       | oblique           | ■ | or | 1 | au    | Pu   | C. G. H. | 1819. | C | a.l | Bot. reg. t. 863       |
| 7441 | parvifolium Haw.    | small-leaved      | ■ | or | 1 | au    | Pu   | C. G. H. | 1820. | C | a.l |                        |
| 7442 | brevifolium H. K.   | short-leaved      | ■ | or | 1 | jlo   | R    | C. G. H. | 1777. | C | a.l |                        |
| 7443 | subglobosum Haw.    | globular          | ■ | or | 1 | jlo   | R    | C. G. H. | 1795. | C | a.l |                        |
| 7444 | pulverulentum Haw.  | dusty-leaved      | ■ | or | 1 | my    | Pk   | C. G. H. | 1792. | C | a.l |                        |
| 7445 | hispidum L.         | hispid            | ■ | or | 1 | my.o  | Pu   | C. G. H. | 1704. | C | a.l | Dill. eth. f. 278      |
|      | β platypetalum Haw. | broad-petalled    | ■ | or | 1 | my.o  | Pu   | C. G. H. | 1820. | C | a.l |                        |
| 7446 | hirtellum Haw.      | dwarf-bristly     | ■ | or | 1 | my.n  | Pk   | C. G. H. | 1792. | C | a.l |                        |
| 7447 | cándens Haw.        | glowing-icy       | ■ | or | 1 | ...   | ...  | C. G. H. | 1820. | C | a.l |                        |
| 7448 | horibundum Haw.     | pale-bristly      | ■ | or | 1 | my.o  | Pk   | C. G. H. | 1704. | C | a.l | Di. el. t. 214. f. 280 |



History, Use, Propagation, Culture,

stem, two or three feet high, with terminating white flowers, which open, when the sun shines, from seven or eight in the morning to two or three in the afternoon, and smell like those of the hawthorn. The fruit of M. edule is eaten by the Hottentots and Dutch inhabitants of the Cape, and is called Hottentots' figs.

7390 Leaves linear inflexed channelled blunt rough, Pedunc. and calyx jewelled with crystals

- 7391 Leaves pubescent connate not dotted, Stem hairy [of leaves  
7392 Leaves filiform half round distinct, Pimples ovate, Fl. lateral sessile: the terminal surrounded by a pair  
7393 Leaves amplexicaul. distinct linear flat above pimples longer than joints, Fl stalked  
7394 Leaves alternate roundish obtuse paired at base  
7395 Leaves opp. connate half round, Stipules membranous reflexed torn fringe-like  
7396 Leaves half round papulose distinct, Fl. sessile axill. Cal. 4-cleft  
7397 Leaves alternate lanceolate flat not dotted, Stems lax simple, Cal. 5-cornered  
7398 Leaves flattish lanceolate not dotted spreading distinct opp. and altern. remote  
7399 Leaves lanc. acuminate keeled fleshy bluntly 3-cornered channelled, Pedunc. very thick  
7400 Leaves flattish oblong ovate papulose clustered connate, Cal. 3-leaved 2-horned  
7401 Leaves amplexicaul. glaucous distinct obl. lanc. inflexed concave, Sepals ovate obl. longer than cor.  
7402 Leaves lorate long channelled inflexed blunt very glaucous convex beneath, Sepals obtuse as long as cor.  
7403 Lvs. lorate obl. blunt glauc. livid channelled dotted papulose keeled, Stems branched rounded decumbent  
7404 Leaves lorate acuminate green smooth, Stem very short and thick  
7405 Leaves lanc. elliptical crystalline when dead having only the nerves remaining, Stems procumbent

- 7406 Leaves connate ovate papulose, Branches erect clustered  
7407 Leaves lanc. lin. somewhat channelled convex beneath, Fl. solitary terminal [acute  
7408 Lvs. clustered papulose erect somewhat imbricate subul. half round, Fl. ternate cymose, Sepals digitiform  
7409 Leaves half round not dotted recurved distinct close, Cal. terminal finger-shaped  
7410 Lvs. close flexuose recurved very green half round, Sepals finger-shaped, Stems flexuose shining slender  
7411 Leaves acuminate green, Sepals 2 much elongated  
7412 Leaves close linear subulate half round pale green deeply channelled, Sepals acute  
7413 Leaves close flexuose reflex subulate half round glaucous, Sepals equal 3 membranes on each side  
7414 Leaves distinct roundish pimples, Stem erect, Branchlets 1-flowered  
7415 Leaves opposite amplexicaul. distichous oblong-lanceolate acute bluntly keeled, Pimples minute  
7416 Leaves lanc. linear keeled not dotted distinct, Flowers stalked, Two sepals very long

- 7417 Lvs. subulate half round acute remote, Fl. term. dichotomous, Sepals very unequal, Branches sometimes  
7418 Branches round granular closely dotted [rush-formed  
7419 Leaves very slender 1-sided effuse, Leaves erect linear very fine  
7420 Branches procumbent knotted at the base, Spines of the leaves very long  
7421 Leaves close half round channelled, Stem and branches erect thick  
7422 Leaves lin. round obtuse narrowed at each end, Old stem strumose at base, Branches effuse  
7423 Branches filiform weak long prostrate, Old roots strumose above, Leaves lin. furrowed longer than joints  
7424 Leaves lin. half round with shining pimples, Stems procumbent filiform  
7425 Leaves half round pimples hairy, Cal. hairy, Stem thick, Branches diffuse knotty  
7426 Leaves half round blunt channelled spreading iced, Branches diffuse weak cinereous  
7427 Beautifully pimples all over, Leaves half round, Branches knotty slender, Fl. small dichotomous  
7428 Stems and leaves cylindrical pimples, Branches dichotomous  
7429 Leaves expanded compressed 3-cornered somewhat hoary soft recurved at end mucronate  
7430 Leaves half round somewhat triquetrous glaucous, Fl. 3-chorotomous testaceous, Stem erect shrubby  
7431 Leaves subtriquetrous compressed minutely pimples recurved at end, Old root tuberous large  
7432 Leaves remote obsolete cylindrical glaucous, Fl. 2 ternate cymose, Bark white

- 7433 Leaves remote subcylindrical glaucous exactly half erect, Fl. ternate, Bark cinereous  
7434 Leaves half round, Pedunc. terminal aggregate clavate cymose  
7435 Leaves remote half cylindrical glaucous exactly horizontal, Fl. ternate  
7436 Leaves half cylindrical subul. subacute incurved sparkling, Sepals and petals obtuse, Cor. funnel-shaped  
7437 Leaves half cylindrical obtuse subrecurved much sparkling, Sepals and petals subacute  
7438 Leaves expanded remote blunt compressed subcylindrical, Stems very rough spotted  
7439 Leaves half round narrowed at each end sparkling incurved erect variously bent, Branches filiform  
7440 Leaves distant cylindrical blunt small shining pimples: one of each pair deflexed, Branches hard suberect  
7441 Leaves graniform expanded bluntly 3-cornered papulose shining, Branches hard rough erect  
7442 Leaves cylindrical blunt spreading short, Branches numerous diffuse filiform  
7443 Leaves expanded very short or globose cylindrical, Branches numerous filiform divaricating decumbent  
7444 Leaves cylindrical 3-cornered obtuse with white dots, Calyx 6-cleft  
7445 Leaves cylindr. very blunt and cal. smooth obconical green pimples sparkling, Stamens longer than styles

- 7446 Leaves close cylindrical blunt with crystalline pimples, Cal. turbinate hairy, Stamens length of styles  
7447 Leaves cylindrical incurved crystalline hoary blunt sparkling, Branches long weak procumbent  
7448 Lvs. subcylindr. incurv. pimpl. obt. Cal. hemispheric. pimpl. hairy cluster. Branch. numerous spreading



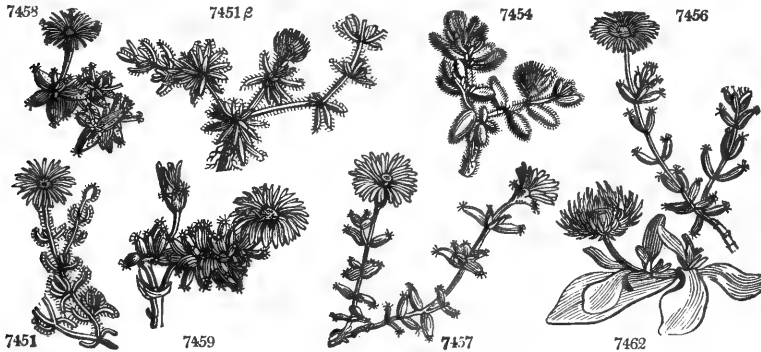
and Miscellaneous Particulars.

Mr. Haworth's arrangement of the genus, which is the only intelligible one, is here followed. Respecting the general culture of the genus, Sweet observes, "the dwarf kinds require but little water, and to be grown in small pots in a very sandy or gravelly soil. The species should be kept quite dry when in a dormant state;

|       |                              |                  |    |    |   |       |      |          |       |   |     |                     |
|-------|------------------------------|------------------|----|----|---|-------|------|----------|-------|---|-----|---------------------|
| 7449  | <i>torquatum Haw.</i>        | twisted          | 2- | or | 2 | my.o  | Pk   | C. G. H. | 1820. | C | s.1 |                     |
| 7450  | <i>calycinum Haw.</i>        | long-cupped      | 2- | or | 2 | jl.au | W    | C. G. H. | 1819. | C | s.1 |                     |
| 7451  | <i>striatum Haw.</i>         | striped-bristly  | 2- | or | 2 | my.o  | Pk   | C. G. H. | 1727. | C | s.1 | Dill. elth. f. 281  |
|       | β <i>pdilens</i>             | pale             | 2- | or | 2 | my.o  | W    | C. G. H. | ...   | C | s.1 | Plan. grass. t. 130 |
| 7452  | <i>attenuatum Haw.</i>       | slender          | 2- | or | 2 | my.o  | W    | C. G. H. | 1821. | C | s.1 |                     |
| 7453  | <i>hispifolium Haw.</i>      | bristle-stemmed  | 2- | or | 2 | my.o  | W    | C. G. H. | 1818. | C | s.1 |                     |
|       | β <i>roseum Haw.</i>         | rosy             | 2- | or | 2 | my.o  | Pk   | C. G. H. | 1818. | C | s.1 |                     |
| 7454  | <i>echinatum H. K.</i>       | hedge-hog        | 2- | or | 2 | jl.o  | Y    | C. G. H. | 1774. | C | s.1 | Plant. grass. 24    |
| 7455  | <i>strumosum Haw.</i>        | tubr. hedge-hog  | 2- | or | 2 | au    | Pa.Y | C. G. H. | 1820. | C | s.1 |                     |
| 7456  | <i>barbatum L.</i>           | trailing beard.  | 2- | or | 2 | jn.au | Pk   | C. G. H. | 1705. | C | s.1 | Plant. grass. 28    |
| 7457  | <i>stelligerum Haw.</i>      | lesser bearded   | 2- | or | 2 | my.o  | Pk   | C. G. H. | 1793. | C | s.1 | Bot. mag. 70        |
| 7458  | <i>stellatum Dec.</i>        | small bearded    | 2- | or | 2 | s.o   | Pk   | C. G. H. | 1716. | C | s.1 | Dill. elth. f. 235  |
|       | <i>M. hirsutum Haw.</i>      |                  |    |    |   |       |      |          |       |   |     |                     |
| 7459  | <i>densum Haw.</i>           | dwarf bearded    | 2- | or | 2 | my.au | Pk   | C. G. H. | 1732. | C | s.1 | Bot. mag. 1220      |
| 7460  | <i>bulbosum Haw.</i>         | bulbous          | 2- | or | 2 | au    | Pk   | C. G. H. | 1820. | C | s.1 |                     |
| 7461  | <i>intonsum Haw.</i>         | black-bearded    | 2- | or | 2 | jl    | Pk   | C. G. H. | 1824. | C | s.1 |                     |
| 1147. | HYMENO'GYNE.                 | Haw. HYMENOGYNE. |    |    |   |       |      |          |       |   |     |                     |
| 7462  | <i>glabra Haw.</i>           | smooth           | □  | cu | 2 | jl.o  | Pa.Y | C. G. H. | 1787. | S | s.1 | Bot. rep. 57        |
|       | <i>Mesemb. glabrum H. K.</i> |                  |    |    |   |       |      |          |       |   |     |                     |

POLYGYNIA.

|        |                                  |                 |    |    |       |       |    |           |       |   |     |                        |
|--------|----------------------------------|-----------------|----|----|-------|-------|----|-----------|-------|---|-----|------------------------|
| †1148. | <i>ROSA. W.</i>                  | ROSE.           |    |    |       |       |    |           |       |   |     |                        |
| 7463   | <i>berberifolia Pall.</i>        | Berry-leav.     | 2- | or | 1 1/2 | jn.jl | Y  | Persia    | 1790. | C | r.m | Par. lond. 101         |
|        |                                  |                 |    |    |       |       |    |           |       |   |     |                        |
| 7464   | <i>ferox Lawr.</i>               | hedge-hog       | 2- | or | 3     | jn.au | R  | Caucasus  | 1796. | L | co  | Bot. reg. 420          |
| 7465   | <i>Kamchatica Vent.</i>          | Kamchatka       | 2- | or | 4     | jl.au | R  | Kamtsch.  | 1802. | L | co  | Bot. reg. 419          |
|        | β <i>K. nitens Lindl.</i>        | shining         | 2- | or | 4     | jl.au | R  | .....     | 1822. | L | co  | Bot. reg. 824          |
|        |                                  |                 |    |    |       |       |    |           |       |   |     |                        |
| 7466   | <i>involutrata Rox.</i>          | involutrated    | 2- | or | 3     | jl.au | W  | E. Indies | 1818. | L | co  | Bot. reg. 739          |
| 7467   | <i>bracteata Wendl.</i>          | Macartney       | 2- | or | 2     | au.o  | W  | China     | 1795. | C | lp  | Vent. cels. t. 23      |
|        | β <i>b. scabricatilis Lindl.</i> | rough-stemmed   | 2- | or | 2     | au.o  | W  | China     | ...   | C | lp  | Bot. mag. 1377         |
|        |                                  |                 |    |    |       |       |    |           |       |   |     |                        |
| 7468   | <i>nitida W.</i>                 | glossy          | 2- | or | 2     | jn.au | R  | N. Amer.  | 1807. | L | co  | Lindl. ros. t. 2       |
| 7469   | <i>rspa Bosc.</i>                | Turneps         | 2- | or | 4     | jn.au | R  | N. Amer.  | ...   | L | co  | Red. ros. 1. t. 7      |
| 7470   | <i>lucida Ehr.</i>               | shining-leaved  | 2- | or | 2     | jn.au | R  | N. Amer.  | 1724. | L | co  | Di. el. t. 245. f. 316 |
| 7471   | <i>gemella W.</i>                | twin-flowering  | 2- | or | 3     | jl.au | R  | N. Amer.  | 1800. | L | co  |                        |
| 7472   | <i>laxa Lindl.</i>               | sprdg. Carolina | 2- | or | 3     | jl.au | R  | N. Amer.  | ...   | L | co  | Lindl. ros. t. 3       |
| 7473   | <i>parviflora Ehr</i>            | small-flowered  | 2- | or | 1 1/2 | jn.au | F  | N. Amer.  | 1724. | L | sp  | Lawr. ros. t. 3        |
|        | — <i>flor pleno</i>              | double          | 2- | or | 1 1/2 | jn.au | F  | N. Amer.  | ...   | L | co  |                        |
| 7474   | <i>Woodsi Lindl.</i>             | Wood's          | 2- | or | 3     | my.jn | R  | N. Amer.  | ...   | L | co  |                        |
| 7475   | <i>carolina L.</i>               | Carolina        | 2- | or | 6     | jn.jl | R  | N. Amer.  | 1726. | L | sp  | Lindl. ros. t. 4       |
|        | β <i>florida Donn.</i>           | smooth Carolina | 2- | or | 5     | jn.jl | R  | N. Amer.  | ...   | L | sp  |                        |
| 7476   | <i>fraxinifolia Bork.</i>        | ash-leaved      | 2- | or | 6     | my.jn | R  | Newfound. | ...   | L | co  | Bot. reg. 458          |
| 7477   | <i>cinnamomea L.</i>             | Cinnamon        | 2- | or | 6     | my    | Pk | Europe    | ...   | L | co  | Eng. bot. 2388         |
|        | β <i>c. flore pleno</i>          | double          | 2- | or | 5     | my.jn | Pk | Europe    | ...   | L | co  | Lindl. ros. t. 5       |
|        | γ <i>florae semipleno</i>        | semidouble      | 2- | or | 7     | my.jn | R  | Siberia   | 1805. | L | co  |                        |
| 7478   | <i>majalis Retz.</i>             | dwarf-cinnam.   | 2- | or | 3     | my.jn | Pk | Europe    | ...   | L | co  | Fl. dan. t. 688        |



History, Use, Propagation, Culture,

but when growing freely, and at the flowering season, they require a moderate supply of water. The stronger and more woody kinds may be planted in a richer soil; but the poorer the soil is, the dwarfer they will grow, and the more abundantly they will flower; they also require more water than the dwarf kinds, particularly at the flowering season, but need very little in winter. A good dry frame is sufficient to preserve them through the winter, with the covering of mats in frosty weather. Cuttings of any of them strike root readily, planted in pots of earth, and kept dry till they begin to wither; when they may have a little water, and they will root very soon. (*Bot. Cult.* 224.)

1147. *Hymenogyne.* From *ὑμην*, a membrane, and *γυν*, a woman, or, in botanical language, a style, in allusion to the cohesion of the styles into a membranous tube. An artificial division of *Mesembryanthemum*.

1148. *Rosa.* From *rhos*, signifying red in Armorican, whence *ῥόδον*, Greek, and *rosa*, Latin. The rose has been a favorite flower from time immemorial among the civilized nations of Europe and Asia. The shrub varies in size in different species, from one foot to six or eight, and the colors are red, white, yellow, purple, striped; simple, or in almost numberless shades and mixtures; the flowers are single, semi-double, and double. The odour is universally grateful. It is cultivated in every garden, from that of the most humble cottager upwards; some species, as *R. centifolia*, *damascena*, &c. are also cultivated by commercial gardeners on a large scale for distilling rose water, and for making attar, or essential oil of roses. Six pounds of rose leaves will impregnate by distillation a gallon of water strongly with their odor; but a hundred pounds affords scarcely half an ounce of attar. The rose is also used in medicine. Botanists are not agreed as to the number of

- 7449 Lvs. subcylindr. incurved pimpled obt. hoary, Cal. hemispheric. pimpled numerous, Stamens longer than  
 7450 Leaves cylindrical fine, Two sepals leafy much longer than the others [styles  
 7451 Erect, Leaves subulate half cylindrical, Cal. woolly, Stamens the length of styles  
 7452 Slender, Lvs. half cylindr. blunt or half round, Cal. hairy at base, Pedunc. long and branches decumbent  
 7453 Branches, leaves, peduncles, and calyxes hispid  
 7454 Leaves obl. ovate subtriquetrous gibbous, Sepals very unequal filiform ragged hispid the length of petals  
 7455 Leaves close depressed cylindrical hispid all over, Old root tuberous  
 7456 Proccumbent, Leaves remote suboblong exactly half erect with 5 rays at end, Cal. 5-cleft very irregular  
 7457 Erect decumbent, Leaves remote nearly oblong horizontal flat above with 6 rays at end, Cal. 5-cleft equal  
 7458 Lvs. tufted hoary thick half round pimpl. rough with many rays at end ciliated at base, Cal. 6-8-fid hairy  
 7459 Densely tufted, Leaves half round papulose rough with many rays at end, Cal. 6-cleft very hairy  
 7460 Branches villous, Leaves horizontal, Root tuberous  
 7461 Branches erect decumbent hairy, Leaves with about 10 rays at end, Calyx with a black beard  
 7462 Leaves on long stalks spatulate lanceolate green

## POLYGYNIA.

Div. I. SIMPLICIFOLIA. *Lindl. ros. mon.* p. 1.

7463 Leaves simple

Div. II. FEROCES. *Lindl.* p. 3.

7464 Arms very close unequal of the same form

7465 The prickles below the stipules falcate larger than the rest, Leaves opaque  
 β Leaflets shiningDiv. III. BRACTEATE. *Lindl.* p. 7.

7466 Leaflets lanceolate elliptical downy beneath, Bractes contiguous pectinate

7467 Leaflets oblong obtuse very smooth, Bractes closely appressed pectinate  
 β Branches covered with setæDiv. IV. CINNAMOMEÆ. *Lindl.* p. 13.

7468 Dwarf, Arms very close and slender, Leaflets shining narrow lanceolate flat

7469 Tall diffuse, Branchlets unarmed, Leaflets oblong wavy shining, Fruit hemispherical

7470 Compact, Prickles of the branches stipulary, Leaf. obl. imbricated flat shining, Fruit depressed globose

7471 Fruit depressed glob. and pedunc. smooth, Fl. twin, Leaf. obl. acute, Petioles and veins pubesc. beneath

7472 Diffuse, Branches twiggy nearly unarmed, Leaf. oblong wavy opaque glaucous

7473 Dwarf, Stipules linear, Prickles acicular, Leaflets lanceolate smoothish finely serrated, Cal. viscid

7474 Erect, Prickles stipulary straight, Leaflets oblong glaucous blunt smooth

7475 Stipules convolute, Leaflets lanceolate, Sepals spreading

β Leaflets not downy

7476 Tall unarmed, Branches upright glaucous, Leaf. opaque wavy not downy [beneath

7477 Tall cinereous, Branches upright, Prickles stipulary straight, Stipules wavy, Leaf. oblong rugose downy

7478 Dwarf casious, Branches straight coloured, Prick. scatt. nearly equal, Stip. lin. Leaf. obl. flat glaucous [beneath



## and Miscellaneous Particulars.

original species of this genus : some regard all the European species as originated from one source ; others, and especially the moderns, divide them into species, subspecies, and varieties. The most scientific work which has appeared in England on roses is the *Rosarum Monographia* of Mr. Lindley, 1819, in which above a hundred species or subspecies are described, and some of them figured ; Miss Lawrence has published ninety plates of *A Collection of Roses from Nature*, 1810. In France, Guillemeau has published *Histoire Naturelle de la Rose*, 1800 ; and Redouté and Thory are engaged in a splendid work, in folio, entitled *Les Roses*, containing plates of all the known species and varieties of this flower. Thory has published a separate tract on their culture, entitled *Prodrome de la Monographie du Genre Rosier*, &c. 1820 ; Pronville, a *Nomenclature Raisonnée*, in 1818 ; and Vibert, *Observations*, &c., in 1820. A copious and intelligent account of the Scotch roses has been given by Mr. Sabine (*Hort. Tyans.* iv. 231.), and some hundreds of new varieties have flowered from seedling plants in the Hammersmith nursery, and will soon be found in the sale catalogues.

Species and varieties. The lists of the London and Paris nurseries contain upwards of 500 names : that of Calvert and Co., Englishmen, who have established a nursery at Bonne Nouvelle near Rouen, enumerates near 900 sorts. The greater part of these have been raised, within the last thirty years, from seed on the continent, where it ripens better than in this country. A number of varieties have also been raised in Britain, especially of the *R. spinosissima*, or Scotch rose, of which above 300 varieties are procurable in the Glasgow nursery. New varieties are raised in France and Italy annually ; Villaresi, royal gardener at Monza, has raised upwards of fifty varieties of *Rosa indica* ; not one of which has, as far as we know, reached this

|      |                         |                 |   |    |   |     |     |       |           |         |    |                      |
|------|-------------------------|-----------------|---|----|---|-----|-----|-------|-----------|---------|----|----------------------|
| 7479 | macrophylla Lindl.      | long-leaved     | 或 | or | 6 | ... | ... | Nepal | 1822.     | C       | co | Lindl. ros. t. 6     |
| 7480 | alpina L.               | Alpine          | 或 | or | 3 | jn. | jl  | Pk    | Switzerl. | 1683.   | L  | r.m. Bot. reg. 424*  |
|      | β pyrenæica Gouan.      | Pyrenean        | 或 | or | 3 | jn. | jl  | Pk    | Pyrenees  | ...     | L  | co Gouan. ill. t. 19 |
|      | γ pendulina L.          | pendulous       | 或 | or | 5 | my. | jn  | Pu    | Switzerl. | 1726.   | L  | co Laur. ros. t. 91  |
| 7481 | rubella Sm.             | reddish         | 或 | or | 2 | jn. | jl  | Pk    | England   | sea sh. | L  | co Eng. bot. 2521    |
|      | β r. melanocarpa Lindl. | intermediate    | 或 | or | 2 | jn. | jl  | Pk    | .....     | ...     | L  | co                   |
| 7482 | stricta Lindl.          | uprig. Carolina | 或 | or | 3 | jn  |     | Pk    | N. Amer.  | ...     | L  | co Lindl. ros. t. 7  |
| 7483 | acicularis Lindl.       | acicular        | 或 | or | 6 | my. | jn  | Pk    | Siberia   | 1805.   | L  | co Lindl. ros. t. 8  |
|      | β a. pauciflora Lindl.  | few-flowered    | 或 | or | 6 | my. | jn  | Pk    | Siberia   | 1813.   | L  | co                   |
| 7484 | sulphurea H. K.         | double-yellow   | 或 | or | 3 | jl  |     | Y     | Levant    | 1629.   | L  | s.l. Bot. reg. 46    |
| 7485 | lutescens Psh.          | hispid-stemmed  | 或 | or | 3 | my. | jn  | Pa.Y  | Siberia?  | 1780.   | L  | co Lindl. ros. t. 9  |
|      | hispidia B. M.          |                 |   |    |   |     |     |       |           |         |    |                      |
| 7486 | spinossissima L.        | Scotch          | 或 | or | 2 | jn. | jl  | W.r   | Britain   | sa.hea. | L  | p.l. Eng. bot. 187   |

Garden Varieties.

|                                 |                         |                            |
|---------------------------------|-------------------------|----------------------------|
| Blush, Anderson's Double Lady's | Blush, Double Rose      | Marbled, Double Dark       |
| Blush, Double Lady's            | Blush, Dutch Double     | Marbled, Double Light      |
| Blush, Double Pink              | Blush, Princess Double  | Purple, Double             |
| Blush, Double Provins           | Crimson, Double         | Purple, Small Double Light |
|                                 | Marbled, Double Crimson | Red, Double Dark           |

|                        |                      |                |    |    |     |     |    |         |                |       |    |                   |                   |
|------------------------|----------------------|----------------|----|----|-----|-----|----|---------|----------------|-------|----|-------------------|-------------------|
| β s. reversa Lindl.    | reversed             | 或              | or | 1  | my. | jn  | W  | Siberia | 1814.          | L     | co | Bot. reg. 431.    |                   |
| γ s. Pallasii Lindl.   | Pallas's             | 或              | or | 2  | my. | jn  | W  | Siberia | ...            | L     | co | Pall. ross. t. 75 |                   |
| δ sanguisorbifolia Do. | Burnel-leaved        | 或              | or | 3  | my. | jn  | W  | .....   | ...            | L     | co |                   |                   |
| 7487                   | grandiflora Lindl.   | large-flowered | 或  | or | 4   | my. | jn | W       | Siberia        | 1818. | L  | co                | Bot. reg. 888     |
| 7488                   | myriacantha D. C.    | many-spined    | 或  | or | 1   | my. | jn | W       | S. France      | 1820. | L  | co                | Lindl. ros. t. 10 |
| 7489                   | Biebersteinii Lindl. | Bieberstein's  | 或  | or | 2   | my. | jn | W       | Caucasus       | 1822. | L  | co                |                   |
|                        | H. ferox Bieb.       |                |    |    |     |     |    |         |                |       |    |                   |                   |
| 7490                   | involuta Sm.         | Dr. Walker's   | 或  | or | 2   | jn. | jl | W.r     | Hebrides moun. | L     | co | Eng. bot. 2068    |                   |
| 7491                   | reversa W. & K.      | reversed       | 或  | or | 5   | jn. | jl | W.r     | Hungary        | 1816. | L  | co                | W. & K. h. t. 264 |
| 7492                   | Sabini Woods.        | Sabine's       | 或  | or | 8   | my. | jn | W.r     | Britain woods. | L     | co |                   |                   |
|                        | β Donidana Woods.    | Don's          | 或  | or | 4   | my. | jn | Pk      | Britain        | hed.  | L  | co                |                   |

|      |                 |        |   |    |   |     |    |    |        |       |   |    |                  |
|------|-----------------|--------|---|----|---|-----|----|----|--------|-------|---|----|------------------|
| 7493 | damascena Mill. | Damask | 或 | or | 3 | jn. | jl | Pk | Levant | 1573. | L | co | Laur. ros. t. 38 |
|------|-----------------|--------|---|----|---|-----|----|----|--------|-------|---|----|------------------|

Garden Varieties.

|                    |                  |               |
|--------------------|------------------|---------------|
| Agathe, Rouge      | Belgic, Blush    | Damas Argente |
| Argentea           | Blush, Early     | Damas Pourpré |
| Auguste, Belle     | Blush, Imperial  | Damask, Blush |
| Aurora             | Blush Monthly    | Damask, Red   |
| Bifera Carnea      | Blush, Watson's  | Damask, White |
| Bifera de Naples   | Brunswick        | Egyptian      |
| Bifera Grandiflora | Cluster, Pale    | Emperor       |
| Belgique carnee    | Couronnée, Belle | Felicité      |
| Belgique violette  | Couronnée Petite | Goliath       |



History, Use, Propagation, Culture,

country. Some of them are quite black, others shaped like a ranunculus, and many of them highly odoriferous. The most remarkable only are here arranged under the species to which they are referable.

A modern invention, of Dutch origin, in the culture of roses, is that of forming standards, by budding on stocks of any of the hardy woody growing sorts, as the dog rose, R. canina, or the tree rose, R. villosa. They are budded at different distances from the ground, according to taste and the purposes in view, and form, after a few years, handsome round heads, which flower freely, and preserve the variety a longer time than in plants raised from cuttings or layers. They are particularly valuable for shrubberies and lawns, where the culture at the root required by dwarf roses could not be given, and if omitted would occasion the degeneracy of the variety.

New varieties of the rose are obtained from seed; but the usual mode of propagation is by layers. All will grow by cuttings, and some, as the sempervirens, freely; but that mode is seldom resorted to. For preserving delicate varieties, the best mode seems decidedly that of budding on hardier sorts.

No species of rose, wild or cultivated, thrives well in or very near large towns, on account of the smoke and confined air. The yellow and Austrian roses (R. lutea and R. bicolor) are difficult to flower in any situation, but seldom or never blow in the suburbs of London: even the monthly rose does not thrive so well there as at some miles distance in the country. Roses are generally planted in the front of shrubberies, and in borders; they are also planted by themselves in rose gardens or rosaries, in groups on lawn, either with common edgings, or with edgings of wire, in imitation of basket-work. These last are called baskets of roses; the ground enclosed in the basket-margin is made convex, so as to present a greater surface to the eye, and increase the illusion; the shoots of the stronger sorts are layered or kept down by pegs till they strike roots

- 7479 Lvs. very long, Petioles with a few glands and lanc. leaf. downy ben. Sep. very narr. longer than pointed petals  
 Div. V. PIMPINELLIFOLLE. Lindl. p. 36.  
 7480 Unarmed, Fruit long pendulous, Peduncle hispid  
 β Tube of calyx and peduncle hispid  
 γ Leaflets several and stem colored  
 7481 Arms close equal, Fruit long pendulous  
 β Fruit dark colored shorter than usual  
 7482 Much branched, Branchlets unarmed, Fruit long pendulous  
 7483 Tall, Branches acicular unequal, Leaf. glauc. rugose convex, Fruit obampullaceous cernuous  
 β Foliage bright pale green  
 7484 Stipules linear dilated at end divaricating, Leaf. glauc. flattish, Tube hemispherical [simply serrate  
 7485 Arms of branches very close uneq. reflex. slender, those of the branches very small nearly equal, Leaf. flat  
 7486 Arms unequal, Leaflets flat naked simply serrated

Garden Varieties.

|                           |                          |                      |
|---------------------------|--------------------------|----------------------|
| Red, Double Light         | White, Large Double      | Yellow, Globe Double |
| Red, True Double          | White, Large Semi-double | Yellow, Large Double |
| Two-colored, Large Double | White, Small Double      | Yellow, Pale Double  |
| Two-colored, Small Double | White, Whitley's Double  | Yellow, Small Double |

- β Dwarf, Arms very slender : the lower deflexed, Fruit ovate  
 γ Taller, Arms nearly equal close  
 δ Tall, Leaflets 9-11 oblong, Fruit depressed globose  
 7487 Setæ of the branches none, Prickles nearly equal distant, Leaflets flat not downy simply serrate  
 7488 Arms unequal : the larger dagger-shaped, Leaflets glandular not downy round  
 7489 Arms unequal : the larger falcate strong, Branches and orbicular leaflets glandular  
 7490 Arms very unequal and close, Leaflets doubly serrate pubescent, Petals convolute, Fruit aculeate  
 7491 Arms setaceous nearly equal reflexed, Leaflets doubly serrate pubescent, Fruit hispid  
 7492 Setæ few, Prickles unequal distant, Leaflets doubly serrated downy, Sepals compressed  
 β Setæ scarcely any, Prickles nearly straight  
 Div. VI. CENTIFOLLE. Lindl. p. 60.  
 7493 Arms unequal : the larger falcate, Sepals reflexed, Fruit long

Garden Varieties.

|                        |                               |                            |
|------------------------|-------------------------------|----------------------------|
| Gracieuse              | Pestana                       | Quatre Saisons sans épines |
| Hundred-leaved, Petite | Prolific                      | Quatre Saisons, semidouble |
| Incomparable           | Perpetual                     | Royal, Great               |
| Mignonne, Favorite     | Quatre Saisons                | Swiss                      |
| Monarque, Grande       | Quatre Saisons blanche        | Valiant                    |
| Monthly, Red           | Quatre Saisons, flesh-colored | Versailles                 |
| Monthly, White         | Quatre Saisons Francois       | York and Lancaster         |
| Paragon                | Quatre Saisons panaché        | Zealand                    |
| Parnassus              | Quatre Saisons pompone        |                            |



and Miscellaneous Particulars.

into the ground, so that the points of the shoots furnished with buds appear only above the soil, which is sometimes covered with moss or small shells. Under this treatment, the whole surface of the basket becomes, in two or three years, covered with rose-buds and leaves of one or of various sorts. Where one of the larger free-growing sorts is employed, as the moss, or any of the Provence varieties, one plant may be trained so as to cover a surface of many square yards. Where different sorts are introduced in the same basket, they should be as much as possible assimilated in size of leaves and flowers and habits of growth, and as different as possible in the colors of their flowers. By mixing small-flowered with large showy sorts, the beauty of the former is lost without adding to the effect of the latter.

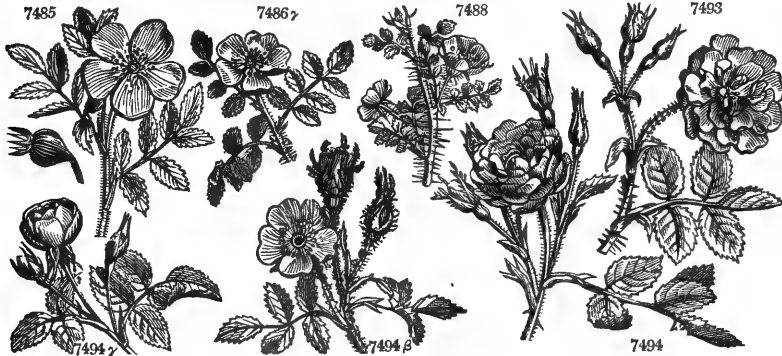
In rosaries, commonly, but one plant of a sort is introduced, and the varieties which most resemble each other are placed together, by which their distinctions are better seen. Particular compartments are often devoted to one species, as the Scotch, Chinese, yellow, burnet-leaved, &c. which has an excellent effect; sometimes a piece of rock-work in the centre is covered with the creeping roses, and on other occasions these are trained to trellis-work, which forms a fence or hedge of roses round the whole. In this hedge, standard roses are sometimes introduced at regular distances; a grove of standards is also frequently formed in the centre of the rosary, and sometimes they are introduced here and there in the beds.

Standard roses, however, have certainly the best effect in flower borders, or when completely detached on a lawn: their sameness of form, and that form being compact and lumpy, prevents them from grouping well, either among themselves or with other objects. Their beauty consists in their singularity as rose plants, and in their flowers; and, therefore, to display these beauties to the best advantage, they require to be seen singly, or in succession. This is the case where they occur as single objects on a lawn, or in the centre, and here and

|                              |                  |   |            |    |                 |        |                           |
|------------------------------|------------------|---|------------|----|-----------------|--------|---------------------------|
| 7494 Centifolia L.           | Provins          | ♂ | or 3 jn.au | Pk | S. Europe 1596. | L. r.m | Red. ros. 1. t. 1         |
| <i>R. provincialis</i> Mill. |                  |   |            |    |                 |        |                           |
| <i>Garden Varieties.</i>     |                  |   |            |    |                 |        |                           |
| Aunay, Belle d'              |                  |   |            |    |                 |        | Emperor                   |
| Aurora                       |                  |   |            |    |                 |        | Juno                      |
| Belgic, Red                  |                  |   |            |    |                 |        | Louis XVIII.              |
| Blandford or Kingston        |                  |   |            |    |                 |        | Malta                     |
| Blush Royal                  |                  |   |            |    |                 |        | Mère Gryone               |
| Bourbon                      |                  |   |            |    |                 |        | Mottled Purple            |
| Bright Crumpled              |                  |   |            |    |                 |        | Neapolitan                |
| Cabbage, Blush               |                  |   |            |    |                 |        | One-sided                 |
| Cabbage, Single              |                  |   |            |    |                 |        | Œillet                    |
| Carmine                      |                  |   |            |    |                 |        | Pencilled                 |
| Carmine, Superb              |                  |   |            |    |                 |        | Petite Hollande           |
| Centfeuilles anemone         |                  |   |            |    |                 |        | Persian                   |
| <i>β muscosa</i> Mill.       | Moss             | ♂ | or 3 jn.jl | Pk | .....           | ...    | L. r.m Red. ros. 1. t. 8  |
| <i>Garden Varieties.</i>     |                  |   |            |    |                 |        |                           |
| Moss, Blush                  |                  |   |            |    |                 |        | Moss, Dark                |
| <i>γ Pompônia</i> D. C.      | Pompone          | ♂ | or 2 jn.jl | Pk | .....           | ...    | L. r.m Red. ros. 1. t. 21 |
| <i>Garden Varieties.</i>     |                  |   |            |    |                 |        |                           |
| Dwarf Bagshot                |                  |   |            |    |                 |        | Pompone                   |
| De Meaux                     |                  |   |            |    |                 |        | Pompone, Proliferous      |
| <i>δ c. bipinnata</i> Red.   | <i>bipinnate</i> | ♂ | or 3 jn.jl | R  | .....           | ...    | L. co Red. ros. 2. t. 4   |
| 7495 gállica L.              | officinal        | ♂ | or 2 jn.jl | R  | S. Europe 1596. | L. co  | Bot. reg. 443             |

*Garden Varieties.*

|                      |                    |                       |                  |
|----------------------|--------------------|-----------------------|------------------|
| Admirable            | Champion           | Fiery                 | Italian          |
| Aigle noir           | Chancellor         | Flanders              | Josephine        |
| Albanian             | Changeable         | Flemish               | Junon            |
| Amaranth             | Cherry             | Formidable            | King             |
| Antwerp              | Clementine         | Fringed               | La Dauphine      |
| Atlas                | Coquette           | Garnet                | L'Ombre agreable |
| Belle Aurore         | Couleur de feu     | Gay                   | L'Ombre superbe  |
| Burning Coal         | Cramoisie, Grand   | Giant                 | Leyden           |
| Beauté Aimable       | Cramoisie, Belle   | Gloria Mundi          | Lisbon           |
| Beauté Rouge         | Crimson, Dutch     | Granaat Appel         | Lively           |
| Beauté Suprême       | Crimson, Purple    | Grand Monarque        | Lurd             |
| Bijou                | Crimson, Royal     | Grand Sultan          | Maiden           |
| Bishop               | Crown              | Henry IV.             | Majorca          |
| Black Frizzled       | Cupid              | Herminie, Belle       | Malabar          |
| Blue                 | Damask, Black      | Hermy                 | Malta            |
| Bouquet rouge royale | Delicious          | Hollande, Noir de     | Manteau Royal    |
| Brunette             | Dingy              | Hundred-leav., Blush  | Marbled          |
| Brussels             | Duc de Guiche      | Hundred-leav., Dutch  | Marbled, Dark    |
| Buonaparte           | Duchesse d'Orleans | Hundred-leaved, Sing- | Marbled, Double  |
| Cardinal             | Dwarf Proliferous  | leton's               | Marbled, Grand   |
| Carmine              | Enchanter          | Imperatrice           | Margaret         |
| Carmine Brillante    | Enfant de France   | Incomparable          | Matchless        |
| Carmine, Proliferous | Eucharis           | Infernal              | Mauve            |
| Carnation            | Fanny Bias         | Invincible            | Mignonne         |
| Catalonian           |                    |                       |                  |



*History, Use, Propagation, Culture,*

there among groups of flowers; or in lines or avenues, along flower walks. In the gardens of the Grand Trianon, they are planted profusely in large masses, like plantations of trees and shrubs, and there much of their individual beauty is lost, and no good general effect produced.

Most species of the rose, in their wild state, grow in sandy and rather poor soil, except such as are natives of woods, where the soil is richer, and comparatively moist. But all the cultivated roses, and especially the double-flowering kinds, require a rich loamy soil, inclining to clay rather than sand; and they require also, like most double flowers, plenty of moisture when in a growing state.

To produce strong flowers, roses require some attention to pruning; old wood should be yearly cut out, and the young shoots thinned and shortened according to their strength, and whether number or magnitude of flowers be wanted. Those sorts which throw up numerous suckers should be taken up every three or four years, reduced, and replanted; and most sorts, excepting the standards, will be improved by the practice, provided attention be paid to remove a part of the old soil, and replace it by new. The points of the shoots

7494 Arms unequal : the larger falcate, Leaflets glandular-ciliate, Fl. cernuous, Cal. viscid, Fruit oblong

*Garden Varieties.*

|                    |                     |                   |
|--------------------|---------------------|-------------------|
| Pompon, Gros       | Provins, Early      | Rouge Superbe     |
| Pourprée Aimable   | Provins, Grand      | Sans pétales      |
| Pourprée Favorite  | Provins, Imperial   | Souchet           |
| Pourprée Violette  | Provins, Invincible | Spongs            |
| Prolific           | Provins, Royal      | Striped Nosegay   |
| Provins, Blush     | Provins, Scarlet    | Surpassante       |
| Provins, Cabbage   | Provins, Semidouble | Syren             |
| Provins, Childings | Provins, Shailers   | Trianon, Belle de |
| Provins, Common    | Provins, Single     | Versailles        |
| Provins, Damask    | Provins, White      | Vilmorin          |
| Provins, Dutch     |                     |                   |

♂ Calyxes and peduncles mossy

*Garden Varieties.*

|                |              |               |             |
|----------------|--------------|---------------|-------------|
| Moss, Prolific | Moss, Single | Moss, Striped | Moss, White |
|----------------|--------------|---------------|-------------|

γ Smaller in every part

*Garden Varieties.*

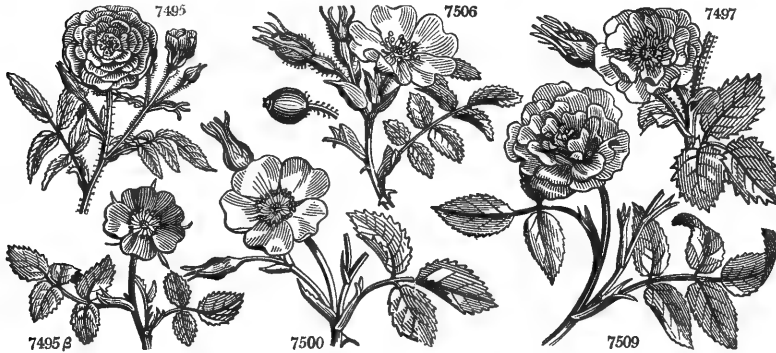
|                |            |             |
|----------------|------------|-------------|
| Provins, Dwarf | Rheims, De | St. Francis |
| Provins, Small |            |             |

♂ Leaves bipinnate

7495 Arms nearly equal of the same shape weak, Leaflets rigid ellipt. Fl. erect, Sep. ovate, Fruit nearly round

*Garden Varieties.*

|                      |                   |                    |                    |
|----------------------|-------------------|--------------------|--------------------|
| Mignonne, Blush      | Panachée, Petite  | Pourpre Velours    | Sable              |
| Mignonne, Dark       | Paradise          | Prince             | Sanspareil         |
| Mignonne, Favorite   | Paragon           | Princess           | Scapitre           |
| Mignonne, Red        | Pavot             | Prince William V.  | Shell              |
| Mignonne, Semidouble | Perruque          | Prolific           | Spanish            |
| ble                  | Phoenix           | Pronville          | Stadtholder        |
| Mignonne, Striped    | Plicate           | Proserpine         | Stepney            |
| Mirabelle            | Pluto             | Provins Pulmonaire | St. John's         |
| Mogul                | Pestana           | Purple, Blue       | Striped Nosegay    |
| Montauban            | Pomona            | Purple, Bright     | Superb Red         |
| Morocco              | Pompadour         | Purple, Favorite   | Sultana            |
| Mottled, Black       | Pomponne Bizard   | Purple, Grand      | Trafalgar          |
| Natalie              | Poniatowsky       | Purple, Light      | Triumphant         |
| Negrette             | Poppy             | Purple, Royal      | Tuscan             |
| Negro                | Porcelaine        | Pyramid            | Two-Colored        |
| Ninon de l'Enclos    | Portland          | Queen              | Velvet, Double     |
| Nonpareil            | Pourprée, Belle   | Ranunculus         | Velvet, Semidouble |
| Nonsuch              | Pourpre Bouquet   | Ranunculus, Early  | Velvet, Single     |
| Normandy             | Pourpre Charmante | Red and Violet     | Velvet, Striped    |
| Official             | Pourpre de Tyr    | Royal Red          | Venetian           |
| Official, Blush      | Pourprée, Grande  | Roi de France      | Victory            |
| Official, Carmine    | Belle             | Rosa Mundi         | Violet, Dark       |
| Orleans              | Pourprée, Point   | Rose de Parade     | Violette, Belle    |
| Ornement de Parade   | Pourpres, Roi des | Royal Virgin       | Violette and Rouge |



and Miscellaneous Particulars.

of the more delicate sorts of roses, are very apt to die when pruning is performed in winter or spring; to avoid the consequences of this evil, many give a second pruning in June, or do not prune the tender sorts at all till the beginning of that month. A very good time for performing the operation, is immediately after the bloom is over; cutting out old exhausted wood, shortening shoots which have flowered to a good bud accompanied with a healthy leaf, but leaving such shoots as are still in a growing state untouched till October. Where very large roses are wanted, all the buds but that on the extreme point of each shoot should be pinched off as soon as they make their appearance, and the plant liberally supplied with water. To lessen evaporation, and keep up a constant moisture at the roots of their roses, the Paris gardeners generally mulch them with half-rotten stable-dung, or partially rotten leaves.

The earliest flowering rose is the monthly, which, in mild seasons, and planted against a wall, will sometimes flower in the beginning of April; the roses next in succession are the cinnamon, which flowers in May; the damask in the end of May or beginning of June; the blush, York and Lancaster, Provins, and Dutch



|                             |                       |   |    |         |    |         |         |   |     |                    |
|-----------------------------|-----------------------|---|----|---------|----|---------|---------|---|-----|--------------------|
| <i>β pámila L.</i>          | <i>wild officinal</i> | 華 | or | ‡ jn.jl | R  | Austria | 1810.   | L | co  | Jac. aus. t. 198   |
| 7496 <i>parvifolia Ehr.</i> | Burgundy              | 華 | or | 1 jn.jl | Pu | Europe  | ...     | L | r.m | Bot. reg. 452      |
| 7497 <i>turbinata H. K.</i> | Frankfort             | 華 | or | 5 jn.au | Pk | .....   | 1629.   | L | r.m | Miss L. ros. t. 63 |
| 7498 <i>villosa L.</i>      | Apple-bearing         | 華 | or | 8 jn.jl | R  | Britain | highlv. | L | r.m | Eng. bot. 583      |
| 7499 <i>tomentosa Sm.</i>   | downy-lvd. dog        | 華 | or | 6 jn.jl | Pk | England | hed.    | L | co  | Eng. bot. 990      |
| <i>β nodosa Sm.</i>         | <i>soft</i>           | 華 | or | 6 jn.jl | R  | Britain | hed.    | L | co  | Eng. bot. 2459     |
| <i>γ l. resinosa Lindl.</i> | <i>surpentine</i>     | 華 | or | 4 jn.jl | R  | Ireland | ...     | L | co  | ...                |
| 7500 <i>alba L.</i>         | single white          | 華 | or | 4 jn.jl | W  | Crimea  | 1597.   | L | r.m | Miss L. ros. t. 37 |

Garden Varieties.

|                           |                     |                 |                          |         |     |         |         |    |     |                |
|---------------------------|---------------------|-----------------|--------------------------|---------|-----|---------|---------|----|-----|----------------|
| Agate                     | Blush, Double White | Eliza           | Henriette, Belle         |         |     |         |         |    |     |                |
| Belle Aurore              | Bouquet Blanc       | Feuille fermée  | Joanne d'Arc             |         |     |         |         |    |     |                |
| Blanche à cœur vert       | Celestial           | Grand Cuisse de | Maiden's Blush, Clus-ter |         |     |         |         |    |     |                |
| Blanche de Belgique       | Duc d'York          | Nymphé          |                          |         |     |         |         |    |     |                |
| 7501 <i>hibernica Sm.</i> | Irish               | 華               | or                       | 2 jn.n  | Pk  | Ireland | ir.thi. | Sk | co  | Eng. bot. 2196 |
| 7502 <i>lutea Mill.</i>   | single-yellow       | 華               | or                       | 3 jn    | Y   | Germany | 1596.   | L  | r.m | Bot. mag. 393  |
| — <i>puncica Mill.</i>    | <i>Austrian</i>     | 華               | or                       | 3 jn    | Y.o | Germany | 1596.   | L  | r.m | Bot. mag. 1077 |
| 7503 <i>rubiginosa L.</i> | Sweet Briar         | 華               | or                       | 5 my.jn | Pk  | Britain | ch. ba. | S  | co  | Eng. bot. 991  |

Garden Varieties.

|                              |                         |                          |                 |          |    |          |        |   |     |                     |
|------------------------------|-------------------------|--------------------------|-----------------|----------|----|----------|--------|---|-----|---------------------|
| American, Single Blush       | Clementine Cluster      | Double Dwarf, Semidouble | Maiden Mannings |          |    |          |        |   |     |                     |
| <i>β micrantha Sm.</i>       | <i>small-flowered</i>   | 華                        | or              | 6 my.jl  | Pk | Britain  | thick. | L | co  | Eng. bot. 2490      |
| <i>γ umbellata Leers.</i>    | <i>Semid. Sw. Briar</i> | 華                        | or              | 4 my.jn  | Pk | Germany  | ...    | L | r.m | Miss L. ros. t. 65  |
| <i>δ septum Thuill.</i>      | <i>dwarf</i>            | 華                        | or              | 3 my.jn  | Pk | Britain  | thick. | L | co  | ...                 |
| <i>ε inodora Agdh.</i>       | <i>scentless</i>        | 華                        | or              | 6 my.jn  | Pk | Britain  | hed.   | L | co  | ...                 |
| <i>R. Borveri Woods.</i>     |                         |                          |                 |          |    |          |        |   |     |                     |
| 7504 <i>pruinosa Lindl.</i>  | frosted                 | 華                        | or              | 3 my.jn  | Pk | Siberia  | 1818.  | L | co  | ...                 |
| 7505 <i>glutinosa Sm.</i>    | Cretan                  | 華                        | or              | 2 my.jn  | Pk | Candia   | 1821.  | L | co  | Red. ros. 1. t. 125 |
| 7506 <i>caucasea Lindl.</i>  | Caucasian               | 華                        | or              | 20 jn.jl | R  | Caucasus | 1798.  | L | co  | Lindl. ros. t. 11   |
| 7507 <i>canina L.</i>        | dog, or Hip             | 華                        | or              | 8 jn.jl  | Pk | Britain  | hed.   | L | co  | Eng. bot. 992       |
| <i>β calina Jacq.</i>        | <i>hill</i>             | 華                        | or              | 8 jn.jl  | Pk | Britain  | hed.   | L | co  | ...                 |
| <i>ε dametorum Thuill.</i>   | <i>bushy</i>            | 華                        | or              | 8 jn.jl  | Pk | England  | hed.   | L | co  | Eng. bot. 2579      |
| 7508 <i>rubrifolia Vill.</i> | red-stained             | 華                        | or              | 6 jn.jl  | Pu | Europe   | 1814.  | L | co  | Bot. reg. 430       |
| <i>β Redoute's Thory.</i>    | <i>Redoute's</i>        | 華                        | or              | 3 jn.jl  | Pu | .....    | 1822.  | L | co  | Red. ros. 1. t. 98  |
| 7509 <i>indica L.</i>        | blush Chinese           | 華                        | or              | 20 ja.d  | F  | China    | 1789.  | C | p.l | Lawr. ros. t. 26    |

Garden Varieties, referable either to *Rosa indica* or *R. semperflorens*.

|                                |                       |                  |           |         |       |           |       |   |     |                    |
|--------------------------------|-----------------------|------------------|-----------|---------|-------|-----------|-------|---|-----|--------------------|
| Alba                           | Bengale à fl. panaché | Carnescens       | Cucullata |         |       |           |       |   |     |                    |
| Animating                      | Bengale Blanche       | Centifolia       | Elegant   |         |       |           |       |   |     |                    |
| Atr-nigra                      | Bichonia              | Chiffonée        | Florida   |         |       |           |       |   |     |                    |
| Bengale à Bouquet              | Boursault             | Cérise éclatante | Gigantea  |         |       |           |       |   |     |                    |
| <i>β odoratissima Sweet.</i>   | <i>Sweet Chinese</i>  | 華                | or        | 3 fau   | Pa.pk | China     | 1810. | C | p.l | Bot. reg. 804      |
| <i>γ pumila Red.</i>           | <i>dwarf</i>          | 華                | or        | 1 my.au | Pk    | China     | ...   | C | p.l | Red. ros. 1. t. 42 |
| <i>δ longifolia W.</i>         | <i>willow-leaved</i>  | 華                | or        | 5 my.au | Pk    | China     | ...   | C | p.l | Red. ros. 2. t. 12 |
| 7510 <i>sempervirens Curt.</i> | ever-blowing          | 華                | or        | 10 ja.d | Cr    | China     | 1789. | C | p.l | Bot. mag. 284      |
| 7511 <i>Lawranceana Sweet.</i> | Miss Lawrence's       | 華                | or        | 1 ja.d  | R     | China     | 1810. | C | p.l | Bot. mag. 1762     |
| 7512 <i>microphylla Roxb.</i>  | small-leaved          | 華                | or        | 3 ...   | Pk    | E. Indies | 1823. | C | p.l | ...                |
| 7513 <i>syetfla Bat.</i>       | one-styled            | 華                | or        | 6 my.jl | Pk    | Britain   | hed.  | L | co  | Eng. bot. 1895     |
| <i>β e. Monsónia Lindl.</i>    | <i>Lady Monson's</i>  | 華                | or        | 3 my.jl | Pk    | Britain   | hed.  | L | co  | ...                |
| 7514 <i>arvensis Huds.</i>     | white-dog             | 華                | or        | 8 jn.jl | W     | Britain   | hed.  | L | co  | Eng. bot. 188      |
| <i>β hybrida Schleich.</i>     | <i>Double-Hep.</i>    | 華                | or        | 4 my.jn | Pk    | Switzerl. | ...   | L | co  | ...                |



History, Use, Propagation, Culture,

hundred-leaved, in June, July, and August. The Virginia and musk roses are the latest European sorts; they flower in September, and in shaded situations will sometimes continue in bloom till the middle of October; but the earliest rose (the monthly) is also the latest, and generally continues flowering till interrupted by frost. The earliest sorts may be materially forwarded by being planted against a south wall; and if portable sashes are placed before them, and the wall is either flued and heated by fires, or a lining of dung placed behind, the plants may be brought to flower in February or March. The monthly rose being protected by glass in autumn, or aided by artificial heat, may be continued in bloom till Christmas. A very

♂ Flowers single, Roots creeping  
 7496 Dwarf, Arms nearly equal, Leaflets rigid ovate acute finely serrate, Sepals ovate

Div. VII. VILLOSÆ. *Lindl.* p. 72.

7497 Tube of calyx turbinate  
 7498 Leaflets ellipt. obtuse, Fruit very large with close stiff prickles, Sepals viscid hispid

7499 Leaflets ovate nearly acute, Fruit hispid or naked

♂ Root-shoots upright, Sepals nearly simple

♂ Dwarf sessious, Leaflets narrow, Flowers very red

7500 Leaflets oblong glaucous naked above simply serrate, Sepals reflexed, Fruit unarmed

*Garden Varieties.*

|                       |                       |                   |                   |
|-----------------------|-----------------------|-------------------|-------------------|
| Maiden's Blush, Great | Nova cælestis         | Rosea             | Triangularis      |
| Maiden's Blush, Small | Nova plena            | Simonville        | White, Double     |
| Moraga la Favorite    | Petite cuisse de Nym- | Spineless Virgin  | White, Semidouble |
| Muscat rouge          | phe                   | Thornless, Double |                   |

7501 Prickles unequal: the smaller setiform, Leaflets ovate acute naked simply serrate

Div. VIII. RUBIGINOSÆ. *Lindl.* p. 84.

7502 Prickles straight, Leaflets flat concave, Cal. nearly naked entire

7503 Prickles hooked, Leaflets rugose opaque, Cal. and peduncles hispid

*Garden Varieties.*

|           |                 |              |                   |
|-----------|-----------------|--------------|-------------------|
| Monstrous | Petite Hessoise | Scarlet      | White, Semidouble |
| Mossy     | Royal           | Tree, Double | Zabeth            |

♂ Prickles nearly equal or none, Sepals deciduous

♂ Branches of the inflorescence very prickly, Fruit long

♂ Branches weak flexuose, Leaflets acute at each end, Sepals very long and narrow

♂ Prickles much hooked nearly equal, Leaflets less glandular than usual, Sepals deciduous

7504 Branches glandular, Leaves frosted on each side: the upper somewhat whorled

7505 Branches hairy, Leaflets hoary roundish viscid

Div. IX. CANINÆ. *Lindl.* p. 97.

7506 Leaflets soft ovate, Ovaries 50-60

7507 Leaflets rigid ovate, Ovaries 20-30

♂ Leaflets more or less hairy beneath, Sepals and peduncles hispid

♂ Leaflets hairy on both sides, Sepals and peduncles smooth

7508 Prickles small distant, Leaflets ovate and branches glauc. opaque discolored, Ovaries 20-30

♂ Dwarf with setæ upon the branches

7509 Leaflets ellipt. acuminate smooth crenate serrate glaucous beneath, Ovaries 40-50

*Garden Varieties, referable either to Rosa indica or R. semperflorens.*

|            |           |             |          |
|------------|-----------|-------------|----------|
| Lie de Vin | Monstrosa | Purpurea    | Thiabe   |
| Lucida     | Moonshine | Sanguinea   | Terneaux |
| Major      | Nigra     | Sans épines | Veloutée |
| Miner      | Noisette  | Subalba     |          |

♂ Fruit ovate, Flowers very fragrant

♂ A little bush, smaller in every respect

♂ Leaves lanceolate, Branches nearly unarmed

7510 Leaflets ovate-lanceolate crenate serrate, Ovaries 15, Petals entire

7511 Dwarf, Leaflets ovate acute finely serrated, Petals acuminate, Ovaries 7-8

7512 Leaflets finely serrate shining, Cal. mucricated with very dense prickles, Sep. short broad acute apiculate

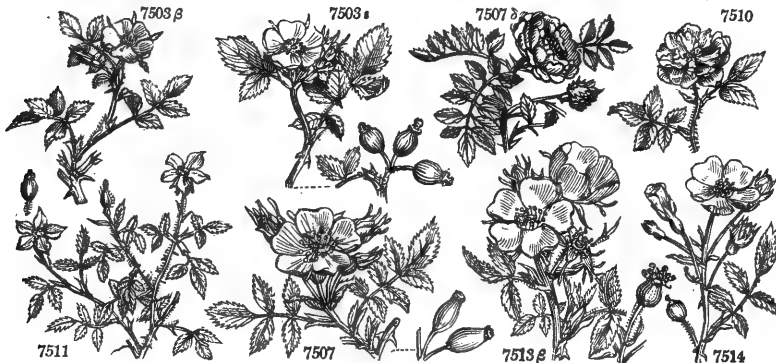
Div. X. SYSTYLE. *Lindl.* p. 111.

7513 Root-shoots assurgent, Prickles very strong hooked

♂ Stem lower, when in flower erect many-flowered, Branches with a few setæ

7514 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath

♂ Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct



and Miscellaneous Particulars.

common mode of obtaining late roses, and one of the greatest antiquity, is by cutting all the flower shoots off when the buds begin to appear, or by rubbing off all the rudiments of shoots, of every kind, early in spring; a second crop is in consequence produced, which will not be in a state to bloom before the autumn.

The best roses for forcing are the common and moss Provence; the Indian sorts force well, or rather, in stoves, continue in bloom all the year; but the commoner varieties of these not being fragrant, they are in less repute than the European roses. Rose plants should be a year in pots previously to the autumn when it is intended to force them; they should be planted in pots of six or eight inches diameter, in rich loam, and

|       |                                 |                        |    |                             |     |       |     |           |        |    |     |                         |
|-------|---------------------------------|------------------------|----|-----------------------------|-----|-------|-----|-----------|--------|----|-----|-------------------------|
| 7515  | <i>sempervirens L.</i>          | evergreen              | 2. | or                          | 20  | jn.au | W   | S. Europe | 1629.  | L  | co  | Bot. reg. 465           |
|       | β <i>subciliatus</i>            | <i>Ayrshire</i>        | 2. | or                          | 20  | jn.au | W   | .....     | 1818.  | L  | co  |                         |
| 7516  | <i>multiflora Thunb.</i>        | bramble-flow.          | 2. | or                          | 12  | jn.jl | Pk  | China     | 1804.  | C  | s.l | Bot. mag. 1059          |
| 7517  | <i>Brunonii Lindl.</i>          | Brown's                | 2. | or                          | 12  | ...   | W   | Nepal     | 1822.  | C  | co  | Lindl. ros. t. 14       |
| 7518  | <i>moschata Mill.</i>           | musk                   | 2. | or                          | 12  | jl.o  | W   | Barbary   | 1596.  | L  | r.m | M.Lawr.ros.t.64         |
|       | β <i>-fl. pleno</i>             | <i>double-musk</i>     | 2. | or                          | 12  | jl.o  | W   | Barbary   | 1596.  | L  | r.m | M.Lawr.ros.t.63         |
|       | γ <i>m. nepalensis Lindl.</i>   | <i>Nepal</i>           | 2. | or                          | 12  | jl.o  | W   | Nepal     | 1822.  | L  | co  | Bot. reg. 829           |
|       | δ <i>arboorea Pers.</i>         | <i>tree</i>            | 2. | or                          | 30  | ...   | ... | Persia    | 1824.  | L  | co  |                         |
|       | ε <i>m. nivea Lindl.</i>        | <i>snow-bush</i>       | 2. | or                          | 4   | jl    | W   | .....     | 1822.  | L  | co  | Bot. reg. 861           |
|       | ζ <i>evratina Bosc.</i>         | <i>Muscade-rouge</i>   | 2. | or                          | 4   | jl.au | Pk  | .....     | 1822.  | L  | co  |                         |
| 7519  | <i>rubifolia R. Br.</i>         | bramble-leaved         | 2. | or                          | 6   | aus.  | F   | N. Amer.  | 1800.  | L  | pl  |                         |
|       | β <i>r. fenestralis Lindl.</i>  | <i>smooth-leaved</i>   | 2. | or                          | 4   | aus.  | F   | N. Amer.  | 1800.  | L  | pl  | Lindl. ros. t. 15       |
| 7520  | <i>stnica Ait.</i>              | 3-leaved China         | 2. | or                          | 5   | my.jl | W   | China     | 1759.  | L  | pl  | Lindl. ros. t. 16       |
| 7521  | <i>Bank'sie R. Br.</i>          | Lady Banks's           | 2. | or                          | 20  | jn.jl | W   | China     | 1807.  | C  | pl  | Bot. reg. t. 397        |
|       | β <i>-florae lateo</i>          | <i>yellow</i>          | 2. | or                          | ... | ...   | Y   | China     | 1824.  | C  | pl  | Bot. cab. 1960          |
| 1149. | <i>RU'BUS. W.</i>               | BRAMBLE.               |    | <i>Rosaceae. Sp. 42-68.</i> |     |       |     |           |        |    |     |                         |
| 7522  | <i>roseifolius Sm.</i>          | Rose-leaved            | 2. | or                          | 3   | ap.o  | W   | Mauritius | 1811.  | C  | pl  | Smith ic. 3. t. 60      |
|       | β <i>coronarius</i>             | <i>double-flower'd</i> | 2. | or                          | 3   | ap.o  | W   | Mauritius | 1811.  | C  | pl  | Bot. mag. 1783          |
| 7523  | <i>pinnatus W.</i>              | pinnate                | 2. | or                          | 5   | my.jl | Pk  | Madeira   | 1789.  | C  | pl  |                         |
| 7524  | <i>idaeus W.</i>                | Raspberry              | 2. | or                          | 5   | my.jn | W   | Britain   | m.wo.  | Sk | r.m | Eng. bot. 2442          |
| 7525  | <i>occidentalis W.</i>          | Americ. Raspb.         | 2. | or                          | 5   | my.jn | W   | N. Amer.  | 1696.  | Sk | co  | Dil. cl. t. 247. f. 319 |
| 7526  | <i>pauciflorus Wall.</i>        | Nepal Raspb.           | 2. | or                          | 10  | my.au | R   | Nepal     | 1822.  | C  | co  | Bot. reg. 854           |
| 7527  | <i>cuneifolius Ph.</i>          | plated-leaved          | 2. | or                          | 3   | jn.jl | W   | N. Amer.  | 1811.  | Sk | co  |                         |
| 7528  | <i>canadensis W.</i>            | purple-stalked         | 2. | or                          | 3   | jn.jl | W   | N. Amer.  | 1811.  | Sk | co  |                         |
| 7529  | <i>hispidus W.</i>              | bristly                | 2. | or                          | 3   | au    | W   | Canada    | 1768.  | Sk | co  |                         |
| 7530  | <i>caesius W.</i>               | Dewberry               | 2. | or                          | 2   | jn.jl | W   | Britain   | bor.f. | Sk | co  | Eng. bot. 826           |
| 7531  | <i>corylifolius E. B.</i>       | Hazel-leaved           | 2. | or                          | 10  | jl    | W   | Britain   | hed.   | Sk | co  | Eng. bot. 827           |
| 7532  | <i>fruticosus W.</i>            | common                 | 2. | or                          | 10  | jn.s  | Pk  | Britain   | hed.   | L  | co  | Eng. bot. 715           |
|       | β <i>albiss</i>                 | <i>white-fruited</i>   | 2. | or                          | 10  | jn.s  | W   | Britain   | ...    | L  | co  |                         |
|       | γ <i>plenus</i>                 | <i>double-flowered</i> | 2. | or                          | 6   | jn.s  | Pk  | Britain   | ...    | L  | co  |                         |
| 7533  | <i>argutus Link.</i>            | fine-toothed           | 2. | or                          | 3   | jn.jl | W   | N. Amer.  | 1823.  | L  | co  |                         |
| 7534  | <i>sanctus Schreb.</i>          | holy                   | 2. | or                          | 8   | jn.jl | Pk  | Palestine | 1823.  | L  | co  |                         |
| 7535  | <i>paniculatus Schlect.</i>     | panicled               | 2. | or                          | 10  | jn.jl | W   | .....     | 1821.  | L  | co  |                         |
| 7536  | <i>sanguinolentus Link.</i>     | blood-red              | 2. | or                          | 4   | ...   | R   | I. France | 1894.  | C  | co  |                         |
| 7537  | <i>jamaicensis Sw.</i>          | Jamaica                | 2. | or                          | 6   | ...   | ... | Jamaica   | 1822.  | C  | co  |                         |
| 7538  | <i>ulmifolius Schott.</i>       | elm-leaved             | 2. | or                          | 10  | jn.s  | W   | Spain     | 1823.  | L  | co  |                         |
| 7539  | <i>Sprengelii Weihe.</i>        | Sprengel's             | 2. | or                          | 10  | jn.s  | Pk  | Germany   | 1823.  | L  | co  |                         |
| 7540  | <i>Schlechtendahlilii We.</i>   | Schlechtendahl's       | 2. | or                          | 10  | jn.jl | W   | Europe    | 1823.  | L  | co  |                         |
| 7541  | <i>rugosus Smith.</i>           | rugose                 | 2. | or                          | 6   | ...   | W   | S. Amer.  | 1824.  | L  | co  |                         |
| 7542  | <i>plicatus Weihe.</i>          | plicate                | 2. | or                          | 10  | jn.s  | W   | Britain   | hed.   | L  | co  |                         |
| 7543  | <i>rhamnifolius Weihe.</i>      | Buckthorn-ld.          | 2. | or                          | 10  | jn.s  | W   | Britain   | hed.   | L  | co  |                         |
| 7544  | <i>nitidus Weihe.</i>           | shining                | 2. | or                          | 3   | jn.s  | W   | Britain   | thick. | L  | co  |                         |
| 7545  | <i>tomentosus W. en.</i>        | woolly-leaved          | 2. | or                          | 10  | jn.s  | W   | Germany   | ...    | L  | co  |                         |
| 7546  | <i>glandulosus W. en.</i>       | glandular              | 2. | or                          | 10  | jn.s  | W   | Germany   | 1816.  | L  | co  |                         |
|       | β <i>R. leucostachys Smith.</i> | hairy                  | 2. | or                          | 10  | jn.s  | W   | Hungary   | 1816.  | L  | co  | Fl. rar. hu. 2. t. 141  |
| 7547  | <i>hirtus W. en.</i>            | hairy                  | 2. | or                          | 12  | jn.s  | W   | .....     | ...    | L  | co  | Dend. brit. 69          |
| 7548  | <i>laciniatus W. en.</i>        | jac-leaved             | 2. | or                          | 7   | jn.jl | W   | N. Amer.  | 1789.  | Sk | co  |                         |
| 7549  | <i>trivialis Ph.</i>            | procumbent             | 2. | or                          | 3   | jl.au | W   | N. Amer.  | 1777.  | Sk | co  |                         |
| 7550  | <i>villous W.</i>               | shaggy                 | 2. | or                          | 3   | jn.jl | W   | N. Amer.  | ...    | Sk | co  |                         |
| 7551  | <i>strigosus Ph.</i>            | strigose               | 2. | or                          | 6   | jn.jl | W   | N. Amer.  | 1789.  | Sk | co  |                         |
| 7552  | <i>flagellaris W. en.</i>       | shining-leaved         | 2. | or                          | 12  | jn.jl | W   | N. Amer.  | 1805.  | Sk | co  |                         |
| 7553  | <i>inermis W. en.</i>           | smooth                 | 2. | or                          | 7   | jn.jl | R   | N. Amer.  | 1700.  | Sk | co  | Bot. mag. 323           |
| 7554  | <i>odoratus E. B.</i>           | flowering              | 2. | or                          | 4   | jn.s  | W   | Britain   | woods. | Sk | co  | Eng. bot. 2572          |
| 7555  | <i>suberectus W. B.</i>         | upright                | 2. | or                          | 4   | jn.s  | W   | Britain   | woods. | Sk | co  |                         |



History, Use, Propagation, Culture,

plunged in an open airy situation; their flower buds pinched off as they appear; and the plants put early into a state of rest, by excluding the sun and rain, and not a free circulation of air.

All the species of roes are very liable to the attacks of insects, especially of the aphides; some, and especially the briar and Scotch rose, are attacked by the *Cynips rosa*, which, by puncturing the bark, occasions the production of rose-galls, and of those mossy tufts often seen on wild roses, which were known formerly under the name of Bedeguar, and used in medicine. Under cover tobacco smoke will prove an effectual remedy for the aphides; but the larvæ of many others, and especially of tipula and the tenthredinidæ, which occasion the wrapping up and shrivelling of the leaves, can only be removed by washing with lime-water or hand picking.

1149. *Rubus.* From the Celtic *rub*, which signifies red. Many of the species are only biennial woody plants, producing suckers or stolones from the roots, which ripen and drop their leaves one year, and resume their

- 7515 Root-shoots climbing, Prickles nearly equal falcate, Leaves evergreen  
 β Leaves nearly deciduous  
 7516 Branchlets peduncles and calyx downy, Leaflets soft lanceolate rugose, Stipules pectinate  
 7517 Branchlets lanceolate, Leaflets and calyxes downy glandular, Stipules entire [acuminate  
 7518 Branchlets nearly naked, Leaflets ellip. acum. glauc. beneath with connivent serratures, Sepals comp. [pisiform  
 β Flowers double  
 γ Leaflets ovate lanceolate, Petals acute, Pedicels and calyxes glandular  
 δ Stem arborescent  
 ε Stem branched, Leaflets ovate-obl. acuminate rugose, Petals large obcordate  
 ζ Stem erect, Flowers double pink  
 7519 Branchlets not downy, Leaflets ovate lanc. with diverging serratures, Stipules entire, Sepals ovate, Fruit  
 β Leaflets smooth on each side

Div. XI. BANKSIANÆ.

- 7520 Stipules setaceous deciduous, Petioles and rib prickly, Fruit muricate  
 7521 Branches and fruit unarmed

\* Shrubby.

- 7522 Leaves quinate pinnate and ternate green on each side, Stem and petioles prickly, Fl. solitary  
 7523 Leaves quinate pinnate and ternate rugose smooth on each side, Stem petioles and pedunc. prickly, Raceme  
 7524 Leaves quinate pinnate and ternate white beneath, Leaf. rhomboid lined [terminal  
 7525 Leaves three white beneath, Stem prickly, Petioles round  
 7526 Lvs. pinnate, Stem round, Leaf. 5-7 obl. plicate serr. white beneath, Pan. cymose, Pet. shorter than calyx  
 7527 Branches pet. and ped. downy, Leaf. 3-5 cuneate obovate unequally toothed upwards, Racemes term. pan.  
 7528 Smoothish, Leaf. 10-5-3 lanceolate naked on each side finely serrated, Stem unarmed, Bractes lanceolate  
 7529 Leaves 3 naked, Stems and petioles very hispid, Bristles stiff  
 7530 Leaves ternate nearly naked: the lateral 2-lobed, Stem prickly round  
 7531 Stem erect roundish, Prickles many close, Leaf. 5 pubesc. beneath, the lateral sessile, Cal. of fl. reflexed  
 7532 Stem angular furrowed, Leaf. 5 obtuse shining and even above, hoary beneath, Pan. decomp. hoary  
 7533 Stem with small straight prickles, Leaf. 3 and 5 obl. acum. doubly and finely serr. pubes. beneath, Fl. pan.  
 7534 Stems square hoary, Leaf. 3 obov. round. unequally and finely cut-tooth. hoary beneath, Pan. small hoary  
 7535 Stem aculeate, Leaf. 3-5 unequal ovate acum. serr. with fine white down beneath, Fl. panicle  
 7536 Stem densely prickly and strigose, Leaf. 5 lanc. acum. serrul. smooth, Pedunc. axill. few-flowered  
 7537 Lvs. 3-5 cut-serr. downy beneath, Stem petioles and leaves pubesc. with recurved prickles, Pan. diffuse  
 7538 Stem decum. very prick. Leaf. 3 subcord. ov. doub. acute. cren. smooth prick. beneath, Branches very red  
 7539 Differs from R. corylifolius in having the upper shoots and peduncles covered with short hairs  
 7540 Differs from the last in having the leaves covered all over beneath with soft hairs  
 7541 Unarmed, Branches lvs. beneath and calyxes downy with brown hairs, Lvs. 3-lobed, Fl. sol. on short stalks  
 7542 Stem suberect angular prickly smooth, Leaf. 5 cordate ovate cusp. pubes. beneath, Pan. simple  
 7543 Stem angl. furrowed, Leaf. 5 orbicular cusp. hoary beneath, Pan. comp. divaricating, Cal. prickly at base  
 7544 Stem suberect angular smooth, Leaf. 5 ovate shining pubes. beneath, Panicle prickly  
 7545 Leaves 3 obovate downy and soft on each side, Fl. panicle  
 7546 Leaves tern. Leaf. roundish ovate acum. mucronate serr. Stem pet. ped. and cal. prickly and glandular  
 7547 Lvs. 5-3 hairy, Leaf. ov. acum. unequally serr. Stem decum. and pet. prickly and gland. Ped. unarm. gland.  
 7548 Lvs. 3-5-nate, Leaf. pinn. Stem pet. and ped. with recurved prickles  
 7549 Procumbent, Stipules subulate, Lvs. 3-5 digitate, Leaf. ovate obl. smoothish serrate, Pedicels solitary  
 7550 Leaves 5 ellipt. acum. finely serrate villous on each side, Stem and petioles prickly  
 7551 Unarmed hispid, Leaf. 3 or pinnate quinate ovate blunt at base white beneath: the odd one cordate  
 7552 Lvs. 3-nate smooth unequal serr.: interm. ov.-cuneate at base; lat. rhomb. Stem round proc. and pet. prick.  
 7553 Lvs. ternate, Leaf. ovate acute unequally serrate downy beneath, Stem pet. and ped. unarmed  
 7554 Leaves simple palmate, Stem unarmed many-leaved many-flowered  
 7555 Leaves pinnate about 7 hairy beneath: the upper ternate, Stem ascending with small straight prickles

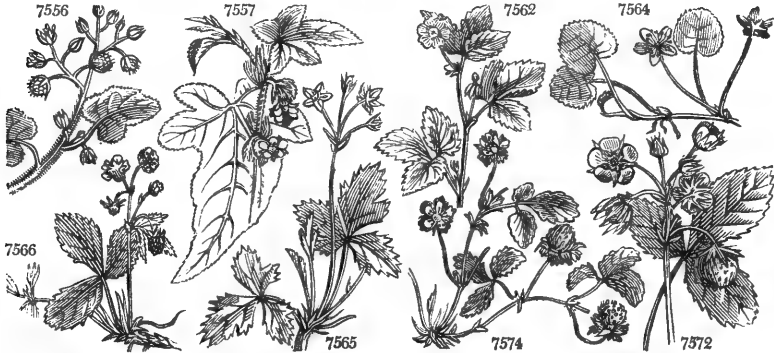


and Miscellaneous Particulars.

foliage, produce blossom shoots, flower, and fruit, and die the next. The common raspberry and bramble are examples.

R. idæus is a native fruit, greatly improved by cultivation; it has a grateful subacid taste, and like the strawberry, is one of the few fruits that does not undergo the acetous fermentation in the stomach. There are red and yellow varieties, and one very excellent sort that bears twice a-year, in July and September. The raspberry requires a soft rich moist soil, and if a plant stands singly or a single row is planted by itself, the situation should be gently shaded. Where a plantation is made of several rows together it may be placed in the open garden, as the plants will shade one another to a sufficient degree. Frequent renewal is necessary to prevent the stools getting large and matted when they send up only weak suckers. No more suckers should be left at the stools than are intended to bear the following year, unless young plants are wanted; and if very

|        |                                 |                    |        |   |       |    |                  |            |               |                     |
|--------|---------------------------------|--------------------|--------|---|-------|----|------------------|------------|---------------|---------------------|
| 7556   | <i>moluccanus W.</i>            | Molucca            | 2-□ or | 3 | Il.au | R  | E. Indies        | 1810.      | Sk l.p        | Ru.am.5. t.47.f.2   |
| 7557   | <i>reflexus Ker.</i>            | reflexed           | 2-□ or | 3 | Il.au | R  | China            | 1817.      | Bot. reg. 461 |                     |
| 7558   | <i>parvifolius L.</i>           | small-leaved       | 2-□ or | 2 | au.s  | Pk | China            | 1818.      | L co          | Bot. reg. 496       |
| 7559   | <i>saxatilis W.</i>             | stone              | △ or   | 1 | jn    | W  | Britain          | m.wo.      | Sk p.l        | Eng. bot. 2933      |
| 7560   | <i>triflorus Richardson</i>     | Americ.-stone      | △ or   | 2 | jn    | W  | Canada           | ...        | Sk p.l        |                     |
| 7561   | <i>pistillatus Ph.</i>          | close-styled       | △ or   | 1 | jn.l  | R  | Labrador         | 1802.      | Sk p.l        | Exot. bot. 2. t. 86 |
| 7562   | <i>arcticus E. B.</i>           | dwarf-crimson      | △ fr   | 1 | my.au | Pk | Scotland         | al. ro.    | Sk p.l        | Eng. bot. 1585      |
| 7563   | <i>chamaemorus W.</i>           | Cloud-berry        | △ fr   | 1 | my.jn | W  | Britain          | moun.      | Sk p.l        | Eng. bot. 736       |
| 1150.  | <b>DALIBAR'DA.</b> <i>Mich.</i> | <b>DALIBARDA.</b>  |        |   |       |    | <i>Rosaceae.</i> | <i>Sp.</i> | §-5.          |                     |
| 7564   | <i>violaeoides Mi.</i>          | Violet-leaved      | △ cu   | 1 | my.jn | W  | N. Amer.         | 1768.      | D l.p         | Mich.ame.1.t.27     |
|        | <i>repens Ph.</i>               |                    |        |   |       |    |                  |            |               |                     |
| 7565   | <i>fragarioides Mi.</i>         | Strawberry-lvd.    | △ cu   | 1 | my.jn | W  | N. Amer.         | 1803.      | D l.p         | Mich.ame.1.t.28     |
| 1151.  | <b>FRAGA'RIA.</b> <i>W.</i>     | <b>STRAWBERRY.</b> |        |   |       |    | <i>Rosaceae.</i> | <i>Sp.</i> | 9.            |                     |
| 7566   | <i>vesca W.</i>                 | wood               | △ fr   | 1 | ap.my | W  | Britain          | woods.     | S s.l         | Eng. bot. 1524      |
| 7567   | <i>monophylla W.</i>            | one-leaved         | △ fr   | 1 | my.jn | W  | .....            | 1773.      | Rs s.l        | Bot. mag. 63        |
| 7568   | <i>collina W.</i>               | Green Pine         | △ fr   | 2 | sp.n  | W  | Germany          | 1768.      | Rs r.l        |                     |
| 7569   | <i>elatiur W.</i>               | Hautboy            | △ fr   | 1 | ap.my | W  | Britain          | woods.     | Rs r.l        | Eng. bot. 2197      |
| 7570   | <i>canadensis Mich.</i>         | Canada             | △ fr   | 1 | ap.my | W  | N. Amer.         | ...        | Rs r.l        |                     |
| 7571   | <i>virginiana Ph.</i>           | scarlet            | △ fr   | 1 | ap.my | W  | N. Amer.         | 1629.      | Rs r.l        | Duha. arb.1. t. 5   |
| 7572   | <i>grandiflora W.</i>           | Pine               | △ fr   | 1 | ap.my | W  | Surinam          | 1759.      | Rs r.l        | Mill. ic. 2. t. 238 |
| 7573   | <i>chiloensis W.</i>            | Chili              | △ fr   | 2 | my.jn | W  | S. Amer.         | 1727.      | Rs r.l        | Duha. arb.1. t. 3   |
| 7574   | <i>indica H. K.</i>             | yellow-flower'd    | △ or   | 1 | my.o  | Y  | India            | 1805.      | Rs s.p        | Bot. reg. 61        |
| *1152. | <b>CO'MARUM.</b> <i>W.</i>      | <b>COMARUM.</b>    |        |   |       |    | <i>Rosaceae.</i> | <i>Sp.</i> | 2.            |                     |
| 7575   | <i>palistre W.</i>              | Marsh Cinquef.     | △ cu   | 2 | jn.l  | Pu | Britain          | sp. bo.    | D p           | Eng. bot. 172       |
| †7576  | <i>fragarioides W. en.</i>      | Strawberry-like    | △ w    | 1 | mr.my | W  | Britain          | banka.     | D l.p         | Eng. bot. 1785      |
|        | <i>Fragaria sterilis E. B.</i>  |                    |        |   |       |    |                  |            |               |                     |
| †1153. | <b>POTENTIL'LA.</b> <i>W.</i>   | <b>CINQUEFOIL.</b> |        |   |       |    | <i>Rosaceae.</i> | <i>Sp.</i> | 40-74.        |                     |
| 7577   | <i>fruticosa W.</i>             | shrubby            | or     | 4 | jn.au | Y  | England          | m.b.pl.    | L co          | Eng. bot. 88        |
| 7578   | <i>floribunda Ph.</i>           | cluster-flower.    | or     | 4 | jn.o  | Y  | N. Amer.         | 1811.      | L co          | Dend. brit. 70      |
| 7579   | <i>Anserina W.</i>              | Wild Tansey        | △ w    | 3 | my.s  | Y  | Britain          | m.me.      | D co          | Eng. bot. 861       |
| 7580   | <i>atrosanguinea Lodd.</i>      | crimson            | △ or   | 1 | my.s  | Pu | Nepal            | 1822.      | D co          | Bot. cab. 786       |
| 7581   | <i>nepalensis Hook.</i>         | Nepal              | △ or   | 1 | jn.l  | Pu | Nepal            | 1822.      | D co          | Hook. ex. fl. 88    |
| 7582   | <i>Salesovii W. en.</i>         | white-shrubby      | △ or   | 2 | jn.au | W  | Siberia          | 1823.      | L p.l         | Bot. cab. 914       |
|        | <i>P. glabra Lodd.</i>          |                    |        |   |       |    |                  |            |               |                     |
| 7583   | <i>splendens Wall.</i>          | fine               | △ or   | 1 | ...   | Y  | Nepal            | 1822.      | D co          | Bot. mag. 2700      |
| 7584   | <i>hispid W. en.</i>            | hispid             | △ pr   | 1 | Il.au | Y  | Dauria           | 1797.      | D co          |                     |
| 7585   | <i>sericea W.</i>               | silky              | △ pr   | 1 | my.jn | Y  | Siberia          | 1780.      | D co          |                     |
| 7586   | <i>multifida W.</i>             | cut-leaved         | △ pr   | 1 | my.jn | Y  | Siberia          | 1759.      | D co          |                     |
| 7587   | <i>fragarioides W.</i>          | Strawberry-lvd.    | △ pr   | 1 | my.jn | Y  | Siberia          | 1773.      | D co          | Gm. si. 3.t.34.f.2  |
| 7588   | <i>ruthenica W.</i>             | Russian            | △ pr   | 1 | my.jn | Y  | Siberia          | 1799.      | D co          | Mor. s. 2. t.20.f.2 |
| 7589   | <i>rupestris W.</i>             | rock               | △ pr   | 1 | my.s  | W  | England          | al.roc.    | D co          | Eng. bot. 2058      |
| 7590   | <i>biflora W.</i>               | bird-leaved        | △ pr   | 1 | jn.l  | Y  | Siberia          | 1773.      | D co          | Eng. bot. 2058      |
| 7591   | <i>pimpinellodes W.</i>         | Burnet-leaved      | △ pr   | 1 | jn.au | Y  | Levant           | 1758.      | D co          | Gm. it. 1. t.27.f.1 |
| 7592   | <i>pensylvanica W.</i>          | Pensylvanian       | △ pr   | 1 | jn.au | Y  | N. Amer.         | 1725.      | D co          | Bux. cen. 1. t. 43  |
| 7593   | <i>apina W.</i>                 | trailing           | △ pr   | 1 | Il.au | Y  | Siberia          | 1696.      | D co          | Jac. aus. 5. t. 406 |
| 7594   | <i>recta W.</i>                 | upright            | △ pr   | 1 | jn.l  | Y  | S. Europe        | 1648.      | D co          | Jac. aus. 4. t. 383 |
| 7595   | <i>argentea W.</i>              | silvery            | △ pr   | 1 | jn.au | Y  | Britain          | gra.pa.    | D co          | Eng. bot. 89        |
| 7596   | <i>intermedia W.</i>            | various-leaved     | △ pr   | 1 | my.s  | Y  | Switzerl.        | 1786.      | D co          |                     |
| 7597   | <i>ascendens W. en.</i>         | ascending          | △ pr   | 1 | jn.l  | Y  | Hungary          | 1806.      | D co          |                     |



History, Use, Propagation, Culture,

large fruit is the object, no suckers should be left at all: on the contrary, when the strongest suckers are wanted, the fruit-bearing shoots should be cut down.

*R. occidentalis* is a showy plant for large shrubberies. The fruit of *R. cæsius* is blue, edible, and it continues till frost. *R. corylifolius* and *fruticosus* are both common in our hedges; the shoots of the latter are much tougher than those of the former, and are preferred by thatchers for binding their roofs, and by straw-hive and mat makers. The berries, eaten at the moment they are ripe, are cooling and grateful; a little before, they are coarse and astringent; and a little after, disagreeably flavored or putrid. They are sometimes made into pies; but great care is requisite in gathering the fruit, for one berry of the last sort will spoil a whole pie. The double-flowering variety is considered very ornamental.

The fruit of *R. arcticus* and *chamaemorus* is eaten in the north of Scotland and Sweden. In the latter country, Dr. Clarke informs us, it is much prized in soups, sauces, and for making vinegar; and Dr. Clarke was cured of a bilious fever by eating great quantities. The plant is rather difficult to preserve in gardens, but by raising successive generations from the seed it might perhaps be subjected to the same culture as the cranberry. The fruit of *R. pauciflorus*, the Nepal raspberry, is very agreeable.

1150. *Dalibarda.* Denis Dalibard was a French botanist, who published, in 1749, a catalogue of the plants in the neighbourhood of Paris. Small plants, resembling the little species of Rubus.

- 7556 Leaves simple cordate somewhat lobed downy beneath, Stem prickly decumbent  
 7557 Branches round villous, Lvs. cordate obl. 5-lobed: the middle lobe elongated, Stip. and bractes pectinate  
 7558 Leaves 3-5 downy beneath, Stem peduncles and petioles with recurved prickles

## \*\* Herbaceous.

- 7559 Leaves tern. naked, Runners creeping herbaceous, Panic few-flowered  
 7560 Leaves tern. naked, Leaf. rhomboid acute cut serrate: the odd one stalked, Flowers about 3  
 7561 Stem unarmed 1-flowered, Leaves tern. smooth finely serrate, Pet. obl. entire, Styles approximating  
 7562 Leaves ternate, Stem unarmed 1-flowered  
 7563 Leaves simple lobed, Stem unarmed 1-flowered

7564 Leaves simple cordate crenate, Peduncles 1-flowered

7565 Leaves ternate, Leaf. cuneate serrate-cut, Tube of cal. obconical

7566 Cal. of fruit reflexed, Pubescence of petioles spreading, of the peduncles appressed

7567 Leaves simple

7568 Cal. of fruit erect, Pubescence of pedunc. erect, of petioles much spreading, Leaves downy on each side

7569 Cal. of fruit reflexed, Pubescence of pedunc. and petioles much spreading

7570 Large, Leaves broad oval, Pedic. long recurved pendulous, Recept. much excavated globose villous

7571 Cal. of fruit spreading, Pubescence of petioles erect, of peduncles appressed, Leaves smoothish above

7572 Cal. of fruit erect, Pubescence of peduncles and petioles erect, Lvs. smoothish above

7573 Cal. of fruit erect, Pubescence of peduncles and petioles much spreading, Lvs. vilous on each side

7574 Outer sepals larger than the rest obovate 3-toothed

7575 Leaves pinn. Petals smaller than calyx

7576 Leaves tern. Petals larger than calyx

7577 Leaves pinnate, Leaf. lin. obl. flat, Petioles long, Branches 1-2-fl.

7578 Leaves pinnate, Leaf. lin. obl. revolute at edge, Petioles short, Corymbs terminal

7579 Leaves interruptedly pinnate silky, Leaflets finely serrate, Stem creeping, Pedunc. 1-fl.

7580 Leaves ternate stalked, Leaf. obovate cut serrate white with down beneath, Sepals ellipt. Pet. obcordate

7581 Rad. lvs. quinate cauline tern. Leaf. cuneate obl. serrate, Stipules large adnate entire

7582 Leaves pinnate white with down beneath, Leaf. serrate, Stem shrubby

7583 All over silky, Lvs. interruptedly pinn. Fl. dichoto. corymb. Sepals ov. acute, Stem erect nearly simple

7584 Lvs. interruptedly pinn. with spread hairs, Leaf. lanc. cut toothed, Stip. cut, Pet. obcord. larger than cal.

7585 Lvs. bipinnatifid in many pairs downy on each side: segments parallel approximating, Stem decumbent

7586 Lvs. bipinnatifid in four pairs smooth above downy beneath: segments distant, Stem decumbent

7587 Leaves pinnate: the outer largest, Runners creeping

7588 Rad. leaves subpinn. cauline tern. Leaf. lanc. unequally coarsely serrate hairy on each side

7589 Leaves pinnate alternate, Leaf. 5 ovate crenate, Stem erect

7590 Leaves pinnate nearly equal, Leaf. oblong suboboid: the outer confluent

7591 Leaves pinnate, Leaf. roundish toothed equal, Stem erect

7592 Leaves pinnate upper ternate, Leaf. deeply toothed, Stem erect pubescent

7593 Leaves pinnate, Leaf. oblong deeply toothed, Stem decumbent dichotomous, Pedun. axill. solitary

7594 Leaf. 7-5 lanceolate coarsely toothed, Petals obcordate larger than calyx, Stem erect

7595 Leaf. 5 cuneiform cut downy beneath, Stem erect

7596 Radic. leaves 5-nate, Cauline ternate, Stem nearly erect much branched

7597 Lvs. 5-nate with adpressed hairs: of the branches ternate, Leaf. obl. cuneate deeply toothed, Stem ascend.



## and Miscellaneous Particulars.

1151. *Fragaria*. From *fragrans*, in allusion to the perfumed fruit. *Fraisier*, Fr., *Erdbeere*, Ger., and *Tragoto*, Ital. This is a genus of fruit-bearing herbaceous plants, of which there are few in the vegetable kingdom, and none to equal the strawberry in wholesomeness and excellence. This fruit is universally grateful, alone, or with sugar, cream or wine; and has the property, so valuable for acid stomachs, of not undergoing the acetous fermentation. Besides the species or subspecies enumerated, there are upwards of sixty mongrel varieties or different names, some of which, recently produced from seed, are of great excellence. The strawberry is not only a valuable and easily cultivated out-door fruit, but forces well, and with a little trouble in choosing a succession of sorts, they may be had at the dessert every month in the year, though during the three winter months they are without flavor.

In cultivating the strawberry an open situation and rich loamy soil, rather strong, is required for most varieties; and from their large mass of foliage and flowers, they must, till the fruit is set, have copious supplies of water. The row culture is most convenient, and frequent renewal insures vigorous plants and large fruit.

1152. *Comarum*. A name given by the Greeks to the *Arbutus*. The *Comarum* of the moderns produces a fruit not unlike that of the *Arbutus*.

1153. *Potentilla*. In allusion to its supposed *potential* virtues in medicine. These, however, appear to con-

|                        |                |      |         |   |             |          |      |                        |
|------------------------|----------------|------|---------|---|-------------|----------|------|------------------------|
| 7598 hirta W.          | halry          | Δ pr | 1 my.s  | Y | S. Europe   | 1725     | D co |                        |
| 7599 stipularis W.     | stipular       | Δ pr | 1 jl.au | Y | Siberia     | 1797.    | D co | Gm. sl. 3. t. 37. f. 2 |
| 7600 opaca W.          | small-rough    | Δ pr | ½ my.jn | Y | S. Europe   | 1680.    | D co | Jac. ic. 1. t. 91      |
| 7601 verna W.          | spring         | Δ pr | ½ mr.my | Y | Britain     | hghl.p.  | D co | Eng. bot. 37           |
| 7602 aurea W.          | golden         | Δ pr | ½ my.jl | Y | Scotland    | sc.alp.  | D co | Eng. bot. 561          |
| 7603 astracacina W.    | Astracac       | Δ pr | 1 jn.au | Y | Siberia     | 1787.    | D co | Jac. ic. 1. t. 92      |
| 7604 alba W.           | white          | Δ pr | ½ fau   | W | Wales       | w.alp.   | D co | Eng. bot. 1384         |
| 7605 caulescens W.     | Alpine         | Δ pr | 1 my.jn | Y | Austria     | 1759.    | D co | Jac. aus. 3. t. 220    |
| 7606 Clusiana W.       | Clusius's      | Δ pr | 1 jl.au | Y | Austria     | 1806.    | D co | Eng. bot. 1327         |
| 7607 lupinoides W.     | close-flowered | Δ pr | ½ jn.jl | Y | Al. of Eur. | 1739.    | D co | Bot. cab. 634          |
| 7608 nitida W.         | shining        | Δ pr | ½ jn.jl | Y | Austria     | 1798.    | D co | Jac. au. 5. t. ap. 25  |
| 7609 reptans W.        | common         | Δ pr | ½ jn.s  | Y | Britain     | me. pa.  | D co | Eng. bot. 862          |
| 7610 sarmentosa W. en. | varietose      | Δ pr | ½ jn    | Y | N. Amer.    | 1804.    | D co |                        |
| 7611 diffusa W. en.    | various-leaved | Δ pr | ½ jn.au | Y | .....       | 1817.    | D co |                        |
| 7612 monspeliensis W.  | Montpelier     | Δ pr | ½ jl.au | Y | France      | 1680.    | D co | M. h. a. 2. t. 20f. 2  |
| 7613 nivea W.          | snowy          | Δ pr | ½ jn.au | W | Siberia     | 1816.    | D co | Bot. cab. 460          |
| 7614 norvegica W.      | Norwegian      | ○ pr | ½ jn.jl | Y | N. Europe   | 1764.    | D co | Fl. dan. 171           |
| 7615 tridentata W.     | trifid-leaved  | Δ cu | ½ jn.jl | W | Scotland    | sc. alp. | S co | Eng. bot. 2389         |
| 7616 grandiflora W.    | great-flowered | Δ or | 1 jn.jl | Y | Siberia     | 1640.    | D co | Bot. mag. 75           |

|                                  |                |     |         |   |           |          |       |               |
|----------------------------------|----------------|-----|---------|---|-----------|----------|-------|---------------|
| 1154. TORMENTILLA. L. SEPTIFOLI. |                |     |         |   | Rosaceae. | Sp. 2.   |       |               |
| 7617 reptans W.                  | large-flowered | Δ w | ½ jn.jl | Y | Britain   | me. pa.  | Rs co | Eng. bot. 864 |
| 7618 erecta W.                   | common         | Δ w | 1 my.o  | Y | Britain   | bar. pa. | D co  | Eng. bot. 863 |

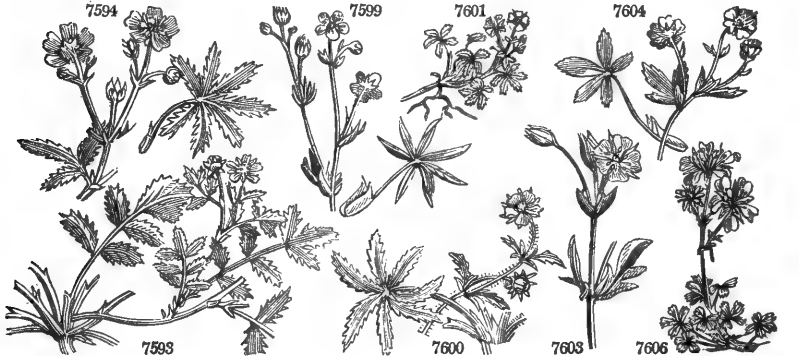
|                          |                 |      |          |      |           |            |      |                     |
|--------------------------|-----------------|------|----------|------|-----------|------------|------|---------------------|
| 1155. GE'UM. W.          | AVENS.          |      |          |      | Rosaceae. | Sp. 10-20. |      |                     |
| 7619 strictum Ph.        | upright         | Δ or | 1 my.jn  | St   | N. Amer.  | 1778.      | D pl | Jac. ic. 1. t. 93   |
| 7620 agrimonoides Ph.    | Agrimony-lvd.   | Δ or | 1½ jn.jl | W    | N. Amer.  | 1811.      | D pl |                     |
| 7621 album Ph.           | white-flowered  | Δ or | 1 jl.au  | W    | N. Amer.  | 1730.      | D pl | Jac. vin. 2. t. 175 |
| 7622 virginianum Ph.     | small white-fl. | Δ or | 1½ jl.au | W    | N. Amer.  | ....       | D pl |                     |
| 7623 macrophyllum W. en. | large-leaved    | Δ or | 2 jn.jl  | Y    | Kantsch.  | 1804.      | D pl |                     |
| 7624 urbanum W.          | common          | Δ or | 1½ my.au | Y    | Britain   | woods.     | D pl | Eng. bot. 1400      |
| 7625 intermedium W. en.  | wood            | Δ or | 1½ my.au | Y    | .....     | 1794.      | D pl | W. ho. b. 1. t. 69  |
| 7626 rivale W.           | water           | Δ or | 1 jn.jl  | R.Br | Britain   | m. mea.    | D pl | Eng. bot. 106       |
| 7627 hybridum Jac.       | hybrid          | Δ or | 1 jn.jl  | R.Br | Europe    | ....       | D pl | Jac. ic. 1. t. 94   |
| 7628 pyrenaicum W.       | Pyrenean        | Δ or | 1½ jn.jl | Y    | Pyrenees  | 1804.      | D pl | Lam. ill. t. 443    |

|                     |         |      |        |   |           |        |      |                |
|---------------------|---------|------|--------|---|-----------|--------|------|----------------|
| 1156. KER'RIA. Dec. | KERRIA. |      |        |   | Rosaceae. | Sp. 1. |      |                |
| 7629 japonica Dec.  | Japan   | Δ or | 3 ja.d | Y | Japan     | 1804.  | C co | Bot. mag. 1296 |

|                                  |               |      |         |    |               |          |      |               |
|----------------------------------|---------------|------|---------|----|---------------|----------|------|---------------|
| 1157. CALYCAN'THUS. L. ALLSPICE. |               |      |         |    | Calycantheae. | Sp. 3-5. |      |               |
| 7630 floridus W.                 | Carolina      | Δ ft | 6 my.au | Br | Carolina      | 1726.    | L lp | Bot. mag. 503 |
| 7631 fertilis W.                 | glaucous-lvd. | Δ ft | 3 my.au | Br | Carolina      | ....     | L lp | Bot. reg. 404 |
| 7632 laevigatus W. en.           | smooth-leaved | Δ ft | 3 my.jl | Br | N. Amer.      | 1806.    | L lp | Bot. reg. 481 |

|   |       |      |       |     |               |        |      |               |
|---|-------|------|-------|-----|---------------|--------|------|---------------|
| 1158. CHIMONAN'THUS. Lindl. CHIMONANTHUS. |       |      |       |     | Calycantheae. | Sp. 1. |      |               |
| 7633 fragrans Lindl.                      | Japan | Δ ft | 6 f.d | Y.B | Japan         | 1766.  | L lp | Bot. mag. 466 |

|                    |          |      |         |   |           |          |       |               |
|--------------------|----------|------|---------|---|-----------|----------|-------|---------------|
| 1159. DRY'AS. W.   | DRYAS.   |      |         |   | Rosaceae. | Sp. 1-3. |       |               |
| 7634 octopetala W. | mountain | Δ cu | ½ jn.au | W | Britain   | al. roc. | D s.p | Eng. bot. 451 |



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sist of nothing beyond a slight vulnerary quality. P. fruticosa and floribunda are shewy shrubs. P. asnerina is remarkable for the silvery whiteness of its foliage, which is eaten by geese, as the roots were once by the country people in some places. All the species are pretty, and deserving cultivation.

1154. *Tormentilla*. From *tormina*, the dysentery, which this plant was formerly employed for curing. T. erecta was once a plant of some importance in economy and medicine. The roots are still used in most of the Western Isles of Scotland and in the Orkneys for tanning leather, for which they are superior even to oak-bark. They are first boiled in water, and the leather is then steeped in the cold liquor. In the islands of Tirey and Col, the inhabitants have destroyed so much ground by digging them up, that they have been prohibited the use of them. They are also used for dyeing of a red color. And Mr. Young informs us, that many swine are reared with them on the mountains of Killarney.

In the London Materia Medica it is employed in intermittents, and as a local application in the form of gargle and lotion, in ulcerations of the tongue and mouth, against spongy gums, and as an application to fetid ill conditioned sores; but it is seldom used. (*London Dispensatory*, 538.)

1155. *Geum*. From *γεωμ*, to taste well. The roots of G. urbanum have a mildly astringent aromatic taste, somewhat like that of cloves, whence this plant has the name of Caryophyllata. They should be gathered in dry warm situations, for in shady moist places they have little virtue. Gathered in the spring, and put fresh into ale, they give it a pleasant flavor, and prevent its turning sour. Infused in wine, it is esteemed a good

- 7598 Leaf. 5-7 cuneiform cut pilose, Stem erect hairy
- 7599 Leaf. 7 sessile seated upon a dilated stipule
- 7600 Rad. lvs. 5-7 lin. cuneiform toothed, Petals retuse the length of calyx, Stems filiform decumbent hairy
- 7601 Leaves 5-nate obovate toothed pubescent, Pet. obcord. larger than calyx, Stems declinate
- 7602 Rad. lvs. 5-nate, Leaf. cuneif. ciliate 5-toothed at end, Caul. 3-nate subsess. Pet. obcord. larger than calyx
- 7603 Rad. lvs. 5-nate oblong toothed : upper 3-parted, Cor. larger than calyx, Stem ascending
- 7604 Leaves 5-nate with connivent serratures at end, Stems filiform procumbent, Recept. hairy
- 7605 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. obovate
- 7606 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. roundish
- 7607 Leaves 5-nate silky on each side, Leaf. obovate bluntly toothed at end, Pet. length of cal. Recept. woolly
- 7608 Leaves subtern. downy with 3 connivent teeth, Stems 1-fl. Recept. woolly
- 7609 Leaves 5-nate, Stem creeping, Pedunc. 1-flowered
- 7610 Leaves 5-nate obovate coarsely serr. Stip. cut bifid, Pedunc. 1-fl. axill. Stem producing runners
- 7611 Rad. lvs. subpinnate : cauline ternate, Leaf. lanc. unequally and coarsely serrated with spreading hairs on
- 7612 Leaves ternate, Stem branched erect, Peduncles with a knee at base [each side
- 7613 Leaves ternate cut downy beneath, Stem ascending
- 7614 Leaves ternate, Stem dichotomous, Pedunc. axillary
- 7615 Leaves ternate cuneiform 3-fid at end
- 7616 Leaves ternate toothed hairy on both sides, Stem decumbent longer than leaves

- 7617 Stem creeping, Leaves stalked
- 7618 Stem nearly erect, Leaves sessile

- 7619 Fl. erect, Awns hooked naked, Caul. lvs. pinn. Leaf. and stipules split, Petals longer than calyx
- 7620 Fl. erect, Lvs. pinn. Leaf. nearly equal irregularly cut toothed, Stip. ovate nearly entire, Pet. oval length of
- 7621 Fl. erect, Rad. lvs. pinn. : cauline tern. upper simple, Lower stip. cut, Pet. length of calyx [calyx
- 7622 Fl. erect, Awns hooked naked, Caul. lvs. tern. : upper lanc. Petals shorter than calyx
- 7623 Fl. erect, Awns hooked naked hairy at end, Rad. lvs. lyrate pinnate : terminal pinnate cordate
- 7624 Fl. erect, Awns hooked naked, Caul. lvs. tern. : radical lyrate pinnate
- 7625 Fl. nodd. Pet. length of cal. Awns hooked naked, Grains hairy, Rad. lvs. lyrate pinn. : cauline ternate
- 7626 Fl. nodd. Pet. length of cal. Awns feathery twisted in the middle
- 7627 Fl. nodd. Cal. leafy longer than the polypetalous corolla
- 7628 Fl. nodd. Pet. longer than cal. Awns hairy twisted at base, Rad. lvs. lyrate pinnate : cauline simple trifid

7629 The only species

- 7630 Leaves oblong downy beneath
- 7631 Leaves lanceolate smooth on each side glaucous beneath
- 7632 Sepals lanc. Lvs. obl. acute by degrees somewhat rugose smooth and green on each side, Branches very [straight and erect

7633 The only species. Fl. small very fragrant pale yellow appearing in the winter

7634 Leaves toothed



and Miscellaneous Particulars.

stomachic ; but in water, Haller affirms it to have been attended with bad effects, when given in malignant fevers, producing delirium. Chewed in the mouth, the roots take off from a disagreeable breath.

1156. *Kerria*. So named after Mr. William Ker, a botanical collector, who was sent some years since to China, whence he sent many curious plants. The plant named after him is the common *Corchorus japonica* of the gardens.

1157. *Calycanthus*. From *καλυξ*, and *ανθος*, a flower ; the calyx being colored and similar to petals, which are not present in the genus. Small North American shrubs, with chocolate-colored blossoms. The flowers of *C. floridus* have an agreeable scent like those of allspice, and is so called in Carolina.

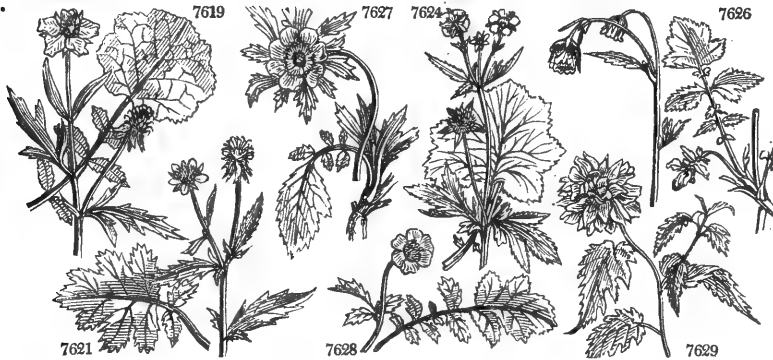
1158. *Chimonanthus*. From *χιμων*, winter, and *ανθος*, a flower, in allusion to the period of the year when its blossoms are produced. *C. fragrans* is highly odoriferous, and though hardy, deserves a place in the front border of a conservatory, on account of the odor it disperses early in spring.

1159. *Dryas*. A name poetically applied to this little plant, from the resemblance of its leaves to those of the oak, which was sacred to the Dryads. This is a delicate evergreen plant, and with its snow-white blossoms is a great ornament to alpine heights. The stalk and branches are woody and perennial, lying flat upon the ground, and spreading wide about the root in tufts.

It requires some care to preserve it in gardens, and grows better in a shaded bed of peat than in pots.



|  |        |                           |   |           |       |                             |
|--|--------|---------------------------|---|-----------|-------|-----------------------------|
| 1160. <i>COLURIA</i> . R. Br. COLURIA.     |        | <i>Rosacea</i> . Sp. 1—3. |   |           |       |                             |
| 7635 <i>potentilloides</i> R. Br. Siberian | ♂ Δ pr | ‡ jn                      | O | Siberia   | 1780. | D p.l Jac. vin. 3. t. 68    |
| 1161. <i>SIEVERSIA</i> . Willd. SIEVERSIA. |        | <i>Rosacea</i> . Sp. 2—4. |   |           |       |                             |
| 7636 <i>montana</i> R. Br. mountain        | ♂ Δ pr | ‡ my.s                    | Y | Austria   | 1597. | D co Jac. aus. 4. t. 373    |
| 7637 <i>réptans</i> R. Br. creeping        | ♂ Δ pr | ‡ jn.au                   | Y | Switzerl. | 1775. | D p.l Jac. au. 5. t. ap. 92 |



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1160. *Coluria*. From *κολυρος*, deprived of the tail; or, as we usually say in English, bob-tailed. Distinguished by Mr. Brown from *Geum*, principally on account of the deciduous nature of the style or tail of the grains.



CLASS XIII. — POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

This class agrees with the last in having hermaphrodite flowers, with an indefinite number of stamens, which neither cohere in any part of their length, nor are distributed in distinct parcels; but it is distinguished by the stamens being inserted distinctly from the floral envelopes, immediately under the ovary, into what has been called the *receptacle* by Linnæus and his followers; *torus*, by Mr. Salisbury; and *thalamus*, by some other botanists. The class consists of the greater part of several extensive natural orders, such as Ranunculaceæ, Magnoliaceæ, Cistaceæ, &c.; and, like the last, is replete with subjects of interest to gardeners and florists. The various kinds of Clematis form the most valuable portion of the hardy climbing plants of the verandah. The brilliant varieties of the ranunculus and anemone constitute the most attractive part of the flower garden. *Pæonia*, well known for the richness of its coloring, and the robustness of its constitution, is the ornament of every cottage; and the noble varieties of Magnolia, the pride of the North American forest, are the finest exotics of the shrubbery. *Nymphaea* and *Nelumbium* are beautiful genera of aquatic plants. *Annona*, or the custard apple, is one of the most important of the fruit trees of tropical countries; and the celebrated water vine of Sierra Leone is a species of *Tetracera*. Nor must *Sarracenia*, with its curious pitcher-like leaves; *Papaver*, from which opium is extracted; *Cimicifuga*, whence is obtained the antidote to the dangerous bite of the rattle-snake; *Bixa*, or the arnotta tree, from the fruit of which the coloring matter for the red cheese of England is procured; nor *Hepatica*, with its modest beauties, be omitted.

The commencement of M. Decandolle's laborious *Systema Vegetabilium* has included nearly every thing contained in the class, and is followed in the discrimination of the species, as being the best authority which can be taken.

Order 1. MONOGYNIA.



Stamens many, hypogynous. Style 1.

1162. *Capparis*. Cal. 4-leaved, coriaceous, deciduous. Petals 4. Stamens long. Stigma capitate. Berry with a rind, 1-celled, stalked, subglobose, or like a pod.

1163. *Marcgraavia*. Cal. 6-leaved, imbricated. Corolla monopetalous, calyptriformis. Berry many-celled, many-seeded. Style 0.

1164. *Actæa*. Cal. 4-leaved, deciduous. Petals 4. Berry 1-celled. Seeds half orbicular.

1165. *Sanguinaria*. Cal. 2-leaved. Petals 8. Pod ovate, 1-celled.

1166. *Podophyllum*. Cal. 3-leaved. Petals 9. Berry 1-celled, crowned with the stigma.

1167. *Chelidonium*. Cal. 2-leaved. Petals 4. Pod 1-celled, linear. Dissepiment 0. Seeds several, crested.

1168. *Romeria*. Petals 4. Caps. long, 2-3.4-valved; the valves opening from the vertex to the base. Seeds reniform, scurfy, without a glandular crest.

1169. *Glaucium*. Cal. 2-leaved. Petals 4. Pod 2-celled, linear, 2-3-valved. Seeds several, dotted.

1170. *Papaver*. Cal. 2-leaved. Petals 4. Capsule 1-celled, opening by pores under the persistent stigma.

1171. *Meconopsis*. Petals 4. Style short. Stigmas 4-6, radiating, convex, distinct. Capsule opening with 4-6 valves.

1172. *Argemone*. Cal. 3-leaved. Petals 6. Capsule half valved.

1173. *Sarracenia*. Cal. double, 3-5-leaved. Petals 5. Caps. 5-celled. Style with a clypeate stigma.

1174. *Nymphaea*. Sepals at the base of the discus. Petals and stamens connected with the whole of the discus, which covers the carpella.

1175. *Limncharis*. Sepals 3. Petals 3, very delicate, withering. Plant monocotyledonous.

7635 Stem about 2-flowered, Awns straight naked, Cal. of fruit erect, Lvs. pinnate toothed

7636 Leaves pinnate : the outer leaflet very large round, lower smaller by degrees

7637 Leaves pinnate cut, Runners creeping



and Miscellaneous Particulars.

1161. *Siewersia*. Named by Willdenow, after M. Sievers, a well known Russian botanical collector. Plants resembling *Geum* in habit.

1176. *Nuphar*. Sepals, petals, and stamens inserted at the base of the discus.  
 1177. *Euryale*. Sepals, petals, and stamens united with the discus, which covers the carpella.  
 1178. *Bixa*. Cal. 5-toothed. Petals 10. Capsule hispid, 2-valved.  
 1179. *Proclia*. Cal. 3-leaved, besides two extra leaves at base. Cor. O. Berry 5-angled, many-seeded.  
 1180. *Sloanea*. Cal. 1-leaved, 5-9-fid. Cor. O. Anthers united to filaments beneath the end. Caps. echinate, 3-6-celled, 3-6-valved. Seeds 2, with a berried arillus.  
 1181. *Apeiba*. Cal. 5-leaved. Petals 5. Caps. echinate, many-celled.  
 1182. *Sparmannia*. Cal. 4-leaved. Petals 4. Filaments cohering at base, torulose. Capsule echinate, 5-angled, 5-celled. Cells 2-seeded.  
 1183. *Entelea*. Sepals 4-5. Petals 4. Stamens indefinite, uniform. Anthers roundish, incumbent. Stigma denticulate. Caps. roundish, echinate, 6-celled, half 6-valved, many-seeded.  
 1184. *Muntingia*. Cal. 5-parted. Petals 5. Berry 5-celled, 1-5-many-seeded.  
 1185. *Grewia*. Cal. 5-leaved, coriaceous, colored inside. Petals 5. Scales 5. Ovary usually stalked. Drupe 4-lobed, 4-celled. Nut 1-2-seeded.  
 1186. *Tilia*. Cal. 5-parted. Petals 5. Capsule coriaceous, globose, 5-celled, 4-valved, opening at base, 1-seeded.  
 1187. *Corchorus*. Cal. 5-leaved, deciduous. Petals 5. Style scarcely any. Stigma 1-3. Capsule pod-shaped, 2-celled, 2-5-valved, many-seeded.  
 1188. *Grias*. Cal. 4-cleft. Petals 4. Stigma sessile, cruciate. Drupe with an 8-furrowed nut.  
 1189. *Calophyllum*. Cal. 4-leaved, colored. Petals 4. Drupe globose.  
 1190. *Mammea*. Cal. 2-leaved. Petals 4. Berry very large, 4-seeded.  
 1191. *Ochna*. Cal. 5-leaved. Petals 5. Berries 1-seeded, with a large roundish receptacle.  
 1192. *Elaeocarpus*. Cal. 5-leaved. Petals 5, torn. Anthers 2-valved at end. Drupe with a curly nut.  
 1193. *Alangium*. Cal. 6-10-toothed, superior. Petals 6-10, linear. Berry coated, 1-3-seeded.  
 1194. *Mentzelia*. Cal. 5-leaved. Petals 5. Capsule inferior, cylindrical, many-seeded.  
 1195. *Lagerstromia*. Cal. 6-cleft, campanulate. Petals 6. Stamens many, of which the six outer are thickest. Caps. 4-6-celled, many-seeded.  
 1196. *Egla*. Cal. 1-leaved, 5-lobed. Petals 5, spreading. Style short, thick. Berry coated, turbinate, globose, finally woody, with 12-16 cells.  
 1197. *Cistus*. Cal. 5-leaved, with two small leaflets. Petals 5. Caps. 5-celled; the valves bearing the dissepiments in the middle.  
 1198. *Helianthemum*. Divisions of the calyx often unequal: the two outer the smallest. Caps. 1-celled, 3-valved, with the dissepiment in the middle of the valves.

Order 2. DI-TRIGYNIA.



Stamens many, hypogynous. Styles 2-3.

1199. *Bauera*. Cal. 7-9-leaved, persistent. Petals 7-9, deciduous. Caps. inflated, 2-celled, many-seeded.  
 1200. *Fothergilla*. Cal. truncate, entire. Cor. O. Filaments very long, clavate. Ovary bifid. Caps. 2-celled, 2-horned. Seeds solitary, bony.  
 1201. *Curatella*. Cal. 5-leaved. Petals 4. Styles 2. Caps. 2-parted. Cells 2-seeded.  
 1202. *Peonia*. Cal. 5-leaved. Petals 5. Style O. Caps. many-seeded, like a pod.  
 1203. *Hibbertia*. Stamens distinct, filiform, equal. Anthers oval, oblong. Ovaries 1-15. Styles filiform, inflexed. Carpella membranous, generally 1-2-seeded.  
 1204. *Delphinium*. Cal. O. Petals 5. Nectary bifid, cornute behind. Siliques 3-1.  
 1205. *Aconitum*. Cal. O. Petals 5; the upper vaulted. Nectaries 2, hooded, stalked, recurved. Siliques 3-5.  
 1206. *Trachytella*. Carpella 1-2, berried, many-seeded; otherwise Tetracera.

Order 3. PENTAGYNIA.



Stamens many, hypogynous. Styles 5.

1207. *Cimicifuga*. Cal. 4-leaved. Cor. with four urceolate nectaries. Caps. 4. Seeds scaly.  
 1208. *Aquilegia*. Cal. O. Petals 5. Nectaries 5, horned between the petals. Caps. 5, distinct.

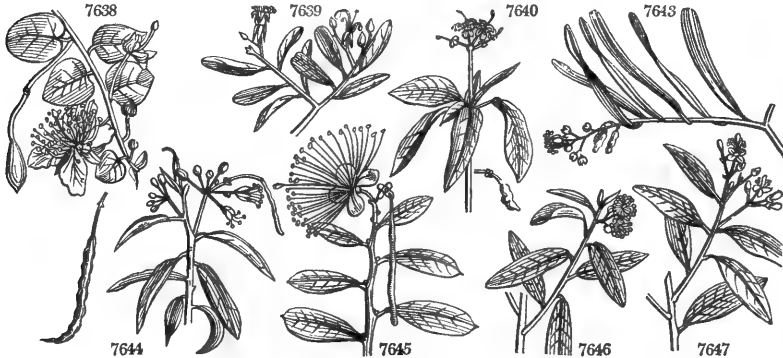
1209. *Nigella*. Cal. O. Petals 5. Nectaries 5, trifid between the corolla.  
 1210. *Reaumuria*. Cal. 5-leaved. Petals reflexed, 5. Caps. 5-celled, 5-valved, many-seeded. Seeds woolly.  
 1211. *Colbertia*. Ten stamens much longer than the others. Carpella 5, united? Stigma capitate. Seeds several in each cell, reniform, inclosed in a pellicul pulp.  
 1215. *Illicium*. Cal. 6-leaved. Petals 27. Caps. many, placed in a circle, 2-valved, 1-seeded.  
 1216. *Liriodendron*. Cal. 3-leaved. Petals 6. Samarae imbricated in a cone. Caps. 1-2-seeded, not opening, attenuated.  
 1217. *Magnolia*. Cal. 5-leaved. Petals 6-9. Caps. 2-valved, 1-seeded, imbricated in a cone. Seeds pendulous.  
 1218. *Michelia*. Cal. 3-leaved. Petals 15. Berries many, 4-seeded.  
 1219. *Uvaria*. Cal. 3-leaved. Petals 6. Berries numerous, pendulous, 4-seeded.  
 1220. *Annona*. Sepals 3, united at base, concave, cordate, acute. Petals 6, thick; the interior thicker or none. Anthers subsessile, with a dilated angular end. Berry pulpy, many-celled towards the outside.  
 1221. *Artabotrys*. Cal. 3-parted. Petals 6. Stamens hypogynous. Ovaries distinct, 2-seeded. Berries 2-seeded. Seeds collateral erect, without arillus.  
 1222. *Guatteria*. Sepals 3, united at base, ovate, subcordate, acute. Petals 6, ovate or obovate. Berries dry, coriaceous, ovate or subglobose, stalked, 1-seeded.  
 1223. *Asimina*. Cal. 3-parted. Petals 6, spreading, ovate-oblong; the inner smallest. Anthers subsessile. Berries usually 3, sessile. Seeds several.

Order 4. POLYGYNIA.  Styles many. Stamens many, hypogynous.

1213. *Nelumbium*. Cal. 4-5-leaved. Petals many. Fruit turbinate, in a truncate discus, with several 1-seeded hollows. Nuts ovate, crowned with the persistent style.  
 1214. *Dillenia*. Cal. 5-leaved. Petals 5. Capsules many-seeded, connate, replete with pulp.  
 1215. *Illicium*. Cal. 6-leaved. Petals 27. Caps. many, placed in a circle, 2-valved, 1-seeded.  
 1216. *Liriodendron*. Cal. 3-leaved. Petals 6. Samarae imbricated in a cone. Caps. 1-2-seeded, not opening, attenuated.  
 1217. *Magnolia*. Cal. 5-leaved. Petals 6-9. Caps. 2-valved, 1-seeded, imbricated in a cone. Seeds pendulous.  
 1218. *Michelia*. Cal. 3-leaved. Petals 15. Berries many, 4-seeded.  
 1219. *Uvaria*. Cal. 3-leaved. Petals 6. Berries numerous, pendulous, 4-seeded.  
 1220. *Annona*. Sepals 3, united at base, concave, cordate, acute. Petals 6, thick; the interior thicker or none. Anthers subsessile, with a dilated angular end. Berry pulpy, many-celled towards the outside.  
 1221. *Artabotrys*. Cal. 3-parted. Petals 6. Stamens hypogynous. Ovaries distinct, 2-seeded. Berries 2-seeded. Seeds collateral erect, without arillus.  
 1222. *Guatteria*. Sepals 3, united at base, ovate, subcordate, acute. Petals 6, ovate or obovate. Berries dry, coriaceous, ovate or subglobose, stalked, 1-seeded.  
 1223. *Asimina*. Cal. 3-parted. Petals 6, spreading, ovate-oblong; the inner smallest. Anthers subsessile. Berries usually 3, sessile. Seeds several.

MONOGYNIA.

| *1162. CAPPARIS. W. |                           | CAPER-TREE.     |  |     |    | <i>Capparidæe.</i> |     | Sp. 10—116.        |                                   |
|---------------------|---------------------------|-----------------|--|-----|----|--------------------|-----|--------------------|-----------------------------------|
| 7638                | <i>spinosa</i> W.         | common          |  | cul | 3  | my.au              | W   | S. Europe          | 1596. C s.l. Bot. mag. 291        |
| 7639                | <i>jamaicensis</i> W.     | Jamaica         |  | or  | 4  | ...                | W   | Jamaica            | 1793. C r.m. Jac. am. e.p.t. 101  |
| 7640                | <i>frondosa</i> W.        | large-leaved    |  | or  | 7  | ...                | G   | Carthag.           | 1800. C s.l. Jac. amer. t. 103    |
| 7641                | <i>ovata</i> W.           | acute-leaved    |  | or  | 3  | my.au              | W   | S. Europe          | ...                               |
| 7642                | <i>saligna</i> P. S.      | Willow-leaved   |  | or  | 8  | ...                | W   | Sant. Cruz         | 1807. C r.m.                      |
| 7643                | <i>linearis</i> W.        | linear-leaved   |  | or  | 15 | ...                | W   | W. Indies          | 1793. C r.m. Jac. amer. t. 102    |
| 7644                | <i>crynia</i> W.          | Oleaster-leav'd |  | or  | 11 | ...                | W   | W. Indies          | 1752. L l.p. Jac. amer. t. 103    |
| 7645                | <i>cynophallaphora</i> W. | Bay-leaved      |  | or  | 8  | ...                | G.W | W. Indies          | 1752. C r.m. Jac. amer. t. 98     |
| 7646                | <i>odoratissima</i> W.    | sweet-scented   |  | or  | 6  | ...                | W   | Caracac            | 1814. C r.m. Jac. schœ. 1. t. 110 |
| 7647                | <i>ferruginea</i> W.      | ferrugineous    |  | or  | 4  | ...                | W   | Jamaica            | ...                               |
| 1163.               | MARCGRAAVIA. W.           | MARCGRAAVIA.    |  |     |    |                    |     | <i>Capparidæe.</i> | Sp. 1—2.                          |
| 7648                | <i>umbellata</i> W.       | umbell'd        |  | cu  | 20 | ...                | W   | W. Indies          | 1792. C s.l.p. Jac. amer. t. 96   |



History, Use, Propagation, Culture,

1162. *Capparis*. From its Arabic name *Kabar*, from which the Greeks made *καπαρις*. *Caprier*, Fr., *Capriolo*, Ital. and *Kapernstrauch*, Ger. This is a genus of low shrubs, some of which produce berries and others pods. *C. spinosa* has the habit of the common bramble; it grows in similar situations in the south of Europe, and especially on rocks and ruins. The chief supply of caper buds is from Sicily; but the plant is cultivated in the neighbourhood of Toulon in orchards, in the intervals between fig and olive trees, and in the neighbourhood of Paris, where it is trained on low walls, and the shoots during winter laid down and covered with soil to protect them from the frost. In this country it is generally treated as a stove plant; though it has stood the winter in the open air in some situations, and by raising from the seed for several generations might probably be naturalized. A plant stood near a century against the wall of the garden of Camden House, Kensington; it produced many flowers annually, though the young shoots were frequently killed to the stump during winter.

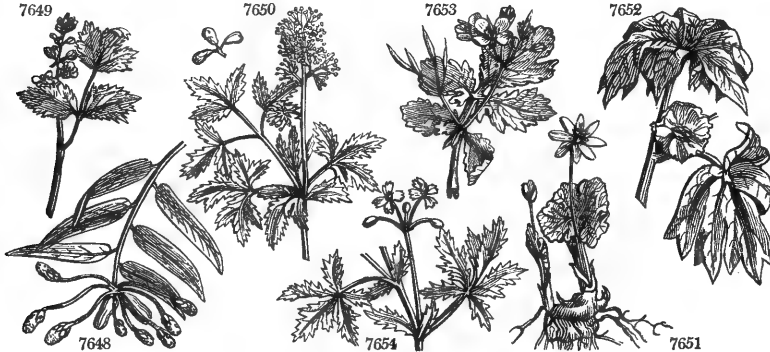
As a pickle, the flower buds of the caper are in great esteem throughout Europe. In Italy, the unripe fruit is prepared in the same way as the flower buds; both are highly acrid and burning to the taste. In the isles of the Mediterranean, and near Toulon, the flower buds of the caper are gathered just before they begin to expand, which forms a daily occupation during six months, when the plants are in a flowering state. As the buds are gathered they are thrown into a cask among as much salt and vinegar as is sufficient to cover

1224. *Xylopia*. Cal. 3-5-lobed. Petals 6; the exterior largest. Stamens usually inserted in a globose receptacle. Berries 2-15, on short stalks, compressed, frequently dry and opening. Seeds shining.
1225. *Hepatica*. Invol. 3-leaved, 1-flowered, resembling a calyx, entire. Sepals petaloid, 6-9, arranged in 2 or 3 rows. Ovaries many. Grains without an awn.
1226. *Anemone*. Invol. 3-leaved, distant from the flower, cut. Sepals 5-15, petaloid. Petals O.
1227. *Clematis*. Invol. O, or like a calyx under the flower. Sepals 4-8, colored. Petals O, or shorter than the sepals. Grains terminating in a feathery awn.
1228. *Naravelia*. Petals 6-12, longer than calyx. Grains seated on a thick hollow stalk.
1229. *Thalictrum*. Invol. O. Petals O. Grains dry, not awned, sometimes stalked, sometimes with a longitudinal furrow.
1230. *Adonis*. Sepals 5, appressed. Petals 5-15, with a naked claw. Grains many, 1-seeded, spiked, ovate, pointed with the persistent hardened style.
1231. *Knoultonia*. Sepals 5. Petals 5-15, with a naked claw. Ovaries upon a globose receptacle. Grains 1-seeded, berried, with a deciduous style.
1232. *Ficaria*. Sepals 3, deciduous. Petals 9, with a honey-pore at base. Grains obtuse.
1233. *Ranunculus*. Sepals 5, not deciduous. Petals 5, rarely 10, with a honey-scale at base. Grains pointed.
1234. *Trollius*. Sepals colored, 5-10-15, deciduous, petaloid. Capsules many, subcylindrical, many-seeded.
1235. *Isopyrum*. Sepals 5, deciduous. Petals 5, equal, tubular, 2-lipped. Ovaries 2-20. Capsules compressed, membranous, many-seeded. Seeds minute, dotted.
1236. *Eranthis*. Involucre under the flower, cut into many divisions. Sepals 5-8, colored, oblong, deciduous. Petals 6-8, tubular. Capsules stalked. Seeds globose.
1237. *Helleborus*. Sepals 5, persistent, roundish, obtuse, large, usually green. Petals 8-10, tubular, nectariferous. Stigmas orbicular. Capsules coriaceous.
1238. *Conia*. Sepals 5-6, colored, petaloid, deciduous. Petals small, cucullate. Stamens 20-25. Caps. 6-10, on long stalks, membranous, 4-6-seeded.
1239. *Caltha*. Sepals 5, colored, round. Petals O. Stamens many. Capsule spreading, 1-celled, many-seeded.
1240. *Hydropeltis*. Sepals 3-4. Petals 3-4. Ovaries 6-18. Seeds in a pendulous ovate globose capsule.
1241. *Hydrastis*. Sepals 3, ovate. Petals O. Cariopsides berried, many in a head, terminated by the style, 1-celled, 1-2-seeded.

MONOGYNIA.

- 7638 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish obtuse smooth, Caps. oval
- 7639 Pedunc. many-fl. Leaves obl. obt. emarginate downy beneath, Cor. campanulate
- 7640 Pedunc. umbelled, Leaves clustered in parcels
- 7641 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish ovate acute smooth, Capsules oval
- 7642 Leaves linear lanceolate dilated downwards obtuse at each end smooth, Fruit round torulose
- 7643 Pedunc. racemose, Leaves linear
- 7644 Pedunc. racemose, Leaves perennial oblong, Cal. and pedunc. downy, Fl. octandrous
- 7645 Pedunc. many-fl. terminal, Leaves elliptical blunt smooth, Glands axillary, Fruit cylindrical torulose
- 7646 Pedunc. many-fl. Leaves obl. lanceolate acute dotted with scales beneath
- 7647 Pedunc. umbelled, Leaves persistent lanceolate downy beneath, Flowers octandrous

7648 Leaves ovate-oblong acuminate veiny



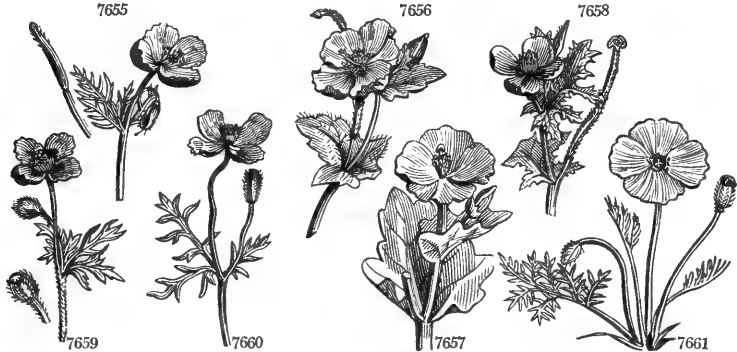
and Miscellaneous Particulars.

them, and as the supply of capers is increased more vinegar is added. When the caper season closes, the casks are emptied, and the buds sorted according to their size and color, the smallest and greenest being reckoned the best, and put into small casks of fresh vinegar for commerce. They will in this state keep fit for use for five or six years. It is said to be a common practice to put filings of copper in the first pickle to save vinegar, and give the buds a green color. The best capers are called nonpareilles, and the second best capucines. (*N. Cours complet d'Agr.*; art. *Coprier*.)

Most of the species are very showy when in flower: *C. cynophallophora* has large petals, and stamens upwards of four inches long.ripe cuttings of all the species grow readily in sand.

1163. *Marcgravia*. In memory of George Marcgraa, of Leibstadt, author of a voyage to Brazil in 1648. A sub-parasitical creeping shrub: at first it is radicate like some ferns, but as it advances, the stem becomes shrubby, adhering still by its fibres to the trunk of some tree, to the top of which it frequently runs, at length dividing into several subdivided loose pendulous branches, commonly terminated by flowering umbels. It is frequent in the cool wooded mountains of Jamaica, and, according to Browne, appears in such various forms, that it has been mistaken for different plants in the different stages of its growth. It grows freely in British stoves, and cuttings root in sand under a glass. The genus is remarkable for the transformation of part of the bractæe into fistular bodies, resembling the pitchers of some other plants.

|                                |                      |   |    |                        |        |    |                         |            |                  |
|--------------------------------|----------------------|---|----|------------------------|--------|----|-------------------------|------------|------------------|
| 1164. <i>ACTEA</i> Ph.         | <i>ACTEA</i> .       |   |    | <i>Ranunculaceae</i> . | Sp. 2. |    |                         |            |                  |
| 7649 <i>spicata</i> W. en.     | Bane-berry           | Δ | or | 3                      | ap.jn  | W  | Britain                 | m. wo.     | R s.l            |
| 7650 <i>americana</i> Ph.      | American             | Δ | or | 3                      | ap.jn  | W  | N. Amer.                | ...        | R p.l            |
| <i>α álba</i>                  | white-berried        | Δ | or | 3                      | ap.jn  | W  | N. Amer.                | ...        | R p.l            |
| <i>β rábra</i>                 | red-berried          | Δ | or | 3                      | ap.jn  | R  | N. Amer.                | ...        | R p.l            |
| 1165. <i>SANGUINARIA</i> W.    | <i>P. PUCCOON</i> .  |   |    |                        |        |    | <i>Papaveraceae</i> .   | Sp. 1.     |                  |
| 7651 <i>canadensis</i> W.      | Bloodwort            | Δ | pr | 1                      | mr.ap  | W  | N. Amer.                | 1680.      | R s.p            |
| 1166. <i>PODOPHYLLUM</i> W.    | <i>DUCK'S-FOOT</i> . |   |    |                        |        |    | <i>Podophyllaceae</i> . | Sp. 1-2.   |                  |
| 7652 <i>peltatum</i> W.        | May-Apple            | Δ | cu | 1                      | my     | W  | N. Amer.                | 1664.      | D s.p            |
| 1167. <i>CHELIDONIUM</i> W.    | <i>CELANDINE</i> .   |   |    |                        |        |    | <i>Papaveraceae</i> .   | Sp. 2-5.   |                  |
| 7653 <i>május</i> W.           | common               | Δ | w  | 2                      | apo    | Y  | Britain                 | sha.ba.    | D co             |
| 7654 <i>laciniatum</i> W. en.  | jagged               | Δ | or | 2                      | apo    | Y  | S. Europe               | ...        | D co             |
| 1168. <i>RÖMERIA</i> Med.      | <i>ROMERIA</i>       |   |    |                        |        |    | <i>Papaveraceae</i> .   | Sp. 1-3.   |                  |
| 7655 <i>hybrida</i> Dec.       | hybrid               | ○ | or | 2                      | my.jn  | Fu | Britain                 | hed.       | S co             |
| <i>Chelidonium hybridum</i> L. |                      |   |    |                        |        |    |                         |            | Eng. bot. t. 201 |
| 1169. <i>GLAUCIUM</i> J.       | <i>HORN-POPPY</i> .  |   |    |                        |        |    | <i>Papaveraceae</i> .   | Sp. 3-5.   |                  |
| 7656 <i>luteum</i> H. K.       | yellow               | ○ | or | 2                      | jn.o   | Y  | Britain                 | san.sh.    | S co             |
| 7657 <i>fálvum</i> H. K.       | orange               | ○ | or | 2                      | aus    | Or | S. Europe               | 1802.      | S co             |
| 7658 <i>phoeniceum</i> H. K.   | red                  | ○ | or | 2                      | jn.jl  | R  | England                 | san. fi.   | S co             |
| 1170. <i>PAPAVER</i> W.        | <i>POPPY</i> .       |   |    |                        |        |    | <i>Papaveraceae</i> .   | Sp. 11-26. |                  |
| 7659 <i>hybrídum</i> W.        | mongrel              | ○ | or | 1 1/2                  | jn.jl  | S  | England                 | chal.fi.   | S co             |
| 7660 <i>Argemóné</i> W.        | rough                | ○ | or | 1 1/2                  | jn.jl  | S  | Britain                 | corn fl.   | R co             |
| 7661 <i>alpínium</i> W.        | Alpine               | Δ | or | 1 1/2                  | jn.jl  | Y  | Austria                 | 1759.      | S co             |
| 7662 <i>nudicáule</i> W.       | naked-stalked        | ○ | or | 1 1/2                  | jn.au  | Or | Siberia                 | 1730.      | S a.l            |
| <i>β lúteum</i>                | yellow-flowered      | ○ | or | 1 1/2                  | jn.au  | Y  | Siberia                 | 1730.      | S a.l            |



History, Use, Propagation, Culture.

1164. *Actea*. *Άκτση* was the Greek name of the elder, which this plant resembles in foliage and fruit. Weed-like plants seldom seen in gardens. The berries of *A. spicata* are poisonous, and with alum yield a black dye. The tubers of *A. racemosa* are called snake root, and much used in North America by self-practitioners, and as an antidote against poison and the bite of the rattle snake.

1165. *Sanguinaria*. From *sanguis*, blood. All parts of the plant or being wounded discharge a blood-colored fluid. This is a singular and very delicate looking plant. It has a tuberous fleshy root with red fibres and a reddish juice: from each bud of the root there springs only a single fig-like glaucous leaf, with a one-flowered scape; the flower has no smell, and is very fugacious. It abounds in the woods of Canada, and in the back settlements, where the Indians stain themselves with its red juice.

1166. *Podophyllum*. From *πους*, ποδος, a foot, and *φυλλον*, a leaf; in allusion to the long firm stalk on which the leaves are placed. Low neat herbaceous plants, with white flowers hidden by the overshadowing broad leaves.

1167. *Chelidonium*. From *χελιδων*, the swallow, because it was thought to flower with the arrival of that bird, and to perish with its departure. The English word celandine appears to be a corruption of chelidonium. The juice of *C. majus* is of an orange color and very acrimonious. It cures tetters and ringworms. Diluted with milk it consumes white opaque spots on the eyes. It destroys warts, and cures the itch. There is no doubt but a medicine of such activity will one day be converted to more important purposes. (*Withering*.) The root, according to Loureiro, is extremely bitter, and greatly esteemed among the natives of Cochin-China, for a variety of uses in medicine.

1168. *Römeria*. Named after J. J. Römer, professor of botany at Landshut, and the collaborator of Schultze in an edition of the Species Plantarum of Willdenow. He died in 1820. A genus intermediate between *Chelidonium*, *Glaucium*, and *Papaver*.

1169. *Glaucium*. All the parts of the species appear covered with a glaucous bloom. Handsome sea-coast plants. *G. luteum* has large and numerous flowers, which, although of short duration, succeed one another in great abundance during most part of the summer, make a fine contrast with the sea-green dew-bespangled leaves, and are a great ornament to our sandy shores. The whole plant abounds in a yellow juice, is fetid, and of a poisonous quality, and said to occasion madness.

1170. *Papaver*. Said by De Theis to have been so called from the Celtic *papa*, which signifies *pop*, or the soft food given to children, in which the seeds were formerly boiled to make the infants sleep. Opium is derived from *σως*, juice; it is supposed to have been the *Nepenthes* of Homer. *Rhœas*, the name of one of the species, is from *ρῖον*, to flow or fall, in allusion to the quickly perishable nature of the flowers. The poppy produces a great quantity of seeds, for which reason Cybele, the mother of the gods, is represented crowned with poppy-heads as a symbol of fecundity.

The species of this genus are all showy, with large, brilliant, but fugacious flowers. They are all easy of culture in almost any soil; and one species affords that singular medicine opium. *P. rhœas* is one of the commonest weeds among corn on gravelly soils; but in its double and semidouble variegated varieties, it is also one of the handsomest of garden annuals. The capsules, as in *P. somniferum*, contain a milky juice of a narcotic quality: an extract from them has been successfully employed as a sedative; and some foreign practitioners are said to prefer this extract to opium.

*P. somniferum*, although it is found growing wild in the southern parts of Europe, and even in England, yet there is every reason for thinking that its seed must have been carried to these parts from Asia. It was very early cultivated in Greece, perhaps at first solely for the sake of its seed, which was used as food. It is extensively cultivated in most of the states of Europe in the present age, not only on account of the opium,

7649 Berries roundish, Petals length of stamens, Raceme ovate, Leaves 2-3 ternate  
 7650 Berries ovate-oblong, Petals shorter than stamens, Raceme ovate, Leaves bi-triternate

7651 The only species

7652 Stem erect 2-leaved 1-flowered, Fruit ovate

7653 Peduncles umbelled, Leaves pinnated with roundish toothed lobed segments, Petals elliptical entire

7654 Peduncles umbelled, Leaves pinnated with finely cut segments, Petals serrated or cut

7655 Pods 3-4-valved erect with rigid bristles at end

7656 Stem smooth, Cauline leaves repand, Pod warted roughish

7657 Stem smooth, Cauline leaves roundish sinuated, Pods rough, Flowers subsessile

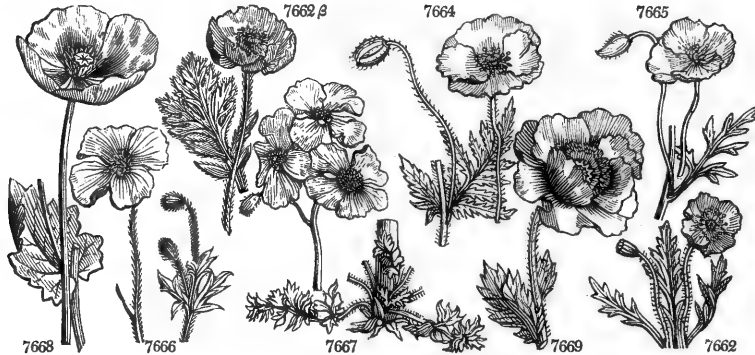
7658 Stem hairy, Cauline leaves pinnatifid cut, Pod bristly

7659 Caps. subglobose torose hispid, Stem leafy many-flowered

7660 Caps. olate hispid, Stem leafy many-flowered

7661 Caps. hispid, Scape 1-fl. naked hispid, Leaves bipinnate

7662 Caps. hispid, Scape 1-fl. naked hispid, Leaves simple pinnate sinuated



and Miscellaneous Particulars.

for which it is reared in Turkey, Persia, and India, but also on account of the capsules, and of the bland oil obtained from the seeds. All the parts of the poppy contain a white, opaque, narcotic juice; but it abounds more in the capsules: hence these are the only officinal parts of the plant, and for them chiefly is the plant cultivated in this country. They are gathered as they ripen; and as this happens at different times, there are annually three or four gatherings. They are brought to market in bags, each containing about 3000 capsules, and sold to the druggists. The London market is chiefly supplied from Mitcham in Surrey.

The milky juice of the poppy, in its more perfect state, which is the case in warm climates only, is extracted by incisions made in the capsules, and inspissated; and in this state forms the opium of commerce. The mode of obtaining it appears to have been nearly the same in the time of Dioscorides as is at this day adopted. The plants, during their growth, are carefully watered and manured, the watering being more profuse as the period of flowering approaches, and until the capsules are half grown, when it is discontinued, and the collection of the opium commences. At sunset, longitudinal incisions are made upon each half-ripe capsule, passing from below upwards, and not penetrating to the internal cavity. The night dews favor the exudation of the juice, which is collected in the morning by women and children, who scrape it from off the wounds with a small iron scoop, and deposit the whole in an earthen pot, where it is worked by wooden spatules in the sunshine, until it attains a considerable degree of thickness. It is then formed by the hand into cakes, which are laid in earthen basins to be further exsiccated, when it is covered over with poppy or tobacco leaves. Such is the mode followed in India, and according to Kampfer's account, nearly the same is practised in Persia; and when the juice is drawn in a similar manner in this country and inspissated, it has all the characters of pure opium.

Opium is brought to this country in chests from Turkey and India. The Turkey opium is in flat pieces, covered with leaves. East Indian opium is in round masses, covered with the petals of the poppy in successive layers, to the thickness nearly of one-fourth of an inch. Mr. Kerr relates, that at Bahar, it is frequently adulterated with cow-dung, the extract of the poppy procured by boiling, and various other substances. In Malava it is mixed with oil of sesamum, which is often one half of the mass; ashes and the dried leaves of the plant are also used. It is also adulterated with the aqueous extract of the capsules, the extracts of *Chelidonium glaucum*, *Lactuca virosa*, and *Glycyrrhiza glabra*, and sometimes with gum arabic, tragacanth, aloes, and many other articles.

Poppy heads or capsules possess anodyne properties; they are chiefly employed, boiled in water, as fomentations to inflamed and ulcerated surfaces; and a syrup, prepared with the inspissated decoction, is used as an anodyne for children, and to allay the tickling cough in chronic catarrh and phthisis.

Opium operates as a powerful and very diffusible stimulus, but its primary operation is followed by narcotic and sedative effects in a degree much greater than could be expected from the previous excitement it induces. It acts directly on the nervous system, and when taken into the stomach destroys irritability, and allays pain in the most distant parts of the body, independent of the circulation, and without inducing any change on the composition of the blood. As the principle, therefore, on which opium acts is the same over all the body, the topical application of it is capable of producing similar effects, only in a diminished degree, to those resulting from it when it is taken into the stomach.

In moderate doses, opium increases the fulness, the force, and the frequency of the pulse, augments the heat of the body, quickens respiration, and invigorates both the corporeal and mental functions, exhilarating even to intoxication; but by degrees these effects are succeeded by languor, lassitude, and sleep; and in many instances headach, sickness, thirst, tremors, and other symptoms of debility such as follow the excessive use

|        |                              |                     |      |    |       |    |                              |                   |   |     |                  |
|--------|------------------------------|---------------------|------|----|-------|----|------------------------------|-------------------|---|-----|------------------|
| 7663   | <i>armeniacum Lam.</i>       | Armenian            | ○ or | 1½ | jn.s  | Y  | Armenia                      | 1815.             | S | s.p |                  |
| 7664   | <i>Rheas W.</i>              | common-corn         | ○ or | 2  | jn.jl | Sc | Britain                      | corn fl.          | S | co  | Eng. bot. 645    |
| 7665   | <i>dabium W.</i>             | smooth              | ○ or | 2  | jn.jl | Sc | Britain                      | san. fl.          | S | co  | Eng. bot. 644    |
| 7666   | <i>caucasicum M. B.</i>      | Caucasian           | ○ or | 1½ | jn.jl | Y  | Caucasus                     | 1813.             | S | co  | Bot. mag. 1375   |
| 7667   | <i>floribundum Desf.</i>     | many-flowered       | △ or | 1½ | jn.jl | Sc | Levant                       | 1815.             | S | co  | Bot. reg. 134    |
| 7668   | <i>somniferum W.</i>         | garden              | ○ m  | 4  | jl.au | W  | England                      | corn fl.          | R | co  | Eng. bot. 2145   |
| 7669   | <i>orientale W.</i>          | oriental            | △ or | 3  | my.jn | R  | Levant                       | 1714.             | R | co  | Bot. mag. 57     |
| 7670   | <i>bracteatum Lindl.</i>     | bracted             | △ or | 3  | my.jn | R  | Siberia                      | 1818.             | R | co  | Lindl. coll. 23  |
| 1171.  | MECONOP'SIS. <i>Vig.</i>     | MECONOPSIS.         |      |    |       |    | <i>Papaveraceæ.</i>          | <i>Sp. 1—4.</i>   |   |     |                  |
| 7671   | <i>cámbrica Vig.</i>         | Welsh               | △ or | 1  | my.au | Y  | England                      | a.roc.            | R | s.p | Eng. bot. 66     |
| †1172. | ARGEMONE. <i>W.</i>          | ARGEMONE.           |      |    |       |    | <i>Papaveraceæ.</i>          | <i>Sp. 1.</i>     |   |     |                  |
| 7672   | <i>mexicana W.</i>           | Mexican             | ○ or | 2  | jl.au | Y  | Mexico                       | 1592.             | S | s.p | Bot. mag. 243    |
|        | <i>β albiflora Sims.</i>     | white-flowered      | ○ or | 2  | jl.au | W  | Mexico                       | 1821.             | S | s.p | Bot. mag. 2342   |
| 1173.  | SARRACENIA. <i>W.</i>        | SIDE-SADDLE-FLOWER. |      |    |       |    | <i>Papaveraceis affinis.</i> | <i>Sp. 4—6.</i>   |   |     |                  |
| 7673   | <i>áava W.</i>               | yellow              | △ cu | 2  | jn.jl | Y  | N. Amer.                     | 1752.             | R | m.s | Bot. mag. 780    |
| 7674   | <i>variolaris Ph.</i>        | hook-leaved         | △ cu | 1  | jn.jl | Y  | N. Amer.                     | 1803.             | R | m.s | Bot. mag. 1710   |
|        | <i>adunca Ex. bot. t. 53</i> |                     |      |    |       |    |                              |                   |   |     |                  |
| 7675   | <i>rúbra W.</i>              | red                 | △ cu | 1  | jn.jl | Pu | N. Amer.                     | 1786.             | R | m.s | Hook. ex. fl. 13 |
|        | <i>psittacina Ph.</i>        |                     |      |    |       |    |                              |                   |   |     |                  |
| 7676   | <i>purpúrea W.</i>           | purple              | △ cu | 1  | jn.jl | Pu | N. Amer.                     | 1640.             | R | m.s | Bot. mag. 849    |
| 1174.  | NYMPHÆA. <i>A. W.</i>        | WATER-LILY.         |      |    |       |    | <i>Nymphaeaceæ.</i>          | <i>Sp. 10—20.</i> |   |     |                  |
| 7677   | <i>álba W.</i>               | white               | △ or | 1  | jn.jl | W  | Britain                      | riv. &c.          | R | m.s | Eng. bot. 160    |
| 7678   | <i>odoráta W.</i>            | sweet-scented       | △ or | 1  | jl    | W  | N. Amer.                     | 1786.             | R | m.s | Bot. mag. 819    |
|        | <i>β minor</i>               | small. sweet-sc.    | △ or | 1  | jl    | W  | N. Amer.                     | 1812.             | R | m.s | Bot. mag. 1628   |
| 7679   | <i>nitida B. M.</i>          | cup-flowered        | △ or | 1  | jl.au | W  | Siberia                      | 1809.             | R | m.s | Bot. mag. 1359   |
| 7680   | <i>pygmaea H. K.</i>         | pigmy               | △ or | 1  | my.s  | W  | China                        | 1805.             | R | m.s | Bot. mag. 1525   |
| 7681   | <i>Lótus W.</i>              | Egyptian Lotus      | △ or | 1  | jn.s  | Pk | Egypt                        | 1802.             | R | m.s | Bot. mag. 797    |
| 7682   | <i>pubescens W.</i>          | Indian Lotus        | △ or | 1  | my.au | Pk | E. Indies                    | 1803.             | R | m.s | Bot. rep. 391    |
| 7683   | <i>rúbra B. M.</i>           | red-flowered        | △ or | 1  | jl.au | R  | E. Indies                    | 1803.             | R | m.s | Bot. mag. 1280   |
|        | <i>β rósea B. M.</i>         | rose-colored        | △ or | 1  | jl.au | Pk | E. Indies                    | 1803.             | R | m.s | Bot. mag. 1364   |



History, Use, Propagation, Culture,

of ardent spirits, supervene. In very large doses the primary excitement is scarcely apparent, but the pulse seems to be at once diminished, drowsiness and stupor immediately come on, and are followed by delirium, sighing, deep and stertorous breathing, cold sweats, convulsions, apoplexy, and death. The appearances on dissection are those which indicate the previous existence of violent inflammation of the stomach and bowels; but notwithstanding the symptoms of apoplexy which an overdose, when it proves fatal, occasions, no particular appearance of an inflammatory state or fulness of the vessels of the brain are perceived.

The Turks call opium *afioni*; and in the *teriakhana*, or opium shops of Constantinople, they take it in graduated doses from ten grains to one hundred grains in a day. It is mixed with rich syrup and the inspissated juices of fruit, to render it more palatable and less intoxicating; and is taken with a spoon, or made up into small lozenges stamped with the words, Mash Allah, literally, "The work of God." The Tartar couriers, who travel great distances, and with astonishing rapidity, take nothing else to support them during their journeys. (*Dallaway's Constantinople*, quarto, 78.) There is, however, some reason for supposing that the Mash Allah, or Maslach of the Turks, contains other narcotics, as those of hemp and of lolium, as well as opium.

The use of opium for the purpose of exhilarating the spirits has long been known in Turkey, Syria, and China; and of late years it has been unfortunately adopted by many, particularly females, in this country. Russell says, that in Syria, when combined with spices and aromatics, he has known it taken to the amount of three drachms in twenty-four hours. Its habitual use cannot be too much reprobated. It impairs the digestive organs, consequently the vigour of the whole body, and destroys also gradually the mental energies. The effects of opium on those addicted to its use, says Russell, are at first obstinate costiveness, succeeded by diarrhoea and flatulence, with the loss of appetite and a sottish appearance. The memories of those who take it soon fail, they become prematurely old, and then sink into the grave, objects of scorn and pity. Mustapha Shatour, an opium eater in Smyrna, took daily three drachms of crude opium. The visible effects at the time, were the sparkling of his eyes, and great exhilaration of spirits. He found the desire of increasing his dose growing upon him. He seemed twenty years older than he really was; his complexion was very sallow, his legs small, his gums eaten away, and the teeth laid bare to the sockets. He could not rise without first swallowing half a drachm of opium. (*Phil. Trans.* xix. 289.)

When opium has been taken in an overdose, the first thing to be done for counteracting its bad effect, is the exhibition of a powerful emetic; and for this purpose sulphate of zinc, or sulphate of copper dissolved in water, should be immediately swallowed, and the vomiting kept up for a considerable time, and urged by irritation of the fauces. Large draughts of vinegar and water, or other acidulated fluids, should afterwards be frequently taken; and the powers of the habit supported by brandy, coffee, and cordials. The sufferer should be kept awake, and, if possible, in continued gentle motion. Currie recommends the affusion of warm water at 106 degrees or 108 degrees for removing the drowsiness. (*London Dispensary*, 426.)

Medical men have of late sought to discover the sedative principle of opium, and have found it in the extractive, from which a crystallized salt called morphia is obtained. Some foreign physicians, and Mr.

7663 Caps. ellipt. obl. and calyxes smooth, Stem much branch. smoothish, Lvs. pinnated, Lobes lin. terminated  
 7664 Caps. smooth globose, Stem hairy many-fl. Leaves pinnatifid cut [by a bristle  
 7665 Caps. oblong smooth, Stem many-fl. with appressed bristles, Leaves pinnatifid cut  
 7666 Caps. ov.-obl. smooth, Stem much branched and pedunc. covered with decid. setae, Lvs. glauc. pinnatifid  
 7667 Caps. smooth obl. Sepals hairy, Stem many-fl. hispid, Leaves pilose: the lower pinnate  
 7668 Calyxes and caps. smooth, Leaves stem-clasping cut  
 7669 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate  
 7670 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate, Flowers subtended by leafy bractes

7671 Caps. smooth obl. Stem many-fl. smooth, Leaves pinnate cut

7672 Caps. 6-valved, Leaves spiny

7673 Leaves erect tubular, Valve with a contracted neck, at the end flat erect  
 7674 Leaves long, their tube dotted at back, Appendage short vaulted incurved

7675 Lvs. short colored upwards with netted veins, Tube of leaf ending in a recurv. vaulted mucron. appendix

7676 Leaves cucullate ventricose spreading arcuate

7677 Leaves cordate entire, Lobes imbricated round, Calyx 4-leaved  
 7678 Leaves cordate entire emarginate, Lobes divaricating, Point obtuse, Calyx 4-leaved

7679 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 12-20  
 7680 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 8  
 7681 Leaves cordate toothed very smooth, Lobes approximating, Calyx 4-leaved  
 7682 Leaves reniform toothed downy beneath, Lobes round, Calyx 4-leaved  
 7683 Leaves peltate finely toothed, beneath downy without spots



and Miscellaneous Particulars.

Thomson, the author of *The London Dispensatory*, have found that a quarter of a grain of the acetate of morphia produces the most beneficial effects that can be expected from an anodyne, allaying pain, and procuring sleep without in any degree affecting the central functions. (*London Dispensatory*, 420.)

A variety of *P. somniferum*, known as the black poppy, from the color of its seeds, is cultivated for these to some extent; they are called maw seed, and generally stained of a light blue color.

*P. Rheas* (*cellette*, Fr.) and also *somniferum* are cultivated in Flanders and Germany for their seeds, which are bruised for an oil used in cookery as a substitute for that of olives. In Poland and some parts of Russia, the seeds are used as a seasoning to soups, gruels, and porridge.

Professor Martyn, in his edition of *Miller's Dictionary*, has collected a body of facts, which clearly prove that opium may be produced to any extent in Britain, and of equal quality to that procured from abroad; the value of labor in this country, however, does not admit of such a thing. We have seen samples of opium made in the south of England quite equal to that of foreign growth, but we understood that the labor of collecting it was greater than could be afforded for its market price.

*P. cambricum* is admired for its yellow petals, and *orientale* and *bracteatum* are very splendid plants.  
 1171. *Meconopsis*. From *μικρον*, a poppy, and *opsis*, resemblance. A genus of herbaceous shade-loving plants, just intermediate between *Papaver* and *Argemone*. The flowers are yellow.

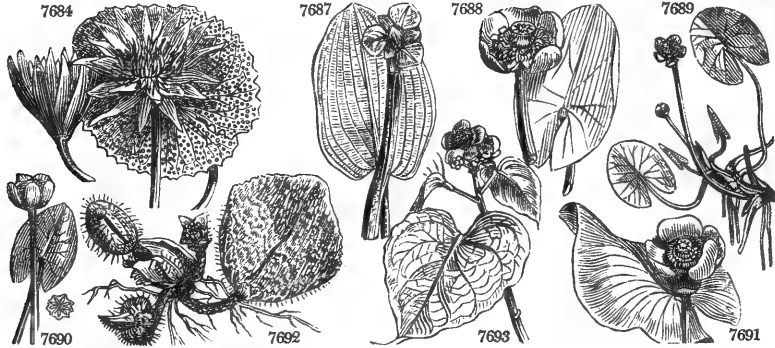
1172. *Argemone*. From *argema*, the name by which the cataract of the eye was known, and which was thought to be cured by this plant. *A. mexicana* is a troublesome weed in the West Indies, with a fig-like fruit, armed with prickles, and thence, by the Spaniards, called *Figo del inferno*. The whole plant abounds with a milky glutinous juice, which turns in the air to a fine bright yellow, and when reduced to consistence is not distinguishable from gamboge. In very small doses it is probably of equal efficacy, given in dropsies, jaundice, and cutaneous eruptions. It is esteemed very detestive, and generally used in diseases of the eyes: but the infusion is looked upon as a sudorific and resolutive, which may be used with success on many occasions. The seeds are said to be a much stronger narcotic than opium.

1173. *Sarracenia*. So named by Tournefort in honor of Dr. Sarrasin, a French physician of rank residing in Quebec, who sent this genus to him from Canada: it is called side-saddle flower from the resemblance of the stigma to a woman's pillion. These plants are remarkable for the singular form of the leaves, which are tubular and hold water, and some species have lids or covers, which it is alleged shrink and close over the mouth of the tube in dry weather, so as to prevent the exhalation of the water. In great drought birds and other animals resort to them. They grow in bogs in Carolina and Virginia, and in British gardens thrive very well in pots with turfy peat at the bottom, and the upper part filled with sphagnum, or water-moss, in which the plants must be set, and then placed in pans of water; they succeed best in frames in a shady situation. (*Bot. Cult.* 417.)

1174. *Nymphaea*. The *Nymph*, or Naiad of the streams. The species are beautiful aquatics, especially *N. alba*, which has a large flower filled with petals, so as almost to appear double: it raises itself out of the water and expands about seven o'clock in the morning, and closes again, reposing upon the surface, about



|        |                  |              |                  |   |    |    |                                |      |                  |         |       |      |                     |           |      |
|--------|------------------|--------------|------------------|---|----|----|--------------------------------|------|------------------|---------|-------|------|---------------------|-----------|------|
| 7684   | vericolor        | H. K.        | changeable       | ☐ | △  | or | au                             | Pk   | E. Indies        | 1807.   | R     | m.s. | Bot. mag.           | 1189      |      |
| 7685   | caerulea         | H. K.        | blue             | ☐ | △  | or | jn.s                           | B    | C. G. H.         | 1792.   | R     | m.s. | Bot. mag.           | 552       |      |
| 7686   | stellata         | W.           | star-flowered    | ☐ | △  | or | jn.s                           | B    | E. Indies        | 1803.   | R     | m.s. | Bot. rep.           | 330       |      |
| †1175. | LIMNOCHA'RIS.    | Rich.        | LIMNOCHARIS.     |   |    |    | <i>Hydrocharideæ.</i> Sp. 1—2. |      |                  |         |       |      |                     |           |      |
| 7687   | Plumieri         | Rich.        | Plumier's        | ☐ | △  | or | 1½                             | jn.n | Y                | Brazil  | 1822. | S    | m.s.                | Bot. mag. | 2525 |
| †1176. | NU'PHAR. H. K.   | NUPHAR.      |                  |   |    |    | <i>Nymphaeaceæ.</i> Sp. 4—6.   |      |                  |         |       |      |                     |           |      |
| 7688   | lutea            | H. K.        | common-yellow    | ☐ | △  | or | jn.jl                          | Y    | Brit. pools, &c. |         | R     | m.s. | Eng. bot.           | 159       |      |
| 7689   | Kalmiana         | H. K.        | Canadian         | ☐ | △  | or | jl.au                          | Y    | Canada           | 1807.   | R     | m.s. | Bot. mag.           | 1243      |      |
| 7690   | nitida           | E. B.        | or least yellow  | ☐ | △  | or | jl.au                          | Y    | Scotland         | al.lak. | R     | m.s. | Eng. bot.           | 2292      |      |
| 7691   | advena           | H. K.        | three-colored    | ☐ | △  | or | jl.au                          | Y    | N. Amer.         | 1772.   | R     | m.s. | Bot. mag.           | 684       |      |
| 1177.  | EURY'ALE. H. K.  | EURYALE.     |                  |   |    |    | <i>Nymphaeaceæ.</i> Sp. 1.     |      |                  |         |       |      |                     |           |      |
| 7692   | ferox            | H. K.        | prickly          | ☐ | △  | or | jl.s                           | R    | India            | 1809.   | R     | m.s. | Bot. mag.           | 1447      |      |
| 1178.  | BI'XA. W.        | ARNOTTA.     |                  |   |    |    | <i>Bixineæ.</i> Sp. 1—2.       |      |                  |         |       |      |                     |           |      |
| 7693   | Orellana         | W.           | heart-leaved     | ☐ | m  | 20 | my.au                          | Pk   | W. Indies        | 1690.   | S     | s.p. | Bot. mag.           | 1456      |      |
| †1179. | PROCKIA. L.      | PROCKIA.     |                  |   |    |    | <i>Bixineæ.</i> Sp. 1—7.       |      |                  |         |       |      |                     |           |      |
| 7694   | Crucis           | L.           | ovate            | ☐ | cu | 3  | jl.au                          | Y    | W. Indies        | 1822.   | C     | s.p. | Vah.symb.3.t.64     |           |      |
| 1180.  | SLO'ANEAE. W.    | SLOANEAE.    |                  |   |    |    | <i>Tiliaceæ.</i> Sp. 1—8.      |      |                  |         |       |      |                     |           |      |
| 7695   | dentata          | W.           | Chestnut-leav'd  | ☐ | tm | 40 | ...                            | W    | S. Amer.         | 1752.   | S     | p.l. | Plum. ic.           | 244       |      |
| 1181.  | APEIBA. W.       | APEIBA.      |                  |   |    |    | <i>Tiliaceæ.</i> Sp. 4—7.      |      |                  |         |       |      |                     |           |      |
| 7696   | Tiburbona        | W.           | hairy            | ☐ | or | 7  | ...                            | Y    | S. Amer.         | 1756.   | C     | p.l. | Aub. gui. 1. t. 213 |           |      |
| 7697   | Petotimo         | W.           | hoary            | ☐ | tm | 40 | ...                            | Y    | S. Amer.         | 1817.   | C     | p.l. | Aub. gui. 1. t. 215 |           |      |
| 7698   | aspera           | W.           | prickly-capsul'd | ☐ | tm | 30 | ...                            | Y    | Cayenne          | 1792.   | C     | p.l. | Aub. gui. 1. t. 216 |           |      |
| 7699   | lg'vis           | W.           | smooth-leaved    | ☐ | or | 10 | ...                            | G    | Cayenne          | 1817.   | C     | p.l. | Aub. gui. 1. t. 214 |           |      |
| 1182.  | SPARRMAN'NIA. W. | SPARRMANNIA. |                  |   |    |    | <i>Tiliaceæ.</i> Sp. 1.        |      |                  |         |       |      |                     |           |      |
| 7700   | africana         | W.           | African          | ☐ | or | 10 | mr.jl                          | W    | C. G. H.         | 1790.   | C     | p.l. | Bot. mag.           | 516       |      |
| 1183.  | ENTELE'A. R. Br. | ENTELEA.     |                  |   |    |    | <i>Tiliaceæ.</i> Sp. 1.        |      |                  |         |       |      |                     |           |      |
| 7701   | arboræscens      | R. Br.       | arborescent      | ☐ | or | 20 | my                             | W    | N. Zeal.         | 1820.   | C     | p.l. | Bot. mag.           | 2480      |      |
| 1184.  | MUNTIN'GIA. W.   | MUNTINGIA.   |                  |   |    |    | <i>Tiliaceæ.</i> Sp. 1.        |      |                  |         |       |      |                     |           |      |
| 7702   | Calabura         | W.           | Jamaica          | ☐ | cu | 3  | jn.jl                          | W    | Jamaica          | 1690.   | C     | p.l. | Jac. amer. t. 10'   |           |      |



History, Use, Propagation, Culture,

four in the afternoon. The roots have an astringent bitter taste; they are used in Ireland, in the Highlands of Scotland, in the island of Jura, &c. to dye a dark brown or chestnut color. Swine are said to eat it, goats not to be fond of it, kine and horses to refuse it. The flowers, the herb, and the root were formerly used in medicine, but are all now obsolete.

*N. lotus* resembles our common white species very much in the form of the flower and leaves, but the latter are toothed about the edge. It is native of the hot parts of the East Indies, Africa, and America. It is very common in ponds, lakes, and rivers in Jamaica; and grows in vast quantities in the plains of Lower Egypt near Cairo, during the time they are under water. It flowers there about the middle of September, and ripens towards the end of October. The Arabians call it *Nuphar*. The ancient Egyptians made a bread of the seed of the *Lotus* dried and ground.

All the species grow well in large pots of water with a few inches of rich soil at the bottom: they are propagated by dividing the root, and some sorts which produce bulbs are increased by offsets from these. Mr. Kent, of Clapton, who cultivated exotic aquatics to great perfection, found that the bulbous rooted *Nymphaeas*, if checked in their growth for want of water, from cold, or excessive heat, were apt to form bulbs at the roots and cease growing for the season. Hence the necessity of a regular and powerful moist heat to make them flower freely.

1175. *Limnocharis*. From *λίμνη*, a marsh, and *χαρίς*, dear, so called because the species are marsh plants. They have beautiful umbels of yellow flowers, and are very easily cultivated in a stove. They are increased by seeds.

1176. *Nuphar*. The Arabic name is *naufar*, according to Forskahl. The species are shewy plants closely resembling *Nymphaea*. *N. lutea* is a native of most parts of Europe, and also of America. Linnaeus states, that swine are fond both of the leaves and root; that goats are not fond of it; and that kine, sheep, and horses refuse it: also that crickets are driven out of houses by the smoke in burning it, and that both they and cock-roaches are destroyed by the roots rubbed or bruised with milk. Ray observes, that the flowers smell like brandy.

1177. *Euryale*. From *εὐρύαλος*, broad, in allusion to the enormous broad floating leaves of the plant. A noble aquatic, easily cultivated in a good stove.

1178. *Bixa*. The American name of the tree. The drug called Terra Orellana, or Orleans, Roucou or Arnotto, is prepared from the red pulp which covers the seeds of this plant. By maceration in hot water, the seeds are separated from the pulp, the latter is then made into balls or cakes, which when dry are fit for use. Arnotto of a good quality is of the color of fire, bright within, soft to the touch, and dissolves entirely in water. It is reputed to be cooling and cordial, and is much used by the Spaniards in their chocolate and soups, both to heighten the flavor and to give them an agreeable color. It is esteemed good in bloody fluxes

7684 Leaves peltate at the edge and within the fissure sinuate toothed blistered smooth on each side [end  
 7685 Leaves peltate nearly entire not dotted smooth on each side 2-lobed at base, Anthers with appendages at  
 7686 Leaves cordate entire, Lobes divaricating acute, Calyx acute 4-leaved longer than the acute petals

7687 Leaves oblong very blunt at each end, Flowers in umbels

7688 Leaves cordate entire, Lobes approximating, Cal. 5-leaved longer than petals

7689 Sepals 5, Stigma cut with 8-10 rays, Leaves cordate a little out of the water, Petioles roundish

7690 Sepals 5, Stigma lobed with 10 rays, Lvs. obl. cord. dott. sub-pubesc. Petioles at base  $\frac{1}{2}$  round, at end nearly

7691 Leaves cordate entire half erect, Lobes divaricating, Cal. 6-leaved longer than petals [3-cornered

7602 Petioles and calyxes covered over with stiff prickles, Leaves sometimes 3 feet across

7693 Leaves smooth on each side

7694 Leaves cordate ovate toothed, Peduncles terminal racemose

7695 Leaves ovate, Stipules cordate triangular serrated

7696 Leaves cordate lanceol. serrate hirsute beneath, Capsules bristly

7697 Leaves obl. subcordate serrulate hoary beneath, Caps. bristly

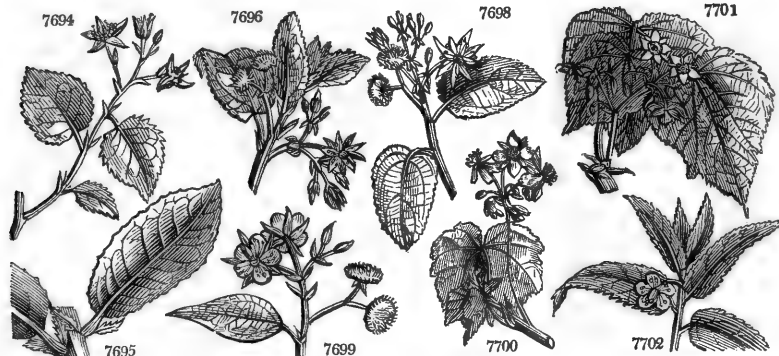
7698 Leaves obl. subcordate entire pubescent beneath, Caps. muricated

7699 Leaves obl. obovate acuminate entire smooth, Petals obtuse, Caps. scabrous

7700 The only species

7701 The only species

7702 Leaves serrated oblong oblique



and Miscellaneous Particulars.

and disorders of the kidneys. Mixed with lemon-juice and a gum, it makes the crimson paint with which the Indians adorn their persons. It was formerly used by dyers to form the color called aurora; but at present it is not held in much estimation as a dye, though it still maintains its ground with painters. Arnotto is well known to be the drug which is used for dying cheese in Gloucestershire, under the name of cheese-coloring. It is used in Holland for coloring their butter. The bark makes good ropes for the common plantation uses in the West Indies; and pieces of the wood are used by the Indians to procure fire by friction.

1179. *Prockia*. A name of unknown meaning. American or Isle of France plants with alternate entire or toothed leaves, and yellow flowers, which are occasionally unisexual.

1180. *Sloanea*. Named by Plumier, in memory of the famous Sir Hans Sloane, Bart., physician to the king, and president to the Royal Society; author of the Natural History of Jamaica, and founder of Chelsea garden and hospital. The leaves are like those of the chesnut; the flowers very large, and the fruit as big as a tennis ball, armed all over with strong spines, and divided regularly into four cells, each containing one small chesnut. It grows freely in our stoves, and ripened cuttings root in sand under a hand-glass.

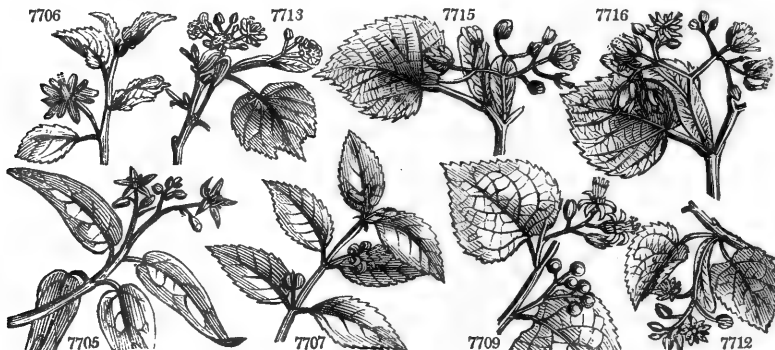
1181. *Apeiba*. The vernacular name of the plant in Guiana. Tibourbou and Petoumo are vernacular names among the Caribs. The species grow freely in light loamy soil. Cuttings must be well ripened, and the glass they are put under should have a little air given it occasionally, or they will damp off. The best way of flowering it, is to cut a ring round the bark of a large branch, which stagnates it and throws it into flower. (*Bot. Cult.* 20.)

1182. *Sparmannia*. In memory of Anders or Andrew Sparman, a Swede, fellow of the Academy of Sciences at Stockholm, who travelled into China, the Cape of Good Hope, and the islands of the South Sea. His travels were published in London, 1785, quarto, and there are many descriptions by him in the Philosophical and other transactions. It is a beautiful shrub with snowy white petals, and singular nectaries. It grows freely in loam and peat, and cuttings root in sand under a hand-glass.

1183. *Eutelea*. From *εὐτάλης*, perfect. So named by Mr. Brown, because all its filaments are fertile; by which character, among others, it is distinguished from *Sparmannia*. A fine New Zealand plant, discovered originally by the botanists with Sir Joseph Banks in Cook's second voyage.

1184. *Muntingia*. Named by Plumier, after Abraham Munting, professor of botany at Groeningen, died in 1682. *Catobura* is an American name. The flowers resemble those of the bramble, and the fruit cherries. It grows in Jamaica on calcareous subalpine hills, flowering in spring; and in St. Domingo in the wet parts of woods, flowering in August and September. In our stoves it grows freely in light loam, and cuttings root in sand under a hand-glass.

|                                |                 |   |    |    |                   |           |                            |           |   |      |  |                            |  |
|--------------------------------|-----------------|---|----|----|-------------------|-----------|----------------------------|-----------|---|------|--|----------------------------|--|
| 1185. GREWIA. <i>W.</i>        | GREWIA.         |   |    |    | <i>Tiliaceae.</i> | Sp. 8—65. |                            |           |   |      |  |                            |  |
| 7703 <i>hirsúta W.</i>         | soft-leaved     | ♂ | or | 10 | ...               | Pu        | E. Indies                  | 1816.     | C | p.1  |  |                            |  |
| 7704 <i>Mallacóca W.</i>       | rough-fruited   | ♂ | or | 10 | aus.              | Papu      | E. Indies                  | 1792.     | C | c.p. |  | Forster. 39                |  |
| 7705 <i>Microcos H. K.</i>     | panicled        | ♂ | or | 7  | ...               | G         | E. Indies                  | 1779.     | C | c.p. |  | Rhee. mal. 1. t. 58        |  |
| 7706 <i>occidentális W.</i>    | elm-leaved      | ♂ | or | 10 | jl.s.             | Pu        | C. G. H.                   | 1690.     | C | p.1  |  | Bot. mag. 432              |  |
| 7707 <i>orientális W.</i>      | oriental        | ♂ | or | 10 | jl.au.            | Pu        | E. Indies                  | 1767.     | C | p.1  |  | Rhee. mal. 5. t. 46        |  |
| 7708 <i>pilósa P. S.</i>       | pilose          | ♂ | or | 10 | ...               | ...       | E. Indies                  | 1804.     | C | p.1  |  |                            |  |
| 7709 <i>asiática W.</i>        | Asiatic         | ♂ | or | 12 | jl.au.            | Pu        | E. Indies                  | 1792.     | C | p.1  |  | Sonn. it. 2. t. 138        |  |
| 7710 <i>tíliafolia W.</i>      | Lime-tree-leav. | ♂ | or | 12 | ...               | ...       | E. Indies                  | 1812.     | C | p.1  |  |                            |  |
| 1186. TYLIA. <i>W.</i>         | LIME-TREE.      |   |    |    |                   |           | <i>Tiliaceae.</i>          | Sp. 8—10. |   |      |  |                            |  |
| 7711 <i>rúbra Dec.</i>         | common          | ♀ | tm | 50 | jn.au.            | Y.g       | Britain                    | woods.    | L | co   |  |                            |  |
| 7712 <i>intermedia Hayne.</i>  | intermediate    | ♀ | tm | 50 | jn.au.            | Y.g       | Britain                    | woods.    | L | co   |  | Fl. dan. 553               |  |
| 7713 <i>parvifolia Ehr.</i>    | small-leaved    | ♀ | tm | 50 | aus.              | Y.g       | Britain                    | woods.    | L | co   |  | Eng. bot. 1705             |  |
| 7714 <i>platyphila Scop.</i>   | broad-leaved    | ♀ | tm | 50 | aus.              | Y.g       | Britain                    | woods.    | L | co   |  | Vent. diss. t. 1. f. 2     |  |
| 7715 <i>americana W.</i>       | broad-leaved    | ♀ | tm | 30 | jn.jl.            | Y.g       | N. Amer.                   | 1752.     | L | co   |  | Dend. brit. 134            |  |
| <i>T. glabra Vent.</i>         |                 |   |    |    |                   |           |                            |           |   |      |  |                            |  |
| 7716 <i>pubescens W.</i>       | pubescent       | ♀ | tm | 20 | jl.au.            | Y.g       | N. Amer.                   | 1726.     | L | co   |  | Dend. brit. 135            |  |
| <i>8 leptophylla Vent.</i>     | thin-leaved     | ♀ | tm | 30 | jl.au.            | Y.g       | N. Amer.                   | ...       | L | co   |  |                            |  |
| 7717 <i>alba W. &amp; K.</i>   | white           | ♀ | tm | 30 | jn.au.            | Y.g       | Hungary                    | 1767.     | L | co   |  | Dend. brit. 71             |  |
| <i>T. argentea Dec.</i>        |                 |   |    |    |                   |           |                            |           |   |      |  |                            |  |
| 7718 <i>heterophylla Vent.</i> | various-leaved  | ♀ | tm | 30 | jn.au.            | Y.g       | N. Amer.                   | 1811.     | L | co   |  | Vent. diss. t. 5           |  |
| *1187. CORCHORUS. <i>W.</i>    | CORCHORUS.      |   |    |    |                   |           | <i>Tiliaceae.</i>          | Sp. 7—25. |   |      |  |                            |  |
| 7719 <i>olitarius W.</i>       | bristly-leaved  | ♂ | w  | 2  | jn.au.            | Y         | India                      | 1640.     | S | co   |  | Camer hort. t. 12          |  |
| 7720 <i>trilocularis W.</i>    | three-celled    | ♂ | w  | 1  | jl.au.            | Y         | Arabia                     | 1790.     | S | co   |  | Jac. vind. 2. t. 173       |  |
| 7721 <i>æstuans W.</i>         | Hornbeam-lvd.   | ♂ | w  | 2  | jn.jl.            | Y         | S. Amer.                   | 1731.     | S | co   |  | Jac. vind. 1. t. 85        |  |
| 7722 <i>acutangulus W.</i>     | acute-angled    | ♂ | w  | 3  | jn.jl.            | Y         | E. Indies                  | 1816.     | C | co   |  | Plu. phyt. t. 44. f. 1     |  |
| 7723 <i>capsularis W.</i>      | heart-leaved    | ♂ | w  | 1½ | jn.jl.            | Y         | E. Indies                  | 1725.     | C | l.p. |  | Ru. am. 5. t. 78. f. 1     |  |
| 7724 <i>hirsutus W.</i>        | woolly-capsul'd | ♂ | w  | 1½ | jn.jl.            | Y         | S. Amer.                   | 1752.     | S | p.1  |  | Jac. vind. 3. t. 57        |  |
| 7725 <i>siliquosus W.</i>      | Germander-lv.   | ♂ | un | 3  | jn.au.            | R         | W. Indies                  | 1732.     | C | l.p. |  | Jac. vind. 3. t. 59        |  |
| 1188. GRV'AS. <i>W.</i>        | ANCHOVY-PEAR.   |   |    |    |                   |           | <i>Guttiferis affinis.</i> | Sp. 1.    |   |      |  |                            |  |
| 7726 <i>cauliflora W.</i>      | stem-flowering  | ♀ | fr | 50 | ...               | W         | Jamaica                    | 1768.     | C | l.m  |  | Sl. hi. 2. t. 217. f. 1, 2 |  |
| 1189. CALOPHYLLUM. <i>W.</i>   | CALOPHYLLUM.    |   |    |    |                   |           | <i>Guttiferæ.</i>          | Sp. 2—9.  |   |      |  |                            |  |
| 7727 <i>Inophyllum W.</i>      | sweet-scented   | ♂ | tm | 90 | ...               | W         | E. Indies                  | 1793.     | C | s.1  |  | Rhee. mal. 4. t. 38        |  |
| 7728 <i>Cálabá W.</i>          | Calaba-tree     | ♂ | tm | 30 | ...               | W         | India                      | 1780.     | C | s.1  |  | Jac. am. t. 165            |  |
| †1190. MAMM'E.A. <i>W.</i>     | MAMMEE-TREE.    |   |    |    |                   |           | <i>Guttiferæ.</i>          | Sp. 1—3.  |   |      |  |                            |  |
| 7729 <i>americana W.</i>       | American        | ♀ | fr | 60 | ...               | W         | S. Amer.                   | 1770.     | C | s.1  |  | Ja. am. t. 182. f. 82      |  |



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1185. *Grewia*. So named by Linnaeus, in honor of Nehemiah Grew, M. D., F. R. S., famous for his work on the Anatomy of Vegetables. The species are shrubs with elm-looking leaves, generally deciduous, and of no great beauty. Cuttings root in sand under a hand-glass in heat. Some of the kinds produce a sort of berry which is esteemed by the natives of the country where they grow.

1186. *Tilia*. A name the meaning of which is unexplained. *Tilleul*, Fr., *Linden*, Ger., and *Tiglio*, Ital. The species are graceful trees with highly odoriferous flowers, all the soft parts abounding in mucilage.

*T. intermedia* is wild in Sweden, and will in some degree bear the smoke of London. It is a favorite avenue tree in Holland and Germany, and at Evelyn's suggestions (*Sylva*) was a good deal employed in this way in England. He describes some enormous lime trees in Switzerland, Germany, and Hungary, and speaks of its esteem in these countries, and by the Romans. "It is a shameful negligence," he says, "that we are no better provided of nurseries, for a tree so choice and universally acceptable;" for in his time they sent into Holland and Flanders, to our excessive cost, whilst our own woods spontaneously produce them, and though of somewhat a smaller leaf, yet altogether as good, apt to be civilized, and made more florid.

Lime-tree wood is turned into light bowls and dishes, and into boxes for the apothecaries. With the twigs they make baskets and cradles. Formerly the bark was used for writing tablets. Shoemakers make dressers of the plank to cut leather on. The truncheons make a far better coal for gunpowder than that of alder itself, and also scriblets for painters' first draughts. The wood is soft, light, and smooth, close grained, and not subject to the worm. The most elegant use to which it is applied is for carving. Many of Gibbon's beautiful works in lime-tree are dispersed about the kingdom in our churches and palaces; as in the choir of St. Paul's, the Duke of Devonshire's at Chatsworth, Trinity College Library at Cambridge, &c. Evelyn first recommended him to King Charles II. The sap inspissated affords a quantity of sugar. Roucher remarks, that the timber is stronger and lighter than any sort of willow; and makes a proper lining for rooms, and when painted will last long.

In Lincolnshire, in the forest of Dean, and in various parts of the borders of South Wales they make ropes of the bark. This, by maceration, separates into thin rough layers, and is used for making the mats used by gardeners, and called in the north of Europe bast. They form a considerable part of the exports from Russia. This quality in the bark, and a great degree of viscosity in the whole tree, evince its acknowledged affinity to the mallow tribe.

- 7703 Leaves lanc. ovate soft, Cal. very hairy, Pedunc. 3-flowered  
 7704 Leaves cordate ovate oblong crenated scabrous, Pedic. axillary 3-flowered, Fruit of 4 pieces  
 7705 Leaves ovate obl. acum. smooth nearly entire, Fl. terminal panicle  
 7706 Leaves roundish ovate blunt toothed smooth, Peduncles solitary 3-flowered  
 7707 Leaves ovate crenate rough on each side, Peduncles axillary 3-flowered  
 7708 Leaves ovate crenate rough thickish, Pedunc. 2-6-fl. axill. and term. Fruit pilose  
 7709 Leaves cordate roundish hoary beneath, Peduncles axillary about 4, longer than petiole  
 7710 Leaves cordate roundish smooth on each side, Peduncles shorter than petiole  
 \* *Petals naked.*  
 7711 Lvs. cord. uneq. at base, Petioles and suckers hairy, Axill. of veins beneath beard. Fruit globose smooth  
 7712 Lvs. cord. acum. ser. smth. twice as long as stalks, Axill. of veins beard. ben. Fr. membr. obl. deform. 2-seed.  
 7713 Lvs. cord. round. acum. finely serr. smth. scarcely longer than stks. Ax. of veins ben. beard. Fr. round very  
 7714 Lvs. cord. round. acum. finely serr. a little downy ben. Fr. turb. woody with prominent ribs [thin & brittle  
 \*\* *Petals with a scale at base.*  
 7715 Lvs. deeply cord. abruptly acum. finely serrated coriaceous smooth, Pet. trunc. at end cren. Fruit ov. ribbed  
 7716 Lvs. trunc. at base subcord. oblique dent. serr. pubescent beneath, Pet. emarginate, Fruit globose smooth  
 β Leaves thin deeply and rarely cut  
 7717 Lvs. cord. subacum. unequal at base serrated snow-white beneath smooth above, Fruit round with 5 ribs  
 7718 Lvs. ov. downy beneath, at base either cordate or obliquely or equally truncate, Fruit round with 5 ribs  
 7719 Caps. obl. ventricose, Lowest serratures of leaves setaceous  
 7720 Caps. 3-celled 3-valved 3-cornered, Angles bifid scabrous, Leaves obl. Lowest serratures setaceous  
 7721 Caps. obl. 3-celled 3-valved 6-furrowed 6-pointed, Leaves cordate, Lowest serratures setaceous  
 7722 Caps. prismatical cuneate acutangular 3-toothed, Lvs. ovate with about 1 seta at the base, Petioles hispid  
 7723 Caps. roundish depressed rugose, Lowest serratures of leaves setaceous  
 7724 Caps. roundish woolly, Leaves ovate obtuse downy equally serrated  
 7725 Caps. linear compressed 2-valved, Leaves lanceolate equally serrate

7726 Leaves 3 feet long obovate, Flowers growing out of the stem and old branches

7727 Leaves oval  
 7728 Leaves ovate obtuse

7729 Leaves very blunt striated, Peduncles short, Berries 4-seeded



and Miscellaneous Particulars.

The honey made from the flowers of the lime tree is reckoned the finest in the world. Near Kowno in Lithuania, there are large forests chiefly of this tree, and probably a distinct variety or species. The honey produced in these forests sells at more than double the price of any other, and is used exclusively in medicine and for mixing with liquours. (*Encyc. of Agric. ; Poland and Hungary.*)

1187. *Corchorus Korymbos*, the Greek name of a culinary vegetable, supposed to be the same as that now known as *C. olitorius*. *C. olitorius* is sown in great plenty about Aleppo as a pot herb, the Jews boiling the leaves to eat with their meat, whence in French it is called *Maune-de-Juif*. The other species are weeds.

1188. *Grias*. From *γριας*, to eat. The fruit is eaten in the West Indies under the name of the Anchovy pear. The uprightness of the growth and the largeness of the leaves give this tree a very elegant appearance. The fruit is about the size of an alligator's egg, and much like it in shape, only a little more acute at one end, and of a brown russet color. It is frequent in many parts of Jamaica, and grows generally in low moist bottoms or shallow water, where the fruit is pickled and eaten in the same manner with the East Indian mango, which it exactly resembles in taste. It grows in a loamy soil, and large cuttings, Sweet observes, succeed best in the same soil under a hand-glass in heat.

1189. *Calophyllum*. From *καλος*, beautiful, and *φυλλον*, a leaf, on account of its large beautifully veined leaves. *C. inophyllum* (*isives*, fibre, because the middle nerve of the leaf seems to ramify into a multitude of fibres) is a very large tree, with leaves like a water lily, snow-white fragrant flowers, and fruit like a walnut. The trunk when wounded exudes a viscid yellowish juice, frequently hardening to a gum. It is common in Malabar, in sandy soils, and bears fruit twice a year, in March and September, frequently to the age of three hundred years. An oil is expressed from the nuts to burn in lamps, to assuage pains, and to make ointments. The bark and gum is also used for medical purposes. In Java, &c. they plant this tree about their houses, for the elegance of the shade and the sweetness of the flowers.

*C. Calaba* (the name among the Caribs) branches from the ground upwards, and is therefore well adapted for tree hedges. It has a green fruit not unlike our cornelian cherry, which is eaten by the natives, and an oil is expressed from it for lamps. Both species grow freely in a light loamy soil, and ripe cuttings are readily struck in sand under a glass and plunged in heat. (*Sweet.*)

1190. *Mammea*. An alteration of its American name, *Mamey*. The name having some resemblance to the Latin word *mamma*, a teat, Linnæus attributed the derivation to that word, on account of the large fleshy pointed nature of its fruit. *Abricot-sauvage*, Fr. A handsome tree with a spreading elegant head, like those

|                          |                             |           |                       |           |       |       |                      |
|--------------------------|-----------------------------|-----------|-----------------------|-----------|-------|-------|----------------------|
| 1191. OCH'NA. W.         | OCHNA.                      | ☐ or 4    | Ochnaceæ. Sp. 2—11.   |           |       |       |                      |
| 7730 obtusâta Dec.       | squarrose                   | ☐ or 4    | fl.au Y               | E. Indies | 1790. | C l.p | Roxb. cor. 1. t.89   |
| 7731 atropurpûrea Dec.   | purple-flower'd             | ☐ or 4    | ... Pu                | C. G. H.  | 1816. | C l.p | Bur. al. 263. f.1,2  |
| 1192. ELEOCARPUS. W.     | ELEOCARPUS.                 | ☐ or 90   | Elæocarpeæ. Sp. 2—10. |           |       |       |                      |
| 7732 serrâtus W.         | saw-leaved                  | ☐ or 90   | ... W                 | E. Indies | 1774. | C p.1 | Burm. zeyl. t.40     |
| 7733 cyâneus B. M.       | blue-fruited                | ☐ or 10   | jn.au W               | N. Holl.  | 1803. | C p.1 | Bot. mag. 1737       |
|                          | <i>E. reticulâta</i> Smith. |           |                       |           |       |       |                      |
| †1193. ALANGIUM. J.      | ALANGIUM.                   | ♂ ☐ or 10 | Myrtaceæ. Sp. 1—2.    |           |       |       |                      |
| 7734 decapétalum W.      | Sage-leaved                 | ♂ ☐ or 10 | ... Pa.pu             | E. Indies | 1779. | C p.1 | Rhee.mal.4. t.17     |
| †1194. MENTZELIA. W.     | MENTZELIA.                  | ☐ or 3    | Loasææ. Sp. 2—3.      |           |       |       |                      |
| 7735 âspéra W.           | rough                       | ☐ or 3    | jl.au Y               | America   | 1733. | S co  | Plum. ic. 174. f.1   |
| 7736 oligospérma Nutt.   | few-seeded                  | ♂ ☐ or 2  | my.jn Y               | Louisiana | 1812. | D s.1 | Bot. mag. 1760       |
| 1195. LAGERSTROMIA. W.   | LAGERSTROMIA.               | ☐ or 6    | Salicariæ. Sp. 2—7.   |           |       |       |                      |
| 7737 indica W.           | Indian                      | ☐ or 6    | au.o Pu               | E. Indies | 1759. | C s.1 | Bot. mag. 405        |
| 7738 Regiâe W.           | oblong-leaved               | ☐ or 12   | ... R                 | E. Indies | 1792. | C p.1 | Roxb. cor.1. t.65    |
| 1196. ÆGLE. Correa.      | BENGAL-QUINCE.              | ☐ or fr   | Aurantiaceæ. Sp. 1—2. |           |       |       |                      |
| 7739 Mârmelos H. K.      | thorny                      | ☐ or fr   | ... E. Indies         | 1759.     | 1759. | C 1   | Rox. cor.2. t.143    |
| †1197. CISTUS. J.        | ROCK-ROSE.                  | ☐ or 4    | Cistineæ. Sp. 18—28.  |           |       |       |                      |
| 7740 iadaniferus W.      | Gum-Cistus                  | ☐ or 4    | jn.jl W               | Spain     | 1629. | C s.p | Bot. mag. 112        |
| β planifolius W.         | Flat-leav.-Gum              | ☐ or 4    | jn.jl W               | Spain     | ...   | C s.p |                      |
| 7741 monspeliensis W.    | Montpellier                 | ☐ or 2    | jn.jl W               | S. Europe | 1656. | S s.p | Jacq. coll. 2. t. 8  |
| 7742 lâxus W. en.        | waved-leaved                | ☐ or 2    | jn.jl W               | Spain     | 1656. | S s.p |                      |
| 7743 hirsûtus W. en.     | hairy                       | ☐ or 2    | jn.jl W               | Portugal  | 1656. | S s.p |                      |
| 7744 villûsus W.         | villous                     | ☐ or 3    | jn.jl Pu              | S. Europe | 1640. | C p.1 | Duha.arb.1. t.64     |
| 7745 populifolius W.     | Poplar-leaved               | ☐ or 3    | my.jn W               | Spain     | 1656. | C s.p | Cav. ic. 3. t. 215   |
| 7746 Corboriensis P. S.  | small Poplar-iv.            | ☐ or 1½   | my.jn W               | Spain     | 1656. | C s.p |                      |
| 7747 undulâtus Dun.      | wavy                        | ☐ or 2    | my.jn Pu              | .....     | ..... | C s.p |                      |
| 7748 vaginâtus W.        | oblong-leaved               | ☐ or 2    | ap.jn Pa.pu           | Teneriffe | 1779. | C p.1 | Bot. reg. 225        |
| 7749 crispus W.          | curled-leaved               | ☐ or 2    | jn.jl Pu              | Portugal  | 1656. | S s.p | Cav. ic. 2. t. 174   |
| 7750 salvifolius W.      | Sage-leaved                 | ☐ or 2    | jn.jl W               | S. Europe | 1548. | S s.p | Jac. col. 2. t. 8    |
| 7751 laurifolius W.      | Laurel-leaved               | ☐ or 4    | jn.jl W               | Spain     | 1731. | C s.p | Clus. 1. p. 78. f. 1 |
| 7752 heterophyllus P. S. | various-leaved              | ☐ or 2    | jn.jl Pu              | Algiers   | ..... | S s.p | Desf. atl. 1. t.104  |
| 7753 incânus W.          | hoary                       | ☐ or 2    | jn.au Pu              | S. Europe | 1596. | S s.p | Bot. mag. 43         |
| 7754 purpûreus P. S.     | purple                      | ☐ or 2    | my.jl Pu              | .....     | ..... | C p.1 | Bot. reg. 408        |
| 7755 créticus W.         | Cretan                      | ☐ or 1½   | jn.au Pu              | Levant    | 1731. | C p.1 | Jac. ic. 1. t. 95    |
| 7756 âlbidus W.          | white-leaved                | ☐ or 2    | jn.jl Pa.pu           | Spain     | 1640. | S s.p | Park. theat. f. 1    |
| 7757 Lédon W.            | many-fl.-Gum                | ☐ or 1    | jl.au W               | France    | 1730. | C s.p | Duha.arb.1. t.66     |



History, Use, Propagation, Culture,

of *Magnolia grandiflora*, and odoriferous white flowers on peduncles. The fruit is roundish, with a leathery rind, inclosing one thinner, containing a firm bright yellow pulp, having a pleasant singular taste, and a sweet aromatic smell; but the skin and seeds are very bitter and resinous. It is eaten raw alone, or cut in slices with wine or sugar, or preserved in sugar. In Martinico they distil the flowers with spirit, and make a liquor which they call Eau orsèle.

Some horticulturists are now attempting its culture in our stoves as a fruit tree. It grows freely in sandy loam, and ripened cuttings, with the leaves not shortened, root in sand under a hand-glass in heat. (Sweet.)

1191. *Ochna*. The Greek name of the wild pear tree, to which the genus so distinguished by Linnaeus has no kind of resemblance. The species are pretty free-flowering plants, with shining serrated leaves, and long racemes of beautiful yellow flowers. They grow freely in loam and peat, and cuttings root readily in sand under a hand-glass.

1192. *Elæocarpus*. From *elaia*, the olive, and *καρπος*, fruit, in allusion to the shape of its fruit. The stones cleaned from the pulp, and set in gold, are formed into necklaces. The species thrive in loam and peat, and cuttings root in sand under a hand-glass.

1193. *Alangium*. So denominated by Lamarck, from a slight alteration of one of its Malabar names, *Alangi*. It grows in light sandy soil, and cuttings root in sand under a hand-glass in moist heat. (Sweet.)

1194. *Mentzelia*. Named after Christian Mentzel, a Prussian, physician to the Elector of Brandenburg; he died in 1701. Curious plants related to *Loasa*.

1195. *Lagerstrœmia*. So named by Linnaeus from Magnus Lagerstroem, of Gottenburgh, director of the Swedish East India Company, who procured many curiosities from China, and gave them to the public. L. regine is a very handsome shrub; the flowers are in panicles, a span long, pale rose-colored in the morning, growing deeper through the day, and becoming purple in the evening. According to Sweet, this species is rather difficult to preserve through the winter; it requires a good heat, and but little water in winter; if it happens to have too much wet, it is a great chance if it survives: in summer it grows very fast, and requires plenty of room and water. Cuttings of both kinds root readily in sand, under a hand-glass. (Bot. Cult. 73.)

1196. *Ægle*. *Αιγλή* was one of the Hesperides. Correa de Serra named the genus *Ægle* from the fruit having some resemblance to the orange. Sweet observes, that this plant likes a rich loamy soil. The wood

7730 Stigma capitate, Petals 8-10, Leaves obovate very blunt serrated  
7731 Flowers solitary, Leaves ovate acutely toothed, Sepals ovate

7732 Leaves lanceolate ellipt. serrated, Racemes axillary  
7733 Leaves obl. lanc. serrated netted, Racemes axillary clustered, Drupes blue

7734 Petals 10, Branches spiny

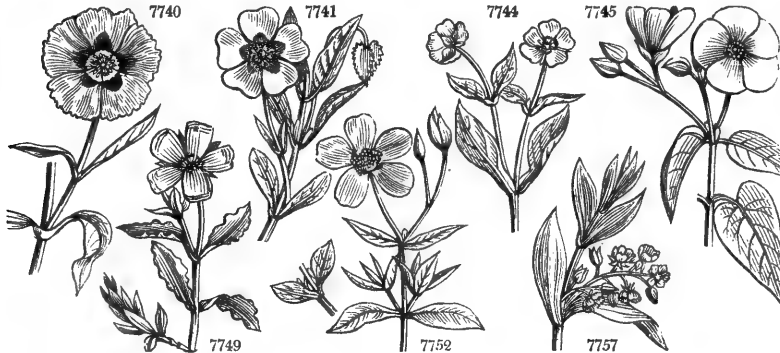
7735 Stem branched, Peduncles axillary, Petals crenate obtuse  
7736 Stem branched, Peduncles axillary solitary, Petals acuminate, Fruit reflexed

7737 Petals crisp, Panicle terminal, Leaves roundish ovate acute smooth  
7738 Petals wavy, Panicle terminal, Leaves oblong smooth

7739 Middle leaflet stalked, Fruit with 12 cells

7740 Leaves subsessile connate at base lin. lanc. smooth above downy beneath, Caps. 10-celled

7741 Leaves lin. lanc. sessile 3-nerved villous on each side, Pedunc. cymose 1-sided  
7742 Leaves on short stalks ovate lanceolate acum. wavy at edge: the upper hairy, Cymes hirsute  
7743 Lvs. sessile obl. obt. hirsute, Pedunc. short 1-f. or cymose, Caps. small in a large hairy pyramidal calyx  
7744 Leaves roundish ovate rugose tomentose hairy stalked, Pedunc. 1-f. 1-3 together, Calyx villous  
7745 Leaves stalked cordate acuminate smooth, Fl. cymose, Pedunc. with long bractes  
7746 Leaves stalked cordate ovate acuminate fringed at edge rugose and a little glutinous on each side  
7747 Leaves sessile linear oblong acute wavy at edge 3-nerved at base, Sepals villous with long points  
7748 Lvs. lanc. acute 3-nerv. hairy reticul. beneath stalked, Stalks sheathing the stem with their connate bases  
7749 Leaves sessile linear lanceolate waved crisp 3-nerved rugose pubescent, Fl. sessile umbelled  
7750 Leaves stalked ovate blunt rugose downy beneath, Pedunc. long hoary 1-flowered  
7751 Leaves stalked ovate lanc. 3-nerved smooth above downy beneath, Petioles dilated and united at base  
7752 Lvs. ovate lanc. on short stalks sheathing at base revolute at edge, Pedunc. hirsute leafy 1-flowered  
7753 Leaves spatulate toment. rugose 3-nerved sessile subconnate: the upper narrower, Pedunc. 1-flowered  
7754 Leaves obl. lanc. acuminate at each end rugose, Stalks short hairy sheathing, Pedunc. short 1-2-3  
7755 Leaves spatulate ovate downy hairy narrowed into a short stalk wavy at edge, Pedunc. short 1-flowered  
7756 Leaves sessile obl. ellipt. hoary downy about 3-nerved, Fl. 3-8 in terminal umbels, Outer sepals largest  
7757 Lvs. conn. obl. lanc. nerv. above smooth and shin. beneath silky, Fl. in corymb. cymes, Ped. and cal. vill.



and Miscellaneous Particulars.

requires to be ripened before the cuttings are taken off; then to be planted in a pot of sand without shortening the leaves, and to be plunged under a hand-glass in heat.

1197. *Cistus*. *Karree*, in Greek; derived from *κυσ*, a box, or capsule. The capsules of the genus are remarkable. All these words have been formed from the Anglo Saxon, *cyst*, which signifies a hollow vessel.

The species are for the most part shewy and free-flowering plants; the colors brilliant, and the petals very fugacious. In gardens they are rather difficult to keep in a neat shape, getting naked below, and often dying wholly or in part during severe winters. They succeed best in glass cases, which can be entirely removed in summer, or in a dry soil under a warm wall.

*C. villosus* has a strong woody stem, the flowers are produced at the ends of the branches, four or five together, almost in form of an umbel, but it rarely happens that more than one is open at the same time. The petals are large, purple, and spread open like a rose; they are but of short duration, generally falling off the same day they expand; but there is a succession of fresh flowers every day for a considerable time in May and June; generally again in September and October, if the autumn be favorable, and even in the winter if the plants be protected from frosts.

*C. ledon* and *ladaniferus* produce the gum ladanum, but not in such quantities as *C. creticus*. The resin, which is secreted from the leaves and other parts of the shrub, is scraped off by means of a kind of rake, to which numerous leathern thongs are appended instead of teeth. This instrument being drawn backwards and forwards over the plant from time to time, collects the resin. The chief use of this gum in modern practice is in fumigations, its fragrant smell having made it a constant ingredient in such preparations.

*C. ladaniferus* is the most popular species for warm situations in ornamental scenery. "Most of the species," Sweet observes, "will survive through the winter in the open air, if the weather be not too severe; but it is safest to keep some of all the kinds in pots, that they may be sheltered from severe frosts; and they can be turned out in the borders in spring, when they will thrive and flower well. They will succeed in any common soil, or a mixture of loam and peat will suit them very well. They may be increased by layers; or young cuttings, as soon as ripened, taken off at a joint, and planted under a hand-glass, will root readily: they may be also raised from seeds, which are produced in abundance." (*Bot. Cult.* 168.)

|                                  |   |                             |                          |
|----------------------------------|---|-----------------------------|--------------------------|
| †1198. HELIANTHEMUM J. SUN-ROSE. |   | <i>Cistaceæ</i> Sp. 48—124. |                          |
| 7758 Libanëtia W.                | Rosemary-lvd. $\frac{2}{2}$ or            | 1 jn                        | Y Spain 1752. C p.l      |
| 7759 umbellatum P. S.            | umbel-flower'd $\frac{2}{2}$ or           | 2 jn.au                     | W S. Europe 1731. C p.l  |
| 7760 scabrosum P. S.             | rough $\frac{2}{2}$ or                    | 3 jn.jl                     | Y Italy 1775. C p.l      |
| 7761 algarvense Dun.             | Algarvine $\frac{2}{2}$ or                | 3 jl.au                     | Y Portugal 1800. C p.l   |
| 7762 formosum Dun.               | beautiful $\frac{2}{2}$ or                | 3 my.jl                     | Y Portugal 1780. C p.l   |
| 7763 atriplicifolium P. S.       | Orache-leaved $\frac{2}{2}$ or            | 6 jn.jl                     | Y Spain 1656. C p.l      |
| 7764 halimifolium P. S.          | Sea-Pursl.-lvd. $\frac{2}{2}$ or          | 4 jn.jl                     | Y Spain 1656. C p.l      |
| 7765 canadense P. S.             | Canadian $\frac{2}{2}$ or $\Delta$        | 1 jn.jl                     | Y N. Amer. 1799. S a.l   |
| 7766 Tubæria P. S.               | Plantain-leav'd $\frac{2}{2}$ or $\Delta$ | $\frac{2}{2}$ jn.jl         | W S. Europe 1752. S a.p  |
| 7767 guttatum P. S.              | spotted-flower. $\frac{2}{2}$ or          | $\frac{2}{2}$ jn.jl         | Y England san.pa. D s.l  |
| 7768 ledifolium P. S.            | Ledum-leaved $\frac{2}{2}$ or             | $\frac{2}{2}$ jn.jl         | Y England san.pa. S a.l  |
| 7769 ægyptiacum P. S.            | Egyptian $\frac{2}{2}$ or                 | $\frac{2}{2}$ jn.jl         | W Egypt 1764. S a.l      |
| 7770 salicifolium P. S.          | Willow-leaved $\frac{2}{2}$ or            | $\frac{2}{2}$ jn.au         | Y S. Europe 1759. S a.p  |
| 7771 punctatum P. S.             | punctated $\frac{2}{2}$ or                | $\frac{2}{2}$ jn.jl         | Y S. France 1816. S a.l  |
| 7772 canariense P. S.            | Canary $\frac{2}{2}$ or                   | $\frac{1}{2}$ jn.jl         | Y Canaries 1790. C p.l   |
| 7773 Fumâna P. S.                | Heath-leaved $\frac{2}{2}$ or             | 1 jn.jl                     | Y France 1752. S a.p     |
| 7774 lævipes P. S.               | cluster-leaved $\frac{2}{2}$ or           | $\frac{1}{2}$ jn.au         | Y France 1690. S a.p     |
| 7775 Barrelieri Temore           | Barrelier's $\frac{2}{2}$ or              | 1 jn.au                     | Y Italy 1820. S a.p      |
| 7776 glutinosum P. S.            | clammy $\frac{2}{2}$ or                   | 2 my.s                      | Y S. Europe 1790. C p.l  |
| 7777 origanifolium P. S.         | Marjoram-lvd. $\frac{2}{2}$ or            | 2 jn.jl                     | Y Spain 1795. C s.p      |
| 7778 celandicum P. S.            | smooth-leaved $\frac{2}{2}$ or            | $\frac{2}{2}$ jn.jl         | Y Germany 1816. S a.p    |
| 7779 italicum P. S.              | Italian $\frac{2}{2}$ or                  | 2 jls                       | Y Italy 1799. C s.p      |
| 7780 cœnum W. en.                | hoary $\frac{2}{2}$ or                    | $\frac{2}{2}$ jn.jl         | Y S. Europe 1772. C p.l  |
| 7781 marifolium P. S.            | Marum-leaved $\frac{2}{2}$ or             | my.jn                       | Y Britain al.roc. C s.p  |
| 7782 squamatum P. S.             | scaly $\frac{2}{2}$ or                    | $\frac{2}{2}$ jn.jl         | Y Spain 1815. C a.l      |
| 7783 glaucum P. S.               | glaucous-leav'd $\frac{2}{2}$ or          | 2 jn.au                     | Y Spain 1815. C a.l      |
| 7784 tomentosum Smith.           | tomentose $\frac{2}{2}$ or                | $\frac{2}{2}$ jl.au         | Y Scotland sc.alp. C a.l |
| 7785 serpyllifolium P. S.        | WildThyme-lv. $\frac{2}{2}$ or            | $\frac{2}{2}$ my.s          | Y Austria 1731. C p.l    |
| 7786 vulgare P. S.               | common-dwarf $\frac{2}{2}$ or             | $\frac{2}{2}$ my.s          | Y Britain graban. C a.l  |
| <i>β flore pleno</i>             |   | $\frac{2}{2}$ my.s          | Y ..... C a.l            |
| 7787 nummularium P. S.           | Moneywort-lv. $\frac{2}{2}$ or            | $\frac{2}{2}$ jn.au         | Y Spain 1752. C a.l      |
| 7788 surrejanum P. S.            | dotted-leaved $\frac{2}{2}$ or            | $\frac{2}{2}$ jl.o          | Y England ch.hil. C a.l  |
| 7789 sampsucifolium Cav.         | bristly-stalked $\frac{2}{2}$ or          | $\frac{2}{2}$ jn.jl         | W France ..... C p.l     |
| 7790 elongatum P. S.             | long-peduncled $\frac{2}{2}$ or           | 2 jl                        | Y Spain 1800. C p.l      |
| 7791 serratum P. S.              | saw-petalled $\frac{2}{2}$ or             | $\frac{2}{2}$ jn.jl         | Y Spain 1804. D s.p      |
| 7792 hirtum P. S.                | bristly-calyc'd $\frac{2}{2}$ or          | 1 jn.jl                     | Y Spain 1759. C a.l      |
| 7793 pulverulentum P. S.         | powdered $\frac{2}{2}$ or                 | $\frac{2}{2}$ jn.jl         | W France ..... C s.l     |
| 7794 aureum P. S.                | golden $\frac{2}{2}$ or                   | $\frac{2}{2}$ jn.au         | Y Spain 1658. C s.l      |
| 7795 thymifolium P. S.           | Thyme-leaved $\frac{2}{2}$ or             | $\frac{2}{2}$ jn.jl         | Y Spain 1658. C s.l      |
| 7796 lavandulefolium P. S.       | Lavender-leav. $\frac{2}{2}$ or           | 2 jn.jl                     | Y Levant 1739. C a.l     |
| 7797 angustifolium P. S.         | narrow-leaved $\frac{2}{2}$ or            | $\frac{2}{2}$ jn.jl         | Y ..... 1800. C a.l      |
| 7798 mutabile P. S.              | changeable $\frac{2}{2}$ or               | $\frac{2}{2}$ jn.jl         | R.v France 1795. C a.l   |
| 7799 polifolium P. S.            | white-mount. $\frac{2}{2}$ or             | $\frac{2}{2}$ my.jl         | W England downs. C s.p   |
| 7800 appenninum P. S.            | Apennine $\frac{2}{2}$ or                 | 2 jn.au                     | W Italy 1731. C s.p      |
| 7801 pilosum P. S.               | hairy $\frac{2}{2}$ or                    | $\frac{1}{2}$ jn.au         | W S. Europe 1731. C a.l  |
| 7802 grandiflorum P. S.          | large-flowered $\frac{2}{2}$ or           | 1 jn.jl                     | Y Italy 1800. C s.p      |
| 7803 roseum P. S.                | Rose-colored $\frac{2}{2}$ or             | $\frac{2}{2}$ jn.au         | Y Pk S. Europe ... C s.p |
| 7804 crœcum P. S.                | Saffron-colored $\frac{2}{2}$ or          | $\frac{2}{2}$ jn.au         | Y Spain ... C a.l        |
| 7805 sulphureum W. en.           | Sulphur-color'd $\frac{2}{2}$ or          | $\frac{2}{2}$ jn.jl         | Y P.y Spain 1815. C a.l  |

DIGYNIA.

|                                   |                                |   |
|-----------------------------------|--------------------------------|---|
| 1199. BAUERA H. K.                | BAUERA.                        | <i>Cunoniaceæ</i> Sp. 1.                  |
| 7806 rubrifolia H. K.             | Madder-leaved $\frac{2}{2}$ pr | $\frac{1}{2}$ jld Pk N. S. W. 1793. C s.p |
| 1200. FOTHERGILLA W. FOTHERGILLA. |                                | <i>Hamamelideæ</i> Sp. 4.                 |
| 7807 alnifolia W.                 | obtus-leaved $\frac{2}{2}$ or  | 4 ap.jn W N. Amer. 1765. L s.p            |
| 7808 major B. M.                  | large-leaved $\frac{2}{2}$ or  | 4 my.jn W N. Amer. 1765. L s.p            |
| 7809 Gardëni Jac.                 | acute-leaved $\frac{2}{2}$ or  | 4 my.jn W N. Amer. 1765. L s.p            |
| 7810 serotina B. M.               | green-leaved $\frac{2}{2}$ or  | 4 au W N. Amer. 1765. L s.p               |



History, Use, Propagation, Culture,

1198. *Helianthemum*. From  $\eta\lambda\lambda\iota\omicron\varsigma$ , the sun, and  $\alpha\upsilon\tau\omicron\varsigma$ , flower, in allusion to the bright golden radiance of the blossoms. This is a showy free-flowering genus of little trailing plants, mostly ligneous, and well adapted for rock-work. A number of them answer best kept in pots, and sheltered by frames during winter; but some are quite hardy, and none are more ornamental than the *H. vulgare*, and its varieties with orange, yellow, straw-colored, red, and double flowers. It is one of the handsomest plants in cultivation for rock-work. All the species are of easy culture in light soil, and cuttings root freely under a hand-glass.

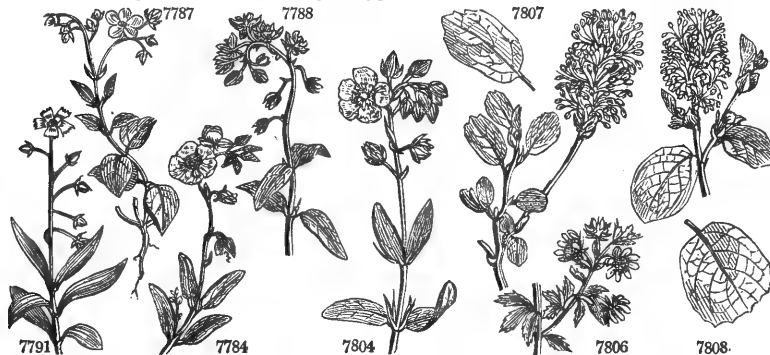
1199. *Bauera*. Named after Francis and Ferdinand Bauer, German botanical draughtsmen of the highest

- 7758 Stem nearly smooth, Lvs. sess. lin. revol. at edge brownish green above hoary beneath, Fl. sol. Sep. shining  
 7759 Young shoots visc. with downy hairs, Lvs. sess. lin. obl. viscid downy beneath, Fl. in term. umb. Sep. villous  
 7760 Branches hairy rough hoary, Lvs. sess. atten. at base green above ash-colored beneath, Ped. shorter than  
 7761 Leaves sessile hoary ovate-lanc. Pedunc. panic. hairy, Sepals 3 acute hairy [Leaves, Cal. hairy  
 7762 Branches villous, Leaves obov. lanc. hoary, Pedunc. and cal. villous, Sepals 3  
 7763 Branches white with scales, Leaves broad ovate blunt wavy at base silvery on each side, Cal. hairy  
 7764 Branches white with scales upwards, Lvs. stalked ovate-obl. Pedunc. long brached panic. Sepals 5 scaly  
 7765 Branches hairy, Lvs. obl. lanc. acute hairy pale beneath, Pedunc. hairy l-f. Capsule shorter than calyx  
 7766 Stems nearly simple, Radical leaves stalked ov. obl. 3-nerved hairy, Ped. panic. few, Cal. smooth shining  
 7767 Stem hairy, Leaves sess. obl. lin. 3-nerved villous, Racemes lax without bractes, Ped. filiform naked  
 7768 Stem nearly smooth, Lvs. obl. ellipt. tooth. Fl. opp. with stipules, Ped. erect smooth shorter than calyx  
 7769 Lvs. on short stalks lin. obl. narr. rev. at edge, Stip. lin. subulate, Pedunc. filif. pubescent, Calyx inflated  
 7770 Branches hairy, Leaves obov. obl. acute toothletted, Stip. lin. obl. Pedunc. and cal. hairy  
 7771 Leaves obl. 3-5-nerved rough with short stellate hairs, Racemes long pubescent cinereous few-flowered  
 7772 Branches hoary, Leaves stalked opp. and alternate blunt glauc. Stipules subulate, Raceme term. erect  
 7773 Stem tortuose, Leaves altern. lin. rough at edge subinvolute, Pedunc. sol. l-f. Caps naked  
 7774 Leaves setaceous glaucous nearly smooth, Stip. filiform long, Pedunc. racemose, Calyx hairy  
 7775 Branches villous, Leaves lin. obl. pubesc. Stip. lin. subul. mucron. erect, Pedunc. racemose glutinous  
 7776 Branches villous glutinous, Leaves lin. vill. glut. ash-colored, Stipules long lax, Pedunc. and cal. villous  
 7777 Leaves stalked ovate hairy on each side, Racemes short term. Pet. scarcely larger than calyx  
 7778 Leaves lanc. ellipt. blunt green on each side, Racemes simple few-fl. Cal. subglobose ovate  
 7779 Branches simple long, Leaves pilose hispid; lower ovate; upper lanc. Racemes simple hairy hoary  
 7780 Leaves oblong hairy green above hoary beneath, Racemes simple, Pedic. and cal. hoary  
 7781 Leaves with stipules stalked ovate cordate, Racemes simple solitary few-flowered terminal  
 7782 Branches silvery with scales, Leaves stalked obl. blunt silvery with small stipules, Cal. scaly  
 7783 Branches ascend. hoary, Leaves downy glaucous: the lower round; upper ellipt. Stip. and bractes green  
 7784 Leaves lanc. ovate hoary beneath green above, Calyx furrowed with elevated hairy nerves  
 7785 Leaves obl. ellipt. hoary beneath deep green shining above, Calyx hoary: its nerves with a few hairs  
 7786 Leaves scarcely revol. at edge hoary beneath, green and hairy above: lower round; upper obl. Rac. lax
- 7787 Lower leaves round: upper obl. lin. hairy green beneath, Racemes and calyxes hairy  
 7788 Leaves obov. obl. somewhat hairy, Racemes few-fl. term. Pet. narrow lanceolate  
 7789 Leaves ovate-obl. keeled sessile, Peduncles long branched panicled, Stipules O  
 7790 Stipules O, Leaves lanc. hoary hairy beneath, Pedunc. long 2-leaved and racemose, Calyxes hairy  
 7791 Leaves opp. lanc. 3-nerved hairy viscid, Radical obovate, Racemes without bractes, Petals serrated  
 7792 Leaves obovate obl. revolute at edge downy hoary beneath, Calyxes very hirsute white  
 7793 Leaves obl. linear glaucous above hoary beneath, Cal. hoary minutely pubescent, Branches hoary  
 7794 Leaves lin. obl. revolute at edge hoary on each side, Calyxes very hirsute white  
 7795 Leaves lin. very short pubescent opp. Stip. mucronate erect, Pedunc. villous few-flowered  
 7796 Leaves oblong lin. revolute at edge the younger hoary on each side, Calyxes glaucous, Sepals ciliated  
 7797 Leaves short stalked lin. oblong hispid above, Racemes lax, Calyx with deciduous hairs  
 7798 Leaves flat ovate obl. acute smooth above beneath finely downy, Cal. striated smoothish  
 7799 Leaves obl. ovate obt. flat beneath hoary above smooth green, Cal. striated smooth shining  
 7800 Leaves stalked obl. lin. downy beneath glaucous above, Cal. shortly hairy striated glaucous obtuse  
 7801 Leaves linear hoary on each side setose at end, Stipules subulate, Cal. hairy nerved striated  
 7802 Upper leaves flat obl. hairy, Stipules ciliated longer than stalk, Fl. large, Calyxes hairy  
 7803 Leaves ovate lanc. a little downy on each side, Stipules linear, Ped. and cal. pilose hirsute  
 7804 Leaves downy hoary beneath glaucous above revolute at edge, Calyxes yellowish glaucous  
 7805 Leaves narrow lanc. flat with stellate pubescence on each side, Raceme terminal few-flowered

## DIGYNIA.

7806 The only species

- 7807 Leaves cuneate obovate upwards crenate toothed  
 7808 Leaves ovate-oblong cordate at base, upwards crenate toothed  
 7809 Leaves ovate acute nearly entire  
 7810 Leaves oblong acute crenate-toothed upwards, green beneath



## and Miscellaneous Particulars.

celebrity. Nothing comparable to their works has ever appeared from any other hand. The species is a hardy free-flowering plant, of easy culture in sandy loam and peat, and cuttings root in the same soil under a glass.

1200. *Fothergilla*. In memory of John Fothergill, M. D., an eminent physician and patron of botany, who cultivated a variety of the most curious plants in his garden near London. The species are dwarf deciduous shrubs, of easy culture in light soil or peat, and generally increased by layers.



|                                  |                 |        |       |                           |          |           |       |                      |
|----------------------------------|-----------------|--------|-------|---------------------------|----------|-----------|-------|----------------------|
| 11201. CURATEL/LA. W. CURATELLA. | American        | ☼ □ or | 8     | Dilleniaceae. Sp. 1-2.    | ...      | L         | s p   | Autb. gui. i. t. 232 |
| 7811 americana W.                | American        | ☼ □ or | 8     | ... W                     | S. Amer. | ...       | L     | s p                  |
| 11202. PÆONIA W.                 | PÆONY           | ☼ or   | 3     | Ranunculaceae. Sp. 15-17. | China    | 1789.     | C     | p.l                  |
| 7812 Moután H. K.                | Chinese tree    | ☼ or   | 3     | ap.jn                     | Pu       | China     | 1789. | C                    |
| α papaveracea                    | Poppy-flowered  | ☼ or   | 3     | ap.jn                     | Pu       | China     | 1789. | C                    |
| β Banksie                        | common          | ☼ or   | 3     | ap.jn                     | Pu       | China     | 1789. | C                    |
| γ rosea                          | Rose-colored    | ☼ or   | 3     | ap.jn                     | Pk       | China     | ...   | C                    |
| 7813 albiflora Pall.             | eatable-rooted  | ☼ Δ or | 2     | my.jn                     | W        | Siberia   | 1784. | R                    |
| β tatárca                        | Tartarian       | ☼ Δ or | 2     | my.jn                     | W        | Siberia   | ...   | R                    |
| γ sibírca                        | Siberian        | ☼ Δ or | 2     | my.jn                     | W        | Siberia   | ...   | R                    |
| δ rubescens                      | blush-colored   | ☼ Δ or | 2     | my.jn                     | Pk       | Siberia   | 1784. | R                    |
| ε uniflora                       | single-flowered | ☼ Δ or | 2     | my.jn                     | W        | Siberia   | ...   | R                    |
| ζ Whilleji                       | double-white    | ☼ Δ or | 2     | my.jn                     | W        | China     | 1784. | R                    |
| η Humei                          | double-crimson  | ☼ Δ or | 2     | my.jn                     | R        | China     | 1784. | R                    |
| θ fragrans                       | Rose-scented    | ☼ Δ or | 2     | my.jn                     | R        | China     | 1784. | R                    |
| 7814 daurica H. K.               | Daurian         | ☼ Δ or | 3     | my.jn                     | Pu       | Siberia   | 1790. | R                    |
| 7815 corallina W.                | entire-leaved   | ☼ Δ or | 4     | my.jn                     | R        | England   | ...   | R                    |
| 7816 officinalis W.              | common          | ☼ Δ or | 3     | my.jn                     | R        | Switzerl. | 1548. | R                    |
| β rosea                          | Rose-colored    | ☼ Δ or | 3     | my.jn                     | R        | ...       | ...   | R                    |
| γ blanda                         | blush           | ☼ Δ or | 3     | my.jn                     | Pk       | ...       | ...   | R                    |
| δ rubra                          | double-red      | ☼ Δ or | 3     | my.jn                     | R        | ...       | ...   | R                    |
| ε carnescens                     | flesh-colored   | ☼ Δ or | 3     | my.jn                     | W        | ...       | ...   | R                    |
| ζ albicans                       | whitish         | ☼ Δ or | 3     | my.jn                     | W        | ...       | ...   | R                    |
| η lobata Dec.                    | lobed           | ☼ Δ or | 3     | my.jn                     | R        | ...       | 1823. | R                    |
| 7817 peregrina H. K.             | Turkish         | ☼ Δ or | 2     | my.jn                     | D.Pu     | Levant    | 1629. | R                    |
| β compacta                       | compact         | ☼ Δ or | 2     | my.jn                     | Pu       | ...       | ...   | R                    |
| γ Grevillii                      | Greville's      | ☼ Δ or | 2     | my.jn                     | Pu       | ...       | ...   | R                    |
| 7818 cretica Lindl.              | early pink      | ☼ Δ or | 2     | my.jn                     | Pk       | Candia    | ...   | R                    |
| 7819 paradoxa And.               | paradoxic       | ☼ Δ or | 2     | my.jn                     | Pu       | Levant    | ...   | R                    |
| β firmiflora                     | double-fringed  | ☼ Δ or | 3     | my.jn                     | Pu       | ...       | ...   | R                    |
| 7820 mollis And.                 | soft            | ☼ Δ or | 1 1/2 | my.jn                     | Pu       | ...       | ...   | R                    |
| 7821 arietina And.               | Anderson's      | ☼ Δ or | 3     | my.jn                     | Pu       | ...       | ...   | R                    |
| 7822 decora And.                 | comely          | ☼ Δ or | 2     | my.jn                     | Pu       | ...       | ...   | R                    |
| α Pallasii                       | Pallas's        | ☼ Δ or | 2     | my.jn                     | Pu       | ...       | ...   | R                    |
| β elatior                        | tall            | ☼ Δ or | 2     | my.jn                     | Pu       | ...       | ...   | R                    |
| 7823 humilis W.                  | dwarf           | ☼ Δ or | 2     | my                        | Pu       | Spain     | 1633. | R                    |
| 7824 anómala W.                  | jagged-leaved   | ☼ Δ or | 2     | my.jn                     | Pk       | Siberia   | 1788. | R                    |
| laciniata Fall. ross. 2. t. 85.  | mule            | ☼ Δ or | 2     | my.jn                     | R        | Siberia   | 1788. | R                    |
| 7825 hybrida W.                  | fine-leaved     | ☼ Δ or | 3     | my.jn                     | R        | Siberia   | 1765. | R                    |

TRIGYNIA.

|                                   |                 |        |       |                           |     |           |         |   |
|-----------------------------------|-----------------|--------|-------|---------------------------|-----|-----------|---------|---|
| 1203. HIBBERTIA. H. K. HIBBERTIA. |                 |        |       | Dilleniaceae. Sp. 3-19.   |     |           |         |   |
| 7827 volubilis B. Rep.            | twinning        | □ or   | 4     | my.o                      | Y   | N. S. W.  | 1790.   | C |
| 7828 grossularifolia Sal.         | Gooseberry-lvd. | □ or   | 2     | mr.au                     | Y   | N. Holl.  | 1803.   | C |
| 7829 dentata R. Br.               | toothed         | ☼ □ or | 3     | ...                       | Y   | N. Holl.  | 1816.   | C |
| 11204. DELPHINIUM. W. LARKSPUR.   |                 |        |       | Ranunculaceae. Sp. 26-53. |     |           |         |   |
| 7830 chinense Fisch.              | Chinese         | ☼ Δ or | 2     | s.o                       | Pu  | Tartary   | 1819.   | S |
| 7831 ambiguum W.                  | doubtful        | ☼ or   | 3     | jl.au                     | B   | Barbary   | 1759.   | S |
| 7832 consolida W.                 | field           | ☼ or   | 4     | jn.jl                     | B   | England   | san.fl. | S |
| 7833 cuneatum Stev.               | wedge-shaped    | ☼ Δ or | 4     | jn.jl                     | B   | Siberia   | 1816.   | D |
| 7834 Ajácis W.                    | Rocket          | ☼ or   | 2     | jn.jl                     | Pk  | Switzerl. | 1573.   | S |
| 7835 aconiti W.                   | Aconite-like    | ☼ or   | 1     | jn.jl                     | Pu  | Levant    | 1801.   | S |
| 7836 peregrinum W.                | broad-lvd.-ann. | ☼ or   | 1     | jn.jl                     | B   | Italy     | 1629.   | S |
| D. junceum Dec.                   |                 |        |       |                           |     |           |         |   |
| 7857 grandiflorum W.              | great-flowered  | ☼ Δ or | 1 1/2 | jn.s                      | D.B | Siberia   | 1741.   | D |
| γ flore-pléno                     | double-flowered | ☼ Δ or | 2     | jn.s                      | D.B | ...       | ...     | D |



History, Use, Propagation, Culture.

1201. *Curatella*. From *curatus*, worked; a name given by Aublet to the genus, because the leaves, which have a rough surface, are used in Guyana for polishing bows, sabres, and other weapons. A small tree with rough leaves, which grows well in sandy loam; cuttings root in sand under a glass.

1202. *Pæonia*. The physician Pæon was the first to use this in medicine. The Greek legend adds, that he used it to cure Pluto of a wound inflicted by Hercules. The species are magnificent flowering plants, especially *P. officinalis* and *moutan*, with their numerous varieties. *P. moutan* and its different varieties are hardy enough to bear our winters in the open air; but they do not flower in such perfection as when planted out in a conservatory, or in a pit where they may be protected from the severe frost under glass: they will thrive well in any rich light soil; and ripened cuttings, slipped off, and planted in the ground, in a shady place, without cover, will root freely. (*Bot. Cult.* 234.)

*P. edulis* has a more slender stem than the common Pæony. The Daurians and Mongols boil the root in

7811 Leaves ovate subrepand toothletted rough

7812 Segments of leaves ovate obl. glaucous beneath

7813 Capsules smooth recurved, Segm. of leaves smooth shining 3-parted with ovate lanceolate lobes

7814 Capsules downy erect, Segm. of leaves glaucous beneath smooth somewhat lobed with blunt obovate lobes

7815 Capsules downy, Segm. of leaves ovate entire smooth

7816 Capsules downy nearly straight, Segments of leaves unequally cut smooth, Lobes ovate-lanceolate

7817 Caps. downy erect, Segm. of leaves 3-parted cut and entire ovate-lanc. flat hairy beneath

7818 Leaves somewhat shining blistered coriaceous glaucous and downy beneath, Ovaries woolly spreading

7819 Caps. downy straight, Segm. of leaves many-parted blunt somewhat wavy glaucous beneath hairy

7820 Caps. downy straight, Segm. of leaves oval-lanc. flat lobed imbricated beneath casious hairy

7821 Caps. downy arcuate spreading, Segm. of lvs. 3-lobed and pinnatifid decurrent ovate-obl. flat hairy beneath

7822 Caps. pubescent spreading, Segm. of leaves 3-parted oblong blunt hairy beneath

7823 Caps. somewhat pilose nearly erect, Segm. of leaves 3-5-parted villous beneath, Lobes obl. entire

7824 Caps. 5 smooth depressed blunt, Segm. of leaves smooth pinnated, Lobes lanc. acuminate

7825 Caps. pubescent, Segments of leaves smooth many-parted, Lobes linear

7826 Caps. downy spreading, Segm. of leaves smooth many parted, Lobes linear

### TRIGYNIA.

7827 Leaves obovate lanc. nearly entire mucronate pubescent beneath, Flowers sessile, Stem twining

7828 Leaves roundish crenate toothed, Fl. stalked opp. to the leaves, Stems procumbent

7829 Leaves obl. acum. smooth with awned serratures, Fl. stalked trigynous

7830 Like *D. grandiflorum*, from which it differs in having a more rigid stem, and a later time for flowering

7831 Stem erect velvety, Lvs. 3-5-part. Lobes pinnatifid, Racemes lax, Spur straight pubesc. shorter than cal.

7832 Stem suberect smth. with spread. branches, Fls. few loosely racem. Ped. long. than bractes, Caps. smooth

7833 Petioles not dilated at base, Lvs. cun. at base 5-7-lob. Lobes cut acute, Raceme lax branch. Calyxes smooth

7834 Stem erect smoothish nearly simple, Branches much covered with fls. Ped. length of bractes, Caps. pubesc.

7835 Stem erect branch. subpub. Lvs. pedate multifid, Ped. very long, Spur incurv. at end horiz. divid. upwards

7836 Stem erect much branch. Lvs. smooth rigid: low. multifid, Branc. and bractes lin. ent. Rac. lax. Pet. stalk.

7837 Leaves palmate many-parted, Lobes linear distant, Pedicels longer than bract, Pet. shorter than calyx



### and Miscellaneous Particulars.

their broth, and grind the seeds and put them into their tea. *P. officinalis* was by old authors said to be of two sorts, male and female, the flowers of the former being smaller and lighter colored than those of the latter. These distinctions, however, were not indicative of sexual difference, the peony being hermaphrodite, but merely of stronger and weaker growing varieties, according to the practice of the age. Now they are laid aside, the varieties reduced to seven or eight, of which a full account is given in the Horticultural Transactions (vol. ii. 273.). Of these, the double red, the most common, when introduced at Antwerp about the end of the sixteenth century, sold for twelve crowns a root. A useful account of the species and varieties has been published by Messrs. Anderson and Sabine, in the transactions of the Linnean Society.

1203. *Hibbertia*. Named after George Hibbert, Esq. who was once a distinguished English collector of plants. Twining or trailing plants of New Holland, with bright yellow flowers.

1204. *Delphinium*. From  $\delta\epsilon\lambda\phi\iota\nu$ , a dolphin, on account of the resemblance between the nectary of the

|                          |                  |      |    |       |      |                                 |       |   |     |                      |
|--------------------------|------------------|------|----|-------|------|---------------------------------|-------|---|-----|----------------------|
| 7838 cheilánthum Fisch.  | Doroninsk        | Δ or | 2  | in    | D.B  | Siberia                         | 1819  | D | p.l | Bot. reg. 478        |
| 7839 intermédiúm W.      | palmated Bee     | Δ or | 8  | jl    | B    | Silesia                         | 1710. | D | p.l | Mill. ic. t. 119     |
| 7840 elátum W.           | common Bee       | Δ or | 6  | jn.s  | B    | Siberia                         | 1597. | D | p.l | Sch. han.2. t.145    |
| 7841 revolútum Desf.     | revolute         | Δ or | 6  | jn.s  | P.B  | .....                           | ..... | D | p.l |                      |
| 7842 híbridum W.         | hairy            | Δ or | 3  | jn.s  | B    | Siberia                         | 1794. | D | p.l |                      |
| 7843 mesoleúcum Link.    | white-eyed       | Δ or | 3  | jn.jl | B.v  | .....                           | 1822. | D | p.l |                      |
| 7844 exalátum W.         | American         | Δ or | 3  | jl.au | B    | N. Amer.                        | 1789. | D | p.l | Mill. ic. t.250. f.2 |
| 7845 azúreum Ph.         | azure            | Δ or | 6  | jl.au | L.B  | Carolina                        | 1805. | D | p.l |                      |
| 7846 dictyocárpum Dec.   | netted-capsuled  | Δ or | 4  | jn.jl | B    | Siberia                         | 1817. | D | p.l |                      |
| 7847 tricórne Ph.        | three-horned     | Δ or | 4  | jl.au | B    | N. Amer.                        | 1806. | D | p.l | Bot. cab. 306        |
| 7848 urceolátum W.       | hollow-leaved    | Δ or | 2  | jl.au | B    | Caucasus                        | 1820. | D | p.l | Bot. mag. 1791       |
| 7849 flexuósum Bieb.     | wavy             | Δ or | 2  | jl.au | B    | .....                           | 1801. | D | p.l |                      |
| 7850 ochroleúcum Stev.   | pale-yellow      | Δ or | 2  | jn.jl | W    | Iberia                          | 1823. | D | p.l |                      |
| 7851 laxiflórum Dec.     | loose-flowered   | Δ or | 3  | jn.jl | B    | Siberia                         | ..... | D | p.l |                      |
| 7852 puniceúm W.         | scarlet-flowered | Δ or | 4  | jl    | R    | Siberia                         | 1785. | D | p.l |                      |
| 7853 staphiságría W. en. | Stavesacre       | ○ or | 2  | ap.au | L.B  | S. Europe                       | 1596. | S | s.p | Woodv. t. 154        |
| 7854 píctum W. en.       | panicked         | ○ or | 1½ | ap.au | L.B  | S. Europe                       | 1816. | S | s.p |                      |
| 7855 Requiéniú Dec.      | Requien's        | ○ or | 4  | my.jn | L.B  | Majorca                         | 1824. | S | co  |                      |
| †1205. ACONITUM. W.      | Wolf's-BANE.     |      |    |       |      | <i>Ranunculaceæ. Sp. 20—22.</i> |       |   |     |                      |
| 7856 paniculátum Lam.    | panicked         | Δ or | 3  | jn.s  | Pa.B | France                          | 1815. | D | co  | Bot. cab. 810        |
| 7857 ochroleúcum W.      | pale-white       | Δ or | 3  | jn.s  | L.Y  | Caucasus                        | 1794. | D | co  | Bot. mag. 2570       |
| 7858 lycóctonum W.       | great-yellow     | Δ or | 3  | jl.au | Y    | Al. of Eur.                     | 1596. | D | co  | Jac. aust. 4. t.380  |
| 7859 japónicum W.        | Japan            | Δ or | 6  | jn.s  | B    | Japan                           | 1790. | D | co  |                      |
| 7860 variegátum W.       | variegated       | Δ or | 5  | jn.au | P.W  | S. Europe                       | 1597. | D | co  |                      |
| 7861 An'thora W.         | wholesome        | Δ or | 1½ | jn.au | P.Y  | Pyrenees                        | 1596. | D | co  | Jac. aust. 4. t.382  |
| 7862 pyrenáicum W.       | Pyrenean         | Δ or | 4  | jn.jl | Y    | Pyrenees                        | 1739. | D | co  |                      |
| 7863 varicólor Stev.     | many-colored     | Δ or | 3  | jn.s  | B.v  | Siberia                         | 1820. | D | co  | Bot. cab. 794        |
| 7864 septentrionále W.   | northern         | Δ or | 4  | jl.au | B    | N. Europe                       | 1800. | D | co  | Fl. dan. t. 123      |
| 7865 álbum W.            | white            | Δ or | 4  | jl.au | W    | Levant                          | 1752. | D | co  |                      |
| 7866 cam'marum W.        | rostrate         | Δ or | 3  | jn.s  | Pu   | Switzerl.                       | 1752. | D | co  | Bot. cab. 203        |
| 7867 tortuósum W. en.    | twisting         | Δ or | 6  | jl.au | P.B  | .....                           | 1812. | D | co  |                      |
| 7868 neomontánium W.     | mountain         | Δ or | 3  | jl.au | B    | Europe                          | 1799. | D | co  | Barr. ic. t. 610     |
| 7869 speciósum Otto.     | shewy            | Δ or | 3  | jl.au | B    | .....                           | 1823. | D | co  |                      |
| 7870 barbátum P. S.      | hairy            | Δ or | 2  | jn.jl | P.Y  | Siberia                         | 1807. | D | co  |                      |
| 7871 biflórum Fisch.     | two-flowered     | Δ or | 4  | jn.jl | P.B  | Siberia                         | 1817. | D | co  |                      |
| 7872 Napéllus W.         | Monk's-hood      | Δ pr | 4  | my.jl | B    | Europe                          | 1596. | D | co  |                      |
| 7873 taúricum W.         | Taurian          | Δ or | 4  | jn.jl | B    | Tauria                          | 1752. | D | co  | Jac. ic. 3. t. 492   |
| 7874 volúbile W.         | twining          | Δ or | 6  | jl.au | B    | Siberia                         | 1799. | D | co  |                      |
| 7875 uncinátum W.        | American         | Δ or | 2  | jl.au | B    | N. Amer.                        | 1768. | D | co  | Bot. mag. 1119       |

PENTAGYNIA.

|                          |              |   |    |   |     |                              |       |       |   |     |
|--------------------------|--------------|---|----|---|-----|------------------------------|-------|-------|---|-----|
| 1206. TRACHYTEL/LA. Dec. | TRACHYTELLA. |   |    |   |     | <i>Dilleniaceæ. Sp. 1—2.</i> |       |       |   |     |
| 7876 Actæ'a Dec.         | rough-leaved | g | cu | 6 | ... | W                            | China | 1823. | C | p.l |



History, Use, Propagation, Culture,

plant and the imaginary figures of the dolphin. The species are shewy annuals or perennials, valuable as border flowers. The leaves are generally much divided, and the flowers in terminal spikes, blue, purple, or red; never yellow or any shade of that color.

D. consolida, (from *consolidare*, to unite; it being formerly reputed as a most powerful vulnerary,) *Pied d'Alouette*, Fr., *Rittersporn*, Ger., is a shewy annual, with blue, pink, purple, and white flowers, and semi-double and double. D. Ajacis, so called because some traces may be perceived in the flower of what may be likened to the letters AIA, is by some considered as only a variety of this species; both are universally grown as border annuals. D. elatum is well adapted for shrubberies. All the species are of the easiest culture. The species are extremely difficult to distinguish from each other, and are probably in many cases mere varieties.

1205. *Aconitum*. So called from growing about Acona, a town of Bithynia. The species are robust free-flowering plants of some beauty and consequence. The stems rise from two to six feet in height, upright, strong, furnished with many digitate or palmate leaves, and terminated by panicles or loose spikes of blue or yellow flowers.

A. Napellus, from *napus*, a turnip, its grumous roots resembling little turnips, is a well known poisonous plant. Linnaeus says, that it is fatal to kine and goats, especially when they come fresh to it, and are not acquainted with the plant; but that it does no injury to horses, who eat it only when dry. He also relates (from the Stockholm Acts) that an ignorant surgeon prescribed the leaves, and on the patient refusing to take them, he took them himself and died. The ancients, who were acquainted with chemical poisons, regarded the Aconite as the most violent of all poisons. Some persons, only by taking in the effluvia of the herb in full flower by the nostrils, have been seized with swooning fits, and have lost their sight for two or three days.

7838 Stem erect branch. Lvs. 5-part. Lobes obl. acumin. Pet. shorter than cal. Caps. netted with color pubescent  
 7839 Petioles not dilat. at base, Lvs. cord. 5-7-fid : up. 3-lobed, Lobes cut serr. Ped. bract. cal. and ovaries smooth  
 7840 Petioles not dilat. at base, Leaves downy 5-lobed, Lobes cuneate at base trifid cut, Spur inflexed

7841 Petioles not dilat. at base, Lvs. orbicular cord. 5-fid, Lobes cut acute deflexed, Bractes 3, Ovaries smooth  
 7842 Petioles sheathing at base, Lvs. many-part. with lin. lobes, Raceme close, Spur straight longer than flower

7843 Lvs. somewhat dilat. at base, Segm. cuneiform serr. cut in front, Stem upwards and peduncles pubescent  
 7844 Petioles not dilat. at base, Lvs. flat trifid beyond the middle, Lobes cuneiform trifid at the end acuminate  
 7845 Pet. scar. dilat. at base, Lvs. 3-5-part. multif. with lin. lobes, Rac. straight, Pet. beard. at end : low. very vill.  
 7846 Pet. scar. dilat. at base, Lvs. 3-7-lob. Lobes obl. ac. cut pinnatifid : up. 3-part. Caps. nett. at keel and edge cil.  
 7847 Pet. smth. but scar. sheath. at base, Lvs. 5-par. Lobes 3-5-fid lin. Pet. sh. than cal. Caps. refl. from their base  
 7848 Petioles not dilat. at base, Leaves concave beyond the middle trifid, Lobes cuneiform cut acuminate at end  
 7849 Petio. not dilat. at base, Lvs. 5-lob. with cut lobes, Stem flexu. and petioles hairy, Bractes lin. Caps. smooth  
 7850 Petioles sheathing at base, Lvs. many-par. with lin. subul. segm. Fl. pubesc. Spur acute longer than flowers  
 7851 Pet. not dilat. at base, Lvs. 3-7-lob. with obl. ac. cut pinnat. lobes, Rac. lax branch. Bractes and ovaries pub.  
 7852 Petioles sheathing at base, Lvs. many-parted in lin. lobes, Rac. long, Spur straight blunt longer than pedicel  
 7853 Spur very short, Bracteoles inserted at base of pedicel, Petioles hairy, Pedicels twice as long as flower  
 7854 Spur scarcely shorter than cal. Bracteoles inserted at base of pedicel, Petioles pubesc. Pedic. scarcely longer  
 7855 Spur nearly as long as calyx, Bractes inserted in the middle of pedicel, Petioles hairy [than flower

7856 Pan. divaricating, Branches tortuose, Helmet conical half circular, Spur short thick spiral [at end  
 7857 Fl. spiked or panic. numerous, Lvs. deeply 3-5-lobed with cuneate trifid lobes, Spur slender straight curv.  
 7858 Helmet conical cylindrical. Spur slender spirally twisted, Lip divaricating, Lvs. palm. 3-5-lob. beyond middle  
 7859 Veiny smooth, Pan. smoothish with ascend. branches, Bag of hoods very large ventric. Spur thick subinvol.  
 7860 Pan. divaricating very smooth, Branches tortuose, Spur thick somewhat spiral, Lobes of leaves rhomboid  
 7861 Fls. panic. Sep. and pet. persist. Bag of hoods scarcely any, Spur thick spiral, Lvs. multif. with lin. ac. segm.  
 7862 All over densely pubesc. Lvs. very large palmate 3-5-lobed beyond middle pubesc. Helmet conical cylindr.  
 7863 Like Anthera, but flowers smoothish variegated with a low subconical helmet [compressed  
 7864 Like Lycoctonum, but flowers paniced, Stem peduncles and flowers villous, Ovaries smooth or hairy  
 7865 Ovaries 4-5, Helmet conical with a long claw, Rac. lax simple, Lvs. 3-5-parted with trifid toothed lobes  
 7866 Pan. lax, Helmet conical elongated abruptly mucronate in front, Spur thick spiral, Ovaries 3-5

7867 Pan. lax, Branches 1-4-f. Spur thick long abruptly kneed, Bags of hoods inflated, Ovaries 3-5 smooth  
 7868 Ovaries 3 smooth, Raceme lax corymbose, Ped. smooth, Helmet very convex subconical  
 7869 Pan. lax, Helmet exactly conical, Spur very thick blunt very short, Bag of the hoods very large  
 7870 Fl. panic. Helmet conical, Spur thick blunt very short. Lvs. deeply lobed with narrow diverging segments  
 7871 Stem very short, Low. lvs. few on long stalks 5-part. with palm. segm. Hoods hook. blunt, Ovaries 3 villous  
 7872 Ovaries 3 smooth, Raceme cylindrical. long, Leaves divided down to petiole with linear acute furrowed lobes  
 7873 Ovaries 3 smooth, Rac. cylindr. long very compact, Pedicels smooth shorter than bractes, Lvs. subpedate  
 7874 Stem twining with spreading hairs, Petioles ciliated, Leaves 3-5-parted with pinnatifid lobes, Ovaries 5-7  
 7875 Pan. lax, Branches diverging, Helmet exactly conical, Leaves 3-lobed with entire lobes, Ovaries villous

PENTAGYNIA.

7876 Leaves very rough toothed



and Miscellaneous Particulars.

But the root is unquestionably the most powerful part of the plant. Matthiolus relates, that a criminal was put to death by taking one dram of it. Dodonæus gives us an instance, recent in his time, of five persons at Antwerp, who ate the root by mistake, and all died. Dr. Turner also mentions, that some Frenchmen at the same place, eating the shoots of this plant for those of masterwort, all died in the course of two days, except two players, who quickly evacuated all that they had taken by vomit. We have an account, in the Philosophical Transactions, of a man who was poisoned, in the year 1732, by eating some of this plant in a salad, instead of celery. Dr. Willis also, in his work De Anima Brutorum, gives an instance of a man who died in a few hours, by eating the tender leaves of this plant also in a salad. He was seized with all the symptoms of mania. The Aconite, thus invested with terrors, has, however, been so far subdued, as to become a powerful remedy in some of the most troublesome disorders incident to the human frame. Baron Stoerck led the way by administering it in violent pains of the side and joints, in glandulous scirrh, tumours, ulcerous tubercles of the breast, &c. to the quantity of from ten to thirty grains in a dose, of an extract, the method of making which he describes.

Willdenow and the Dublin College consider that the plant used by Stoerck was the *A. neomontanum*, in which opinion Mr. Thomson agrees in his London Dispensatory.

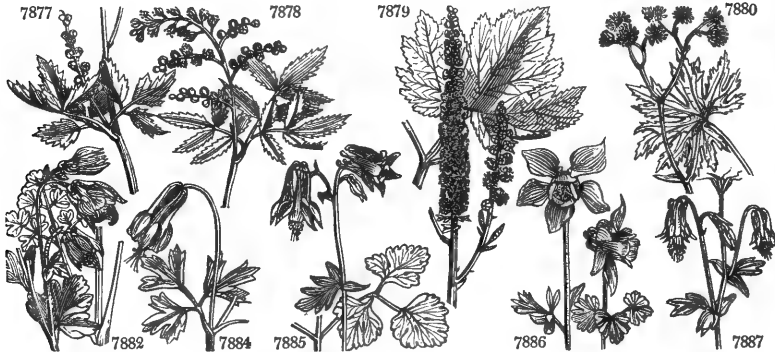
All the species are poisonous in a high degree. The limits of the species are extremely obscure, and in a very unsettled state; Decandolle in his *Systema*, increased the number at that time known, but in his *Prodromus* many of the species of the *Systema* are considered mere varieties. Dr. Reichenbach has, however, multiplied the species prodigiously, but with little reason.

1206. *Trachytella*. From *τραχυτητα*, roughness. These are climbing shrubs with racemose white flowers, and hard rough leaves, which are used in China for polishing metals and hard wood.

|                                    |                          |        |    |       |                      |                      |                  |   |     |                      |
|------------------------------------|--------------------------|--------|----|-------|----------------------|----------------------|------------------|---|-----|----------------------|
| 1207. CIMICI/FUGA. Ph. BUGWORT.    |                          |        |    |       | <i>Ranunculaceæ.</i> | <i>Sp. 4—6.</i>      |                  |   |     |                      |
| 7877 <i>Serpentaria</i> Ph.        | Black Snakeroot          | ♂ Δ m  | 3  | jn.jl | W.y                  | N. Amer.             | 1732.            | D | l.p | Dill.elt. t.67. f.78 |
|                                    | <i>Actæa racemosa</i> W. |        |    |       |                      |                      |                  |   |     |                      |
| 7878 <i>foetida</i> W.             | stinking                 | ♂ Δ m  | 4  | jn.jl | L.Y                  | Siberia              | 1777.            | D | p.l | Lam. ill. 487        |
| 7879 <i>cordifolia</i> Ph.         | heart-leaved             | ♂ Δ cu | 3  | jn.jl | W.y                  | N. Amer.             | 1812.            | D | p.l | Bot. mag. 2069       |
| 7880 <i>palmata</i> Ph.            | palmated                 | ♂ Δ cu | 4  | jl.au | W.y                  | N. Amer.             | 1812.            | D | p.l | Bot. mag. 1630       |
| †1208. AQUILE/GIA. W. COLUMBINE.   |                          |        |    |       |                      | <i>Ranunculaceæ.</i> | <i>Sp. 8—13.</i> |   |     |                      |
| 7881 <i>viscosa</i> W.             | clammy                   | ♂ Δ or | 1½ | my.jn | Fu                   | Montpel.             | 1752.            | D | co  | Goua. ill. t.19. f.1 |
| 7882 <i>vulgaris</i> W.            | common                   | ♂ Δ or | 2  | my.jl | B                    | Britain              | fields.          | D | co  | Eng. bot. 237        |
|                                    | <i>β flore pleno</i>     | ♂ Δ or | 2  | my.jl | B                    | .....                | .....            | D | co  | .....                |
| 7883 <i>glandulosa</i> Fisch.      | glandular                | ♂ Δ or | 1½ | my.jl | W.B                  | Siberia              | 1822.            | D | co  | .....                |
| 7884 <i>viridiflora</i> Pall.      | green-flowered           | ♂ Δ or | 1½ | my.jl | G.Y                  | Siberia              | 1780.            | D | co  | Jacq. ic. 1. t. 102  |
| 7885 <i>bicolor</i> P. S.          | two-colored              | ♂ Δ or | 2  | my.jl | Fu                   | Siberia              | ...              | D | co  | Bot. mag. 1221       |
|                                    | <i>hybrida</i> B. M.     |        |    |       |                      |                      |                  |   |     |                      |
| 7886 <i>alpina</i> W.              | Alpine                   | ♂ Δ or | 1  | my.jn | B.g                  | Switzerl.            | 1731.            | D | co  | Bot. cab. 637        |
| 7887 <i>canadensis</i> W.          | Canadian                 | ♂ Δ or | 1  | ap.my | R.o                  | N. Amer.             | 1640.            | D | s.p | Bot. mag. 246        |
| 7888 <i>atropurpurea</i> W. ex.    | dark-purple              | ♂ Δ or | 1  | my.jn | Fu                   | Siberia              | ...              | D | s.p | Bot. reg. 922        |
| 1209. NIGEL/LA. W. FENNEL-FLOWER.  |                          |        |    |       |                      | <i>Ranunculaceæ.</i> | <i>Sp. 6—11.</i> |   |     |                      |
| 7889 <i>damascena</i> W.           | common                   | ○ or   | 2  | jn.s  | L.B                  | S. Europe            | 1570.            | S | co  | Bot. mag. 92         |
| 7890 <i>coarctata</i>              | dwarf                    | ○ or   | ½  | jn.s  | W.g                  | S. Europe            | 1793.            | S | co  | .....                |
| 7891 <i>sativa</i> W.              | small                    | ○ or   | 1½ | jn.s  | L.B                  | Egypt                | 1548.            | S | s.l | Zorn. ic. 119        |
| 7892 <i>arvensis</i> W.            | field                    | ○ w    | 1½ | jn.s  | W.g                  | Germany              | 1683.            | S | s.l | Sch. han. 2. t. 146  |
| 7893 <i>hispanica</i> W.           | Spanish                  | ○ or   | 1½ | jn.s  | B.w                  | Spain                | 1629.            | S | s.l | Bot. mag. 1265       |
| 7894 <i>orientalis</i> W.          | yellow                   | ○ or   | 1½ | jn.s  | Y                    | Syria                | 1699.            | S | s.l | Bot. mag. 1264       |
| 1210. REAUMURIA. W. REAUMURIA.     |                          |        |    |       |                      | <i>Ficoideæ.</i>     | <i>Sp. 1.</i>    |   |     |                      |
| 7895 <i>hypericoides</i> W.        | Hypericum-like           | ♂ pr   | 2  | jl.o  | Fu                   | Syria                | 1800.            | L | s.p | Bot. reg. 845        |
|                                    | <i>infifolia</i> P. L.   |        |    |       |                      |                      |                  |   |     |                      |
| 1211. COLBERTIA. Salsb. COLBERTIA. |                          |        |    |       |                      | <i>Dilleniaceæ.</i>  | <i>Sp. 1.</i>    |   |     |                      |
| 7896 <i>coromandeliana</i> Sal.    | Coromandel               | ♂ or   | 15 | mr.ap | Y                    | Coroman.             | 1803.            | L | p.l | Roxb. cor. t. 2      |
| 1212. TETRA/CERA. L. TETRACERA.    |                          |        |    |       |                      | <i>Dilleniaceæ.</i>  | <i>Sp. 1—23.</i> |   |     |                      |
| 7897 <i>potatoria</i> Afz.         | Water Vine               | ♂ or   | 20 | ...   | ...                  | S. Leone             | 1832.            | L | p.l |                      |

POLYGYNIA.

|                                   |                         |        |  |       |    |                   |               |   |     |               |
|-----------------------------------|-------------------------|--------|--|-------|----|-------------------|---------------|---|-----|---------------|
| 1213. NELUMBBIUM. J. SACRED-BEAN. |                         |        |  |       |    | <i>Nymphaceæ.</i> | <i>Sp. 2.</i> |   |     |               |
| 7898 <i>speciosum</i> W.          | Indian                  | ♂ Δ or |  | jn.au | Pk | India             | 1787.         | R | m.s | Bot. mag. 903 |
|                                   | <i>β caspium</i> Fisch. | ♂ Δ or |  | ...   | Pk | Casp. Sea         | 1822.         | R | m.s | .....         |
| 7899 <i>luteum</i> W.             | yellow-flowered         | ♂ Δ or |  | ...   | Y  | Carolina          | 1810.         | R | m.s | .....         |



History, Use, Propagation, Culture,

1207. *Cimicifuga*. From *cimex*, a bug, and *fugo*, to drive away, indicating certain virtues a species is supposed to possess. The *C. serpentaria* is used with success by the native practitioners in North America, for curing the dangerous bite of the rattlesnake. Tall, leafy herbaceous plants, with the appearance of *Actæa*.

1208. *Aquilegia*. From *aquila*, an eagle; the inverted spurs of the flower have been likened to the talons of a bird of prey. The species are smooth-leaved, handsome-flowered plants. *A. vulgaris* is an old inhabitant of the flower border: the whole plant has been recommended to be used medicinally, but it belongs to a suspicious natural order, and Linneus affirms, that children have lost their lives by it. *A. alpina* is the handsomest species.

1209. *Nigella*. From *niger*, black, because of the color of the seeds, which are the part of the plant known in cookery. The species are curious or neat little plants, with fine cut leaves like fennel. *N. damascena* and *sativa* are sown as hardy annual flowers; and on the continent, the leaves and seeds of the latter species and *N. arvensis*, are used in cookery instead of more expensive aromatics. They are also said to be extensively used in the adulteration of pepper.

1210. *Reaumuria*. So named by Hasselquist, in honor of René A. F. de Reaumur, author of several entomological works; *Histoire des Insectes*, &c. He died in 1757. A small caesious plant, bearing an abundance of bright lilac flowers.

1211. *Colbertia*. Named by Mr. Salisbury after the famous Colbert, a patron of the Paris garden, who destroyed with his own hands the vines which had been planted therein in lieu of more curious objects. A fine plant, with leaves like those of *Dillenia speciosa*.

1212. *Tetracera*. From *τετρα*, four, and *κερας*, a horn, because of its four capsules recurved like as many horns. Shrubs or small trees, which are often climbers with alternate stalked naked leaves, often rough above. The flowers are paniced or racemose. The leaves are remarkable as an exemplification of that mode of nervation which M. Decandolle calls feather-nerving.

1213. *Nelumbium*. This is called in Ceylon *Nelumbo*. Sir James Smith proposed to call the genus by the more classical name of *Cyanus*, but it has been remarked, that it remains to be proved that the holy *κλυμνος*, was this plant. *N. speciosum* is a native both of the East and West Indies, China, Cochinchina, and Japan,

7877 Monogynous, Racemes very long, Caps. dry dehiscent, Leaves biternate with serrate or cut segments

7878 Ovaries 4 subsessile very vill. Racemes paniced, Lvs. ternate or biternate, Segm. ovate-lanc. cut toothed

7879 Ovaries 2-3 smooth sessile, Racemes paniced, Leaves biternate, Segments cordate at base

7880 Ovaries 12-15 in a roundish head, Racemes dichotomous paniced, Leaves palmate

7881 Spurs incurved, Caps. vill. Stem few or 1-fl. Lvs. covered with viscid down, Styles not longer than stamens

7882 Spurs incurved, Caps. villous, Stem leafy many-fl. Leaves nearly smooth, Styles not longer than stamens

7883 Spurs incurved twice as short as petals, Upper part of the plant and capsules covered with glandular hairs

7884 Spurs straight longer than limb, Stam. as long as petals, Styles long, Petals oval obl. shorter than petals

7885 Spurs straight longer than very blunt limb, Styles scarcely longer than stamens and petals, Sepals acute the length of petals

7886 Spurs straight somewhat incurved at end twice as short as limb of petals, Stem 2-3-fl. leafy, Lvs. finely cut

7887 Spurs straight, Styles and stamens exserted, Sepals acute a little longer than petals, Segm. of leaves 3-parted

7888 Spurs straight as long as limb, Styles and stamens as long as sepals, Sepals the length of petals

7889 Anthers blunt, Caps. 5 smooth 2-cell. united as far as end into an ovate globose one, Fls. in a leafy involucre

7890 Anthers blunt, Flowers in an involucre, Sepals erect conniving

7891 Anthers blunt, Caps. muricate, Stem erect hairy, Flowers naked

7892 Anthers pointed, Styles 5-7 revolute, Capsules and stem smooth, Branches diverging

7893 Anthers pointed, Styles 8-10 erect, Caps. smooth 1-nerved at back, Stem erect smooth, Branches erect

7894 Caps. 5-10 smooth erect, Styles straight

7895 A low shrub, with narrow glaucous leaves

7896 Leaves smooth 10-nerved 1-1½ foot long 6 inches broad

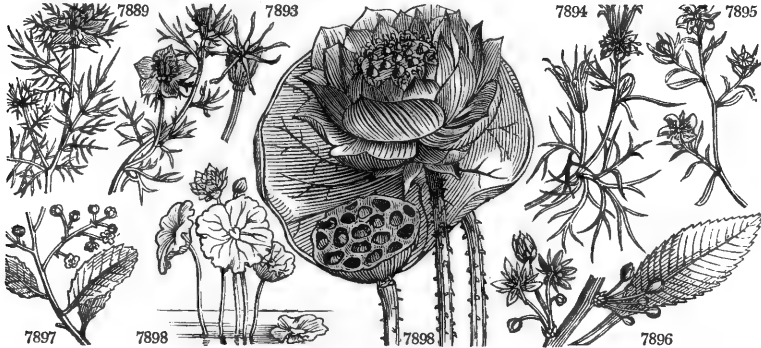
7897 Lvs. oval-obl. blunt or nearly acute smooth roughish above somewhat toothed at end, Pedunc. paniced [pubescent]

### POLYGYNIA.

7898 Petals many, Anthers lengthened beyond the cells into a clavate appendage

β Inner petals scarcely smaller than the outer, blunt

7899 Petals many, Anthers lengthened beyond the cells into a linear appendage



and Miscellaneous Particulars.

Persia, and some parts of the Russian empire. Thunberg informs us, that it is considered as a sacred plant in Japan, and pleasing to their deities, and that the images of their idols were often drawn sitting on its large leaves. The long stalks are there eaten among other potherbs. Loureiro relates, that it abounds in muddy marshes in India and China, and is cultivated in large handsome pots in the gardens and houses of the mandarins; that there is a variety with the flower of a pure white, and another with a very beautiful luxuriant flower, having about one hundred large petals, white or rose-colored. Both root and seeds are esculent, sapid and wholesome. In China it is called Lien-wha, and the seeds and slices of the hairy root, with the kernels of apricots and walnuts, and alternate layers of ice, were frequently presented to the British ambassador and his suite at breakfasts given by some of the principal mandarins. The Chinese have always held this plant in such high value, that at length they regarded it as sacred. That character, however, has not limited it to merely ornamental purposes; for the roots are not only served up in summer with ice, but they are also laid up in salt and vinegar for the winter. The seeds are somewhat of the size and form of an acorn, and of a taste more delicate than that of almonds. The ponds are generally covered with it, and exhibit a very beautiful appearance, when it is in flower; and the flowers are no less fragrant than handsome.

Sir George Staunton remarks, that the leaf, besides its common uses, has, from its structure, growing entirely round the stalk, the advantage of defending the flower and fruit arising from its centre from contact with the water, which might injure them. He also remarks, that the stem never fails to ascend in the water from whatever depth, unless in case of a sudden inundation, until it attains the surface, when its leaf expands, rests, and swims upon it, and sometimes rises above it. This plant bears the rigorous cold of the Pekin winter, though it is reared with difficulty in European stoves. It often grows spontaneously in China, and is propagated in the open air with ease both by the seed and root. The Chinese distinguish many varieties of it.

From the root of the Nelumbo, Sir George Staunton says, the Egyptians are supposed to have prepared their Colocasia, but the plant is now no longer found in that country; from which circumstance some naturalists infer, that it never was indigenous there, but cultivated by the inhabitants with extreme care. The ancient Romans made repeated efforts to raise it among them, from seeds brought out of Egypt; and the

|                                |                 |   |   |     |                     |          |           |          |       |                         |
|--------------------------------|-----------------|---|---|-----|---------------------|----------|-----------|----------|-------|-------------------------|
| 1214. DILLE'NIA. <i>W.</i>     | DILLE'NIA.      |   |   |     | <i>Dilleniaceæ.</i> | Sp. 1-9. |           |          |       |                         |
| 7900 speciosa <i>W.</i>        | large-flowered  | ♂ | □ | tm  | 30                  | Y        | E. Indies | 1800.    | C     | p l Ex. bot. 1. t. 2, 3 |
| 1215. ILLI'CIUM. <i>W.</i>     | ANISEED-TREE.   |   |   |     |                     |          |           |          |       |                         |
| 7901 floridanum <i>W.</i>      | red-flowered    | ♂ | □ | or  | 8                   | ap.jn    | Fl.       | Florida  | 1766. | L s p Bot. mag. 439     |
| 7902 parviflorum <i>W.</i>     | yellow-flowered | ♂ | □ | or  | 6                   | my.jn    | Y         | Florida  | 1790. | L p l Vent. cels. 22    |
| 1216. LIRIODEN'DRON. <i>W.</i> | TULIP-TREE.     |   |   |     |                     |          |           |          |       |                         |
| 7903 tulipifera <i>W.</i>      | common          | ♂ | □ | or  | 60                  | jn.jl    | Y.r       | N. Amer. | 1663. | S s l Bot. mag. 275     |
| ♢ obtusiloba                   | obtusely-lobed  | ♂ | □ | or  | 60                  | jn.jl    | Y.r       | Pensylv. | 1663. | S s l                   |
| †* 1217. MAGNO'LIA. <i>W.</i>  | MAGNOLIA.       |   |   |     |                     |          |           |          |       |                         |
| 7904 grandiflora <i>W.</i>     | Laurel-leaved   | ♂ | □ | spl | 30                  | jn.o     | W         | Carolina | 1734. | L lp Bot. rep. 513      |
| ♣ ciliolata                    | ferruginous     | ♂ | □ | spl | 30                  | jn.o     | W         | Carolina | 1734. | L lp Bot. rep. 518      |
| ♣ obovata                      | broad-leaved    | ♂ | □ | spl | 30                  | jn.o     | W         | Carolina | 1734. | L lp                    |
| ♣ lanceolata                   | long-leaved     | ♂ | □ | spl | 30                  | jn.o     | W         | Carolina | 1734. | L lp Mich. arb. t. 1    |
| 7905 glauca <i>Ph.</i>         | decidu. swamp   | ♂ | □ | or  | 20                  | jn.s     | W         | N. Amer. | 1688. | S p l Bot. mag. 2164    |
| 7906 longifolia <i>Ph.</i>     | evergr. swamp   | ♂ | □ | or  | 20                  | jn.s     | W         | N. Amer. | ...   | S p l                   |
| 7907 conspicua <i>H. K.</i>    | Yulan           | ♂ | □ | or  | 30                  | f.ap     | W         | China    | 1789. | G p l Bot. mag. 1621    |
| ♣ Yulan Dec.                   |                 |   |   |     |                     |          |           |          |       |                         |
| 7908 obovata <i>W.</i>         | purple          | ♂ | □ | or  | 6                   | ap.jn    | Pu        | China    | 1790. | L p l Bot. mag. 390     |
| 7909 tomentosa <i>Thunb.</i>   | slender         | ♂ | □ | or  | 20                  | mr.ap    | Pu        | China    | 1804. | L p l Par. lona. 87     |
| ♣ gracilis <i>Thunb.</i>       |                 |   |   |     |                     |          |           |          |       |                         |
| ♣ Kobus Dec.                   |                 |   |   |     |                     |          |           |          |       |                         |
| ♣ 7910 pumila <i>W.</i>        | dwarf           | ♂ | □ | or  | 4                   | ja.d     | W         | China    | 1786. | C p l Bot. mag. 977     |
| 7911 fuscata <i>H. K.</i>      | brown-stalked   | ♂ | □ | or  | 3                   | ap.my    | Br        | China    | 1789. | L p l Bot. mag. 1008    |
| ♣ annonaefolia <i>P. L.</i>    | small-flowered  | ♂ | □ | or  | 3                   | ap.my    | Br        | China    | 1804. | L p l Par. lond. 5      |
| 7912 cordata <i>Ph.</i>        | heart           | ♂ | □ | or  | 40                  | jn.jl    | Y.w       | N. Amer. | 1801. | L s l Bot. cab. 474     |
| 7913 acuminata <i>W.</i>       | bluish-flowered | ♂ | □ | or  | 60                  | my.jl    | Y.g       | N. Amer. | 1736. | L s l Bot. cab. 418     |
| 7914 tripetala <i>W.</i>       | umbrella        | ♂ | □ | or  | 30                  | my.jn    | W         | N. Amer. | 1752. | L s l Mich. arb. t. 5   |
| ♣ umbrella Lam.                |                 |   |   |     |                     |          |           |          |       |                         |
| 7915 macrophylla <i>Ph.</i>    | long-leaved     | ♂ | □ | or  | 30                  | jn.jl    | W         | N. Amer. | 1800. | S p l Bot. mag. 2189    |
| 7916 auriculata <i>W.</i>      | ear-leaved      | ♂ | □ | or  | 40                  | ap.my    | W         | Carolina | 1786. | L p l Bot. mag. 1206    |
| 7917 pyramidata <i>Ph.</i>     | pyramidal       | ♂ | □ | or  | 20                  | ap.my    | W         | Carolina | 1811. | G p l Bot. reg. 407     |



History, Use, Propagation, Culture,

modern attempts to cultivate it in Europe, though with the assistance of artificial heat, seldom have succeeded.

Dr. Patrick Browne is of opinion that the ancients confounded two plants under the name of Lotus or Egyptian bean, and that under these titles they described the upper parts of the Nymphaea Nelumbo, and the roots of the lesser Colocasia, now commonly called *coccos* in Jamaica, Arum Colocasia. (*Jam.* 243. 332.)

In our stoves the Nelumbium should be grown in a tub or large pot, in a rich loamy soil, and requires a strong heat to flower in perfection. The pot or tub should be kept full of water all the time the plants are growing, but may be allowed to get dry when the flowering season is over. The plants may be increased by dividing at the root, but it is obtained more readily from seeds, which vegetate freely. (*Bot. Cult.* 83.)

Kent of Clapton says, that the seeds will keep forty years, vegetate freely, and flower the first year. (*Hort. Trans.* iii. 36.)

1214. *Dillenia*. So named by Linnæus, in honor of John James Dillenius, the famous professor of botany at Oxford, author of *Historia Muscorum*, *Hortus Elthamensis*, &c. The species are beautiful trees, with large leathery leaves, and axillary or terminating flowers often also large. They thrive best in a light loamy soil. Ripened cuttings, not deprived of their leaves, strike root freely, in a pot of sand plunged under a hand-glass in heat. Good seeds sometimes arrive from India, when the sooner they are sown the better; placed in a moderate hot-bed frame, they will succeed well. (*Bot. Cult.* 50.)

1215. *Illicium*. From *illicio*, to attract, on account of its agreeable perfume. *I. floridanum* has very fragrant leaves, and capsules having a strong smell of anise when rubbed. This species, and more especially anisatum are so sweet. In Japan they place bundles and garlands of the aniseed-tree in their temples before their idols, and on the tombs of their friends. They also use the powdered bark as incense to their idols. A branch put into the decoction of *Tetracton hispidum* is supposed to increase the virulence of that poison. The bark, finely powdered, is used by the public watchmen to make a chronometer or instrument for measuring the hours, by slowly sparkling at certain intervals in a box, in order to direct when the public bells are to sound.

Ripened cuttings will root in sand, but the plant is most readily increased by layers.

1216. *Liriodendron*. From *λειρον*, a lily, and *δενδρον*, a tree. The flowers, which may be likened to a lily or tulip, grow upon one of the loftiest trees of the forest. A smooth tree, not less admired for its fiddle-shaped leaves, than its tulip-like flowers, which are produced at the end of the branches; they are composed of six petals, three without and three within, which form a sort of bell-shaped flower, whence the inhabitants of North America gave it the title of tulip. These petals are marked with green, yellow, and red spots, making a fine appearance when the trees are well charged with flowers. When the flowers drop the germ swells, and forms a kind of cone, but it does not ripen in England.

The timber is used in America for canoes, but is unfit for boards or planks, as it contracts and expands more than the wood of any other tree.

The tulip tree is now very common in Europe; in the south of France and Italy, it is frequent in public avenues, and flowers when twenty or thirty feet high, and of six or seven years growth. In Britain it requires a

7900 Leaves elliptic oblong simply serrated, Peduncles 1-flowered

7901 Petals 27-30 purple: outer oblong; inner lanceolate

7902 Petals 9-12 yellowish ovate roundish

7903 Leaves truncate at end with two broad opposite stipules

7904 Leaves evergreen oval-obl. coriaceous shining above ferruginous beneath, Flowers erect with 9-12 petals

7905 Leaves elliptical blunt glaucous beneath, Flowers with 9-12 contracted petals which are ovate concave

7906 Like the last, but leaves evergreen elliptical acute at each end

7907 Lvs. deciduous obovate abruptly acuminate the younger pubescent, Flowers naked erect with 6-9 petals

7908 Lvs. deciduous obov. acute netted nearly smooth, Fls. erect, Sepals 3, Petals 6 obovate, Styles very short

7909 Lvs. decid. obov. point. at each end, younger downy ben., old ones smooth, Fls. erect, Sep. 3, Pet. 6, Styles [very short]

7910 Leaves evergreen smooth netted ellipt. acuminate at each end subglaucous, Flowers cernuous

7911 Leaves evergreen elliptic obl.: the old smooth; younger and branches fuscous downy, Flowers erect

7912 Lvs. deciduous heart-shaped subovate acute, above smooth, beneath somewhat tomentose, Pet. 6-9. obl.

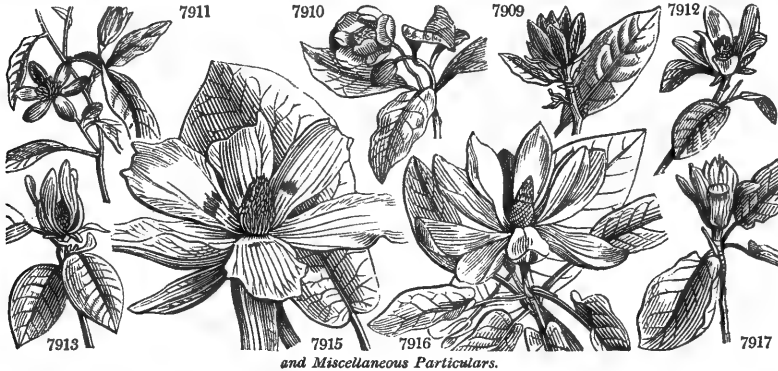
7913 Leaves deciduous oval acuminate pubescent beneath, Petals 6-9

7914 Leaves deciduous lanc. much spreading, younger downy beneath, Petals 9-12, the outer hanging down

7915 Lvs. deciduous very large obl. obov. subcuneate cordate at base, beneath whitish glaucous, Pet. 6-9 ovate

7916 Lvs. decid. smooth spatulate obov. subcord. at base, Auricles blunt close, Sep. 3 much spread, Pet. 9 oblong

7917 Lvs. decid. smth spatul. obov. subcord. at base, of same color on both sides, Auric. spread, Pet. 9 lanc. acum.



and Miscellaneous Particulars.

greater age, though ringing might probably be successfully applied to throwing this and other ornamental trees into a flowering state. There are many fine old trees round London, in the parishes of Fulham, Walham-green, Kew, &c., and a very fine one even so far north as Pitcaithly wells in Fifeshire.

1217. *Magnolia*. In honor of Pierre Magnol, professor of medicine, and prefect of the botanic garden at Montpellier; author of *Botanicum Monspeliense*, 1676, and other works. The species are chiefly large trees with large leaves, and axillary flowers, also very large and highly odorous.

*M. grandiflora* is the noblest species; the leaves, which are persistent, are nine or ten inches long, and not unlike those of a common laurel. The flowers are produced at the ends of the branches: they are very large, and composed of eight or ten petals, narrow at their base, but broad, rounded, and a little waved at their extremities; they spread open very wide, are of a pure white color, and have an agreeable scent.

The variety *g. elliptica* or Exmouth (having been raised from the seed of an old tree in Sir John Collington's garden of that place) flowers earliest and most freely: it is also the hardiest.

*M. glauca* is deciduous. In America it is known by the names of *white laurel*, *swamp sassafras*, and *beaver tree*. It has the last name, because the root is eaten as a great dainty by beavers; and this animal is caught by means of it. Kalm says, these trees may be discovered by the scent of the blossoms at the distance of three quarters of a mile, if the wind be favorable. It is beyond description pleasant to travel in the woods at the flowering season, especially in the evening. They retain their flowers for three weeks, and even longer. The berries also look very handsome when they are ripe, being of a rich red color, and hanging in bunches on slender threads. They cure coughs and other pectoral diseases by putting these berries into brandy, and giving a draught of the liquor every morning. The wood is made use of for joiners' planes. Dillenius remarks, that the flowers never open in a morning, that the calyx falls off at the second opening of the flower, but that the petals dry on, and that the scent resembles that of the lily of the valley, with a mixture of aromatic.

*M. conspicua* is much valued as a free flowerer, and on account of the early appearance of its white odoriferous blossoms. *Yulan* is the vernacular name in Japan.

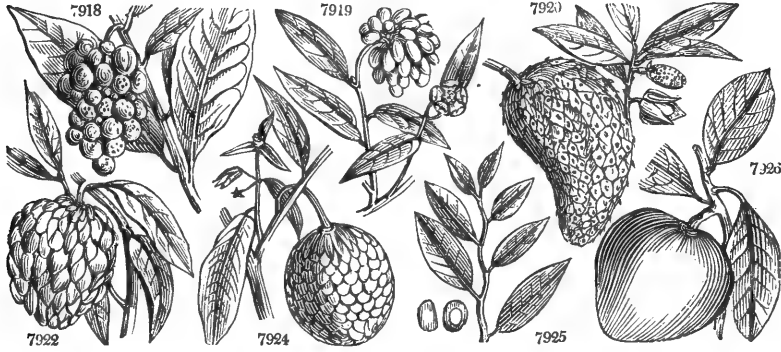
*M. acuminata* bears a fruit about three inches long, like a small cucumber, and is thence called cucumber tree in America.

*M. tripetala* has leaves twelve or fifteen inches long and five or six inches wide, narrowing to a point at each extremity, and placed at the ends of the branches in a circular manner like an umbrella, whence its name. The flowers are composed of ten, eleven, or twelve large oblong white petals; the wood is soft and spongy, and the leaves drop off earlier than in the other deciduous sorts.

The different species, Sweet observes, are generally increased by layers or seeds: when the layers are first taken off they should be potted in a mixture of loam and peat, and placed in a close frame till they have taken fresh root. None of the leaves should be taken off or shortened, nor any shoots be cut off, or their tops shortened, as they will not succeed so well; for the more branches and leaves are on them, the sooner they will strike fresh root. Most cultivators cut off many of the leaves and shoots of layers, when they are first taken off, thinking the roots will not have so much to nourish, which is the very reason



|  |                 |   |    |    |                      |                       |           |                                |                                   |
|--|-----------------|---|----|----|----------------------|-----------------------|-----------|--------------------------------|-----------------------------------|
| 1218. MICHELIA. W.                     | MICHELIA.       |   |    |    | <i>Magnoliaceae.</i> | Sp. 1-7.              |           |                                |                                   |
| 7918 Champaca W.                       | sweet-scented   | ♂ | □  | tm | 20                   | ...                   | Y         | E. Indies                      | 1779. C s.l Rhe. mal. 1. t. 19    |
| 1219. UVA <sup>U</sup> RIA. W.         | UVARIA.         |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 1-9.  |                                |                                   |
| 7919 Zeylanica W.                      | Ceylon          | ♂ | □  | or | 20                   | ...                   | R.g       | E. Indies                      | 1794. C p.l Rhe. mal. 2. t. 10    |
| 1220. ANNO <sup>N</sup> NA. P. S.      | CUSTARD APPLE.  |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 7-36. |                                |                                   |
| 7920 muricata W.                       | Sour-sop        | ♂ | □  | fr | 10                   | ...                   | G.Y       | W. Indies                      | 1656. C r.m Jac. obs. 1. t. 5     |
| 7921 Cherimolia Mill.                  | Cherimoyer      | ♂ | □  | fr | 18                   | jlau                  | Br        | S. Amer.                       | 1739. C r.m Trew. ehr. t. 49      |
| tripetala W.                           |                 |   |    |    |                      |                       |           |                                |                                   |
| 7922 squamosa W.                       | Sweet-sop       | ♂ | □  | fr | 20                   | ...                   | W.G       | S. Amer.                       | 1731. C r.m Rhe. mal. 3. t. 29    |
| 7923 paludosa W.                       | marsh           | ♂ | □  | or | 4                    | ...                   | G         | Guiana                         | 1803. C r.m Aub. gui. 1. t. 246   |
| 7924 reticulata W.                     | netted          | ♂ | □  | fr | 20                   | ...                   | W.G       | S. Amer.                       | 1690. C r.m Rh. m. 3. t. 30, 31   |
| 7925 palustris W.                      | Cork-wood       | ♂ | □  | or | 6                    | ...                   | Y         | W. Indies                      | 1731. C r.m Pl. alm. t. 240. f. 6 |
| 7926 glabra W.                         | smooth-fruited  | ♂ | □  | or | 16                   | jlau                  | Br        | Carolina                       | 1774. C r.m Cat. car. 2. t. 64    |
| 1221. ARTABO <sup>T</sup> TRYS. R. Br. | ARTABOTRYS.     |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 1.    |                                |                                   |
| 7927 odoratis <sup>s</sup> ima R.Br.   | sweet-scented   | ♂ | □  | or | 6                    | jn.jl                 | G         | China                          | 1758. S r.m Bot. reg. 423         |
| U. hexapetala W.                       |                 |   |    |    |                      |                       |           |                                |                                   |
| 1222. GUATTE <sup>R</sup> IA. R.&P.    | GUATTERIA.      |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 2-22. |                                |                                   |
| 7928 rufa Dun.                         | rufous          | ♂ | □  | or | 3                    | jlau                  | Br        | China                          | 1822. C r.m Bot. reg. 836         |
| 7929 virgata Dun.                      | Lancewood       | ♂ | □  | tm | 30                   | ...                   | W         | Jamaica                        | 1793. C p.l Dun. mon. t. 31       |
| Uvaria lanceolata Swz.                 |                 |   |    |    |                      |                       |           |                                |                                   |
| †1223. ASIMINA. Ad.                    | ASIMINA.        |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 3-5.  |                                |                                   |
| 7930 triloba Ph.                       | trifid-fruited  | ♂ | or | 3  | au                   | Pa.pu                 | N. Amer.  | 1736. S p.l Cat. car. 2. t. 83 |                                   |
| 7931 parviflora Ph.                    | small-flowered  | ♂ | cu | 2  | ap.my                | Br                    | N. Amer.  | 1806. L p.l Dun. mon. t. 9     |                                   |
| 7932 pygmaea Ph.                       | dwarf           | ♂ | cu | 1  | ...                  | W                     | N. Amer.  | 1812. L p.l Bartr. trav. t. 1  |                                   |
| 1224. XYLO <sup>P</sup> IA. W.         | XYLOPIA.        |   |    |    |                      | <i>Annonaceae.</i>    | Sp. 2-9.  |                                |                                   |
| 7933 muricata W.                       | rough-fruited   | ♂ | □  | or | 4                    | ...                   | ...       | W. Indies                      | 1793. C p.l Br. jam. t. 5. f. f   |
| 7934 glabra W.                         | smooth-fruited  | ♂ | □  | tm | 20                   | ...                   | ...       | Jamaica                        | ... C p.l Fl. al. t. 238. f. 4    |
| 1225. HEPATICA. W. en.                 | HEPATICIA.      |   |    |    |                      | <i>Ranunculaceae.</i> | Sp. 1-3.  |                                |                                   |
| 7935 triloba W.                        | rufous          | ♂ | Δ  | or | ♂                    | f.ap                  | Pu        | Europe                         | 1573. D s.l                       |
| a caerulea                             | blue            | ♂ | Δ  | or | ♂                    | f.ap                  | B         | .....                          | D s.l                             |
| β caeruleo-plena                       | double-blue     | ♂ | Δ  | or | ♂                    | f.ap                  | B         | .....                          | D s.l                             |
| γ rubra                                | red             | ♂ | Δ  | or | ♂                    | f.ap                  | R         | .....                          | D s.l Bot. mag. 10                |
| δ rubro-plena                          | double-red      | ♂ | Δ  | or | ♂                    | f.ap                  | R         | .....                          | D s.l                             |
| ε alba                                 | red-anth. white | ♂ | Δ  | or | ♂                    | f.ap                  | W         | .....                          | D s.l                             |
| ξ nivea                                | snowy-white     | ♂ | Δ  | or | ♂                    | f.ap                  | W         | .....                          | D s.l                             |



History, Use, Propagation, Culture,

they often lose great part of their crop; layers of any kind of shrub whatever, when first taken off, should not have a single leaf taken off till they have made fresh root: supposing their tops flag ever so much, as long as there is life it will draw up the sap, and help the plant to root afresh. The Chinese kinds are often inarched or budded on *M. obovata*, which takes readily. (*Bot. Cult.* 306.)

1218. *Michelia*. Named by Linnæus, in honor of Pietro Antonio Micheli, of Florence, author of *Nova Plantarum Genera*, Flor. 1729, fol. A lofty tree, with fragrant flowers, and fruit edible, but not agreeable. In our stoves it grows well in light loam, and cuttings root in sand under a glass and plunged in heat.

1219. *Uvaria*. The fruit grows in bunches like a small bunch of grapes, whence it has been called *Uvaria* from *Uva*. The berries are considered a specific for gonorrhœa, and are used under the name of *cubeba*. These are trees or shrubs with erect or trailing stems, and 1-4-flowered axillary peduncles.

1220. *Anona*. This is called by the Malays, *manoa*, and at Banda, *menona*, which it is presumed that the Europeans have corrupted into *Anona*. As the word signifies in Latin food, it has been adopted by Linnæus in this sense, because of the habitual use made of the fruit by the Americans. The species are for the most part fruit trees, with soft pulpy subacid berries, sometimes as large as an orange, but generally more like a plum.

*A. muricata* is common in every savannah of Jamaica, flowering in the spring. The large succulent fruit is agreeable to new-comers and over-heated habits; but it is so common, and so much in use among the negroes, that it is now hardly ever used among the better sort of people. The smell and taste of the fruit, flowers, and whole plant, resemble very much those of black currants.

*A. tripetala* is a large tree with large bright green leaves. The fruit is oblong, scaly on the outside, and of a dark purple color when ripe; the flesh is soft and sweet, and has many brown seeds intermixed with it which are very smooth and shining. It is esteemed by the Peruvians as one of their most delicate sorts.

*A. palustris* grows wild in soft marshy places in Jamaica, and bears a fine sweet-scented fruit, of no disagreeable flavour; but it is said to be a strong narcotic, and is not eaten on that account. It is called alligator apple. The wood of this tree is so very soft, even after it is dried, that it is frequently used by the country people instead of corks, to stop up their jugs and calabashes; whence it has now universally obtained the name of cork-wood in Jamaica. (*Browne*.)

To bear fruit in our stoves, these trees require a rich loamy soil, rather moist, and to be trained on a wall or trellis close under the glass. Ringing would also be useful. They are propagated by ripened cuttings, of a good size, with their leaves on, planted in sand, and plunged in heat.

7918 Leaves lanceolate smooth

7919 Leaves lanc. acuminate, Pedunc. lateral solitary 1-flowered

7920 Leaves ovate lanceolate smooth somewhat shining, Pedunc. solitary 1-flowered

7921 Leaves ovate lanceolate not dotted very finely silky beneath, Outer petal downy outside

7922 Leaves lanceolate smooth with pellucid dots, Outer petals smooth

7923 Leaves obl. acute somewhat downy above, silky and rufous beneath, Flowers on short stalks

7924 Leaves obl. lanc. acute smooth somewhat dotted, Outer petals obl. somewhat closed

7925 Leaves ovate obl. coriaceous very smooth, Fl. solitary stalked

7926 Leaves ovate lanc. smooth, Pedunc. opposite the leaves 2-flowered

7927 Leaves obl. lanc. acuminate smooth shining

7928 Leaves oval acuminate cordate covered beneath, as on the branches, with brown down

7929 Leaves ovate acuminate very smooth nearly sessile, Pedunc. axillary 1-flowered

7930 Leaves obl. cuneate acuminate, Branches quite smooth

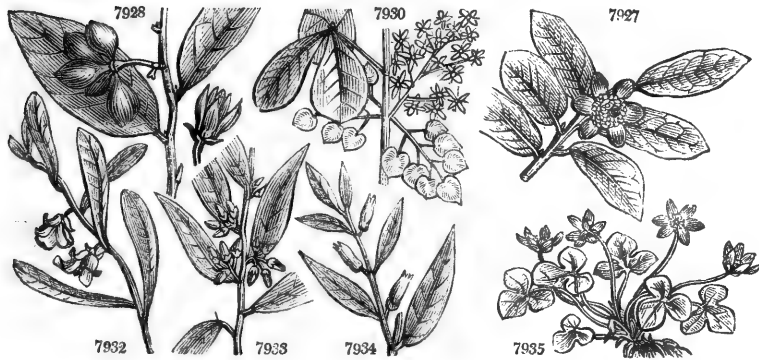
7931 Leaves cuneate obovate mucronate beneath, as on the branches, rufous with down

7932 Leaves obl. linear long-cuneate, Branches quite smooth

7933 Leaves lanc. acuminate strigose beneath bearded at end

7934 Leaves obl. ovate smooth, Pedunc. 1-f. solitary

7935 Leaves cordate 3-lobed, Lobes entire



and Miscellaneous Particulars.

1221. *Artabotrys*. This name was suggested by the curious grapple or tendril belonging to the peduncle, by which the growing fruit is conveniently suspended on the nearest support. A beautiful Chinese plant, cultivated as an ornamental covering to walls, as well as on account of the fragrance of the blossom, which diffuses an odor like that proceeding from the finer kinds of ripe fruit. The genus is intermediate, between *Kadsura* and *Gutteria*.

1222. *Guatteria*. Named by the authors of the Flora Peruviana, after John Baptist Guatterri, an Italian professor of botany at Parma. *G. virgata* is one of the best timber trees in Jamaica for strength and elasticity; it is imported under the name of lance-wood, and much used by coachmakers for shafts to light carriages.

1223. *Asimina*. A name coined by Adanson, without any meaning. Shrubs with deciduous, oblong, often cuneate leaves, and axillary flowers, which often appear before the leaves. The species are natives of shady woods in the more southern provinces of North America.

1224. *Xylopia*. Named by syncope from *ξύλον πικρόν*, bitter wood, in allusion to the properties of the wood. Fruit-bearing trees, but not in much esteem as such. *X. glabra* is the most useful species. The wood, bark, and berries have an agreeable bitter taste, not unlike that of the orange seed. The wild pigeons feed much upon the latter, and owe that delicate bitterish flavor, so peculiar to them in the season, wholly to this part of their food. Fresh gathered from the tree, they are agreeable to the palate and grateful to the stomach. The bark is also richly impregnated with this juice as well as the wood, and both yield a very agreeable bitter in the mouth while fresh; but that delicacy diminishes greatly after they are dried. The wood is easily wrought, and esteemed a good timber where it is not much exposed to the weather. The bitter quality of this tree is communicated with great facility. A handful of the shavings immersed in water and instantly taken out again, will render it of a very bitter taste. Sugar sent over in hogsheds made of this wood was so bitter that no person would purchase it. Bedsteads and presses made of it, are proof against cockroaches and other insects. Carpenters who work the wood, perceive a bitter taste in their mouths and throats. A decoction of it is said to be of service in cholics, and to create appetite.

1225. *Hepatica*. From *ἥπατις*, of or relating to the liver. The three lobes of the leaves have been compared to the three lobes of the liver. A great favorite of the flower border, both as being evergreen in its foliage, and for its abundant blossoms and great variety of colors and shades.

| 1296. ANEMONE. <i>W. en.</i> ANEMONE. |                  | <i>Ranunculaceæ. Sp. 27-49.</i> |   |    |   |       |      |                 |       |     |                |                        |
|---------------------------------------|------------------|---------------------------------|---|----|---|-------|------|-----------------|-------|-----|----------------|------------------------|
| 7936 coronaria <i>W.</i>              | Poppy            | ✳                               | △ | or | ½ | ap.my | St   | Levant          | 1566. | R   | 1p             | Bot. mag. 841          |
| β <i>pléna</i>                        | double-flowered  | ✳                               | △ | or | ½ | ap.my | St   | .....           | ...   | R   | r.1            |                        |
| 7937 hortensis <i>W.</i>              | star             | ✳                               | △ | or | ½ | ap.my | St   | Italy           | 1597. | R   | s.p            | Bot. mag. 123          |
| <i>A. stellata</i> Dec.               |                  |                                 |   |    |   |       |      |                 |       |     |                |                        |
| 7938 palmata <i>W.</i>                | palmated         | ✳                               | △ | or | ½ | my.jn | Y    | Portugal        | 1597. | R   | s.p            | Bot. reg. 200          |
| 7939 sibirica <i>W.</i>               | Siberian         | ✳                               | △ | or | ½ | jn    | W    | Siberia         | 1804. | R   | s.p            |                        |
| 7940 álba <i>Juss.</i>                | white            | ✳                               | △ | or | ½ | jn    | W    | Siberia         | 1820. | R   | s.p            | Bot. mag. 2167         |
| 7941 baldensis <i>W.</i>              | Strawberry-like  | ✳                               | △ | or | ½ | my    | W    | Switzerl.       | 1792. | R   | s.p            | Jac. ic. 1. t. 103     |
| 7942 sylvestris <i>W.</i>             | Snow-drop        | ✳                               | △ | or | ½ | ap.my | W    | Germany         | 1586. | R   | s.p            | Bot. mag. 54           |
| 7943 pavonina <i>Dec.</i>             | Peacock-eye      | ✳                               | △ | or | 1 | ap.my | R    | France          | ..... | R   | s.p            | Ctus. ic. f. 1, 2      |
| 7944 virginiana <i>W.</i>             | Virginian        | ✳                               | △ | or | ½ | my.jn | W    | N. Amer.        | 1722. | R   | s.p            | Herm. par. t. 18       |
| 7945 uralensis <i>Dec.</i>            | Ural             | ✳                               | △ | or | ½ | my    | B    | Siberia         | 1822. | R   | s.p            |                        |
| 7946 pensylvanica <i>Ph.</i>          | Pennsylvanian    | ✳                               | △ | or | 1 | my.jn | W    | N. Amer.        | 1766. | R   | s.p            |                        |
| 7947 dichotoma <i>Ph.</i>             | forked           | ✳                               | △ | or | 1 | my.jn | Pa.w | N. Amer.        | 1768. | R   | s.p            | Lin. fl. d. 2. t. 15   |
| 7948 trifolia <i>W.</i>               | three-leaved     | ✳                               | △ | or | ½ | ap.my | W    | France          | 1597. | R   | s.p            | Mor. s. 4. t. 25. f. 1 |
| 7949 nemorosa <i>W.</i>               | wood             | ✳                               | △ | or | ½ | mr.my | W    | Britain woods.  | R     | s.p | Eng. bot. 355  |                        |
| 7950 apennina <i>W.</i>               | blue mountain    | ✳                               | △ | or | ½ | mr.ap | B    | England woods.  | R     | s.p | Eng. bot. 1062 |                        |
| 7951 ranunculoides <i>W.</i>          | yellow           | ✳                               | △ | or | ½ | mr.ap | Y    | England woods.  | R     | s.p | Eng. bot. 1484 |                        |
| 7952 narcissiflora <i>W.</i>          | Narcissus-flow.  | ✳                               | △ | or | 1 | my    | W    | Siberia         | 1773. | R   | s.p            | Bot. mag. 1120         |
| 7953 thalictroides <i>W.</i>          | Meadow-rue-iv.   | ✳                               | △ | or | ½ | ap.my | W    | N. Amer.        | 1768. | R   | s.p            | Bot. mag. 866          |
| 7954 alpina <i>W. en.</i>             | Alpine           | ✳                               | △ | or | ½ | jl    | W    | Austria         | 1658. | R   | s.p            | Jac. aus. 1. t. 85     |
| 7955 pratensis <i>W. en.</i>          | meadow           | ✳                               | △ | or | ½ | my    | D.Pu | Germany         | 1731. | R   | s.p            | Fl. dan. t. 611        |
| 7956 obsoléta <i>Sims.</i>            | pale-flowered    | ✳                               | △ | or | ½ | my    | Pu   | Germany         | ..... | R   | s.p            | Bot. mag. 1863         |
| 7957 Pulsatilla <i>L.</i>             | com. Pasque fl.  | ✳                               | △ | or | ½ | ap.my | Y    | England ch. pa. | R     | s.p | Eng. bot. 51   |                        |
| 7958 Halléri <i>W. en.</i>            | Haller's P. fl.  | ✳                               | △ | or | ½ | ap.my | Pu   | Switzerl.       | 1816. | R   | s.p            | All. pest. t. 30. f. 2 |
| 7959 vernalis <i>W. en.</i>           | spring P. fl.    | ✳                               | △ | or | ½ | ap    | Pa.w | Switzerl.       | 1752. | R   | s.p            | Fl. dan. t. 29         |
| 7960 cœrnea <i>W.</i>                 | drooping P. fl.  | ✳                               | △ | or | ½ | my.jn | R.w  | Japan           | 1806. | R   | s.p            |                        |
| 7961 pátens <i>W. en.</i>             | spreading P. fl. | ✳                               | △ | or | 1 | jn.jl | Li.Y | Siberia         | 1752. | R   | s.p            | Bot. mag. 1994         |
| 7962 capensis <i>Dec.</i>             | Cape             | ✳                               | △ | or | 1 | mr.ap | Pu   | C. G. H.        | 1795. | S   | p.1            | Bot. mag. 716          |
| <i>Atragene capensis</i> L.           |                  |                                 |   |    |   |       |      |                 |       |     |                |                        |

| 1297. CLEMATIS. <i>L.</i> VIRGIN'S BOWER. |                  | <i>Ranunculaceæ. Sp. 26-90.</i> |    |    |       |       |           |       |    |     |                          |
|---|------------------|---------------------------------|----|----|-------|-------|-----------|-------|----|-----|--------------------------|
| 7963 austriaca <i>H. K.</i>               | Alpine           | ✳                               | or | 12 | my.jl | B     | Austria   | 1792. | C  | co  | Bot. rep. 180            |
| 7964 sibirica <i>H. K.</i>                | Siberian         | ✳                               | or | 12 | jn.jl | W     | Siberia   | 1753. | L  | co  | Pall. ross. 2. t. 76     |
| 7965 verticillaris <i>Dec.</i>            | American         | ✳                               | or | 15 | my.jn | Pu    | N. Amer.  | 1797. | L  | s.p | Bot. mag. 887            |
| <i>A. Americana</i> H. K.                 |                  |                                 |    |    |       |       |           |       |    |     |                          |
| 7966 glauca <i>W.</i>                     | glaucous         | ✳                               | or | 12 | ap    | Pa.Y  | Siberia   | ...   | L  | co  | Dend. brit. 73           |
| 7967 hedyсарifolia <i>Dec.</i>            | hedysarum-iv.    | ✳                               | or | 12 | o     | W     | E. Indies | 1819. | L  | co  | Bot. reg. 599            |
| 7968 chinensis <i>Retz.</i>               | Chinese          | ✳                               | or | 12 | ...   | W.G   | China     | 1820. | L  | co  | Retz. obs. t. 2          |
| 7969 cirrhosa <i>W.</i>                   | evergreen        | ✳                               | or | 12 | mr.ap | W.G   | Spain     | 1596. | C  | co  | Bot. mag. 1070           |
| 7970 florida <i>W.</i>                    | large-flowered   | ✳                               | or | 10 | aps.  | W.Y   | Japan     | 1776. | L  | s.1 | Bot. mag. 834            |
| β <i>flore pléno</i>                      | double-flowered  | ✳                               | or | 10 | aps.  | W.Y   | .....     | ..... | L  | s.1 |                          |
| 7971 viticella <i>W.</i>                  | purple           | ✳                               | or | 20 | jn.s  | Pu    | Spain     | 1569. | S  | co  | Bot. mag. 565            |
| β <i>pléna</i>                            | double-purple    | ✳                               | or | 20 | jn.s  | Pu    | .....     | ..... | L  | co  |                          |
| 7972 viorna <i>W.</i>                     | leathery-flower. | ✳                               | or | 12 | jn.s  | Pu    | N. Amer.  | 1730. | S  | co  | Di. el. t. 118. f. 144   |
| 7973 reticulata <i>Ph.</i>                | netted           | ✳                               | or | 8  | jn.s  | Pu    | N. Amer.  | 1812. | L  | s.p | Dend. brit. 72           |
| 7974 cylindrica <i>H. K.</i>              | long-flowered    | ✳                               | or | 8  | jl.s  | B     | N. Amer.  | 1802. | L  | p.1 | Bot. mag. 1160           |
| 7975 crispa <i>B. M.</i>                  | curled-flowered  | ✳                               | or | 6  | jl.s  | Pa.pu | N. Amer.  | 1756. | L  | p.1 | Bot. mag. 1892           |
| 7976 balearica <i>Rich.</i>               | Minorca          | ✳                               | or | 12 | fmr   | Y.w   | Minorca   | 1783. | C  | co  | Di. el. t. 119. f. 145   |
| <i>calycina</i> W.                        |                  |                                 |    |    |       |       |           |       |    |     |                          |
| 7977 orientalis <i>W.</i>                 | oriental         | ✳                               | or | 8  | jl.o  | Y.w   | Levant    | 1771. | Sk | co  | Dend. brit. 74           |
| 7978 virginiana <i>W.</i>                 | Virginian        | ✳                               | or | 15 | jn.au | G     | N. Amer.  | 1730. | L  | s.p | Sto. ja. 1. t. 128. f. 1 |
| 7979 dioica <i>W.</i>                     | Jamaica          | ✳                               | or | 15 | my.jn | G.Y   | W. Indies | 1733. | L  | s.p | Bot. reg. 238            |
| 7980 aristata <i>B. Reg.</i>              | awned-anther.    | ✳                               | or | 15 | my.au | G.Y   | N. Holl.  | 1812. | L  | s.p | Bot. reg. 238            |
| 7981 brachiata <i>B. Reg.</i>             | armed            | ✳                               | or | 12 | o.d   | Y.G   | C. G. H.  | ...   | L  | s.p | Bot. reg. 97             |

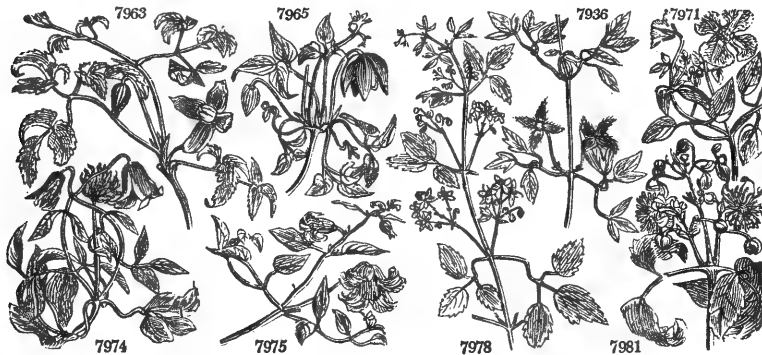


History, Use, Propagation, Culture.

1296. *Anemone*. From *ανεμος*, wind, because the greater part of the species grow in elevated places much exposed to the wind. The species are showy flowering plants, and *A. coronaria* and *hortensis* are well known florists' flowers, valued for their hardy nature, and also because they will flower at almost any season, according to the time the roots are kept out of the ground, and the season when they are replanted. The prevailing colors are red, white, and blue, and semidouble flowers are in nearly as much repute as double ones. Many new varieties have been raised from seed; but they are not named by the florists, as in the case of tulips and pinks. The roots of anemones are solid flattened masses like those of ginger, and like them are multiplied by division. A root which has remained in the soil two or three years, if it has room to extend, attains a great breadth, but is still only one root; and hence the mode of sale is by weight, and the roots are divided when planted.

The soil preferred by the anemone is a fresh loam, rather heavy or light. The usual time of planting is the end of October, covering the roots three inches; but to have an early bloom they may be planted in the beginning of September, and to have a bloom every month in the year, plant every month. The finer sorts

- 7936 Leaves ternate with multifid segments and linear mucronate lobes, Sep. 6 oval close  
 7937 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile obl. entire or cut, Sepals 10-12 oblong  
 7938 Leaves cordate roundish bluntly 3.5-lobed toothed, Invol. sessile trifid, Sepals 10-12 oblong  
 7939 Leaves ternate with cut-toothed ciliated segments, Invol. on short stalks 3 cut, Sepals 6 round  
 7940 Leaves ternate or quinate, Segments cut-toothed at the end, Invol. stalked similar, Sepals 5 obovate  
 7941 Lvs. biternate with a branch. stalk, Segm. many-part. with lin. lobes, Inv. shortly stalk. multifid, Sep. obl.  
 7942 Leaves ternate or quinate, Segm. cut-toothed at end, Invol. stalked similar, Sepals 6 elliptical  
 7943 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile oblong entire or a little cut, Sep. very acute  
 7944 Leaves ternate with trifid acuminate cut-toothed segments, Invol. stalked similar, Sepals 5 elliptical  
 7945 Invol. leaves on short stalks three cut with linear cut-toothed segments, Sepals 5-6 oval-oblong.  
 7946 Leaves 3-parted with cut-toothed acuminate lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit hairy  
 7947 Leaves 3-parted with cut-toothed oblong lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit smooth  
 7948 Leaves all stalked ternate with ovate lanc. acute-toothed segments, Sepals 5 elliptical obtuse  
 7949 Leaves ternate with trifid cut-toothed lanc. acute segments, Invol. stalked similar, Sepals 6 elliptical  
 7950 Leaves 3-ternate with a branched stalk, Sepals 12-14 oblong obtuse, Leaves of invol. stalked  
 7951 Radical lvs. 3-5 cut with subtrifid cut-toothed segments, Invol. stalk. 3-parted toothed, Sep. 5-6 elliptical  
 7952 Radical leaves villous palmate 3.5-parted with cut-toothed lobes, Lobes lin. acute, Fl. umbelled  
 7953 Flowers umbelled, Floral leaves stalked biternate forming a sort of involucre  
 7954 Leaves biternate with a branched petiole, Segm. pinnated cut serrate, Sepals 6 spreading  
 7955 Leaves pinnated with multifid segments, Lobes linear, Flowers pendulous, Sepals 6 erect reflexed at end  
 7956 Like the last, but the flower larger and paler, and the lobes of the pinnæ broader and awned  
 7957 Leaves pinnated with multifid segments, Lobes linear, Flower somewhat nodding, Sepals 6 spreading  
 7958 Leaves pinnated very villous with 3-parted segments, Lobes lanc. lin. acum. Fl. erect, Sep. 6 oval lanceol.  
 7959 Leaves pinnated with cuneate lanceolate trifid smooth high segments, Fl. erect, Invol. very villous  
 7960 Leaves pinnated villous beneath, Segm. pinnatifid, Lobes cut oblong, Fl. suberucous, Sep. 6 spreading  
 7961 Leaves pinnate coming after the flowers, Segm. 3-parted, Lobes toothed cut at end, Fl. erect spreading  
 7962 Leaves biternate rigid smooth, Segm. cuneiform toothed at end  
 7963 Pedunc. 1-fl. longer than leaf, Lvs. biternate, Segm. ovate-lanc. acum. serrate, Pet. subspatulate obtuse  
 7964 Pedunc. 1-fl. the length of leaf, Leaves biternate with obl. lanc. acumin. segments, Pet. emarginate at end  
 7965 Pedunc. 1-fl. Leaves whorled in fours ternate, Segm. stalked cordate lanc. entire, Petals acute  
 7966 Leaves pinnate, Segm. glaucous smooth cuneiform lobed, Lobes entire blunt, Pedunc. trifid  
 7967 Fl. panicled, Leaves ternate, Segm. ovate lanc. acumin. nearly entire smooth 5-nerved at base  
 7968 Leaves pinnated, Segm. ovate lanc. entire, Pedunc. few-fl. longer than leaf, Ovaries about 4, Tails almost  
 7969 Pedunc. 1-fl. with an involucre, Leaves ovate subcordate toothed fascicled [naked  
 7970 Pedunc. 1-fl. longer than leaf, Leaves tern. decomposed, Segm. ovate acute entire, Sepals much pointed  
 7971 Pedunc. 1-fl. longer than leaf, Leaves entire or ternate decomp. Lobes or segm. entire, Sepals obovate  
 7972 Pedunc. 1-fl. Sep. connivent thick reflexed at end acuminate, Lvs. smooth with ent. or 3-lob. ov. acute segm.  
 7973 Pedunc. 1-fl. Sep. connivent, Lvs. coriaceous netted nerved smooth with stalked 3-lobed or entire segments  
 7974 Pedunc. 1-fl. Sep. acum. wavy at edge thin, Lvs. smooth thin decomposed with stalked ov. or obl. segm.  
 7975 Pedunc. 1-fl. shorter than leaf, Leaves entire 3-lobed very acute, Sepals conniving at base spreading at end  
 7976 Pedunc. 1-fl. with an involucre under the leaf, Leaves ternate with stalked ternate cut-toothed segments  
 7977 Leaves pinnate with glaucous smooth wedge-shaped 3-lobed segments, Lobes toothed acuminate  
 7978 Fl. panicled dioecious, Leaves ternate, Segm. cordate acute coarsely toothed and lobed  
 7979 Fl. panicled dioecious, Lvs. tern. Segm. smooth ovate cordate acuminate 3-nerved ent. Pedicels pubescent  
 7980 Fl. panic. dioec. Sep. 4, Lvs. tern. Segm. ovate subcord. acute coarsely toothed 3-nerv. Anth. awned at end  
 7981 Ped. 3-1-fl. or 3-fid or panic. long. than lvs. Lvs. tern. or pinn. Segm. ovate coarsely toothed, Fl.-buds globose



and Miscellaneous Particulars.

require protection from violent storms and excessive light and heat; but many varieties do exceedingly well in borders. A very severe winter will destroy the roots if the surface is not mulched; but the anemone is considerably harder than the ranunculus. *Anemone pulsatilla* is common in borders. The roots are mostly tuberous, and when taken up should not be long kept out of ground. Like most tuberous plants, they thrive best in a sandy loam.

127. *Clematis*. From *κλημα*, a tendril; the climbing habit of this genus is well known. The species are mostly climbing shrubs of rapid growth, free-flowerers, very ornamental, and some are highly odoriferous. *C. florida*, *viticella*, and *flammula* are admired species. The plants formerly called *Atragene*, do now properly united to *Clematis*, are shewy climbers, especially *C. austriaca*, which grows and flowers freely. Any common garden soil will suit them, and they are readily increased by layers; or young cuttings, planted under a common hand-glass, will root freely. Seeds are often ripened in abundance, by which any quantity may be raised; they are best sown in pans, or wide-mouthed pots, and placed in a shady situation, where they will

|                                |                            |   |    |    |       |      |                       |            |   |     |                        |
|--------------------------------|----------------------------|---|----|----|-------|------|-----------------------|------------|---|-----|------------------------|
| 7982 <i>Maschiana</i> Dec.     | Masson's                   | l | or | 12 | ...   | ...  | C. G. H.              | ...        | L | s p |                        |
| 7983 <i>Vitilba</i> W.         | Traveller's Joy            | l | or | 20 | jl.s  | W    | England               | hed.       | S | co  | Eng. bot. 612          |
| 7984 <i>Flammula</i> W.        | sweet-scented              | l | or | 20 | jl.o  | W    | France                | 1596.      | S | co  | Kn. th. 2. t. c. 9     |
|                                | <i>a rotundifolia</i>      | l | or | 20 | jl.o  | W    | France                | 1596.      | L | co  |                        |
|                                | <i>C. fragrans</i> Tenore. |   |    |    |       |      |                       |            |   |     |                        |
|                                | <i>β vulgaris</i>          | l | or | 20 | jl.o  | W    | France                | ...        | L | co  |                        |
|                                | <i>γ maritima</i> W.       | Δ | or | 20 | jn.s  | W    | S. Europe             | ...        | D | p.l |                        |
| 7985 <i>erecta</i> W.          | upright                    | Δ | or | 3  | jn.au | W    | Austria               | 1597.      | D | p.l | Jac. aus. 3. t. 291    |
| 7986 <i>angustifolia</i> W.    | narrow-leaved              | Δ | or | 4  | my.s  | W    | Austria               | 1787.      | D | p.l | Dend. brit. 112        |
| 7987 <i>ochroleuca</i> W.      | silky                      | Δ | or | 2  | jn.jl | L.Y  | N. Amer.              | 1767.      | D | p.l | Bot. cab. 661          |
| 7988 <i>integrifolia</i> W.    | entire-leaved              | Δ | or | 2  | jn.au | B    | Hungary               | 1596.      | D | p.l | Bot. mag. 65           |
|                                | <i>β angustifolia</i>      | Δ | or | 2  | jn.au | B    | Hungary               | ...        | D | p.l |                        |
| 1228. NARAVELIA. Dec.          | NARAVELIA.                 |   |    |    |       |      | <i>Ranunculaceae.</i> | Sp. 1.     |   |     |                        |
| 7989 <i>zeylanica</i> W.       | Ceylon                     | l | or | 12 | ...   | Y    | Ceylon                | 1796.      | L | s p | Rox.cor.2. t. 188      |
| 1229. THALICTRUM W.            | MEADOW-RUE.                |   |    |    |       |      | <i>Ranunculaceae.</i> | Sp. 26—52. |   |     |                        |
| 7990 <i>alpinum</i> W.         | Alpine                     | Δ | or | 3  | my.jl | W    | Britain               | bgs. m.    | D | co  | Eng. bot. 262          |
| 7991 <i>foetidum</i> W.        | fœtid                      | Δ | or | 3  | my.jl | W    | Frauce                | 1640.      | D | co  | Pl. ra. h. 2. t. 174   |
| 7992 <i>tuberosum</i> W.       | tuberos-rooted             | Δ | or | 2  | jn    | W    | Spain                 | 1713.      | D | co  | M. ic. 2. t. 265. f. 2 |
| 7993 <i>cornuti</i> W.         | Canadian                   | Δ | or | 3  | my.jl | W    | N. Amer.              | 1640.      | D | co  | Corn. can. t. 187      |
|                                | <i>T. corynellum</i> Dec.  |   |    |    |       |      |                       |            |   |     |                        |
| 7994 <i>dioicum</i> W.         | dioecious                  | Δ | or | 1  | jn.jl | L.Y  | N. Amer.              | 1759.      | D | co  |                        |
| 7995 <i>elatum</i> W.          | tall                       | Δ | or | 2  | jn.au | L.Y  | Hungary               | 1794.      | D | co  | Jac. vind. 3. t. 95    |
| 7996 <i>majus</i> W.           | greater                    | Δ | or | 3  | jn.jl | G.Y  | Hungary               | m.thi.     | D | co  | Eng. bot. 611          |
| 7997 <i>medium</i> W.          | middle                     | Δ | or | 14 | jn.au | G.Y  | Hungary               | 1789.      | D | co  | Jac. vind. 3. t. 96    |
| 7998 <i>minus</i> W.           | lesser                     | Δ | or | 1  | jn.jl | Pu   | Britain               | ch. p.     | D | co  | Eng. bot. 11           |
| 7999 <i>concinnum</i> W. en.   | neat                       | Δ | or | 3  | jn.jl | W.g  | .....                 | ...        | D | co  |                        |
| 8000 <i>rugosum</i> W.         | rough                      | Δ | or | 2  | jl    | W    | N. Amer.              | 1774.      | D | co  |                        |
| 8001 <i>sibiricum</i> W.       | Siberian                   | Δ | or | 1  | jn.jl | L.Y  | Siberia               | 1775.      | D | co  |                        |
| 8002 <i>squarrosum</i> W.      | squarrose                  | Δ | or | 1  | jn.jl | L.Y  | Siberia               | 1806.      | D | co  |                        |
| 8003 <i>pubescens</i> Ph.      | pubescent                  | Δ | or | 14 | jn.jl | L.Y  | N. Amer.              | 1806.      | D | co  |                        |
| 8004 <i>purpurascens</i> W.    | purple                     | Δ | or | 3  | jn.jl | L.P  | N. Amer.              | 1699.      | D | co  |                        |
| 8005 <i>angustifolium</i> W.   | narrow-leaved              | Δ | or | 3  | jn.jl | W    | Germany               | 1739.      | D | co  | Jac. vind. 3. t. 43    |
| 8006 <i>lucidum</i> W.         | shining                    | Δ | or | 4  | my.jl | L.Y  | Spain                 | 1739.      | D | co  | Pl. alm. t. 65. f. 5   |
| 8007 <i>flavum</i> W.          | common                     | Δ | or | 4  | my.jl | O    | Britain               | m.me.      | D | co  | Eng. bot. 367          |
| 8008 <i>nigricans</i> W.       | black                      | Δ | or | 2  | my.jl | P    | Austria               | 1798.      | D | co  | Jac. aus. 5. t. 421    |
| 8009 <i>glaucum</i> Desf.      | glaucous-leav'd            | Δ | or | 5  | jn.jl | Y    | Spain                 | 1798.      | D | co  | Mo. his. t. 20. f. 1   |
|                                | <i>spectosum</i> W. en.    |   |    |    |       |      |                       |            |   |     |                        |
| 8010 <i>ranunculium</i> W. en. | Ranuncul.-lvd.             | Δ | or | 1  | jn.jl | Pa.Y | N. Amer.              | 1806.      | D | co  |                        |
| 8011 <i>simplex</i> W.         | simple-stalked             | Δ | or | 1  | my.jn | L.Y  | Sweden                | 1778.      | D | co  | Fl. dan. 244           |
| 8012 <i>aquilegifolium</i> W.  | Columbine-lvd.             | Δ | or | 3  | my.jl | L.Pu | Austria               | 1731.      | D | co  | Bot. mag. 2025         |
|                                | <i>β atro-purpuream</i>    | Δ | or | 3  | my.jl | D.Pu | Austria               | 1731.      | D | co  | Bot. mag. 118          |
| 8013 <i>galioides</i> W. en.   | sweet-scented              | Δ | or | 1  | my.jl | Y    | Alsace                | 1816.      | D | co  | Mo. his. t. 20. f. 8   |
| 8014 <i>contortum</i> W.       | erect-seeded               | Δ | or | 2  | jn.jl | W    | Siberia               | 1796.      | D | co  |                        |
| 8015 <i>petaloideum</i> W.     | Daurian                    | Δ | or | 3  | jn.jl | W    | Dauria                | 1799.      | D | co  | Bot. cab. 891          |
| 1230. ADONIS. L.               | ADONIS.                    |   |    |    |       |      | <i>Ranunculaceae.</i> | Sp. 6—14.  |   |     |                        |
| 8016 <i>æstivalis</i> W.       | tall                       | O | pr | 1½ | jn.jl | Sc   | S. Europe             | 1629.      | S | co  | Kn. th. 2. t. A.12     |
| 8017 <i>autumnalis</i> W.      | Pheasant's-eye             | O | pr | 1  | my.o  | Cr   | Britain               | cor. fi.   | S | co  | Eng. bot. 308          |
| 8018 <i>flammea</i> W.         | flame-colored              | O | pr | 1  | jn.jl | Y    | Austria               | 1800.      | S | co  | Jac. aus. 4. t. 355    |
| 8019 <i>vernalis</i> W.        | perennial                  | Δ | or | 1  | mr.ap | Y    | Europe                | 1629.      | D | s p | Bot. mag. 134          |
| 8020 <i>flava</i> F.W.         | yellow                     | O | pr | 1  | jn.jl | Y    | S. Europe             | .....      | S | co  | Wein. phy. t. 28       |
| 8021 <i>pyrenæica</i> Dec.     | Pyrenean                   | Δ | or | 1½ | jl    | Y    | Pyrenees              | 1817.      | D | co  |                        |
| 1231. KNOWLTONIA. H. K.        | KNOWLTONIA.                |   |    |    |       |      | <i>Ranunculaceae.</i> | Sp. 2—5.   |   |     |                        |
| 8022 <i>rigida</i> H. K.       | thick-leaved               | Δ | cu | 1½ | mr.my | Y.g  | C. G. H.              | 1780.      | S | p.l | Bot. cab. 850          |
| 8023 <i>vesicatoria</i> H. K.  | blistering                 | Δ | cu | 1½ | fan   | Y.g  | C. G. H.              | 1691.      | S | p.l | Bot. mag. 775          |
| 1232. FICARIA. Pers.           | PILEWORT.                  |   |    |    |       |      | <i>Ranunculaceae.</i> | Sp. 1—2.   |   |     |                        |
| 8024 <i>ranunculoides</i> Mön. | vernal                     | Δ | w  | ½  | mr.my | Y    | Britain               | he. ba.    | D | l.p | Eng. bot. 584          |
|                                | <i>β pléna</i>             | Δ | or | ½  | mr.my | Y    | Britain               | he. ba.    | D | l.p |                        |



History, Use, Propagation, Culture,

remain some time before they come up; they may then be potted off, or planted out in the ground, when they will require to be shaded a little if the weather be warm, till they have taken fresh root. (*Bot. Cult.* 281.)

1228. *Naravelia*. An alteration of *narawael*, the name by which the plant is known in Ceylon. A plant with the habit of *Clematis*, but bearing leaves of only one opposite many-nerved pair, like *Lathyrus*.

1229. *Thalictrum*. This name is said to be derived from *θαλλω*, to grow green; fr. on the bright color of the young shoots. The species are vigorous growing plants, with ramose roots and smooth finely divided leaves; they grow in any soil and situation, and *T. tuberosum*, *cornuti*, and *aquilegifolium*, are reckoned handsome ornaments in a border or shrubbery.

1230. *Adonis*. The plant which sprang from the blood of Adonis when wounded by the boar. Handsome border flowers, especially *A. vernalis* and *autumnalis*, and of the easiest culture in any common soil.

- 7982 Leaves pinnate with smooth subglaucescous ovate cut-toothed 3-lobed segments  
 7983 Lvs. pinn. Segm. ovate-lanc. cut-toothed acuminate truncate cordate at base, Pedunc. shorter than leaf  
 7984 Leaves pinnate, Segments smooth entire or 3-lobed round oval oblong or linear rather acute  
 α Segments nearly round  
 β Segments oval or oblong lanceolate  
 γ Segments linear  
 7985 Leaves pinnate with stalked ovate-lanc. entire segments  
 7986 Pedunc. 1-fl. Sepals 6-8 blunt, Leaves pinnate, Segm. lanc. lin. acute or 3-lobed, Stems erect  
 7987 Pedunc. 1-fl. Fl. suberect, Leaves entire ovate; young ones silky  
 7988 Pedunc. 1-fl. Fl. nodding, Leaves entire ovate lanc. smooth

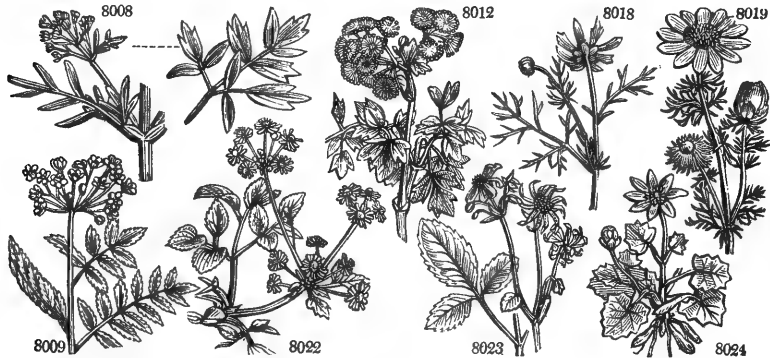
7989 The only species

- 7990 Stem simple almost naked, Raceme simple terminal, Fl. nodding, Segm. smooth  
 7991 Stem simple naked at base: leafy in middle; paniced at end, Lvs. pubescent viscid, Segm. blunt toothed  
 7992 Fl. loosely corymbose or subsolitary, Invol. none, Bract subsessile  
 7993 Fl. dioecious, Filam. clavate at end, Pericarp obl. sessile striated, Segm. of leaves bluntly 3-lobed  
 7994 Fl. dioecious, Fil. filiform, Segm. of leaves roundish cordate bluntly lobed smooth  
 7995 Stem round without bloom, Fl. paniced erect, Segm. of leaves smooth ovate or subcordate subtrifid  
 7996 Stem round without bloom, Fl. loosely panic. Segm. of leaves smooth glauc. ben. Peric. obliq. round. at base  
 7997 Stem round without bloom, Fl. loosely paniced, Segm. of lvs. obl. cuneiform sharply trifid: upper entire  
 7998 St. round cover. with a glauc. bloom, Fl. loose. pan. cern. Segm. of lvs. roundish tooth. at end, glauc. beneath  
 7999 Stem round upright, Fl. cernu. in a very large spreading panic. Segm. of lvs. smooth cuneif. trifid acute  
 8000 St. erect round striat. green, Pan. ere-t. comp. Fl. clust. Segm. of lvs. ov. subcord. coarsely cren. shin. above  
 8001 Stem roundish, Fl. panic. cernuous, Segm. of lvs. smooth ov. cuneate trifid, Lobes acute entire or finely cut  
 8002 Stem round, Fl. paniced cernuous, Petioles stem-clasping winged  
 8003 Stem simple covered with scattered leaves paniced at end, Stem downy viscid  
 8004 Fl. dioecious or monœc. Filam. filif. colored, Segm. of lvs. roundish coarsely tooth. smooth glauc. beneath  
 8005 Stem upright round somewhat furrowed, Root fibrous, Panic. multiple erect, Segm. of lvs. lin. lanc. entire  
 8006 St. branch. round somew. furrow. Root fibr. Pan. multiple erect, Segm. of lvs. lin. lanc. entire. cuneate at base  
 8007 Stem branch. erect somewhat furrowed, Root fibr. Pan. multiple erect, Segm. of lvs. cuneiform trifid acute  
 8008 St. branch. erect somew. furrow. Root fibr. Pan. multiple erect, Segm. of rad. lvs. cuneif. trif. Caul. obl. lin.  
 8009 Stem erect round striat. glauc. Pan. multip. erect close, Seg. of lvs. subcord. ov. bluntly trifid glauc. beneath  
 8010 Leaves simple 5-lobed serrated  
 8011 Stem erect simple angular, Root creeping, Panic. erect racemose few-flowered, Segm. of leaves linear  
 8012 Stipules ovate, two at the base of the ramifications of the petiole, Panic. corymb. Fruit 3-cornered  
 8013 Stem round upright somewhat furrowed, Root creeping, Panic. erect, Segm. of lvs. lin. very narrow entire  
 8014 Stipules O, Fl. loosely corymbose racemose, Fruit 3-cornered pendulous  
 8015 Stem round nearly naked, Fl. corymb. Filam. dilated at end, Segm. of lvs. smooth ovate entire or 3-lobed

- 8016 Cal. hispid at base, Pet. flat obl. blunt, Fruit netted in a long lax spike  
 8017 Cal. smooth, Pet. conc. conniving scarcely longer than cal. Fruit netted in an ovate head  
 8018 Cal. hispid at base, Pet. flat acute longer than cal. Flower large, Fruit in a cylindrical head  
 8019 Lower leaves abortive, Upper sessile, Fruit velvety, Pet. 10-12 oblong somewhat toothed  
 8020 Cal. smooth distinct at base, Pet. flat obl. twice as long as cal. Fruit smooth in an oblong head  
 8021 Rad. leaves on long stalks, Stalks trifid, Fruit smooth, Pet. 8-10 obl. cuneate entire

- 8022 Umb. supradecomound much spreading  
 8023 Umb. simple few-flowered

8024 Root grumous, Stem leafy, Leaves cordate



and Miscellaneous Particulars.

1231. *Knoulttonia*. Named after Thomas Knowlton, once the curator of the botanic garden at Eltham. The species grow freely in loam and peat, and are increased by dividing at the root, and by seeds.

1232. *Ficaria*. So named because the grumous roots bear tubercles like little figs. A common wood plant, remarkable for its shining leaves and bright yellow flowers. The young leaves are sometimes used as greens in Sweden, and the roots were formerly applied in poultices to piles in England, probably from their resemblance to that disease. These roots or tubercles lie near the surface, and are sometimes laid bare by the rains, and in this state have induced the ignorant, under the influence of superstition, to fancy that it rained wheat. The plant is injurious in moist grass lands, but is effectually destroyed by a dressing of coal or wood ashes.

| 1933. RANUNCULUS. W. Crow-Foot. |                        |                   |   | <i>Ranunculaceae. Sp. 49-160.</i> |   |       |                        |     |                       |
|---------------------------------|------------------------|-------------------|---|-----------------------------------|---|-------|------------------------|-----|-----------------------|
| 8025                            | Flammula W.            | lesser-Spearw.    | Δ | cu                                | 1 | jn.s  | Y Britain wa. pl. D    | co  | Eng. bot. 387         |
| 8026                            | réptans W.             | least-Spearw.     | Δ | cu                                | 1 | jn.s  | Y Britain wa. pl. D    | co  | Fl. dan. 108          |
| 8027                            | Lingua W.              | great-Spearw.     | Δ | cu                                | 2 | jn.au | Y Britain mud.d. D     | co  | Eng. bot. 100         |
| 8028                            | modiférus W.           | knot-flowered     | Δ | o                                 | 1 | my.jl | Y Sicily 1714. S       | co  | Bot. mag. 2171        |
| 8029                            | gramineus W.           | grassy            | Δ | or                                | 1 | ap.jn | Y Wales al. me. D      | co  | Eng. bot. 2306        |
| 8030                            | parnassifolius W.      | Parnassia-lyd.    | Δ | or                                | 1 | jn.jl | St S. Europe 1769. D   | co  | Bot. mag. 386         |
| 8031                            | amplexicaulis W.       | Plantain-leav'd   | Δ | or                                | 1 | ap.my | W Pyrenees 1633. D     | co  | Bot. mag. 286         |
| 8032                            | bullátus W.            | Portugal          | Δ | or                                | 1 | my.jn | Y S. Europe 1640. D    | co  | M. his. t. 30. f. 50  |
| 8033                            | Thóra W.               | kidney-leaved     | Δ | or                                | 1 | my.jn | Y Austria 1710. D      | co  | Jac. aus. 5. f. 442   |
| 8034                            | monspeliacus Gouan.    | Montpelier        | Δ | or                                | 1 | ap.my | Y S. France ... D      | co  | M. his. t. 30. f. 443 |
| 8035                            | lácerus Dec.           | torn              | Δ | cu                                | 1 | my.jn | Y S. France 1821. D    | co  | Bell. taur. 5. t. 8   |
| 8036                            | ophioglossifolius Dec. | Snake's-tongue-l. | Δ | o                                 | 1 | jn    | Y S. Europe 1823. S    | co  |                       |
| 8037                            | salsuginosus Pahl.     | salt              | Δ | cu                                | 1 | ap.my | Y Siberia 1822. D      | co  | Jac. vind. t. 31      |
| 8038                            | fumariifolius Desf.    | fumitory-leav'd   | Δ | cu                                | 1 | my.jn | Y ... D                | co  |                       |
| 8039                            | créticus W.            | Cretan            | Δ | or                                | 1 | ap.my | Y Candia 1658. D       | co  | Mo. his. t. 31. f. 48 |
| 8040                            | casubicus W.           | Caitha-leaved     | Δ | or                                | 2 | jn.jl | Y Siberia 1794. D      | co  | Bot. mag. 2267        |
| 8041                            | auricomus W.           | wood              | Δ | w                                 | 1 | ap.my | Y Britain woods. D     | co  | Eng. bot. 624         |
| 8042                            | arborivus W.           | three-flowered    | Δ | w                                 | 2 | my.au | Y N. Amer. 1713. D     | co  |                       |
| 8043                            | scelerátus W.          | Celery-leaved     | Δ | p                                 | 2 | my.jn | Y Britain wa.pl. S     | co  | Eng. bot. 681         |
| 8044                            | aconitifolius W.       | Aconite-leaved    | Δ | or                                | 1 | my.jn | W A. of Eur. 1596. D   | co  |                       |
|                                 | —, flore pléno         | double-flowered   | Δ | or                                | 1 | my.jn | W A. of Eur. 1596. D   | co  | Bot. mag. 204         |
|                                 | β platanifolius W.     | Plane-tree-lyd.   | Δ | or                                | 2 | jn.jl | W Germany 1769. D      | co  | Fl. dan. 111          |
| 8045                            | pedátus W. en.         | pedate            | Δ | or                                | 1 | my.jn | Y Hungary 1806. D      | co  | Bot. mag. 2229        |
| 8046                            | illyricus W.           | Illyrian          | Δ | or                                | 1 | my.jn | Y S. Europe 1596. D    | co  | Jac. aus. 3. t. 232   |
|                                 | <i>R. scriverus</i> W. |                   |   |                                   |   |       |                        |     |                       |
| 8047                            | asiáticus W.           | common-gard.      | Δ | or                                | 1 | my.jn | Va Levant 1596. D      | r.m | Mill. ic. 2. t. 216   |
| 8048                            | cherophyllus L.        | willow            | Δ | cu                                | 1 | my.jn | Y Portugal ... D       | r.m | Mo. h. t. 30. f. 44   |
| 8049                            | rutafolius W.          | Rue-leaved        | Δ | pr                                | 1 | my.jl | Y Austria 1759. D      | r.m | Jac. col. 1. t. 6, 7  |
| 8050                            | glaciális W.           | two-flowered      | Δ | pr                                | 1 | jn.au | Y Lapland 1775. D      | s.l | Fl. dan. 19           |
| 8051                            | nivális W.             | snowy             | Δ | pr                                | 1 | jn.au | Y Lapland 1775. D      | s.l | Fl. lap. t. 3. f. 2   |
| 8052                            | montánus W.            | mountain          | Δ | pr                                | 1 | jn.au | Y Lapland 1775. D      | s.l | Jac. aus. t. 325, 6   |
| 8053                            | alpéstris W.           | alpine            | Δ | pr                                | 1 | jn.au | W Scotland al. riv. S  | co  | Eng. bot. 2390        |
| 8054                            | pensylvánicus W.       | Pensylvanian      | Δ | o                                 | 1 | jn.jl | Y N. Amer. 1785. D     | p.l | Jac. ic. 1. t. 105    |
| 8055                            | bulbosus W.            | bulbous           | Δ | w                                 | 1 | my.jn | Y Britain me. pa. S    | co  | Eng. bot. 515         |
| 8056                            | hirsátus H. K.         | pale hairy        | Δ | o                                 | 1 | jn.o  | Y England rubble. D    | co  | Eng. bot. 1504        |
| 8057                            | marylándicus Ph.       | Maryland          | Δ | un                                | 1 | my.jl | Pa. Y N. Amer. 1811. D | co  |                       |
| 8058                            | répens W.              | creeping          | Δ | w                                 | 1 | my.au | Y Britain me. pa. D    | co  | Eng. bot. 516         |
|                                 | —, flore pléno         | double-flowered   | Δ | or                                | 1 | my.au | Y ... D                | co  |                       |
| 8059                            | polyánthemus W.        | many-flowered     | Δ | un                                | 1 | my.jn | Y N. Europe 1596. D    | co  | Lab. ic. 666          |
| 8060                            | ácris W.               | upright           | Δ | w                                 | 1 | jn.jl | Y Britain me. pa. D    | co  | Eng. bot. 652         |
|                                 | —, flore pléno         | double-flowered   | Δ | or                                | 1 | jn.jl | Y Britain ... D        | co  | Bot. mag. 215         |



History, Use, Propagation, Culture,

1933. *Ranunculus*. Said to be so called from *rana*, a frog, because the species inhabit humid places frequented by that reptile. *Renoncule*, Fr., *Ranunkel*, Ger., and *Ranuncolo*, Ital. Some of the species are weeds, one or two border flowers, and *R. asiaticus* is one of our most esteemed florists' flowers. Some of the species are tuberous and others bulbous rooted, but the most part are tuberous. *R. sceleratus* is one of the most virulent of our native plants. Bruised and applied to the skin it soon raises a blister, and makes a sore by no means easy to heal. Strolling beggars have been said to use it for that purpose, in order to excite compassion. When chewed, it inflames the tongue; and when taken into the stomach, it produces violent effects. It is suspected to have proved poisonous to sheep.

*R. acontifolius* is a handsome plant, with branching stems, deep green leaves, and pure white flowers; the double variety is an old and much admired border flower.

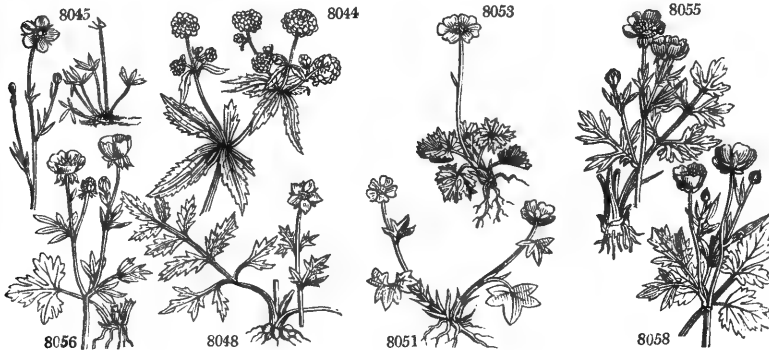
Of *R. asiaticus* the varieties raised from seed are endless. Maddock, in the end of the last century, had nearly eight hundred, all with proper names, and ranged as purple, gray, crimson, red, rosy, orange, yellow, white, olive, coffee, striped, spotted, &c. No plant is more prolific in new varieties from seeds; no two plants, as Maddock observes, producing flowers alike, or the same as the original. Established sorts are propagated by offsets, which generally flower the first year: rare sorts may be multiplied by dividing the crown of the tuber with a sharp penknife into as many parts as there are buds: these will not flower till the second year, but will diminish the risk of losing a very rare variety.

The *ranunculus* prefers a fresh loamy soil, rather than otherwise inclined to clay: it should be well manured; and it is customary, in forming the beds, to place a stratum of well rotted cow-dung six or nine inches below the surface, which both retains moisture and supplies nourishment. The roots may either be planted in November or earlier, in which case, to prevent their being destroyed by the frost, they should be mulched, or they need not be planted till March. The former mode gives much the strongest bloom, as the roots, when kept in air all the winter, are apt to be over dried, and kept in sand they sometimes get mouldy: and in this and similar cases, the progress of vegetation from the planting to the blossoming period, is more rapid than is natural to the species. *Ranunculus* roots will retain their vegetative properties two and sometimes three years; a thing not common among bulbs and tubers, unless preserved dormant in an ice cold room.

*R. bulbosus* has a solid white bulb about the size of that of the common *Crocus*. The flowers are some-

- 8025 Leaves smooth lin. lanc. : lower stalked, Stem declinate solid rooting at base, Fruit smooth  
 8026 Leaves lin. entire smooth, Stem creeping and rooting at every joint  
 8027 Leaves lanc. subserrate sessile half stem-clasping, Stem erect smooth  
 8028 Rad. leaves stalked oval-obl. Fl. sess. opposite the leaves, Fruit granular scarcely crowned with the style  
 8029 Leaves lanc. or lin. entire, Stem erect very smooth, Scales of the petals tubular  
 8030 Rad. leaves stalked subcordate ovate-roundish : cauline sessile ovate-lanc. Pedunc. hirsute  
 8031 Leaves oval-lanceolate acuminate stem-clasping, Scape and peduncles smooth  
 8032 All the leaves radical-stalked ovate toothed, Scapes naked 1-flowered  
 8033 Leaves smooth reniform crenate, Floral cut, Stem 2-3-fl. smooth  
 8034 Lvs. woolly 3-lobed with trifid toothed cuneate lobes : upper 3-parted with entire lin. lobes, Cal. reflexed  
 8035 Leaves cuneiform irregularly cut at the end, Stem smooth branched many-fl. Cal. appressed  
 8036 Lower leaves stalked cordate blunt : upper obl. sessile, Stem erect hollow, Fruit granular  
 8037 Rad. lvs. stalked oval or subcord. 3-5-tooth. at end, Runners from neck of plant, Scapes naked 1-fl. erect  
 8038 Lvs. very smooth many-parted, Lobes obl. Scapes many 1-fl. with appressed hairs, Cal. spreading smooth  
 8039 Covered with soft hairs, Rad. lvs. stalk. cord. orbic. somewhat cut-tooth. Stem branched, Cal. appressed  
 8040 Lvs. smooth : radic. stalked reniform crenate ; caul. in linear lobes, Cal. pubescent shorter than petals  
 8041 Leaves smooth : radic. stalked cordate generally 3-parted or lobed, Calyx pubescent shorter than petals  
 8042 Lvs. smooth : radic. stalk. cordate-roundish crenate some 3-parted or cut, Cal. smooth longer than petals  
 8043 Lvs. smooth : radic. stalk. 3-part. Lobes 3-lob. bluntly cut, Cal. smooth, Fruit very small in an obl. spike  
 8044 Lvs. palm. 3-7-parted cut-toothed : upper sessile with lin. lanc. lobes, Stem branch. many-fl. Cal. appressed

- β Radic. leaves 5-7-lobed with acuminate lobes, Bractes lin. entire  
 8045 Leaves smooth : radic. stalked 3-parted or pedate ; upper linear, Stem erect few-fl. Calyx appressed  
 8046 Lvs. silky : first ent. lin. lanc. ; rest 3-part. with entire or 3-part. lobes, Stem many-fl. Cal. somewhat reflexed  
 8047 Leaves tern. or bitern. Segm. toothed or cut trifid, Stem erect simple or branched, Fruit in a cylindr. spike  
 8048 Rad. lvs. stalked villous 3 cut : first ovate toothed or 3-lobed, Stem erect 1-2-fl. Cal. spreading subreflexed  
 8049 Leaves pinnate with 3-lobed cut multifid lobes, Stem about 1-fl. Cal. smooth, Pet. 8-10  
 8050 Radical leaves stalked palmate 3-parted with trifid blunt thick lobes, Calyx very hirsute  
 8051 Leaves smooth : radical stalked 5-fid with entire ovate lobes, Calyx very hirsute twice as short as petals  
 8052 Rad. lvs. smooth 3-parted round with trifid blunt segments : cauline sess. linear-lobed, Cal. nearly smooth  
 8053 Leaves round 3-lobed, Lobes blunt crenate at end, Stem about 1-fl. Cal. smooth, Pet. obcord. or 3-lobed  
 8054 Stem and petioles cover. with stiff hairs, Lvs. 3-fid with stalk. acutely 3-lob. segm. Cal. reflex. Style smooth  
 8055 Rad. lvs. stalked 3-cut with trifid cut segm., of which the middle one is stalked, Stem erect, Cal. reflexed  
 8056 Lvs. 3-lob. with blunt cut lobes, of which the mid. is stalk. Cal. red. Grains with a single row of minute warts  
 8057 Stem and petioles with soft hairs at base, Lvs. smooth, trif. with 3-lob. ac. cut segm. Cal. smooth spreading  
 8058 Lvs. pinnate 3-fid with cuneate 3-lobed cut segm. Runners creeping, Cal. erect, Grains with an acute point  
 8059 Lvs. 3-5-lob. with lin. divisions, Stem erect and petioles with spreading hairs, Pedunc. furrowed, Cal. hairy  
 8060 Lvs. pubesc. or smooth, Lobes cut-tooth. acute : upper lin. Stem many-fl. pubesc. Cal. vill. Grains mucron.



## and Miscellaneous Particulars.

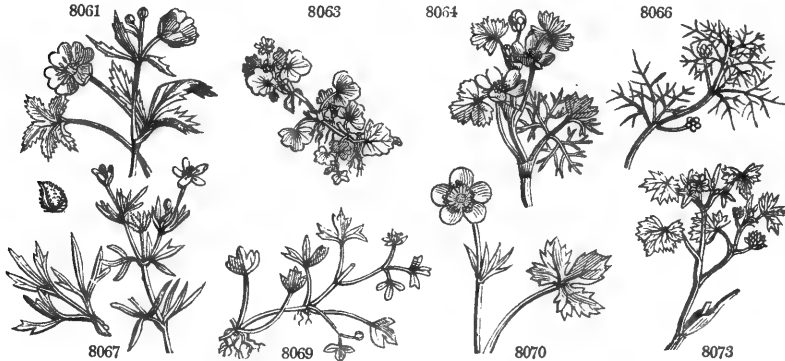
times double, but not so frequently as *R. acris*. It is distinguished from *R. repens*, with which it has been confounded by some authors, by its roots, by its never throwing out runners, and by its reflexed calyx : this last character arises from its particular structure, the lower half being thin and almost transparent, and therefore not having a sufficient degree of solidity to support itself upright. It is the second flower which, next to the Dandelion, covers the meadows with dazzling yellow. Like most of the Crow-foots, it possesses the property of inflaming and blistering the skin ; particularly the root, which is said to raise blisters with less pain and more safety than Spanish flies ; hence these roots have been applied for that purpose, particularly to the joints in cases of the gout. According to Hoffman, beggars make use of them to blister their skins, with a view of exciting compassion. The juice of the herb is said to be more acrid than that of *R. sceleratus*, and if applied to the nostrils, it provokes sneezing. The roots, on being kept, lose their stimulating quality, and are even eatable when boiled. Hogs are fond of them, and frequently dig them up. The herb is too acrid to be eaten unmix'd by cattle ; accordingly the flowering-stalks are left to perfect the seed in pastures : some of it, however, is consumed, and it is not improbable that this and other pungent plants, mix'd with the grasses, may act as a powerful stimulus to some animals, as salt does to others. It abounds in dry pastures, and flowers in May. Besides the name of round-rooted or bulbous Crow-foot, it is called by the common people butter-flower, butter-cups, king-cups, gold-cups ; and it is the cuckoo-buds of yellow hue, of Shakspeare. *R. repens*, hirsutus, and acris, however, are all confounded with this under one name by the vulgar.

*R. repens* is an obnoxious plant in every description of gardening and agriculture. From the great variety of soil and situation in which it is found, it assumes many varieties ; by a river's side, or in marshes, it will grow three or four feet high, with a stem nearly as large as the human thumb ; in barren gravelly fields it is entirely procumbent, with a stem not larger than a small wheat-straw ; but in all states it retains the character of the creeping stem, and it does not lose it in cultivation. Its principal time of flowering is in June, but it may be found in blossom during most of the ensuing summer months in meadows and pastures, under hedges, in shady waste places, church-yards, and gardens. The qualities of this and bulbosus are similar : both blister the skin, and are very acrid in taste. Like *R. acris* and bulbosus, it is sometimes found double, but more rarely.

*R. acris* is supposed to possess the blistering property in a considerable degree, whence Linnæus gave it the



|                         |                 |      |   |       |      |                        |       |                         |
|-------------------------|-----------------|------|---|-------|------|------------------------|-------|-------------------------|
| 8061 lanuginosus W.     | woolly-leaved   | △ or | 1 | jn.jl | Y    | S. Europe 1683.        | D co  | Fl. dan. 397            |
| 8062 parvulus W.        | little-upright  | ○ w  | 1 | jl.au | Y    | England ...            | S co  | Col. ec. t. 316. f. 1   |
| 8063 hederaceus W.      | Ivy-leaved      | △ pr |   | my.au | W    | Britain wat. pl.       | D co  | Eng. bot. 2003          |
| 8064 aquatilis W.       | various-leaved  | △ pr |   | ap.au | W    | Britain dit.           | D co  | Eng. bot. 101           |
| 8065 tripartitus Dec.   | three-parted    | △ pr |   | ap.au | W    | Europe dit.            | D co  |                         |
| 8066 pan'thorix Dec.    | rigid-leaved    | △ pr |   | ap.au | W    | Britain ...            | D co  |                         |
| β fluvialis W.          | long-ld.-water  | △ or |   | ap.au | W    | Britain ...            | D co  | Fl. dan. 376            |
| 8067 arvensis W.        | corn            | △ w  | 1 | jn.au | Y    | Britain cor. fl.       | D co  | Eng. bot. 135           |
| 8068 oxyspermus W.      | sharp-grained   | △ or | 1 | my    | Pa.Y | Caucasus 1822.         | D co  |                         |
| 8069 hyperboreus L.     | northern        | △ cu | 1 | ap.my | Y    | N. Europe 1820.        | D co  | Fl. dan. t. 331         |
| 8070 Gouani W.          | Gouan's         | △ or | 1 | my.au | Y    | Pyrenees 1818.         | D co  | Go. ill. t. 17. f. 1, 2 |
| 8071 nemorosus Dec.     | wood            | △ or | 1 | my.au | Y    | Switzerl. 1810.        | D co  |                         |
| 8072 muricatus W.       | prickly seeded  | ○ w  | 1 | jl.au | Y    | S. Europe 1683.        | S co  | Vent. cels. t. 73       |
| 8073 parviflorus W.     | small-flowered  | ○ w  | 1 | my.jn | Y    | England gra. pl.       | S co  | Eng. bot. 120           |
| 1234. TROLIUS. W.       | GLOBE-FLOWER.   |      |   |       |      | Ranunculaceæ. Sp. 3-5. |       |                         |
| 8074 americanus Muhl.   | American        | △ or | 1 | my.jl | Y    | N. Amer. 1805.         | D co  | Bot. mag. 1988          |
| læxus Ph.               |                 |      |   |       |      |                        |       |                         |
| 8075 europæus W.        | European        | △ or | 2 | my.jn | Y    | Britain groves.        | D p.l | Eng. bot. 28            |
| 8076 asiaticus W.       | Asiatic         | △ or | 1 | my.jn | D.O  | Siberia 1759.          | D p.l | Bot. mag. 235           |
| β intermedius           | intermediate    | △ or | 1 | my.jn | Y    | .....                  | ...   | D p.l                   |
| γ hybridus              | hybrid          | △ or | 1 | my.jn | Y    | .....                  | ...   | D p.l                   |
| 1235. ISOPYRUM. W.      | ISOPYRUM.       |      |   |       |      | Ranunculaceæ. Sp. 2-4. |       |                         |
| 8077 fumaroides W.      | Fumitory-ld.    | ○ pr | 1 | jn    | W.g  | Siberia 1741.          | S s.l | Am. rut. 74. t. 12      |
| 8078 thalictroides W.   | meadow-rue-ld.  | △ pr | 1 | mr.ap | W.g  | Italy 1759.            | D s.l | Jac. aust. 2. t. 105    |
| 1236. ERANTHIS. Sal.    | WINTER-ACONITE. |      |   |       |      | Ranunculaceæ. Sp. 1-2. |       |                         |
| 8079 hyemalis Sal.      | common          | △ or | 1 | ja.mr | Y    | Italy 1596.            | O co  | Bot. mag. 3             |
| 1237. HELLEBORUS. W.    | HELLEBORE.      |      |   |       |      | Ranunculaceæ. Sp. 7-9. |       |                         |
| 8080 niger W.           | Christmas Rose  | △ or | 1 | ja.mr | Pk   | Austria 1596.          | D r.m | Bot. mag. 8             |
| 8081 viridis W.         | green           | △ or | 2 | mr.ap | G    | Britain woods.         | D co  | Eng. bot. 200           |
| 8082 purpurascens Pers. | purplish        | △ or | 1 | mr.ap | Pu.g | Hungary 1817.          | D s.l | Pl. ra. h. 2. t. 101    |
| 8083 odoratus W. en.    | sweet-scented   | △ or | 1 | mr.ap | G    | Hungary 1817.          | D s.l |                         |
| 8084 dumetorum W. en.   | bushy           | △ or | 1 | mr.ap | G    | Hungary 1817.          | D s.l |                         |
| 8085 foetidus W.        | Bear's-foot     | △ or | 1 | f.ap  | G    | England cha.pa.        | D co  | Eng. bot. 613           |
| 8086 lividus W.         | three-leaved    | △ or | 1 | ja.my | Pu   | Corsica 1710.          | D p.l | Bot. mag. 72            |
| 1238. COP'TIS. Sal.     | COPTIS.         |      |   |       |      | Ranunculaceæ. Sp. 1-2. |       |                         |
| 8087 trifolia Ph.       | three-leaved    | △ pr | 1 | ap.my | Br   | N. Amer. 1782.         | D p.l | Bot. cab. 173           |



History, Use, Propagation, Culture

name of acris. Curtis says, that even pulling up the plant, and carrying it to some little distance, has produced a considerable inflammation in the palm of the hand: that cattle, in general, will not eat it; yet that sometimes, when they are turned hungry into a new field of grass, or have but a small spot to range in, they will feed on it, and hence their mouths have become sore and blistered. According to Linnaeus, sheep and goats eat it; but kine, horses, and swine refuse it. When made into hay it loses its acrid quality, but then it seems to be too stalky and hard to afford much nourishment: if it be of any use it must be to correct, by its warmth, the insipidity of the grasses. In many pastures the flowering stems are left standing in vast abundance to disseminate their seeds: before they do that, they might easily be cut down with the scythe, or pulled up by women and children after a shower, which would more effectually destroy the plants; they should be gathered into heaps and burnt. It flowers in June and July, and is confounded vulgarly with the repens and bulbosus, under the name of butter-flower or butter-cups, under a notion that the yellow color of butter is owing to these plants. It is the richness and exuberance of the pasture that communicates this color, and not these flowers, which the cattle seldom or ever touch. It is frequent in gardens with a double flower, among other herbaceous perennials, under the name of yellow bachelor's buttons.

R. aquatilis produces flowers which are sometimes very large, and make a handsome show in ponds and ditches: the curious variety in the floating and immersed leaves, occasioned by the depth and velocity of the stream, adds to the beauty of this common aquatic plant. Dr. Pulteney (*Linn. Trans.* vol. 5. p. 19.) contradicts the assertions of its deleterious qualities, and proves that it is not merely innocuous, but nutritive to cattle, and capable of being converted to useful purposes in agricultural economy. In the neighbourhood of Ringwood, on the borders of the Avon, some of the cottagers support their cows, and even horses, almost wholly by this plant. A man collects a quantity every morning, and brings it in a boat to the edge of the water, from which the cows eat it with great avidity, insomuch that they stint them, and allow only about twenty-five or thirty pounds to each cow daily. One man kept five cows and one horse so much on this plant with the little which the heath afforded, that they had not consumed more than half a ton of hay throughout the whole year, none being used except when the river is frozen over. Hogs also are fed with this plant, and improve so well on it, that it is not necessary to give them any other sustenance till they are put up to fatten. This property of water-crowfoot is the more remarkable, as all the species have been deemed acrimonious, and some of them are, without doubt, highly so. It is probable this species is rendered inert as a poison by growing in the water; although it must be confessed, that in other instances moisture heightens the deleterious property of vegetables, especially in the umbelliferous tribe.

- 8061 Leaves trifid silky, Lobes broad toothed cut, Stem and petiole with reflexed hairs, Grains hooked  
 8062 A small variety of *R. hirsutus*, with a dwarf 1-flowered stem  
 8063 Lvs. reniform 3-5-lobed with broad entire blunt lobes, Pet. scarcely longer than cal. Petals 5-12 [bristles  
 8064 The submersed lvs. capill. multifid : emerged 3-part. with cuneif. lobes tooth. at end, Grains hispid with stiff  
 8065 The submersed lvs. capillary multifid : emerged 3-part. with cuneif. lobes toothed at end, Grains smooth  
 8066 All the leaves capillary multifid, Pet. obovate larger than calyx, Grains smooth

- 8067 Leaves smooth : radical 3-parted ; cauline multifid with lin. lobes, Grains with long prickles on each side  
 8068 Lvs. vill. : radic. stalk. ov. 3-part. cut ; floral 3-part. Stem erect dichotom. with spread hairs, Grains muric.  
 8069 Lvs. smooth stalk. bifid, Lobes oval obl. divaricat. : the mid. entire, Sheath auricled at base, Stem filiform  
 8070 Radical leaves round with 5 cut lobes : cauline sessile palmate, Stem pubescent, Cal. subvillous  
 8071 Rad. lvs. trifid beyond midd. with cuneif. trifid lobes, Stem with spread hairs, Grains hooked with style  
 8072 Lvs. smooth stalk. roundish 3-lob. coarsely tooth. Pedunc. opp. lvs. Cal. spreading, Grains muricate cornute  
 8073 Lvs. vill. round 3-lob. coarsely tooth. Stems soft decumb. Cal. reflexed as long as pet. Grains tuberculate

8074 Sepals 5-10 spreading, Pet. 10-15 shorter than stamens

8075 Sepals 15 globose, Pet. 5-10 the length of stamens

8076 Sepals 10 spreading, Pet. 10 longer than stamens

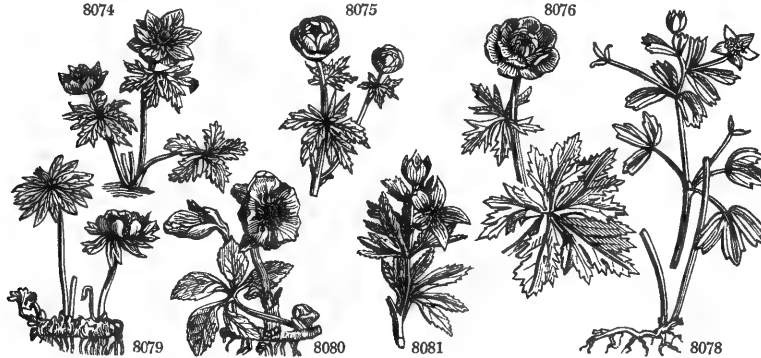
8077 Caps. 10-20, Sepals acute, Root slender nearly simple perpendicular

8078 Caps. 1-3, Sepals blunt, Root creeping grumous

8079 Sepals 6-8-oblong

- 8080 Radical leaves pedate smooth, Scape leafless with 1-2 fl. and bractes  
 8081 Radical leaves pedate smooth : cauline subsessile palmate, Sepals roundish ovate green  
 8082 Radical leaves palmate downy beneath, Segm. cuneate at base 3-5-lobed at end, Sepals roundish colored  
 8083 Radical leaves palmate downy beneath, Segm. obl. undivided serrate at end, Sepals ovate obl. acute green  
 8084 Radical leaves very smooth pedate : cauline subsessile palmate, Sepals roundish green  
 8085 Stem many-fl. leafy, Leaves pedate very smooth with obl. linear segments  
 8086 Stem many-fl. leafy, Leaves 3 cut smooth glaucous beneath, Segments ovate-lanceolate

8087 Leaves trifid with obovate toothed blunt 3-lobed segments, Scape 1-flowered



and Miscellaneous Particulars.

This remark of Dr. Pulteney's is the more important, as in the Swedish experiments the *R. aquatilis* is recorded as the only one rejected by all the species of domestic cattle ; of the common sorts, there is no doubt but that *R. Flammula*, *bulbosus*, *acris*, *sceleratus*, and *arvensis* are acrimonious. Before the introduction of *Cantharides* they were used as vesicatories, and are said to act with less pain than flies, without any effect on the urinary passages ; but their action is related to be uncertain, and they are accused of frequently leaving ill-conditioned ulcers.

The acrimony, even of the most virulent, is wholly dissipated in drying ; so that in form of hay they appear to be harmless. It is also expelled in decoction ; accordingly, the shepherds of Morlachia boil the *R. sceleratus* and eat it ; and both *R. auricomus* and *repens* are said to be wholly inoffensive, and are ranked by some authors among oleraceous plants.

The *Ranunculi* give out their acrimony wholly in distillation. The distilled water of *R. sceleratus* is intensely acrimonious ; and when cold deposits crystals, which are scarcely soluble in any menstruum, and are of an inflammable nature.

1234. *Trollius*. A name given to this plant by Conrad Gesner. It is derived from *trol* or *trolen*, an old German word, signifying something round, in allusion to the form of the flowers. The species are showy flowers for the general border, and of the easiest possible culture.

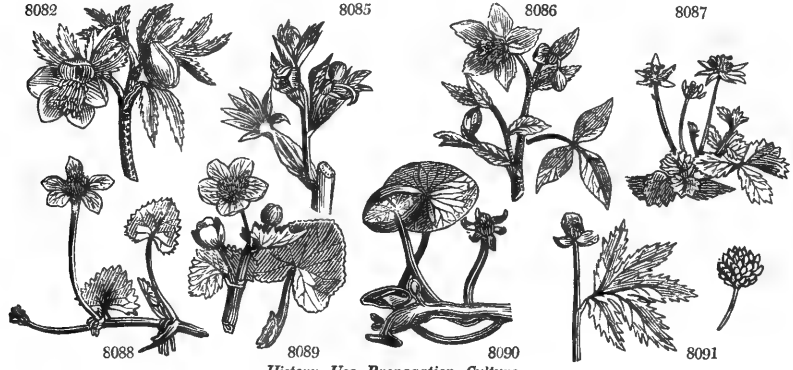
1235. *Isopyrum*. A name given by the Greeks to a plant resembling *Nigella*, the seeds of which had the same taste. These are small herbaceous plants related to *Nigella*, but with the habit of *Thalictrum*.

1236. *Eranthis*. From *ερα*, the earth, and *ανθη*, flower, because the bright yellow blossoms seem to lie upon the earth. A pretty little tuberous rooted plant, valuable for the early period at which it flowers.

1237. *Helleborus*. From *ηλη*, to cause death, and *βοτα*, food. The dangerous qualities of *Hellebore* are well known. Leathery leaved plants, most of which are evergreen, and flower in winter and early in spring. *H. niger* and fetidus have long been in use in popular medicine, especially the latter, as a vermifuge and cathartic. They are both admitted in the London *Materia Medica*, but being violent poisons, require caution in their application. *H. fetidus*, from its deep green and finely divided leaves, forms a most ornamental evergreen bush for the shrubbery.

1238. *Coptis*. From *κοπτε*, to cut, in reference to the numerous divisions of the leaves. Small plants, with the habit of *Trientalis*.

|  |   |  |
|--|---|--|
| 1239. <i>CALTHA</i> . <i>W.</i>          | MARSH-MARYGOLD.   | <i>Ranunculaceæ</i> . <i>Sp.</i> 2-7.                            |
| 8088 <i>radicans</i> <i>L. T.</i>        | creeping $\frac{\text{m}}{\text{A}}$ $\Delta$ or        | $\frac{1}{2}$ ap. my Y Scotland sc. ma. D m.s Linn. tr. 8. t. 17 |
| 8089 <i>palustris</i> <i>W.</i>          | common $\frac{\text{m}}{\text{A}}$ $\Delta$ or          | 1 ap. my Y Britain mar. D m.s Eng. bot. 506                      |
| <i>β flore pleno</i>                     | double-flower'd $\frac{\text{m}}{\text{A}}$ $\Delta$ or | 1 ap. my Y ..... D m.s   |
| 1240. <i>HYDROPEL/TIS</i> . <i>H. K.</i> | <i>HYDROPELTIS</i> .                                    | <i>Hydropeltidæ</i> . <i>Sp.</i> 1.                              |
| 8090 <i>purpurea</i> <i>H. K.</i>        | purple $\frac{\text{m}}{\text{A}}$ $\Delta$ cu          | jl. au R N. Amer. 1798. D m.s Bot. mag. 1147                     |
| 1241. <i>HYDRAS/TIS</i> . <i>W.</i>      | <i>HYDRAS/TIS</i> .                                     | <i>Ranunculaceæ</i> . <i>Sp.</i> 1.                              |
| 8091 <i>canadensis</i> <i>W.</i>         | Canadian $\frac{\text{m}}{\text{A}}$ $\Delta$ or        | $\frac{1}{2}$ my. jn G Canada 1759. D m.l Mil. ic. 2. t. 285     |



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1239. *Caltha*. A syncope of *καλαδος*, a goblet, in allusion to the form of the corolla, which may be likened to a golden cup. The flower-buds of *C. palustris*, gathered before they expand, are said to be a good substitute for capers. The juice of the petals boiled with alum dyes paper yellow. The whole plant is acrid, and not eaten by cows, unless in case of extreme hunger.



CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

This class, which, as its name applies, depends upon the presence of four stamens in the corolla, two of them being longer than the others, is, with the exception of Syngenesia and Gynandria, the most natural and best defined of all Linnæus's great groups, or, as he named them, classes. It is divided into two orders, called Gymnospermia and Angiospermia.

Gymnospermia contains all the genera with what are popularly but erroneously called by the Linnæan school of botany, naked seeds. It answers to the natural order of Labiatae of Jussieu's method, with the exception of some genera which are excluded on account of having only two stamens, and are found in Diandria. Nearly all the class consists of herbaceous plants, those which are called shrubs being for the most part herbaceous plants, whose stems, from the mildness of the climate in which they grow, become perennial. The most remarkable plants are the rosemary, hyssop, balm, thyme, mint, and marjoram, for the kitchen or laboratory; and the various species of Teucrium, Lavandula, Phlomis, and Dracocephalum, for the flower garden.

In Angiospermia are included the genera with numerous, or rarely a few, seeds, enclosed in a simple pericarpium. These would be combined in a manner not altogether unnatural, if some of the genera were excluded. For instance, the beautiful Linnæa, the emblem of the most highly gifted naturalist the world has ever produced, belongs to Caprifoliaceæ, and stands alone in point of natural affinity; the same may be said of Melianthus. The greater part of Scrophulariaceæ, all Melampyraceæ and Orobanchæ, and nearly the whole of Verbenacæ and Gesneriæ are found here. A considerable portion of Acanthaceæ also occupy a station in this order. Among these are many genera of much beauty, but few of interest as useful plants. Among the ornamental families every one will recognize the Bignonia, with its elegant orange or yellow trumpet flowers, and frequently twining stem; the Jacaranda, with its fern-like umbrageous foliage and magnificent diadem of blue; the Acanthus, consecrated to sculpture; in another, the noble Clerodendrum, the pride of the Japanese; and the modest Eyebrights (*Euphrasia*) of our English meadows. In one part of the class we have the Vervain, surrounded by its mystic moonlight charms; in another, the Antirrhinum tribe, remarkable for the grotesque resemblance of its blossoms to the snouts of animals; and close behind it, imperial Pedicularis, proudly rearing her heraldic honours among the snows and deserts of the frozen north. These are succeeded by a long line of forms, principally European, and of various degrees of beauty. Among the useful plants, *Digitalis*, used in medicine, and *Sesamum* as oil seed, are all which can be particularized.

Order I. GYMNOSPERMIA.



Pericarpium divided into four lobes resembling naked seeds.

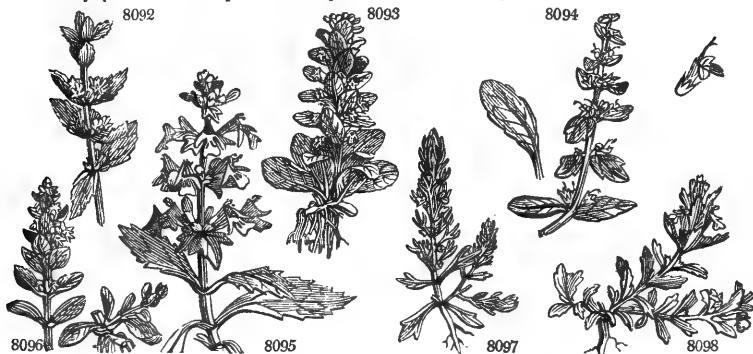
- 1242. *Ajuga*. Upper lip of cor. very minute, 2-toothed. Stamens longer than upper lip.
- 1243. *Anisomeles*. Calyx tubular, 10-striated, 5-cleft. Upper lip of corolla small, entire; lower trifid, with the middle segment 2-lobed. Stamens exerted, ascending. Anthers of the short stamens 2-celled, with close cells; of the longer halved or dissimilar. Seeds smooth.
- 1244. *Teucrium*. Upper lip of cor. none, 2-parted beyond the base. Stamens exerted.
- 1245. *Westringia*. Cal. campanulate, 5-toothed. Corolla subrotate, with the upper segment bifid. Two of the anthers barren.
- 1246. *Satureja*. Cal. tubular, striated. Segments of corolla nearly equal. Stamens distant.

8088 Stem creeping, Leaves triangular cordate serrate crenate

8089 Stem erect, Leaves cordate roundish crenate with round auricles

8090 An aquatic floating plant, covered all over with viscid slime, Roots fibrous

8091 The only species. A small plant with simple stems and a few 3-5-parted leaves



and Miscellaneous Particulars.

1240. *Hydropeltis*. From ὑδωρ, water, and πέλτρον, a buckler; that is to say, a water-plant, with a leaf like a round shield. A curious little floater, with the aspect of *Hydrocharis*.

1241. *Hydrastis*. From ὑδωρ, water, in reference to the humid places wherein it grows. The root of this plant is yellow, bitter, pungent, and tonic.

1247. *Thymra*. Cal. subcylindrica, 2-lipped, with a villous furrowed line on each side. Segm. of cor. flat. Style half bifid.

1248. *Hyssopus*. Lower lip of cor. 3-parted, with the intermediate segm. subcrenate. Stamens straight, distant.

1249. *Nepeta*. Cal. dry, striated. Cor. with a longish tube; the middle segments of lower lip crenate. Orifice reflexed at edge. Stamens approximating.

1250. *Elsholtzia*. Cal. tubular, 5-toothed. Upper lip of corolla 4-toothed; lower longer, undivided, somewhat crenulate. Stamens distant.

1251. *Lavandula*. Cal. ovate, somewhat toothed, supported by a bractea. Corolla resuplicate. Stamens within the tube.

1252. *Sideritis*. Cal. 5-fid. Cor. ringent or subregular: the upper lip bifid, lower 3-parted. Stamens within the tube. The short stigma wrapping over the other.

1253. *Bystropogon*. Cal. with 5 subulate teeth, closed at the orifice with hairs. Upper lip of cor. bifid; lower trifid. Stamens distant.

1254. *Mentha*. Cor. nearly equal, 4-fid, with the broadest segment emarginate. Stamens erect, distant.

1255. *Perilla*. Cal. with the upper segment very short. Stamens distant. Styles 2, united.

1256. *Hyptis*. Cal. 5-toothed, increasing in size. Corolla ringent: the upper lip bifid; the lower 3-parted, with the intermediate segment shaped like a little bag. Stamens inserted in the swollen part of the tube, and declinate.

1257. *Horminum*. Cal. 2-lipped, awned, smooth in the orifice; when past flower, having its upper teeth crossing each other. Upper lip of corolla 2-lobed; lower 3-lobed, with nearly equal segments. Leaves radical. Scape nearly naked.

1258. *Glechoma*. Cal. 5-fid. Each pair of anthers forming by their union the figure of a cross.

1259. *Lamium*. Upper lip of corolla entire, vaulted; lower 2-lobed; the orifice toothed at the edge on both sides.

1260. *Galeopsis*. Upper lip of corolla somewhat crenate, vaulted; lower 2-toothed above.

1261. *Galeobdolon*. Cal. 5-fid, unequal, awned. Upper lip of corolla vaulted, entire; lower trifid, with acute segments. Anthers smooth.

1262. *Betonica*. Calyx awned. Upper lip of cor. ascending, flattish. Tube cylindrical.

1263. *Stachys*. Upper lip of cor. vaulted; lower reflexed at edges, intermediate larger and emarginate. Stamens after flowering reflexed towards the sides.

1264. *Zizania*. Cal. 5-parted, with subulate very long equal segments. Segments of lower lip of cor. reflexed; intermediate folded together and emarginate. Stamens after flowering reflexed towards the sides. Grain one.

1265. *Ballota*. Cal. hypocrateriform, 5-toothed, 10-lined. Upper lip of cor. crenate concave. Grains ovate 3-cornered.

1266. *Marrubium*. Cal. hypocrateriform, rigid, 10 lined. Upper lip of cor. bifid, linear, straight.

1267. *Leonurus*. Cal. 5-angled, 5-toothed. Upper lip of cor. villous, flat, entire; lower 3-parted, with the middle segment undivided. Anthers covered, with shining spots.

1268. *Phlomis*. Calyx 5-angled, 5-toothed. Helmet compressed, keeled, emarginate. Seeds bearded at end.

1269. *Leucas*. Cal. tubular, 10-striated, 8-10-toothed, with an orifice, either equal or oblique. Corolla ringent. Helmet concave, entire, bearded; lower lip 3-fid, with the middle segment largest. Anthers twin, beardless, with divaricating lobes. Stigma 2-lipped, with the upper segment very short.

1270. *Leonotis*. Differs from the last in having an elongated helmet, and the lower lip small and withering: the middle segment scarcely larger than the others.

1271. *Moluccella*. Cal. campanulate, enlarged, wider than corolla, spiny.

1272. *Clinopodium*. Invol. of many bristles beneath the whorl. Corolla 2-lipped. Upper lip of corolla flat, orbicordate, straight.

1273. *Pycnanthemum*. Involucre of many bractes beneath the little heads. Cal. tubular, striated. Upper lip of corolla nearly entire; lower trifid. Stamens nearly equal.
1274. *Origanum*. Cone 4-cornered, spiked, collecting the calyxes. Upper lip of corolla erect, flat; lower 3-parted, with nearly equal segments.
1275. *Thymus*. Orifice of bilabiate calyx closed with hairs. Upper limb of corolla flat, emarginate.
1276. *Acymos*. Cal. 2-lipped, furrowed, hispid, gibbous at base, villous at orifice. Cor. ringent, inflated at orifice, with the upper lip erect, emarginate; the lower 3-parted, spreading: intermediate segm. concave. All the stamens fertile.
1277. *Calamintha*. Cal. after flowering closed by hairs. Orifice of cor. inflated. Upper lip emarginate; lower 3-parted, with the intermediate segment entire, submarginate or crenulate.
1278. *Melissa*. Cal. dry, flattish above, with the upper lip somewhat fastigiate. Upper lip of cor. somewhat vaulted, 2-fid: lower less, with middle lobe cordate.
1279. *Dracocephalum*. Cor. inflated at orifice, with the upper lip concave.
1280. *Melittis*. Cal. smooth, campanulate, blunt, oblique at orifice. Upper lip of cor. flat; lower crenate. Anthers cruciate.
1281. *Ocymum*. Cal. with the upper lip orbicular; lower 4-fid. Corolla resupinate, with one lip 4-cleft, the other undivided. Exterior filaments having a process at their base.
1282. *Plectranthus*. Upper lip of cal. largest. Corolla resupinate, ringent, with the tube gibbous upwards, or spurred.
1283. *Trichostema*. Upper lip of cor. falcate, Stamens very long.
1284. *Prostanthera*. Calyx 2-lipped, in fruit closed. Tube striated, lips undivided, blunt. Corolla ringent, with a half bifid helmet: middle segment of lower lip large, 2-lobed. Anthers spurred beneath.
1285. *Scutellaria*. Cal. entire, after flowering closed with a lid. Tube of the corolla elongated.
1286. *Franella*. Upper lip of calyx dilated. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1287. *Cleonia*. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1288. *Prasium*. Cal. campanulate, 2-lipped. Upper lip of cor. vaulted; lower trifid, with the middle segm. largest cordate. Grains berried.
1289. *Phryma*. Cal. 2-lipped, 5-toothed. Grain only one.

## Order 2. ANGIOSPERMIA.



Seeds several, enclosed in an undivided pericarpium.

## I. Ovary inferior, or nearly inferior.

1290. *Gesneria*. Cal. 5-fid. Corolla incurved and recurved. Capsule 2-celled.
1291. *Gloxinia*. Cal. 5-leaved. Cor. campanulate, with an oblique limb. Filaments with the rudiment of a fifth inserted upon the receptacle.
1292. *Linnaea*. Cal. double: of the fruit 2-leaved; of the flower 5-parted. Cor. campanulate. Berry dry, 3-celled.

## II. Ovary superior, polypetalous.

1293. *Melianthus*. Cal. 5-leaved, with the lower leaflet gibbous. Petals 4, with the nectary below the lowest. Capsule 4-celled.

## III. Ovary superior, monopetalous.

## A. Filaments 5, the upper only rudimentary.

1294. *Bignonia*. Cal. 5-fid, cup-shaped. Cor. campanulate, 5-fid, ventricose beneath. Pod 2-celled. Seeds with membranous wings.
1295. *Jacuranda*. Cal. 5-toothed. Cor. tubular at base, with a dilated throat, and a 5-lobed unequal limb. Fifth filament sterile, long, villous at end. Stigma with two lips. Capsule large, round, woody, with the edge dividing into two valves.
1296. *Secamum*. Cal. 5-parted. Cor. campanulate 5-fid, with the lower lobe largest. Stigma lanceolate. Capsule 2-celled, the cells divided in two by the inflexed edges of the valves.
1297. *Pentstemon*. Cal. 5-leaved. Cor. 2-lipped, ventricose. Fifth filament longer than the rest, and bearded at its upper end. Capsule compressed, 2-celled, 2-valved. Seeds numerous, subglobose.
1298. *Chelone*. Cal. 5-parted, with two bractes. Cor. ringent, ventricose. Fifth filament shorter than the others. Caps. 2-celled, 2-valved. Seeds numerous, with a membranous edge.
1299. *Tourretia*. Cal. 2-lipped. Corolla ringent: the upper lip galeate, large; lower 2-toothed, very small. Nectary annular, 4-lobed. Stigma truncate. Capsule 4-celled. Dissepiments with 4 wings. Seeds cordate.
1300. *Martynia*. Cal. 5-fid. Cor. ringent. Capsule woody, coated, with a hooked beak, 4-celled, 2-valved.

## B. Filaments 4. Capsule many-seeded, opening with elasticity. Seeds large, flat.

## \* Calyx bifid.

1301. *Acanthus*. Cal. 4-parted: the two lateral inner segments short; the two outer long, with 3 bractes, of which the middle one is toothed, spiny. Cor. labiate, having the orifice closed with hairs. Lower lip very large, 3-lobed. Anthers villous. Stigma bifid. Caps. ovate, with 1-2-seeded cells.

## \*\* Calyx 4-fid.

1302. *Barleria*. Cal. 4-parted. Stamens 2, much smaller than the others. Capsule with 4 angles, 2-celled, 2-valved, elastic, without claws. Seeds 2.

## \*\*\* Calyx 5-fid.

1303. *Phaylopsis*. Calyx unequal, with a large dorsal segment. Cells of the ovary 2-seeded, with the segments of the dissepiment spontaneously dividing in two. Otherwise like *Blechnum*.
1304. *Ruellia*. Cal. 5-parted, generally with two bractes. Corolla campanulate, with a 5-lobed limb. Stamens in pairs. Capsule narrowed to each end. Teeth opening elastically. Seeds not many.
1305. *Blechnum*. Cal. 5-parted, equal. Cor. funnel-shaped. Capsule about 2-celled, 2-valved: the segments of the crosswise dissepiment finally becoming loose. Seeds many, with hooks.
1306. *Aphelandra*. Cal. 5-parted, unequal. Cal. 2-lipped. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.
1307. *Crossandra*. Cal. 5-parted, unequal. Cor. 1-lipped. Stamens included. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.

## \*\*\*\* Calyx multifid.

1308. *Thunbergia*. Cal. double: outer 2-leaved; inner about 12-toothed. Cor. campanulate. Capsule beaked, 2-celled.

## C. Filaments 4. Capsule, drupa, or berry few seeded. Seeds erect.

## \* Calyx bifid.

1309. *Hebenstreitia*. Cal. spathaceous, opening lengthwise beneath. Cor. tubular, unequal, with one upper 4-fid lip. Stamens projecting from the lower cleft of the corolla. Caps. 2-seeded.

\*\* *Calyx 4-fid.*

1310. *Hosta*. Cal. obsoletely 2-lipped, 4-toothed. Corolla ringent, with the middle segment of the lower lip large, emarginate. Drupe with a 4-celled, 4-seeded nut.  
 1311. *Gmelina*. Cal. about 4-toothed. Cor. 4-fid, campanulate. Two of the anthers 2-parted, 2-simple. Drupe baccate. Putamen bony, 4-celled. Cells 1-seeded, the lower sterile.  
 1312. *Lantana*. Flowers capitate. Cal. obsoletely 4-toothed. Limb of corolla 4-fid, with an open orifice. Stigma hooked backwards. Drupes heaped, with a 2-celled smooth nut.  
 1313. *Aloysia*. Calyx deeply 4-cleft. Corolla tubular, 4-lobed. Stigma emarginate. Stamens 4, perfect. Seeds two.  
 1314. *Lippia*. Flowers capitate. Cal. 4-toothed, roundish, erect, compressed, membranous. Corolla 4-fid, funnel-shaped. Drupe dry, 1-seeded, thin, covered by the calyx. Nuts two, 1-seeded.  
 1315. *Melampyrum*. Capsule 2-celled. Seeds 2, gibbous, polished.

\*\*\* *Calyx 5-fid.*

1516. *Selago*. Cal. 5-fid. Tube of corolla filiform. Limb nearly equal. Capsule simple or 2-lobed, each lobe with a seed.  
 1317. *Vicia*. Cal. 5-toothed. Limb of cor. 5-6-fid. Drupe 1-seeded, with a 4-celled nut.  
 1318. *Cornus*. Cal. 5-toothed. Stamens longer than corolla. Style very long. Berry 1-seeded.  
 1319. *Zapania*. Flowers capitate. Cal. 5-toothed. Cor. 6-fid. Stigma peltate, capitate, oblique. Fruit covered, bladdery, enclosing two seeds.  
 1320. *Prina*. Cal. inflated, 5-toothed. Cor. a little longer than the tube of calyx, contracted at orifice. Drupe covered by the calyx. Nuts two, 2-celled, 2-seeded. Stamens 2-4.  
 1321. *Spielmannia*. Cal. 5-fid. Limb of cor. 5-fid, the orifice closed by hairs. Stigma hooked. Drupe with a 2-celled warted nut.  
 1322. *Verbena*. Cal. 5-fid. Cor. funnel-shaped, with an incurved tube, and an unequal 5-fid limb. Stamens 4, fertile. Fruit bladdery, covered, withering. Seeds 4.  
 1323. *Avicennia*. Cal. 5-parted. Cor. 2-lipped: the upper lip square. Caps. coriaceous, rhomboid, 1-seeded. Seed germinating within the capsule.  
 1324. *Caldasia*. Cal. tubular, 5-toothed. Cor. hypocrateriform, nearly equal. Filaments inserted in top of tube. Caps. 3-celled, 3-seeded. 3-valved. Seeds elliptical.  
 1325. *Clerodendrum*. Cal. 5-fid, campanulate. Corolla with a filiform tube and a 5-parted equal limb. Stamens very long, projecting from between the segments of corolla. Drupe 4-seeded, with a 1-celled nut.  
 1326. *Volkameria*. Cal. 5-fid. Cor. with 1-sided segments. Drupe 2-seeded. Nuts 2-celled, with 1-seeded cells.  
 1327. *Holmskioldia*. Cal. colored, very large, campanulate, spreading, with a nearly entire limb a little shorter than the ringent corolla.  
 1328. *Petræa*. Cal. 5-parted, very large, colored. Corolla rotate. Caps. 2-celled, 2-seeded in the bottom of the calyx. Seeds solitary.  
 1329. *Citharexylum*. Cal. 5-toothed, campanulate. Corolla funnel-shaped, rotate. Segments villous, above equal. Drupe 2-seeded. Nuts 2-celled.  
 1330. *Duranta*. Cal. 5-fid, superior. Drupe 4-seeded, covered by the calyx. Nut 4-2-celled, 2-seeded.  
 1331. *Pedañum*. Cal. 5-parted. Cor. tubular, ringent, with a 5-cleft limb. Filaments hairy at base. Anthers in pairs, forming a cross. Nut corky, with spiny angles. Seeds 2, with an arillus.  
 1332. *Myoporum*. Cal. 5-parted. Corolla campanulate, with a spreading nearly equal 5-parted limb. Drupe 1-2-seeded, with 2-celled nuts.  
 1333. *Stenochilus*. Cal. 5-parted. Cor. ringent: the upper lip erect, half 4-cleft: lower undivided, narrow, deflexed. Stamens didynamous, exserted. Ovary 4-celled, with 1-seeded cells. Stigma blunt, undivided. Drupe berried, 4-celled. Seeds solitary.  
 1334. *Bontia*. Cal. 5-parted. Cor. 2-lipped, with an oblong tube: the lower lip 3-parted, revolute. Drupe ovate, 1-seeded, oblique at end.

D. Filaments 4. Capsule or berry many-seeded. Seeds small, attached to a central receptacle.

\* *Calyx bifid.*

1335. *Orobanchæ*. Cal. of 2-lobed lateral leaflets. Corolla ringent. Capsule 1-celled, 2-valved, many-seeded. Gland at the base of the ovary.  
 1336. *Crescentia*. Cal. 2-parted, equal. Corolla gibbous. Berry stalked, 1-celled, many-seeded. Seeds immersed in pulp.  
 1337. *Castilleja*. Cal. spathaceous; the upper lip bifid, lower none. Cor. 2-lipped: the lower lip very short, trifid, with 2 glands between the segments. Caps. 2-celled.

\*\* *Calyx trifid.*

1338. *Halleria*. Cal. 3 or 5-leaved. Cor. 4-fid, somewhat inflated. Berry 2-celled, many-seeded

\*\*\* *Calyx 4-fid.*

1339. *Lathræa*. Cal. 4-fid. A depressed gland at the base of the suture of the ovary. Capsule 1-celled.  
 1340. *Rhinanthus*. Cal. 4-fid, ventricose. Cor. ringent, with the upper lip generally compressed. Capsule 2-celled, blunt, compressed.  
 1341. *Bartsia*. Cal. 4-lobed, emarginate, colored. Cor. smaller than the calyx: the upper lip longest. Capsule 2-celled. Seeds angular.  
 1342. *Euphrasia*. Cal. cylindrical, 4-fid. Corolla 2-lipped: the upper lip bifid; the lower 3-lobed, with bifid lobes. Lower anthers with spiny lobes.

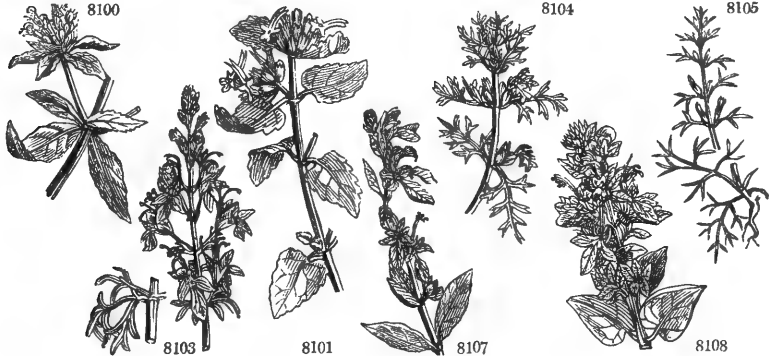
\*\*\*\* *Calyx 5-fid.*

1343. *Antirrhinum*. Cal. 5-leaved. Cor. not spurred, gibbous at base: the upper lip bifid, reflexed; lower trifid, closed by the prominent palate. Caps. oblique at base, without valves, opening at the end by three pores.  
 1344. *Linaria*. Cal. 5-parted, with the two lower segments remote. Cor. spurred, ringent: the orifice closed by the prominent palate. Caps. ovate 2-valved, opening at the end into 3-5-segments.  
 1345. *Anarrhinum*. Cal. 5-leaved. Cor. prominent at base, honey bearing: lower lip flat, without a prominent palate. Caps. 2-celled, many-valved.  
 1346. *Nemesia*. Cal. 5-parted. Cor. spurred, with a prominent palate. Caps. compressed, truncate, opening lengthwise in the middle, 2-celled, 2-valved. Seeds numerous, linear.  
 1347. *Mauandya*. Cal. 5-parted. Cor. campanulate, unequal. Filaments callous at base. Caps. 2, united, half 5-valved at end.  
 1348. *Gerardia*. Cal. 5-fid. Cor. 2-lipped, the lower lip 3-parted, with emarginate lobes: the middle 2-parted. Capsule 3-celled, splitting.  
 1349. *Pedicularis*. Cal. 5-fid. Cor. ringent. Capsule 2-celled, mucronate, oblique. Seeds truncated. Leaves multifid.  
 1350. *Erinus*. Cal. 5-leaved. Cor. with a 5-fid, equal limb. Lobes emarginate: the upper lip very short, reflexed. Caps. 2-celled.  
 1351. *Mimulus*. Cal. prismatical, 5-toothed. Cor. ringent, with the upper lip folded back at the sides. Stigma thick. Capsule 2-celled, many-seeded.

1352. *Hornemannia*. Cal. tubular, 5-toothed, plaited. Cor. with the upper lip emarginate: lower 3-lobed. Seeds minute, scurfy.  
 1353. *Maxus*. Cal. large, campanulate, spreading. Cor. ringent, with a pimpled throat. Anthers connected. Stigma spatulate. Caps. 2-celled, many-seeded.  
 1354. *Isoptaxis*. Like *Digitalis*, but corolla campanulate, with the upper segment as long as the lip, and incumbent upon it before expansion.  
 1355. *Digitalis*. Cal. 5-parted. Corolla campanulate, ventricose, 5-fid. Capsule ovate 2-celled.  
 1356. *Scrophularia*. Cal. 5-fid. Cor. subglobose, resupinate. Caps. 2-celled.  
 1357. *Vandellia*. Cal. 4-fid. Cor. ringent. Two outer filaments from the disk of the lip of cor. Anthers united in pairs. Caps. 1-celled, many-seeded.  
 1358. *Sibthorpia*. Cal. 5-parted. Cor. 5-parted, equal. Stamens in remote pairs. Caps. orbicular, compressed, 2-celled, with a transverse dissepiment.  
 1359. *Limosella*. Cal. 5-fid. Cor. 5-fid, equal. Stamens approximating in pairs. Caps. 1-celled, 2-valved, many-seeded.  
 1360. *Brouallia*. Cal. 5-toothed. Cor. closed by the prominent orifice. Two of the anthers larger than the others. Caps. 1-celled.  
 1361. *Stemodia*. Cal. 5-parted. Cor. 2-lipped. Stamens 4: each filament bifid, and bearing two anthers. Capsule 2-celled.  
 1362. *Trevirana*. Cal. 5-leaved. Cor. declinate funnel-shaped. Limb flat, 5-parted, nearly equal. Caps. half 2-celled.  
 1363. *Columnnea*. Cal. 5-parted, spreading. Corolla ringent: the upper lip 3-parted, with the intermediate segment arched, above the base gibbous. Capsule berried, 1-2-celled.  
 1364. *Russelia*. Cal. 5-leaved. Cor. 2-lipped, with a hairy throat: upper lip broader, emarginate, lower trifid, with linear segments. Stigma globose. Caps. 1-celled, 2-valved, many seeded.  
 1365. *Dodartia*. Cal. campanulate, angular, 5-toothed. Lower lip of cor. broad, 3-fid. Stigma bifid. Caps. globose, 2-celled, covered by the calyx.

GYMNOSPERMIA.

|                          |                   |      |                 |            |         |   |     |                      |
|--------------------------|-------------------|------|-----------------|------------|---------|---|-----|----------------------|
| †1242. A'JUGA. W.        | BUGLE.            |      | <i>Labiate.</i> | Sp. 8—17.  |         |   |     |                      |
| 8092 orientalis W.       | oriental          | △ or | 1½ my.jn B      | Levant     | 1732.   | D | s.p | Dill.elt. t.53. f.61 |
| 8093 pyramidalis W.      | pyramidal         | △ or | 1½ my.jn Pu     | Britain    | sc.mo.  | D | s.p | Eng. bot. 1270       |
| 8094 alpina W.           | Alpine            | △ or | 1½ my.jl B      | England    | moun.   | D | co  | Eng. bot. 477        |
| 8095 genevensis W.       | Geneva            | △ or | 1½ my.jn F      | Switzerl.  | 1656.   | D | co  | Bur. herb. t. 361    |
| 8096 reptans W.          | common            | △ or | 1½ my.jn B      | Britain    | moi.w.  | D | s.p | Eng. bot. 489        |
| β alba                   | white-flowered    | △ or | 1½ my.jn W      | Britain    | moi.w.  | D | s.p |                      |
| γ rubra                  | red-flowered      | △ or | 1½ my.jn R      | Britain    | moi.w.  | D | s.p |                      |
| 8097 Chamæpitys W.       | Ground Pine       | ○ pr | 1½ ap.jl Y      | England    | san.fi. | S | s.l | Eng. bot. 77         |
| 8098 I'va W.             | musky             | ○ cu | 1½ jl.au R      | S. Europe  | 1759.   | S | s.l | Fl. græca, 525       |
| 8099 furcata Link.       | furcate           | ○ or | 1½ jl.au B      | Nepal      | 1824.   | D | co  |                      |
| 1243. ANISOMELES. R. Br. | ANISOMELES.       |      | <i>Labiate.</i> | Sp. 2—5.   |         |   |     |                      |
| 8100 malabarica R. Br.   | Malabar           | ○ or | 1½ jl.au V      | E. Indies  | 1817.   | C | co  | Rheede, 10. t. 93    |
| 8101 ovata H. K.         | broad-leaved      | ○ or | 1½ jl.au Pk     | E. Indies  | 1783.   | S | lp  | Bur.zeyl. t.71.f.1   |
| 1244. TEUCRIUM. W.       | GERMANDER.        |      | <i>Labiate.</i> | Sp. 44—67. |         |   |     |                      |
| 8102 campanulatum W.     | small-flowered    | △ or | 1 jl.au W       | Levant     | 1728.   | D | co  |                      |
| 8103 orientale W.        | great-flowered    | △ or | 1 jl.au B       | Levant     | 1752.   | D | co  | Bot. mag. 1279       |
| 8104 Bétrys W.           | cut-leaved        | △ or | 1½ jl.s R       | S. Europe  | 1633.   | S | co  | Ger.ema. 525.f.2     |
| 8105 nissolianum W.      | Spanish           | △ or | 1 jn.jl Pu      | Spain      | 1752.   | D | co  | Mor.his.t.22.f.19    |
| 8106 trifidum W.         | trifid-leaved     | △ or | 1½ jn.au Pu     | C. G. H.   | 1791.   | C | r.m |                      |
| 8107 fruticosum W.       | narrow-leav. tree | △ or | 3 jn.s V        | Spain      | 1640.   | C | r.m | Dil.elt.t.284.f.366  |
| 8108 latifolium B. M.    | broad-leav. tree  | △ or | 3 jn.s V        | Spain      | 1640.   | C | r.m | Bot. mag. 245        |
| 8109 Mârum W.            | Cat-thyme         | △ or | 1½ jl.s Papu    | Spain      | 1640.   | C | r.m | Park. thea. 17. f.2  |
| 8110 multiflorum W.      | many-flowered     | △ or | 1 jl.s LR       | Spain      | 1731.   | C | co  | Bocc. mus. t.65.f.17 |
| 8111 régium W.           | royal             | △ or | 1½ my.o Pu      | Spain      | 1699.   | C | r.m | Plu.alm. t.65.f.1    |



History, Use, Propagation, Culture,

1242. *Ajuga*. Said to be an alteration of *abigo*, to expel or drive away. The Latins attributed emmenagogue qualities to a plant called *ajuga*, which is believed to be our *Teucrium chamæpitys*. Handsome flowering plants. A. reptans is vulgarly reputed vulnerary, cooling, and gently astringent. It is commonly called *bugle*, which appears to be a corruption of *bugula*, a contracted diminutive of *buglossum*, which the plant resembles in medical qualities.  
 1243. *Anisomeles*. So named by Mr. Brown, from *a*, privative, *isos*, equal, and *μελος*, a member. Tropical downy herbaceous plants. Their leaves are crenated, flowers grow in whorls supported by minute bractes; the calyces are glandular, and the corolla of all the species purple.  
 1244. *Teucrium*. Teucer, the Trojan prince, is said by Pliny to have been the first to employ this plant

1366. *Lindernia*. Cal. 5-parted. Cor. ringent : upper lip very short. Two lower stamens with a terminal tooth and lateral anther. Capsule 1-celled.
1367. *Herpestis*. Cal. 5-parted, unequal : 2 inner sepals smaller, covered by the others. Cor. tubular, somewhat 2-lipped. Stamens included. Lobes of anthers spreading. Stigma emarginate.
1368. *Capriaria*. Cal. 5-parted. Cor. campanulate, 5-fid, acute. Caps. 2-valved, 2-celled, many-seeded.
1369. *Buchnera*. Cal. absolutely 5-toothed. Limb of corolla 5-fid, equal, with cordate lobes. Capsule 2-celled.
1370. *Manulea*. Cal. 5-parted. Cor. funnel-shaped. Limb 5-parted, with subulate segments ; the four upper large, connected. Caps. 2-celled, many-seeded.
1371. *Angelonia*. Cal. 5-parted, nearly equal. Cor. irregular, spreading, 2-lipped, with a short tube, and arched orifice : upper lip 2-parted ; lower much larger, 3-parted, with the middle segment slipper-shaped at base.
1372. *Schizanthus*. Cor. irregular : the upper lip 5-fid ; lower 3-parted. Two filaments sterile. Capsule 2-celled.
1373. *Besleria*. Cal. 5-parted. Cor. tubular, gibbous on each side, with a 5-lobed unequal limb. Berry roundish, 1-celled, many-seeded. Seeds nidulant.
1374. *Teedia*. Cal. 5-parted. Cor. hypocrateriform, 5-fid, blunt. Style short, persistent. Berry 2-celled, many-seeded.
1375. *Bransfelsia*. Cal. 5-toothed, small. Tube of cor. very long, with a flat 5-lobed limb. Capsule berried, 1-celled, many-seeded, with a very large receptacle.
1376. *Celsia*. Cal. 5-parted. Cor. rotate. Filaments bearded. Capsule 2-celled.
1377. *Alonsoa*. Cal. 5-parted. Cor. subrotate, resupinate, 5-fid, with the upper segment largest. Stamens declinate. Filaments smooth. Anthers approximating, similar. Capsule 2-celled.
1378. *Anthocercis*. Cal. 5-fid. Cor. campanulate, regular. Rudiment of a 5th filament. Stigma capitate. Caps. 2-celled, 2-valved, many-seeded. The inflexed edges of valves inserted in the placenta.

\*\*\*\*\* *Calyx multifid.*

1379. *Cymbaria*. Cal. 10-toothed. Upper lip of cor. bifid, lower trifid. Capsule cordate, 2-celled.

GYMNOSPERMIA.

- 8092 Leaves ovate, Cor. pubescent resupinate  
 8093 Four-cornered pyramidal villous, Radical leaves very large  
 8094 Stem simple, Cauline leaves as long as radical leaves  
 8095 Radical leaves smaller than cauline leaves  
 8096 Stolones creeping
- 8097 Leaves trifid, Fl. axillary solitary shorter than leaf, Stem diffuse  
 8098 Leaves linear toothed forwards, Flowers axillary solitary  
 8099 Leaves stalked subcordate ovate acuminate acutely crenate hairy, Thyrses axillary stalked
- 8100 Bractes filiform, Leaves lanceolate entire downwards  
 8101 Leaves ovate subcordate crenate, Whorls many-fl. Bractes linear, Calyx hairy, Glands inconspicuous
- 8102 Leaves multifid, Flowers lateral solitary  
 8103 Leaves multifid linear, Raceme compound, Pedicels short  
 8104 Leaves multifid, Whorls halved  
 8105 Leaves trifid or 5-fid filiform, Flower stalked solitary opposite, Stem decumbent  
 8106 Leaves lanceolate trifid, Pedunc. axillary 3-flowered  
 8107 Leaves lanceolate entire white beneath, Flowers solitary  
 8108 Leaves entire rhomboid acute villous downy beneath, Flowers solitary  
 8109 Leaves quite entire ovate acute stalked downy beneath, Flowers racemose one-sided  
 8110 Leaves oval toothed forwards, floral entire stalked, Whorls racemose, Stem much branched  
 8111 Leaves ovate toothed forwards, floral entire sessile, Whorls racemose, Stems branched



and Miscellaneous Particulars.

medicinally. Under-shrubs or herbs of little beauty ; but several of them aromatic. The leaves and younger branches of *T. marum* (*Mar*, Arabic, signifying bitter), when recent, on being rubbed between the fingers, emit a volatile aromatic smell, which readily excites sneezing, but to the taste they are bitterish, accompanied with a sensation of heat and acrimony. Cats are very fond of these plants, and where there are few will destroy them.

*T. scorodonia* (*σκαροδον*, garlic, the smell of which this plant possesses) in Jersey is used as a substitute for hops, and the beer is said sooner to become clear than when hops are made use of. Withering found on trial that it gave too much color to the liquor.

*T. scordium*, also from *σκαροδον*, garlic, was once in high esteem for destroying worms and for fomentations

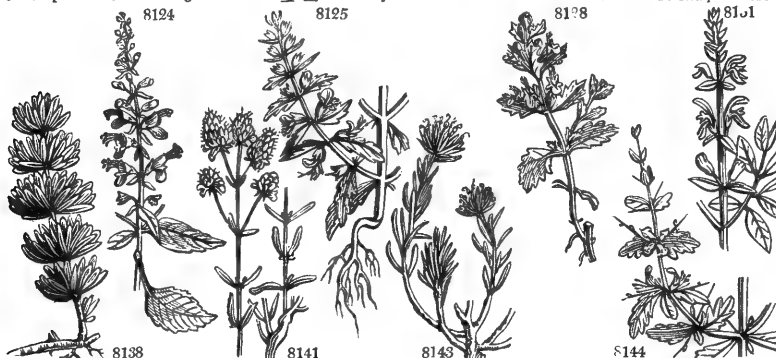


|                         |                |      |    |       |      |                |       |    |                |                       |
|-------------------------|----------------|------|----|-------|------|----------------|-------|----|----------------|-----------------------|
| 8112 Laxmanni W.        | Laxmann's      | △ or | 1  | jn.au | Var  | Siberia        | 1800. | C  | co             | Pl. rar. hu. 1. t. 69 |
| 8113 sibiricum W.       | Siberian       | △ or | 1  | jl    | Pu   | Siberia        | 1804. | C  | co             |                       |
| 8114 asiaticum W.       | Asiatic        | △ or | 2  | jn.o  | Pu   | .....          | 1777. | C  | r.m            | Jac. vind. 3. t. 41   |
| 8115 lusitanicum Lam.   | Portuguese     | △ or | 1½ | jn.o  | Pu   | Portugal       | 1822. | C  | co             |                       |
| 8116 Arduini L.         | Arduini's      | △ or | 1½ | jn.o  | Y    | Candia         | 1823. | C  | co             |                       |
| 8117 cubense W.         | Cuba           | △ or | 1½ | my    | Pu   | Cuba           | 1733. | C  | co             | Jac. obs. 2. t. 30    |
| 8118 canadense W.       | nettle-leaved  | △ or | 2  | aus   | Pu   | N. Amer.       | 1768. | D  | co             |                       |
| 8119 virginicum W.      | Virginian      | △ or | 2  | my.jn | B    | N. Amer.       | 1768. | D  | co             | Schk. hand. 160       |
| 8120 inflatum W.        | thick-spiked   | △ or | 2  | au.o  | Li   | Jamaica        | 1778. | D  | co             |                       |
| 8121 hircanicum W.      | Betony-leaved  | △ or | 1½ | au.o  | P    | Persia         | 1763. | D  | co             | Bot. mag. 2013        |
| 8122 Abutiloides W.     | Mulberry-leav. | △ or | 1½ | ap.my | Y    | Madeira        | 1777. | C  | r.m            | Jac. schæ. 3. t. 358  |
| 8123 Scrodonia W.       | Wood Sage      | △ or | 1½ | jl    | Y    | Britain woods. |       | co | Eng. bot. 1543 |                       |
| 8124 betulinum W.       | hoary          | △ or | 1½ | my.au | Li   | Madeira        | 1775. | C  | r.m            | Bot. mag. 1114        |
| 8125 resupinatum W.     | resupinate     | △ or | 1  | jl.au | Pa.Y | Barbary        | 1801. | C  | r.m            | Desf. atl. 2. t. 117  |
| 8126 massiliense W.     | sweet-scented  | △ or | 2  | jn.jl | Pu   | France         | 1731. | C  | r.m            | Jac. vind. 1. t. 94   |
| 8127 Scordium W.        | water          | △ or | ½  | jl.au | Pu   | England mar.   |       | C  | r.m            | Eng. bot. 828         |
| 8128 Chamædryx W.       | wall           | △ or | ½  | my.au | Pu   | England old w. |       | C  | co             | Eng. bot. 680         |
| 8129 heterophyllum W.   | various-leaved | △ or | 2  | jn.jl | Pu   | Madeira        | 1759. | C  | r.m            |                       |
| 8130 lucidum W.         | shining        | △ or | 1½ | jn.s  | Br   | S. Europe      | 1730. | C  | r.m            | Magn. hort. 52        |
| 8131 flavum W.          | yellow-flower. | △ or | 2  | jl.s  | Y    | S. Europe      | 1640. | C  | r.m            | Park. the. 109. f. 1  |
| 8132 montanum W.        | dwarf mount.   | △ or | ½  | jl.o  | W    | S. Europe      | 1710. | C  | co             |                       |
| 8133 supinum W.         | procumbent     | △ or | ½  | jn.o  | W    | Austria        | 1752. | C  | co             | Jac. aust. 5. t. 417  |
| 8134 thymifolium P. S.  | thyme-leaved   | △ or | ½  | jn.o  | Pu   | Spain          | 1816. | C  | co             |                       |
| 8135 pyrenicum W.       | Pyrenean       | △ or | ½  | jn.au | Pa.w | Pyrenees       | 1731. | D  | co             | Bot. cab. 1387        |
| 8136 aureum W.          | golden         | △ or | 1  | jn.jl | Y    | S. Europe      | 1731. | D  | co             | Cav. ic. 2. t. 117    |
| 8137 Pólium W.          | Poly           | △ or | 1  | la    | S.   | S. Europe      | 1562. | C  | r.m            | Barr. rar. t. 1074    |
| 8138 flavescens P. S.   | yellow Poly    | △ or | 1  | ils   | Y    | S. Europe ...  |       | C  | co             | Barr. rar. t. 1073    |
| 8139 gnaphalodes P. S.  | woolly-calyxed | △ or | 1½ | jl.s  | Pu   | Spain          | 1816. | C  | co             | Barr. rar. t. 1083    |
| 8140 Pseudohyssopus W.  | Hyssop-leaved  | △ or | 1½ | jn.jl | W    | Italy          | 1804. | C  | co             | Col. ecp. h. 1. t. 67 |
| 8141 capitatum W.       | round-headed   | △ or | ½  | jl.au | Pu   | Spain          | 1731. | C  | co             | Cav. ic. 2. t. 119    |
| 8142 pycnophyllum P. S. | close-leaved   | △ or | ½  | jl.au | Pu   | Spain          | 1816. | C  | co             | Barr. rar. 1096       |
| 8143 pumilum W.         | small          | △ or | ½  | jl.au | Pu   | Spain          | 1816. | C  | co             | Barr. rar. t. 1092    |
| 8144 spinosum W.        | thorny         | △ or | ½  | my.jn | W    | Spain          | 1640. | S  | co             | Cav. ic. 1. t. 31     |
| 8145 subspinosum W. en. | Minorca        | △ or | 1½ | ...   | Pu   | Minorca        | 1816. | C  | co             |                       |

|                          |                |      |    |       |      |           |       |   |     |                        |
|--------------------------|----------------|------|----|-------|------|-----------|-------|---|-----|------------------------|
| 1245. WESTRINGIA. Sm.    | WESTRINGIA.    |      |    |       |      |           |       |   |     |                        |
| 8146 rosmariniformis Sm. | Rosemary-lv.   | △ or | 4  | my.au | Pa.B | N. S. W.  | 1791. | C | s.p | Bot. rep. 214          |
| 8147 Dampieri B. P.      | Dampier's      | △ or |    | my.jl | N.   | Holl.     | 1803. | C | s.p | Bot. mag. 3308         |
| 1246. SATUREJA. W.       | SAVORY.        |      |    |       |      |           |       |   |     |                        |
| 8148 juliána W.          | linear-leaved  | △ un | 1  | my.s  | Pk   | Italy     | 1596. | D | co  | Lam. ill. t. 504. f. 1 |
| 8149 Teneriffe W. en.    | Teneriffe      | △ un | 1  | my.jl | Pu   | Teneriffe |       | C | r.m | Barr. ic. t. 898       |
| 8150 Thymbra W.          | whorl-flowered | △ or | 1  | my.jl | Pu   | Candia    | 1640. | C | r.m | Alp. exot. t. 264      |
| 8151 græca W.            | Grecian        | △ or | ½  | jn.jl | Pu.w | Greece    | 1569. | D | co  |                        |
| 8152 montana W.          | winter         | △ un | 1½ | jn.jl | Pu   | S. Europe | 1752. | C | co  |                        |
| 8153 tenuifolia Tenore.  | fine-leaved    | △ un | 1½ | jn.jl | Pu   | S. Europe | 1822. | D | co  |                        |
| 8154 rupèstria W.        | rock           | △ un | 1  | jn.jl | Pu   | Carniola  | 1798. | S | co  | Jac. ic. 3. t. 494     |
| 8155 horténsis W.        | summer         | △ or | 1½ | jn.au | Pk   | Italy     | 1652. | C | r.m | Lam. il. t. 504. f. 2  |
| 8156 capitata W.         | ciliated       | △ un | 1  | jn.o  | Pu   | Levant    | 1596. | C | r.m | Barr. ic. t. 897       |
| 8157 viminea W.          | Pennyroyal-tr. | △ un | 1  | ...   | Pu   | Jamaica   | 1783. | C | r.m |                        |

|                      |                |      |    |       |      |        |       |   |    |                        |
|----------------------|----------------|------|----|-------|------|--------|-------|---|----|------------------------|
| 1247. THYMBRA. W.    | THYMBRA.       |      |    |       |      |        |       |   |    |                        |
| 8158 spicata W.      | spike-flowered | △ un | 1½ | jn.jl | Papu | Levant | 1699. | C | co | Pluk. al. t. 116. f. 5 |
| 8159 verticillata W. | whorl-flowered | △ un | 1½ | jn.jl | Papu | Spain  | 1702. | C | co |                        |

|                           |                |      |   |       |     |           |       |   |     |                      |
|---------------------------|----------------|------|---|-------|-----|-----------|-------|---|-----|----------------------|
| *1248. HYSSOPUS. W.       | HYSSOP.        |      |   |       |     |           |       |   |     |                      |
| 8160 officinalis W.       | common         | △ or | 2 | jn.s  | B   | S. Europe | 1548. | C | co  | Jac. aust. 3. t. 254 |
| 8161 orientalis W. en.    | oriental       | △ or | 2 | jn.s  | B   | Caucasus  |       | C | co  | Bot. mag. 2239       |
| 8162 Lophanthus W.        | Mint-leaved    | △ or | 2 | aus   | Y   | Siberia   | 1752. | C | p.l | Jac. vind. 2. t. 182 |
| 8163 nepetoides W.        | square-stalked | △ or | 5 | au.o  | Y.w | N. Amer.  | 1692. | D | p.l | Jac. vind. 1. t. 69  |
| 8164 scrophularifolius W. | Figwort-leaved | △ or | 5 | jl.au | Pk  | N. Amer.  | 1800. | D | co  | Herm. par. t. 106    |



History, Use, Propagation, Culture,

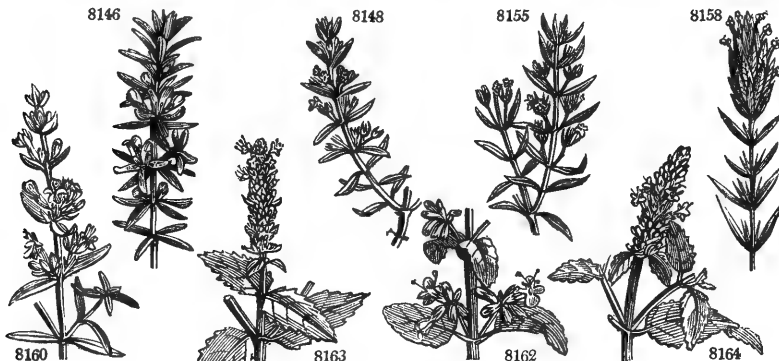
Sheep and goats are said to eat this plant: horses, cows, and swine to refuse it. If cows, compelled by hunger, eat it, their milk gets a garlic flavor.

T. chamædrya, is said to have cured Charles V. of the gout, by a vinous decoction taken for sixty successive days. It is commonly called Gernander, which seems to be a corruption of the word Chamædryx, for the French call it *germandrée*, an evident alteration of *gamandré*, under which name it first appeared in the very rare *Herbier de Mayence*, printed in 1485.

1245. *Westringia*. Named by Sir J. E. Smith, in honor of Dr. John Peter Westring, physician to the king of Sweden, and author of several learned papers on the Lichen tribe. A genus of New Holland plants, chiefly from the colder parts of that country, and having the appearance of our Rosemary.

- 8112 Leaves ovate-oblong villous nearly entire, Flowers axillary solitary sessile  
 8113 Leaves ovate serrate smooth, Pedunc. sol. 3-flowered; intermediate sessile, Bractes linear lanceolate  
 8114 Leaves lanceolate repand-serrate rectangular at base, Fl. racemose one-sided, Calyx 2-lipped  
 8115 Leaves lanceolate crenate rugose, Flower racemose one-sided, Calyx 2-lipped  
 8116 Leaves ovate serrate, Raceme spiked round sessile terminal  
 8117 Leaves cuncate serrate cut smooth narrowed into the stalk, Flower solitary stalked  
 8118 Leaves ovate-lanceolate serrate hoary beneath, Stem erect round terminal, Whorls 6-leaved  
 8119 Leaves ovate unequally serrate, Racemes terminal, Bractes shorter than flower-stalk  
 8120 Leaves oblong acuminate unequally serrate pubescent, Spikes sessile terminal, Cal. inflated villous  
 8121 Leaves cordate oblong obtuse, Stem brachiata dichotomous, Spikes very long terminal sessile spiral  
 8122 Leaves cordate toothed acuminate, Racemes lateral nodding  
 8123 Leaves cordate subpubescent toothed stalked, Racemes axillary one-sided, Stem erect herbaceous  
 8124 Leaves lanceolate crenate tomentose hoary beneath, Racemes terminal, Flower stem brachiata  
 8125 Leaves cuneiform lanc. serrated villous, Racemes axillary and terminal, Cor. resupinate  
 8126 Leaves ovate rugose cut crenate hoary, Stems erect, Racemes straight one-sided  
 8127 Leaves oblong sessile toothed nearly naked, Fl. axillary stalked in pairs, Stem diffuse pubescent  
 8128 Leaves cuneiform ovate cut crenate stalked, Fl. ternary, Stems procumbent somewhat hairy  
 8129 Leaves elliptical crenate, Fl. lateral solitary, Lip of cor. woolly outside, Leaves various in form  
 8130 Leaves ovate cut serrate smooth, Whorls halved, Stems erect smooth  
 8131 Leaves ovate crenate: floral entire, Whorls halved racemose, Stem bearded in two rows  
 8132 Corymbs terminal, Cal. with acute unarmed teeth, Leaves lanceolate entire downy beneath  
 8133 Corymbs terminal, Cal. with acute mucronate teeth, Lvs. linear entire revolute at edge downy beneath  
 8134 Heads terminal few-flowered, Leaves stalked ovate blunt downy beneath, Stem procumbent  
 8135 Corymbs terminal, Leaves cuneiform orbicular crenate hairy  
 8136 Corymbs terminal hairy, Leaves ovate serrate and stems densely woolly at the ends yellow and shining  
 8137 Heads roundish stalked, Leaves lanceolate blunt crenate revolute at edge downy, Stem decumbent  
 8138 Heads roundish, and leaves, which are linear lanceolate crenate forwards, tomentose yellow at end  
 8139 Fl. solitary clustered, Leaves linear revolute crenate, Calyxes woolly  
 8140 Heads roundish lax, Leaves lanceolate crenate forwards downy hoary, Stem woolly corymbose  
 8141 Heads stalked, Leaves lanceolate crenate tomentose, Stem erect  
 8142 Heads roundish, Leaves linear revolute crenate forwards close and stem densely woolly  
 8143 Heads terminal sessile, Leaves linear revol. at edge packed in four close rows, Stem procumbent downy  
 8144 Spiny, Upper lip of calyx ovate, Corolla resupinate, Peduncles twin  
 8145 Leaves entire ovate acute stalked revolute at edge pubescent downy beneath, Fl. racemose
- 8146 Leaves beneath and calyxes silvery, Teeth half as long again as tube  
 8147 Leaves beneath and calyxes ash-colored opaque, Teeth half as short as tube
- 8148 Whorls fastigiate, Leaves linear lanceolate rough  
 8149 Lvs. acute revolute at edge pubescent, Pedunc. axillary many-fl. Bractes much shorter than calyx  
 8150 Whorls roundish hispid, Leaves obovate oblong acuminate veinless dotted hispid  
 8151 Pedunc. axillary 2-6-flowered, Bractes shorter than calyx, Leaves ovate hispid veiny beneath  
 8152 Pedunc. axillary cymose one-sided, Sepals acuminate mucronate, Leaves lin. lanc. entire mucronate  
 8153 Stem erect branched with spreading hairs, Upper leaves hairy acute, Ped. 1-flowered axillary  
 8154 Ped. axill. cymose one-sided, Sepals blunt unarmed, Lvs. roundish ovate atten. at base toothed bluntnish  
 8155 Pedunc. axillary cymose, Leaves lanceolate entire, Stem brachiata  
 8156 Flowers spiked, Leaves keeled dotted ciliated  
 8157 Fl. axillary 3 subsessile, Bractes linear, Leaves oblong entire attenuate at base smooth hispid beneath
- 8158 Flowers spiked, Bractes heaped linear ciliate  
 8159 Flowers whorled, Leaves linear lanceolate entire

- 8160 Fl. whorled racemose 1-sided, Middle lobe of cor. 2-lobed entire, Leaves lanceolate, Teeth of calyx erect  
 8161 Fl. whorled racemose 1-sided, Midd. lobe of cor. 2-lobed entire, Lvs. lin. lanc. Teeth of cal. spreading uneq.  
 8162 Pedunc. axillary cymose, Cor. resupinate, Middle lobe crenate, Leaves oblong cordate toothed  
 8163 Spikes whorled cylind. Midd. lobe of cor. crenate, Style shorter than cor. Lvs. subcord. ov. acum. sharply  
 8164 Spikes whorl. cylind. Midd. lobe of cor. crenate, Style longer than cor. Lvs. cord.-ov. acum. bluntly tooth.



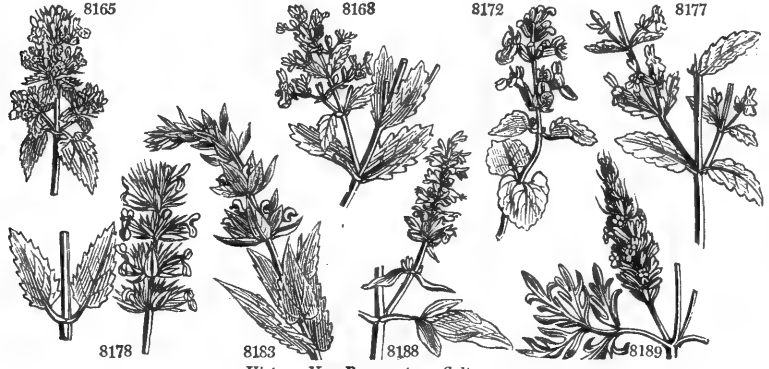
and Miscellaneous Particulars.

1246. *Satureja*. The Arabs call all labiate plants by the collective name of *ss'atar*, according to Bochart. Forskahl says, they call the wild Thyme *ss'atar*. *S. montana* and *hortensis* have been cultivated as culinary aromatics from time immemorial, and much more formerly than now, when almost all European species are superseded by those of the East Indies.

1247. *Thymbra*. A name of uncertain origin. The ancients gave it to a plant analogous to Thyme. Possibly it may have been so called after the name of a place. Thymbraea, a town in Lydia, was the spot where the famous battle was fought between Cyrus and Croesus, in which the fate of the latter was decided.

1248. *Hyssopus*. Latinized from the Hebrew name *ezob*. The Arabic name *axxof*, is evidently the same.

| 1949. NEPETA. W. |                     | CAT-MINT.       |      | Labiatae. Sp. 25-40. |       |       |                      |
|------------------|---------------------|-----------------|------|----------------------|-------|-------|----------------------|
| 8165             | catária W.          | common          | △ cu | 2                    | fl.a  | W     | Britain              |
| 8166             | angustifolia W.     | narrow-leaved   | △ cu | 2                    | in.jl | Pu    | Spain                |
| 8167             | crispa W.           | curl-leaved     | △ cu | 2                    | jl.au | Pa.B  | Levant               |
| 8168             | pannónica W.        | Hungarian       | △ cu | 4                    | au.o  | R     | Hungary              |
| 8169             | caerulea W.         | blue            | △ cu | 1½                   | my.jn | B     | .....                |
| 8170             | violácea W.         | violet-colored  | △ cu | 2                    | jl.s  | B     | Spain                |
| 8171             | longiflora Vent.    | long-flowered   | △ cu | 2                    | jn.au | V     | Persia               |
| 8172             | Musáini Bieb.       | scolloped-leav. | △ cu | 2                    | my.au | V     | Siberia              |
| 8173             | incána W.           | hoary           | △ cu | ¾                    | au    | W     | Levant               |
| 8174             | ucránica W.         | Ukraine         | △ cu | 2                    | jl.au | W     | Ukraine              |
| 8175             | Nepetella W.        | small           | △ cu | 1                    | jl.au | R     | S. Europe            |
| 8176             | gravacoleus W.      | strong-smelling | △ cu | 1½                   | jl.au | Pu    | S. Europe            |
| 8177             | nuda W.             | naked           | △ cu | 1½                   | jl.au | W     | S. Europe            |
| 8178             | multibractea Desf.  | many-bracted    | △ un | 3                    | jl.au | Pu    | Algiers              |
| 8179             | colorata W. en.     | Nettle-leaved   | △ un | 2                    | jl.au | Pu    | Caucasus             |
| 8180             | melissefolia W. en. | Balm-leaved     | △ un | 2                    | jl.au | W     | Candia               |
| 8181             | italica W.          | Italian         | △ un | 1                    | jn.au | Y.w   | Italy                |
| 8182             | marrubioides W. en. | Horehound-lv.   | △ un | 1½                   | jn.au | R     | .....                |
| 8183             | reticulata W.       | netted          | △ un | 2                    | jl.au | Pu    | Morocco              |
| 8184             | lamiifolia W. en.   | Lamium-leav'd   | △ un | 1½                   | jl.au | Pu    | Armenia              |
| 8185             | teucriifolia W. en. | Teucrium-lvd.   | △ un | 1½                   | jl.au | Pu    | Armenia              |
| 8186             | tuberosa W.         | tuberous-root.  | △ un | 2                    | jn.au | V     | Spain                |
| 8187             | lanata W.           | woolly          | △ un | 1½                   | my.jn | Pu    | S. Europe            |
| 8188             | multifida W.        | multifid        | △ un | ¾                    | jl.au | W     | Siberia              |
| 8189             | botryoides W.       | annual          | △ un | 1½                   | jn.jl | W     | Siberia              |
| 1250.            | ELSHOLTZIA. W.      | ELSHOLTZIA.     |      |                      |       |       | Labiatae. Sp. 2-5.   |
| 8190             | ocymoides Pers.     | Basil-like      | △ un | 1                    | jl    | Pu    | E. Indies            |
| 8191             | cristata W.         | crested         | △ or | 1½                   | my.jl | Pk    | Siberia              |
| *1251.           | LAVAN'DULA. W.      | LAVENDER.       |      |                      |       |       | Labiatae. Sp. 8-12.  |
| 8192             | Spica W.            | common          | △    | clt                  | 2     | jl.s  | Li                   |
|                  | β alba              | white-flowered  | △    | or                   | 2     | jl.s  | W                    |
|                  | γ latifolia W. en.  | broad-leaved    | △    | clt                  | 2     | jl.s  | Li                   |
| 8193             | Stæ'chas W.         | French          | △    | or                   | 1½    | my.jl | Li                   |
| 8194             | viridis W.          | Madeira         | △    | or                   | 1½    | my.jl | Pu                   |
| 8195             | dentata W.          | tooth-leaved    | △    | or                   | 1½    | jn.s  | Li                   |
| 8196             | pinnata W.          | pinnated        | △    | or                   | 1½    | ap.au | Li                   |
| 8197             | multifida W.        | cut-leaved      | △    | or                   | 1½    | jl.s  | Li                   |
| 8198             | abrotanoides W.     | Southernw.-lv.  | △    | or                   | 1½    | jn.s  | Li                   |
| 8199             | carnosa W.          | thick-leaved    | △    | or                   | 1½    | jn.jl | Li                   |
| 1252.            | SIDER'ITIS. W.      | IRONWORT.       |      |                      |       |       | Labiatae. Sp. 17-43. |
| 8200             | canariensis W.      | Canary          | △    | or                   | 3     | my.au | Y                    |
| 8201             | candicans W.        | Mullein-leaved  | △    | or                   | 3     | ap.jl | Y.Br                 |
| 8202             | montana W.          | mountain        | △    | or                   | 1½    | jl.au | Y.Br                 |
| 8203             | elegans W. en.      | dark-flowered   | △    | or                   | 1½    | jl    | Y                    |
| 8204             | romána W.           | Roman           | △    | or                   | 1     | jn.au | W                    |
| 8205             | syriaca W.          | Syrian          | △    | or                   | 1½    | jn.s  | W.Y                  |
| 8206             | taurica W. en.      | Taurian         | △    | or                   | 1½    | jn.s  | Pa.Y                 |
| 8207             | perfoliata W.       | perfoliate      | △    | or                   | 2     | au.n  | Y                    |
| 8208             | incána W.           | Lavender-lvd.   | △    | or                   | 1½    | jl.au | Y                    |
| 8209             | helicifolia W. en.  | Holly-leaved    | △    | or                   | 1½    | jn.s  | Y                    |
| 8210             | spinosa W. en.      | spin            | △    | or                   | 1½    | jn.s  | Y                    |
| 8211             | hyssopifolia W. en. | Hyssop-leaved   | △    | or                   | 1     | jn.n  | L.Y                  |
| 8212             | scordifolia W.      | scollop-leaved  | △    | or                   | 1     | au.n  | Y                    |



History, Use, Propagation, Culture,

Vide John de Souza, p. 106. The plant to which this name was given is involved in uncertainty. It appears to have been one of the smallest plants, whence some have inferred that "the Hyssop which groweth out of the wall" is a kind of moss. It officinally, a neat little evergreen tuft, and most ornamental and fragrant when in flower, was once in considerable repute as a popular medicine, but is now almost out of use.

1949. *Nepeta*. Said by Linnaeus to be derived from *Nepes*, a town of Tuscany, mentioned by Pliny. *N. cataria* is called catmint, because cats are very fond of it, especially when it is withered, when they will roll themselves on it, tear it to pieces, and chew it with great pleasure. Ray observes, that plants which he transplanted from the fields into his garden were always destroyed by the cats, unless he protected them with thorns till they had taken good root and came into flower; but that they never meddled with plants raised from seed. Miller has confirmed this by his own experience; having frequently set a plant from another part of the garden within two feet of others which came up from seeds, when the former was torn in pieces and destroyed by the cats, whilst the latter remained unharmed. The true reason of this difference is assigned by Ray; that the cat is fond of it in a languid withering state, or when the peculiar scent of the plant is excited by being handled or bruised in gathering or transplanting. Hence the English vulgar saying,

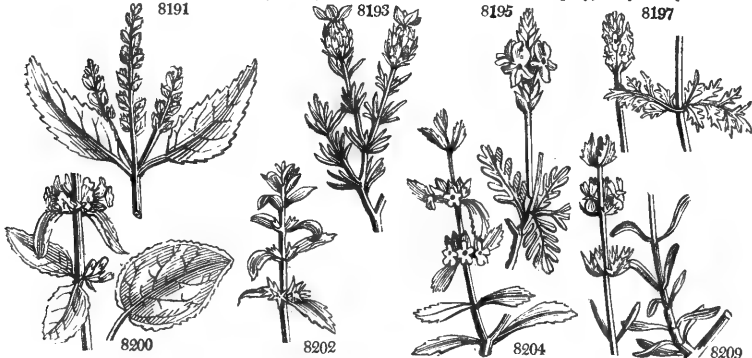
- 8165 Flowers spiked, Whorls somewhat stalked, Leaves stalked cordate tooth-serrated
- 8166 Corymbs stalked spiked, Leaves lanceolate rugose tomentose bluntly serrated
- 8167 Spike whorled interrupted, Leaves cordate toothed rugose waved crisp stalked hoary
- 8168 Cymes stalked many-flowered, Leaves lanceolate oblong cordate naked, Lateral lobes of cor. reflexed
- 8169 Cymes stalked many-fl. hairy, Lvs. oblong cordate villous subsessile, Lateral lobes of cor. reflexed
- 8170 Cymes stalked many-fl. pilose, Leaves cordate stalked naked subsessile, Lateral lobes of cor. spreading
- 8171 Cymes remote stalked 1-sided few-fl. Lvs. cordate blunt crenate glandular beneath: floral all sessile
- 8172 Cymes stalk. 1-sid: lower rem. Lvs. cord. blunt cren. rug. downy without glands: floral generally stalked
- 8173 Cymes stalked many-flowered, Leaves stalked oblong subsordate crenate downy
- 8174 Flowers panicled, Leaves lanceolate serrate sessile naked
- 8175 Cymes stalked, Leaves cordate oblong lanceolate deeply serrate downy
- 8176 Leaves cordate oblong serrated, Bractes linear, Whorls 8-12-flowered incurved nearly 1-sided
- 8177 Racemes whorled naked, Leaves cordate oblong sessile naked
- 8178 Flowers sessile in whorled spikes, Bractes lan. longer than calyx pubesc. Leaves stalked villous beneath
- 8179 Cymes stalked racemose, Leaves obl. cordate serrate beneath hoary and rugose with veins
- 8180 Leaves cordate oblong crenate stalked, Stem smooth angular, Flowers whorled capitate clustered
- 8181 Fl. sessile in whorled spikes, Bractes lin. the length of calyx, Leaves stalked
- 8182 Fl. sessile in whorled spikes, Whorls distant capitate, Bractes lanc. length of cal. Leaves stalked entire
- 8183 Leaves sessile lanceolate in approximated whorls, Bractes ovate with netted veins [at end
- 8184 Cymes stalked many-fl. Tube of cor. filiform curved, Leaves ovate cordate blunt stalked serr. pubescent
- 8185 Cymes stalked few-fl. racemose, Leaves ovate cordate blunt stalked toothed pubescent
- 8186 Spikes term. Bractes obl. acum. nerved with colored lines, Lvs. cord. pubesc. Lateral lobes of cor. reflexed
- 8187 Spikes term, Bractes ov. nerved rugose subsarciose, Lvs. obl. cord. villous, Lateral lobes of cor. spreading
- 8188 Flowers spiked, Leaves pinnatifid entire
- 8189 Flowers spiked, Lateral lobes of cor. spreading, Leaves pinnatifid with lin. nearly equal segments

- 8190 Stems prostrate, Leaves ovate subserrate, Spikes terminal, Calyx scarious at end
- 8191 Spikes solitary unilateral erect, Bractes veiny

- 8192 Leaves sessile lin. lanc. revolute at edge, Spike interrupted naked

- 8193 Leaves sessile lin. downy revolute at edge, Spike contracted comose subsessile, Bractes 3-lobed
- 8194 Leaves sessile lin. rugose villous revolute at edge, Spike comose, Bractes undivided
- 8195 Leaves sessile linear pectinate-pinnate, Spike contracted comose
- 8196 Lvs. stalked pinnate, Leaflets cuneate, Spike imbricated
- 8197 Lvs. stalked hoary, Leaf. pinnatifid crosswise, Spike simple 4-corn. spiral, Bractes ovate nerved villous
- 8198 Lvs. stalked pinnate nearly smooth, Leaf. pinnatifid crosswise, Spike branched interrupted 4-cornered
- 8199 Lvs. stalked ovate cordate serrate fleshy, Spike 4-cornered, Calyxes recurved

- 8200 Shrubby villous, Lvs. cordate oblong acute stalked, Spikes whorled before flowering nodding
- 8201 Shrubby downy, Lvs. ovate lanc. cordate narrowed at end white beneath, Whorls about 8-fl. remote
- 8202 Herbaceous without bractes, Cal. larger than cor. spiny, Upper lip trifid
- 8203 Herbaceous without bractes villous, Stem diffuse, Segm. of calyx nearly equal spiny
- 8204 Herbaceous decumbent without bractes, Leaves spatulate toothed at end, Cal. spiny, Upper lip ovate
- 8205 Half-shrubby woolly, Leaves lanc. nearly entire, Fl. in whorled spikes, Bractes cordate acute downy
- 8206 Half-shrubby villous, Lvs. lanc. cren. Fl. in whorled spikes, Bractes cord. acum. reticulated with nerves
- 8207 Herbac. pilose-hispid, Upper lvs. lanc. amplexicaul. toothlfted, Bractes cord. acum. netted hairy at edge
- 8208 Half-shrubby downy, Lvs. linear lanceolate nearly entire, Flowers and bractes toothed
- 8209 Hirsute, Lvs. lanc. spiny toothed, Bractes round. cord. shorter than cal. with spiny teeth, Whorls distant
- 8210 Hirsute, Lvs. lanc. spiny toothed, Bractes cord. acum. longer than cal. with spiny teeth, Whorls close
- 8211 Lvs. lanc. smooth entire, Bractes cord. toothed-spiny, Calyxes equal
- 8212 Leaves lanc. toothed smooth above, downy beneath, Bractes ovate toothed spiny, Calyxes equal



and Miscellaneous Particulars.

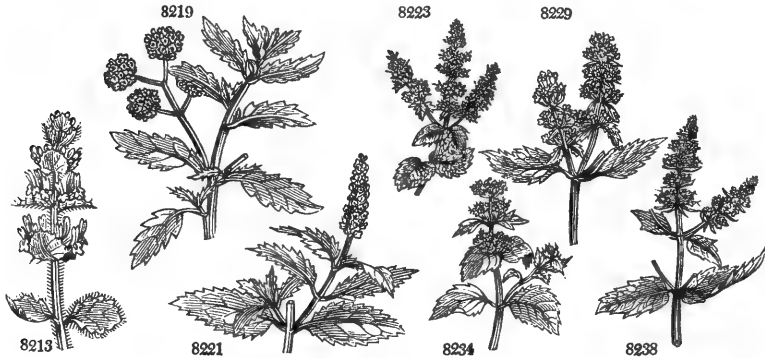
"If you set it  
The cats will eat it;  
If you sow it  
The cats will not know it."

1250 *Elsholtzia*. Named by Willdenow, in memory of a Prussian botanist, John Sigismund Elsholtz, who lived in the middle of the seventeenth century. Inconspicuous hardy herbaceous plants of little merit.

1251 *Lavandula*. From *lavare*, to wash. The use of the distilled water of this plant is well known. The flowers of *L. spica* have an agreeable fragrant odour, and warm bitterish taste. Alcohol extracts their virtues completely, and elevates in distillation all their odorous parts; water acts less completely. The oil, however, on which their virtues depend, is obtained separate in distillation with water; in the proportion, according to Lewis, of one ounce of oil from sixty ounces of the flowers. Lavender is stimulant and tonic. The oil extracted by alcohol enters into several compositions. The dried leaves in powder were used formerly as a sternutatory; but they are now neglected. The flowers are cut in dry weather, when they begin to blow. (*London Dispensatory*, 862.)

1252 *Sideritis*. From *sidros*, iron. A name given by the Greeks to a plant by which they were cured all

|                          |                            |      |          |      |           |          |   |    |                                     |
|--------------------------|----------------------------|------|----------|------|-----------|----------|---|----|-------------------------------------|
| 8213 hirsuta W.          | hairy                      | Δ or | 1½ jn.jl | Y    | S. Europe | 1731.    | C | co |                                     |
| 8214 crispata W. en.     | curled-leaved              | Δ or | 1½ jns   | Y    | Gibraltar | 1816.    | C | co | Cav. ic. 4. t. 302                  |
| 8215 crética L.          | Candian                    | Δ cu | 1½ jns   | Y    | Candia    | 1833.    | C | co |                                     |
| 8216 foetida W.          | stinking                   | Δ un | 1 jn.    | Y    | Spain     | 1822.    | C | co |                                     |
| 1253. BYSTROPO'GON. W.   | BYSTROPOGON                |      |          |      |           |          |   |    |                                     |
|                          | <i>Labiate. Sp. 4-7.</i>   |      |          |      |           |          |   |    |                                     |
| 8217 plumosus W.         | woolly-flower'd            | Δ or | 1½ jn.jl | Papu | Canaries  | 1779.    | C | pl | L'her. sert. n. 4                   |
| 8218 organifolius W.     | entire-leaved              | Δ or | 1½ jl.au | Papu | Canaries  | 1815.    | C | pl | L'her. sert. n. 5                   |
| 8219 canariensis W.      | Canary                     | Δ or | 1½ jn.au | Papu | Canaries  | 1774.    | C | pl | Com.hort. 2. t.65                   |
| 8220 punctatus W.        | cluster-flower'd           | Δ or | 1½ jls   | Papu | Madeira   | 1715.    | C | pl | L'her. sert. n. 7                   |
| †1254. MEN'THA. W.       | MIN'T.                     |      |          |      |           |          |   |    |                                     |
|                          | <i>Labiate. Sp. 35-43.</i> |      |          |      |           |          |   |    |                                     |
| 8221 Auricularia W.      | Indian                     | Δ or | 1 jl.au  | Pu   | E. Indies | 1796.    | D | co | Rum.amb.6.t.16                      |
| 8222 levigata W. en.     | polished                   | Δ or | 1½ jl    | Pu   | .....     | .....    | D | co |                                     |
| 8223 rotundifolia W.     | round-leaved               | Δ or | 2 aus.   | R    | Germany   | moi.pl.  | D | co | Eng. bot. 446                       |
| β variegata              | variegated                 | Δ or | 2 aus.   | R    | .....     | .....    | D | co |                                     |
| 8224 gratissima W.       | oblong-leaved              | Δ or | 1½ jl.au | Pu   | Germany   | 1799.    | D | co |                                     |
| 8225 pubescens W. en.    | pubescent                  | Δ or | 1½ jl.au | Pu   | .....     | .....    | D | co |                                     |
| 8226 pyramidalis Tenore. | pyramidal                  | Δ or | 2 jl.au  | Pu   | Naples    | 1824.    | D | co |                                     |
| 8227 viridis W.          | spear                      | Δ or | 2 cul    | Pu   | Britain   | mar.     | D | co | Eng. bot. 2424                      |
| 8228 incana W. en.       | hoary                      | Δ or | 1½ jl.au | Pu   | .....     | 1790.    | D | co |                                     |
| 8229 piperita W.         | pepper                     | Δ or | 2 aus.   | Pu   | England   | wat.pl.  | D | co | Eng. bot. 687                       |
| 8230 glabrata W.         | smooth                     | Δ or | 1 jl.au  | Pu   | Egypt     | 1802.    | D | co |                                     |
| 8231 crispa W.           | curled                     | Δ or | 2 jl.au  | Pu   | Siberia   | 1840.    | D | co |                                     |
| 8232 crispata W. en.     | crumpled                   | Δ or | 1½ jl.au | Pu   | .....     | 1807.    | D | co |                                     |
| 8233 undulata W. en.     | wave-leaved                | Δ or | 1½ jl.au | Pu   | .....     | 1816.    | D | co |                                     |
| 8234 odorata Smith.      | Bergamot                   | Δ or | 1 jl.au  | Pu   | England   | wat.pl.  | D | co | Eng. bot. 1025                      |
| M. citrata W.            |                            |      |          |      |           |          |   |    |                                     |
| 8235 balsamea W. en.     | Balsam-scented             | Δ or | 1½ jl.au | Pu   | Italy     | 1804.    | D | co |                                     |
| 8236 niliaca W.          | Egyptian                   | Δ or | 2 jl.au  | Pu   | Egypt     | 1796.    | D | co | Jac. hort. 3. t. 87                 |
| 8237 nemorosa W. en.     | wood                       | Δ or | 2 jl.au  | Pu   | Britain   | ...      | D | co | Fl. dan. t. 494                     |
| 8238 sylvestris W.       | wild                       | Δ or | 2 jl.au  | Pu   | Britain   | wat.pl.  | D | co | Eng. bot. 686                       |
| 8239 macrostachya Ten.   | long-spiked                | Δ or | 2 jl.au  | Pu   | S. Europe | ...      | D | co |                                     |
| M. rotundifolia W. en.   |                            |      |          |      |           |          |   |    |                                     |
| 8240 lavandulacea W. en. | Lavender-ld.               | Δ or | 1 jl.au  | Pu   | Spain     | 1823.    | D | co |                                     |
| 8241 rubra H. K.         | common-red                 | Δ or | 1½ s     | Pu   | Britain   | wat.pl.  | D | co | Eng. bot. 1413                      |
| 8242 acutifolia H. K.    | sharp-leaved               | Δ or | 1 s      | Pu   | Britain   | wat.pl.  | D | co | Eng. bot. 2415                      |
| 8243 borealis Mich.      | northern                   | Δ pr | 2 s      | Pu   | N. Amer.  | 1824.    | D | co |                                     |
| 8244 hirsuta H. K.       | hairy-water                | Δ or | 1½ jls   | Pu   | Britain   | wat.pl.  | D | co | Eng. bot. 447                       |
| 8245 capensis W.         | Cape                       | Δ or | 1 jl.au  | Pu   | C. G. H.  | 1816.    | D | co |                                     |
| 8246 austriaca W. en.    | Austrian                   | Δ or | 1 jl.au  | Pu   | Germany   | 1809.    | D | co |                                     |
| 8247 sativa W.           | tall-red                   | Δ or | 2 aus.   | Pu   | England   | ...      | D | co | Eng. bot. 448                       |
| 8248 hirta W. en.        | shaggy                     | Δ or | 1½ aus.  | Pu   | .....     | .....    | D | co |                                     |
| 8249 gracilis H. K.      | narrow-leaved              | Δ or | 1 au     | Pu   | Britain   | wat.pl.  | D | co | Eng. bot. 449                       |
| 8250 arvensis H. K.      | corn                       | Δ or | 2 jls    | Pu   | Britain   | corn fi. | D | co | Eng. bot. 2119                      |
| β praecox S. M.          | early-flowering            | Δ or | 2 jn     | Pu   | Britain   | ...      | D | co | Sole's Mints,c. ic                  |
| 8251 gentilis H. K.      | bushy-red                  | Δ or | 1½ jn.au | Pu   | Britain   | pools.   | D | co | Eng. bot. 2118                      |
| 8252 canadensis W.       | Canadian                   | Δ or | 1 jl     | Pu   | N. Amer.  | 1801.    | D | co |                                     |
| 8253 dentata W. en.      | toothed                    | Δ or | 1 jl.au  | Pu   | Germany   | 1816.    | D | co |                                     |
| 8254 Pulégium W.         | Pennyroyal                 | Δ m  | 2 aus.   | Pu   | Britain   | wet.co   | D | co |                                     |
| 8255 cervina W.          | Hyssop-leaved              | Δ or | 3 jn.au  | W    | France    | 1648.    | D | co | Eng. bot. 1026<br>Mor.his.3. t.7.f7 |



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wounds by sword. The plants of the moderns do not possess any such properties. Their flowers, however, have frequently a ferruginous color.

1253. *Bystropogon*. A name elegantly contrived by L'Heritier, from *βου*, to close, and *πυρον*, a beard, in allusion to the throat of the corolla being closed by hairs.

1254. *Mentha*. *Μινθα* or *μινθη*, in old Greek. The poets feign that Mintha was a daughter of Cocytus, transformed into the plant which bears her name; an allegorical description of the terrible effects ascribed to their plant by the ancients. *M. viridis* not being so hot to the taste as peppermint, and having a more agreeable flavor than most of the others, is generally preferred for culinary and some medicinal purposes. The leaves or tops are used in spring salads, and eaten dried as sauce with lamb and in soups.

The medical preparations of spearmint are more pleasant than those of peppermint, but perhaps less efficacious. This herb, as do the other sorts, contains much essential oil, but of an odor less agreeable than that of lavender or marjoram: it is therefore less employed as a cephalic; but it acts very powerfully on parts to which it is immediately applied, and therefore considerably on the stomach. It acts especially as an antispasmodic, and therefore relieves pains and choleric arising from spasm. It will also stop vomiting dependent on the same cause; but if it arise from an inflammatory irritation in the stomach itself, or in other parts of the body, it aggravates the disease. The infusion of mint in warm water agrees better with the stomach than the distilled water. The official preparations are an essential oil, a conserve, a simple water, and a spirit. The conserve is very grateful, and the distilled waters both simple and spirituous, are generally thought pleasant.

8213 Leaves lanc. toothed blunt pilose, Bractes toothed spiny, Stems hirsute decumbent  
 8214 Hirsute, Lvs. obl. cuneate toothed wavy downy beneath, Bractes round with spiny teeth, Whorls distant  
 8215 Shrubby downy, Lvs. cord. obl. crenate stalked downy on each side, Upper lip of cor. ovate entire  
 8216 Like *hyasopifolia*, but leaves smooth on each side somewhat toothed lanceolate blunt

8217 Panicle dichotomous, Cal. feathery, Leaves ovate subserrate downy beneath  
 8218 Panicle dichotomous, Cal. feathery, Leaves ovate entire very white beneath  
 8219 Panicle dichotomous, Flowers capitate, Leaves ovate crenate most villous beneath  
 8220 Panicle dichotomous, Flowers capitate, Leaves ovate toothed smooth dotted

8221 Spikes oblong, Leaves oblong serrated hairy sessile, Stamens longer than cor.  
 8222 Spikes cylindr. interrupted, Leaves ovate-obl. subsessile remotely serrate and calyxes smooth  
 8223 Hoary, Spikes oblong interrupted, Leaves roundish rugose crenate sessile

8224 Spikes obl. Leaves sessile oval finely and equally serrate acum. hoary beneath, Stamens as long as cor.  
 8225 Spikes obl. Lvs. ovate stalked serr. hoary beneath, Calyxes and peduncles hirsute, Stem much branched  
 8226 Leaves stalked subcordate slightly pubescent, Spikes middle sized [somewhat hairy  
 8227 Spikes cylindr. interrupted, Lvs. lanc. subsess. cun. at base finely serrated smth. on each side, Teeth of cal.  
 8228 Spks. obl. Lvs. obl. comp. blunt. serrat. ses. hoary and downy on each side, Cal. and ped. vill. Stem much br.  
 8229 Spikes obl. blunt interrupted at base, Lvs. ov.-obl. acute serrat. stalked smooth, Cal. quite smooth at base  
 8230 Flowers racemose whorled, Leaves stalked ovate lanc. serrated smooth  
 8231 Spikes capitate, Leaves cordate cut-toothed wavy sessile, Stamens length of corolla [hirsute  
 8232 Spikes cylindr. interrupt. Lvs. ov. obl. subsess. cuspid. ser. waved complicate hoary on each side, Cal. and ped.  
 8233 Spikes cylindr. Lvs. ovate obl. subsess. cuspidate serr. wavy complicate hoary on each side  
 8234 Flowers in heads, Lvs. ellipt. blunt serrated smooth stalked, Stamens shorter than corolla

[at base  
 8235 Spikes cylindr. interrupted, Lvs. ovate lanc. stalked finely serr. entire at base, Ped. hirsute, Cal. smooth  
 8236 Spikes obl. interrupt. at base, Lvs. obl. lanc. subsess. remotely and finely serrat. entire at base hoary beneath  
 8237 Spikes cylindr. contracted, Leaves obl. subcor. subsess. equally serrated hoary beneath, Cal. and ped. hirsute  
 8238 Spks. cylindr. interrupt. at base, Lvs. ov. obl. subsess. finely and unequally serr. hoary, Cal. and ped. hirsute  
 8239 Spikes cylindr. interrupted, Lvs. ovate-ellipt. rounded at end serrated subsessile hoary beneath

[calyx villous  
 8240 Spks. cylindr. interrupt. at base, Lvs. lin. lanc. nearly entire complicate sess. hoary on each side, Ped. and  
 8241 Flowers whorled, Lvs. ovate stalked serrated entire at base smooth, Teeth of calyx hairy  
 8242 Fls. whorl. Lvs. ov.-lanc. narrowed at each end, Cal. tubular obl. hairy, Hairs of pedicels spreading, of stems  
 8243 Low pubesc. Fl. whorled, Lvs. stalked with resinous dots acute at each end, Stamens exerted [deflexed  
 8244 Flowers capitate or whorled, Lvs. stalked ovate, Calyx hairy on each side, Pedicels hispid backwards  
 8245 Whorls spiked oblong, Leaves lanceolate entire downy  
 8246 Fl. whorled, Lvs. ovate stalked serrate hairy, Cal. hairy, Ped. smooth, Stem erect  
 8247 Flowers whorled, Lvs. ovate acutish serrated, Stamens longer than corolla  
 8248 Spikes cylindr. interrupted at base, Lvs. ovate stalked serrate beneath hairy, Cal. and peduncle hirsute  
 8249 Flowers whorled, Lvs. lanc. subsess. Stem much branched erect, Cal. at base and pedicels very smooth  
 8250 Flowers whorled, Lvs. ovate stalked serrate hairy, Cal. and peduncles hirsute, Stem much branched

8251 Flowers whorled, Lvs. ovate, Stem much branched spreading, Calyxes and pedicels smooth at base  
 8252 Flowers whorled, Lvs. lanc. serrate stalked hairy, Stam. as long as corolla  
 8253 Flowers whorled, Lvs. ov. subsess. cuspidate serr. wavy nearly smooth, Pedunc. and calyx smooth at base  
 8254 Flowers whorled, Lvs. ovate, Stem prostrate, Pedicels and cal. downy on each side, Teeth ciliated  
 8255 Flowers whorled, Lvs. lanc. nearly entire sessile smooth, Bractes palmate



and Miscellaneous Particulars.

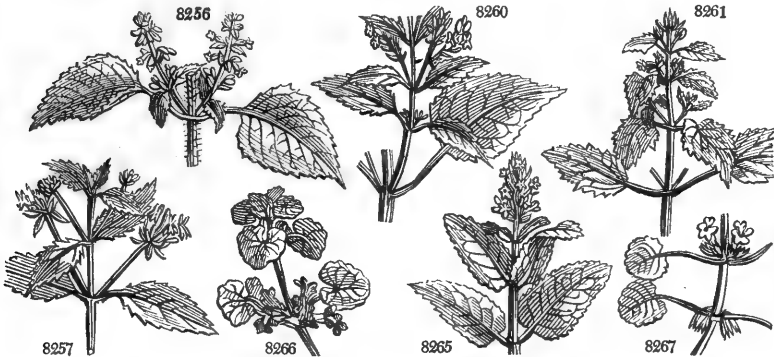
Lewis observes, that mint is said to prevent the coagulation of milk; and hence it has been recommended to be used with milk diets, and even in cataplasms and fomentations for resolving coagulated milk in the breasts: upon experiment, the curd of milk, digested in a strong infusion of mint, could not be perceived to be any otherwise affected than by common water; but milk, in which mint leaves were set to macerate, did not coagulate near so soon as an equal quantity of the same milk kept by itself. Dry mint digested in rectified spirits of wine, gives out a tincture which appears by day-light of a fine dark green, but by candle-light of a bright red color. The fact is, that a small quantity of this tincture is green, either by day-light or candle-light, but a large quantity seems impervious to common day-light; however, when held between the eye and a candle, or between the eye and the sun, it appears red; so that if put into a flat bottle it appears green, but when viewed edgewise red.

For medicinal use peppermint is generally cut just as the flowers appear; but for obtaining the essential oil, the flowering plant is preferred. It should be cut in very dry weather. (*London Dispensatory*, 384.)

*M. piperita* has a more penetrating smell than any of the other species, and a much stronger taste, pungent and glowing like pepper, sinking as it were into the tongue, and followed by a sensation of coldness. Its stomachic, anti-spasmodic and carminative qualities render it useful in flatulent colics, hysterical affections, retchings, and other dyspeptic symptoms, acting as a cordial, and often producing immediate relief. The official preparations are an essential oil, a simple water, and a spirit. The essence of peppermint is an elegant medicine, and seems to be the rectified oil dissolved in spirits of wine.

<sup>46</sup> The cultivators of the plant observe, that to keep up its quality, the roots must be transplanted every three

|  |   |  |  |   |  |   |  |   |
|--|---|--|--|---|--|---|--|---|
| 1255. PERIL/LA. W.<br>8256 ocyroides W.  | PERILLA.<br>Basil-leaved  | ○ cu   | 1/2 jl.au  | W   | India  | 1770.   | S s.l  | Bot. mag. 2395  |
| †1256. HYP'TIS. <i>Poit.</i><br>8257 capitata H. K.<br>8258 radiata <i>Poit.</i><br>8259 ebracteata H. K.<br>8260 pectinata <i>Poit.</i><br>8261 pérsica P. S.<br>8262 atachyodes <i>Link.</i><br>8263 recurvata <i>Poit.</i><br>8264 brevipes <i>Poit.</i>                | HYPTIS.<br>Jamaica<br>Carolina<br>small-headed<br>Balm-leaved<br>Persian<br>long-spiked<br>recurved<br>short-stalked  | 1/2 ○ cu<br>1/2 △ cu<br>1/2 △ cu<br>1/2 △ cu<br>1/2 △ cu<br>1/2 △ cu<br>1/2 △ cu<br>1/2 △ cu | 1 1/2 jn.jl<br>1 jn.jl<br>1/2 ja.o<br>1 1/2 ja.d<br>1 1/2 jl<br>1 1/2 jl<br>1 1/2 jl<br>1 jn.au                                      | Pa.pu<br>Pa.pu<br>Pa.pu<br>Pa.pu<br>Pa.pu<br>W<br>Pa.pu<br>Li                   | W. Indies<br>Carolina<br>W. Indies<br>W. Indies<br>Persia<br>.....<br>Cayenne<br>S. Amer.                          | 1714.<br>1690.<br>1778.<br>1776.<br>1800.<br>1824.<br>1820.<br>1822.  | S s.l<br>D lp<br>S lp<br>D lp<br>C lp<br>S co<br>D co<br>S co  | P.an.m.7.t.27.f.1<br>P.an.m.7.t.27.f.2<br>P.an.m.7.t.29.f.2<br>Poi.an.mus.7.30<br>Lin.trans.6.t.12  |
| *1257. HORMINUM. <i>Ort.</i><br>8265 caulescens <i>Ort.</i>  | HORMINUM.<br>spiked   | 1/2 △ pr   | 1 jl.au  | Pa.R  | Mexico   | 1800.   | C s.p  | W. h. ber. t. 21  |
| 1258. GLECHOMA. W.<br>8266 hederacea W.<br>8267 hirsuta P. S.  | GROUND IVY.<br>common<br>hairy  | 2. △ w<br>2. △ cu  | 1 mr.my<br>2 mr.my   | B<br>Pk   | Britain<br>Hungary   | hed.b.<br>...   | D co<br>D co   | Eng. bot. 853<br>Pl.rar.hun.t.119   |
| †1259. LAMMIUM. W.<br>8268 Orvála W.<br>8269 levigatum W.<br>8270 rugosum W.<br>8271 garganicum W.<br>8272 maculatum W.<br>8273 álbum W.<br>8274 moschátum H. K.<br>8275 mólle W.<br>8276 purpúreum W.<br>8277 incisum H. K.<br>8277 amplexicaule W.<br>8278 multifidum W. | ARCHANGEL.<br>Balm-leaved<br>smooth<br>rough<br>woolly<br>spotted<br>white<br>musk-scented<br>Pellicitory-leav'd<br>purple<br>cut-leaved<br>Henbit<br>multifid-leaved | 1/2 or<br>w<br>w<br>w<br>w<br>w<br>○ w<br>○ w<br>○ w<br>○ w<br>○ w<br>○ cu                   | 1 1/2 my.jl<br>1 mr.o<br>1 jl.au<br>2 jl.au<br>1 jn.jl<br>2 aps.<br>1 .....<br>1 ap.my<br>1 my.au<br>1 my.jl<br>1/2 mr.jn<br>1 ap.my | D.P<br>Pu<br>R<br>Pu<br>Pu<br>W<br>.....<br>W<br>Pu<br>Pk<br>Pk<br>Pu<br>Levant | Italy<br>Italy<br>Italy<br>Italy<br>Italy<br>Britain<br>Levant<br>.....<br>Britain<br>Britain<br>Britain<br>Levant | 1596.<br>1711.<br>1766.<br>1729.<br>1683.<br>1739.<br>1683.<br>.....<br>1683.<br>san.gr.<br>san.fi.<br>san.fi.<br>1752. | D co<br>D co<br>D co<br>D co<br>D co<br>S co<br>D co<br>S co<br>S co<br>S co<br>S co<br>S co<br>S co | Bot. mag. 172<br>Pluk.al.t.198.f.1<br>Bocc.mus.5.t.23<br>Exot.bot.1.t.48<br>Col.ceph.1.t.185<br>Eng. bot. 768<br>Eng. bot. 769<br>Eng. bot. 1933<br>Eng. bot. 770 |
| 1260. GALEOP'SIS. W.<br>8279 Ládanum W.<br>8280 villósa E. B.<br>8281 Tetráhtis W.<br>8282 versicolor H. K.  | HEMP-NETTLE.<br>red<br>downy<br>common<br>large-flowered  | ○ w<br>○ w<br>○ w<br>○ w   | 1/2 jls<br>1 jl.au<br>1 1/2 jl.au<br>1 jl.au   | Pk<br>Y<br>W<br>Y   | Britain<br>Britain<br>Britain<br>Britain   | chal.fi.<br>san.fi.<br>con.fi.<br>san.fi.   | S co<br>S co<br>S co<br>S co   | Eng. bot. 894<br>Eng. bot. 2353<br>Eng. bot. 207<br>Eng. bot. 667   |
| 1261. GALEOB'DOLON. E. B.<br>8283 léteum E. B.   | DEAD-NETTLE.<br>yellow  | 1/2 △ or   | 1 my.jn  | Y   | Britain  | m.sh.pl.  | D co   | Eng. bot. 787   |
| 1262. BETON'ICA. W.<br>8284 officinális W.<br>8285 stricta W.<br>8286 incána W.<br>8287 orientális W.<br>8288 alopecúrus W.<br>8289 hirsúta W.<br>8290 grandiflóra W.  | BETONY.<br>wood<br>Danish<br>hoary<br>oriental<br>fox-tail<br>hairy<br>great-flowered   | 1/2 △ or<br>1/2 △ or<br>1/2 △ or<br>1/2 △ or<br>1/2 △ or<br>1/2 △ or<br>1/2 △ or<br>1/2 △ or | 1 jl.au<br>1 1/2 jn.jl<br>1 jn.jl<br>1 jn.jl<br>1 1/2 jl<br>1 jn.jl<br>2 jn.jl   | Pu<br>Pu<br>F<br>L.Pu<br>L.Y<br>Pu<br>L.R                                       | Britain<br>Denmark<br>Italy<br>Levant<br>S. Europe<br>Italy<br>Siberia   | woods.<br>1592.<br>1759.<br>1737.<br>1759.<br>1719.<br>1800.  | D co<br>D co<br>D s.p<br>D co<br>D co<br>D s.p<br>D co   | Eng. bot. 1142<br>Par.thea.615.f.4<br>Bot. mag. 2126<br>Lam.ill.t.507.f.2<br>Jac.aus.1.t.78<br>Mur.co.got.2.t.3<br>Bot. mag. 700                                  |



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years, otherwise it degenerates into the flavor of spearmint." (*Linnean Transactions*, v. 176.) If the plant be cut in wet weather it changes to black, and is little worth. (*London Dispensatory*, 385.)

M. pulegium (from *pulex*, a louse, which animal it was thought to drive away) smells like spearmint, but less fragrant; the taste aromatic and pungent, with a slight flavor of camphor. These qualities reside in a very volatile essential oil, which rises in distillation with water. It was formerly regarded as emmenagogue, expectorant, and diaphoretic, and was in repute for promoting the uterine evacuation, and relieving hysteria, whooping-cough, asthma; but it is now justly considered of no value, and seldom used in regular practice. (*London Dispensatory*, 386.)

1255. *Perilla*. A name the meaning of which has not been explained. An annual plant with a strong balmy fragrance.

1256. *Hyptis*. From *hyrtos*, reversed, because the corolla seems inverted, both as to its form and as to the insertion of stamens. Plants with densely whorled flowers, all natives of the western parts of the world, within, or nearly so, the limits of the tropics.

1257. *Horminum*. From *orgeon*, to excite, in allusion to its stimulant qualities. The Horminum of the ancients was reputed aphrodisiac.

1258. *Glechoma*. Γληχων was a sort of Thyme among the Greeks. Small trailing herbs. The leaves of *G. hederacea* are often deformed with red hairy tumours, which are the galls of the Cynips *Glechoma*. Before

8256 Leaves ovate serrate, Bractes long leafy

8257 Heads stalked in an involucre, Invol. lanc. the length of flowers, Leaves ovate toothed  
 8258 Heads stalked in an involucre, Invol. lanc. longer than flowers, Leaves oblong toothed narrowed at base  
 8259 Heads opp. few-fl. without bractes, Pedunc. shorter than joints, Leaves cord. doubly serrate; upper oval  
 8260 Flowers in spiked 1-sided panicles on a two-parted peduncle, Leaves ovate  
 8261 Flowers in stalked capitate cymes, Leaves of invol. 2 longer than calyx in fruit, Leaves oblong  
 8262 Leaves ovate subcordate attenuate acutely crenate pubesc. spiked whorled terminal, Cal. 5-toothed  
 8263 Flowers capitate, Invol. filiform hispid shorter than calyx of fruit, Lower leaves cordate  
 8264 Heads on a short peduncle, Leaves of invol. oblong lanc. Cal. pubescent not closed with hairs

8265 Stem leafy, Leaves ovate oblong crenate, Bractes cordate, acuminate, Cal. pungent

8266 Smooth, Segment of calyx ovate acute  
 8267 Hirsute, Segment of calyx lanceolate cuspidate

8268 Leaves cord. unequally finely serr. Orifice of cor. inflated, Lower lip 3-toothed on each side, Cal. colored  
 8269 Leaves cord. rugose, Stem smooth, Cal. smooth the length of tube of corolla  
 8270 Leaves cord. acute rugose and stems hairy, Whorls many-flowered, Tooth of orifice solitary setaceous  
 8271 Leaves cord. concave somewhat hoary, Orifice of cor. inflated, Tube straight with two teeth on each side  
 8272 Leaves cord. acuminate, Whorls 10-flowered  
 8273 Leaves cord. acuminate serrate stalked, Whorls 20-flowered  
 8274 Smooth, Leaves cordate crenate: floral subsessile, Teeth of calyx as long as cor.  
 8275 Leaves stalked somewhat toothed: lower cordate; upper ovate  
 8276 Leaves stalked cordate blunt toothed; upper close together, Stem naked below  
     β Leaves cut-toothed  
 8277 Floral leaves sessile amplexicaul cut; radical lobed  
 8278 Leaves many-parted

8279 Joints of stem equal, All the whorls remote, Leaves lanceolate  
 8280 Joints of stem equal, Leaves ovate lanceolate serrate villous, Helmet crenate cut  
 8281 Joints of stem thickened upwards, Upper whorls contiguous, Cal. pungent, Cor. little longer than calyx  
 8282 Stem hispid, Joints thickened upwards, Cor. thrice as long as calyx, Helmet ventricose

8283 All the leaves ovate, Involucre 4-leaved

8284 Spike interrupted, Helmet entire, Middle segm. of lower lip emarg. Cal. smoothish  
 8285 Spike oblong, Helmet entire, Middle segm. of lower lip crenate wavy, Cal. hairy, Bractes ciliated  
 8286 Spike interrupted, Helmet bifid, Middle segm. of lower lip crenate, Tube downy incurved  
 8287 Spike entire, Middle segm. of lower lip entire  
 8288 Spike leafy at base, Helmet bifid  
 8289 Spike leafy at base, Helmet entire  
 8290 Spike leafy interrupted, Calyx villous at edge, Teeth subulate, Helmet obovate



and Miscellaneous Particulars.

the use of hops, the leaves were put in ale, and being bitter, aromatic, and having a peculiar and very strong smell, were much used in popular medicine. It is now, however, seldom used.

1259. *Lamium*. *Lamium* was a celebrated marine monster; the flowers of this genus have a considerable resemblance to the grotesque figure of some beast. *L. orvala* is the only species admitted into the garden. The others are mostly ugly weeds. *L. album*, *Ortie blanche*, Fr., *Taube Nessel*, Ger., and *Ortica mortia* or *bianca*, Ital., has a disagreeable smell when bruised, and though no cattle whatever will touch it, yet Linnæus says, the leaves are eaten in Sweden as a pot herb in spring.

1260. *Galeopsis*. From *γαλεος*, a weasel, and *opsis*, appearance. The flower has a grotesque figure, and may be likened to the form of a weasel, or, indeed, of any thing else.

1261. *Galeobdolon*. A word with the same meaning as *Galeopsis*, which see.

1262. *Betonica*. In Celtic botany is called *Bentonic*; wherefore it appears, that Pliny gave too much way to conjecture, when he wrote that *Betonica* or *Vetonica* was so called from the *Vetones*, a people who dwelt at the foot of the Pyrenees. *B. officinalis* was formerly much used in medicine, but it is discarded from modern practice. When fresh it intoxicates. The leaves when dry excite sneezing. Sheep eat it, but goats refuse it. The roots are bitter and very nauseous; in a small dose they vomit and purge violently. This plant dyes wool of a very fine dark yellow color.



| HEDGE-NETTLE.                    |                           | <i>Labiatae. Sp. 37-55.</i> |             |
|----------------------------------|---------------------------|-----------------------------|-------------|
| †1263. STA'CHYS <i>W.</i>        | common                    | Δ w                         | 2 jl.au     |
| 8291 sylvatica <i>W.</i>         | Siberian                  | Δ un                        | 1 jl.au     |
| 8292 sibirica <i>Link.</i>       | soft-leaved               | Δ w                         | 1 1/2 jl.au |
| 8293 mollissima <i>W. ex.</i>    | Corsican                  | Δ un                        | 1 1/2 jl.au |
| 8294 cor'sica <i>Pers.</i>       | Clown's Allheal           | Δ w                         | 2 au        |
| 8295 palustris <i>W.</i>         | scarlet                   | Δ or                        | 3 jn.au     |
| 8296 coccinea <i>W.</i>          | Catmint-leav'd            | Δ w                         | 1 1/2 jn.au |
| 8297 nepetifolia <i>Desf.</i>    | decumbent                 | Δ w                         | 2 my.jl     |
| 8298 decumbens <i>Pers.</i>      | downy                     | Δ w                         | 3 jl        |
| 8299 germanica <i>W.</i>         | oblong-leaved             | Δ or                        | 2 jn.jl     |
| 8300 intermedia <i>H. K.</i>     | woolly                    | Δ or                        | 2 jns       |
| 8301 lanata <i>W.</i>            | broad-leaved              | Δ or                        | 3 jns       |
| 8302 Heraclea <i>L.</i>          | ambiguous                 | Δ w                         | 1 1/2 jn.jl |
| 8303 ambigua <i>Smith</i>        | fine-leaved               | Δ or                        | 1 1/2 jn.jl |
| 8304 tenuifolia <i>Bieb.</i>     | sage-leaved               | Δ or                        | 2 jn.jl     |
| 8305 salviaefolia <i>Tem.</i>    | Alpine                    | Δ w                         | 2 jn.au     |
| 8306 alpina <i>W.</i>            | blunt-leaved              | Δ w                         | 1 my.jl     |
| 8307 circinata <i>W.</i>         | Balbia's                  | Δ or                        | 1 1/2 my.jl |
| 8308 Balbisii <i>Link.</i>       | Iberian                   | Δ or                        | my.jl       |
| 8309 ibérica <i>Bieb.</i>        | Fennel-scented            | Δ cu                        | 2 my.jn     |
| 8310 feniculum <i>Psh.</i>       | sand                      | Δ or                        | 1 jl        |
| 8311 arenaria <i>Desf.</i>       | Cretan                    | Δ w                         | 2 jn.au     |
| 8312 critica <i>W.</i>           | clammy                    | Δ or                        | 1 jn.jl     |
| 8313 glutinosa <i>W.</i>         | thorny                    | Δ un                        | 1 1/2 jl    |
| 8314 spinosa <i>W.</i>           | oriental                  | Δ or                        | 1 1/2 jn.jl |
| 8315 orientalis <i>W.</i>        | sea                       | Δ ft                        | 2 jl        |
| 8316 maritima <i>W.</i>          | oblique-leaved            | Δ or                        | 2 jn.jl     |
| 8317 obliqua <i>Pers.</i>        | Betony-leaved             | Δ or                        | 1 1/2 jn.jl |
| 8318 betonicaefolia <i>Pers.</i> | Ethiopian                 | Δ or                        | 1 1/2 ap.jl |
| 8319 aethiopica <i>W.</i>        | procumbent                | Δ or                        | 1 jn.au     |
| 8320 hirta <i>W.</i>             | rough                     | Δ or                        | 2 jl.au     |
| 8321 rugosa <i>W.</i>            | wedge-leaved              | Δ or                        | 1 jl.au     |
| 8322 scordifolia <i>W. ex.</i>   | upright                   | Δ or                        | 2 jn.au     |
| 8323 recta <i>W. ex.</i>         | annual                    | Δ w                         | 1 jn.au     |
| 8324 annua <i>W.</i>             | corn                      | Δ o                         | 1 jl.au     |
| 8325 arvensis <i>W.</i>          | broad-leaved              | Δ w                         | 2 jn.jl     |
| 8326 latifolia <i>W.</i>         | Phlomis-leaved            | Δ or                        | 1 1/2 jn.jl |
| 8327 phlomisoides <i>W. ex.</i>  |                           |                             |             |
| †1264. ZIETE'NIA. <i>Pers.</i>   | ZIETENIA.                 |                             |             |
| 8328 lavandulifolia <i>Pers.</i> | lavender-leav'd           | Δ or                        | 1 1/2 jl.au |
| †1265. BALLO'TA. <i>W.</i>       | STINKING HOREHOUND.       |                             |             |
| 8329 nigra <i>W.</i>             | black                     | Δ w                         | 2 jl.s      |
| 8330 alba <i>W.</i>              | white                     | Δ w                         | 2 jl.s      |
| 8331 lanata <i>W.</i>            | woolly                    | Δ or                        | 2 jn.au     |
|                                  | <i>Panzeria multifida</i> |                             |             |
| 8332 disticha <i>W.</i>          | Mench.                    | Δ w                         | 1 jl        |
|                                  | distichous                |                             |             |
| †1266. MARRU'BIVM. <i>W.</i>     | HOREHOUND.                |                             |             |
| 8333 Alfsium <i>W.</i>           | plaited-leaved            | Δ or                        | 1 1/2 jl.au |
| 8334 astracanicum <i>W.</i>      | Astracan                  | Δ or                        | 1 1/2 jl.au |
| 8335 peregrinum <i>W.</i>        | Sicilian                  | Δ or                        | 3 jl.s      |
| 8336 creticum <i>W.</i>          | Cretan                    | Δ or                        | 1 jl.s      |
| 8337 candidissimum <i>W.</i>     | woolly-white              | Δ or                        | 3 jl.s      |
| 8338 supinum <i>W.</i>           | procumbent                | Δ or                        | 1 1/2 au.o  |
| 8339 africanum <i>W.</i>         | African                   | Δ or                        | 1 jl.s      |
| 8340 vulgare <i>W.</i>           | common-white              | Δ m                         | 2 jns       |
| 8341 affine <i>Horn.</i>         | kindred                   | Δ or                        | 1 1/2 jns   |
| 8342 hirsutum <i>W.</i>          | hirsute                   | Δ or                        | 1 1/2 jn.jl |
| 8343 cinereum <i>W. ex.</i>      | cinereous                 | Δ or                        | 1 jn.jl     |
| 8344 crispum <i>W.</i>           | curl-leaved               | Δ or                        | 1 jl.au     |
| 8345 cataractifolium <i>Lam.</i> | Catmint-leaved            | Δ or                        | 1 jl.au     |
| 8346 hispanicum <i>W.</i>        | Spanish                   | Δ or                        | 1 jl.au     |
| 8347 Pseu.-Dictamnus <i>W.</i>   | shrubby-white             | Δ or                        | 1 1/2 jl.au |
| 8348 acetabulosum <i>W.</i>      | saucer-leaved             | Δ or                        | 1 jn.au     |



History, Use, Propagation, Culture,

1263. *Stachys*. From *gaxx*, a spike; the flowers of all the species grow in spikes. They are for the most part strong smelling weeds.

1264. *Zietenia*. A genus divided by Gleditsch from *Stachys*, on account of the different structure of the corolla, and the single grain. It is a plant with lanceolate entire lineate leaves, the lower of which are connate, and purple blossoms.

- 8291 Whorls 6-flowered, Leaves cordate stalked  
 8292 Leaves ovate obl. acum. serrated hairy above with soft down beneath, Segm. of cal. linear mucronate  
 8293 Whorls spiked 6-f. Tube of cal. shorter than spread. teeth, Helm. of cor. emarg. Lvs. ov. serr. with soft down  
 8294 Small, Stems much branched diffuse, Leaves cordate crenate, Cal. campanulate spiny  
 8295 Whorls about 6-flowered, Leaves linear lanceolate  $\frac{1}{2}$  stem-clasping sessile  
 8296 Whorls 6-flowered, Leaves ovate cordate crenate, Petioles dilated  
 8297 Leaves cordate cren. pubescent, Whorls 4-6-flowered, Stem erect smooth simple  
 8298 Whorls many-fl. approximated, Bractes filiform, Leaves cordate toothed, Stem decumbent villous  
 8299 Hoary, Whorls many-fl. Leaves ovate, Serratures imbricated, Stem woolly  
 8300 Whorls many-fl. Calyxes subpungent, Leaves oblong subcordate crenate, Stem woolly  
 8301 Whorls many-fl. Leaves woolly oblong, Stems procumbent at base and rooting  
 8302 Whorls 10-fl. Calyxes unarmed, Leaves cordate: floral ovate entire sessile, Stem hairy  
 8303 Whorls 6-fl. Leaves oblong cordate stalked, Stem hollow  
 8304 Whorls 2-f. Leaves linear naked: lower pinnatifid-toothed  
 8305 Like *S. germanica*, but downy not woolly, Leaves narrower, Calyxes long spiny  
 8306 Whorls many-fl. Leaves cordate thin, Serratures cartilaginous at end, Lips of cor. flat  
 8307 Whorls spiked 6-flowered, Bractes cordate, Leaves cordate stalked blunt crenate toothed  
 8308 Leaves ovate crenate pubescent: upper entire, Whorls 6-f. Cal. hairy with filiform segments  
 8309 Whorls spiked, Lvs. oblong attenuated at base serrated hairy: lower blunt, Cal. mucronate spiny  
 8310 Erect pubescent, Leaves cord. ov. toothed: above smooth; beneath white with down, Whorls about 6-f.  
 8311 Whorls a little spiked hairy 6-f. Cal. spiny, Leaves oblong serrate blunt, Helmet bifid  
 8312 Hairy, Whorls 30-flowered, Calyx pungent, Stem hairy  
 8313 Smooth much branched, Branches spiny, Pedunc. axillary solitary 1-fl. with two bractes  
 8314 Hoary, Branches brachiate terminated by a spine, Flowers axillary in threes  
 8315 Leaves downy ovate lanceolate: floral shorter than the whorl  
 8316 Whorls 6-flowered, Radical leaves oval crenate: upper ovate entire, Cor. twice as long as calyx  
 8317 Leaves obliquely cordate rugose crenate blunt hairy; Bractes entire shorter than calyx  
 8318 Leaves cordate ellipt. the lower on long stalks, Stems and spinulose calyxes covered with wool  
 8319 Whorls 2-flowered, Leaves cordate deeply serrated rugose, Tube of cor. curved  
 8320 Whorls 6-flowered, Stems prostrate, Upper lip of cor. bifid spreading reflexed, Lvs. broad cord. crenate  
 8321 Hoary, Whorls 6-f. Leaves linear lanceolate narrowed at base downy rugose serrated, Calyxes pointless  
 8322 Whorls 6-f. Calyxes rather pungent, Lvs. cuneate lanceolate blunt serrate at end sessile, Stem decum.  
 8323 Whorls subspiked, Leaves cordate ellipt. crenate rough, Stems ascending  
 8324 Whorls 6-f. Leaves ovate lanc. rugose 3-nerved stalked, Stem erect  
 8325 Small, Whorls 6-f. Leaves blunt nearly naked, Corolla the length of calyx, Stem weak  
 8326 Whorls many-fl. spiked, Upper lip bifid, with acute divisions, Leaves broad cordate rugose hairy  
 8327 Whorls 8-flowered, Leaves lanceolate cordate crenate rugose, Stem very hairy

8328 Whorls 6-flowered very hairy, Leaves lanceolate entire ned

- 8329 Leaves cordate undivided serrated, Cal. acuminate  
 8330 Leaves cordate undivided serrated, Cal. subtruncate  
 8331 Leaves palmate toothed, Stem woolly

8332 Leaves whorled halved 2-parted half-spiked

- 8333 Leaves cuneiform 5-toothed plaited, Whorls without involucrem  
 8334 Leaves elliptical obtuse crenate downy rugose, Calyxes and bractes lanceolate  
 8335 Leaves oblong hoary rugose toothed; the teeth towards the end largest, Cal. with small subulate teeth  
 8336 Leaves lanceolate hoary rugose toothed at end, Cal. with setaceous teeth, Stem branched divaricating  
 8337 Leaves ovate hoary bluntly toothed rugose, Cal. with subulate teeth, Stem branched at base  
 8338 Leaves roundish subcordate crenate rugose, Cal. with straight villous setaceous teeth.  
 8339 Leaves cordate roundish emarginate crenate, Calyx 10-toothed spiny  
 8340 Leaves roundish ovate toothed rugose, Teeth of calyx 10 setaceous hooked  
 8341 Leaves cordate crenate downy green above, Teeth of calyx mucronate recurved  
 8342 Leaves cordate ovate crenate, Teeth of cal. 10 spreading lanceolate, Bractes subulate  
 8343 Leaves roundish cordate unequally crenate, Limb of calyx spreading, Teeth ovate mucronate  
 8344 Leaves cordate roundish, crenate somewhat toothed, Teeth of calyx 10 unarmed  
 8345 Leaves ovate greenish deeply crenate, Teeth of calyx subulate smooth spreading  
 8346 Leaves cordate ovate crenate, Limb of calyx spreading, Teeth ovate mucronate, Bractes oblong  
 8347 Hoary, Limb of calyx flat villous, Leaves cordate concave, Stem shrubby  
 8348 Limb of calyx longer than tube membranous, Larger angles rounded

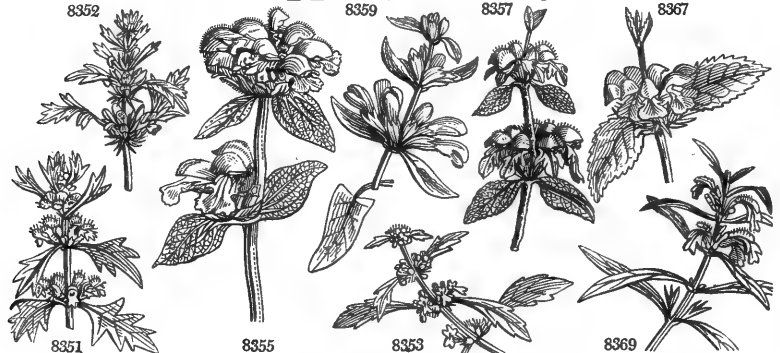


and Miscellaneous Particulars.

1265. *Ballota*. So named on account of its offensive odor, from *βαλλω*, to reject.  
 1266. *Marrubium*. According to Linnaeus is derived from an ancient town of Italy called *Maria-urbs*, situated on the borders of the Fucine lake. *M. vulgare* dried, has an aromatic odor, which, however, is soon lost by keeping, and a bitter taste. Both water and alcohol extract its virtues. It is tonic, diuretic, and laxative; was formerly much used in pulmonary affections, and is still a popular remedy for asthma and obsti-

|                                       |
|---------------------------------------|
| 1267. LEONURUS. R. Br. MOTHERWORT.    |
| 8349 crispus W. curl-leaved           |
| 8350 cardiaca W. common               |
| 8351 tatáricus W. Tartarian           |
| 8352 sibiricus W. Siberian            |
| 8353 marrubiástrum W. small-flowered  |
| 8354 supínus W. procumbent            |
| †1268. PHLOMIS. R. Br. PHLOMIS.       |
| 8355 fruticósa W. cn. Jerusalem Sage  |
| 8356 lanáta W. cn. small-shrubby      |
| 8357 purpúrea Sm. purple              |
| 8358 itálica W. Italian               |
| 8359 Nissólii W. Nissolle's           |
| 8360 Lychnítis W. lamp-wick           |
| 8361 Sámia W. Samian                  |
| 8362 Herba-vénti W. rough-leaved      |
| 8363 alpína W. Alpine                 |
| 8364 tuberósa W. tuberous             |
| 8365 laciniáta W. jagged-leaved       |
| 8366 púngens W. pungent               |
| 8367 lunariólifa Sm. Honesty-leaved   |
| 8368 ferruginea Tenore rusty          |
| 1269. LEUCAS. R. Br. LEUCAS.          |
| 8369 zeylálica R. Br. Ceylon          |
| 8370 martinicensis R. Br. West Indian |
| 8371 urticifolia R. Br. Nettle-leaved |
| 8372 indica R. Br. Indian             |
| 8373 áspera Link. rough-leaved        |
| 1270. LEONOTIS. R. Br. LION'S-TAIL.   |
| 8374 nepetifolia H. K. Catmint-leaved |
| 8375 Leonúra H. K. narrow-leaved      |
| 8376 Leonitis H. K. dwarf-shrubby     |
| 8377 intermedia Lindl. intermediate   |
| *1271. MOLUCCÉ/LA. W. MOLUCCA-BALM.   |
| 8378 spinósa W. prickly               |
| 8379 læ'vis W. smooth                 |
| 8380 tuberósa W. tuberous-root.       |
| 1272. CLINOPODIUM. W. WILD-BASIL.     |
| 8381 vulgáre W. common                |
| 8382 ægyptiacum W. Egyptian           |
| 1273. PYCNANTHEMUM. Ph. PYCNANTHEMUM. |
| 8383 incánium Ph. hoary               |
| 8384 aristátum Ph. awned              |
| 8385 linifolium Ph. Flax-leaved       |
| Thymus virginicus W.                  |
| 8386 lanceolátum Ph. spear-leaved     |
| 1274. ORIGANUM. W. MARJORAM.          |
| 8387 ægyptiacum W. Egyptian           |
| 8388 Dictánnus W. Dittany of Crete    |
| 8389 sýpleum W. Mount Siplyus         |
| 8390 Tournefórti W. Tournefort's      |
| 8391 créticum W. Cretan               |

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| Labiata. Sp. 6-9.  |
| 2 jl.au W Siberia 1658. D co Mur.'c.got.8. t.4               |
| 3 jl.au W Britain gra.ba. S co Eng. bot. 286                 |
| 2 au.o F Russia 1756. S p.l Mill. ic. 1. t. 80               |
| 2 jn.au R Siberia 1759. S p.l Exot. bot. 2. t.94             |
| 2 jn.au Pu Austria 1710. S co Jac. aust.5. t.405             |
| 1 jn.au W Siberia 1816. D co                                 |
| Labiata. Sp. 14-30.  |
| 3 jn.jl Y Spain 1596. C co Bot. mag. 1843                    |
| 14 jn.jl Y Spain 1596. C co                                  |
| 2 jn.au Pu S. Europe 1661. C co Smith.epic. 6.t.7            |
| 2 jn.au Pu Italy 1661. C co                                  |
| 2 jn.jl Y Levant 1757. D co Mill. ic. 2. t. 204              |
| 2 jn.au Y.Br S. Europe 1658. C p.l Bot. mag. 909             |
| 3 jn.jl Y.Br N. Africa 1714. D p.l Eng. bot. 1891            |
| 2 jls R S. Europe 1596. D co Bot. mag. 2449                  |
| 1 jn.s Pu Siberia 1802. D s.l Pal.ac.pet. 2. t.13            |
| 4 jn.o L.P Siberia 1759. D co Bot. mag. 1555                 |
| 3 jl Pu Levant 1731. D co Sweet fl. gard.24                  |
| 3 jl Br Armenia 1820. D co Sweet fl. gard.33                 |
| 3 jn Br Levant 1818. D co Bot. mag. 2542                     |
| 2 jn.jl Y.Br Naples 1823. C co                               |
| Labiata. Sp. 5-6.  |
| 1 1/2 jn.o Pu E. Indies 1777. S s.l Jac. ic. 1. t. 111       |
| 1 1/2 jls W W. Indies 1781. S s.l Jac. ic. 1. t. 110         |
| 1 1/2 jls W E. Indies 1810. S s.l                            |
| 1 1/2 jl.au W E. Indies 1789. S s.l                          |
| 1 jl.au W Caramania 1818. S s.l                              |
| Labiata. Sp. 4.  |
| 3 s.o Or E. Indies 1778. S s.l Bot. reg. 281                 |
| 3 o.d Or C. G. H. 1712. C p.l Bot. mag. 478                  |
| 1 1/2 jn.jl Or C. G. H. 1713. C p.l Mil. ic. 2. t. 162. f. 1 |
| 3 s.o Or C. G. H. 1822. C p.l Bot. reg. 850                  |
| Labiata. Sp. 3-7.  |
| 1 1/2 jl.au Pa.pu Levant 1596. S co Lam. ill. t. 510         |
| 1 1/2 jl.au Pa.pu Syria 1570. S co Bot. mag. 1852            |
| 2 jl Pa.pu Tartary 1796. D lp Pall. it. 3. t. T.             |
| Labiata. Sp. 2-4.  |
| 1 jn.au Pk Britain gra.ba. D co Eng. bot. 1401               |
| 1 jn.au Pu Egypt 1759. D co                                  |
| Labiata. Sp. 4-9.  |
| 3 jlo W N. Amer. 1732. D co Dill. elt. t. 74. f. 85          |
| 2 au W N. Amer. 1752. D co Mich. ame. 2. t. 33               |
| 1 1/2 jl.au W N. Amer. 1739. D co Herm. par. t. 318          |
| N. Amer. 1812. D co  |
| Labiata. Sp. 14-24.  |
| 1 jn.au Pk Egypt 1731. C co Alp. ægypt. t. 95                |
| 1 jn.au Pk Candia 1551. C r.m Bot. mag. 298                  |
| 1 jn.s Pk Levant 1699. C r.m Herm. lug. t. 463               |
| 1 aus. Pk Amorgos 1788. C co Bot. rep. 557                   |
| 1 jl.au W S. Europe 1596. C s.l Sck. han. 2. t. 164          |



History, Use, Propagation, Culture,

nate coughs. It loosens the belly when taken in large doses, and was consequently recommended in jaundice, cachexies, menstrual obstructions, and hysteria; but its powers are not found by modern practitioners equal to the account ancients gave of them, and therefore it is very seldom prescribed. (*London Dispensatory*, 379.)

1267. *Leonurus*. From *λεων*, a lion, and *ουρα*, tail. The spikes of flowers have been compared to the tuft which grows on the end of the lion's tail. *L. Cardiaca* was formerly used in medicine, but is now neglected. Tall herbaceous plants with cut leaves and whorls of flowers, of which the corolla is woolly.

1268. *Phlomis*. *Φλομης* was the Greek name of the Mullein, and so called from *φλοξ*, fire, because the thick cottony leaves were used as wicks for lamps. At this day, *P. Lychnitis* is so called, because the dried leaves, which are cottony and russet colored, are used in Spain for wicks. Fine shewy small shrubs or herbaceous plants, with corolla covered with down, and usually of a brownish yellow color.

1269. *Leucas*. A name used by Burmann, neglected by Linnæus and others, and restored by Mr. Brown; derived from *λευκος*, white, in reference to the usual color of the flowers, which are covered all over with a thick covering of wool.

1270. *Leonotis*. From *λεων*, a lion, and *οτις*, an ear. A fanciful name applied to the fine scarlet-flowering

8349 Leaves cordate 3-lobed or 5-lobed cut toothed wavy, Cor. larger than pungent calyx  
 8350 Leaves cuneiform ovate 3-lobed toothed, Cor. larger than pungent calyx, Middle lobe of lower lip acute  
 8351 Leaves 3-parted cut, Calyxes villous  
 8352 Leaves 3-parted multifid linear somewhat blunt  
 8353 Lvs. obl. toothed, Cor. scarcely longer than somewhat pungent calyx, Middle lobe of lower lip roundish  
 8354 Leaves about 5-lobed, Lobes blunt toothed at end, Cal. sessile spiny

8355 Leaves oblong blunt rugose and branches downy; floral ovate-lanceolate, Bractes ovate acuminate  
 8356 Leaves elliptical blunt woolly rugose, Branches woolly, Bractes obovate twice as short as calyx  
 8357 Bractes lanceolate acute pungent, Cal. 5-cornered acuminate, Leaves densely woolly beneath  
 8358 Bractes lanceolate blunt unarmed, Cal. truncated pointless, Leaves woolly on each side  
 8359 Lvs. downy on each side: rad. cord. sagitt.; cauline obl. Whorls without bractes, Cal. with obl. acute teeth  
 8360 Leaves lanceolate downy: floral ovate, Bractes setaceous woolly length of bluntly toothed calyx  
 8361 Stem hairy, Lvs. cordate crenate downy beneath, Bractes 3-parted subulate mucronate as long as calyx  
 8362 Lvs. ovate obl. serrate hairy beneath, Teeth of calyx lanc. subulate erect, Bractes subul. and stem hairy  
 8363 Radical leaves cordate pubescent; floral lanceolate, Bractes linear subulate villous, Stem pubescent  
 8364 Radical leaves cordate rough; floral oblong lanceolate, Bractes subulate hispid, Stem smooth  
 8365 Leaves alternately pinnate, Leaflets lacinate, Calyx woolly  
 8366 Leaves stalked obl. lanc. serr. at end, rough above downy beneath, Teeth of calyx subulate spreading  
 8367 Leaves cordate crenate downy beneath, Bractes ovate-lanceolate mucronate  
 8368 Like *P. fruticosa*, but the lower leaves are cordate stalked, Upper ovate

8369 Leaves lanceolate serrate, Heads terminal, Calyxes with 8 teeth  
 8370 Leaves obl. toothed pubes. beneath, Whorls many-fl. globose, Cal. incurv. 8-toothed, upper tooth longest  
 8371 Leaves ovate serrated hoary, Invol. subulate, Cal. obliquely truncate membranous 9-toothed  
 8372 Invol. linear, Cal. 1-lipped oblique, Leaves ovate hairy  
 8373 Lvs. lanc. smooth serrated at end, Stem 4-cornered rough, Whorls many-fl. Lip of cor. undivided

8374 Leaves cordate acute serrated somewhat downy, Calyx 7-toothed awned; upper tooth largest  
 8375 Leaves lanceolate serrate, Calyxes 10-cornered 10-toothed unarmed  
 8376 Leaves small ovate blunt somewhat downy crenate, Cal. 7-toothed awned  
 8377 Leaves stalked ovate cordate acuminate cut-toothed, Cal. velvety 10-toothed

8378 Cal. 2-lipp. upper lip lanc. mucron. longest, lower round. 7-tooth. Teeth spiny, Lvs. stalk. ov. deeply tooth.  
 8379 Cal. campanulate 5-toothed, Teeth equal pointless, Leaves stalked roundish ovate toothed  
 8380 Cal. funnel-shaped 5-toothed: teeth equal mucronate, Leaves sessile wedge-shaped oblong toothed

8381 Heads whorled, Bractes setaceous hispid, Leaves hairy above remotely toothed, Stem simple  
 8382 Heads terminal, Bractes setaceous hispid, Leaves smooth above nearly entire

8383 Leaves oblong-ovate acute subserrate hoary, Heads compound, Bractes setaceous, Stamens exerted  
 8384 Leaves lanceolate ovate subserrate on short stalks somewhat hoary, Heads sessile, Bractes awned  
 8385 Stem much branched rather rough, Leaves linear 3-nerved entire, Heads terminal fascicled

8386 Stem much branched roughish, Lv. lin. lanceolate veiny entire, Heads terminal fascicled corymbose

8387 Leaves concave downy, Spikes naked  
 8388 Lower leaves downy, Spikes nodding  
 8389 Leaves all smooth, Spikes nodding  
 8390 Spikes 4-cornered, Bractes roundish very large  
 8391 Spikes aggregate long prismatic upright, Bractes membranous twice as long as calyx



and Miscellaneous Particulars.

plants, known at the Cape by the name of lion's tail. They require a good greenhouse and plenty of air to secure their appearing in perfection. In places badly ventilated their leaves acquire a yellow color, and are apt to fall off.

1271. *Motucella*. Brought from the Moluccas. Plants remarkable for the enlarged calyx in which the flower is seated.

1272. *Clinopodium*. From  $\alpha\lambda\eta\eta$ , bed, and  $\pi\upsilon\sigma$ , a foot. The tufted close whorls of flowers have been compared to the caster of a bed's foot.

1273. *Pycnanthemum*. From  $\pi\upsilon\kappa\alpha\upsilon\sigma$ , dense, and  $\alpha\upsilon\delta\omicron\varsigma$ , a flower. The blossoms are in a close head. A North American genus of plants, some of which, as *P. verticillatum* and *incanum*, are occasionally seen in gardens.

1274. *Origanum*. From  $\omicron\omicron\epsilon\sigma$ , a mountain, and  $\gamma\alpha\upsilon\epsilon\sigma$ , joy. These plants, with their pretty spikes of bracted flowers and agreeable perfume, may indeed be called the joy of the places where they grow naturally. *O. vulgare* is an aromatic and ornamental plant, growing wild in thickets and hedges, chiefly in a calcareous soil. The dried leaves used instead of tea, are said to be exceeding grateful; they are also used in fomentations: the essential oil is so acrid, that it may be considered as a caustic, and is much used with that intention by

|        |                                  |                  |           |           |      |                      |               |       |                     |
|--------|----------------------------------|------------------|-----------|-----------|------|----------------------|---------------|-------|---------------------|
| 8392   | <i>smyrniacum W.</i>             | Smyrna           | ☞ Δ   or  | 1 ½ jn.jl | W    | Smyrna               | 1722.         | C r m |                     |
| 8393   | <i>heracleoticum W.</i>          | winter-sweet     | ☞ Δ   cul | 1 jn.n    | W    | S. Europe            | 1640.         | D s.l | Eng. ic. 492        |
| 8394   | <i>vulgare W.</i>                | common           | ☞ Δ   cul | 2 jn.o    | Pk   | Britain              | ch.wo.        | D s.l | Eng. bot. 1143      |
| 8395   | <i>onites W.</i>                 | pot              | ☞ Δ   cul | 1 jn.     | Pk   | Sicily               | 1759.         | D co  | Bocc. mus. t. 38    |
| 8396   | <i>megastachyum Link.</i>        | large-spiked     | ☞ Δ   un  | 1 ½ jn.   | Pk   | S. Europe            | 1823.         | D co  |                     |
| 8397   | <i>hirtum Link.</i>              | hairy            | ☞ Δ   un  | 1 ½ jn.   | Pk   | Levant               | 1823.         | D co  |                     |
| 8398   | <i>oblongatum Link.</i>          | oblong           | ☞ Δ   un  | 1 ½ jn.   | W    | .....                | .....         | D co  |                     |
| 8399   | <i>Majorana W.</i>               | knotted          | ☞ Δ   cul | 1 jn.jl   | Pk   | Portugal             | 1573.         | S r m | Moris.s.11.t.3.f.1  |
| 8400   | <i>majoranoides W.</i>           | shrubby-sweet    | ☞   or    | 1 jn.jl   | Pk   | .....                | .....         | C co  | Bot. mag. 2605      |
| †1275. | <b>THYMUS. L.</b>                | <b>THYME.</b>    |           |           |      | <i>Labiatae. Sp.</i> | <i>20—32.</i> |       |                     |
| 8401   | <i>serpyllum W.</i>              | wild             | ☞   or    | ½ jn.au   | Pu   | Britain              | heaths.       | C s.p | Eng. bot. 1514      |
| 8402   | <i>lanuginosus W.</i>            | woolly           | ☞   or    | ½ jn.au   | Pu   | .....                | ...           | C co  |                     |
| 8403   | <i>citriodorus P. S.</i>         | Lemon            | ☞   or    | ½ jn.au   | Pu   | .....                | ...           | C co  |                     |
| 8404   | <i>angustifolius P. S.</i>       | narrow-leaved    | ☞   or    | ½ jn.au   | Pu   | .....                | ...           | C co  |                     |
| 8405   | <i>vulgáris W.</i>               | garden           | ☞   cul   | 1 my.au   | Pu   | S. Europe            | 1548.         | C r m |                     |
| 8406   | <i>pannonicus W. en.</i>         | Hungarian        | ☞   or    | ½ jn.au   | Pu   | Hungary              | 1817.         | C co  |                     |
| 8407   | <i>Marschallinus W.</i>          | Marschall's      | ☞   or    | ½ jn.au   | Pu   | Crimea               | 1817.         | C co  |                     |
| 8408   | <i>ericifolius Roth.</i>         | Heath-leaved     | ☞   or    | ½ jn.au   | Pu   | Spain                | 1806.         | C co  |                     |
| 8409   | <i>acicularis P. S.</i>          | needle-leaved    | ☞   or    | ½ jn.au   | Pu   | Hungary              | 1806.         | C co  | Pl.rar.hu.2.t.147   |
| 8410   | <i>lucidus W. en.</i>            | shining-leaved   | ☞   or    | 1 jn.au   | Pu   | .....                | 1816.         | C co  |                     |
| 8411   | <i>Masticina W.</i>              | Mastic           | ☞   or    | 1 jn.au   | Pu   | Pa.pu Spain          | 1596.         | C co  | Blackw. t. 134      |
| 8412   | <i>montanus W.</i>               | mountain         | ☞ Δ   or  | 1 jn.jl   | St   | Hungary              | 1800.         | D s.p | Pl. rar.hu.1.t.71   |
| 8413   | <i>nummularius Bieb.</i>         | round-leaved     | ☞ Δ   or  | 1 jn.jl   | Pu   | Crimea               | 1832.         | C co  | Bot. mag. 2666      |
| 8414   | <i>tomentosus W. en.</i>         | tomentose        | ☞   or    | 1 jn.au   | W    | Spain                | 1816.         | C co  |                     |
| 8415   | <i>Zygis W.</i>                  | Spanish          | ☞   or    | 1 au      | Pu   | Spain                | 1771.         | C r m | Barrel. ic. 777     |
| 8416   | <i>croaticus P. S.</i>           | oval-leaved      | ☞ Δ   or  | 1 jl.au   | Pu   | Hungary              | 1802.         | D co  | Pl.rar.hu.2.t.156   |
| 8417   | <i>cephalotes W.</i>             | great-headed     | ☞ Δ   or  | ½ jl.au   | Pu   | Portugal             | 1759.         | C co  | Hof.etL.us.1.13     |
| 8418   | <i>villosus W.</i>               | hairy            | ☞   or    | ½ jn.jl   | Pu   | Portugal             | 1759.         | C co  | Hof.etLin.1.t.14    |
| 8419   | <i>Tragoriganum W.</i>           | goat's           | ☞   or    | 1 my.jn   | Pu   | Candia               | 1640.         | C co  | Alp. exot. t. 78    |
| 8420   | <i>filifolius W.</i>             | Minorca          | ☞   or    | ½ jn.jl   | Pu   | Minorca              | 1770.         | C co  |                     |
| 1276.  | <b>A'CYNOS. Pers.</b>            | <b>ACYNOS.</b>   |           |           |      | <i>Labiatae. Sp.</i> | <i>5—7.</i>   |       |                     |
| 8421   | <i>vulgáris Pers.</i>            | Basil-leaved     | ☞   or    | ½ jn.au   | V    | Britain              | dry h.        | S co  | Eng. bot. 411       |
|        | <i>Thymus A'cinus W.</i>         |                  |           |           |      |                      |               |       |                     |
| 8422   | <i>villosus Pers.</i>            | villous          | ☞   or    | jn.au     | R    | Germany              | 1817.         | S co  |                     |
| 8423   | <i>alpinus Pers.</i>             | Alpine           | ☞   or    | ½ jn.s    | R    | Austria              | 1731.         | S s.l | Jac. aust. 1. t. 97 |
| 8424   | <i>patavinus Pers.</i>           | Marjoram-ld.     | ☞   or    | ½ jn.au   | F    | S. Europe            | 1776.         | C s.l | Bot. mag. 2153      |
| 8425   | <i>graveolens Bieb.</i>          | strong-scented   | ☞   or    | 1 jn.au   | Pu   | Crimea               | ...           | C co  |                     |
| †1277. | <b>CALAMINTHA. Ph.</b>           | <b>CALAMINT.</b> |           |           |      | <i>Labiatae. Sp.</i> | <i>7—9.</i>   |       |                     |
| 8426   | <i>grandiflora Pers.</i>         | great-flowered   | ☞ Δ   or  | 1 jn.s    | Pu   | Italy                | 1596.         | D co  | Bot. mag. 208       |
| 8427   | <i>caroliniana Sweet.</i>        | Carolina         | ☞ Δ   or  | 1 jn.jl   | F    | Carolina             | 1804.         | D co  | Bot. mag. 997       |
|        | <i>Thymus grandiflorus B. M.</i> |                  |           |           |      |                      |               |       |                     |
| 8428   | <i>vulgáris Sweet.</i>           | common           | ☞ Δ   or  | 2 jl.au   | V    | England              | bor.fi.       | D s.l | Eng. bot. 1676      |
| 8429   | <i>Nepeta Ph.</i>                | lesser           | ☞ Δ   or  | 1 ½ jl.o  | B    | England              | ch.hil.       | D co  | Eng. bot. 1414      |
| 8430   | <i>marifolia Pers.</i>           | Marum-leaved     | ☞ Δ   or  | 1 ½ jn.jl | Pu   | Spain                | 1788.         | D co  | Cav. ic. 6. t. 57a  |
| 8431   | <i>cretica Pers.</i>             | Cretan           | ☞   or    | ½ jn.jl   | Pu   | S. Europe            | 1596.         | D r m | Barr. ic. 1166      |
| 8432   | <i>fruticosa Pers.</i>           | shrubby          | ☞   or    | ½ jl.s    | Pu   | Spain                | 1752.         | C r m |                     |
| 1278.  | <b>MELIS'SA. W.</b>              | <b>BALM.</b>     |           |           |      | <i>Labiatae. Sp.</i> | <i>2.</i>     |       |                     |
| 8433   | <i>cordifolia Pers.</i>          | heart-leaved     | ☞ Δ   m   | 1 jn.o    | W.pu | Italy                | ...           | D co  |                     |
| 8434   | <i>officinalis W.</i>            | common           | ☞ Δ   m   | 1 jn.o    | W    | S. Europe            | 1573.         | D co  |                     |
|        | <i>β romana</i>                  | <i>hairy</i>     |           |           |      |                      |               |       |                     |



History, Use, Propagation, Culture,

farriers; a little cotton moistened with it, and put into the hollow of an aching tooth, frequently relieves the pain. The country people use the tops to dye woollen cloth purple. It also dyes linen of a reddish brown color. For this purpose the linen is first macerated in alum water and dried; it is then soaked for two days in a decoction of the bark of the crab-tree; it is then wrung out of this, boiled in a ley of ashes, and then suffered to boil in the decoction. According to the Swedish experiments, goats and sheep eat it, horses are not fond of it, and kine refuse it.

O. onites and marjorana are culinary aromatics; the latter being principally in use under the name of knotted marjoram, from the flower coming in whorls at the joints. O. vulgare and marjorana are both retained in the *Materia Medica* as tonics and stomachics, though scarcely ever used. In quack medicines, the leaves dried and powdered form an ingredient in cephalic snuff. Marjorana is so called from *marjamic* (*māryamyich*), its Arabic name, according to Forskahl, p. 59.

1275. *Thymus*. From *θυμος*, courage, on account of its balsamic smell, which revives the spirits of animals. *T. serpyllum*, from *σέρπω*, to creep, is fragrant, and yields an essential oil that is very heating. It has the same sensible qualities as garden thyme, but the flavor is milder, and rather more grateful. Its essential oil is both smaller in quantity and less acrid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of the other. It is a common notion that the flesh of sheep that feed upon aromatic plants, particularly wild thyme, is superior in flavor to other mutton. The truth is, that sheep do not crop

- 8392 Leaves ovate acute serrated, Spikes clustered in umbels  
 8393 Spikes on long stalks aggregate, Bractes the length of calyx  
 8394 Spikes roundish panicled clustered, Bractes longer than calyx ovate colored  
 8395 Spikes oblong aggregate hairy, Leaves cordate downy  
 8396 Leaves stalked ovate pubesc. Spikes clustered prismatical, Bractes imbricate ovate smooth ciliated at edge  
 8397 Leaves stalked ovate acute subserrate hairy, Spikes prismatical, Bractes dense ovate acute  
 8398 Leaves subsessile ovate acute subserrate hairy, Spikes oblong bluntish  
 8399 Spikes roundish thin compact stalked, Leaves stalked ellipt. blunt smoothish  
 8400 Spikes roundish several clustered stalked, Leaves stalked ellipt. blunt downy

- 8401 Flowers capitate, Stems decumbent, Leaves flat blunt ciliated at base  
 8402 Flowers capitate, Stems creeping hairy, Leaves blunt villous  
 8403 Leaves ovate smooth with the smell of common balm  
 8404 Flowers capitate, Stems procumbent, Leaves cuneate linear ciliated at base  
 8405 Erect, Leaves revolute ovate, Flowers in whorled spikes  
 8406 Leaves oblong more ciliated than in *T. serpyllum*, Cor. with a more obscure spot in the orifice  
 8407 Stem shrubby, Flowers in whorled spikes, Lvs. linear lanc. bluish flat about 3-nerved ciliated at base  
 8408 Erect, Leaves revolute linear-lanc. hairy, Head few-flowered axillary stalked  
 8409 Flowers capitate, Stems creeping, Leaves linear nerved and furrowed beneath, Bractes ovate  
 8410 Fl. whorled somew. spiked, Ped. 1-f. Stem shrubby erect, Lvs. ellipt. entire acute smooth shining above  
 8411 Flowers in whorled spikes, Cal. woolly with very long setaceous segments  
 8412 Flowers in whorled spikes, Spikes oblique, Ped. 1-f. Lvs. ov. obtuse very entire and calyxes nearly naked  
 8413 Flowers in whorled heads, Stems filiform, Leaves roundish flat hairy nerved ciliate at base  
 8414 Flowers in whorled spikes, Cal. woolly with setaceous teeth, Lvs. ellipt. entire downy on each side  
 8415 Flowers in whorled spikes, Stem erect, Lvs. linear very blunt nerveless revolute at edge ciliated at base  
 8416 Pedun. about 3-f. axillary, Lvs. ovate blunt nerved entire sess. Cor. twice as long as calyx, Stem villous  
 8417 Heads laxly imbricated, Bractes broad ovate colored not dotted, Leaves linear entire  
 8418 Heads imbricated large, Bractes toothed, Leaves setaceous hairy  
 8419 Flowers whorled, Stem half-shrubby erect, Leaves hispid acuminate  
 8420 Flowers axillary subsolitary stalked, Leaves cordate acute entire, Stems filiform

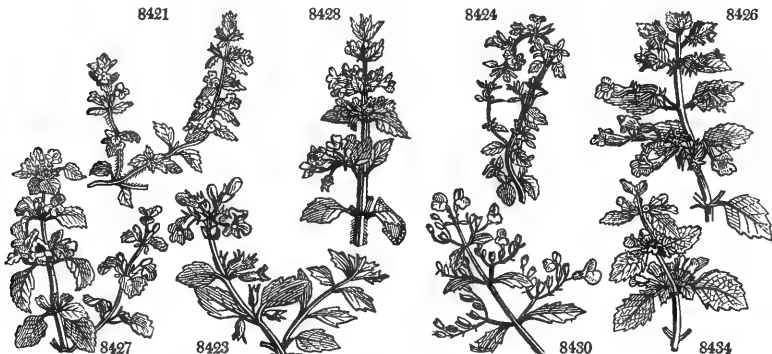
8421 Stem erect branched at base, Leaves ovate acute serrated forwards, Whorls 6-flowered

- 8422 Hirsute villous larger than the last, Stem much branched, Leaves ovate  
 8423 Whorls 6-f. Leaves nearly blunt roundish concave subserrated  
 8424 Nearly smooth, Whorls 6-10-f. Leaves ovate subserrate, Stem ascending  
 8425 Fls. whorled, Pedunc. 1-flow. Stem branched spreading, Leaves roundish acute subserrate at end hairy

8426 Pedun. axill. 3-4-f. Bractes lanc. sessile, Leaves ovate acute finely serrated  
 8427 Leaves rhomboid oval obsolete toothed upwards, Whorls somewhat stalked about 10-f. shorter than leaf

- 8428 Stem weak, Pedun. axill. many-f. dichotomous, Lvs. ovate blunt serrated hairy dotted  
 8429 Pedunc. axill. many-f. in dichotomous corymbs, Lvs. ovate blunt subserrate smoothish  
 8430 Leaves ovate somewhat toothed glaucous, Pedunc. axill. dichotomous, Segm. of calyx equal  
 8431 Racemes terminal, Peduncles solitary very short  
 8432 Branches thin twiggy, Leaves downy beneath

- 8433 Villous, Leaves cordate crenate-toothed, Branches axillary elongated flowering  
 8434 Whorls halved subsessile, Bractes oblong stalked, Leaves ovate acute serrated



and Miscellaneous Particulars.

these aromatic plants, unless now and then by accident, or when they are first turned on hungry to downs, heaths, or commons; but the soil and situations favorable to aromatic plants produce a short sweet pasturage best adapted to feeding sheep, whom nature designed for mountains, and not for turnip grounds and rich meadows. The attachment of bees to this and other aromatic plants is well known.

Few plants are subject to more varieties than wild thyme. In its most natural state, on dry exposed downs, it is small and procumbent; but when it grows among furze or other plants, it runs up with a slender stalk to a foot or more in height. It differs also very much in the smoothness or hairiness of its leaves. The flowers are sometimes larger than ordinary, and of a paler purple color, or even white.

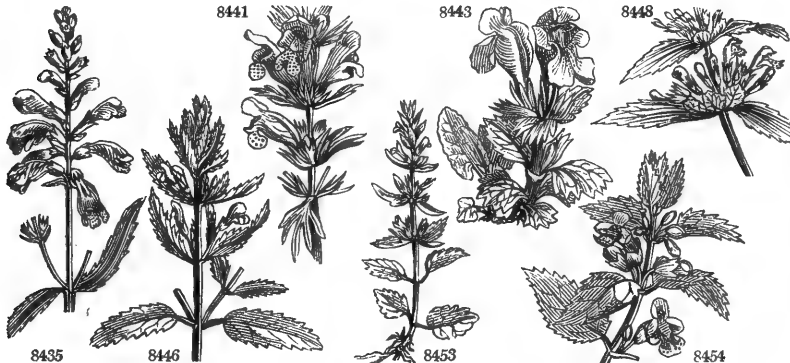
*T. vulgaris* has the aromatic qualities common to lavender, sage, rosemary, and other Verticillatae. It yields a species of camphor in distillation with water. In Spain they infuse it in the pickle with which they preserve their olives. Before the oriental spices were common, it was much used in cookery.

1276. *Acynos*. The Greek name of a balsamic plant, which probably was related to *Thymus*. This genus was included in *Thymus* by Linnæus.

1277. *Calamintha*. From *καλος*, beautiful, and *μινθη*, mint. An ancient Greek name of a plant supposed to chase away serpents.

1278. *Melissa*. This is the Greek name of the bee, from *μελι*, honey, which is sought by bees in these flowers with avidity, as indeed it is in all the plants of the order. The recent plant has the agreeable odor of

| †1279. DRACOCEPHALUM. W. DRAGON'S-HEAD. |                               | Labiatae. Sp. 19—25. |   |     |          |       |                 |       |                     |
|---|-------------------------------|----------------------|---|-----|----------|-------|-----------------|-------|---------------------|
| 8435                                    | virginianum W.                | Virginian            | Δ | or  | 3 jls    | L.B   | N. Amer. 1683.  | D p.l | Bot. mag. 467       |
| 8436                                    | denticulatum W.               | Carolina             | Δ | or  | 1 au.s   | St    | Carolina 1787.  | D p.l | Bot. mag. 214       |
| 8437                                    | variegatum Ph.                | variegated           | Δ | or  | 1½ au.s  | Pu    | Carolina 1812.  | D co  | Vent. cels. t. 44   |
| 8438                                    | canariense W.                 | Balm of Gilead       | Δ | or  | 3 jls    | Pa.pu | Canaries 1697.  | S r.m | Com. hort. 2. t.41  |
| 8439                                    | palmatum W.                   | palmated             | Δ | or  | 1½ jn.au | Pu    | Siberia 1815.   | D co  |                     |
| 8440                                    | peregrinum W.                 | prickly-leaved       | Δ | or  | ½ jl.au  | B     | Siberia 1759.   | D p.l | Bot. mag. 1084      |
| 8441                                    | austriacum W.                 | Austrian             | Δ | or  | 1 jn.jl  | B     | Austria 1697.   | D p.l | Jac. ic. 1. t. 112  |
| 8442                                    | Ruyschiana W.                 | Hyssop-leaved        | Δ | or  | 2 jn.jl  | B     | N. Europe 1699. | D p.l | Fl. dan. 121        |
| 8443                                    | grandiflorum W.               | great-flowered       | Δ | or  | 1 jl     | B     | Siberia 1759.   | D p.l | Bot. mag. 1009      |
| 8444                                    | altaicum W.                   | Betony-leaved        | Δ | or  | 1 jl.au  | Pu    | Georgia 1787.   | D co  | N.co.pet. t.39.f.3  |
| 8445                                    | sibiricum W.                  | Siberian             | Δ | or  | 1 jn.au  | L.B   | Siberia 1760.   | D p.l | Bot. mag. 2185      |
| 8446                                    | Moldavia W.                   | Moldavian            | ○ | or  | 2 jl.au  | B     | Moldavia 1596.  | D co  | Lam.ill. t.513.f.1  |
|   | β albidiflorum                | white-flowered       |   |     |          |       |                 |       |                     |
| 8447                                    | canescens W.                  | hoary                | ○ | or  | 2 jl.au  | B     | Levant 1711.    | D co  | Sweet fl. gard.38   |
| 8448                                    | peltatum W.                   | Willow-leaved        | ○ | or  | 1½ jl.au | Pu    | Levant 1711.    | D co  | Lam.ill. t.513.f.2  |
| 8449                                    | argumense Fisch.              | rough-flowered       | Δ | or  | 1½ jl.au | B     | Siberia 1822.   | D co  | Bot. cab. 797       |
| 8450                                    | speciosum Hort.               | shewy                | Δ | or  | 3 jl.au  | Pk    | Siberia 1822.   | D co  | Sweet fl. gard.93   |
| 8451                                    | botryoides Bieb.              | cut-leaved           | Δ | or  | 1½ jl.au | Pu    | Siberia 1822.   | D co  |                     |
| 8452                                    | nūtans W.                     | nodding              | Δ | or  | 1 jl.au  | B     | Siberia 1731.   | D co  | Bot. reg. 841       |
| 8453                                    | thymiflorum W.                | small-flowered       | ○ | or  | ½ jn.s   | Pu    | Siberia 1752.   | S co  | Gmel. sib. 3. t.50  |
| 1280. MELITITIS. W. BASTARD-BALM.       |                               | Labiatae. Sp. 2—4.   |   |     |          |       |                 |       |                     |
| 8454                                    | Melissophyllum W.             | common               | Δ | or  | 1 my.jn  | F     | England woods.  | D co  | Eng. bot. 577       |
|   | β alpina                      | Alpine               | Δ | or  | ½ my.jn  | F     | Switzerl. ...   | D co  |                     |
| 8455                                    | grandiflora H. K.             | great-flowered       | Δ | or  | 1 my     | W.y   | England woods.  | D co  | Eng. bot. 636       |
| 1281. O'CYMUM. W. BASIL.                |                               | Labiatae. Sp. 20—50. |   |     |          |       |                 |       |                     |
| 8456                                    | thyrsiflorum W.               | thyrese-flowered     | Δ | or  | 1½ jl.au | W     | E. Indies 1806. | C s.l | Jac. vind. 3. t. 72 |
| 8457                                    | suave W. en.                  | sweet-scented        | Δ | or  | 3 jls    | W     | .....           | C s.l |                     |
| 8458                                    | viride W. en.                 | green                | Δ | or  | 3 jls    | W.g   | .....           | C s.l |                     |
| 8459                                    | monachorum W.                 | monk's               | Δ | or  | 1 jl.au  | W     | E. Indies 1796. | S s.l |                     |
| 8460                                    | gratissimum W.                | shrubby              | Δ | or  | 2 jl.au  | W     | E. Indies 1752. | C s.l | Jac. ic. 3. t. 465  |
| 8461                                    | grandiflorum W.               | great-flowered       | Δ | or  | 2 s.o    | W     | Abyssinia 1802. | C s.l | L'He. s.nov. t.43   |
| 8462                                    | Basilicum W.                  | common-sweet         | ○ | cul | 1 jl.au  | W     | India 1548.     | S r.m | Blackw. t. 104      |
| 8463                                    | minimum W.                    | bush                 | ○ | cul | 1 jl.au  | W     | E. Indies 1573. | S r.m | Sch. han. 2. t.166  |
| 8464                                    | sancctum W.                   | purple-stalked       | ○ | un  | 1 jls    | Pu    | E. Indies 1758. | S s.l | Rhe.mal.10. t.92    |
| 8465                                    | pilosum W. en.                | ciliated             | ○ | un  | 1 jls    | W     | .....           | S s.l |                     |
| 8466                                    | americanum W.                 | American             | ○ | un  | 1 jl.au  | W     | India 1789.     | S s.l | Jac. vind. 3. t. 86 |
| 8467                                    | tenuiflorum W.                | slender-spiked       | Δ | or  | 1 jl.au  | Pa.pu | E. Indies 1703. | S s.l | Ru. am.5.t.92.f.2   |
| 8468                                    | polystachyon W.               | many-spiked          | ○ | un  | 1 jl.au  | W     | E. Indies 1783. | S s.l | Mur.co.got.3. t.3   |
| 8469                                    | menthoides                    | Mint-leaved          | ○ | un  | 1 jl.au  | W     | E. Indies 1783. | S s.l |                     |
| 8470                                    | micranthum W. en.             | small-flowered       | ○ | un  | 1 jl.au  | Pa.pu | .....           | S s.l |                     |
| 8471                                    | mölle W.                      | heart-leaved         | ○ | un  | 1 s.o    | W     | E. Indies 1781. | S s.l |                     |
| 8472                                    | capitatum W.                  | small-headed         | ○ | ec  | 1½ jl.au | W     | China 1806.     | S s.l |                     |
| 8473                                    | febrifugum Lindl.             | fever-plant          | Δ | or  | 3 jn.o   | W     | S. Leone 1822.  | C     | Bot. reg. 753       |
| 8474                                    | cānum Sims.                   | hoary                | Δ | or  | 1 jl     | W     | China 1822.     | S co  | Bot. mag. 2452      |
| 8475                                    | polycladum Link.              | many-branched        | ○ | un  | 1½ jn.o  | W     | .....           | S co  |                     |
|   | Lamnitzeria ocyroides Jacq.   |                      |   |     |          |       |                 |       |                     |
| †1282. PLECTRANTHUS. W. PLECTRANTHUS.   |                               | Labiatae. Sp. 8—13.  |   |     |          |       |                 |       |                     |
| 8476                                    | fruticosus W.                 | shrubby              | Δ | or  | 3 jn.s   | B     | C. G. H. 1774.  | C r.m | L'Her.st.85. t.41   |
| 8477                                    | Forskohlei W.                 | Forskohl's           | Δ | or  | 3 o.n    | B     | Abyssinia 1806. | C l.p | Bot. mag. 2036      |
| 8478                                    | parviflorus W. en.            | small-flowered       | Δ | or  | 3 jn.s   | B     | S. Amer. 1805.  | C l.p | W. hort. ber. 65    |
| 8479                                    | scutellarioides R. Br.        | skullcap-like        | ○ | or  | 2 jl.au  | B     | E. Indies 1764. | S l.p | Bot. mag. 1446      |
|   | O'cimum scutellarioides H. K. |                      |   |     |          |       |                 |       |                     |
| 8480                                    | punctatum W.                  | dotted               | Δ | or  | 2 ja.my  | B     | Africa 1775.    | S r.m | L'Her.st.87. t.41   |
| 8481                                    | comosus Sims.                 | comose               | ○ | pr  | 2 au     | B     | Nepal 1821.     | S co  | Bot. mag. 2318      |
| 8482                                    | ternatus Sims.                | Omime Plant          | Δ | or  | ½ au     | Pu    | Madagasc.1821.  | D r.m | Bot. mag. 2460      |
| 8483                                    | incanus Link.                 | hoary                | Δ | or  | 3 jl.au  | B     | .....           | D co  |                     |



History, Use, Propagation, Culture,

lemons, which is lost in drying, and an austere, slightly aromatic taste. In distillation with water, it yields a small portion of a yellow essential oil, on which its odor depends. It is stomachic and diuretic, and was formerly prized as a corroborant in hypochondriacal and nervous affections; but it is now used only in the form of tea, as a grateful diluent in fevers. For medicinal use the herb should be cut before it flowers, as it is then more odorous. (*London Dispensatory*, 383.)

1279. *Dracocephalum*. From *δρακων*, a dragon, and *κεφαλη*, a head. A name applied in the same sense as *Lamium*, *Galeopsis*, &c. See those genera. Most of the species are plants of ornament, and cultivated as such in the gardens of the curious. *D. canariense* smells of citron, especially when rubbed between the fingers. Sown on a hot-bed early in spring, it may be planted out in the borders like other tender annuals. *D. austriacum* is a handsome plant for a flower border.

- 8435 Smooth, Flowers spiked close, Leaves linear lanceolate serrated  
 8436 Flowers spiked remote, Leaves obovate lanceolate toothletted upwards  
 8437 Spikes short 4-cornered, Corolla variegated, Leaves oblong toothletted upwards  
 8438 Flowers spiked, Leaves ternate oblong  
 8439 Fl. somewhat spiked, Lvs. roundish cuneiform sinuate-toothed, Upper lip of cal. undivided mucronate  
 8440 Fl. somewhat spiked, Leaves lanceolate remotely mucronate toothed, Bractes lin. lanc. toothed spiny  
 8441 Fls. spiked, Lvs. sessile linear mucronate, Cauline 3-5-parted at base, Stem branched somewhat villous  
 8442 Flowers spiked, Leaves and bractes lanceolate undivided pointless, Stem nearly simple smooth  
 8443 Fls. whorled, Lvs. obl. blunt toothed stalked, Bractes lanc. entire, Upper lip of cal. ellipt. blunt undivided  
 8444 Fls. whorled, Rad. lvs. cord. ov.; cauline sessile roundish wedge-shaped acutely toothed, Teeth of cal. equal  
 8445 Flowers whorled, Whorls stalked bifid one-sided, Leaves lanc. cordate acum. serrated smooth  
 8446 Flowers whorled, Bractes lanceolate deeply toothed dotted beneath, Lower serratures subciliated
- 8447 Flowers whorled, Bractes oblong ciliated, Cal. striated pubescent, Tube of cor. longer than calyx  
 8448 Flowers whorled, Bractes orbicular serrate ciliate  
 8449 Stem erect, Leaves linear lanceolate blunt entire at edge rough, Two upper teeth of calyx largest  
 8450 Leaves broad-lanceolate finely serrated entire at base, Lower teeth of calyx longest  
 8451 Flowers in spiked heads, Leaves roundish pinnatifid crenate downy on each side  
 8452 Flowers whorled, Bractes oblong ovate entire, Cor. twice as long as calyx nodding  
 8453 Flowers whorled, Bractes oblong entire, Cor. scarcely larger than calyx

8454 Leaves opposite ovate toothed, Calyx 3-lobed hairy

8455 Cal. 4-lobed smooth, Cor. yellowish white, Segment of lower lip violet in the middle

- 8456 Flowers in paniced fascicles, Stem much branched  
 8457 Racemes paniced, Leaves ovate oblong cuneate at base acutely serrated hoary beneath  
 8458 Racemes paniced, Leaves ovate cuneate at base bluntly serrated, Veins hairy above rough beneath  
 8459 Stamens toothless, every other one bearded at base  
 8460 Stem  $\frac{1}{2}$  shrubby, Leaves lanceolate ovate subtomentose, Racemes rounded  
 8461 Stem shrubby, Leaves ovate serrate, Stamens very long  
 8462 Leaves ovate smooth, Calyxes ciliated  
 8463 Leaves ovate entire  
 8464 Leaves somewhat oblong blunt serrated wavy, Stem hairy, Bractes cordate  
 8465 Leaves ovate oblong, Foot-stalks, bractes and calyxes ciliated  
 8466 Leaves sublanceolate acuminate subserrate, Racemes rounded, Stem nearly herbaceous  
 8467 Leaves ovate-oblong serrated, Bractes cordate reflexed concave, Spikes filiform  
 8468 Cor. 4-fid, Racemes leafless nodding at end  
 8469 Leaves linear lanceolate serrate [than calyx  
 8470 Lvs. broad ovate acum. at each end serr. Bractes shorter than cal. winged at edge, Cor. scarcely longer  
 8471 Leaves ovate cordate acute serrated rugose, Recesses closed, Bractes roundish wedge-shaped  
 8472 Leaves ovate, Flowers aggregate, Footstalks lateral  
 8473 Downy, Lvs. ovate lanceolate crenate stalked, Whorls terminal racemose, Corolla the length of calyx  
 8474 Leaves oblong elliptical serrated hoary on long stalks, Stamens twice as long as corolla  
 8475 Like *Ocimum polystachyon*, but not having a musky scent as that has

- 8476 Nectary spurred, Racemes compound, Pedunc. 3-parted, Stem shrubby polished  
 8477 Nectary gibbous, Racemes leafless, Stem nearly equal  
 8478 Nectary gibbous, Racemes compound, Pedunc. 1-flowered whorled, Stem half shrubby nearly smooth  
 8479 Cor. falcate, Flower-stalks branched

- 8480 Nectary gibbous, Flowers spiked, Stem herbaceous hairy rufous dotted  
 8481 Flowers whorled sessile, Lower lip of calyx 4-parted, Bractes cordate acuminate  
 8482 Stem 6-angled, Leaves ternate stalked ovate crenate rugose, Roots tuberous  
 8483 Leaves stalked cordate crenate hairy, Bractes nearly equal to flower ovate



and Miscellaneous Particulars.

1280. *Melittis*. A name with the same meaning as *Melissa*.

1281. *Ocimum*. Said by Mathiolus to be derived from  $\xi\omega\sigma$ , to smell, on account of the powerful scent of the plants. *O. gratissimum* is cultivated in China for culinary purposes. *O. Basilicum* ( $\beta\alpha\sigma\iota\lambda\iota\kappa\omicron\varsigma$ , royal) and *minimum*, are culinary aromatics much used in French cookery. There are several varieties of the *basilicum*, which with some other species were formerly used in medicine, but are now neglected.

1282. *Plectranthus*. From  $\pi\lambda\eta\kappa\tau\epsilon\omicron\nu$ , a cock's spur, and  $\alpha\theta\upsilon\sigma$ , a flower; the corolla of the original species of the genus being terminated by a spur-like appendage. Half-shrubby plants with purple flowers, all natives of hot climates.



|  |                          |                             |      |    |       |       |                  |       |
|--|--------------------------|-----------------------------|------|----|-------|-------|------------------|-------|
| †1283. TRICHOSTEMA. <i>W.</i> TRICHOSTEMA.     |                          | <i>Labiatae.</i> Sp. 2—4.   |      |    |       |       |                  |       |
| 8484   | dichotoma <i>W.</i>      | Marjoram-leav.              | ○ pr | 1  | jn.jl | B     | N. Amer. 1739.   | s l   |
| 8485   | brachiata <i>W.</i>      | sessile-leaved              | ⊗ pr | 1  | jn.au | B     | N. Amer. 1752.   | s p   |
| 1284. PROSTANTHERA. <i>R. B.</i> PROSTANTHERA. |                          | <i>Labiatae.</i> Sp. 1—13.  |      |    |       |       |                  |       |
| 8486   | lasianthos <i>R. Br.</i> | villous-flower'd            | □ or | 2  | jn.jl | Pu. W | N. S. W. 1808.   | s p   |
| 1285. SCUTELLARIA. <i>W.</i> SKULL-CAP.        |                          | <i>Labiatae.</i> Sp. 21—30. |      |    |       |       |                  |       |
| 8487   | orientalis <i>W.</i>     | yellow-flowered             | ⊗ or | 1  | jl.s  | Y     | Levant 175       | D p l |
| 8488   | grandiflora <i>P. S.</i> | large-flowered              | ⊗ or | 1½ | jl.au | P. Y  | Siberia 1804.    | D s l |
| 8489   | libida <i>W.</i>         | hairy                       | ⊗ or | 1½ | jn.jl | W. pu | Levant 1771.     | D p l |
| 8490   | alpina <i>W.</i>         | Alpine                      | ⊗ or | 1  | jn.o  | B. w  | Hungary 1752.    | D p l |
| 8491   | lupulina <i>W.</i>       | Tartarian                   | ⊗ or | 1  | jn.s  | Y. w  | Tartary 1739.    | D p l |
| 8492   | lateriflora <i>W.</i>    | Virginian                   | ⊗ or | 1  | jn.s  | B     | N. Amer. 1752.   | D p l |
| 8493   | pilosa <i>Ph.</i>        | pubescent                   | ⊗ or | 1  | jl.au | B     | N. Amer. 1805.   | D p l |
| 8494   | galericulata <i>W.</i>   | common                      | ⊗ or | 1  | jn.s  | B     | Britain wat. pl. | D co  |
| 8495   | minor <i>W.</i>          | lesser                      | ⊗ or | 1  | jl.au | Pk    | Britain m. hed.  | D co  |
| 8496   | hastifolia <i>Pers.</i>  | hastate-leaved              | ⊗ or | 1  | jn.jl | Pu    | Germany 1791.    | D co  |
| 8497   | caroliniana <i>Ph.</i>   | Carolina                    | ⊗ or | 1½ | jn.jl | B     | Carolina 1818.   | D co  |
| 8498   | integerrima <i>Ph.</i>   | entire-leaved               | ⊗ or | 2  | jn.s  | B     | N. Amer. 1771.   | D p l |
| 8499   | serrata <i>Ph.</i>       | saw-leaved                  | ⊗ or | 4  | jn.s  | B     | N. Amer. 1800.   | D s l |
| 8500   | havanensis <i>W.</i>     | Havannah                    | ⊗ or | 2  | my.jn | B     | Havannah 1793.   | D s l |
| 8501   | peregrina <i>W.</i>      | Florentine                  | ⊗ or | 2  | jn.o  | V     | Italy 1683.      | D co  |
| 8502   | columnae <i>W.</i>       | heart-leaved                | ⊗ or | 1½ | jn.au | D     | Italy 1806.      | D co  |
| 8503   | altissima <i>W.</i>      | tall                        | ⊗ or | 1  | jl.au | D. P  | Levant 1751.     | D p l |
| 8504   | cretica <i>W.</i>        | Cretan                      | ⊗ or | 1  | jn.jl | Pu    | Crete 1739.      | C s l |
| 8505   | parvula <i>Mich.</i>     | least                       | ⊗ or | 1  | jn.jl | B     | N. Amer. 1822.   | S p   |
| 8506   | rubicunda <i>W. en.</i>  | pink                        | ⊗ or | 2  | jl.au | Pk    | ..... 1823.      | D co  |
| 8507   | pallida <i>Bieb.</i>     | pale                        | ⊗ or | 2  | jl.au | W     | Crimea 1824.     | D co  |
| 1286. PRUNELLA. <i>W.</i> SELF-HEAL.           |                          | <i>Labiatae.</i> Sp. 8—10.  |      |    |       |       |                  |       |
| 8508   | vulgaris <i>W.</i>       | common                      | ⊗ m  | 1  | jl.au | Pk    | Britain me. pa.  | D co  |
|  | <i>β alba</i>            | white-flowered              | ⊗ cu | 1  | jl.au | W     | Britain me. pa.  | D co  |
| 8509   | ovata <i>Pers.</i>       | oval-leaved                 | ⊗ un | 1  | jl.au | Pu    | America ...      | S l p |
| 8510   | pensylvanica <i>W.</i>   | Pennsylvanian               | ⊗ un | 1  | jl.s  | Pa. B | N. Amer. 1801.   | D p l |
| 8511   | hyssopifolia <i>W.</i>   | Hyssop-leaved               | ⊗ un | 1  | jl.s  | L. B  | France 1731.     | D p l |
| 8512   | grandiflora <i>W.</i>    | great-flowered              | ⊗ un | 1  | jl.s  | L. B  | Austria 1596.    | D p l |
| 8513   | laciniaata <i>P. S.</i>  | yellow-flowered             | ⊗ un | 1  | jl.s  | Y     | Austria 1713.    | S p l |
| 8514   | intermedia <i>P. S.</i>  | variously-leaved            | ⊗ un | 1  | jl.s  | Pk    | Portugal 1790.   | D s l |
| 8515   | incisa <i>Link.</i>      | cut                         | ⊗ un | 1  | jl.s  | Pk    | ..... 1823.      | D co  |
| 1287. CLEONIA. <i>W.</i> CLEONIA.              |                          | <i>Labiatae.</i> Sp. 1.     |      |    |       |       |                  |       |
| 8516   | lusitania <i>W.</i>      | sweet-scented               | ○ or | 1  | jn.jl | L. B  | Portugal 1710.   | S co  |
| 1288. PRAESIUM. <i>W.</i> PRASIUM.             |                          | <i>Labiatae.</i> Sp. 2.     |      |    |       |       |                  |       |
| 8517   | majus <i>W.</i>          | great Spanish               | ⊗ cu | 1  | jn.au | Pu    | Spain 1699.      | C r m |
| 8518   | minus <i>W.</i>          | small Spanish               | ⊗ cu | 1  | jn.au | Pu    | Sicily 1752.     | C r m |
| 1289. PHRYMA. <i>W.</i> PHRYMA.                |                          | <i>Labiatae.</i> Sp. 1.     |      |    |       |       |                  |       |
| 8519   | leptostachya <i>W.</i>   | slender-spiked              | ⊗ cu | 1½ | aus   | W. pu | N. Amer. 1802.   | D l p |

ANGIOSPERMIA.

|                                      |                         |                                |      |   |       |    |                |       |
|--------------------------------------|-------------------------|--------------------------------|------|---|-------|----|----------------|-------|
| †1290. GESNERIA. <i>W.</i> GESNERIA. |                         | <i>Gesneriaceae.</i> Sp. 6—25. |      |   |       |    |                |       |
| 8520                                 | acutilis <i>W.</i>      | stemless                       | ⊗ or | 1 | ...   | S  | Jamaica 1793.  | C l p |
| 8521                                 | tomentosa <i>W.</i>     | woolly                         | ⊗ or | 2 | jn.n  | S  | S. Amer. 1752. | C p l |
| 8522                                 | aggregata <i>Ker.</i>   | aggregate                      | ⊗ or | 2 | au    | S  | Brazils 1816.  | C p l |
| 8523                                 | bulbosa <i>Ker.</i>     | bulbous                        | ⊗ or | 2 | my.jn | S  | Brazils 1816.  | C p l |
| 8524                                 | prasinata <i>Ker.</i>   | green                          | ⊗ or | 3 | my.jn | G  | Brazils 1818.  | C p l |
| 8525                                 | tubiflora <i>Car.</i>   | tube-flowered                  | ⊗ or | 2 | f.mr  | S  | S. Amer. 1815. | D p l |
| †1291. GLOXINIA. <i>W.</i> GLOXINIA. |                         | <i>Gesneriaceae.</i> Sp. 2.    |      |   |       |    |                |       |
| 8526                                 | maculata <i>W.</i>      | spotted-stalked                | ⊗ or | 1 | jo    | Pu | S. Amer. 1739. | C s p |
| 8527                                 | speciosa <i>B. Reg.</i> | many-flowered                  | ⊗ or | 1 | jn.n  | Pu | S. Amer. 1815. | C s p |



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1283. *Trichostema*. From *θηξ* *τηξ*, hair, and *σθημα*, a stamen, because its long slender stamens resemble hairs.

1284. *Prostanthera*. Named in allusion to the spurs of the anthers, the word being derived from *προσθηνη*, an appendage, and *ανθηρα*, the anther. Strong smelling shrubs, natives of New Holland. Flowers either racemose or terminal.

1285. *Scutellaria*. From *scutella*, a small vessel, on account of the figure of the calyx, which is not unlike a cup with its handle. The calyx inverted, presents the figure of a helmet with visor raised.

1286. *Prunella*. A barbarous name softened down by Linnæus from the Brunella of some authors, and so called from the German *die Bräune*, a disorder in the jaws and throat, which this plant is said to cure. Herbaceous plants common by way-sides all over Europe.

8484 Stamens very long exserted, Leaves linear  
8485 Stamens short included

8486 Leaves lanceolate tooth-serrated smooth, Racemes panicle, Corolla hairy

8487 Leaves cut downy beneath, Spikes rounded 4-cornered  
8488 Leaves cordate cut crenate pubescent on each side shorter than footstalk, Spikes short 4-cornered  
8489 Leaves subcordate serrate rugose opaque, Spikes 1-sided, Bractes ovate  
8490 Leaves cordate cut serrate crenated, Spikes imbricated rounded 4-cornered, Bractes twice as short as fl.  
8491 Leaves cordate cut serrate acute smooth, Spikes imbricated rounded 4-cornered, Bractes length of flower  
8492 Much branched, Leaves smooth with a scabrous keel, Racemes lateral leafy  
8493 Hairy, Leaves ovate rhomboid crenate, Flowers subracemose  
8494 Leaves cordate lanceolate crenate, Flowers axillary  
8495 Leaves cordate ovate nearly entire, Flowers axillary  
8496 Leaves quite entire, lower hastate, upper sagittate, Flowers axillary  
8497 Branched very smooth, Leaves stalked linear lanceolate acute entire, Racemes loose leafy, Cal. blunt  
8498 Simple densely pubes. Lvs. subsess. obl. or linear blunt entire attenuated at base, Racemes loosish leafy  
8499 Branched tall pubescent, Leaves ovate acuminate serrate on short stalks, Racemes usually panicle  
8500 Leaves cordate ovate crenate, Flowers solitary axillary, Each lip of cor. trifid  
8501 Leaves cordate serrate, Spikes elongated 1-sided, Bractes stalked ovate longer than calyx  
8502 Leaves oblong cordate serrate pubes. Spikes elongated 1-sided, Bractes stalked ovate shorter than calyx  
8503 Leaves cordate oblong acuminate serrate, Spikes nearly naked  
8504 Villous, Leaves cordate blunt and bluntly serrated, Spikes imbricated, Bractes setaceous  
8505 Subvillous, Leaves ovate entire all alike, Flowers axillary  
8506 Related to *S. albidra* from which it differs in being much less hairy, and in its more slender flower  
8507 Lvs. cord. cren. serrate bluntnish villous, Spikes long 1-sided hispid, Bractes stalked ovate longer than cal.

8508 Lvs. stalked obl. ovate somew. toothed, Upper lip of cor. trunc. with 3 awns, Stem ascending, Spike round

8509 Leaves broad ovate toothed, Stem much branched, Spikes ovate  
8510 Lvs. stalked ovate lanc. toothed at base, Lips of cal. equal: upper truncate with 3 awns, Stem ascending  
8511 Leaves sessile lanceolate entire rough, Stem erect  
8512 Leaves stalked oblong ovate toothed at base, Upper lip of cor. trifid, Stem ascending  
8513 Small, Stem nearly simple villous, Leaves pinnatifid lower oblong, Cor. pale yellow  
8514 Leaves entire and sinuate toothed rugose hairy, Upper lip of cor. truncate slightly 3-toothed  
8515 Upper leaves linear-lanceolate: lower sinuate toothed somewhat hairy

8516 Bractes laciniate

8517 Leaves ovate oblong serrated  
8518 Leaves ovate with a double crenature on each side

8519 Leaves stalked ovate serrated, Spikes terminal long

### ANGIOSPERMIA.

8520 Leaves lanceolate ovate serrated somewhat stalked terminal, Pedunc. 3-f. shorter than leaves  
8521 Leaves ovate lanceolate crenate hairy, Peduncles lateral very long bearing corymbs  
8522 All vill. Branches rounded, Lvs. opp. obl. ovate cren. Ped. 2-4 axill. 1-f. aggregate, Cor. clavate cylind.  
8523 All pubes. Lvs. opp. ovate ellipt. cord. at base serr. cren. Panicle numer. opp. spread. dist. Ped. corymb.  
8524 All pubes. Lvs. oval lanc. velvety above, Panicle leafy, Fl. with a campan. inflated orifice, Limb oblique  
8525 Leaves opposite ovate crenulate tomentose, Flowers axillary 2-3 together downy

8526 Leaves oblong cordate crenate rugose, Stem spotted  
8527 Leaves hoary ellipt. or oblong crenate, Pedunc. erect longer than flower, Sepals angular acuminate



and Miscellaneous Particulars.

1287. *Cleonia*. An ancient Greek name employed by Theophrastus, *lib. 7. cap. 4.*: the *Cleoniaeum* of Pliny. This is an annual plant six or eight inches high, and nearly related to *Prunella*, from which some eminent French botanists do not distinguish it.

1288. *Prasium*. The Greek name of the horehound, which this plant resembles in some respects.

1289. *Phryma*. A Linnæan name, the meaning of which is unknown.

1290. *Gesneria*. In honor of Conrad Gesner, of Zurich, the famous botanist and natural historian, called the German Pliny. Very fine herbaceous or half-shrubby plants, some of which are remarkable for the brilliancy of their colors.

1291. *Gloxinia*. In memory of Ben. Petr. Gloxin, of Colmar, author of *Observationes Botanicae*, Argent,

|                             |                  |      |    |    |                         |            |            |           |        |
|-----------------------------|------------------|------|----|----|-------------------------|------------|------------|-----------|--------|
| 1292. LINNÆA W.             | LINNÆA.          |      |    |    | <i>Caprifoliaceæ.</i>   | Sp. 1.     |            |           |        |
| 8528 borealis W.            | two-flowered     | ♀. Δ | pr | ½  | my.au                   | F          | Scotl.     | dry.st. m | D lp   |
| 1293. MELIANTHUS W.         | HONEY-FLOWER.    |      |    |    | <i>Rutaceæ?</i>         | Sp. 2-4.   |            |           |        |
| 8529 major W.               | great            | ♂    | or | 10 | my.jl                   |            | C. G. H.   | 1688.     | Sk s.l |
| 8530 minor W.               | small            | ♂    | or | 2  | au                      |            | C. G. H.   | 1696.     | Sk s.l |
| 1294. BIGONIA W.            | TRUMPET-FLOWER.  |      |    |    | <i>Bignoniaceæ.</i>     | Sp. 27-75. |            |           |        |
| 8531 longis W.              | Barbadoes        | ♂    | or | 10 | ...                     | Y          | W. Indies  | 1759.     | L s.p  |
| 8532 acuminatilis W.        | equinoctial      | ♂    | or | 40 | ap.o                    | Y          | Guiana     | 1768.     | C s.l  |
| β Chamberlayni              | Chamberlayne's   | ♂    | or | 40 | ap.o                    | Y          | Brazil     | 1820.     | C s.l  |
| 8533 alliacea W.            | Garlic-scent.    | ♂    | or | 10 | cu                      | 10         | W. Indies  | 1763.     | C s.l  |
| 8534 laurifolia W.          | Laurel-leaved    | ♂    | or | 20 | ...                     | ...        | Guiana     | 1804.     | C lp   |
| §8535 paniculata W.         | panicled         | ♂    | or | 20 | ...                     | Pu         | W. Indies  | 1738.     | C lp   |
| 8536 crucigera W.           | cross-bearing    | ♂    | or | 20 | ...                     | Y,s        | S. Amer.   | 1759.     | L s.p  |
| §8537 uncata B. M.          | hooked           | ♂    | or | 15 | jn.s                    | Y          | Guiana     | 1804.     | L s.p  |
| 8538 capreolata W.          | four-leaved      | ♂    | or | 15 | jn.jl                   | S          | N. Amer.   | 1710.     | C s.p  |
| 8539 pubescens W.           | downy            | ♂    | or | 15 | jn.jl                   | Y          | Campeachy  | 1759.     | C s.p  |
| 8540 rigescens Jacq.        | stiff            | ♂    | or | 20 | jn.jl                   | Pk         | Caracas    | 1823.     | C s.p  |
| 8541 lactiflora Vahl.       | milk-white       | ♂    | or | 20 | jn.jl                   | Pk         | Santa Cruz | 1823.     | C s.p  |
| 8542 meonantha Link.        | small-flowered   | ♂    | or | 20 | jn.jl                   | Pk         | N. Holl.?  | ...       | C s.p  |
| 8543 grandiflora Jacq.      | large-flowered   | ♂    | or | 60 | ap.jl                   | Y          | Caracas    | 1816.     | C pl   |
| 8544 venata B. Reg.         | conely           | ♂    | or | 20 | s.d                     | Or         | S. Amer.   | 1816.     | C pl   |
| 8545 echinata B. Reg.       | bristly-fruited  | ♂    | or | 20 | ...                     | W          | Guiana     | 1804.     | C lp   |
| 8546 triphylla W.           | three-leaved     | ♂    | or | 10 | ...                     | W          | S. Amer.   | 1733.     | C lp   |
| §8547 pentaphylla W.        | five-leaved      | ♂    | or | 20 | ...                     | ...        | Jamaica    | 1733.     | C lp   |
| 8548 Lencoxylon W.          | white-wooded     | ♂    | or | 12 | jn.jl                   | Pk         | W. Indies  | 1759.     | C lp   |
| §8549 radicans W.           | Ash-leaved       | ♂    | or | 30 | jl.au                   | Or         | N. Amer.   | 1640.     | R s.p  |
| α major                     | great Ash-ld.    | ♂    | or | 30 | jl.au                   | Or         | N. Amer.   | 1640.     | R s.p  |
| β minor                     | small Ash-ld.    | ♂    | or | 20 | jl.au                   | S          | N. Amer.   | 1640.     | S p    |
| §8550 grandiflora W.        | large-flowered   | ♂    | or | 30 | jl.au                   | Or         | China      | 1800.     | C r.m  |
| §8551 stans W.              | branching        | ♂    | or | 12 | au                      | Y          | America    | 1730.     | S lp   |
| §8552 chelonoides W.        | tree             | ♂    | or | 30 | ...                     | R          | E. Indies  | 1808.     | R lp   |
| §8553 spathacea W.          | salver-shaped    | ♂    | or | 30 | ...                     | W          | E. Indies  | 1794.     | C lp   |
| <i>Spathodea longiflora</i> | P. S.            |      |    |    |                         |            |            |           |        |
| §8554 australis H. K.       | New S. Wales     | ♂    | or | 40 | ap.jl                   | W          | N. S. W.   | 1793.     | C s.p  |
| 8555 indica W. K.           | Indian           | ♂    | or | 80 | ...                     | W          | India      | 1775.     | C lp   |
| 8556 procera W.             | Box-leaved       | ♂    | or | 80 | ...                     | Bk         | Guiana     | 1793.     | C lp   |
| §8557 linearis Cav.         | linear-leaved    | ♂    | or | 20 | ...                     | Pk         | Mexico     | 1825.     | C pl   |
| 1295. JACARANDA. Juss.      | JACARANDA.       |      |    |    | <i>Bignoniaceæ.</i>     | Sp. 2-4.   |            |           |        |
| 8558 caroliniana R. Br.     | Carolina         | ♂    | or | 10 | jl.au                   | B          | Bahamas    | 1719.     | C pl   |
| 8559 ovalifolia R. Br.      | oval-leaved      | ♂    | or | 10 | ap.my                   | B          | Brazils    | 1824.     | C pl   |
| 1296. SESAMUM W.            | OILY-GRAIN.      |      |    |    | <i>Pedaliacæ.</i>       | Sp. 2-4.   |            |           |        |
| 8560 orientale W.           | oriental         | ♂    | or | 1½ | jl                      | W          | E. Indies  | 1731.     | S co   |
| 8561 indicum W.             | Indian           | ♂    | or | 1½ | jl                      | Papu       | E. Indies  | 1731.     | S co   |
| 1297. PENTSTEMON W.         | PENTSTEMON.      |      |    |    | <i>Scrophulariaceæ.</i> | Sp. 9-11.  |            |           |        |
| 8562 campanulata W.         | bell-flowered    | ♂    | or | 1½ | mr.o                    | L.Pu       | Mexico     | 1794.     | D pl   |
| 8563 laevigata W.           | smooth           | ♂    | or | 2  | aus.                    | L.Pu       | N. Amer.   | 1776.     | D pl   |
| 8564 hirsuta W.             | narr.-lvd.-hairy | ♂    | or | 1  | aus.                    | L.Pu       | N. Amer.   | 1758.     | D pl   |



History, Use, Propagation, Culture.

1785, quarto. Handsome low herbaceous plants, with fine showy flowers. The *Gloxinia speciosa* is a favorite in every hothouse, on account of the beauty of its rich purple blossoms.

1292. *Linnaea*. So named by Gronovius, in honor of the celebrated Carl von Linné, the reformer of natural history, and the father of the modern physical sciences. His works are not less numerous than important; it is to be wished that such another man, with equal talent, industry, and judgment, could be found at the present day, to rescue the science of natural history from the confusion to which it is fast approaching.

1293. *Melianthus*. From *melis*, honey, and *anthos*, flower. A shrub, native of the Cape of Good Hope, the blossoms of which are a great attraction to bees. Both the known species are common in collections, but seldom flower.

1294. *Bigonia*. In memory of Abbé Bignon, librarian to Louis XIV., born 1662, died in 1743. He was the friend and patron of most of the learned men of his time, and especially of Tournefort, by whom this truly noble genus was named. The species are trees or shrubs, inhabitants of hot climates: the leaves are opposite, pinnate, ternate, or conjugate: the flowers in panicles, large, and handsome, of various colors, red, blue, yellow, or white, and eminently beautiful. The stove sorts grow freely in loam and peat, and young cuttings root in sand under a hand-glass. The hardy species grow in any soil, but will not flower well unless the situation be warm. They are increased by cuttings of the roots, by layers, or by young cuttings on gentle heat under a hand-glass or frame. B. radicans is a well known and much admired species, capable of living in the open air in this country against a wall.

1295. *Jacaranda*. The name of the tree in Brazil. Two kinds remarkable for the goodness of their wood, are described by Piso. Those in the gardens are lofty stove plants with fern-like, elegant leaves, and panicles of beautiful blue flowers. They grow with facility, but flower seldom.

8528 The only species

8529 Stipules solitary adhering to stalk, Leaves smooth  
8530 Stipules twin distinct, Leaves hoary beneath

8531 Leaves conjugate cirrhose, Leaflets ovate acuminate, Peduncles axillary 1-flowered.  
8532 Leaves conjugate cirrhose, Leaflets ovate-lanceolate, Pedunc. 2-flowered, Pods linear

8533 Leaves conjugate, Leaflets elliptical entire coriaceous, Pedunc. 5-flowered axillary, Calyx entire  
8534 Lvs. conjugate obl. smooth, Racemes term. Branches dichotomous, Corollas very soft and downy outside  
8535 Leaves conjugate cordate ovate, Flowers racemose, Calyx with a double limb  
8536 Leaves conjugate cirrhose : lower ternate, Leaflets ovate cord. acuminate, Racem. axill. Stem mucronated  
8537 Leaves conjugate quite smooth, Tendrils longer than petiole trifid at end hooked  
8538 Leaves conjugate cirrhose, Leaflets cordate lanceolate, Lower leaves simple  
8539 Leaves conjugate cirrhose, Leaflets cordate ovate downy beneath  
8540 Leaves conjugate cirrhose, Leaflets elliptical blunt, Flowers racemose, Pedunc. 3-fl. Calyxes toothed  
8541 Leaves conjugate cordate ovate smooth, Lower racemes leafy, Limb of calyx leafy entire  
8542 Leaflets 9-lanceolate subserate dotted beneath, Corollas ventricose bearded in the orifice  
8543 Lvs. conjugate cirrhose, Leaf. obl. acute at each end, Corymb trifid term. Ped. petioles and branches rough  
8544 Climbing, Lvs. smooth upper conjugate cirrhose obl. ovate acumin. Peduncles corymbose many-flowered  
8545 Lower leaves ternate, upper conjugate, Petioles dichotomous cirrhose, Fruit echinate  
8546 Leaves ternate smooth, Leaflets ovate acuminate, Stem shrubby erect  
8547 Leaves digitate, Leaflets entire obovate  
8548 Leaves digitate, Leaflets lanceolate acuminate entire smooth, Flowers terminal solitary  
8549 Lvs. pinnate, Leaflets ovate acuminate toothed, Corymb terminal, Tube of cor. thrice as long as calyx

8550 Leaves pinnate, Leaflets ovate acuminate toothed, Panicle terminal, Tube of cor. the length of calyx  
8551 Leaves pinnate, Leaflets oblong lanceolate serrate, Raceme simple terminal, Stem erect  
8552 Leaves pinnate with an odd one, Leaflets ovate entire pubescent, Corollas bearded half pentandrous  
8553 Leaves pinnate with an odd one, Leaflets ovate hirsute, Cal. 1-leaved spathaceous, Cor. hypocrateriform

8554 Leaves pinnate of four pair, Leaflets elliptical generally entire, Racemes compound  
8555 Leaves bipinnate, Leaflets oblong lanceolate acuminate, Fl. pentandrous, Calyx tubular, Cor. 5-fid  
8556 Leaves bipinnate, Leaflets oblong obtuse, Panicle terminal, Peduncles with bractes, Pods oblong blunt  
8557 Leaves simple linear acuminate, Flowers terminal subumbellate, Stem erect

8558 Leaves bipinnate, Leaflets lanceolate acute, Panicle terminal, Peduncle naked, Pods long emarginate  
8559 Leaves bipinnate oblong villous oval oblong mucronate, Panicle large lax branched, Corollas silky

8560 Leaves ovate oblong entire

8561 Leaves ovate lanceolate : lower 3-lobed ; upper undivided, Stem erect

8562 Stem smooth, Sterile filament bearded upwards, Leaves lanceolate acuminate all finely serrate

8563 Leaves polished ovate-oblong amplexicaul finely toothletted, lower entire, Flowers paniced

8564 Leaves serrulate lanceolate oblong sessile downy obscurely toothed narrow, Flowers paniced



and Miscellaneous Particulars.

1296. *Sesamum*. From the Arabic word *semsem*. Forskahl, p. 68. These plants were introduced into Jamaica by the Jews, and are now cultivated in most parts of the island. They are called *vunglo* or oil-plant. The seeds are frequently used in broths by many of the Europeans, but the Jews make them chiefly into cakes. Many of the oriental nations look upon the seed as a hearty wholesome food, and express an oil from them, not unlike, or inferior to, the oil of almonds. It has been also manufactured for salad oil in this country, but without much success.

*S. orientale* is frequently cultivated in the Levant, and also in Africa, as a pulse: the seeds have been introduced in Carolina by the African negroes. An oil is extracted from the seeds which will keep many years, and not acquire any rancid smell or taste, but in two years become quite mild, so that when the warm taste of the seed, which is in the oil when first drawn, is worn off, it is used as salad oil, and for all the purposes of sweet oil.

The seeds are also used by the negroes for food: they parch them over the fire, then mix them with water, and stew other ingredients with them. A pudding is made with them, in the same manner as with millet or rice.

In Japan, China and Cochinchina, where they have no butter, they use the oil for frying fish, and in dressing other dishes; as a varnish; and medicinally as a resolvent and emollient. Nine pounds of the seed yield upwards of two pounds of neat oil.

1297. *Pentstemon*. From *πεντα*, five, and *σταμον*, a stamen, because of the four perfect and one imperfect stamen of the genus. Beautiful herbaceous plants, deserving a place in every garden.

|                                 |                  |   |    |    |       |      |           |       |   |     |                       |
|---------------------------------|------------------|---|----|----|-------|------|-----------|-------|---|-----|-----------------------|
| 8565 pubescens <i>W.</i>        | broad-ly.-hairy  | Δ | or | 1½ | au.s  | L.Pu | N. Amer.  | 1758. | D | p1  | Bot. mag. 1424        |
| 8566 erianthéra <i>Ph.</i>      | dwarf            | Δ | or | 1½ | au.s  | Pu   | Louisiana | 1811. | D | p1  | Bot. mag. 1420        |
| 8567 angustifolia <i>Ph.</i>    | narrow-leaved    | Δ | or | 1½ | jl.s  | L.Pu | Louisiana | 1811. | D | p1  | Bot. mag. 1672        |
| 8568 glabra <i>Ph.</i>          | Nuttall's        | Δ | or | 1½ | jl.s  | D.Pu | Louisiana | 1811. | D | p1  | Bot. mag. 1672        |
| 8569 Bradburii <i>Ph.</i>       | large-flowered   | Δ | or | 2  | jl.s  | Pu   | Louisiana | 1811. | D | p1  | Bot. mag. 1672        |
| 8570 albidum <i>Nutt.</i>       | whitish          | Δ | or | 2  | jl.s  | W    | Missouri  | 1823. | D | p1  |                       |
| †1298. CHELONE. <i>W.</i>       | CHELONE.         |   |    |    |       |      |           |       |   |     |                       |
| 8571 glabra <i>W.</i>           | white-flowered   | Δ | or | 4  | au.o  | W    | N. Amer.  | 1790. | D | p1  | Trew.chret. t.83      |
| 8572 obliqua <i>W.</i>          | red-flowered     | Δ | or | 4  | au.o  | Pu   | N. Amer.  | 1752. | D | p1  | Bot. reg. 175         |
| 8573 Lyóni <i>Ph.</i>           | Lyon's           | Δ | or | 4  | jl.s  | Pu   | N. Amer.  | 1812. | D | p1  | Bot. mag. 1864        |
| 8574 barbata <i>W.</i>          | scarlet          | Δ | or | 3  | jn.s  | O.s  | Mexico    | 1794. | D | p1  | Bot. reg. 116         |
| 1299. TOURRETTIA. <i>J.</i>     | TOURRETTIA.      |   |    |    |       |      |           |       |   |     |                       |
| 8575 lappacea <i>W.</i>         | scarlet-flowered | □ | or | 6  | jn.au | R.G  | Peru      | 1788. | S | s1  | Salstir. 5. t.3       |
| †1300. MARTYNIA. <i>W.</i>      | MARTYNIA.        |   |    |    |       |      |           |       |   |     |                       |
| 8576 diandra <i>W.</i>          | two-stamened     | □ | or | 1½ | jl.au | R    | New Spain | 1731. | S | s1  | Bot. reg. 575         |
| 8577 Craniolária <i>W.</i>      | white-flowered   | □ | or | 1½ | jl.au | W    | S. Amer.  | 1733. | S | s1  | Jac. amer. t. 110     |
| 8578 proboscidea <i>W.</i>      | horn-capsuled    | □ | or | 2  | jn.au | L.B  | America   | 1781. | S | r.m | Bot. mag. 1056        |
| 8579 longiflora <i>W.</i>       | long-flowered    | □ | or | 2  | jl.au | Papu | C. G. H.  | 1788. | S | s1  | Meerb. ic. 1. t.7     |
| 1301. ACANTHUS. <i>W.</i>       | BEAR'S-BREECH.   |   |    |    |       |      |           |       |   |     |                       |
| 8580 mollis <i>W.</i>           | smooth           | Δ | or | 3  | jl.s  | P.W  | Italy     | 1548. | D | co  | Lam. ill. t. 550      |
| 8581 niger <i>Mill.</i>         | shining-leaved   | Δ | or | 3  | jl.s  | P.W  | Portugal  | 1759. | D | co  | Bot. mag. 1808        |
| 8582 spinosus <i>P. S.</i>      | prickly-leaved   | Δ | or | 3  | jl.s  | P.W  | Italy     | 1629. | D | co  | Bot. mag. 1808        |
| 8583 spinosissimus <i>P. S.</i> | white-spined     | Δ | or | 3  | jl.s  | P.W  | S. Europe | 1629. | D | co  | Bot. mag. 1808        |
| 8584 ilicifolius <i>W.</i>      | Holly-leaved     | Δ | or | 2  | ...   | ...  | E. Indies | 1759. | D | co  | Rhee.mal.2. t.48      |
| †1302. BARLERIA. <i>W.</i>      | BARLERIA.        |   |    |    |       |      |           |       |   |     |                       |
| 8585 longifolia <i>W.</i>       | long-leaved      | □ | or | 2  | jl.s  | W    | E. Indies | 1781. | S | lp  | Pluk.al. t.133.f.4    |
| 8586 Priontis <i>W.</i>         | thorny           | □ | or | 3  | jl.au | Or   | E. Indies | 1759. | C | p1  | Rhee.mal.9. t.41      |
| 8587 buxifolia <i>W.</i>        | Box-leaved       | □ | or | 2  | jn.jl | W    | E. Indies | 1768. | D | lp  | Rhee.mal.2. t.47      |
| 8588 purpurea <i>Lodd.</i>      | purple           | □ | or | 2  | s     | Pu   | E. Indies | 1814. | D | lp  | Bot. cab. 344         |
| 8589 álba <i>Hort.</i>          | white            | □ | or | 3  | jn.jl | W    | N. Holl.  | 1815. | C | co  | Bot. cab. 360         |
| 8590 cristata <i>W.</i>         | crested          | □ | or | 2  | jn.s  | B    | E. Indies | 1796. | C | p1  | Bot. mag. 1615        |
| 8591 mitis <i>B. Reg.</i>       | yellow-flowered  | □ | or | 3  | jn.s  | Y    | E. Indies | 1818. | C | p1  | Bot. reg. 191         |
| 8592 longiflora <i>W.</i>       | long-flowered    | □ | or | 3  | jn.s  | ...  | E. Indies | 1816. | C | p1  | Vah.symbl.1.t.16      |
| 1303. PHAYLOP'SIS. <i>Juss.</i> | PHAYLOP'SIS.     |   |    |    |       |      |           |       |   |     |                       |
| 8593 longifolia <i>Sims.</i>    | long-leaved      | □ | or | 2  | apo   | W    | S. Leone  | 1822. | C | co  | Bot. mag. 2433        |
| †1304. RUELLIA. <i>J.</i>       | RUELLIA.         |   |    |    |       |      |           |       |   |     |                       |
| 8594 ovata <i>W.</i>            | oval-leaved      | □ | or | 2  | jl.au | D.B  | Mexico    | 1800. | D | lp  | Cav. ic. 3. t. 257    |
| 8595 strépens <i>W.</i>         | whorl-flowered   | □ | or | 2  | jl.au | Pa.B | N. Amer.  | 1726. | D | lp  | Sch. han.2. t.174     |
| 8596 ocymoides <i>Cav.</i>      | Basil-like       | □ | or | 1½ | jl.au | B    | Mexico    | 1815. | C | lp  | Jac. ic. 5. t. 456    |
| 8597 pátila <i>W.</i>           | spreading        | □ | or | 1½ | jl.au | Pa.V | E. Indies | 1774. | C | lp  | Cav. ic. 1. t. 119    |
| 8598 lactea <i>W.</i>           | white            | □ | or | 2  | jn.au | Pa.V | Mexico    | 1796. | C | lp  | Cav. ic. 3. t. 255    |
| 8599 clandestina <i>W.</i>      | three-flowered   | □ | or | 2  | jl.au | B    | Barbadoes | 1728. | C | lp  | Dil.el.t.248.f.390    |
| 8600 paniculata <i>W.</i>       | panicked         | □ | or | 3  | au    | Pu   | W. Indies | 1768. | C | sp  | Slo.jam.1. t.100. f.2 |
| 8601 tuberosa <i>L.</i>         | tuberous-rooted  | □ | or | 2  | jl.au | B    | Jamaica   | 1752. | C | lp  | Slo.jam.1. t.95.f.1   |
| 8602 biflora <i>W.</i>          | two-flowered     | □ | or | 1  | jl    | Pa.B | Carolina  | 1765. | C | lp  | Bot. mag. 1400        |
| 8603 formosa <i>H. K.</i>       | splendid         | □ | or | 2  | jn.s  | S    | Brazil    | 1808. | C | sp  |                       |



History, Use, Propagation, Culture,

1298. *Chelone*. *Xelovm* signifies a tortoise, to the back of which the helmet of the present genus has been fancifully compared. The species are handsome border flowers, of easy culture in loamy soil, or loam and a little peat.

1299. *Tourrettia*. Named in honor of Marc Antoine Louis Claud la Tourrette, to whom some of Rousseau's Letters on Botany are addressed. A singular climbing annual plant, producing its flowers sparingly from the tips of the branches. Seldom preserved long in a garden, as it produces seed very sparingly.

1300. *Martynia*. In honor of John Martyn, F. R. S., professor of botany at Cambridge, author of *Historia Plantarum Rariorum*, and many other works: died in January, 1768. His son is the editor of the last edition of Miller's Dictionary. Handsome tropical annuals, remarkable for the size of their flowers compared with their leaves.

1301. *Acanthus*. From *ακανθα*, a spine: many of the kinds are very spiny. The species are generally large, with a single herbaceous stalk, and great pinnatifid leaves. The flowers are produced in terminating spikes. Some of the species are shrubby and thorny, with undivided leaves, toothed, and having a thorn at the end of the teeth.

*A. mollis* was formerly used in medicine under the name of *Branca ursina*: the root abounds in mucilage, and may be substituted for those of the marsh mallow. Virgil has two very different plants under the name of *Acanthus*: one a tree, supposed to be the *Mimosa nilotica*, which produces the gum Arabic; the other an

8565 Stem pubescent, Sterile filament bearded from the end to the middle  
 8566 Leaves oblong acute subhirsute, Flowers racemose, Leaves of calyx linear very hairy  
 8567 Stem smooth long linear entire, Flowers in racemose panicles, Leaves of calyx smooth  
 8568 Stem and lvs. smooth, Lvs. subamplex. ovate obl. ent. Barren flam. naked clav. Sepals roundish acuminate  
 8569 Very smooth, Lvs. subamplexicaul. ov. obl. ent. upper roundish, Barren flam. with a short beard at end  
 8570 Leaves ovate lanc. subserrulate smooth, Fl. fascicled axillary and terminal, Cor. equal 5-cleft spreading

8571 Leaves stalked lanceolate serrate : upper opposite  
 8572 Leaves lanceolate oblique stalked opposite finely serrated at edge  
 8573 Smooth much branched, Leaves stalked cordate ovate serrated, Spikes terminal dense  
 8574 Leaves opposite connate lanceolate entire, Lower lip of corolla bearded

8575 The only species. Leaves pinnated cut cirrhose

8576 Stem branched, Leaves opposite cordate toothed, Flowers diandrous  
 8577 Stem branched, Leaves opposite 5-toothed  
 8578 Stem branched, Leaves alternate cordate entire  
 8579 Stem simple, Leaves roundish repand, Tube of cor. at base gibbous flattened

8580 Leaves sinuated unarmed  
 8581 Leaves sinuated unarmed glabrous shining green  
 8582 Leaves pinnated spiny  
 8583 Leaves lacinate pinnatifid blistered spiny, Spines white  
 8584 Leaves repand spiny-toothed, Stem shrubby prickly

8585 Spines of whorls 6, Leaves ensiform very long rough  
 8586 Spines axillary pedate in fours, Leaves quite entire lanceolate ovate  
 8587 Spines axillary opposite solitary, Leaves roundish entire  
 8588 Unarmed, Leaves lanceolate, Flowers axillary solitary sessile  
 8589 Leaves ovate lanceolate rough, Flowers capitate terminal, Bractæe ciliate  
 8590 Leaves oblong entire, Two lateral leaves of calyx ciliated wider than the rest; two linear acute  
 8591 Unarmed, Leaves lanceolate hairy entire, Fl. aggregate terminal tubular, Bractes very narrow setose  
 8592 Unarmed, Leaves ovate silky, Bractes cordate scarious, Corollas very long

8593 Leaves lanceolate on long stalks, Flowers in terminal and axillary heads, Cor. small

8594 Leaves sessile oblong entire acute at each end villous, Fl. 3-subsessile, Stem ascending  
 8595 Leaves stalked ovate entire, Peduncles 3-flowered very short, Stem erect  
 8596 Subvillous, Stem dwarf branched erect, Leaves ovate concave entire  
 8597 Leaves stalked ovate very blunt entire pubescent, Flowers 3 subsessile, Stem erect divaricating  
 8598 Lvs. stalked obl. ovate ciliated somewhat toothed, Pedunc. very short about 3-fl. Stem very villous erect  
 8599 Leaves stalked oblong blunt attenuated at base somewhat toothed, Pedunc. 3-fl. shorter than leaf  
 8600 Leaves entire, Peduncles dichotomous lateral, Calyxes sessile, with the upper segment largest  
 8601 Leaves cuneate ovate crenated, Peduncles 3-parted, Stem simple  
 8602 Flowers twin sessile  
 8603 Leaves stalked entire ovate downy, Pedunc. axillary alternate few-flow. very long



and Miscellaneous Particulars.

herb, supposed to be this plant. Pliny mentions an *Acanthus* which covered part of his lawn, which some conjecture to be a moss, a thing very improbable in a climate and situation where the musci are seldom seen even in winter.

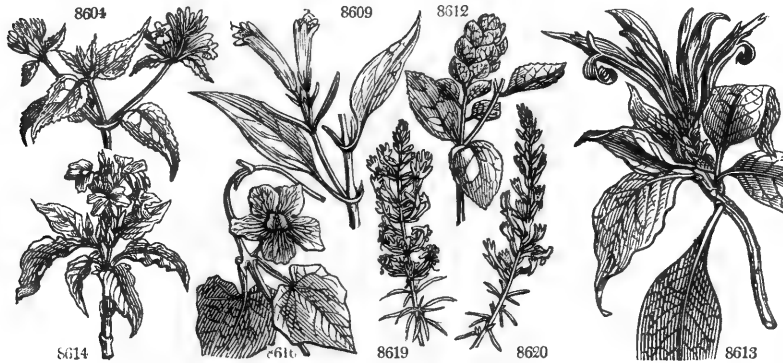
The leaf of *Acanthus mollis* is supposed to have furnished the ancients with the elegant *Acanthus* leaf of their architecture.

1302. *Barleria*. In honor of the Rev. James Barrelier, a Dominican, and M. D. of Paris, who travelled from France into Spain and Italy, and died aged sixty-eight, 1673; author of *Icones*, 1714, Paris, folio, a useful work, containing, even at the present day, figures of many things which are to be found nowhere else. The species flower freely and are of easy culture: loam and peat, with a little rotten dung mixed with it, is the best soil for them. Cuttings root freely; they strike best from the young wood, under a hand-glass, in the same kind of soil as the plants grow in. (*Bot. Cult.* 21.)

1303. *Phyloopsis*. Named by Willdenow, from *φωλος*, vile or contemptible, and *οψις*, aspect. Tropical weeds.

1304. *Ruellia*. In honor of John Ruelle, a native of Soissons, the physician of Francis I. He published a work *De Natura Plantarum*, in 1536, and *Commentaries upon Dioscorides*, in 1516. The species are pretty plants, free flowers, and of the easiest culture and propagation.

|                            |                         |   |     |       |       |       |           |            |   |    |                          |
|----------------------------|-------------------------|---|-----|-------|-------|-------|-----------|------------|---|----|--------------------------|
| 8604 fúlgida H. K.         | bright-flowered         | □ | pr  | 2     | jl.au | Sc    | W. Indies | 1804.      | C | lp | Bot. rep. 597            |
| 8605 ciliata W. en.        | ciliated                | □ | pr  | 2     | jl.   | Pu    | E. Indies | 1806.      | C | lp |                          |
| 8606 ringens W. en.        | gaping-flower'd         | □ | pr  | 3     | jl.au | Pu    | E. Indies | 1807.      | C | lp | Rhee. mal. 9. 64         |
| 8607 pubescens Pers.       | pubescent               | △ | pr  | 2     | jn.au | D.B   | C. G. H.  | 1823.      | C | lp |                          |
| 8608 fœtida W. en.         | fœtid                   | □ | un  | 2     | jn.au | B     | S. Amer.  | ...        | C | lp |                          |
| 8609 macrophyla Vahl.      | long-leaved             | △ | pr  | 3     | ...   | R     | S. Martha | 1824.      | C | lp | Vah.symb.2.t.39          |
| 8610 undulata Vahl.        | wavy                    | △ | pr  | 2     | ...   | R     | E. Indies | 1824.      | C | lp |                          |
| 8611 tetragona Link.       | four-cornered           | △ | pr  | 2     | jn.jl | B     | Brazil    | 1824.      | C | lp |                          |
| 11305. BLECHUM. R. Br.     | BLECHUM.                |   |     |       |       |       |           | Sp. 1—15.  |   |    |                          |
| 8612 Brównei H. K.         | dense-spiked            | △ | or  | 2     | jn    |       | W. Indies | 1780.      | C | lp | Slo. ja. 1. t. 109. f. 1 |
| 11306. APHELAN'DRA. R. Br. | APHELAN'DRA.            |   |     |       |       |       |           | Sp. 1.     |   |    |                          |
| 8613 cristata H. K.        | dense-spiked            | □ | spl | 3     | jn.s  | S     | W. Indies | 1733.      | C | lp | Bot. mag. 1578           |
| 1307. CROSSAN'DRA. P. L.   | CROSSAN'DRA.            |   |     |       |       |       |           | Sp. 1.     |   |    |                          |
| 8614 undulatifolia P. S.   | wave-leaved             | □ | spl | 1 1/2 | ja.jn | Ors   | E. Indies | 1800.      | C | pl | Bot. reg. 69             |
| 11308. THUNBER'GIA. W.     | THUNBERGIA.             |   |     |       |       |       |           | Sp. 2—7.   |   |    |                          |
| 8615 fragrans W.           | twinning                | □ | or  | 4     | mys   | W     | E. Indies | 1796.      | S | pl | Bot. mag. 1881           |
| 8616 grandiflora R.        | large-flowered          | □ | or  | 6     | mys   | B     | E. Indies | 1820.      | C | pl | Bot. mag. 2366           |
| 1309. HEBENSTREITIA. W.    | HEBENSTREITIA.          |   |     |       |       |       |           | Sp. 8—12.  |   |    |                          |
| 8617 albiflora Lk.         | white-flowered          | □ | pr  | 1     | mys   | W     | C. G. H.  | 1822.      | C | pl |                          |
| 8618 chamaedryfolia Link.  | saw-leaved              | □ | pr  | 2     | mys   | W     | C. G. H.  | 1822.      | C | pl |                          |
| 8619 dentata W.            | toothed                 | □ | pr  | 1     | mys   | W     | C. G. H.  | 1739.      | S | pl | Bot. mag. 483            |
| 8620 integrifolia W.       | entire-leaved           | □ | pr  | 1     | my.ja | W     | C. G. H.  | 1792.      | C | pl | Bot. rep. 252            |
|                            | áerea B. Rep.           |   |     |       |       |       |           |            |   |    |                          |
| 8621 ciliata W.            | ciliated                | □ | pr  | 1     | my.jl | W     | C. G. H.  | 1815.      | C | pl |                          |
| 8622 spicata Thunb.        | spiked                  | △ | pr  | 1     | my.jl | W     | C. G. H.  | 1815.      | C | pl |                          |
| 8623 erinoides Th.         | Erinus-leaved           | □ | pr  | 1     | my.n  | W     | C. G. H.  | 1816.      | C | pl |                          |
| 8624 cordata W.            | heart-leaved            | □ | pr  | 1     | jl.au | W     | C. G. H.  | 1774.      | C | pl |                          |
| 1310. HOS'TA. Jac.         | HOS'TA.                 |   |     |       |       |       |           | Sp. 1.     |   |    |                          |
| 8625 carúlea Jac.          | blue-flowered           | □ | or  | 4     | ...   | B     | S. Amer.  | ...        | C | lp | Jac.schœ.1.t.114         |
| 1311. GME'LINA. W.         | GME'LINA.               |   |     |       |       |       |           | Sp. 2.     |   |    |                          |
| 8626 asiatica W.           | oval-leaved             | □ | or  | 10    | ...   | Y     | E. Indies | 1792.      | C | lp | Lam. ill. t. 542         |
| 8627 parviflora Rox.       | obovate-leaved          | □ | or  | 10    | ...   | O     | E. Indies | 1817.      | C | lp | Roxb. cor. t. 162        |
| 11312. LANTA'NA. W.        | LANTA'NA.               |   |     |       |       |       |           | Sp. 17—35. |   |    |                          |
| 8628 mixta W.              | Nettle-leaved           | □ | or  | 5     | au.o  | R.Y   | W. Indies | 1732.      | C | pl | Bot. cab. 68             |
| 8629 trifolia W.           | three-leaved            | □ | or  | 3     | jn.s  | Pu    | W. Indies | 1733.      | C | pl | Bot. mag. 1449           |
| 8630 ánnua W.              | annual                  | □ | or  | 3     | jl.au | F     | S. Amer.  | 1733.      | C | pl | Bot. mag. 1022           |
| 8631 stricta W.            | narrow-leaved           | □ | or  | 3     | ...   | Pa.pu | Jamaica   | 1733.      | C | pl | Slo.ja.2.t.195.f.4       |
| 8632 Rádula W.             | Rasp-leaved             | □ | or  | 3     | ...   | Pu    | W. Indies | 1803.      | C | pl |                          |
| 8633 Cámmara W.            | various-colored         | □ | or  | 6     | aps   | R.o   | W. Indies | 1691.      | C | pl | Dill.elt. t.56. f.65     |
| 8634 involuocrata W.       | round-leaved            | □ | or  | 3     | my.jl | Pk    | W. Indies | 1690.      | C | pl | Plu.alm.t.114.f.5        |
| 8635 récta W.              | upright                 | □ | or  | 2     | jn.au | Pu    | Jamaica   | 1758.      | C | pl | Jac.schœ.3.t.360         |
| 8636 odorata W.            | sweet-scented           | □ | or  | 2     | my.n  | W     | W. Indies | 1758.      | C | pl | Plum.ic. t.71. f.2       |
| 8637 melissifolia W.       | Balm-leaved             | □ | or  | 2     | jl.s  | Y     | W. Indies | 1732.      | C | pl | Dill.elt. t.57. f.68     |
| 8638 scábrida W.           | rough                   | □ | or  | 2     | s     | ...   | W. Indies | 1774.      | C | pl | Bot. cab. 1171           |
| 8639 nivea Vent.           | white-flowered          | □ | or  | 3     | jl.s  | W     | E. Indies | ...        | C | pl | Vent. malm. t. 8         |
| 8640 aculeata W.           | changeable-col.         | □ | or  | 10    | ap.n  | R     | W. Indies | 1692.      | C | pl | Bot. mag. 96             |
| 8641 fucata Ker.           | painted                 | □ | or  | 2     | ap.n  | Pk    | S. Amer.  | 1822.      | C | pl | Bot. reg. 798            |
| 8642 salvifolia W.         | sage-leaved             | □ | or  | 3     | ap.n  | R     | C. G. H.  | 1823.      | C | pl | Jac. sch.6.3. t.285      |
| 8643 braziliensis Link.    | Brazilian               | □ | or  | 3     | ap.n  | W     | Brazil    | 1823.      | C | pl |                          |
| 8644 álba Mill.            | white                   | □ | or  | 3     | ap.n  | W     | S. Amer.  | ...        | C | pl |                          |
| 1313. ALOY'SIA. Fl. Per.   | ALOYSIA.                |   |     |       |       |       |           | Sp. 1—2.   |   |    |                          |
| 8645 citridiora Fl. Per.   | Lemon-scented           | □ | or  | 3     | mys   | Pa.pu | Chili     | 1784.      | C | l  | Bot. mag. 367            |
|                            | Verbéna triphýlla B. M. |   |     |       |       |       |           |            |   |    |                          |



History, Use, Propagation, Culture,

1305. *Blechnum*. Βληχον, was the Greek name of a plant resembling Marjoram. This genus has also the flowers in a dense bracted spike. It has been separated from *Justicia* by Jussieu.

1306. *Aphelandra*. From ἀφελανης, simple, and ανη, a male, on account of the single cell of the anthers.

1307. *Crossandra*. From κροσος, a fringe, and ανη, a man; or, in botanical language, an anther, alluding to the fringed anthers. A fine showy shrub with large orange flowers.

1308. *Thunbergia*. In honor of Charles Peter Thunberg, M. D., knight of the order of Vasa, professor of botany in the university of Upsal, member of several learned societies; author of *Travels into Europe, Africa and Asia*; *Flor. Japonica*, &c. Handsome climbing flowers with a fragrant odor.

1309. *Hebenstreitia*. John Ernest Hebenstreit, was a professor of botany in the university of Leipsig, and published, in 1728, a dissertation upon plants. Small Cape undershrubs, occasionally cultivated for the sake of their neat foliage and simple modest flowers. They require an airy greenhouse, and are easily propagated from cuttings.

1310. *Hosta*. After Dr. Nicholas Thomas Host, the author of the superb *Gramina Austriaca*, in four volumes, folio, and other important works. Smith thinks the genus the same as Linnaeus's *Cornutia pyramidata*.

- 8604 Leaves stalked ovate acuminate wavy crenate, Fascicles axillary on long stalks
- 8605 Leaves ovate somewhat toothletted ciliated at edge on long stalks, Flowers solitary axillary sessue
- 8606 Leaves oblong entire, Flowers solitary sessile, Stem procumbent
- 8607 Leaves entire ovate subpubescent, Flowers solitary axillary, Stem erect
- 8608 Leaves ovate lanceolate entire stalked smooth, Fl. solitary axillary sessile, Branches warted
- 8609 Leaves ovate lanceolate acuminate, Peduncles long 2-flowered
- 8610 Leaves stalked oblong wavy, Heads axillary sessile, Stem erect
- 8611 Stem erect hairy, Leaves stalked ovate acuminate repand toothed hairy, Spike whorled

8612 Leaves ovate elliptical somewhat toothed, Spikes 4-cornered, Bractes ovate downy

8613 The only species

8614 The only species

8615 Leaves cordate acuminate somewhat angular at base, Stem climbing

8616 Leaves angular cordate, Inner calyx none, Anthers bearded spurred

8617 Leaves linear toothed, Bractes oval linear hairy

8618 Leaves sessile oblong lanceolate blunt serrated hairy at base, Bractes ciliated

8619 Leaves linear toothed, Spikes smooth

8620 Leaves linear quite entire

8621 Leaves linear toothed, Calyxes 3-valved ciliated

8622 Leaves linear toothed at end, Bractes ovate villous, Stem herbaceous

8623 Leaves lanceolate oblong serrated pilose, Bractes entire ciliated hispid

8624 Leaves cordate somewhat fleshy sessile

8625 Corymbs axillary trichotomous

8626 Spines opposite, Leaves ovate entire

8627 Leaves obovate subtrifid and simple, Prickles nearly straight, those of the stem alternate

8628 Leaves opp. ovate acute hairy, Stem prickly downwards, Heads round, Bractes lanceolate

8629 Leaves 3 or 4-ellipt. rugose above villous beneath, Stem unarmed, Spikes oblong imbricated

8630 Leaves opposite, Stem unarmed, Spikes oblong

8631 Leaves opp. oblong lanc. acute, Stem unarmed, Heads roundish, Bractes ovate-lanceolate and squarrose

8632 Lvs. opp. ov. acute serr. rugose rough hairy ben. Stem nearly unarm. rough, Heads obl. Bractes ovate acute

8633 Leaves opposite, Stem unarmed branched, Flowers in leafless capitate umbels

8634 Leaves opp. or in 3s rhomboid ovate blunt rugose downy, Stem unarmed, Heads squarrose, Bractes ovate

8635 Leaves opposite oval rugose, Stem unarmed, Heads squarrose, Bractes oblong, Pedunc. longer than leaf

8636 Lvs. opp. or in 3s ellipt. rugose, Stem unarmed, Heads squarrose with lanc. bractes, Ped. shorter than leaf

8637 Leaves opp. ovate obl. villous soft, Stem prickly, Spikes hemispherical, Bractes half as short as tube

8638 Lvs. opp. ovate ellipt. rough, Stem prickly, Spikes hemispherical, Bractes half as short as tube lanc. acute

8639 Leaves ovate lanceolate acuminate crenulate, Stem prickly, Head hemispherical, Bractes linear

8640 Leaves ovate subcordate softish beneath, Stem prickly, Bractes of heads linear cuneiform

8641 Lvs. ovate rugose crenate blunt downy running down the foot-stalk, Head depressed shorter than leaf

8642 Leaves opposite ovate rough above hoary beneath, Heads conical, Bractes squarrose ovate acute nerved

8643 Leaves narrowed from an ovate base sessile serrate pubescent, Bractes lanceolate concave

8644 Leaves ovate narrowed into the stalk acuminate acutely crenate pubescent, Outer bractes cordate

8645 Leaves linear lanceolate ternate, Stem shrubby



and Miscellaneous Particulars.

A small shrub rising to the height of four feet. Leaves opposite, ovate, acuminate, somewhat toothed, smooth. Flowers blue, in axillary corymbs, which are shorter than the leaves; they are dotted all over with minute white glandular spots.

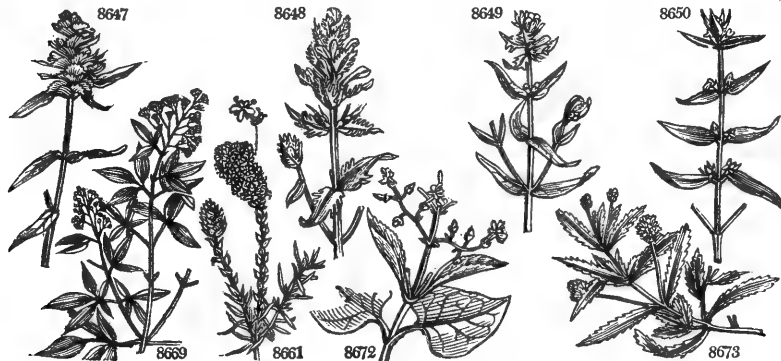
1311. *Gmelina*. In honor of John George Gmelin, a German naturalist, professor of medicine and botany at Tubingen, who travelled in Siberia and Kamtschatka, by order of the Empress Anne of Russia. His *Flora Sibirica*, in four quarto volumes, is a book of continual reference. These are fine arborecent Indian plants with beautiful flowers, which are seldom produced in this country. They require the utmost heat of the stove.

1312. *Lantana*. One of the ancient names of the *Viburnum*, which this resembles a little in foliage. The species are rapid growers and free-flowerers, and readily increased by cuttings. They form small bushes with pink, yellow, orange, or changeable heads of flowers, and a peculiar aromatic odor.

1313. *Aloysia*. Named by Don Antonio Palau, professor of botany at Madrid, and author of an excellent translation of the Linnaeus's *Species Plantarum* into Spanish, after her majesty Maria Louisa, queen of Spain, and mother of the reigning king, Ferdinand.



|                                 |                  |   |   |    |                     |          |       |           |                         |
|---------------------------------|------------------|---|---|----|---------------------|----------|-------|-----------|-------------------------|
| †1314. LIPPIA. L.               | LIPPIA.          |   |   |    | <i>Verbenaceae.</i> | Sp. 1—5. |       |           |                         |
| 8646 purpúrea Jacq.             | purple           | □ | □ | or | 3                   | in.jl    | R     | Mexico    | 1823. C p.l             |
| 1315. MELAMPYRUM. W. Cow-WHEAT. | crested          | ○ | ○ | w  | 3                   | jl.au    | Y     | England   | corn fl. S co           |
| 8647 cristatum W.               | purple           | ○ | ○ | w  | 3                   | in.jl    | Y     | England   | corn fl. S co           |
| 8648 arvense W.                 | common           | ○ | ○ | w  | 3                   | jl.au    | Y     | Britain   | woods. S co             |
| 8649 pratense W.                | wood             | ○ | ○ | w  | 3                   | jl.au    | Y     | Britain   | m. wo. S co             |
| 8650 sylvaticum W.              |                  |   |   |    |                     |          |       |           | Eng. bot. 804           |
| 1316. SELAGO. W.                | SELAGO.          |   |   |    |                     |          |       |           |                         |
| 8651 spinea Link.               | spiny            | □ | □ | pr | 3                   | ...      | Pu    | C. G. H.  | 1824. C p.l             |
| 8652 diffusa Th.                | spreading        | □ | □ | pr | 1½                  | jl.au    | Pu    | C. G. H.  | 1807. C p.l             |
| 8653 fulvo-maculata Link.       | spotted          | □ | □ | pr | 2                   | ...      | ...   | C. G. H.  | 1824. C p.l             |
| 8654 polygaloides L.            | Milkwort-like    | □ | □ | pr | ½                   | lo       | Pu    | C. G. H.  | 1807. C p.l             |
| 8655 spicata Link.              | spiked           | □ | □ | pr | ½                   | lo       | Pu    | C. G. H.  | 1824. C p.l             |
| 8656 spuria W.                  | linear-leaved    | □ | □ | pr | 1                   | lo       | V     | C. G. H.  | 1779. S p.l             |
| 8657 fasciculata W.             | cluster-flower'd | □ | □ | pr | 1½                  | in.jl    | Pu    | C. G. H.  | 1774. S p.l             |
| 8658 lucida Vent.               | shining-leaved   | □ | □ | pr | 1½                  | in.jl    | Pu    | C. G. H.  | 1812. C p.l             |
| 8659 ramulosa Link.             | branchy          | □ | □ | pr | 1½                  | ...      | ...   | C. G. H.  | 1824. C p.l             |
| 8660 teretifolia Link.          | round-leaved     | □ | □ | pr | 1½                  | jl.au    | W     | C. G. H.  | 1823. C p.l             |
| 8661 ovata W.                   | oval-headed      | □ | □ | pr | 1                   | in.jl    | D.Pu  | C. G. H.  | 1774. C p.l             |
| 8662 canescens W.               | caescent         | □ | □ | pr | 1½                  | in.jl    | Pa.pu | C. G. H.  | 1812. C p.l             |
| 8663 corymbosa W.               | fine-leaved      | □ | □ | pr | 2                   | jl.au    | Pu    | C. G. H.  | 1699. C p.l             |
| †1317. VITEX. W.                | CHASTE-TREE.     |   |   |    |                     |          |       |           |                         |
| 8664 ovata W.                   | oval-leaved      | □ | □ | or | 4                   | jl.au    | Pu    | China     | 1796. C lp              |
| 8665 altissima W.               | tall             | □ | □ | or | 3                   | ...      | ...   | Ceylon    | 1802. C lp              |
| 8666 Agnus-Cástus W.            | common           | □ | □ | or | 6                   | s        | W.B   | Sicily    | 1770. C co              |
| β latifolia                     | broad-leaved     | □ | □ | or | 6                   | s        | W.B   | Sicily    | 1770. C co              |
| 8667 incisa W.                  | cut-leaved       | □ | □ | or | 4                   | jl.s     | Pu    | China     | 1758. C p.l             |
| 8668 Leucóxylon W.              | white-wooded     | □ | □ | or | 4                   | ...      | ...   | Ceylon    | 1793. C lp              |
| 8669 Negúndo W.                 | quadrangular     | □ | □ | or | 4                   | ...      | ...   | E. Indies | 1812. C lp              |
| 8670 bicolor W.en.              | two-colored      | □ | □ | or | 4                   | ...      | ...   | E. Indies | 1810. C lp              |
| 8671 trifolia W.                | three-leaved     | □ | □ | or | 4                   | ...      | ...   | E. Indies | 1759. C p.l             |
| 1318. CORNUTIA. W.              | CORNUTIA.        |   |   |    |                     |          |       |           |                         |
| 8672 pyramidata W.              | pyramidal        | □ | □ | cu | 4                   | ...      | B     | W. Indies | 1733. C lp              |
| 1319. ZAPANIA. J.               | ZAPANIA.         |   |   |    |                     |          |       |           |                         |
| 8673 stachadifolia P. S.        | oval-spiked      | □ | □ | un | 1                   | aus.     | Pu    | W. Indies | 1732. C lp              |
| 8674 nodiflora Ph.              | knot-flowered    | □ | □ | un | 1                   | jl.au    | Pu    | America   | 1664. C lp              |
| *1320. PRIVA. P. S.             | PRIVA.           |   |   |    |                     |          |       |           |                         |
| 8675 mexicana P. S.             | Mexican          | □ | □ | pr | 2                   | aus.     | V     | Mexico    | 1726. C lp              |
| Verbena mexicana W.             |                  |   |   |    |                     |          |       |           | Dil. et. t. 302. f. 389 |
| §8676 leptostachya P. S.        | rough            | □ | □ | pr | 2                   | jl.au    | V     | E. Indies | 1799. C lp              |
| Tortula aspera W.               |                  |   |   |    |                     |          |       |           | Rox. cor. 2. t. 146     |
| 1321. SPIELMANNIA. W.           | SPIELMANNIA.     |   |   |    |                     |          |       |           |                         |
| 8677 verbeana W.                | illex-leaved     | □ | □ | or | 3                   | fn       | W     | C. G. H.  | 1710. C r.m             |
| †1322. VERBENA. L.              | VERVAIN.         |   |   |    |                     |          |       |           |                         |
| 8678 bonariensis W.             | cluster-flower'd | □ | □ | or | 6                   | lo       | B     | B. Ayres  | 1732. R co              |
| 8679 hastata W.                 | halberd-leaved   | □ | □ | un | 5                   | in.au    | V     | Canada    | 1710. D co              |
| 8680 paniculata P. S.           | panicked         | □ | □ | un | 3                   | jl.au    | B     | N. Amer.  | 1800. D co              |



History, Use, Propagation, Culture.

A deciduous under shrub with a most agreeable odor of citrons, and of the easiest culture in any soil. In Jersey and Guernsey, it stands the winter in warm situations.

1314. *Lippia*. Named in honor of Augustine Lippi, a French physician, born in Paris of an Italian family. He accompanied the ill-fated embassy of Lenoir Durole to the king of Abyssinia, in the beginning of the eighteenth century, and was assassinated along with the ambassador at Sennaar. His merits entitled him to a more interesting genus than this, which consists of obscure weedy shrubs of South America.

1315. *Melampyrum*. From *melas*, black, and *arvos*, wheat. Its grain resembles a grain of wheat, and gives a singularly black color to bread in which it is mixed. Smooth narrow-leaved weeds, not uncommon in corn fields and copses. *M. pratense* is considered nutritive, and was formerly cultivated by the Dutch and Flemish in the manner of Spurrey.

1316. *Selago*. This has nothing beyond its name in common with the Selago of the ancients; nor is it possible to imagine what induced Linnaeus to apply it to the present plants, which are pretty half-shrubby Cape plants, with beautiful corymbs or spikes of flowers. Hardy greenhouse plants, propagated with facility by cuttings.

1317. *Vitex*. An ancient name applied to some plant of the osier tribe. *V. Agnus Castus* is an autumn shrub, with whorled spikes of blue and white flowers from seven to fifteen inches long. The dried leaves have a powerfully aromatic odor. The seeds, from the time of Dioscorides and Pliny, have been highly celebrated for securing chastity; hence the absurd official name of the shrub, *Agnus castus*; *αγνος*, in Greek, being the same with *castus* in Latin: and hence the Athenian matrons, in the sacred rites of Ceres, used to strew their

8646 Leaves oblong acute serrate rough above pubescent beneath, Heads globose, Bractes obl. lowest longest

8647 Spikes quadrangular, Bractes cordate compact toothletted imbricated  
8648 Spikes conical lax, Bractes toothed setaceous colored, Teeth of calyx rough, Corolla closed  
8649 Flowers axillary 1-sided, Corollas closed, Leaves lanceolate; floral hastate  
8650 Flowers axillary 1-sided, Corollas gaping, All the leaves lanceolate

8651 Leaves linear acute entire reflexed rigid fleshy smooth, Spikes terminal  
8652 Leaves linear smooth, Spikes terminal, Branches diffuse  
8653 Leaves linear serrate toothed subciliated fleshy, Spikes corymbose  
8654 Spikes terminal, Bractes and calyxes keeled rough, Leaves linear smooth reflexed at edge  
8655 Leaves sessile linear lanceolate acute entire smooth, Spikes terminal solitary  
8656 Spikes corymbose, Leaves linear toothletted  
8657 Corymb multiplex, Leaves obovate smooth serrated  
8658 Leaves obovate entire shining, Spikes rounded terminal, Stem shrubby  
8659 Stem diffuse pubescent upwards, Lvs. lanceolate blunt finely serrate smooth, Spikes terminal subsolitary  
8660 Lvs. rounded with a furrow on each side acutish somewhat toothed smooth fleshy, Spikes term. aggregate  
8661 Spikes come-like ovate terminal, Leaves scattered linear, Stem shrubby  
8662 Spikes terminal, Leaves filiform fascicled smooth  
8663 Leaves filiform fascicled smooth, Panicle compound

8664 Leaves simple ovate  
8665 Leaves ternate entire, Panicle whorled, Berry 3-seeded  
8666 Leaves digitate 7 or 5 lanceolate nearly entire, Spikes whorled paniced

8667 Leaves digitate 5, Leaflets cut-pinnatifid, Spikes somewhat whorled  
8668 Leaves digitate 5, Leaflets stalked oblong entire, Panicle dichotomous, Berry 1-seeded  
8669 Leaves quinate and ternate serrate, Flowers in paniced racemes.  
8670 Lvs. ternate and quinate, Leaf. lanc. acum. ent. beneath white with down, Branches of pan. dichotom.  
8671 Leaves ternate and quinate, Leaflets ovate acute entire hoary beneath, Panicle with a straight rachis

8672 Panicle terminal naked elongated

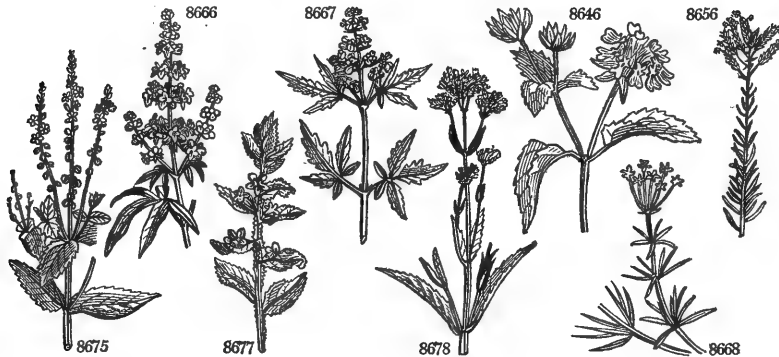
8673 Spikes ovate, Leaves lanceolate serrated plaited, Stem fruticose  
8674 Spikes roundish conical, Leaves cuneiform toothed, Stem creeping

8675 Spikes lax, Cal. of fruit reflexed roundish didymous hispid

8676 Spikes filiform very long, Cal. of fruit reflexed hispid, Tube of corolla spiral

8677 The only species

8678 Spikes fascicled, Leaves oblong lanceolate stem-clasping, Stem very tall trichotomous at end  
8679 Spikes long acuminate, Leaves hastate  
8680 Spikes filiform paniced, Leaves lanceolate coarsely serrated



and Miscellaneous Particulars.

couches with the leaves. Hence also it has had the affected name of Piper eunuchorum and monachorum. The seeds of the chaste-tree are, however, so far from being thought antiaphrodisiac, that writers of later times have ascribed to them an opposite quality; their aromatic pungency seems to favor this opinion, and Bergius states them to be carminative and emmenagogue. (*Woodville.*)

The fruit of *V. trifolia* is reputed in the eastern countries to be warm, discutient, nervine, cephalic, and emmenagogue; and to be of service in paralysis, weakness, and pains of the limbs. It is in great use among the Indian practitioners, both internally and externally. The plant has a bitter taste, and a strong somewhat aromatic smell.

1318. *Cornutia*. So named after Jacques Cornut, a French physician, who travelled into Canada, and published an account of the plants of that country in 1635. *Cornutia pyramidata* is a shrub with square branches, elliptical ovate entire hoary leaves, and naked pyramidal terminal branches of flowers.

1319. *Zapania*. Named by Scopoli, after Paul Anthony Zappa, an Italian botanist.

1320. *Priva*. A genus of small *Verbena*-like herbaceous plants, with little blue flowers. The derivation of the name is unknown.

1321. *Spielmannia*. In honor of James Reinhold Spielmann, professor of medicine and botany at Strasburg, author of *Prodromus Floræ Argentoratensis*; *Pharmacopœia Generalis*, &c. A shrub of easy culture in any light soil, and cuttings root freely under a glass.

1322. *Verbena*. Said by De Theis, to be derived from *ferfaen*, its name in Celtic. A genus of weedy plants,

|                            |                 |      |    |       |       |                       |        |                        |
|----------------------------|-----------------|------|----|-------|-------|-----------------------|--------|------------------------|
| 8681 angustifolia H. K.    | narrow-leaved   | △ un | 3  | jn.au | B     | N. Amer. 1802.        | D co   |                        |
| 8682 caroliniana W.        | Carolina        | △ un | 6  | jn.s  | W     | N. Amer. 1732.        | D co   | Dil. et t. 301. f. 388 |
| 8683 urticifolia W.        | Nettle-leaved   | △ un | 3  | jl.s  | W     | N. Amer. 1683.        | C co   | Rob. ic. 26            |
| 8684 stricta Ph.           | upright         | △ un | 3  | jl.au | B     | N. Amer. 1802.        | D co   | Bot. mag. 1796         |
| 8685 Aubletia W.           | Rose            | △ or | 1  | jn.au | Pu    | N. Amer. 1774.        | S. r.m | Bot. mag. 308          |
| 8686 bracteosa Ph.         | long-bracted    | △ pr | 3  | jl    | Pu    | N. Amer. 1812.        | D co   | Bot. mag. 2910         |
| 8687 Lamberti B. M.        | Lambert's       | △ or | 1  | jl    | Pu    | S. Amer. ....         | D co   | Bot. mag. 2200         |
| 8688 spuria Ph.            | jagged-leaved   | △ un | 2  | jl.au | B     | N. Amer. 1731.        | C p.l  |                        |
| 8689 officinalis W.        | common          | △ un | 2  | jn.s  | Pu    | Britain ro.sid.       | D co   | Eng. bot. 769          |
| 8690 supina W.             | trailing        | △ un | 3  | jn.jl | B     | Spain 1640.           | S co   | Park. the. 675. f. 2   |
| 8691 prostrata H. K.       | prostrate       | △ un | 3  | jn.jl | B     | N. Amer. 1794.        | D co   |                        |
| 1323. AVICENNIA. L.        | AVICENNIA.      |      |    |       |       | Myoporiæ. Sp. 1-3.    |        |                        |
| 8692 tomentosa L.          | downy-leaved    | □ un | 20 | ...   | Pk    | India 1793.           | C lp   | Fl. d'Owar. t. 47      |
| 1324. CALDASIA. W.         | CALDASIA.       |      |    |       |       | Verbenacæ. Sp. 1.     |        |                        |
| 8693 heterophylla W.       | blue            | □ pr | 2  | my.d  | B     | New Spain 1813.       | S co   | Bot. reg. 96           |
| 11325. CLERODENDRUM. B. P. | CLERODENDRUM.   |      |    |       |       | Verbenacæ. Sp. 15-27. |        |                        |
| 8694 frâgrans H. K.        | fragrant        | □ or | 6  | aud   | W     | China 1790.           | R ap   | Vent. malm. 70         |
| β flore pleno              | double-flowered | □ or | 6  | aud   | W     | China 1790.           | R ap   | Bot. mag. 1834         |
| 8695 viscosum H. K.        | clammy          | □ or | 6  | my.au | W     | E. Indies 1796.       | C s.p  | Bot. mag. 1805         |
| 8696 infortunatum P. S.    | long-flowered   | □ or | 6  | ...   | ...   | E. Indies ...         | C lp   |                        |
| 8697 fortunatum W.         | spear-leaved    | □ or | 6  | jl    | W     | E. Indies 1784.       | C lp   | Oeb. it. t. 11         |
| 8698 squamatum H. K.       | scarlet         | □ or | 10 | jn.s  | S     | China 1790.           | R ap   | Bot. reg. 649          |
| 8699 paniculatum W.        | panicked        | □ or | 6  | jl.o  | W     | Java 1809.            | C s.p  | Bot. reg. 406          |
| 8700 trichotomum W.        | three-forked    | □ or | 6  | ...   | ...   | Japan 1800.           | C lp   | Kæm. ic. 22            |
| 8701 tomentosa R. Br.      | downy           | □ or | 5  | mr.ap | W     | N. S. W. 1794.        | S ap   | Bot. mag. 1518         |
| 8702 ligustrinum H. K.     | Privet-leaved   | □ or | 3  | au.n  | W     | Mauritius 1789.       | C p.l  | Jac. co. sup. 45. f. 1 |
| 8703 heterophyllum H. K.   | various-leaved  | □ or | 3  | au.s  | W     | Mauritius 1805.       | C lp   | Bot. rep. 554          |
| 8704 inferna H. K.         | smooth          | □ or | 4  | au.n  | W     | E. Indies 1692.       | C p.l  | Jac. co. sup. 14. f. 1 |
| 8705 Siphonanthus H. K.    | whorl-leaved    | □ or | 6  | ...   | ...   | E. Indies 1796.       | C p.l  | Bur. ind. t. 43. f. 1  |
| 8706 macrophyllum B. M.    | large-leaved    | □ or | 8  | jl    | W. B  | E. Indies 1815.       | C p.l  | Bot. mag. 2536         |
| 8707 phlomoidea L.         | Phlomis-like    | □ or | 4  | aus   | W     | E. Indies 1820.       | C p.l  | Bur. ind. t. 45. f. 1  |
| 8708 costata R. Br.        | ribbed          | □ or | 6  | ...   | ...   | N. Holl. 1823.        | C lp   |                        |
| 1326. VOLKAMERIA. H. K.    | VOLKAMERIA.     |      |    |       |       | Verbenacæ. Sp. 3-5.   |        |                        |
| 8709 aculeata H. K.        | prickly         | □ or | 4  | au.o  | W     | W. Indies 1739.       | C p.l  | Bro. jam. t. 20. f. 2  |
| 8710 buxifolia W. en.      | box-leaved      | □ or | 4  | au    | W     | ..... 1820.           | C p.l  |                        |
| 8711 japonica Thunb.       | Japan           | □ or | 50 | ...   | Pu. w | Japan 1820.           | C p.l  | Vent. mal. 70          |
| 1327. HOLMSKIOLDIA. H. K.  | HOLMSKIOLDIA.   |      |    |       |       | Verbenacæ. Sp. 1.     |        |                        |
| 8712 sanguinea W.          | scarlet         | □ or | 4  | ...   | S     | India 1796.           | C p.l  | Bot. reg. 692          |
| 1328. PETREA. W.           | PETREA.         |      |    |       |       | Verbenacæ. Sp. 1.     |        |                        |
| 8713 vobibilis W.          | climbing        | □ or | 20 | jl.au | Pu    | Vera Cruz 1733.       | C r.m  | Bot. mag. 628          |
| 1329. CITHAREXYLUM. W.     | FIDDLE-WOOD.    |      |    |       |       | Verbenacæ. Sp. 5-9.   |        |                        |
| 8714 cinereum W.           | ash-colored     | □ or | 15 | ...   | W     | W. Indies 1739.       | C p.l  | Jac. amer. t. 118      |
| 8715 caudatum W.           | oval-leaved     | □ or | 20 | ...   | W     | Jamaica 1763.         | C lp   | Jac. ic. 3. t. 501     |
| 8716 villosum W.           | hairy-leaved    | □ or | 10 | ...   | ...   | S. Domin. 1784.       | C p.l  | Jac. ic. 1. t. 118     |
| 8717 pentandrum Vent.      | pentandrous     | □ or | 6  | ...   | ...   | Porto Rico 1815.      | C lp   | Vent. cels. t. 47      |
| 8718 quadrangulare W.      | square-stalked  | □ or | 50 | ...   | W     | Jamaica 1759.         | C p.l  | Jac. vind. l. t. 22    |
| 1330. DURANTA. W.          | DURANTA.        |      |    |       |       | Verbenacæ. Sp. 3-4.   |        |                        |
| 8719 Plumieri W.           | smooth          | □ or | 15 | o     | B     | S. Amer. 1733.        | C p.l  | Bot. reg. 244          |
| 8720 Ellisii W.            | prickly         | □ or | 6  | au    | B     | W. Indies 1739.       | C p.l  | Bot. mag. 1759         |
| 8721 microphylla W. en.    | small-leaved    | □ or | 3  | ...   | B     | ..... 1820.           | C p.l  |                        |



History, Use, Propagation, Culture,

with the exception of *Verbena Aubletia* and *Lamberti*. *V. officinalis* was held sacred among the ancients, and used in making leagnes by ambassadors, sacrificial rites, incantations, &c.; and by the moderns as an amulet, and for medical purposes: it is now, however, entirely out of use.

1323. *Avicennia*. Named after Abu Vali Ibn Tsin, commonly called *Avicennes*, a Persian physician, born in 980, died in 1036. His Rules of Medicine were formerly the text-book of physicians, and have occupied the learning and time of many commentators.

1324. *Caldasia*. Named by Willdenow in compliment to Don Josef Caldas, an eminent botanist, native of Popayan, in New Grenada.

1325. *Clerodendrum*. From *κλῆρος*, accident, and *δένδρον*, a tree, in allusion to the various effects in medicine by its various species. *Clerodendrum fortunatum* is useful, *C. calamitosum* and *infortunatum*, dangerous. The species grow freely in light rich soil, composed of half loam, one-fourth of rotten dung, and one-fourth peat. They require a large pot to flower freely, and cuttings root readily under a hand-glass: the younger the shoots the better. The handsomest species are *C. paniculatum* and *C. squamatum*. (*Bot. Cult.* 41.)

*C. inermis* is hardy enough to live in the open air against a wall, but it must have the protection of a mat in winter.

1326. *Volkameria*. Named after John Christopher Volkamer, a German botanist, who died in 1730. John

- 8681 Spikes filiform, Leaves linear lanceolate subserrate  
 8682 Spikes filiform, Leaves lanceolate serrate bluish subsessile  
 8683 Spikes filiform panicked, Leaves ovate serrate acute stalked  
 8684 Hoary, Spikes cylindrical upright, Leaves ovate serrate subsessile, Stem erect round  
 8685 Spikes solitary stalked, Leaves trifid cut  
 8686 Decumbent hirsute, Leaves cut, Flowers spiked, Bractes linear very long squarrose  
 8687 Spikes lax solitary, Stem hispid decumbent rooting, Leaves oblong cut-toothed entire at end  
 8688 Spikes filiform, Leaves multifid cut, Stems numerous  
 8689 Spikes filiform panicked, Leaves multifid cut, Stem subsolitary  
 8690 Spikes filiform solitary, Leaves bipinnatifid  
 8691 Hirsute, Spikes filiform solitary, Leaves serrate cut, Calyxes twice as long as fruit

8692 Leaves oblong blunt downy beneath

8693 The only species

8694 Leaves subcordate tooth-serrate pubesc. with 2 glands at base, Corymb terminal hemispherical compact

8695 Somewhat downy, Leaves cordate toothed, Cal. large 5-cornered viscid, Segm. of cor. on one side

8696 Leaves subcordate entire, Cor. thrice as long as tube of calyx, Limb bilabiate

8697 Leaves lanceolate quite entire

8698 Leaves cordate obscurely angular, Panicles of branches dichotomous smooth

8699 Leaves 5-lobed toothleted smooth, Panicle brachiate, Axille woolly

8700 Leaves lobed and undivided broad ovate entire, Panicle trichotomous

8701 Leaves elliptical acute entire and calyxes downy, The calyx in fruit thickened colored, Corymbs clustered

8702 Leaves oblong lanceolate entire, Petioles peduncles and calyx hairy

8703 Leaves lanc. or lin. lanc. entire quite smooth, Corymbs axill. and term. Cal. 5-toothed and pedunc. smooth

8704 Leaves ovate entire shining, Petioles peduncles and calyxes smooth

8705 Leaves whorled long lanceolate entire smooth, Corymbs axillary few-flowered, Corollas very long

8706 Leaves broad-ovate acuminate serrate subsessile downy beneath, Cal. 5-toothed, Cor. labiate

8707 Leaves ovate entire toothed and angular, Peduncles axillary about 2-flowered

8708 Leaves ovate blunt downy beneath ribbed rugose, Corymb trichotomous

8709 Leaves oblong acute entire, Spines from the rudiments of petioles

8710 Leaves obovate entire retuse shining, Peduncles axillary about 1-flowered

8711 Unarmed, Leaves cordate ovate acute toothed, Racemes 1-sided

8712 Leaves stalked cordate crenate smooth

8713 Leaves ovate, Flowers thirsoid

8714 Branches round, Leaves oblong acuminate entire, Racemes pendulous, Calyxes toothed

8715 Branches round, Leaves elliptical emarginate blunt entire, Racemes erect, Calyxes somewhat toothed

8716 Branches square, Leaves obovate pubescent beneath somewhat toothed at end, Racemes nodding

8717 Branches bluntly 4-cornered, Leaves ovate obl. toothed upwards pubesc. beneath Fl. bracteate pendulous

8718 Branches square, Leaves ovate acuminate entire, Racemes nodding

8719 Calyxes in fruit twisted, Leaves obovate oblong

8720 Calyxes in fruit erect, Leaves oblong lanceolate acuminate

8721 Spiny, Leaves 9 lines long 3 lines broad subserrate attenuated at each end, Teeth of cal. short subciliated



and Miscellaneous Particulars.

George Volkamer, his brother, born 1616, died in 1693, wrote many academical dissertations, and a Flora of Nuremberg, which was not published till after his death. The species are ornamental plants with the habit of the last genus.

1327. *Holmskioldia*. A Theodore Holmskiold, a Dane, published some obscure works upon Cryptogamous plants. A handsome herbaceous stove plant, remarkable for the large calyxes of a bright red color.

1328. *Petrea*. So called by Houstoun, in honor of Robert James Lord Petre, born in 1710, died in 1742. The famous Peter Collinson, in a letter to Linnæus, speaks of his death as the greatest loss that botany or gardening ever felt in this island. A climbing plant with blue flowers.

1329. *Citharexylum*. From *κίθαρα*, a lyre (hence guitar), and *ξύλον*, wood. This tree produces a wood which in America is very useful for carpenters' work. It is very hard, and has been supposed applicable to making musical instruments, a mistake which arose thus; *C. melanocardium* is called by the French *fiddle*, from its faithfulness or durability in building; the English have corrupted the name to fiddle-wood, as if it were used for making musical instruments, which is a mistake. (Müller.)

Cuttings root in sand under a hand-glass.  
 1330. *Duranta*. After Castor Durantes, physician to Pope Sixtus V., author of Herbarium, 1584, died in 1590. The species grow and flower freely in loam and peat, and cuttings root in sand under a hand-glass.

|                                   |                  |   |    |    |                  |                  |           |           |                      |           |                    |                     |
|-----------------------------------|------------------|---|----|----|------------------|------------------|-----------|-----------|----------------------|-----------|--------------------|---------------------|
| 1331. PEDA'LIIUM. <i>W.</i>       | PEDALIMUM.       |   |    |    | <i>Pedaliac.</i> | Sp. 1.           |           |           |                      |           |                    |                     |
| 8722 Márex <i>W.</i>              | prickly-fruited  | ☐ | cu | 1½ | au.s             | W.pu             | E. Indies | 1778.     | C                    | lp        | Lam. ill. t. 538   |                     |
| 1332. MYOPO'RUM. <i>Forst.</i>    | MYOPORUM.        |   |    |    |                  | <i>Myoporin.</i> | Sp. 8.    |           |                      |           |                    |                     |
| 8723 ellipticum <i>R. Br.</i>     | smooth-leaved    | ■ | □  | or | 2                | ja.mr            | W         | N. S. W.  | 1789.                | C         | lp                 | Bot. rep. 283       |
| 8724 acuminatum <i>R. Br.</i>     | acuminate        | ■ | □  | pr | 3                | ...              | W         | N. S. W.  | 1812.                | C         | lp                 |                     |
| 8725 parvifolium <i>R. Br.</i>    | small-leaved     | ■ | □  | pr | 3                | ja.d             | W         | N. Holl.  | 1803.                | C         | lp                 | Bot. mag. 1693      |
| 8726 tuberculatum <i>R. Br.</i>   | tubercled        | ■ | □  | pr | 3                | ...              | W         | N. Holl.  | 1803.                | C         | lp                 |                     |
| 8727 viscosum <i>R. Br.</i>       | viscid           | ■ | □  | pr | 3                | ...              | W         | N. Holl.  | 1803.                | C         | lp                 |                     |
| 8728 debile <i>R. Br.</i>         | procumbent       | ■ | □  | pr | 1½               | my.au            | W         | N. S. W.  | 1793.                | C         | lp                 | Bot. mag. 1830      |
| 8729 diffusum <i>R. Br.</i>       | diffuse          | ■ | □  | pr | 3                | f.au             | W         | N. Holl.  | ...                  | C         | lp                 |                     |
| 8730 oppositifolium <i>R. Br.</i> | opposite-leaf'd  | ■ | □  | pr | 3                | ja.d             | W         | N. Holl.  | 1803.                | C         | lp                 |                     |
| 1333. STENOCHY'US. <i>R. Br.</i>  | STENOCHILUS.     |   |    |    |                  |                  |           |           | <i>Myoporin.</i>     | Sp. 2-3.  |                    |                     |
| 8731 gláber <i>R. Br.</i>         | smooth-leaved    | ■ | □  | or | 2                | ja.d             | R         | N. Holl.  | 1803.                | C         | sp                 | Bot. mag. 1942      |
| 8732 maculátus <i>Ker</i>         | spotted          | ■ | □  | or | 3                | ap.my            | S         | N. Holl.  | 1820.                | C         | sp                 | Bot. reg. 647       |
| 1334. BON'TIA. <i>R. Br.</i>      | BONTIA.          |   |    |    |                  |                  |           |           | <i>Myoporin.</i>     | Sp. 1.    |                    |                     |
| 8733 daphnoides <i>W.</i>         | Barbadoes        | ■ | □  | or | 6                | ju               | Y.Pu      | W. Indies | 1690.                | C         | p1                 | Dill.elt. t.49.f.57 |
| 1335. OROBAN'CHE. <i>W.</i>       | BROOM-RAPE.      |   |    |    |                  |                  |           |           | <i>Orobanch.</i>     | Sp. 6-20. |                    |                     |
| 8734 májor <i>W.</i>              | greater          | ☞ | △  | w  | 1½               | ju.jl            | Br        | Britain   | unc.pl               | S         | s1                 | Eng. bot. 421       |
| 8735 elátior <i>W.</i>            | taller           | ☞ | △  | cu | 1½               | jl.au            | Y         | Britain   | cl.ov.fl.            | S         | s1                 | Eng. bot. 563       |
| 8736 minor <i>W.</i>              | smaller          | ☞ | △  | cu | ½                | jl.au            | Y.w       | Britain   | cl.ov.fl.            | S         | s1                 | Eng. bot. 422       |
| 8737 róbra <i>E. B.</i>           | red              | ☞ | △  | cu | ½                | ju               | Pu        | Britain   | ir.roc.              | S         | s1                 | Eng. bot. 1786      |
| 8738 cærulea <i>W.</i>            | blue             | ☞ | △  | cu | ½                | jl               | V         | Britain   | seaco.               | S         | s1                 | Eng. bot. 423       |
| 8739 ramósa <i>W.</i>             | branching        | ☞ | △  | cu | 1                | aus              | Br.pu     | Britain   | hemp.fl.             | S         | s1                 | Eng. bot. 184       |
| 1336. CRESCEN'TIA. <i>W.</i>      | CALABASH-TREE.   |   |    |    |                  |                  |           |           | <i>Solan.</i>        | Sp. 2.    |                    |                     |
| 8740 Cujéte <i>W.</i>             | oval-fruited     | ☞ | □  | cu | 10               | ...              | W         | Jamaica   | 1690.                | C         | r.m                | Jac. amer. t. 111   |
| 8741 cucurbitína <i>W.</i>        | round-fruited    | ☞ | □  | cu | 10               | ...              | W         | W. Indies | 1733.                | C         | r.m                | Plum. ic. t. 109    |
| 1337. CASTILLE'JA. <i>Sm.</i>     | CASTILLEJA.      |   |    |    |                  |                  |           |           | <i>Scrophularin.</i> | Sp. 1-10. |                    |                     |
| 8742 sessiliflora <i>Ph.</i>      | sessile-flowered | ☞ | △  | or | 1½               | jl.au            | Pa.Y      | Louisiana | 1811.                | D         | lp                 |                     |
| 1338. HALLE'RIA. <i>W.</i>        | HALLERIA.        |   |    |    |                  |                  |           |           | <i>Scrophularin.</i> | Sp. 1-2.  |                    |                     |
| 8743 lúcida <i>W.</i>             | shining-leaved   | ■ | □  | or | 6                | ju.au            | S         | C. G. H.  | 1752.                | C         | p1                 | Bot. mag. 1744      |
| 1339. LATHRÆ'A. <i>W.</i>         | TOOTHWORT.       |   |    |    |                  |                  |           |           | <i>Orobanch.</i>     | Sp. 1-3.  |                    |                     |
| 8744 squamária <i>W.</i>          | scaly            | ☞ | △  | cu | 1                | ap               | Gr        | Britain   | dry wo.              | D         | co                 | Eng. bot. 50        |
| 1340. RHINANTHUS. <i>W.</i>       | YELLOW-RATTLE.   |   |    |    |                  |                  |           |           | <i>Scrophularin.</i> | Sp. 2-10. |                    |                     |
| 8745 crista-galli <i>W.</i>       | Cock's-comb      | ○ | w  | 1  | ju.au            | Y                | Britain   | mea.pa.   | S                    | co        | Eng. bot. 65       |                     |
| 8746 alectorolophus <i>Poll.</i>  | wattled          | ○ | w  | 1  | ju.au            | Y                | Europe    | 1820.     | S                    | co        |                    |                     |
| 8747 Trixágo <i>L.</i>            | infated          | ○ | pr | 1  | ju.au            | Y                | Europe    | ...       | S                    | co        | Mor.h.3. t.24. f.8 |                     |
| *1341. BART'SIA. <i>W.</i>        | BARTSIA.         |   |    |    |                  |                  |           |           | <i>Scrophularin.</i> | Sp. 5-10. |                    |                     |
| 8748 coccinea <i>W.</i>           | scarlet          | ☞ | △  | or | ½                | jl               | R.Y       | N. Amer.  | 1787.                | D         | s.p                | Pluk.al. t.102.f.5  |
| 8749 pallida <i>W.</i>            | pale-flowered    | ☞ | △  | or | ½                | jn.s             | L.P       | Siberia   | 1782.                | D         | s.p                | Gmel. sib.3. t. 24  |
| 8750 viscosa <i>W.</i>            | yellow           | ○ | or | ½  | jl.au            | Y                | Britain   | mar.      | S                    | m.s       | Eng. bot. 1045     |                     |
| 8751 Odontites <i>H. K.</i>       | red              | ○ | or | ½  | jl.s             | Pk               | Britain   | mea.pa.   | S                    | co        | Eng. bot. 1415     |                     |
| 8752 alpina <i>W.</i>             | Alpine           | ○ | or | ½  | jl.au            | Pu               | Britain   | alp.riv.  | S                    | m.s       | Eng. bot. 361      |                     |



History, Use, Propagation, Culture,

1331. *Pedalium*. Πεδάλιον, a Greek word signifying a nail or point. This plant produces a hard and nut-like fruit with four sharp points or horns.

1332. *Myoporum*. From μύω, to shut up, and πορος, a pore; the spots which cover the leaves being, as it were, pores closed with some semi-transparent substance.

1333. *Stenochilus*. From στενος, narrow, and χυλος, a lip; the narrow lip distinguishing this genus from some of its kindred. Very pretty New Holland small shrubs, with fine red flowers.

1334. *Bontia*. James Bont or Bontius was a Dutch physician, born at Batavia, published in 1658, a natural history of the East Indies, in the manner of Piso. A South American plant, with the appearance of a Daphne. The leaves are alternate, fleshy, and crenated, and the flowers axillary.

1335. *Orobanche*. So called from ορος, a vetch, or other leguminous plant, and ωρχις, to strangle, in allusion to the well known effect of these parasites in destroying the plants upon which they grow. The species are fleshy herbs of a russet color, fastening themselves to the roots of other plants, and chiefly to Leguminosæ. The root is tuberous, imbricate with scales, and sends out fibres into the soil; the stem is without leaves, scaly, and generally simple: the flowers are in terminating spikes. The whole plant is acid and astringent, and rejected by all animals, excepting the minute tribes of Cimices and Thripsos.

O. major adheres to the root of broom, furze, and clover, and is particularly destructive to the latter, especially in Flanders, where in some places it deters the farmer altogether from the culture of clover. It has a large, thick, fleshy, oval, scaly root, sometimes bulbous, and sending out fibres which are very brittle. The bulb adheres to the woody roots of furze or broom, and the fleshy root of clover, and the fibres clasp round them.

O. elatior is commonly found adhering to the roots of *Centaurea scabiosa* and *Trifolium pratense*. It does

8722 Leaves truncate, Flowers with a strong smell of musk

8723 Leaves elliptical bluntish mucronate and branches smooth, Sepals lanc. very acute, Orifice of cor. villous  
 8724 Leaves broadish lanc. acumin. very acute and branches smooth, Sepals ovate lanc. Limb of cor. bearded  
 8725 Lva. lin. bluntish sometimes toothed at end with the branches glandular, Peduncles occasionally 2-parted  
 8726 Leaves lanceolate acute serrated and branches warted with glands  
 8727 Leaves elliptical acute serrated reflexed and branches viscid with glands  
 8728 Leaves lanc. toothed at end entire at base, Drupes compressed shorter than calyx, Stem prostrate  
 8729 Leaves lanceolate at base with recurved teeth, Stems diffuse glandular, Peduncles solitary  
 8730 Leaves serrate cordate sessile

8731 Leaves lanceolate or elliptical entire sometimes toothed at end, Branches downy, Stem diffuse  
 8732 Stem silky, Leaves spatulate lanceolate much shorter than flower, Stamens a little protruded

8733 Leaves alternate, Peduncles 1-flowered

8734 Stem simple, Cor. 4-fid infat. Stam. naked downw. Stigma 2-lobed, Lobes distant, Style pubesc. upwards  
 8735 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma obcordate, Style smooth upwards  
 8736 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma retuse, Style smooth upwards  
 8737 Stem simple, Corolla tubular, Segm. of lip blunt equal, Stamens fringed on one side at base  
 8738 Stem nearly simple, Cor. 5-fid, Bractes 3, Calyx tubular half 4-cleft  
 8739 Stem branched, Cor. 5-fid, Bractes 3, Calyx short deeply half 4-cleft

8740 Leaves cuneate lanceolate close together  
 8741 Leaves ovate subcoriaceous separate, Fruit ovate acuminate

8742 Leaves at end palmate-cut, Flowers sessile

8743 Leaves ovate acuminate serrate, Corollas 2-lipped, Calyx 3-leaved, Stamens exserted

8744 Stem quite simple, Corollas pendulous with the lower lip trifid

8745 Upper lip of corolla emarginate 2-toothed, Middle segment of lower lip very short  
 8746 Upper lip of corolla compressed shorter, Calyxes villous  
 8747 Lower lip of cor. longer than upper, Middle segm. blunt longer than lateral, Cal. vill. Lva. deeply toothed

8748 Leaves alternate linear 2-toothed on each side  
 8749 Leaves alternate lanceolate entire, Floral oval toothed  
 8750 Upper leaves alternate serrated, Flowers distant lateral  
 8751 Leaves linear lanceolate serrated, Segm. of lower lip of corolla blunt  
 8752 Leaves opposite cordate bluntly serrated



and Miscellaneous Particulars.

not appear among clover till the second year. On the borders of corn-fields it is found on *Centaurea scabiosa* and *nigra*, *Scabiosa arvensis*, &c.

*O. minor* also adheres to common red clover and to *Hypocheris radicata*. *O. ramosa* is found on *Galeopsis tetrahit*. Any of the species may be removed to the garden and planted by the whin or broom.

1336. *Crescentia*. In memory of Pietro Crescenti, of Bologna, author of various agricultural works in the thirteenth century. The fruits after the inside has been scooped out, are dried by the natives of the countries where they grow, and serve for containing water or other fluids.

1337. *Castilleja*. Named after one Castillejo, a Spanish botanist and friend of Mutis. Some of the species of this genus which have not yet been introduced, are very beautiful plants, and would amply repay a collector for his trouble in procuring them.

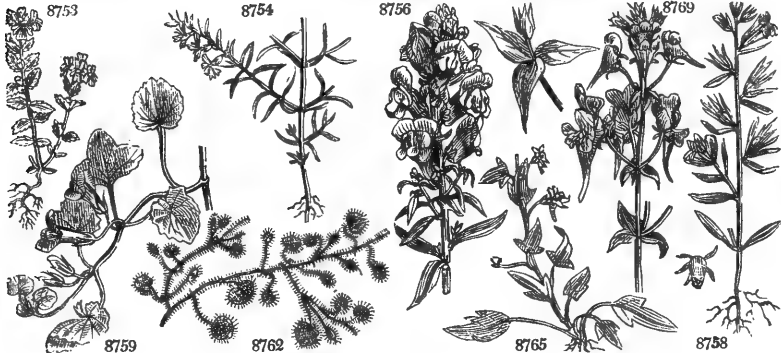
1338. *Halleria*. After the famous Albert Haller, author of *Stirpes Helveticæ*, and other considerable works on botany and medicine. A pretty stove plant, with long branches of red flowers. Surely so eminent an investigator of alpine vegetation as Haller was, should have had an alpine genus consecrated to him.

1339. *Lathræa*. *ÆSquios*, concealed. The plant is only found in the most hidden recesses of the grove. A curious humble parasite without leaves, in the room of which it is covered with abundance of white fleshy scales.

1340. *Rhinanthus*. From *ῥίς*, a nose, and *ἄνθος*, a flower; because of its ringent corolla compressed, at the upper lip so as to resemble the snout of some animal.

1341. *Berula*. Named by Linnaeus, in honor of his beloved friend John Batsch, M. D., of whom he gives an interesting and melancholy account in his *Flora Suecica*. Curious herbaceous plants of very difficult cultivation.

|                           |                   |         |          |      |                             |           |       |                       |
|---------------------------|-------------------|---------|----------|------|-----------------------------|-----------|-------|-----------------------|
| 1342. EUPHRA'SIA W.       | ETE-BRIGHT.       |         |          |      | Scrophularineae. Sp. 3-12.  |           |       |                       |
| 8753 officinalis W.       | common            | ○ w     | ½ jls    | W    | Britain                     | past.     | S co  | Eng. bot. 1416        |
| 8754 áltea W.             | yellow            | ○ or    | 1½ jls   | Y    | S. Europe                   | 1816.     | S co  | Jac. aust. t. 398     |
| 8755 latifolia L.         | broad-leaved      | ○ or    | 1 jls    | Pu   | S. Europe                   | ...       | S co  |                       |
| 11343. ANTIRRHINUM.       | J. SNAP-DRAGON.   |         |          |      | Scrophularineae. Sp. 5-9.   |           |       |                       |
| 8756 majus W.             | great             | △ or    | 3 jn.au  | Pk   | England                     | old w.    | S co  | Eng. bot. 129         |
| β coccineum               | scarlet-flower'd  | △ or    | 3 jn.au  | S    | England                     | old w.    | S co  |                       |
| γ bicolor                 | two-colored       | △ or    | 3 jn.au  | S.w  | England                     | old w.    | S co  |                       |
| δ flore pleno             | double-flowered   | △ or    | 2 jn.au  | F    | England                     | old w.    | C co  |                       |
| 8757 steculum W.          | Sicilian          | △ or    | 1½ jlau  | W    | Sicily                      | 1804.     | D lp  |                       |
| 8758 ornatum W.           | lesser            | ○ or    | 1 jls    | F    | Britain                     | san.fi.   | S lp  | Eng. bot. 1155        |
| 8759 Asarina W.           | heart-leaved      | 2. △ or | ½ jl     | W    | Italy                       | 1699.     | S r.m | Bot. mag. 902         |
| 8760 mollé L.             | soft-leaved       | 2. △ or | ½ jlo    | W    | Spain                       | 1752.     | C a.l |                       |
| 1344. LINARIA. J.         | TOAD-FLAX.        |         |          |      | Scrophularineae. Sp. 37-75. |           |       |                       |
| 8761 Cymbalaria H. K.     | Ivy-leaved        | 2. △ or | ½ my.n   | V    | England                     | old w.    | D a.l | Eng. bot. 502         |
| 8762 pilósa H. K.         | hairy-leaved      | 2. △ or | ½ jn.s   | Pu   | Pyrenees                    | 1800.     | D a.l | Jac. obs. 2. t. 48    |
| 8763 Elatine H. K.        | sharp-pointed     | 2. △ or | ½ jln    | Y    | England                     | corn fl.  | S co  | Bot. mag. 692         |
| 8764 spúria H. K.         | round-leaved      | 2. △ or | ½ jls    | Y    | England                     | corn fl.  | S co  | Eng. bot. 691         |
| 8765 cirrhósa H. K.       | tendrilled        | 2. △ or | ½ jl     | Pa.B | Egypt                       | 1771.     | S co  | Jac. vind. 1. t. 82   |
| 8766 ægyptiaca H. K.      | Egyptian          | ○ or    | 1½ jl    | Y.Pu | Egypt                       | 1771.     | S co  |                       |
| 8767 triphýlla H. K.      | three-leaved      | ○ or    | 1 jn.s   | Y.Pu | Sicily                      | 1596.     | S a.l | Bot. mag. 394         |
| 8768 latifolia H. K.      | broad-leaved      | ○ or    | 1 jn.jl  | Y    | N. Amer.                    | 1800.     | S co  | Desf. atl. 2. t. 134  |
| 8769 triornithophora H.K. | three-bird        | △ or    | ½ jn.s   | Pu   | Portugal                    | 1710.     | C a.p | Bot. mag. 525         |
| 8770 bipartita P. S.      | two-parted        | △ or    | ½ jn.s   | Pu   | Barbary                     | 1815.     | D lp  | Sweet fl. gard. 30    |
| 8771 purpúrea H. K.       | purple            | ○ or    | ½ jls    | Pu   | S. Europe                   | 1648.     | S co  | Bot. mag. 93          |
| 8772 versicolor H. K.     | various-colored   | ○ or    | 1 jls    | P.Y  | France                      | 1777.     | D a.l | Jac. ic. 1. t. 116    |
| 8773 répens H. K.         | creeping-rooted   | △ or    | ½ jlo    | G    | England                     | ch. hill. | S co  | Eng. bot. 1253        |
| 8774 Spártea H. K.        | branching         | ○ or    | 1 jn.o   | Y    | Spain                       | 1772.     | S a.l | Bot. mag. 200         |
| 8775 bipunctata H. K.     | two-spotted       | ○ or    | 1 jn.au  | Y    | Spain                       | 1749.     | S co  |                       |
| 8776 Hæláva W.            | hairy-calyxed     | ○ or    | 1 jl     | Pu   | Egypt                       | 1803.     | D co  |                       |
| 8777 tristis H. K.        | brown             | △ or    | 1 jlau   | Br   | Spain                       | 1727.     | S a.l | Bot. mag. 74          |
| 8778 supina H. K.         | trailing          | △ or    | ½ jl     | Y    | Spain                       | 1728.     | S a.l |                       |
| 8779 simplex P. S.        | upright           | ○ or    | 1 jlau   | P.B  | S. Europe                   | 1816.     | S a.l | Jac. ic. 3. t. 499    |
| 8780 arvensis P. S.       | corn              | ○ or    | 1 jlau   | P.B  | S. Europe                   | ...       | S co  |                       |
| 8781 Pelisseriana H. K.   | violet-colored    | ○ or    | 1 jn.s   | V    | S. Europe                   | 1640.     | S a.l | Barrel. ic. 1162      |
| 8782 viscosa H. K.        | clammy            | ○ or    | 1 jl     | Br   | Spain                       | 1786.     | S a.l | Bot. mag. 368         |
| 8783 multicaulis H. K.    | many-stalked      | ○ or    | 1½ my.jl | Pu   | Levant                      | 1728.     | S a.l | Boc. sic. t. 19. f. 1 |
| 8784 reticulata H. K.     | net-flowered      | △ or    | 1½ my.jl | Pu   | Algiers                     | 1788.     | D lp  | Smith ic. pict. 2     |
| 8785 glauca H. K.         | glaucous-leaf'd   | ○ or    | 1 jn.au  | Pu.y | S. Europe                   | 1800.     | S co  | Buxb.cen. 4. t. 37    |
| 8786 alpina H. K.         | Alpine            | △ or    | 1 jln    | Pu.  | Austria                     | 1570.     | C a.l | Bot. mag. 235         |
| 8787 villósa H. K.        | villous           | △ or    | 1 jlau   | B    | Spain                       | 1786.     | D lp  | Barrel. ic. 597       |
| 8788 origanifolia H. K.   | Marjoram-ld.      | △ or    | 1 jn.s   | B    | S. Europe                   | 1785.     | D lp  | Barrel. ic. 598       |
| 8789 minor H. K.          | least erect       | △ or    | ½ jn.n   | V    | England                     | san.fi.   | S a.l | Eng. bot. 2014        |
| 8790 dalmatica H. K.      | Dalmatian         | cu      | 1 jn.jl  | Y    | Levant                      | 1731.     | S a.l | Buxb.cen. 1. t. 24    |
| 8791 hirta H. K.          | shaggy-leaved     | ○ or    | 1 jn.s   | Pu   | Spain                       | 1759.     | S co  | Jac. ic. 1. t. 117    |
| 8792 macroúra Bieb.       | long-horned       | △ or    | 1 jn.s   |      | Crimea                      | 1822.     | D co  |                       |
| 8793 genistifolia H. K.   | Broom-leaved      | △ or    | 2 jlau   | Y    | Austria                     | 1704.     | D co  | Bot. mag. 2183        |
| 8794 jóncea H. K.         | Rush-stalked      | △ or    | 1½ jlau  | Y.Br | Spain                       | 1780.     | S co  |                       |
| 8795 vulgáris H. K.       | yellow            | △ w     | 1 jn.s   | Y    | Britain                     | hed.      | D co  | Eng. bot. 658         |
| β Pelória                 | regular-flower'd  | △ cu    | 1 jn.s   | Y    | Britain                     | ...       | D co  | Eng. bot. 260         |
| 8796 canadensis P. S.     | Canada            | ○ or    | 1 jn.au  | V    | N. Amer.                    | 1812.     | S co  | Vent. cel. 49         |
| 8797 chalcopensis H. K.   | white-flowered    | ○ or    | 1 jn.jl  | W    | Levant                      | 1680.     | S co  | Mor. a.5. t. 35. f. 9 |
| 1345. ANARRHINUM.         | Deaf. ANARRHINUM. |         |          |      | Scrophularineae. Sp. 1-6.   |           |       |                       |
| 8798 bellidifolium W.     | Daisy-leaved      | △ or    | 1½ jn.au | B    | France                      | 1629.     | S a.l | Bauh.prod.t.106       |
| 11346. NEMESIA. Vent.     | NEMESIA.          |         |          |      | Scrophularineae. Sp. 3-5.   |           |       |                       |
| 8799 chamædrifolia V.     | Chamædry-s.lv.    | △ or    | 2 aps    | Pu   | C. G. H.                    | 1787.     | D co  |                       |
| 8800 foetens V.           | fetid             | △ or    | 2 aps    | Pu   | C. G. H.                    | 1798.     | D co  | Vent.malm. t. 41      |
| 8801 bicorne P. S.        | horned            | △ or    | 2 jlau   | Pu   | C. G. H.                    | 1774.     | S a.l | Bur. afr. t. 75. f. 3 |



History, Use, Propagation, Culture.

1342. *Euphrasia*. An abridgment of *Euphrosine*, the name of a woman, expressing joy or pleasure. This has been so called from the joyful effects of *E. officinalis* in disorders of the eyes, but it is now thought to be injurious rather than otherwise. Lightfoot states, that the Scotch Highlanders make an infusion of it in milk, and anoint the patient's eyes with a feather dipped in it.

1343. *Antirrhinum*. From *anti*, similar, and *rho*, a nose, because the flowers of most of the species bear a perfect resemblance to the snout of some animal. *A. majus* and its varieties are popular border flowers of the easiest culture in any dry soil; the other species are also pretty little plants.

1344. *Linaria*. The plant out of flower is very similar to *Linum*, Flax. The species are for the most part pretty annual plants; and some of them, as *L. Cymbalaria*, well adapted for growing in pots or for rock-work.

- 8753 Leaves ovate bluntly toothed, Segm. of lower lip of corolla emarginate  
 8754 Leaves linear serrated: upper entire, Lateral segments of lower lip of corolla toothletted  
 8755 Leaves ovate toothed palmate, Flowers spiked, Cor. tubular, Segm. of lower lip blunt  
 8756 Leaves lanceolate opposite, Flowers racemose, Sepals glandular hairy ovate blunt

- 8757 Leaves linear lanceolate ternate, Flowers racemose, Sepals glandular hairy lanceolate acute  
 8758 Leaves lanceolate: upper alternate, Flowers subsessile, Calyxes longer than corolla  
 8759 Leaves opposite cordate unequally crenate somewhat lobed hairy, Stems procumbent  
 8760 Leaves opposite ovate downy, Stems procumbent

- 8761 Leaves cordate 5-lobed alternate smooth, Stems procumbent  
 8762 Small, Leaves reniform repand very hairy alternate, Stems procumbent  
 8763 Leaves hastate alternate, Stems procumbent  
 8764 Leaves hairy alternate roundish ovate, lower obsolete toothed: upper subsessile entire, Stem procumb.  
 8765 Leaves hastate alternate, Stems spreading, Petioles occasionally producing tendrils  
 8766 Leaves hastate alternate, Stem erect much branched, Peduncles stiff  
 8767 Leaves ternate ovate blunt 3-nerved rough at edge, Spike terminal, Flowers stalked  
 8768 Leaves ternate ovate lanceolate 3-nerved, Spike terminal, Flowers sessile  
 8769 Lvs. whorled lanc. 3-nerved, Stems decumbent, Raceme terminal few-flowered, Cor. very large stalked  
 8770 Leaves linear lanceolate: lower opposite; upper alternate, Racemes lax, Helmet erect 2-parted  
 8771 Leaves 4 linear lanceolate, Flower-stem erect spiked  
 8772 Leaves linear lanceolate: lower ternate, Stem erect spiked  
 8773 Root creeping, Leaves linear close: lower 4, Calyx as long as capsule  
 8774 Leaves subulate channelled fleshy: lower 3, Stem paniced and corolla quite smooth  
 8775 Leaves linear smooth: lower 4, Stem erect paniced, Flowers in capitate spikes  
 8776 Leaves linear lanceolate: lower about 4 smooth, Flowers capitate, Calyxes hairy, Stem nearly simple  
 8777 Leaves linear scattered: lower opposite, Spur subulate, Flowers subsessile  
 8778 Leaves about 4 linear, Stem diffuse, Flowers racemose, Spur straight  
 8779 Leaves nearly linear: lower in fours, Calyxes pilose viscid, Fl. racemose, Spur straight, Stem erect  
 8780 Leaves nearly linear: lower in fours, Calyxes pilose viscid, Fl. racemose, Spur recurved, Stem erect  
 8781 Cauline leaves linear alternate: radical ovate lanceolate 3-5, Flowers corymbose  
 8782 Cauline leaves linear alternate: radical lanceolate 4, Cal. villous close to stem  
 8783 Leaves 5 linear fleshy, Flowers capitate  
 8784 Leaves linear channelled scattered upon the rootshoots in 5s, Calyx hairy, Pedunc. shorter than bractes  
 8785 Leaves 4 subulate fleshy, Stems erect, Flowers spiked  
 8786 Leaves 4 linear lanceolate glaucous, Stem diffuse, Flowers racemose, Spur straight  
 8787 Leaves all opposite villous, Stem simple, Flowers opposite lateral  
 8788 Leaves obovate opposite: floral alternate, Stem ascending pubescent, Spur straight  
 8789 Leaves mostly alternate lanceolate blunt, Stem much branched diffuse  
 8790 Leaves somewhat stem-clasping lanceolate scattered, Bractes longer than calyx, Stem  $\frac{1}{2}$  shrubby  
 8791 Leaves lanceolate hairy alternate, Flowers spiked: upper sepal very large  
 8792 Leaves alternate linear-subulate somewhat fleshy, Stem erect simple, Spike term. stalked  
 8793 Leaves lanceolate acuminate, Panicle twiggy flexuose  
 8794 Leaves linear alternate, Stem paniced twiggy, Flowers racemose  
 8795 Leaves lanceolate linear close, Stem erect, Spikes terminal sessile, Flowers imbricated  
 8796 Leaves alternate linear remote smooth, Flowers racemose, Stem simple, Runners procumbent  
 8797 Leaves linear lanceolate alternate, Flowers racemose, Cal. longer than cor. Stem erect

8798 Very smooth, Radical leaves obovate lanceolate blunt serrate: cauline divided entire

- 8799 Leaves ovate serrated stalked, Peduncles axillary 1-flowered  
 8800 Leaves 4 linear lanceolate acute about 3-nerved smooth, Flowers racemose terminal with bractes  
 8801 Leaves oblong serrated, Stem erect herbaceous, Capsules 2-horned spreading



and Miscellaneous Particulars.

*L. triphylla* is a popular border annual. *L. triornithophora* is remarkable for the form of its flowers, which resemble three little birds seated in the spur.

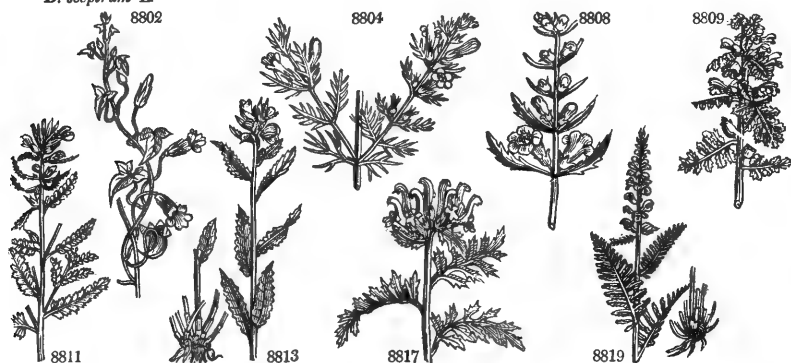
*L. vulgaris* is a very shewy plant, but also a bad weed in sandy pastures.

1345. *Anarrhinum*. Named by Desfontaines, from  $\alpha$ , privative, and  $\rho\upsilon$ , nose, in contradistinction to *Antirrhinum*, because the plants of this genus have not the snout-like flowers of the latter. Plants resembling *Linaria* in habit.

1346. *Nemesia*. A name used by Dioscorides to designate a kind of *Antirrhinum*, to which genus this is nearly related.



|   |     |       |     |          |                                   |            |                |                                 |
|---|-----|-------|-----|----------|-----------------------------------|------------|----------------|---------------------------------|
| †1347. MAURANDYA. <i>W.</i> MAURANDYA.            |     |       |     |          | <i>Scrophularineæ. Sp. 2.</i>     |            |                |                                 |
| 8809 semperflorens <i>W.</i> red-flowered         | ☐   | or    | 10  | ja.d     | Pu                                | Mexico     | 1716           | C lp Bot. mag. 460              |
| 8803 antirrhiniiflora <i>W.</i> en. blue-flowered | ☐   | or    | 10  | ja.d     | Pu                                | Mexico     | 1894           | C lp Bot. mag. 1643             |
| †1348. GERARDIA. <i>W.</i> GERARDIA.              |     |       |     |          | <i>Scrophularineæ. Sp. 5—16.</i>  |            |                |                                 |
| 8804 delphinifolia <i>W.</i> Larkspur-leav'd      | ☐   | or    | 2   | jn.jl    | Pk                                | E. Indies  | 1800.          | C lp Rox. cor. l. t. 90         |
| 8805 purporea <i>Ph.</i> purple                   | 1/2 | jl.au | Pu  | N. Amer. | 1772.                             | S s.l      | Bot. mag. 2048 |                                 |
| 8806 tenuifolia <i>Ph.</i> slender-leaved         | ○   | or    | 1   | jl.au    | Pu                                | N. Amer.   | 1812.          | S s.l Pluk. al. t. 12. f. 4     |
| 8807 flavia <i>Ph.</i> yellow                     | △   | or    | 1/2 | jl.au    | Y                                 | N. Amer.   | 1796.          | C lp Plu. am. t. 389. f. 1      |
| 8808 quercifolia <i>Ph.</i> Oak-leaved            | △   | or    | 4   | jl.au    | Y                                 | N. Amer.   | 1812.          | C lp Pursh. amer. t. 19         |
| 1349. PEDICULARIS. <i>W.</i> LOUSEWORT.           |     |       |     |          | <i>Scrophularineæ. Sp. 16—40.</i> |            |                |                                 |
| 8800 palæstria <i>W.</i> marsh                    | △   | pr    | 2   | jn.jl    | Pu                                | Britain    | bog.m.         | D co Eng. bot. 399              |
| 8810 sylvatica <i>W.</i> common                   | △   | pr    | 1   | my.jl    | Pk                                | Britain    | m.hea.         | D co Eng. bot. 400              |
| 8811 euphrasioides <i>W.</i> Eyebright-lvd.       | △   | pr    | 1/2 | jl.au    | Pu                                | Siberia    | 1816.          | S p.l Gmel. sib. 3. t. 43       |
| 8812 myriophylla <i>W.</i> Milfoil-leaved         | △   | pr    | 1   | my.jl    | Y                                 | Dauria     | 1816.          | S p.l Pa. it. 3. ap. t. 8. f. 1 |
| 8813 resupinata <i>W.</i> resupinate              | △   | pr    | 1   | my.jl    | Pu                                | Siberia    | 1816.          | S p.l Gmel. sib. 3. t. 44       |
| 8814 Scæptrum Carolinum <i>W.</i> sceptred        | △   | spl   | 5   | au       | Y                                 | Sweden     | 1793.          | S p.l Flor. dan. t. 26          |
| 8815 recutita <i>W.</i> jagged-leaved             | △   | pr    | 1/2 | jl.au    | Pu                                | Austria    | 1787.          | S p.l Jac. aust. 3. t. 258      |
| 8816 foliosa <i>W.</i> leafy                      | △   | pr    | 1   | jl       | Y                                 | Austria    | 1786.          | S p.l Jac. aust. 2. t. 139      |
| 8817 canadensis <i>W.</i> Canadian                | △   | pr    | 1/2 | jl.au    | Y                                 | N. Amer.   | 1800.          | S p.l Sweet fl. gard. 67        |
| 8818 incarnata <i>W.</i> flesh-colored            | △   | pr    | 1/2 | jn.jl    | Pk                                | Austria    | 1796.          | S p.l Jac. aust. 3. t. 140      |
| 8819 uncinata <i>W.</i> hooked-flower.            | △   | pr    | 1   | jl.au    | Y                                 | Siberia    | 1815.          | S p.l Gmel. sib. 3. t. 45       |
| 8820 verticillata <i>W.</i> whorled               | △   | pr    | 1   | my.jn    | Y                                 | Austria    | 1799.          | S p.l Jac. aust. 3. t. 206      |
| 8821 flamma <i>W.</i> upright                     | △   | pr    | 1   | jl       | Y.s                               | Switzerl.  | 1775.          | S p.l Hall. helv. t. 8. f. 3    |
| 8822 tuberosa <i>W.</i> tuberous                  | △   | pr    | 1   | jl.au    | Y                                 | Switzerl.  | 1799.          | S p.l H. hel. n. 323. t. 10     |
| 8823 compacta <i>W.</i> close-headed              | △   | pr    | 1   | jl.au    | Y                                 | Siberia    | 1815.          | S p.l                           |
| 8824 comosa <i>W.</i> spiked                      | △   | pr    | 1   | jl.au    | Y                                 | Italy      | 1715.          | S p.l All. ped. l. t. 4. f. 1   |
| *1350. ERIANUS. <i>W.</i> ERINUS.                 |     |       |     |          | <i>Scrophularineæ. Sp. 4—12.</i>  |            |                |                                 |
| 8825 alpinus <i>P. S.</i> smooth-leaved           | △   | or    | 1/2 | mr.ap    | B                                 | Pyrenees   | 1739.          | C s.l Bot. cab. 969             |
| 8826 hispanicus <i>P. S.</i> hairy-leaved         | △   | or    | 1/2 | mr.ap    | R                                 | Spain      | 1739.          | D s.l                           |
| §8827 fragrans <i>W.</i> fragrant                 | △   | or    | 1/2 | my.jn    | Y                                 | C. G. H.   | 1776.          | C s.l Bur. afr. t. 49. f. 4     |
| §8828 Lychnidea <i>Thunb.</i> pale                | △   | or    | 1/2 | my.jn    | Y                                 | C. G. H.   | ...            | C s.l Bot. reg. 748             |
| †1351. MYMULUS. <i>W.</i> MONKEY-FLOWER.          |     |       |     |          | <i>Scrophularineæ. Sp. 5—12.</i>  |            |                |                                 |
| 8829 ringens <i>W.</i> gaping                     | △   | or    | 1   | jl.au    | L.P                               | N. Amer.   | 1759.          | C p.l Bot. mag. 283             |
| 8830 glutinosus <i>W.</i> Orange-flower.          | ☐   | or    | 1/2 | ja.d     | Or                                | California | 1794.          | C r.m Bot. mag. 354             |
| 8831 parviflorus <i>Lindl.</i> small-flowered     | ○   | or    | 1/2 | ja.d     | Y                                 | Chili      | 1824.          | S co Bot. reg. 874              |
| 8832 alatus <i>W.</i> oval-leaved                 | △   | or    | 1   | jl.au    | L.P                               | N. Amer.   | 1783.          | D p.l Bot. cab. 410             |
| 8833 luteus <i>W.</i> yellow-flowered             | △   | or    | 2   | jn.s     | Y                                 | America    | 1812.          | D p.l Bot. mag. 1501            |
| 1352. HORNEMANNIA. <i>W. en.</i> HORNEMANNIA.     |     |       |     |          | <i>Scrophularineæ. Sp. 1—2.</i>   |            |                |                                 |
| 8834 bicolor <i>W. en.</i> two-colored            | ☐   | pr    | 1/2 | jn.s     | B                                 | E. Indies  | 1816.          | S s.l Rox. 2. t. 155            |
| †1353. MAZUS. <i>Lour.</i> MAZUS.                 |     |       |     |          | <i>Scrophularineæ. Sp. 1.</i>     |            |                |                                 |
| 8835 rugosus <i>H. K.</i> China                   | ☐   | pr    | 1/2 | my.s     | Y.Pu                              | China      | 1780.          | S s.l Sweet fl. gard. 36        |
| 1354. ISOPLEXIS. <i>Lindl.</i> ISOPLEXIS.         |     |       |     |          | <i>Scrophularineæ. Sp. 2.</i>     |            |                |                                 |
| 8836 canariensis <i>Lindl.</i> Canary             | ☐   | or    | 4   | jn.jl    | Br.o                              | Canaries   | 1698.          | S p.l Lind. dig. 27             |
| <i>D. canariensis L.</i>                          |     |       |     |          |                                   |            |                |                                 |
| 8837 scæptrum <i>Lindl.</i> Madeira               | ☐   | or    | 4   | jl.au    | Br.o                              | Madeira    | 1777.          | S p.l Lind. dig. 28             |
| <i>D. scæptrum L.</i>                             |     |       |     |          |                                   |            |                |                                 |



History, Use, Propagation, Culture.

1347. *Maurandya*. Named in honor of the lady of Dr. Maurandy, the botanical professor at Carthage. An elegant greenhouse plant, native of Mexico, and flowering for months together in the summer.

1348. *Gerardia*. In honor of John Gerard, our old English botanist, author of the *Herbal*, 1597, folio, and a great cultivator of exotic plants, of which he published a catalogue in 1596. These are handsome North American herbaceous plants, of such very difficult culture, that few persons have seen them in gardens. They deserve any pains which may be necessary to their successful cultivation.

1349. *Pedicularis*; of which the English word *lousewort* is a translation and explanation. The term lousewort is applied from a supposition that sheep which feed much on the plant become lousy; probably because the plants grow in very bad pastures, which may occasion the sheep to be in bad condition and to breed vermin. The species have their leaves very much cut, and that in a very regular manner. Their flowers are red, white, or yellow, and the mixture or shades of these three colors sometimes give the corolla the colour of fire. They grow in general at a considerable elevation; namely, more than a thousand toises above the level of the sea.

*P. scæptrum Carolinum* was so named by Rudbeck, in honor of Charles XII. It abounds in the north of Sweden and Lapland, where it was greatly admired by the traveller Dr. Clarke, who sent seeds of it to the Cambridge botanic garden, but they never came to any thing. The flowers grow in long whorled spikes, and

8802 Orifice of corolla perivious  
8803 Orifice of corolla closed

8804 Leaves linear pinnatifid, Stem somewhat branching  
8805 Stem oppositely much branched, Leaves linear, Flowers axillary opposite subsessile  
8806 Branches panicled, Leaves linear, Peduncles axillary opposite longer than flower  
8807 Pubescent, Stems nearly simple, Leaves subsessile lanceolate entire or toothed : lower pinnatifid cut  
8808 Smooth, Stem panicled, Leaves stalked pinnatifid, Flowers axillary opposite stalked

8809 Stem branched, Lvs. pinnat. Pinnæ pinnatif. cut, Cal. inflated ovate 2-parted crest. Helmet blunt truncate  
8810 Low tufted, Stem branch. at base, Lvs. pinnat. Pinnæ acute. cut, Cal. obl. inf. smooth uneq. 5-cleft crested  
8811 Stem branched, Leaves pinnatifid toothed, Cal. tubular 2-parted truncate, Helmet 2-toothed  
8812 Stem somewhat branched, Leaves pinnated, Pinnæ in 4s acutely pinnatifid, Helmet acute 2-toothed  
8813 Stem nearly simple, Leaves lanc. toothed crenate, Cal. 2-fid truncate, Helmet acute  
8814 Stem simple, Leaves pinnatifid, Pinnæ repand crenulate, Cal. 5-fid crested, Cor. closed  
8815 Stem simple, Lvs. deeply pinnatifid, Pinnæ lanc. pinnatifid toothed, Spike compact leafy  
8816 Stem simple, Cauline leaves deeply pinnatifid, Pinnæ lanc. acuminate pinnatifid toothed, Spike leafy  
8817 Stem simple, Spike somewhat leafy, Helmet setaceous 2-toothed, Cal. truncate downwards  
8818 Stem simple, Leaves deeply pinnatifid, Pinnæ unequally toothed linear-lanc. Calyxes villous 5-cleft  
8819 Stem simple, Cauline lvs. deeply pinnatifid, Pinnæ lin. lanc. doubly toothed, Cal. round smooth 5-toothed  
8820 Stem simple, Cauline leaves pinnatifid in fours, Pinnæ oblong blunt toothed, Spike capitate, Cal. hairy  
8821 Stem simple, Lvs. pinnated, Pinnæ imbricated ovate blunt doubly toothed, Cal. 5-toothed, Helmet blunt  
8822 Stem simple, Lvs. pinnated, Pinnæ deeply pinnatifid tooth. Cal. 5-fid smooth. crested, Helmet uncinatè  
8823 Stem simple, Lvs. pinn. Pinnæ lanc. pinnatifid confluent at end, Spike capitate naked [acum. emargi.  
8824 Stem simple, Lvs. pinnate, Pinnæ pinnatifid somewhat toothed, Spike leafy, Helmet two-toothed

8825 Leaves caspitose spatulate deeply serrated smoothish, Peduncles terminal subcorymbose  
8826 Smaller branched villous, Leaves bluntly serrated, Flowers racemose  
8827 Leaves lanceolate oblong toothed, Segm. of limb entire  
8828 Leaves lanceolate smooth serrated at end, Stem herbaceous, Segm. of limb bifid

8829 Leaves lanceolate acuminate smooth sessile, Pedunc. longer than flower  
8830 Leaves oblong bluntyish clammy sessile, Peduncles shorter than flower  
8831 Procumb. Stem round rooting hairy, Lvs. cord.-ovate toothed 5-nerved, Pedunc. shorter than petioles  
8832 Leaves ovate stalked, Stem square winged  
8833 Leaves roundish ovate nerved; lower stalked, Stem creeping

8834 Leaves obovate entire at base, Calyxes spreading and peduncles smooth

8835 Raceme lax longer than the few-leaved stem, Calyxes pubescent in fruit increased in size

8836 Segments of cor. acute

8837 Segments of corolla blunt, Raceme comose



and Miscellaneous Particulars.

each represents a lion couchant. All the species are extremely difficult to keep in gardens. According to Sweet, they succeed best in peat soil and moist situations; the more tender species must be grown in pots in the same kind of soil, and should be protected under frames in severe weather: the best way of increasing them is by seed. (*Bot. Cult.* 404.)

1350. *Erinus*. A name under which Dioscorides describes an aquatic plant with a white flower, black seeds, and a milky stem. From the last circumstance it has derived its name; *ερεινος* signifying a wild fig tree. The plant of the ancients had no resemblance to that called *Erinus* by the moderns. Beautiful little alpine herbaceous plants, well adapted to rock-work in warm damp situations.

1351. *Mimulus*. From *μῦθος*, an ape. The flower seeds in front resemble the face of a grinning monkey. The species are showy plants of the easiest culture in almost any soil or situation.

1352. *Hornemannia*. Named after Professor Hornemann, of Copenhagen, an eminent botanist, and the present editor of the *Flora Danica*. Little, inconspicuous, but curious annual plants.

1352. *Maxus*. From *μαζος*, a teat, on account of the little protuberances which close the mouth of the corolla. East Indian herbaceous plants, not unlike some kinds of *Antirrhinum*.

1354. *Isoplexis*. From *ισος*, equal, and *πλεξις*, segment, in allusion to the equal-sized divisions of the corolla.



- 8838 Lvs. obl. rugose crenate, Sepals ovate obl. Segm. of cor. transverse acute, Pedunc. straight as long calyx  
 8839 Lvs. obl. rugose crenate wavy decurrent, Sepals ovate, Segm. of cor. ovate rounded [as calyx  
 8840 Lvs. radical flat on the ground, Racemes few-fl. Segm. of cor. ov. round. smooth, Pedun. three times as long  
 8841 Lvs. ov. lanc. tooth. sess. nerved, Lower bractes as long as fl. Cor. downy netted, Segm. ov. transverse blunt  
 8842 Lvs. ov. lanc. acum. toothed and stem villous, Bractes twice as long as lower flowers, Cor. villous netted  
 8843 Lvs. lanc. ciliated, Bractes twice as short as flowers, Cor. downy netted, Segm. ov. acute, Lip bearded,  
 8844 Very smooth branched, Lvs. lin. lanc. Flowers scattered not downy [Stamens as long as tube  
 8845 Raceme dense pyramidal, Sepals edged, Lip of corolla ovate entire bearded  
 8846 Raceme many-flowered, Sepals edged, Corolla bowed, Lip ovate 3-toothed  
 8847 Raceme dense cylindrical many-fl. Lip of cor. clawed lunate, Bractes linear longer than flower  
 8848 Leaves oblong, Rachis woolly, Lip of cor. ovate  
 8849 Very smooth, Leaves linear, Flowers scattered, Lips of cor. oblong  
 8850 Lvs. obl. lanc. wavy deflexed ciliated entire, Raceme dense cylindrical, Segm. and sepals of cor. rounded  
 8851 Glandul. hairy, Lvs. obl. lanc. rugose wavy tooth. Raceme 1-sided many-fl. Cor. pubesc. Segm. ov. glandul.  
 8852 Lvs. linear lanc. serrated smooth, Raceme 1-sided, Cor. smooth, Segments rounded  
 8853 Segm. of cor. ovate obtuse, Flowers of distinct sexes [flowers  
 8854 Lvs. lanc. toothed smooth, Raceme 1-sided, Cor. smooth : segm. ov. bearded, Lower bractes longer than  
 8855 Lvs. cordate oblong flat crenate not downy, Raceme 1-sided, Cor. smooth, Segm. very blunt  
 8856 Half shrubby, Leaves linear lanc. entire smooth, Corollas ventricose  
 8857 Leaves cordate serrate acute rounded at base, Stem with blunt angles  
 8858 Leaves cordate 3-nerved, Stem with blunt angles  
 8859 Leaves cordate stalked decurrent blunt, Stem with membranous angles, Racemes terminal  
 8860 Lvs. ovate cord. smooth cut serrate with appendages at base, Petioles dilated, Racemes term. compound  
 8861 Lvs. obl. cord. hairy beneath doubly toothed with an appendage at base, Petioles equal, Racemes terminal  
 8862 Leaves cordate doubly serrate pubescent, Panicles terminal trichotomous with leaves between  
 8863 Lvs. obl. lanc. cord. doubly serrated smooth, Panicles racemose terminal 3-chotomous, Stem  $\frac{1}{2}$  shrubby  
 8864 Leaves cordate obl. toothed : teeth entire those at base deepest  
 8865 Leaves obl. lanc. deeply cordate finely and doubly serrated smooth, Pan. racem. term. Ped. 3-chotomous  
 8866 Lower lvs. tern. cord. cren. toothed ; upper entire, Fl. racemose panicled, Bractes ovate lanc. entire at end  
 8867 Leaves cordate 3-nerved pubesc. on each side, Petioles ciliated, Pedunc. and bracts with glandular hairs  
 8868 Leaves lanceolate serrated stalked : cauline in 3s ; and the branches opposite  
 8869 Lvs. lanc. narrowed at each end deeply unequally and doubly toothed smooth, Racemes terminal  
 8870 Lvs. somew. fleshy : upper sessile toothed smooth recurved at end, Pan. racem. Pedunc. bifid many-flow.  
 8871 Lvs. cord. doubly toothed : lower teeth bent backwards, Raceme terminal compound, Ped. 2-3-fl. altern.  
 8872 Leaves cordate pubescent doubly serrated, Panic. axillary dichotomous, Bractes ovate serrate  
 8873 Leaves cordate smooth doubly serrated, Panic. axillary dichotomous, Capsules acuminate  
 8874 Leaves smooth : lower ternate pinnate blunt ; upper simple, Pedunc. about 3-fl. axillary  
 8875 Leaves interruptedly pinnate cordate unequal, Raceme terminal, Pedunc. axillary twin dichotomous  
 8876 Lvs. obl. cord. lobed at edge naked as long as pet. Rac. term. comp. Branch. and ped. with glandular hairs  
 8877 Lvs. interruptedly pinnate oblong subcordate unequal at base, Panicle terminal, Pedunc. dichotomous  
 8878 Leaves pinnated, Leaflets oblong cut toothed, Panicle terminal, Peduncles dichotomous  
 8879 Leaves smooth : lower interruptedly pinnate ; upper ternate, Leaflets oblong, Flowers axillary  
 8880 Leaves pinnated, Raceme terminal naked, Peduncles bifid, Calyxes scariosus  
 8881 Lower leaves bipinnate somewhat fleshy very smooth, Racemes bipartite  
 8882 Stems woody at base, Leaves bipinnatifid pubescent, Racemes long, Pedicels short villous  
 8883 Leaves bipinnate, Pinnae acutely cut toothed, Panicle terminal, Peduncle dichotomous  
 8884 Lvs. smooth : rad. bipinnat. caul. pinnate, Panicle leafy, Ped. dichotomous, Lat. seg. of lower lip emargin.  
 8885 Leaves cordate lined shining, Pedunc. axillary 2-flowered, Stem hexangular

8886 Leaves roundish subsessile



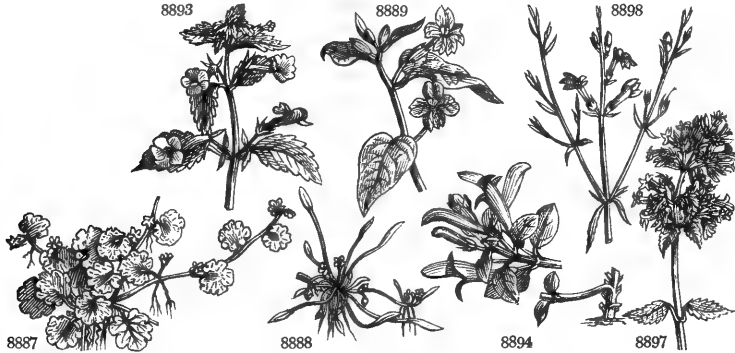
and Miscellaneous Particulars.

full extent of which the system can admit, the pulse intermits, and vertigo, indistinct vision, and nausea, with vomiting or purging, occur ; and if, after these indications, the quantity be still increased, or if any considerable portion of the recent herb be inconsiderately swallowed, it produces delirium, hicough, cold sweats, convulsions, syncope, and death. (*London Dispensatory*, 287.)

1356. *Scrophularia*. So named from the roots having a resemblance to *scrophulous* tumours, which they were, by the peculiar mode of induction of the dark ages, therefore supposed to cure. *S. nodosa* has the name of figwort from its knobbed roots : it has a rank smell like elder, and a bitter taste ; swine that have the scab are cured by washing them with a decoction of the leaves. Wasps resort greatly to the flowers. Goats eat the plant ; but cows, horses, sheep and swine refuse it.  
 The same observations apply to *S. aquatica*, which in French is called *Herbe du Siege*, because at the celebrated siege of Rochelle by Cardinal Richelieu in 1628, the garrison was reduced to the necessity of supporting life upon the roots of the plant.

1357. *Vandellia*. Louis Vandelli, a Portuguese, was professor of botany in the garden of Coimbra. He published in 1788, an essay on the plants of Portugal and Brazil, a work which is little known, on account of its extreme rarity.

|   |   |   |     |    |                                  |      |           |               |                                    |
|---|---|---|-----|----|----------------------------------|------|-----------|---------------|------------------------------------|
| 1358. SIBTHORPIA. <i>W.</i> SIBTHORPIA.         |   |   |     |    | <i>Scrophularineae. Sp. 1—2.</i> |      |           |               |                                    |
| 8887 europæa <i>W.</i> Cornish                  | ✱ | △ | el  | ½  | jl.au                            | Y    | England   | w.sh.p. D s.l | Eng. bot. 649                      |
| 1359. LIMOSELLA. <i>W.</i> MUDWORT.             |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1—5.</i>   |
| 8888 aquatica <i>W.</i> water                   | ≡ | ○ | pr  | ½  | jl.s                             | F    | Britain   | mud.p. S s.l  | Eng. bot. 357                      |
| 1360. BROWALLIA. <i>W.</i> BROWALLIA.           |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 2.</i>     |
| 8889 demissa <i>W.</i> spreading                | ✱ | ○ | or  | ½  | jn.s                             | B    | S. Amer.  | 1735. S s.l   | Bot. mag. 1136                     |
| 8890 elata <i>W.</i> upright                    | ○ | ○ | or  | ½  | jn.s                             | B    | Peru      | 1768. S s.l   | Bot. mag. 34                       |
| 1361. STEMODIA. <i>W.</i> STEMODIA.             |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 2—8.</i>   |
| 8891 parviflora <i>H. K.</i> small-flowered     | ○ | ○ | cu  | ½  | jl.au                            | W    | S. Amer.  | 1759. S p.l   |                                    |
| 8892 verticillaris <i>Link.</i> whorled         | ○ | ○ | cu  | ½  | jl.au                            | Pu   | Brazil    | 1825. S p.l   |                                    |
| 1362. TREVIRANA. <i>W. en.</i> TREVIRANA.       |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1.</i>     |
| 8893 coccinea <i>W. en.</i> scarlet             | ✱ | △ | spl | 1½ | au.o                             | Sc   | Jamaica   | 1778. C l.p   | Bot. mag. 374                      |
| <i>Cyrilla pulchella</i> B. M.                  |   |   |     |    |                                  |      |           |               |                                    |
| 1363. COLUMNÆA. <i>W.</i> COLUMNÆA.             |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 3—8.</i>   |
| 8894 scândens <i>H. K.</i> climbing             |   | ○ | or  | 6  | au.s                             | Sc   | W. Indies | 1759. C s.p   | Bot. reg. 805                      |
| 8895 hirsuta <i>W.</i> hairy                    |   | ○ | or  | 4  | au.n                             | Papu | Jamaica   | 1780. C s.p   | Brojam.t. 30. f.3                  |
| 8896 trifoliata <i>Link.</i> three-leaved       |   | ○ | or  | 3  | au.n                             | B    | .....     | 1823. C s.p   |                                    |
| †1364. RUSSELLIA. <i>W.</i> RUSSELLIA.          |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1—4.</i>   |
| 8897 multiflora <i>B. M.</i> many-flowered      | ○ | ○ | or  | 4  | jn.au                            | R    | S. Amer.  | 1812. C s.p   | Bot. mag. 1528                     |
| 1365. DODARTIA. <i>W.</i> DODARTIA.             |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1—2.</i>   |
| 8898 orientalis <i>W.</i> oriental              | ✱ | △ | un  | 1½ | jl.au                            | Pu   | Levant    | 1752. C s.p   | Lam. ill. t. 530                   |
| 1366. LINDERNIA. <i>R. Br.</i> LINDERNIA.       |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1—3.</i>   |
| 8899 Pyxidaria <i>W.</i> European               | ○ | ○ | un  | 1  | jn.au                            | B    | S. Europe | 1789. S s.l   | Lam. ill. t. 522                   |
| 1367. HERPES'TIS. <i>R. Br.</i> HERPES'TIS.     |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 3—7.</i>   |
| 8900 Monnie'ria <i>R. Br.</i> Thyme-leaved      | ≡ | △ | pr  | ½  | jl.s                             | L.B  | India     | 1772. D l.p   | Rox. cor. 2. t.178                 |
| 8901 cuneifolia <i>Ph.</i> wedge-leaved         | ≡ | △ | pr  | ½  | au                               | B    | N. Amer.  | 1812. D l.p   |                                    |
| 8902 stricta <i>Schrad.</i> upright             | ≡ | △ | pr  | 1  | au                               | B    | .....     | 1824. D l.p   |                                    |
| †1368. CAPRARIA. <i>P. S.</i> CAPRARIA.         |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 5—9.</i>   |
| 8903 biflora <i>W.</i> shrubby Goatw.           |   | ○ | un  | 2  | jl.au                            | W    | S. Amer.  | 1752. C l.p   | Lam. ill. t.534. f.2               |
| 8904 canea <i>H. K.</i> wedge-leaved            |   | ○ | un  | 2  | ...                              | W    | S. Amer.  | 1759. C p.l   |                                    |
| 8905 lanceolata <i>W.</i> spear-leaved          |   | ○ | un  | 2  | ...                              | W    | C. G. H.  | 1774. C p.l   |                                    |
| 8906 undulata <i>W.</i> wave-leaved             |   | ○ | un  | 2  | mr.jl                            | W    | C. G. H.  | 1774. C p.l   | Bot. mag. 1556                     |
| 8907 humilis <i>W.</i> dwarf                    |   | ○ | un  | 1  | jl.au                            | W    | E. Indies | 1781. C p.l   |                                    |
| 1369. BUCHNERA. <i>R. P.</i> BUCHNERA.          |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 1—13.</i>  |
| 8908 americana <i>W.</i> American               | ✱ | △ | cu  | 1½ | jn.au                            | B    | N. Amer.  | 1733. D l.p   |                                    |
| 1370. MANULEA. <i>W. en.</i> MANULEA.           |   |   |     |    |                                  |      |           |               | <i>Scrophularineae. Sp. 10—40.</i> |
| 8909 fœ'tida <i>Thunb.</i> stinking             | ○ | ○ | pr  | 1½ | jn.s                             | W    | C. G. H.  | 1794. S s.p   | Bot. rep. 80                       |
| 8910 villosa <i>Thunb.</i> villous              | ○ | ○ | pr  | 1  | jn.jl                            | W    | C. G. H.  | 1783. S s.p   | Bur. afr. t. 50. f.2               |
| <i>Buchnera capensis</i> <i>W.</i>              |   |   |     |    |                                  |      |           |               |                                    |
| 8911 pedunculata <i>Thunb.</i> solitary-flower. |   | ○ | pr  | 1½ | jn.n                             | W    | C. G. H.  | 1790. C p.l   | Bot. rep. 84                       |
| 8912 viscosa <i>W. en.</i> clammy               |   | ○ | pr  | 1  | jn.n                             | Pk   | C. G. H.  | 1774. C p.l   | Bot. mag. 217                      |
| 8913 rubra <i>Thunb.</i> red                    |   | ○ | el  | 1½ | aps                              | R    | C. G. H.  | 1790. C p.l   |                                    |
| 8914 tomentosa <i>Thunb.</i> woolly             |   | ○ | el  | 1  | my.n                             | Y    | C. G. H.  | 1774. C s.p   | Bot. mag. 322                      |
| 8915 Cheiranthus <i>Thunb.</i> Wall-flower      |   | ○ | el  | 1  | jn.au                            | Or   | C. G. H.  | 1795. S s.p   | Com. hort. 2. t.42                 |
| 8916 argentea <i>Thunb.</i> silvery             |   | ○ | el  | 1½ | ln                               | Y    | C. G. H.  | 1801. S s.p   |                                    |
| 8917 rhynchantha <i>Link.</i> tail-flowered     |   | ○ | el  | 1  | ln                               | Y    | C. G. H.  | 1823. C s.p   |                                    |
| 8918 violacea <i>Link.</i> Violet               |   | ○ | el  | 2  | ln                               | V    | .....     | 1824. C s.p   |                                    |



History, Use, Propagation, Culture,

1358. *Sibthorpia*. In honor of Humphry Sibthorp, M. D., professor of botany at Oxford, who travelled into Greece, for the purpose of collecting materials for a classical Flora Græca, in which he succeeded even beyond his own hopes. After his death the publication of his materials was confided to Sir James Edward Smith, under whose care the work has reached to five hundred figures in folio, of the most magnificent kind; five hundred more have yet to be published. A little trailing plant.

1359. *Limosella*. From *limus*, mud. The plant grows by the edge of puddles and in muddy places.

1360. *Browallia*. Named by Linnæus, in honor of John Browallius, bishop of Aboa, who defended the sexual system against Siegesbeck, in a book entitled *Examen epicriseos, &c.*, Aboa, 1739, octavo. Handsome plants with blue flowers, often cultivated as tender annuals.

1361. *Stemodia*. From *stemon*, a stamen, and *dia*, double. Each of the stamens supports two anthers.

1362. *Trevirana*. Named after Dr. Treviranus, a German botanist. This beautiful plant, which is commonly called *Cyrilla pulchella*, is one of the prettiest of the old inhabitants of the stove.

1363. *Columnæa*. In honor of Fabio Columna, or Fabio Colonna, of the noble family of Colonna in Italy, born in 1567. He published his *Phytobazanos* in 1592, and his *Ephrasis* in 1606, both works of high reputation in their day. One species, *C. scandens*, is common in hothouses, where it is cultivated for the neatness of its foliage and the beauty of its scarlet blossoms.

- 8887 Leaves reniform subpeltate crenate
- 8888 Leaves lanceolate spatulate, Scapes shorter than leaf
- 8889 Peduncles 1-flowered  
8890 Peduncles 1 many-flowered
- 8891 Leaves opposite and ternate stalked  
8892 Leaves opposite and ternate stem-clasping
- 8893 Leaves ternate ovate hairy
- 8894 Leaves ovate acute entire subvillous, Sepals entire and corollas pubescent, Upper lip undivided  
8895 Leaves ovate acuminate serrate hairy above, Sepals toothletted and corollas hairy  
8896 Leaves 3 subsessile oblong acutely crenate pubescent, Cor. hairy, Galea dilated reflexed
- 8897 Leaves ovate acuminate stalked, Raceme terminal whorled, Peduncles cymose
- 8898 Leaves linear smooth entire, Stem nearly naked
- 8899 Leaves oblong ovate entire 3-nerved sessile, Pedunc. axillary 1 flowered, Stem procumbent
- 8900 Leaves oblong entire, Peduncles longer than leaf, Stem declinate  
8901 Very smooth, Leaves cuneate oblong upwards obsolete crenate, Pedunc. nearly as long as leaf  
8902 Stem erect, Leaves lanceolate acute doubly serrated smooth, Flowers whorled
- 8903 Leaves ovate serrated alternate, Flowers twin  
8904 Hairy, Leaves alternate rhomboid cuneiform cut serrate, Flowers twin, Sepals linear  
8905 Leaves opposite linear entire, Racemes compound terminal  
8906 Leaves opposite ovate-oblong entire wavy: upper subcordate whorled, Racemes spiked  
8907 Pubescent, Leaves opposite and ternate ovate serrate stalked, Pedunc. axillary shorter than petiole
- 8908 Leaves toothed lanceolate 3-nerved
- 8909 Leaves opposite ovate jagged, Flowers somewhat umbelled terminal  
8910 Leaves linear toothed villous, Cal. hairy, Branches subfastigiata
- 8911 Upper leaves opposite sessile tooth-sinuated, Flowers solitary on long stalks  
8912 Leaves opp. lin. lanc. acute at each end toothletted, Raceme terminal, Stamens exserted  
8913 Leaves lanc. toothed villous, Racemes of flowers remote  
8914 Leaves obovate crenate downy, Stem decumbent  
8915 Leaves obl. serrated hairy, Stem nearly leafless, Flowers alternate remote  
8916 Leaves ovate toothed silky beneath dotted with silver, Flowers axillary stalked  
8917 Leaves wedge-shaped serrated pubescent, Segm. of cor. with very long points  
8918 Leaves opp. stalked oblong blunt tooth-serrated when old smooth, Segm. of cor. rounded



and Miscellaneous Particulars.

1364. *Russelia*. In honor of Alexander Russel, M. D. F. R. S., born in Scotland; died 1768; author of the natural history of Aleppo, London, 1756. His brother Patrick, published a second edition in 1794, and a work on serpents in 1796, folio.

1365. *Dodartia*, by Tournefort, after M. Dodart, member of the academy of sciences at Paris; and an eminent physician. An ugly, leafless, almost flowerless plant, of much rarity and little beauty.

1366. *Lindernia*. Named after Francis Lindern, an obscure Swiss botanist. Pyxidaria is so called from *πυξίς*, the box, which it resembles in foliage.

1367. *Herpestis*. From *ἕρπης*, any thing which creeps. An exotic genus of herbs, with opposite leaves and axillary flowers, each of whose stalks bears a pair of bractæ. *Herpestis Monnieri* is a beautiful aquatic.

1368. *Capraria*. So named from *capra*, a goat, the leaves being much liked by that animal.

1369. *Buchnera*. Named after John Godfrey Buchner, a German botanist, who published in 1743, his Observations upon the Plants of Saxony. Small Cape shrubs of little interest or beauty. Their leaves are generally small, and their flowers white.

1370. *Manulea*. Derived from *manus*, the hand. The five divisions of the flower, in some species, from their form and relative position, resemble an open hand. Handsome Cape shrubs of humble growth. They are rare in collections, but deserving of being very generally cultivated.

|   |                                  |      |           |       |           |                     |           |                   |
|---|----------------------------------|------|-----------|-------|-----------|---------------------|-----------|-------------------|
| 1371. ANGELO'NIA. <i>Kunth.</i> ANGELONIA.          | <i>Scrophularineæ.</i> Sp. 1.    |      |           |       |           |                     |           |                   |
| 8919 salicariæfolia <i>Kunth.</i> violet            | au                               | L.B. | S. Amer.  | 1818. | C co      | Bot. reg.           | 415       |                   |
| 1372. SCHIZAN'THUS. <i>R. &amp; P.</i> SCHIZANTHUS. | <i>Scrophularineæ.</i> Sp. 1.    |      |           |       |           |                     |           |                   |
| 8920 pinnatus <i>R. &amp; P.</i> pinnated           | fn                               | L.B. | Chili     | 1822. | S co      | Hook. ex. fl.       | t. 73     |                   |
| <i>β por'rigens</i> <i>Hook. ex. fl.</i> t. 86.     |                                  |      |           |       |           |                     |           |                   |
| *1373. BESLE'RIA. <i>W.</i> BESLERIA.               | <i>Scrophularineæ.</i> Sp. 5-10. |      |           |       |           |                     |           |                   |
| 8921 melittifolia <i>W.</i> Balm-leaved             | jn.jl                            | Or   | Guiana    | 1739. | C s.p     | Exot. bot.          | 1. t. 54  |                   |
| 8922 lutea <i>W.</i> yellow-flowered                | jl.au                            | Y    | Guiana    | 1739. | C l.p     | Plum. ic.           | 49. f. 1  |                   |
| 8923 serrulata <i>W.</i> saw-leaved                 | 6                                | P.Y  | W. Indies | 1806. | C l.p     | Jac. sch.           | 3. t. 290 |                   |
| 8924 pulchella <i>H. K.</i> striped-flower'd        | jl.au                            | Y    | Trinidad  | 1806. | C l.p     | Bot. mag.           | 1146      |                   |
| 8925 cristata <i>W.</i> crested                     | jn.au                            | Y    | W. Indies | 1739. | C l.p     | Jac. amer. t.       | 119       |                   |
| 1374. TEE'DIA. <i>P. S.</i> TEDDIA.                 | <i>Scrophularineæ.</i> Sp. 2.    |      |           |       |           |                     |           |                   |
| 8926 lucida <i>P. S.</i> shining                    | ap.jl                            | Pu   | C. G. H.  | 1774. | C p.l     | Bot. reg.           | 209       |                   |
| 8927 pubescens <i>B. reg.</i> pubescent             | my.o                             | Pu   | C. G. H.  | 1816. | C p.l     | Bot. reg.           | 214       |                   |
| †1375. BRUNSFEL'SIA. <i>W.</i> BRUNSFELSIA.         | <i>Solanææ.</i> Sp. 3.           |      |           |       |           |                     |           |                   |
| 8928 undulata <i>W.</i> wave-flowered               | jn.jl                            | W    | Jamaica   | 1780. | C r.m     | Bot. reg.           | 223       |                   |
| 8929 americana <i>W.</i> American                   | jn.jl                            | Pa.Y | W. Indies | 1735. | C r.m     | Bot. mag.           | 393       |                   |
| <i>α latifolia</i> broad-leaved                     |                                  |      |           |       |           |                     |           |                   |
| <i>β angustifolia</i> narrow-leaved                 |                                  |      |           |       |           |                     |           |                   |
| 8930 violacea <i>Lodd.</i> violet                   | cu                               | 3    | jl.au     | Ld    | W. Indies | 1815.               | C r.m     | Bot. cab. 792     |
| 1376. CEL'SIA. <i>W.</i> CELSIA.                    | <i>Solanææ.</i> Sp. 7-10.        |      |           |       |           |                     |           |                   |
| 8931 orientalis <i>W.</i> oriental                  | or                               | 2    | jl.au     | Br.Y  | Levant    | 1713.               | S co      | Lam. ill. t. 532  |
| 8932 Arcturus <i>W.</i> scallop-leaved              | or                               | 4    | jl.s      | Y     | Candia    | 1780.               | S p.l     | Bot. mag. 1962    |
| 8933 coromandeliana <i>W.</i> Coromandel            | or                               | 4    | jl.au     | Y     | E. Indies | 1783.               | S p.l     |                   |
| 8934 viscosa <i>W. en.</i> clammy                   | or                               | 3    | jl.au     | Y     | .....     | 1816.               | S p.l     |                   |
| 8935 cretica <i>W.</i> great-flowered               | or                               | 6    | jl.s      | Y     | Crete     | 1752.               | S p.l     | Bot. mag. 964     |
| 8936 lanceolata <i>P. S.</i> spear-leaved           | or                               | 3    | jl.s      | Y     | Levant    | 1816.               | S p.l     | Vent. cels. t. 27 |
| 8937 sublanata <i>Jacq.</i> woolly                  | or                               | 2    | jl.s      | Y     | .....     | 1818.               | S p.l     | Bot. reg. 438     |
| 1377. ALONSO'A. <i>H. K.</i> ALONSOA.               | <i>Solanææ.</i> Sp. 4-8.         |      |           |       |           |                     |           |                   |
| 8938 acutifolia <i>P. S.</i> acute-leaved           | or                               | 3    | my.o      | Sc    | Peru      | 1790.               | C l.p     |                   |
| 8939 incisifolia <i>H. K.</i> Nettle-leaved         | or                               | 2    | my.o      | Sc    | Chili     | 1795.               | S s.p     | Bot. mag. 417     |
| <i>Hemimeris urticifolia</i> <i>W.</i>              |                                  |      |           |       |           |                     |           |                   |
| 8940 linearis <i>H. K.</i> linear-leaved            | or                               | 2    | my.o      | S     | Peru      | 1790.               | C s.p     | Bot. mag. 210     |
| 8941 caulialata <i>R. &amp; P.</i> wing-stemmed     | or                               | 3    | my.o      | S     | Chili     | 1823.               | C co      |                   |
| 1378. ANTHOCER' CIS. <i>R. Br.</i> ANTHOCERCIS.     | <i>Solanææ.</i> Sp. 2-3.         |      |           |       |           |                     |           |                   |
| 8942 littorea <i>R. Br.</i> yellow                  | or                               | 3    | my.au     | Pa.Y  | N. Holl.  | 1803.               | C s.p     | Bot. reg. 212     |
| 8943 viscosa <i>R. Br.</i> viscid                   | or                               | 3    | ...       | Pa.Y  | N. Holl.  | 1822.               | C s.p     | Bot. mag. 2961    |
| 1379. CYMBA'RIA. <i>W.</i> CYMBARIA.                | <i>Scrophularineæ.</i> Sp. 1.    |      |           |       |           |                     |           |                   |
| 8944 daurica <i>W.</i> Daurian                      | jn.jl                            | Y    | Dauria    | 1796. | D co      | Amm.rut. t. i. f. 2 |           |                   |



History, Use, Propagation, Culture,

1371. *Angelonia*. *Angelon* is the name of the plant among the Spanish colonists of Caraccas, where it grows. A very beautiful stove herbaceous plant, with large light-blue flowers.

1372. *Schizanthus*. From *σχίζω*, to cut, and *ανθος*, a flower, in allusion to the numerous divisions of the beautiful purple and yellow flowers. Tender annual plants, with finely cut pale green leaves, and terminal panicles of elegant flowers.

1373. *Besleria*. After Basil Besler, an apothecary at Nuremberg, joint editor with Jungermann, of a sumptuous work entitled *Hortus Eysicctensis*, 1613. The garden belonged to Bishop Conrad, of Eichstedt, and the plates were engraved at his expense.

1374. *Tecdia*. So named by Persoon, but the meaning is unknown. Pretty herbaceous plants, with bright purple flowers and dark berries.

1375. *Brunfelsia*. In memory of Otho Brunfels, of Mentz, a Carthusian monk, and afterwards a physician, author of *Figures of Plants* in 1530. He died in 1534. The species are handsome tropical shrubs, with neat foliage and shewy white or purple flowers. Cuttings with a little ripened wood strike root freely in heat.

8919 The only species

8920 The only species

8921 Peduncles branched, Leaves ovate

8922 Peduncles simple clustered, Leaves ovate-lanceolate serrated

8923 Peduncles simple solitary, Calyxes serrated, Cor. smooth with a serrulated limb

8924 Leaves obl. ovate rugose crenate decurrent down the petiole, Cal. serrulate colored

8925 Peduncles simple solitary, Calyxes colored serrated, Cor. hairy with an entire limb, Leaves ovate

8926 Leaves opp. obl. finely serrulate smooth

8927 Leaves downy

8928 Leaves ovate-lanceolate narrowed at each end, Tube of cor. curved, Limb wavy

8929 Leaves obovate acuminate longer than petiole, Tube of cor. straight, Limb entire

8930 Leaves and leafstalks deeply stained with purple

8931 Cauline leaves bipinnate

8932 Rad. leaves lyrate: upper oblong, Pedicels longer than bractes, Sepals linear entire

8933 Radical leaves lyrate: upper ovate, Bractes longer than pedicels, Sepals linear oblong entire

8934 Radical leaves lyrate: floral cordate half stem-clasping, Peduncles as long as flower

8935 Radical leaves lyrate: upper oblong, Flowers subsessile the length of bractes, Cal. ovate serrated

8936 Somewhat downy, Leaves lanceolate, Flowers axillary solitary

8637 All over wool, Leaves oval oblong blunt crenate, Stamens bearded with capitate hairs

8938 Leaves ovate lanceolate deeply serrated

8939 Leaves ovate acute cut serrated

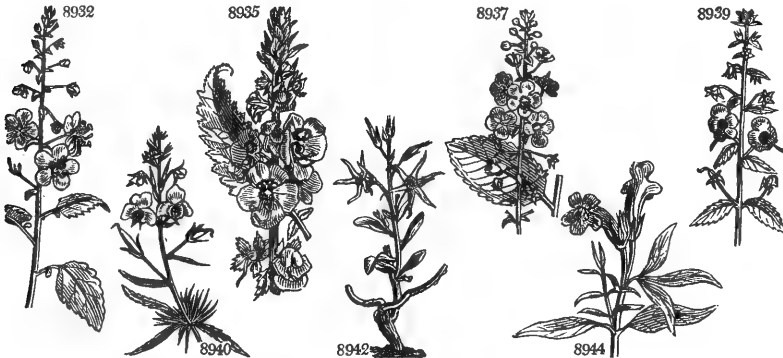
8940 Leaves ternate remotely toothletted

8941 Leaves ovate acute serrated, Stem winged at angles

8942 Leaves obovate smooth, Segments of cor. length of tube

8943 Leaves obovate dotted with glands downy

8944 Flowers large yellow spotted



and Miscellaneous Particulars.

1376. *Celsia*. In honor of Olaus Celsius, D. D., surnamed the northern Pliny, professor of the oriental languages in the university of Upsal. His Hierobotanicon, or History of the Plants of Scripture, appeared in 1745. There was also another Swedish botanist called Magnus Nicolaus Celsus, who died in 1679. Besides these moderns, the name is rendered familiar to classical scholars by the recollection of the famous Aurelius Cornelius Celsus, who wrote upon agriculture and medicine, and whose purity of style procured him the name of the Cicero of medicine.

1377. *Alonsoa*. Named by the authors of the Flora Peruviana, after Zanoni Alonso, at the time of the publication of that work, Spanish secretary for the kingdom of Santa Fé, and a great patron of objects connected with natural history. Sir James Smith considers the genus the same as *Hemimeris*.

1378. *Anthocercis*. From *ανθος*, a flower, and *κρημις*, a ray, the narrow divisions of the corolla spreading in a radiant manner, like the spokes of a wheel.

1379. *Cymbaria*. From *κυβητης*, a boat, in allusion to the shape of the fruit. A small pubescent hoary plant, native of mountainous rocky places in Siberia.





CLASS XV. — TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

This class consists, with the exception of *Cleome*, entirely of the natural order Crucifera, and has lately been the subject of the most acute and successful investigation of many botanists of celebrity. Our countryman, Mr. Brown, led the way to the improvements which have been made in the genera, in the second edition of the *Hortus Kewensis*, in which, discarding the uncertain and unnatural characters derived from variations in the floral envelopes, he took a new course, and by indicating with great precision the curious modifications of the seeds and seed-vessels, led the way to an entirely new arrangement of the class. The principles thus developed have been adopted by M. Decandolle, whose learned treatise upon Cruciferae is here followed without variation.

The difference between the genera with a long pod (*Siliquosæ*), and those with a short one (*Siliiculosæ*), has given rise to two orders in the Linnean system. But these are not only ambiguous, but interfere so much with a distribution of the genera according to their natural affinities, that they have been rejected here, and the divisions of M. Decandolle, depending upon variation in the relative position of the various parts of the seed, have been substituted.

The plants of this class have always been celebrated for their antiscorbutic qualities. These seem to reside in an acrid, oily, volatile principle, not yet determined by chemists, and varying in the degree of abundance in which it is found in different species. It is particularly abundant in the seeds of mustard and garden rocket, in the roots of the horse radish, and in the foliage of the *Lepidium latifolium*, which, administered inwardly, act powerfully upon the gastric organs, or, applied externally, inflame the skin and operate nearly as severely as blisters. A slighter degree of acrimony is found in the foliage of the scurvy grass, the roots of the garden radish, &c.; and these, therefore, operate more gently, and perhaps more safely, when eaten, scarcely at all when applied outwardly. Whatever the degree of acrimony may be in these plants, they all appear, when eaten, to produce some specific action upon the digestive organs, and thence upon scorbutic humours; for which reason, the horse radish, water-cress, radishes, and even cabbages are eminently antiscorbutic. They are also admitted by physicians as diuretic, siagogues, and diaphoretic. It is only when the acrid principle is diffused over a considerable quantity of fleshy and watery substance, that cruciferous plants become eatable, as in the leaves and stems of cabbages and sea-kail, and in the roots of radishes and turnips. Even in these plants, the proportion of acrid principle is much diminished by exclusion from light. Plants of this class are also remarkable for containing a larger quantity of azote than most vegetables; for which reason ammonia is generally evolved in their fermentation or putrefaction: to which circumstance it is possible that the two remarkable phenomena are to be attributed, viz.; that cruciferous plants contain a greater portion of nutritive matter than most herbaceous plants; and that they require either a very rich soil manured with animal substances, or at least a situation near the habitations of men. The embryos of all these plants are filled with oil, and the seeds of *Camelina sativa*, *Brassica campestris*, some species of Rocket, &c. are cultivated in many parts of Europe for the sake of their expressed oil, which is used either for culinary purposes or for lamps.

Cruciferous plants are chiefly natives of temperate climates, those which are found within the tropics being in all cases mountain plants, and are nearly all cultivable in the open air; they are mostly found in open sandy plains; some on the tops of the highest mountains at the utmost limits of vegetation. Nine hundred species are now described, of which not more than twenty-two are to be found in the works of Hippocrates, Theophrastus, Dioscorides, or Pliny.

A. *Cotyledons four, spirally twisted. Petals 4, cruciate.*

1380. *Schiaopetalon*. Petals pinnatifid.

B. *Cotyledons two. Petals 4, cruciate.*

1. *Cotyledons flat, accumbent. Radicle lateral. Seeds compressed.* (O=) PLEURORHIZÆ, Dec.

\* *Silicle opening; with a linear dissepiment more or less wide than seeds. Seeds oval, compressed; often margined. Cotyledons flat, accumbent, parallel with the dissepiment.* ARABIDÆ, Dec.

1381. *Mathiola*. Silicle roundish. Stigmas connivent, thickened or cornute at back. Calyx bisaccate at base.

1382. *Cheiranthus*. Silicle round or compressed. Stigmas 2-lobed or capitate. Calyx bisaccate at base.

1383. *Nasturtium*. Silicle roundish, shortened or declinate. Stigma nearly 2-lobed. Calyx equal at base, spreading.

1384. *Leptocarpea*. Silicle roundish, very slender. Stigmas sessile, 2-lobed. Calyx spreading, equal.

1385. *Notoceras*. Silicle 4-cornered, 2-edged, the valves elongated at end into a horn or mucro.

1386. *Barbarea*. Silicle 4-cornered, 2-edged, the valves not elongated at end. Calyx equal at base.

1387. *Braya*. Silicle oblong, subcylindrical, with flattish valves and a sessile stigma. Seeds few, ovate. Calyx equal at base.

1388. *Parrya*. Silicle linear with veiny valves. Seeds in two rows, with a loose wrinkled skin. Stigmas approximating. Filaments not toothed.

1389. *Turritis*. Silicle linear with flat valves. Seeds in two rows in each cell.

1390. *Arabis*. Silicle linear with flat valves, 1-nerved in the middle. Seeds in one row in each cell.

1391. *Macropodium*. Silicle pedicellate, linear, with flat valves, 1-nerved in middle.

1392. *Cardamine*. Silicle linear with flat nerveless valves, often opening with elasticity. Funicles of the hilum slender.

1393. *Pteroneuron*. Silicle lanceolate with flat nerveless valves, often opening with elasticity: placentas with winged nerves. Funicles dilated.

1394. *Dentaria*. Silicle lanceolate with flat nerveless valves, often opening with elasticity: placentas not winged. Funicles dilated.

\*\* *Silicle opening lengthwise, with a broad oval membranous dissepiment, and flat or concave valves. Seeds compressed, frequently margined. Cotyledons flat, accumbent, parallel with the dissepiment.* ALYSSINÆ, Dec.

1395. *Lunaria*. Silicle pedicellate, elliptical or lanceolate with flat valves. Funicles long, adhering to the dissepiment. Calyx somewhat bisaccate. Petals nearly entire. Stamens not toothed.

1396. *Ricotia*. Silicle sessile, oblong, when ripe losing its dissepiment and becoming 1-celled: valves flat. Calyx with two prominences at base. Petals emarginate. Stamens not toothed.

1397. *Parsetia*. Silicle sessile, oval or orbicular, with flat valves. Seeds winged. Calyx bisaccate at base. Petals entire.

1398. *Berteroa*. Silicle sessile, elliptical or obovate, with flat or concave valves. Calyx equal at base. Petals 2-parted. The small stamens toothed.

1399. *Aubrieta*. Silicle oblong with convex valves. Seeds not edged. Calyx bisaccate at base. Petals entire. Smaller stamens toothed.

1400. *Vesicaria*. Silicle globose inflated with hemispherical valves. Seeds more than 8. Petals entire.

1401. *Alyssum*. Silicle orbicular or elliptical, with valves flat or convex in centre. Seeds 2-4 in each cell. Calyx equal at base. Petals entire. Some the stamens toothed.

1402. *Clypeola*. Silicle orbicular, 1-celled, 1-seeded, with flat valves. Calyx equal. Petals entire. Stamens toothed.

1403. *Peltaria*. Silicle orbicular, 1-celled, 1-4-seeded, with flat valves. Seeds two in each cell: funicles adhering to the dissepiment.

1404. *Petrocallis*. Silicle sessile, oval, with flattish valves. Seeds two in each cell: funicles adhering to the dissepiment.

1405. *Draba*. Silicle sessile, oval or oblong, with flat or convex valves. Seeds many, not edged. Calyx equal. Petals entire. All the stamens without teeth.

1406. *Erophila*. Silicle oval or oblong, with flat valves. Seeds many, not edged. Calyx equal. Petals 2-parted. Stamens without teeth.

1407. *Cochlearia*. Silicle sessile, ovate-globose or oblong, with ventricose valves. Seeds many, not edged. Petals entire. Stamens without teeth.

\*\*\* *Silicle opening, with a very narrow dissepiment, and keeled navicular valves. Seeds oval, sometimes margined. Cotyledons flat, accumbent, contrary to the dissepiment.* THLASPIDÆ, Dec.

† Cells of silicle 2-many-seeded.

1408. *Thlaspi*. Silicle emarginate at end, with navicular valves, winged at back. Cells two, many-seeded.

1409. *Capsella*. Silicle triangular, cuneate at base, with navicular valves, not winged. Cells many-seeded.

1410. *Hutchinsia*. Silicle elliptical, with navicular valves, not winged. Cells 2-seeded, rarely many-seeded.

1411. *Teesdalia*. Silicle oval, emarginate at end, with navicular valves and 2-seeded cells. Stamens having a scale inside at their base.

†† Cells of silicle 1-seeded.

1412. *Iberis*. Two outer petals largest. Silicle compressed, truncate, emarginate.

1413. *Biscutella*. Silicle flat, bicusate, with the cells laterally united to the axis. Style long, persistent. Embryo inverted.

\*\*\*\* *Silicle not opening, with concave indistinct valves, and sometimes with scarcely any trace of a dissepiment. Seeds oval, very few. Cotyledons flat, accumbent, parallel with dissepiment.* EUCLIDIÆ, Dec.

1414. *Euclidium*. Silicle drupaceous, ovate, with manifest sutures. Style subulate. Cells 1-seeded.

1415. *Ochthodium*. Silicle coriaceous, subglobose. Stigma sessile. Dissepiment thick. Cells 1-seeded.

\*\*\*\*\* *Silicle opening lengthwise, with concave valves, bearing internally transverse horizontal dissepiments separating the seeds. Seeds not margined. Cotyledons flat, accumbent, parallel with the dissepiment.* ANASTATICÆ, Dec.

1416. *Anastatica*. Silicle ventricose, with valves bearing an appendage outside at the end.

\*\*\*\*\* *Silique or silicle separating across into 1-2-celled, 1-2-seeded joints. Seeds not edged. Cotyledons flat, accumbent, parallel with the dissepiment when there is any.* CAKILINÆ, Dec.

1417. *Cakile*. Silicle 2-jointed, compressed: the upper joint ensiform. Seeds solitary in the cells: upper erect; lower pendulous.

1418. *Rapistrum*. Silicle 2-jointed: the upper joint ovate, rugose. Seeds solitary in the cells: upper erect, lower pendulous.

1419. *Chorispora*. Silique roundish, with many equal joints. Seeds all pendulous.

2. *Cotyledons flat, incumbent. Radicle dorsal. Seeds ovate, not margined.* (O||) NOTORHIZÆ, Dec.

\* *Silicle 2-celled, opening lengthwise, with concave or keeled valves. Seeds ovate or oblong, not margined. Cotyledons flat, incumbent, contrary to the dissepiment.* SISYMBRIÆ, Dec.

1420. *Malcomia*. Silique roundish. Stigma simple much pointed.

1421. *Hesperis*. Silique roundish, or about 4-cornered. Stigmas 2, erect, conniving. Calyx bisaccate at base.

1422. *Sisymbrium*. Silique roundish, sessile upon the torus. Stigmas 2, somewhat distinct or connate in a head. Calyx equal at base.

1423. *Alliaria*. Silique roundish, 4-cornered, with prominent nerves. Calyx lax.

1424. *Erysimum*. Silique 4-cornered. Calyx closed.

\*\* *Silicle with concave valves, and with a dissepiment elliptical in its greatest diameter. Seeds ovate. Cotyledons flat, incumbent, contrary to dissepiment.* CAMELINÆ, Dec.

1425. *Camelina*. Silicle obovate or subglobose, with ventricose valves and many-seeded cells. Style filiform.

1426. *Neslia*. Silicle subglobose, with concave valves, 1-celled, 1-seeded, indehiscent.

\*\*\* *Silicle with a very narrow dissepiment, and with keeled or very convex valves. Seeds solitary or few in the cells, ovate, not margined. Cotyledons flat, incumbent, parallel with the dissepiment.* LEPIDINÆ, Dec.

1427. *Coronopus*. Silicle ovate. Valves ventricose or subcarinate, scarcely dehiscent, 1-seeded.

1428. *Lepidium*. Silicle ovate or subordate, with carinate or rarely ventricose valves, opening with 1-seeded cells.

1429. *Eithionema*. Silicle oval, generally emarginate, with navicular valves, and 1-2-seeded cells. Larger stamens either united or toothed.

\*\*\*\* *Silicle with indistinct or indehiscent keeled valves, 1-celled, 1-seeded, with an obliterated dissepiment. Seeds ovate, oblong. Cotyledons flat, incumbent, apparently in the same direction as the dissepiment should be.* ISATIDÆ, Dec.

1430. *Isatis*. Silicle elliptical, flat, 1-celled, 1-seeded, with carinate navicular valves, which are scarcely dehiscent.

1431. *Myagrum*. Silicle compressed, almost cuneate, with two empty hollows at end, and at base 1-celled, 1-seeded.

3. *Cotyledons incumbent, folded together, or plaited lengthwise through their middle, and enwrapping the radicle. Style generally enlarged, with a cell and seed at its base. Seeds generally globose, never margined.* (O>>) ORTHOPLUCEÆ, Dec.

\* *Silique with valves opening lengthwise, and a linear dissepiment. Cotyledons folded together.* BRASSICÆ, Dec.

1432. *Brassica*. Silique roundish. Style small, short, obtuse. Seeds in one row. Calyx closed.

1433. *Sinapis*. Silique roundish, with nerved valves. Style small, short, acute. Seeds in one row. Calyx spreading.

1434. *Moricandia*. Silique 4-cornered, somewhat 2-edged. Seeds in two rows. Calyx bisaccate at base.

1435. *Diplotaxis*. Silique compressed, linear. Seeds in two rows. Calyx equal at base.

1436. *Eruca*. Silique roundish. Style large, ensiform or conical. Seeds in one row. Calyx equal at base.

\*\* *Silicle with concave valves, opening lengthwise, with an elliptical dissepiment. Cotyledons folded together.* VELLER, Dec.

- 1437. *Vella*. Larger stamens connate. Style ovate, flat, at the end of a tongue-shaped silicle.
- 1438. *Carrichera*. Stamens all free. Style ovate, flat, foliaceous.
- 1439. *Succowia*. Stamens all free. Style slender, conical. Valves of the silicle echinate.

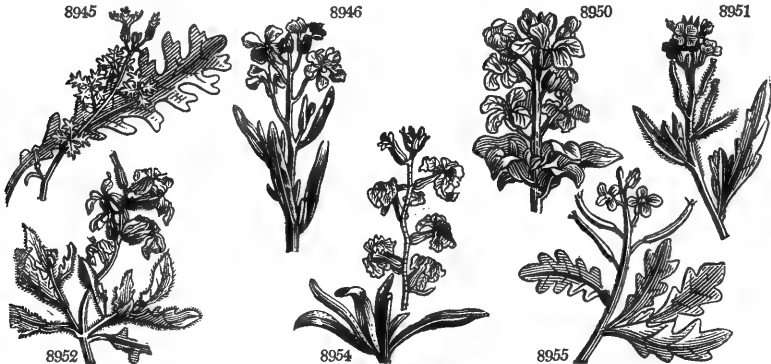
\*\*\* *Silicle indehiscent, ovate or globose, 1-celled, 1-seeded, with indistinct valves. Seeds globose. Cotyledons folded together.* ZILLER, Dec.

- 1440. *Zilla*. Silicle 2-celled. Cells 1-seeded.
- 1441. *Colepina*. Silicle 1-celled, 1-seed. Seed pendulous. Outer petals rather the largest.

\*\*\*\* *Silicle or silique dividing across into one or few-seeded joints or cells. Seeds globose. Cotyledons folded together.* RAPHAËLE, Dec.

- 1442. *Crambe*. Silicle with two joints, of which the lower is abortive, the upper globose 1-seeded.

|                                      |                      |             |              |                  |       |   |     |                          |
|--------------------------------------|----------------------|-------------|--------------|------------------|-------|---|-----|--------------------------|
| 1380. SCHIZOPETALON. Sims.           | SCHIZOPETALON.       | Cruciferae. | Sp. 1.       |                  |       |   |     |                          |
| 8945 Walkéri Sims.                   | Walker's             | □   cu 2    | my.jl W      | Chili            | 1822. | S | p.l | Bot. mag. 2379           |
| 1381. MATHIOLA. R. Br. Strock.       |                      |             |              |                  |       |   |     |                          |
| 8946 incana R. Br.                   | Pu. Gilly Flow.      | □   or 2    | my.n Pu      | England cliffs.  |       | C | lp  | Eng. bot. 1935           |
|                                      | <i>double</i>        |             |              |                  |       |   |     |                          |
|                                      | <i>multiplies</i>    |             |              |                  |       |   |     |                          |
|                                      | <i>β coccinea</i>    |             |              |                  |       |   |     |                          |
|                                      | <i>γ alba</i>        |             |              |                  |       |   |     |                          |
| 8947 annua Sweet.                    | white-branching      | ○ or 2      | my.n St      | S. Europe        | 1731. | S | lp  | Dalec. lug. 802 t1       |
| 8948 glabra Dec.                     | ten weeks            | □   or 2    | my.n W       | .....            |       | C | lp  | Mo. ox. s. 3. t. 8. f. 2 |
| 8949 graeca Sweet.                   | Wall. fl.-leaf'd     | □   or 2    | my.n W       | S. Europe        | ..... | S | lp  |                          |
| 8950 fenestralis R. Br.              | window               | □   or 1    | jl. au Pu    | .....            | 1759. | S | lp  | Jac. vind. 2. t. 179     |
| 8951 sinuata R. Br.                  | greater sea          | □   or 1    | my. au V     | England sea sh.  |       | S | lp  | Eng. bot. 462            |
| 8952 odoratissima R. Br.             | Persian              | □   or 2    | jn. jl Ld    | Persia           | 1797. | C | r.m | Bot. mag. 1711           |
|                                      | <i>short-podded</i>  | □   or 2    | jn. jl Ld    | Crimea           | 1823. | C | r.m |                          |
| 8953 varia Dec.                      | variable             | □   or 1    | jn. jl Ld    | Levant           | 1820. | C | r.m | Fl. graec. t. 636        |
| 8954 tristis R. Br.                  | dark-flowered        | □   or 1    | my. jl Ld    | S. Europe        | 1768. | S | a.l | Bot. mag. 729            |
| 8955 tricuspidata R. Br.             | three-forked         | ○ or 1      | jl Pu        | Barbary          | 1739. | S | a.l | Lam. ill. t. 564. f. 2   |
| 8956 parviflora R. Br.               | small-flowered       | ○ or 1      | jl. au Pu    | Morocco          | 1799. | S | a.l |                          |
| 1382. CHEIRANTHUS. L. WALL-FLOWER.   |                      |             |              |                  |       |   |     |                          |
| 8957 cheiri L.                       | garden               | □   or 2    | ap. jl Or    | S. Europe        | 1573. | S | r.m | Bull. herb. t. 349       |
|                                      | <i>wild</i>          | □   or 1    | ap. jl Y     | Britain old wa.  |       | S | co  | Eng. bot. 1934           |
| 8958 ochroleucus L.                  | pale yellow          | □   or 1    | ap. jl Pa. Y | Switzerl.        | 1820. | D | co  | Hal. bel. 449. t. 14     |
| 8959 tenuifolius Lher.               | fine-leaved          | □   or 2    | my. jn Y     | Madeira          | 1777. | C | lp  |                          |
| 8960 mutabilis Lher.                 | changeable           | □   or 3    | mr. my Y. Pu | Madeira          | 1777. | C | lp  | Bot. mag. 195            |
|                                      | <i>long-leaved</i>   | □   or 3    | s.d W. pu    | Madeira          | 1815. | C | co  | Vent. malm. t. 83        |
| 8961 scoparius W.                    | rock                 | □   or 3    | my. o W. pu  | Teneriffe        | 1812. | C | r.m |                          |
|                                      | <i>Chamaeleon</i>    | □   or 3    | my. o Y. Pu  | Teneriffe        | 1812. | C | r.m | Bot. reg. t. 219         |
| 8962 semperflorens Schon.            | ever-blowing         | □   or 2    | jn. d W      | Barbary          | 1815. | C | a.l |                          |
|                                      | <i>entire-leaved</i> | □   or 2    | mr. jl W     | Teneriffe        | 1815. | C | co  |                          |
| 8963 linifolius Pers.                | Flax-leaved          | □   or 2    | mr. au Pu    | Spain            | 1815. | C | a.l |                          |
| 1383. NASTURTIUM. R. Br. NASTURTIUM. |                      |             |              |                  |       |   |     |                          |
| 8964 officinale R. Br.               | Water Cress          | □   Δ cul 1 | my. jl W     | Britain rivul.   |       | D | co  | Eng. bot. 855            |
| 8965 sylvestre R. Br.                | creeping             | □   Δ w 1   | jn. s Y      | Britain wat. pl. |       | D | co  | Eng. bot. 2324           |
| 8966 terrestre R. Br.                | marsh                | □   Δ w 1   | jn. s Y      | Britain wat. pl. |       | S | co  | Eng. bot. 1747           |
| 8967 sagittatum R. Br.               | arrow-leaved         | □   Δ un 1  | my. jn Pa. Y | Siberia          |       | D | co  | Jac. ic. 1. t. 122       |
| 8968 Lippizense Dec.                 | Lippa                | □   Δ un 1  | my. jn Y     | Carinthia        | ...   | D | co  | Dale. lug. 653. f. 3     |



History, Use, Propagation, Culture,

1380. *Schizopetalon*. A curious genus of Chilean plants, with pinnatifid petals, whence the name has been formed, from *σχίζω*, to divide. A plant of difficult cultivation. It is raised from seeds, which it produces sparingly, and only in a well-aired cool greenhouse.

1381. *Mathiola*. Named after Peter Andrew Matthioli, an Italian physician, born in 1500, died in 1577. He was first physician to Ferdinand of Austria, and author of a laborious commentary upon Dioscorides. Herbs, or rarely shrubs, nearly all covered with a white stellate soft down. *M. incana*, *annua*, *græca*, and *fenestralis* are popular border flowers, especially the first; the leaves of all the species, and also of *Cheiranthus*, and many other plants of this class, may be used as potherbs or salads.

1382. *Cheiranthus*. So called from the Arabic *kheiry*, the name of a plant with red sweet-scented flowers. Herbs, or occasionally shrubs, with entire or toothed leaves, and flowers of various colors. *C. Cheiri* is a

1443. *Raphanus*. Siliques transversely many-celled or dividing into several joints.  
 4. *Cotyledons incumbent, linear, spirally or rather circinnately twisted.* (O|||) SPIROLOBEE, Dec.  
 1444. *Bunias*. Silicle nucamentaceous, indehiscent, 2-4-celled. Cotyledons twisted spirally.  
 1445. *Erucaria*. Siliques lomentaceous, 2-jointed; the lower joint having two cells, the upper being ensiform. Cotyledons replicate, somewhat spiral.  
 5. *Cotyledons incumbent, linear, with two legs, or a double plait, that is to say, plaited twice crosswise. Seeds depressed.* (O|||) DIPLECOLOBEE, Dec.  
 1446. *Heliofita*. Siliques elongate or rarely oblong or oval. Dissepiment linear or oval. Valves flat, or in the long siliques somewhat convex. Calyx equal at base.  
 1447. *Subularia*. Silicle oval. Dissepiment elliptical. Valves convex. Cells many-seeded. Stigma sessile.  
 C. *Cotyledons 2. Petals 4, not cruciate. Thalamus large, hemispherical or elongated. Stamens 4-6-00.*  
 1448. *Cleome*. A honey gland at each division of the calyx, except the lowest. Calyx 4-leaved. Petals ascending.

8945 Stem weak cesious, Petals pinnatifid quickly perishable

8946 Stem shrubby at base erect branched, Leaves lanceolate entire hoary, Pods subcylind. without glands

- 8947 Stem herbaceous erect branched, Leaves lanceolate blunt hoary, Pods subcylindrical without glands  
 8948 Stem half shrubby erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands  
 8949 Stem herbaceous erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands  
 8950 Stem  $\frac{1}{2}$  shrubby erect simple, Leaves close obovate downy, Pods downy without glands broadest at base  
 8951 Stem somewhat erect herbaceous branch. Lvs. obl. downy; lower sinuated, Pods comp. velvety and gland.  
 8952 Stem erect branched, Leaves downy or pubescent toothed or pinnatifid, Pods compressed downy  
 $\beta$  Pods twice as short as  $\alpha$   
 8953 Stem erect nearly simple naked, Leaves linear blunt hoary entire, Flowers subsessile, Pods compressed  
 8954 Stem  $\frac{1}{2}$  shrubby at base branched erect, Leaves downy linear entire or toothed, Fl. subsess. Pods roundish  
 8955 Stem suberect branched, Leaves sinuate pinnatifid, Pods with three acute nearly equal points  
 8956 Stem suberect branched, Leaves downy lanceolate repand toothed, Fl. sessile, Middle point of pod longest

8957 Leaves lanc. entire, Hairs 2-parted appressed or none, Pods linear, Stigmas with recurved lobes

8958 Lvs. obl. lanc. somew. toothed, Hairs 2-parted or none, Stem decum. branch. Pet obov. Pods erect pointed

8959 Leaves linear entire somewhat silky, Stem half shrubby

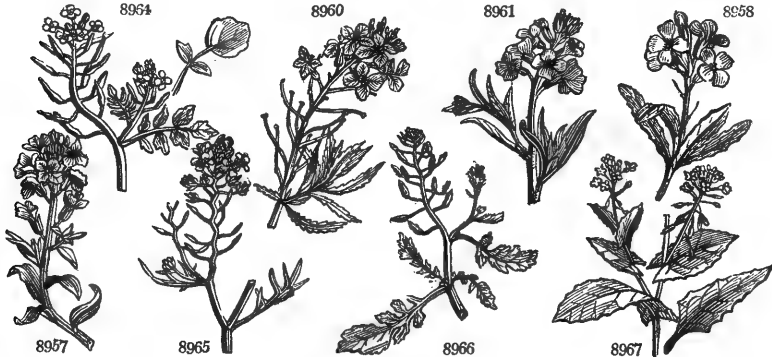
8960 Leaves linear-lanceolate acuminate finely serrated downy with 2-parted hairs, Stem shrubby branched

8961 Leaves linear-lanceolate acuminate entire downy with appressed 2-parted hairs, Stem shrubby branched

8962 Leaves lin. lanc. entire roughish, Stem shrubby branched, Pods compressed, Pedic. half as short as calyx

8963 Leaves linear entire rough clustered, Stem shrubby branched, Pods roundish 3 times as long as calyx

- 8964 Leaves pinnatifid, Segments ovate subcordate repand  
 8965 Leaves pinnatifid, Segments lanceolate serrate or cut  
 8966 Leaves pinnated-lobed, lobes confluent toothed smooth, Root fusiform, Petals as long as calyx  
 8967 Downy, Rad. lvs. toothed backwards, cauline sagittate oblong blunt, Stems erect branched from the base  
 8968 Radical leaves stalked obovate toothed or lyrate : upper pinnatifid, Lobes linear entire

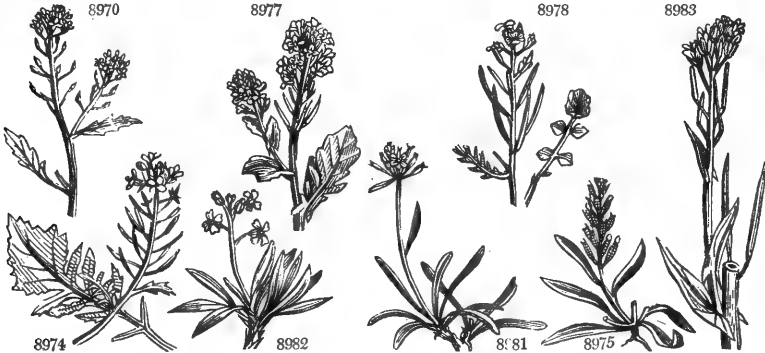


and Miscellaneous Particulars.

popular flower of long standing, admired for its various colors and agreeable odor. Being an acrid and hardy evergreen, it is sometimes sown in pastures, along with parsley, thyme, &c. as a preventative of the rot in sheep.

1383. *Nasturtium*, is said to have been so called from the effect its acrimony produces upon the muscles of the nose; *nasus tortus* signifying a convulsed nose. *Pliny*. *N. officinale* is a well known popular salad, gathered wild in most parts where it is found, and since 1808, cultivated to a considerable extent in the neighbourhood of London. A running stream of clear water is essential to its cultivation; in the bed of this stream the plants are inserted in rows in the direction of the current, and all that is necessary is to take up and replant occasionally, and to keep up the plants free of mud or any accumulation of extraneous matters, and to see that other plants, especially the *Sium nodiflorum*, a poisonous plant resembling the water-cress, do

|        |                          |                  |        |          |     |                 |        |                |                     |
|--------|--------------------------|------------------|--------|----------|-----|-----------------|--------|----------------|---------------------|
| 8969   | pyrenæicum R. Br.        | Pyrenean         | △ un   | ‡ my.jn  | Y   | Pyrenees        | 1775.  | D co           | Act. helv. 4. t.15  |
| 8970   | amphibium R. Br.         | amphibious       | △ w    | 1‡ jn.au | Y   | Britain riv.ba. | ...    | D co           | Eng. bot. 1840      |
| 8971   | benghalense Dec.         | Benghal          | ○ un   | ‡ jn.au  | Y   | E. Indies       | ...    | S co           | ...                 |
| 8972   | microspermum Dec.        | Chinese          | ○ un   | ‡ jn.au  | W   | China           | 1820.  | S co           | ...                 |
| 8973   | indicum Dec.             | doubtful         | ○ un   | ‡ jn.au  | Ap  | China           | ...    | S co           | ...                 |
| 1384.  | LEPTOCARPEA. Dec.        | LEPTOCARPEA.     |        |          |     | Cruciferae.     |        |                | Sp. 1.              |
| 8974   | Loeselii Dec.            | Loesel's         | ○ w    | 1‡ au    | Y   | Germany         | 1683.  | S co           | Jac. aust. 4. t.324 |
|        | Turritis Loeselii R. Br. |                  |        |          |     |                 |        |                |                     |
| 1385.  | NOTO/CERAS. R. Br.       | NOTOCERAS.       |        |          |     | Cruciferae.     |        |                | Sp. 2-4.            |
| 8975   | canariense R. Br.        | Canary           | 10  un | ‡ aus.   | Y   | Canaries        | 1779.  | S co           | Jacq. ecl. t. 111   |
| 8976   | hispanicum Dec.          | Spanish          | 10  un | ‡ aus.   | Y   | Spain           | 1821.  | S co           | ...                 |
| 1386.  | BARBARE/A. R. Br.        | WINTER CRESS.    |        |          |     | Cruciferae      |        |                | Sp. 4-6.            |
| 8977   | vulgáris R. Br.          | common           | △ cul  | 1‡ my.au | Y   | Britain rub.    | D co   | Eng. bot. 443  |                     |
| 8978   | praecox R. Br.           | Belleisle Cress  | △ cul  | 1 ap.o   | Y   | England brooks. | D co   | Eng. bot. 1129 |                     |
| 8979   | ibérica Dec.             | Barbarea-lyd.    | △ un   | 1 my.au  | Y   | Iberia          | 1816.  | C l.p          |                     |
| 8980   | plantaginea Dec.         | Winter cress-ly. | △ un   | ‡ jls    | Y   | Levant          | 1799.  | D co           |                     |
|        | Sisymb. barbareae L.     |                  |        |          |     |                 |        |                |                     |
| 1387.  | BRAY/A. Stern.           | BRAYA.           |        |          |     | Cruciferae.     |        |                | Sp. 1.              |
| 8981   | alpina Stern.            | alpine           | ○ cu   | ‡ jn     | Fu  | Carinthia       | 1823.  | S p.l          | Hook.f.ex.t.121     |
| 1388.  | PAR/YA. R. Br.           | PARRYA.          |        |          |     | Cruciferae.     |        |                | Sp. 1.              |
| 8982   | arctica R. Br.           | northern         | ○  cu  | ‡ ...    | Fu  | Melville I.     | 1820.  | S p.l          | Parry's append.     |
| 1389.  | TURRI/TIS. R. Br.        | TOWER MUSTARD.   |        |          |     | Cruciferae.     |        |                | Sp. 1-3.            |
| 8983   | glabra L.                | long-podded      | ○ w    | 1‡ my.jn | W   | England gr.pa.  | S co   | Eng. bot. 777  |                     |
| †1390. | AR/ABIS. L.              | WALL CRESS.      |        |          |     | Cruciferae.     |        |                | Sp. 32-65.          |
| 8984   | vérna R. Br.             | vernal           | ○ w    | 1 my.jn  | Fu  | France          | 1710.  | S s.l          | Barr. ic. 476       |
| 8985   | alpina L.                | Alpine           | △ pr   | ‡ mr.my  | W.y | Switzerl.       | 1596.  | D p.l          | Bot. mag. 226       |
| 8986   | albida Steud.            | early-flowering  | △ pr   | ‡ ja.o   | W   | Caucasus        | 1798.  | D s.l          | Jacq. ecl. t. 71    |
|        | A. caucásica W.          |                  |        |          |     |                 |        |                |                     |
| 8987   | toxophylla Bieb.         | bow-leaved       | △ pr   | 1 jl.au  | W   | Volga           | 1823.  | S co           |                     |
| 8988   | auriculata Lam.          | auricled         | △ un   | ‡ my     | W   | S. Europe       | ...    | S co           | W. & Kit. 1. t.59   |
| 8989   | saxátilis All.           | stone            | △ un   | ‡ my     | W   | Switzerl.       | ...    | S co           | Vill. daup. 3. t.37 |
| 8990   | crispata W.              | crisp            | △ pr   | 1 my     | W   | Carniola        | 1816.  | D co           |                     |
| 8991   | sagittata Dec.           | sagittate        | △ un   | 1 my.jl  | W   | S. France       | ...    | S co           |                     |
| 8992   | hirsúta Scop.            | hairy            | △ w    | 1 my.jl  | W   | Britain rocks.  | D s.l  | Eng. bot. 587  |                     |
| 8993   | Allionii Dec.            | upright          | △ w    | 2 my.jn  | W   | Italy           | 1804.  | D co           |                     |
|        | Turritis stricta W.      |                  |        |          |     |                 |        |                |                     |
| 8994   | murális Bert.            | wall             | △ un   | ‡ my.jn  | W   | Italy           | 1824.  | D co           |                     |
| 8995   | stricta Huds.            | Bristol          | △ pr   | ‡ my     | Cr  | England rocks.  | D s.l  | Eng. bot. 614  |                     |
| 8996   | ciliata R. Br.           | ciliated         | △ pr   | ‡ jn.jl  | W   | Ireland         | Ir.sh. | S s.l          | Eng. bot. 1746      |
| 8997   | incána Roth.             | hispid-stalked   | △ un   | ‡ my.jn  | W   | Switzerl.       | 1816.  | S s.l          |                     |
| 8998   | Thaliána L.              | common           | ○ w    | 1 ap.my  | W   | Britain walls.  | S s.l  | Eng. bot. 901  |                     |
| 8999   | serpyllifolia Vill.      | thyme-leaved     | △ un   | ‡ jn.jl  | W   | S. France       | 1823.  | S co           | Vil. dauph. 3. t.37 |
| 9000   | pubescens Desf.          | pubescent        | △ un   | 1‡ ap.my | W   | Barbary         | 1825.  | S co           | Desf. atl. t. 163   |
| 9001   | praecox W. & K.          | early            | △ un   | ‡ jn.jl  | W   | Hungary         | 1820.  | D co           |                     |
| 9002   | hispida L.               | short-podded     | △ w    | ‡ my.jl  | Pu  | Britain al.roc. | D s.l  | Eng. bot. 469  |                     |
| 9003   | lyrata L.                | lyrate           | ○ un   | ‡ my.jl  | W   | N. Amer.        | ...    | S co           |                     |
| 9004   | arenósa Scop.            | purple           | ○ pr   | ‡ jn.jl  | Pk  | Germany         | 1798.  | S s.l          | Scop. carn. t. 40   |



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not find their way into the plantation. Near Rickmansworth, in Hertfordshire, there is a fine stream of water on a chalky bottom, in which one cultivator grows five acres, and sends a supply to London every day in the year, Sundays excepted. There are also large plantations at Uxbridge, Gravesend, and other places.

Some market-gardeners, who can command a small stream of water, grow the water-cress in beds sunk about a foot in a retentive soil, with a very gentle slope from one end to the other. Along the bottom of this bed, which may be of any convenient length and breadth, chalk or gravel is deposited, and the plants are inserted about six inches distance every way. Then, according to the slope and length of the bed, dams are made six inches high across it, at intervals; so that when these dams are full, the water may rise not less than three inches on all the plants included in each. The water, being turned on, will circulate from dam to dam; and the plants, if not allowed to run to flower, will afford abundance of young tops in all but the winter months. A stream of water no larger than what will fill a pipe of an inch bore, will, if not absorbed by the soil, suffice to irrigate in this way an eighth of an acre. As some of the plants are apt to rot off in winter, the plantation should be laid dry two or three times a year, and all weeds and decayed parts removed, and vacancies filled up. Cress grown in this way, however, is far inferior to that grown in a living stream flowing over gravel or chalk.

The water-cress has lately been cultivated in the neighbourhood of Paris, and also near Edinburgh.

1384. *Leptocarpea*. From *λεπτος*, slender, and *καρπον*, fruit. A genus distinguished from *Sisymbrium* by its accumbent cotyledons.

- 8969 Radical leaves stalked obovate or lyrate, Cauline amplexicaul pinnatifid, Lobes linear entire  
 8970 Leaves obl. lanc. pinnatifid or serrated, Root fibrous, Petals larger than calyx, Siliques ellipsoid  
 8971 Leaves obovate cuneate toothed at end, Pods roundish subtergoid, Bractes a little shorter than pods  
 8972 Lvs. smooth : rad. stalked pinnatif. ; caul. stem-clasping cut serr. Pods roundish, Pedic. bracteate very short  
 8973 Lvs. ovate lanc. toothed backwards acuminate at each end smooth, Pods roundish 4 times as long as stalk

8974 The only species. Leaves stalked pinnatifid sublyrate with cut toothed acuminate lobes

- 8975 Pods 2-horned, Petals equal, Leaves entire, Hairs strigose fixed by their middle 2-parted appr. scattered  
 8976 Pods 2-horned, Petals unequal, Leaves ent. Hairs strigose fixed by their middle 2-parted very numerous

- 8977 Lower leaves lyrate : terminal lobe roundish ; upper obovate toothed  
 8978 Lower leaves lyrate : terminal lobe ovate ; upper pinnatifid with linear oblong entire lobes  
 8979 Radical and lower leaves pinnatifid-lyrate : lateral lobes ovate ; terminal cordate entire  
 8980 Lower leaves toothed lyrate : lateral lobes dentiform ; terminal very large subcordate, upper ovate

8981 Leaves linear narrowed at base smooth acute

8982 Pods lin.-oblong, Anthers oval, Leaves entire, Peduncles smooth

8983 Rad. leaves toothed hairy : cauline stem-clasping entire smooth, Pods erect 6 times as long as stalk

- 8984 Cauline lvs. cord. stem-clasping rough with 3-parted down, Pedicels shorter than cal. Stigma somew. emarg.  
 8985 Leaves many-toothed villous with branched hair lanc. acute : rad. somew. stalked ; caul. cord. stem-clasp.  
 8986 Leaves few-toothed hoary with branched hairs : rad. obov. oblong ; cauline cordate sagitt. stem-clasping

- 8987 Lvs. pubesc. with minute stellate down : rad. obl. stalked sinuate toothed ; cauline sagittate lanceol. entire  
 8988 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline bluntly cord.-auricled  
 8989 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline acutely cord.-auricled  
 8990 Lvs. acutely toothed lanc. stem-clasping wavy rough with branching hairs : rad. narrowed into the stalk  
 8991 Lvs. somew. toothed rough : rad. ovate or obl. narrowed into the stalk ; cauline lanceol. sagittate cordate  
 8992 Lvs. toothed rough with generally branched hairs : radical obov. obl. narr. into the stalk ; caul. ovate lanc.  
 8993 Lvs. smooth : radical ovate-oblong somewhat toothed narrowed at base ; cauline sessile ovate serrated

- 8994 Leaves hairy with branched pubescence : radical spatulate bluntly toothed ; cauline ovate acutely toothed  
 8995 Leaves rough with scattered bifid down : radical obov. toothed ; cauline obl. nearly entire, Raceme erect  
 8996 Leaves somewhat toothed smooth ciliated : radical subsessile oval oblong ; cauline oblong, Raceme erect  
 8997 All the lvs. sessile somew. toothed hoary with branched hairs : radical obov. obl. ; cauline obl. Rac. erect  
 8998 Leaves hairy somewhat toothed : radical stalked ovate oblong, Stem branched, Pods ascending  
 8999 Leaves nearly entire rough with branched hairs : radical and caul. oval narrowed at base, Raceme lax  
 9000 Lvs. pubesc. coarsely toothed ; rad. spatulate lanc. narrowed into the stalk ; caul. lanc. Pods pubescent  
 9001 Leaves oblong acute sessile entire smooth, Stems strigose, Runners creeping, Pods spreading  
 9002 Leaves nearly smooth : radical cut ; cauline oblong linear entire, Stem generally branched  
 9003 Rad. leaves lyrate pinnatifid smooth or ciliated : cauline linear, Stem hispid at base somewhat branched  
 9004 Lvs. vill. with forked down : rad. lyrate pinnat. ; caul. cut toothed, Stem branched hisp. with simple hairs



and Miscellaneous Particulars.

1385. *Notoceras*. From *voros*, the back, and *zigas*, a horn. The structure of the pod of this genus is intermediate between *Erysimum* and *Capsella*. The species are small annuals, with very minute flowers, which are sometimes apetalous.

1386. *Barbarea*. A name used by Dodoens, because the plant had been called the herb of St. Barbara by some preceding botanists. *B. vulgaris* is sometimes cultivated as a spring salad, but is much less delicate than the common cress, and has nothing in flavor to recommend it. *B. præcox*, the American or Bellesie cress of gardeners, is preferred to the other, and cultivated in a number of gardens.

1387. *Braya*. A curious little plant, with the habit of *Arabis cærulea*. Leaves are linear, racemes terminal, flowers purple. The genus is not completely known ; but it appears to be intermediate between *Siliculosæ* and *Siliculosæ* ; related to *Draba* on one hand, and *Arabis* on the other. It is a native of the Carinthian alps, where it was found by Dr. Hoppe, who named it after Count Bray, a German nobleman.

1388. *Parrya*. Named by Mr. R. Brown, after Captain Edward Parry, the commander of the British expeditions to discover the north-west passage round America. It was found upon Melville island, and once was raised from seeds brought home by some of the officers, but it never flowered, and is now lost.

1389. *Turrilis*. From *turris*, a tower ; the leaves and seeds giving the stem a pyramidal form. This genus is principally distinguished from *Arabis* by its seeds being in two rows, and by its habit.

1390. *Arabis*. Native of *Arabia*, according to De Theis ; but this is a forced explanation, and scarcely the true root of the word. Distinguished from all the neighbouring genera by its linear compressed siliques, and flat valves.

|                            |                           |   |    |    |    |       |       |                |            |   |     |                      |
|----------------------------|---------------------------|---|----|----|----|-------|-------|----------------|------------|---|-----|----------------------|
| 9005 Halléri L.            | Haller's                  | ♀ | ○  | un | 1  | jn.jl | W     | Switzerl.      | ...        | S | co  | Wal.&Kit. t.190      |
| 9006 cebenensis Dec.       | Montpellier tower Mustard | ♀ | ♀  | un | 1½ | jn.jl | Pa.pu | S. France      | 1830.      | S | co  |                      |
| 9007 Turrita L.            | penulose                  | ♀ | ○  | w  | 1½ | ap.my | Sul   | England walls. |            | S | sl  | Eng. bot. 178        |
| 9008 péndula L.            | penulose                  | ♀ | ○  | un | 1½ | my.jl | W     | Siberia        | 1759.      | S | sl  | Jac. vind. 3. t.34   |
| 9009 levigata Dec.         | polished                  | ♀ | △  | un | 1½ | my.jn | W     | N. Amer.       | 1821.      | D | co  |                      |
| 9010 canadensis L.         | sickle-podded             | ♀ | △  | un | 2  | my.jl | W     | N. Amer.       | 1768.      | D | sl  | Plu. alm. t.86.f.8   |
| 9011 nútans W.             | nodding                   | ♀ | △  | pr | ½  | mr.ap | W     | Switzerl.      | 1658.      | D | co  | Jac. aust.3. t.281   |
| 9012 bellidifolia Jacq.    | Daisy-leaved              | ♀ | △  | pr | ½  | my.jn | W.Y   | Switzerl.      | 1773.      | D | p.l | Jac. aust.3. t.280   |
| 9013 cærúlea Wulf.         | blue                      | ♀ | △  | pr | ½  | jn.jl | Pa.B  | Switzerl.      | 1793.      | D | co  | Al.ped.1. t.40.f.2   |
| 9014 collina Ten.          | hill                      | ♀ | △  | un | ½  | jn.jl | W     | Naples         | 1824.      | D | co  | Bot. mag. 3021       |
| 9015 lúcida L.             | shining-leaved            | ♀ | △  | pr | ½  | jn.jl | W     | Hungary        | 1790.      | D | p.l |                      |
| 1391. MACROPODIUM. R. Br.  | MACROPODIUM.              |   |    |    |    |       |       | Cruciferae.    | Sp. 1.     |   |     |                      |
| 9016 nivále R. Br.         | Siberian                  | ♀ | △  | pr | 1  | jn.s  | W     | Siberia        | 1796.      | D | co  | Pall. it.2. ap. t.U  |
| 1392. CARDA/MINE. L.       | LADY'S SMOCK.             |   |    |    |    |       |       | Cruciferae.    | Sp. 16—55. |   |     |                      |
| 9017 asarifolia L.         | Kidney-leaved             | ♀ | △  | pr | ½  | jn.jl | W     | Italy          | 1710.      | D | p.l | Bot. mag. 1735       |
| 9018 bellidifolia Crantz.  | Daisy-leaved              | ♀ | △  | pr | ½  | ap.jn | W     | Scotland       | sc.al.     | D | sl  | Eng. bot. 2355       |
| 9019 resedifolia L.        | Rocket-leaved             | ♀ | ○  | un | 1  | jl    | W     | Germany        | 1658.      | S | co  | Al.ped.1. t.57.f.2   |
| 9020 africana L.           | African                   | ♀ | △  | un | 1  | mr.ap | W     | C. G. H.       | 1691.      | D | co  | Her. parad. 302      |
| 9021 trifolia L.           | three-leaved              | ♀ | △  | pr | 1½ | my.jn | W     | Switzerl.      | 1629.      | D | p.l | Bot. mag. 452        |
| 9022 chilensis Dec.        | granular                  | ♀ | △  | un | 1  | mr.ap | W     | Chile          | 1825.      | D | co  |                      |
| 9023 granulosa All.        | granular                  | ♀ | △  | un | 1  | ap.my | W     | Italy          | 1820.      | D | co  |                      |
| 9024 amára L.              | bitter                    | ♀ | △  | pr | ½  | ap.my | W     | Britain        | wat.pl.    | D | p.l | Eng. bot. 100        |
| 9025 prórepens Fisch.      | creeping                  | ♀ | △  | un | 1  | ap.my | W     | Siberia        | 1821.      | D | co  |                      |
| 9026 praténsis L.          | Cuckoo-flower             | ♀ | △  | pr | 1  | ap.my | Pu    | Britain        | mc.pa.     | D | m.s | Eng. bot. 776        |
|                            | double-flowered           | ♀ | △  | pr | 1  | ap.my | L.P   | .....          | .....      | D | co  |                      |
| 9027 pennsylvánica L.      | Pennsylvanian             | ♀ | △  | un | 1  | my.jn | W     | N. Amer.       | 1818.      | D | co  |                      |
| 9028 hirsúta L.            | hairy                     | ♀ | △  | un | 1  | ja.d  | W     | Britain        | mo.s.p.    | S | m.s | Eng. bot. 492        |
| 9029 parviflora L.         | small-flowered            | ♀ | ○  | un | 1  | ap.my | W     | France         | ...        | S | co  | Gmel. sib. t. 64     |
| 9030 impatiens L.          | impatient                 | ♀ | ○  | un | 1  | ap.jn | W     | Britain        | al. roc.   | S | co  | Eng. bot. 80         |
| 9031 latifolia Vahl.       | broad-leaved              | ♀ | △  | or | 1½ | jn.au | Pu    | Spain          | 1710.      | S | co  | Her. parad. 303      |
| 9032 chelidonia L.         | Celandine-lvd.            | ♀ | △  | or | 1  | jn.au | Pu    | Italy          | 1739.      | D | co  | Pl.r. nar.2. t.140   |
| 1393. PTERONEURON. Dec.    | PTERONEURON.              |   |    |    |    |       |       | Cruciferae.    | Sp. 1—2.   |   |     |                      |
| 9033 græcum Dec.           | Grecian                   | ♀ | ○  | un | 1  | jn.jl | Pa    | S. Europe      | 1710.      | S | co  | Boc. sic. t. 44. f.2 |
|                            | Cardamine græca L.        |   |    |    |    |       |       |                |            |   |     |                      |
| 1394. DENTARIA. L.         | DENTARIA.                 |   |    |    |    |       |       | Cruciferae.    | Sp. 7—16.  |   |     |                      |
| 9034 enneaphylla L.        | nine-leaved               | ♀ | △  | el | 1  | my.jn | Pa.Y  | Austria        | 1656.      | D | sp  | Jac. aust.4. t.316   |
| 9035 diphylla Mich.        | two-leaved                | ♀ | △  | el | ½  | my.jn | W.pu  | N. Amer.       |            | D | sp  | Bot. mag. t.1465     |
| 9036 máxima Nutt.          | large                     | ♀ | △  | el | 2  | my.jn | Pa.pu | N. Amer.       | 1823.      | D | sp  |                      |
| 9037 trifolia W. & K.      | three-leaved              | ♀ | △  | el | 1  | my.jn | W     | Hungary        | 1824.      | D | sp  | Wal.&Kit. t.139      |
| 9038 pentaphylla Scop.     | five-leaved               | ♀ | △  | el | 1½ | my.jn | Pa.pu | Switzerl.      | 1656.      | D | sp  | Garid. prov. t.29    |
| 9039 pinnáta Lam.          | seven-leaved              | ♀ | △  | el | 1  | my.jn | Pa.pu | Switzerl.      | 1683.      | D | sp  | Garid. prov. t.28    |
| 9040 bulbifera L.          | bulbiferous               | ♀ | △  | el | 1½ | ap.my | Pu    | England        | sha.pl.    | D | sp  | Eng. bot. 309        |
| 1395. LUNA'RIA. L.         | HONESTY.                  |   |    |    |    |       |       | Cruciferae.    | Sp. 2.     |   |     |                      |
| 9041 rediviva L.           | perennial                 | ♀ | △  | or | 3  | my.jn | L.P   | Germany        | 1596.      | D | co  | Lam. ill. t.561.f.1  |
| 9042 biennis Dec.          | annual                    | ♀ | △  | or | 4  | my.jn | L.P   | Germany        | 1870.      | S | co  | Lam. ill. t.561.f.2  |
|                            | annua L.                  |   |    |    |    |       |       |                |            |   |     |                      |
| 1396. RICO'TIA. L.         | RICOTIA.                  |   |    |    |    |       |       | Cruciferae.    | Sp. 1.     |   |     |                      |
| 9043 ægyptiaca L.          | Egyptian                  | ○ | cu |    | ½  | jn.jl | L.P   | Egypt          | 1757.      | S | sp  | Bot. reg. 49         |
| 1397. FARSE'TIA. Tur.      | FARSETIA.                 |   |    |    |    |       |       | Cruciferae.    | Sp. 4—7.   |   |     |                      |
| 9044 cheiranthoides R. Br. | stock                     | ♀ | △  | cu | 1  | jn.jl | W.pu  | Levant         | 1788.      | C | co  | Desf. atl.2. t.160   |
| 9045 suffruticosa Dec.     | half-shrubby              | ♀ | △  | or | 1  | ap    | V     | Persia         | 1823.      | C | co  | Vent. cels. t. 19    |
| 9046 lunarioides R. Br.    | oriental                  | ♀ | △  | or | 1  | jn.jl | Y     | Archipel.      | 1731.      | D | co  | Tour. it.1. p.242    |
| 9047 clypeata R. Br.       | buckler-podded            | ♀ | ○  | or | 1½ | jn.jl | Y     | S. Europe      | 1696.      | S | co  | Dal. lug.1141.f.1    |



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1391. *Macropodium*. So named because the pod is elevated above the receptacle upon a stalk; *μακρος*, long, and *πους*, a foot or stalk. A genus differing from *Arabis* chiefly in its stalked pod, and its calyx being a little thickened at the base. A little, smooth, erect, simple herb, with ovate, lanceolate, acuminate leaves, and white flowers.

1392. *Cardamine*. From *καρδια*, the heart, and *δυναμις*, to strengthen, in allusion to its supposed stomachic qualities. The leaves of *C. pratensis* were formerly used in salads. *C. impatiens* is so named from the sudden bursting of the seed pods, being ripe and pressed between the fingers. *C. pratensis* frequently has double flowers. *C. hirsuta* and, it is said, other species, produce young plants from the leaves. All that is necessary is to lay the leaf on a moist grassy surface, or on moss kept moist. The plant propagates itself extensively in this way in moist soils.

1393. *Pteroncuron*. From *πτερον*, a wing, and *νευρον*, a nerve, in allusion to the winged nerves of the pods, by which it is distinguished from *Dentaria* and *Cardamine*.

9005 Lower lvs. stalked lyrate : terminal lobe ovate ; upper lanceolate cut. Stem branched weak softly villous  
 9006 Leaves all stalked ovate-acumin. coarsely toothed velvety with very fine down, Pedic. and pods spreading  
 9007 Lvs. stem-clasping acum. somewhat toothed pubescent, Pedicels length of calyx, Pods 1-sided decurved  
 9008 Leaves stem-clasping toothed oblong dilated and cordate at base, Stem furrowed hispid, Pods pendulous  
 9009 Cauline leaves linear sessile smooth : lower somewhat toothed ; radical obovate, Pods erect  
 9010 Cauline leaves sessile oblong lanceolate acuminate somewhat toothed, Pods pendulous falcate [stalk  
 9011 Lvs. roughish nearly ent. : rad. obov. ; caul. ov. or obl. Rac. nodding, Pods erect 3 times as long as their  
 9012 Lvs. smooth nearly entire : rad. obovate ; cauline ovate, Raceme erect, Pods 4 times as long as their stalk  
 9013 Leaves smooth nearly entire : rad. oblong obovate ; cauline few oblong, Raceme nodding, Pods. erect  
 9014 Lvs. hoary with stellated down obl. sinuate toothed : rad. stalked ; caul. sess. Pods 8 times as long as their  
 9015 Leaves stem-clasping shining [stalk

9016 Leaves ovate lanceolate acuminate subserrate, Raceme terminal long

9017 Lvs. smooth stalked cordate roundish subsinuate toothed, Stem erect, Pods erect twice as long as stalk  
 9018 Leaves smooth thickish : radical stalked ovate entire ; cauline few entire or 3-lobed, Pods erect  
 9019 Leaves smooth membranous radical : radical undivided ; lower cauline 3-fid, upper 5-lobed, Pods erect  
 9020 Leaves smooth 3-fid, Segments stalked ovate acuminate toothed, Pods spreading  
 9021 Lvs. smoothish 3-fid, Segm. sess. rhomb. roundish tooth. Scape naked, Lower branches root-like creeping  
 9022 Leaves above downy trifid, Segments somewhat stalked ovate lanceolate crenate, Stem ascending  
 9023 Radical leaves stalked ovate subcordate : cauline pinnatifid with oblong entire lobes, Root granular  
 9024 Leaves pinnatifid, Segments of radical roundish ; of cauline toothed angular, Stem rooting at base  
 9025 Lvs. pinnatifid, Segm. ovate nearly entire : term. round. 3-lobed, Runners creeping, Stem ascend. pubesc.  
 9026 Lvs. pinnatifid, Segm. of rad. roundish : of cauline linear or lanc. entire, Style very short, Stigma capitate

9027 Leaves pinnatifid or lyrate, Lobes oval angular toothed blunt, Stem erect, Petals oblong linear  
 9028 Leaves pinnatifid, Segm. of radical roundish mucronate stalked, of the upper oblong subsess. Petals obl.  
 9029 Leaves pinnatifid, Lobes sessile obl. linear entire the lowest distant from the stem, Petals oblong linear  
 9030 Leaves pinnatifid, Segm. oval oblong somewhat toothed, lowest close to the stem acute stipule-like  
 9031 Leaves pinnatifid smooth, Segm. 3-7 roundish toothed angular, Pods erect a little longer than stalk,  
 9033 Leaves pinnatifid nearly smooth, Segm. stalked ovate toothed lower pinnatifid, Segm. 3-4

9033 Segm. of leaves somewhat stalked roundish tooth-lobed nearly equal

9034 Leaves 3 whorled stalked trifid, Segm. oval lanceolate acuminate serrated, Stamens length of petals  
 9035 Leaves 1-2 alternately shortly stalked 3-fid, Segm. ovate lanceolate coarsely and unequally serrate lobed  
 9036 Leaves many alternate stalked trifid, Segm. broad oval cut toothed, Axillæ without glands  
 9037 Leaves many alternate stalked trifid, Segm. ovate-lanceolate remotely toothed, Axillæ with glands  
 9038 Caul. lvs. many alternate stalked palmate 5-lobed, Segm. oblong lanceolate acuminate coarsely serrated  
 9039 Cauline leaves alternate stalked pinnatifid, Segm. oblong acuminate serrate toothed  
 9040 Cauline leaves alternate pinnatifid : upper undivided mostly bearing bulbs in the axillæ

9041 Pods lanceolate narrowed at each end

9042 Pods elliptical blunt at each end

9043 Leaves sub-bipinnatifid, Lobes oblong sinuate angular

9044 Stem shrubby erect, Leaves linear with close hairs  
 9045 Stem half-shrubby at base erect, Leaves lanceolate downy  
 9046 Stems half-shrubby ascending, Leaves oblong obovate stalked and pods hoary with down  
 9047 Stems herbaceous erect, Leaves oblong repand, Pods velvety with short down, Stigma capitate



and Miscellaneous Particulars.

1394. *Dentaria*. From *dens*, a tooth ; its roots are furnished with projecting angles, which resemble the molar teeth of quadrupeds. Plants with broad palmate or pinnate leaves, and shewy white, yellowish, or purple flowers. The dried root of *D. diphylla* is used instead of mustard by the Americans, under the name of *pepper root*.

1395. *Lunaria*. Derived from *luna*, the moon, in allusion to the broad round silvery silicles. Large hairy plants, with alternate or opposite cordate leaves, and large lilac flowers.

1396. *Ricotia*. A word, the meaning of which is no where explained. It was probably formed after some obscure botanist. Small weak branched annual plants, with variously lobed foliage, and pale lilac flowers.

1397. *Farsetia*. In memory of Philip Farseti, a noble Venetian, celebrated for his botanical erudition. A small genus, with hoary entire leaves, and yellow or dirty-white flowers.



|  |          |                    |            |                   |        |           |                       |
|--|----------|--------------------|------------|-------------------|--------|-----------|-----------------------|
| 1398. BERTERO'A. Dec. BERTEROA.          |          | <i>Cruciferae.</i> | Sp. 3-5.   |                   |        |           |                       |
| 9048 incána Dec. hoary                   | £ ○ or   | 1½ jl.s            | W          | Europe            | 1640.  | S a.l     | Dal. lug. 1181. f.2   |
| <i>Farsétia incána</i> R. Br.            |          |                    |            |                   |        |           |                       |
| 9049 mutábilis Dec. changeable           | £ △ or   | 1½ jl.au           | W.pk       | Levant            | 1802.  | D co      | Vent. cels. 85        |
| <i>Farsétia mutábilis</i> R. Br.         |          |                    |            |                   |        |           |                       |
| 9050 obliqua Dec. oblique                | £ —   or | 1 jl               | W          | Sicily            | 1823.  | C co      | Flora Græca, 623      |
| † 1399. AUBRIE'TIA. Adans. AUBRIETIA.    |          | <i>Cruciferae.</i> | Sp. 1-2.   |                   |        |           |                       |
| 9051 deltoidea Dec. purple               | £ △ or   | ½ mr.my            | Pu         | Levant            | 1710.  | C p.l     | Bot. mag. 126         |
| <i>Farsétia deltoidea</i> R. Br.         |          |                    |            |                   |        |           |                       |
| † 1400. VESICA'RIA. Lam. VESICARIA.      |          | <i>Cruciferae.</i> | Sp. 3-10.  |                   |        |           |                       |
| 9052 utriculáta Lam. smooth              | £ △ or   | 1 ap.jn            | L.Y        | Levant            | 1739.  | D a.l     | Bot. mag. 130         |
| 9053 sinuáta Poir. sinuate-leaved        | £ ○ or   | 1 ap.jn            | L.Y        | Spain             | 1596.  | C s.l     | Clu. his. 2. 134. f.1 |
| 9054 crética Poir. Cretan                | £ —   or | ½ my.au            | Y          | Crete             | 1739.  | D s.l     | Alp. exot. t. 118     |
| * 1401. ALYS'SUM. L. MADWORT.            |          | <i>Cruciferae.</i> | Sp. 18-52. |                   |        |           |                       |
| 9055 saxátile L. rock                    | £ or     | 1 ap.my            | Y          | Candia            | 1710.  | C a.l     | Bot. mag. 159         |
| 9056 Gemonénse L. Austrian               | £ or     | 1 ap.my            | Y          | Europe            | ...    | C co      | Jac. ic. 3. t. 508    |
| 9057 argéteum W. silvery                 | £ △ or   | 1 ap.my            | Y          | Switzerl.         | ...    | D co      | All. ped. t. 54. f.3  |
| 9058 Bertoloníi Desc. Bertoloni's        | £ △ or   | 1 ap.my            | Y          | Switzerl.         | 1823.  | D co      |                       |
| 9059 muráte W. & K. wall                 | £ △ or   | 1 ap.my            | Y          | Hungary           | 1820.  | D co      | Wal. & Kit. l.t.6     |
| 9060 tortuósum W. & K. twisted           | £ △ cu   | 1 jn.jl            | Y          | Hungary           | 1804.  | D s.l     | Wal. & Kit. t.91      |
| 9061 alpestre L. alpine                  | £ △ cu   | 1 jn.jl            | Y          | S. Europe         | 1825.  | D co      | All. ped. t. 18. f.2  |
| 9062 montánium L. mountain               | £ △ or   | ½ jl.au            | Y          | Germany           | 1713.  | D s.l     | Bot. mag. 419         |
| 9063 rostrátum Stev. beaked              | £ ○ un   | ½ my.jl            | Y          | Crimea            | 1823.  | S co      | Stac.p.3. t.15. f.1   |
| 9064 micropétalum Fisch. small-petaled   | £ ○ un   | 1 my.jl            | Y          | Siberia           | 1823.  | S co      |                       |
| 9065 campétre L. field                   | £ ○ un   | 1 jl.au            | L.Y        | France            | 1768.  | S a.p     | Barr. ic. t.912. f.2  |
| 9066 calycínium L. calycine              | £ ○ un   | 1 jl.au            | L.Y        | Austria           | 1740.  | S a.p     | Jac. aust. t. 338     |
| 9067 mínimum W. small                    | £ ○ un   | 1 jl               | L.Y        | Spain             | 1791.  | C s.l     | Tratt. thes. t. 35    |
| 9068 edéntulum W. & K. toothless         | £ ○ un   | 1 jl               | Y          | Hungary           | 1820.  | S co      | Wal. & Kit. l. 92     |
| 9069 marítimum Lam. sweet                | £ un     | 1 jn.s             | W          | England sea co.   | C s.l  | Eng. bot. | 1729                  |
| 9070 rupéstre Tenore. rock               | £ —   un | ½ jn.s             | W          | Naples            | 1825.  | C co      | Tenore nap. t.60      |
| 9071 halimifólium W. purslane-leav'd     | £ —   un | ½ jn.s             | W          | S. Europe         | 1820.  | C co      | Bocc. mus. t. 39      |
| 9072 spinósum L. thorny                  | £ —   un | ½ jn.au            | W          | S. Europe         | 1683.  | C s.l     | Barr. ic. 808         |
| 1402. CLYPE'OLA. W. TREAACLE MUSTARD.    |          | <i>Cruciferae.</i> | Sp. 1-3.   |                   |        |           |                       |
| 9073 Ion Thiaspi L. annual               | ○ cu     | ½ my.jl            | Y          | S. Europe         | 1710.  | S co      | Cav. ic. 1. t.34. f.2 |
| 1403. PELTA'RIA. L. PELTARIA.            |          | <i>Cruciferae.</i> | Sp. 1-3.   |                   |        |           |                       |
| 9074 alliácea L. Garlic-scented          | £ △ pr   | 1 my.jl            | W          | Austria           | 1601.  | D a.l     | Jac. aust. 2. t. 123  |
| 1404. PETROCAL' LIS. R. Br. PETROCALLIS. |          | <i>Cruciferae.</i> | Sp. 1.     |                   |        |           |                       |
| 9075 pyrenáica R. Br. Pyrenean           | £ △ cu   | ½ my.jn            | Pk         | Pyrenees          | 1759.  | D s.l     | Bot. mag. 713         |
| 1405. DRA'BA. L. WHITLOW GRASS.          |          | <i>Cruciferae.</i> | Sp. 11-60. |                   |        |           |                       |
| 9076 aizoides L. sea-green               | £ △ pr   | ½ f.ap             | Y          | Wales             | rocks. | D s.l     | Eng. bot. 1271        |
| 9077 ciliáris L. ciliate-leaved          | £ △ pr   | ½ f.ap             | W          | Switzerl.         | 1731.  | D s.l     | Ger. gal. 1311        |
| 9078 aizoon Wahl. evergreen              | £ △ pr   | ½ my               | Y          | Carinthia         | 1823.  | D co      |                       |
| 9079 alpina L. alpine                    | £ △ pr   | ½ ap.my            | Y          | Lapland           | 1820.  | D co      | Wah. lap. t. 11. f.4  |
| 9080 hirta L. hairy                      | £ △ pr   | ½ my.jl            | W          | N. Europe         | 1823.  | D co      | Wah. lap. t. 11. f.3  |
| 9081 rupéstris R. Br. rock               | £ △ pr   | ½ my.jl            | W          | Scotland a.l.roc. | D s.l  | Eng. bot. | 1338                  |
| 9082 stelláta Jacq. stellate             | £ △ pr   | ½ my.jl            | W          | Pyrenees          | 1820.  | D co      |                       |
| 9083 incána L. twisted-podded            | £ △ pr   | ½ my.jn            | W          | Britain a.l.roc.  | S s.l  | Eng. bot. | 388                   |
| 9084 confúsa Ehr. confused               | £ ○ pr   | ½ my.jn            | W          | N. Europe         | ...    | S co      | Flora Dan. t.130      |
| 9085 nemorális Ehr. wood                 | £ ○ pr   | ½ my.jn            | Y          | Europe            | 1759.  | S s.l     | Ho. sys. 4. t.60. f.1 |
| 9086 murális L. Speedwell-ldv.           | £ ○ pr   | ½ my               | W          | England moun.     | S s.l  | Eng. bot. | 912                   |
| † 406. ERO'PHILA. Dec. EROPHILA.         |          | <i>Cruciferae.</i> | Sp. 1-5.   |                   |        |           |                       |
| 9087 vulgáris Dec. common                | ○ w      | ½ mr.ap            | W          | Britain walls.    | S s.l  | Eng. bot. | 586                   |
| <i>Draba verna</i> L.                    |          |                    |            |                   |        |           |                       |



History, Use, Propagation, Culture,

1398. *Berteroa*. Named after Charles Joseph Bertero, a pupil of Balbis, and a friend of M. Decandolle, who speaks in high terms of his merits. A genus distinguished from its allies by its bifid petals and peculiar habit.

1399. *Aubrietia*. Named by Adanson, after Aubriet, the famous French botanical draughtsman. A genus very distinct in habit, and sufficiently different from *Berteroa* in its entire petals, and from *Alyssum* in its bisaccate calyx and oblong fruit.

1400. *Vesicaria*. From *vesica*, a blister or bladder. The silicles of this genus are inflated like small bladders. This is a genus which combines species with bisaccate and an equal calyx, with entire and toothed stamens, with edged or not edged seeds, and with a deciduous or persistent calyx. It will, therefore, require division hereafter.

1401. *Alyssum*. From *a*, privative, and *λωσσω*, rage; the *Alyssum* passed among the ancients for a plant which possessed the properties of allaying anger. The *αλωσσω* of Dioscorides is referred by Sprengel to *A. alpestre*. The species are shewy plants, of easy culture. *A. saxatile* is very ornamental early in the season.

- 9048 Silicles pubescent somewhat ventricose
- 9049 Silicles compressed flat elliptical smooth
- 9050 Silicles flat elliptical downy
- 9051 Pedicels longer than calyx

- 9052 Calyx bisaccate, Leaves oblong entire smooth ; lower ciliate subspatulate
- 9053 Calyx equal somewhat spreading and leaves velvety oblong entire or sinuate toothed, Stem herbaceous
- 9054 Calyx deciduous, Leaves oblong entire or repand wavy hoary with down

- 9055 Stems  $\frac{1}{2}$  shrubby at base subcorymbose, Leaves lanc. entire downy, Pods obov. orb. 2-seeded, Seeds edged
- 9056 Stems  $\frac{1}{2}$  shrubby at base panic. Leaves lanc. nearly entire velvety, Pods roundish 2-4-seeded, Seeds edged
- 9057 Stems  $\frac{1}{2}$  shrubby at base hoary with stellate down, Lvs. obl. spatul. silvery beneath, Pods ovate roundish
- 9058 Stems  $\frac{1}{2}$  shrubby at base hoary with stellate down, Leaves obl. obov. silvery beneath, Pods elliptical
- 9059 Stems  $\frac{1}{2}$  shrubby at base hoary with stellate down, Leaves obl. nearly acute whitish beneath, Pods ovate
- 9060 Stems  $\frac{1}{2}$  shrubby at base twisted diffuse hoary, Leaves hoary sublanceolate, Racemes corymbose
- 9061 Stems  $\frac{1}{2}$  shrubby at base diffuse hoary, Leaves obovate hoary, Racemes simple, Pods ovate oblong
- 9062 Stems diffuse pubescent, Leaves hoary : lower obovate ; upper oblong, Racemes simple
- 9063 Stem erect, Flowering branches panic. Lvs. lanceol. downy, Pods roundish elliptic. little longer than style
- 9064 Stem erect, Leaves lanceolate, Pods hirsute in long racemes twice as long as style
- 9065 Stems diffuse, Leaves lanceolate or somewhat linear hairy, Pods roundish rough 6 times as long as style
- 9066 Stems diffuse, Leaves linear lanceolate hoary, Cal. persistent, Pods four times as long as style
- 9067 Stems diffuse, Leaves linear lanceolate hoary, Pods roundish emarginate smooth
- 9068 Stem erect, Leaves velvety oblong sinuated : upper linear, Cal. spreading, Petals bifid
- 9069 Stems half shrubby at base procumbent, Leaves lin. lanceol. acute somewhat hoary, Pods oval woolly
- 9070 Stems half shrubby at base somewhat erect, Rad. lvs. obl.-lanc. acute silvery : caul. few lin. Pods woolly
- 9071 Stems  $\frac{1}{2}$  shrubby ascend. Lvs. obl. obt. narrowed at base scaly, Pods roundish smooth twice as long as style
- 9072 Stem shrubby, Branches and old peduncles spiny, Leaves obl. linear silvery, Pods round smooth

9073 Stems diffuse or ascending

9074 Cauline leaves sagittate stem-clasping, Pods flat smooth

9075 Leaves sessile 3-5-fid at end cuneate at base

- 9076 Scapes naked smooth, Leaves rigid linear lanceolate keeled ciliated, Stamens as long as petals
- 9077 Scapes naked smooth, Leaves long linear keeled ciliated, Stamens scarcely as long as calyx
- 9078 Scapes naked smooth, Leaves linear keeled rigid ciliated, Style as broad as hairy pod but twice as short
- 9079 Scapes naked downy, Leaves lanceolate flat hairy, Hairs branched, Pods oblong, Style very short
- 9080 Scapes downy with 2 toothletted leaves, Rad. leaves obl. nearly entire downy, Pods smooth
- 9081 Scapes naked or 1-leaved downy, Leaves lanc. hairy nearly entire, Pods lanceol. pubescent
- 9082 Scapes 1-leaved pubescent, Leaves ovate obl. with a short starry down, Pedicels downy, Pods oblong
- 9083 Stem leafy branched velvety with starry down, Leaves ovate toothed, Pod obl. smooth somewhat twisted
- 9084 Stem leafy branched velvety with starry down, Leaves obl. somewhat toothed, Pods obl. pubescent
- 9085 Stem branched leafy downy, Leaves ovate toothed downy, Pods ellipt. obl. many-seeded (32-36) velvety
- 9086 Stem branched leafy downy, Lvs. ovate toothed subcord. stem-clasping somewhat hairy, Pods smooth few-seeded (12-16)

9087 Pods elliptical shorter than stalk, Scapes 5-15-flowered



and Miscellaneous Particulars.

1402. *Clypeola*. From *clypeus*, a buckler, in allusion to the form of its silicle. A little annual plant, hoary, with stellate pubescence.

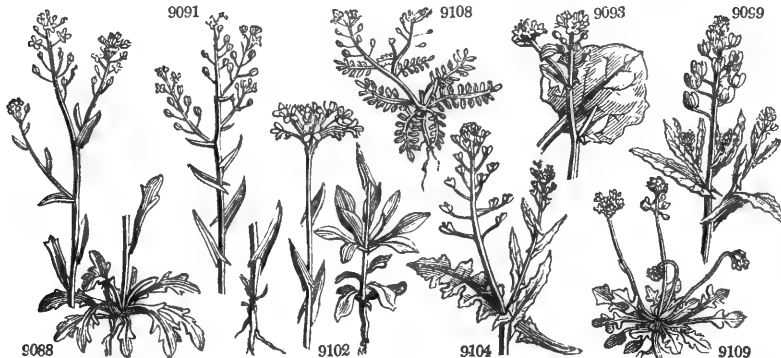
1403. *Pellaria*. A name with the same meaning and application as the last; *πέλαρη* signifies in Greek a small buckler.

1404. *Petrocallis*. From *πέτρας*, a rock, and *καλλος*, beautiful, in allusion to the rocky places where it grows, and which it enlivens with its elegant tufts of rose-colored flowers.

1405. *Draba*. From *δραβη*, acrid, biting, according to Linnæus. Little annual or perennial plants, found, for the most part, in the cold mountainous countries of Europe ; a few are also found in America. Some of the species have siliques, others silicles.

1406. *Erophila*. A genus divided from *Draba*, on account of its bifid petals ; and deriving its name from *ἔρος*, the spring, and *φιλία*, to love, in allusion to the time of the year when it appears.

|   |                 |            |       |        |                         |        |                          |
|---|-----------------|------------|-------|--------|-------------------------|--------|--------------------------|
| 1407. COCHLEA'RIA. L. SCURVY GRASS.       | Cruciferae.     | Sp. 9—30.  |       |        |                         |        |                          |
| 9088 saxatilis R. Br.                     | rock            | Δ un       | 1/2   | ju, jl | W Austria 1775.         | D s.l  | Jac. aust. 2. t. 128     |
| 9089 Armoracia L.                         | Horse-radish    | Δ cul      | 3     | my     | W England wat. pl.      | D s.l  | Eng. bot. 2323           |
| 9090 macrocarpa W. & K.                   | large-capsuled  | Δ un       | 3     | jl     | W Hungary 1806.         | D s.l  | Wal. & Kit. t. 184       |
| 9091 glastifolia L.                       | Wood-leaved     | Δ un       | 1 1/2 | my, jl | W Germany 1048.         | S co   | Mo. his. 2. t. 21. f. 3  |
| 9092 anglica L.                           | English         | ○ ec       | 1/2   | my     | W Britain sea sh.       | S co   | Eng. bot. 552            |
| 9093 officinalis L.                       | common          | ○ ec       | 1/2   | ap, my | W Britain sea sh.       | S co   | 'Eng. bot. 55            |
| 9094 grönlandica L.                       | Greenland       | Δ ec       | 1/2   | my, ju | F Scotland sc. al.      | D co   | Eng. bot. 2403           |
| 9095 danica L.                            | Danish          | Δ ec       | 1/2   | my, ju | W Britain sea sh.       | S co   | Eng. bot. 636            |
| 9096 acutalis Desf.                       | stemless        | Δ un       | 1/2   | ja, ap | W Portugal 1824.        | D co   | Jacq. ecl. t. 132        |
| 1408. THLASPI. L. SHEPHERD'S PURSE.       | Cruciferae.     | Sp. 7—17.  |       |        |                         |        |                          |
| 9097 latifolium Bieb.                     | broad-leaved    | Δ un       | 1     | mr, ap | W Crimea 1822.          | D co   |                          |
| 9098 ceratocarpon L.                      | Siberian        | Δ w        | 1 1/2 | jl     | W Siberia 1779.         | S co   | Scop. ins. 1. t. 4       |
| 9099 arvense L.                           | Penny-Cress     | ○ w        | 1/2   | ju, jl | W Britain corn fi.      | S co   | Eng. bot. 1659           |
| 9100 alliaceum L.                         | Garlic-scented  | ○ w        | 1/2   | my, jl | W S. Europe 1714.       | S co   | Jac. ic. 1. t. 121       |
| 9101 perfoliatum L.                       | perfoliate      | Δ w        | 1/2   | ap, jl | W England sto. pa.      | D s.l  | Eng. bot. 2354           |
| 9102 montanum L.                          | mountain        | Δ w        | 1/2   | jl     | W Austria ...           | S s.l  | Jac. aust. 3. t. 237     |
| 9103 alpestre L.                          | alpine          | Δ w        | 1/2   | my, jl | W England m. pas.       | D s.l  | Eng. bot. 81             |
| 1409. CAPSEL'IA. Münch. SHEPHERD'S PURSE. | Cruciferae.     | Sp. 1.     |       |        |                         |        |                          |
| 9104 bursa pastöris Mön. common           | naked-stalked   | ○ w        | 1 1/2 | fn     | W Britain roads i.      | S co   | Eng. bot. 1485           |
| 1410. HUTCHINSIA. R. Br. HUTCHINSIA.      | Cruciferae.     | Sp. 4—11.  |       |        |                         |        |                          |
| 9105 rotundifolia R. Br.                  | round-leaved    | Δ pr       | 1/2   | my, jl | W, pu Switzerl. 1759.   | D co   | All. ped. 1. t. 55. f. 8 |
| 9106 stylösa Dec.                         | long-styled     | Δ pr       | 1 in  | my, jl | W S. Europe 1824.       | D co   | Bot. mag. 2772           |
| 9107 alpina R. Br.                        | Alpine          | Δ pr       | 1/2   | ap, ju | W Germany 1775.         | D co   | Jac. aust. 2. t. 137     |
| 9108 petraea R. Br.                       | rock            | Δ pr       | 1/2   | mr, my | W England rocks.        | S co   | Eng. bot. 111            |
| 1411. TEESDA'LIA. R. Br. TEESDALIA.       | Cruciferae.     | Sp. 2.     |       |        |                         |        |                          |
| 9109 nudicaulis R. Br.                    | naked-stalked   | ○ pr       | 1/2   | my, jl | W Britain gra. pa.      | S co   | Eng. bot. 327            |
| 9110 regularis Sm.                        | regular         | ○ pr       | 1/2   | f, my  | W S. Europe 1824.       | S co   |                          |
| †1412. IBE'RI'S. L. CANDY-TUFT.           | Cruciferae.     | Sp. 16—24. |       |        |                         |        |                          |
| 9111 semperflorens L.                     | broad-leaved    | Δ ft       | 1 1/2 | ja, d  | W Sicily 1679.          | C r. m | Zanon. hist. t. 165      |
| 9112 gibraltaria L.                       | Gibraltar       | Δ or       | 1     | my, ju | W, pk Spain 1732.       | C co   | Bot. mag. 154            |
| 9113 saxatilis L.                         | rock            | Δ or       | 1/2   | ap, ju | W S. Europe 1739.       | C co   | Garid. prov. t. 101      |
| 9114 pubescens W.                         | pubescent       | Δ or       | 1/2   | ap, ju | W Pa. V. ....           | C co   |                          |
| 9115 sempervirens L.                      | narrow-leaved   | Δ or       | 1/2   | ap, ju | W Candia 1731.          | C co   | Riv. tetr. 234. f. 2     |
| 9116 amara L.                             | bitter          | ○ or       | 1     | ju, jl | W England chal. fi.     | S co   | Eng. bot. 52             |
| 9117 intermedia Dec.                      | intermediate    | Δ or       | 1     | ju, jl | W France 1823.          | S co   | Bul. ph. n. 82. t. 21    |
| 9118 pinnata L.                           | wing-leaved     | ○ ft       | 1     | ju, au | W S. Europe 1596.       | S co   | Lob. ic. 218             |
| 9119 odorata L.                           | sweet-scented   | ○ ft       | 1     | jl, au | W Geneva 1806.          | S co   | Clu. his. p. 132. f. 1   |
| 9120 umbellata L.                         | purple          | ○ or       | 1     | ju, jl | W S. Europe 1596.       | S co   | Bot. mag. 106            |
| 9121 limifolia L.                         | Flax-leaved     | Δ or       | 1 1/2 | jl, au | W Pu S. Europe 1759.    | C p.l  | Garid. pro. t. 105       |
| 9122 ciliata All.                         | ciliate-leaved  | Δ or       | 1/2   | ju, jl | W Caucasus 1802.        | C co   | Bot. mag. 1030           |
| 9123 taurica Dec.                         | Taurian         | Δ or       | 1/2   | ju, jl | W Caucasus 1823.        | S co   |                          |
| 9124 violacea R. Br.                      | blunt-ld.-purp. | ○ or       | 1/2   | ju, jl | W Pu ..... 1782.        | S co   |                          |
| 9125 nana All.                            | dwarf           | ○ or       | 1/2   | ju, jl | W Pu Dauphny 1822.      | S co   | All. auct. t. 2. f. 1    |
| 9126 Tenoreana Dec.                       | Tenore's        | Δ or       | 1/2   | ju, jl | W Pa. pu Naples 1823.   | D co   | Swt. fl. gar. 88         |
| 1413. BISCUTE'LIA. L. BUCKLER MUSTARD.    | Cruciferae.     | Sp. 14—25. |       |        |                         |        |                          |
| 9127 auriculata L.                        | ear-podded      | ○ un       | 1 1/2 | ju, jl | W Pa. Y S. Europe 1683. | S co   | Lam. ill. t. 560. f. 2   |
| 9128 erigerifolia Dec.                    | Erigeron-leav'd | ○ un       | 1 1/2 | ju, jl | W Pa. Y S. Europe ...   | S co   |                          |
| 9129 hispida Dec.                         | hispid          | ○ un       | 1 1/2 | ju, jl | W Y S. Europe 1824.     | S co   | Barr. ic. t. 230         |
| 9130 lyrata L.                            | lyre-leaved     | ○ un       | 1 1/2 | ju, jl | W Y Spain 1799.         | S co   |                          |
| 9131 raphanifolia Poir.                   | radish-leaved   | ○ un       | 1 1/2 | ju, jl | W Y Sicily 1822.        | S co   |                          |



History, Use, Propagation, Culture,

1407. *Cochlearia*. From *cochlear*, a spoon. The leaves are hollowed and concave like the bowl of a spoon. The annual species were formerly used as spring salads and antiscorbutics, but are now generally neglected.

*C. armoracia*, the horse radish, is cultivated as a condiment to roast beef. It is called upon the continent *Cran*, *Cran de Bretagne*, *Raifort*, *Reeredyck*, &c. &c. Two excellent modes of cultivating it have lately been described in the Horticultural Transactions, by Knight, a nurseryman, and Judd, a gardener. Both agree in trenching the soil to a considerable depth, and putting the manure at the bottom of the trench; but Knight plants the sets on the surface, and calculates on the root that strikes down to the dung for produce. Judd, on the other hand, makes holes quite to the bottom of his trenched soil, and in each drops a set, filling up the hole with wood ashes, rotten tan, or sand, calculating for produce on the shoot made from the set at the bottom of the hole, up through the sand or ashes to the surface. Judd's mode is the most ingenious, and appears the best, but either will do extremely well. A moist soil increases the bitter and alkaline flavor of this and all the Cruciferae.

Common scurvy-grass has powerful medical properties, as antiscorbutic and sialagogue, and stimulating the digestive organs. For ample details respecting its qualities, consult *Wier Cochli. Descr.* lib. 1., Basilæa. 1567. *Mæhlenroch Cochli. Cur.*, Lipsiæ, 1674. *Murr. App. Med.* 2. p. 420, &c.

9088 Pods lentiform smooth, Rad. leaves obl. toothed hairy; cauline linear oblong  
 9089 Pods ellipsoid, Rad. leaves obl. crenate; cauline long lanceolate toothed or cut, Root large fleshy  
 9090 Pods ellipsoid, Rad. lvs. obl. crenate; cauline lanc. toothed, Teeth cartilaginous, Root fleshy, Sepals erect  
 9091 Pods roundish, Cauline leaves cordate sagittate stem-clasping acuminate entire  
 9092 Pods ovate roundish with netted veins twice as short as stalk, Rad. leaves stalked ovate entire; caul. obl.  
 9093 Pods ovate globose twice as short as stalk, Rad. leaves stalked cordate; cauline ovate toothed angular  
 9094 Pods ovate the length of stalk, Rad. leaves stalked reniform entire; cauline scarcely any  
 9095 Silicles ellipsoid the length of pedicel, Leaves all stalked subdeltoïd  
 9096 Silicles roundish emarginate, Pedicels and petioles radical long, Leaves ovate rounded entire

9097 Radical leaves on long stalks cordate repand-toothed; cauline ovate cordate on short stalks  
 9098 Rad. lvs. somewhat stalked obovate-obl.; cauline oblong at the base hastate stem-clasp. with acute auricles  
 9099 Leaves oblong toothed, Stems erect, Silicles obovate orbicular shorter than pedicel  
 9100 Lvs. obl. tooth. blunt: lower stalked; upper sagit. stem-clasp. with acute auricles, Silicles subov. ventricose  
 9101 Lvs. somew. tooth.: rad. stalk.; caul. cord. stem-clasp. Stem branch. Pet. length of cal. Silicles obcordate  
 9102 Lvs. somew. fleshy ent.: rad. obov. stalk.; caul. obl. sagitt. stem-clasp. Pet. larg. than cal. Silic. obc. 4-seeded  
 9103 Lvs. nearly entire: rad. ovate stalked; caul. obl. stem-clasp. Pet. as long as cal. Silic. obcord. 8-12-seeded

9104 Radical leaves pinnatifid, Silicles obcordate

[twice as short as silicle

9105 Lvs. somew. fleshy entire: lower stalk. obov.; caul. ovate obl. somewhat stem-clasp. Stam. petals and style  
 9106 Lvs. somew. fleshy: lower stalk obov. obl. entire; caul. obl. Stamens petals and style about length of silicle  
 9107 Lvs. pinnated smooth, Pet. twice as long as decid. cal. Silicles acute at each end, Style very short exserted  
 9108 Lvs. pinnated, smooth, Pet. scarcely longer than calyx, Silicles blunt at each end 4-seeded, Stigmas sessile

9109 Petals unequal: outer largest

9110 Petals equal

9111 Shrubby, Lvs. cuneate or spatul. blunt ent. smooth, Flowers corymbose, Silicles truncate subemarg. at end  
 9112 Shrubby, Leaves cuneiform obtuse somewhat toothed at end a little ciliated, Flowers corymbose  
 9113 Shrubby, Leaves linear entire somewhat fleshy rather acute smooth or ciliated, Flowers corymbose  
 9114 Shrubby, Leaves ciliated blunt linear spatulate; lower somewhat toothed at end, Flowers corymbose  
 9115 Shrubby, Lvs. obl. blunt narrowed at base smooth, Fla. in long racemes, Silic. emarg. with a narrow recess  
 9116 Herbaceous, Lvs. lanc. acute somew. toothed, Fls. corym. becoming racem. Silic. obcord. narrowly emarg.  
 9117 Herbaceous, Lvs. lanc. blunt smooth entire or the rad. somew. toothed, Fls. finally racem. Silic. ovate trun.  
 9118 Herbaceous smooth, Leaves pinnatifid, Racemes corymbose but little elongated after flowering [style  
 9119 Herb. smooth, Lvs. lin. tooth. ciliat. at base dilat. at end, Silic. round. Lobes of end acute spread. short. than  
 9120 Herbaceous smooth, Leaves lanc. acuminate: lower serrate; upper entire, Silicles umb. acutely 2-lobed  
 9121 Herbaceous smooth, Leaves linear entire: radical somewhat toothed, Silicles corymbose 2-toothed  
 9122 Herb. smoothish, Lvs. lin. entire ciliated at base, Silic. corymb. emargin. with blunt lobes as long as styles  
 9123 Herb. smoothish, Leaves ciliat. somew. fleshy: lower spatul. 2-tooth. at end; upp. lin. Silic. corymb. emarg.  
 9124 Herb. smoothish, Lvs. stalked spat. blunt toothed and ent. ciliat. Corymbs somew. umbel. Cal. hairy at back  
 9125 Herbaceous smooth, Lvs. round. spatul. ent. rather fleshy, Silic. corymbo. emarg. with a broad blunt recess  
 9126 Half-shrubby at base pub. Lvs. rather fleshy cren.: lower ob. narr. at base; up. obl. lin. Sil. somew. corymb.  
 [emarginate  
 9127 Cal. bluntly 2-spurred, Silicles smooth rough with elevated dots in centre, Lobes of end meeting over style  
 9128 Cal. bluntly 2-spurred, Silicles smooth even, Lobes at the end somewhat meeting over the style  
 9129 Cal. acutely 2-spur. Silic. smooth with elevat. rough points on disk, not overhang. style at end, Stem hispid  
 9130 Silicles hispid on each disk, Radical leaves lyrate  
 9131 Silicles smooth even, Radical leaves lyrate



and Miscellaneous Particulars.

1408. *Thlaspi*. From  $\theta\lambda\alpha\sigma\sigma$ , to compress. The *Thlaspi*, says Pliny, bears seeds like the lentil, and compressed, whence its name. *T. arvense*, when rubbed, has the smell of garlic.

1409. *Capsella*. A diminutive of *capsula*. This, which is the common shepherd's-purse, has been separated from *Thlaspi* on account of its valves not being winged at back.

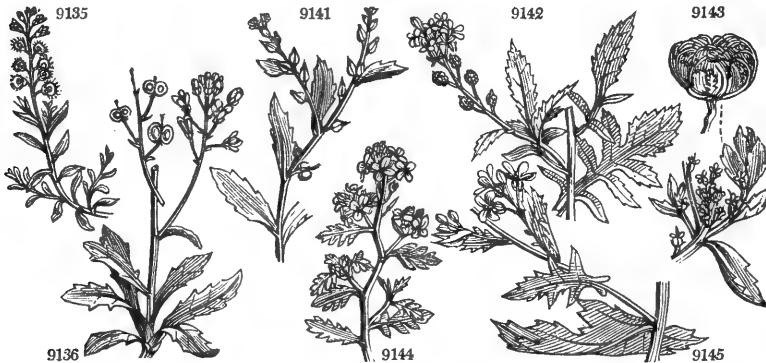
1410. *Hutchinsia*. Named after Miss Hutchins, to whom Sir James Smith was indebted for many communications of submarine algae during the progress of his English Botany.

1411. *Teesdalia*. Named after Mr. Robert Teesdale, author of a Catalogue of the Plants growing about Castle Howard, in the North Riding of Yorkshire, published in the Transactions of the Linnean Society. Small annual smooth herbs, with revolute leaves, and simple scapes of small white flowers.

1412. *Iberis*. From the country called *Iberia*, now Spain. Most of the species grow in such countries. They are generally pretty plants, and some of them are commonly cultivated in gardens as hardy annuals, under the name of Candy-tuft; a name which was originally applied to the *I. umbellata* only, which was first discovered in Candia, and called *Thlaspi Candia* by Lobel and Dodoneus.

1413. *Biscutella*. From *bis scutella*, a double shield, in allusion to the form of its seed-vessel when bursting. Small annual or perennial hispid plants, with small bright yellow flowers. The species are nearly related to each other, and difficult to distinguish.

|        |  |                 |   |    |    |       |      |                    |                  |   |     |                         |
|--------|--|-----------------|---|----|----|-------|------|--------------------|------------------|---|-----|-------------------------|
| 9132   | <i>maritima</i> Tenore.                        | sea-coast       | ○ | un | 1½ | jn.jl | Y    | Naples             | 1824.            | S | co  | Ten. nap. t. 61         |
| 9133   | <i>ciliata</i> Dec.                            | ciliated        | ○ | un | 1  | jn.jl | Y    | S. France          | 1830.            | S | co  | Dec. ic. gall. t. 39    |
| 9134   | <i>Columnæ</i> Tenore.                         | Columna's       | ○ | un | 1  | jn.jl | Y    | S. Italy           | 1823.            | S | co  | Col. ec. t. 234. f. 1   |
| 9135   | <i>A'pula</i> L.                               | spear-leaved    | ○ | un | 1  | jn.jl | Y    | Italy              | 1710.            | S | co  | Lam. ill. t. 560. f. 1  |
| 9136   | <i>lævigata</i> L.                             | smooth-podded   | △ | un | 1  | jn.jl | Y    | Italy              | 1777.            | D | co  | Jac. aust. 4. t. 330    |
|        | <i>β alpēstris</i> W. & K.                     | Hungarian       | △ | un | 1  | jn.jl | Y    | Hungary            | 1816.            | D | co  | Pl. rar. hu. 3. t. 228  |
| 9137   | <i>coronopifolia</i> All.                      | buck's-horn-lv. | △ | un | ½  | jn.jl | Y    | Italy              | 1790.            | D | co  | Dec. diss. t. 18        |
| 9138   | <i>ambigua</i> Dec.                            | doubtful        | △ | un | ½  | jn.jl | Y    | S. Italy           | 1820.            | D | co  | Dec. diss. t. 11. f. 1  |
| 9139   | <i>saxatilis</i> Dec.                          | stone           | △ | un | ½  | jn.jl | Y    | S. Europe          | 1821.            | D | co  |                         |
| 9140   | <i>sempervirens</i> L.                         | downy-leaved    | △ | un | ½  | jn.jl | Y    | Spain              | 1784.            | C | sl  | Barr. ic. t. 841        |
| 1414.  | <b>EUCLI'DIUM.</b> R. Br. <b>EUCLI'DIUM.</b>   |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 1—2.</i>  |   |     |                         |
| 9141   | <i>syriacum</i> R. Br.                         | Syrian          | ○ | cu | ½  | jl.au | W    | Levant             | 1778.            | S | co  | Jac. aus. 1. t. 6       |
| 1415.  | <b>OCHTHO'DIUM.</b> Dec. <b>OCHTHODIUM.</b>    |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 1.</i>    |   |     |                         |
| 9142   | <i>ægyptiacum</i> Dec.                         | Egyptian        | ○ | cu | ½  | au    | Y    | Egypt              | 1787.            | S | co  | Jac. vind. 2. t. 145    |
|        | <i>Bunias ægyptiaca</i> L.                     |                 |   |    |    |       |      |                    |                  |   |     |                         |
| 1416.  | <b>ANASTA'TICA.</b> L. <b>ROSE OF JERICHO.</b> |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 1.</i>    |   |     |                         |
| 9143   | <i>Hierochun'tia</i> L.                        | common          | △ | cu | ½  | jn.au | W    | Levant             | 1597.            | D | co  | Jac. vind. 1. t. 58     |
| 1417.  | <b>CAKILE.</b> Tourn. <b>CAKILE.</b>           |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 1—3.</i>  |   |     |                         |
| 9144   | <i>maritima</i> Scop.                          | Sea Rocket      | ○ | un | ½  | jn.s  | Pu   | Britain            | sea sh.          | S | sl  | Eng. bot. 231           |
| 1418.  | <b>RAPIS'TRUM.</b> Desv. <b>RAPISTRUM.</b>     |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 3—5.</i>  |   |     |                         |
| 9145   | <i>perenne</i> Dec.                            | perennial       | △ | un | 1½ | jl    | Y    | Germany            | 1789.            | D | sl  | Jac. aust. 5. t. 414    |
|        | <i>Cakile perennis</i> Lher.                   |                 |   |    |    |       |      |                    |                  |   |     |                         |
| 9146   | <i>rugōsum</i> All.                            | wrinkled        | ○ | un | 1½ | jn.jl | Y    | S. Europe          | 1739.            | S | sl  | All. ped. 1. t. 78      |
|        | <i>Cakile rugosa</i> Lher.                     |                 |   |    |    |       |      |                    |                  |   |     |                         |
| 9147   | <i>orientale</i> Dec.                          | oriental        | ○ | un | 1  | jl    | Y    | Levant             | 1795.            | S | co  | Flo. Græca, t. 612      |
|        | <i>Myagrum orientale</i> L.                    |                 |   |    |    |       |      |                    |                  |   |     |                         |
| 1419.  | <b>CHORISPO'RA.</b> Dec. <b>CHORISPO'RA.</b>   |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 2—4.</i>  |   |     |                         |
| 9148   | <i>tenella</i> Dec.                            | purple          | ○ | un | ½  | jn.jl | Pu   | Siberia            | 1780.            | S | co  | Pall. it. 3. t. L. f. 3 |
|        | <i>γ arcuata</i>                               | bowed           | ○ | un | ½  | jn.jl | Pu   | Siberia            | ...              | S | co  |                         |
|        | <i>Raphanus arcuatus</i> W.                    |                 |   |    |    |       |      |                    |                  |   |     |                         |
| 9149   | <i>sibirica</i> L.                             | Siberian        | ○ | un | ½  | jn.jl | Y    | Altai              | 1823.            | S | co  | Mur. 1775. 48. 11       |
| 1420.  | <b>MALCO'MIA.</b> R. Br. <b>MALCOMIA.</b>      |                 |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 9—15.</i> |   |     |                         |
| 9150   | <i>africana</i> R. Br.                         | African         | ○ | or | ½  | jn.jl | Pu   | Africa             | 1747.            | S | sl  | Bocc. sic. t. 42. f. 1  |
| 9151   | <i>taraxaci'folia</i> Dec.                     | Dandelion-lvd.  | ○ | or | ½  | jn    | Pu   | Siberia            | 1795.            | S | lp  |                         |
| 9152   | <i>laxa</i> Dec.                               | lax             | ○ | or | ½  | jn    | Pu   | Siberia            | 1820.            | S | co  |                         |
| 9153   | <i>Chia</i> Dec.                               | dwarf branching | ○ | or | 1  | jn    | Pu   | Chio               | 1732.            | S | sl  | Dil. el. t. 148. f. 178 |
| 9154   | <i>maritima</i> R. Br.                         | dwarf annual    | ○ | or | ½  | my.jn | V    | S. Europe          | 1713.            | S | sl  | Bot. mag. 166           |
| 9155   | <i>arenaria</i> Dec.                           | sand            | ○ | or | ½  | jn.jl | V    | Algiers            | 1804.            | S | sl  | Dec. fat. 2. t. 162     |
| 9156   | <i>parviflora</i> Dec.                         | small-flowered  | ○ | or | ½  | jn.jl | V    | S. Europe          | 1823.            | S | co  | Dec. ic. gall. t. 35    |
| 9157   | <i>lyrata</i> Dec.                             | lyrate          | ○ | or | ½  | jn.jl | Pu   | Cyprus             | 1820.            | S | co  | Flor. Græc. t. 635      |
| 9158   | <i>littorea</i> R. Br.                         | small sea       | ○ | or | 1  | jn.n  | W.v  | S. Europe          | 1683.            | S | sl  | Bot. ic. t. 331. f. 1   |
| *1421. | <b>HESPERIS.</b> L.                            | ROCKET.         |   |    |    |       |      | <i>Cruciferae.</i> | <i>Sp. 6—20.</i> |   |     |                         |
| 9159   | <i>tristis</i> L.                              | night-smelling  | △ | or | 1  | ap.jn | D.Pu | Austria            | 1629.            | S | sl  | Bot. mag. 730           |
| 9160   | <i>laciniata</i> All.                          | jagged          | △ | or | 1½ | my.jn | Pu   | S. France          | ...              | S | co  | All. ped. t. 32. f. 1   |
| 9161   | <i>runcinata</i> W. & K.                       | runcinate       | △ | or | 1½ | jn.jl | W.pu | Hungary            | 1804.            | S | sl  | Pl. rar. h. 2. t. 200   |
|        | <i>β bituminosa</i> Savi.                      | clammy          | △ | or | ½  | jn.jl | W.pu | .....              | 1816.            | S | sl  |                         |
| 9162   | <i>matronalis</i> L.                           | common          | △ | or | 4  | my.au | Pu   | Italy              | 1597.            | D | p.l | Lam. ill. t. 564. f. 1  |
|        | <i>β inodora</i> L.                            | scentless       | △ | or | 4  | my.jn | Pk   | Britain            | past.            | S | sl  | Eng. bot. 731           |
| 9163   | <i>aprica</i> Poir.                            | exposed         | △ | or | ½  | my.jn | Pu   | Siberia            | 1822.            | S | co  |                         |
| §9164  | <i>arabidiflora</i> Dec.                       | naked-stalked   | △ | or | ½  | mr.my | Pu   | Siberia            | 1798.            | D | sl  | Amæ. ac. t. 4. f. 20    |
|        | <i>Arabis grandiflora</i> L.                   |                 |   |    |    |       |      |                    |                  |   |     |                         |



History, Use, Propagation, Culture,

1414. *Euclydium.* From *eu*, well, and *κλυδου*, to shut up, because of the firmly closed seed vessel.  
 1415. *Ochthodium.* So called from *εχθωτης*, warted, in allusion to the surface of the pods.  
 1416. *Anastatica.* Derived from *αναστρεω*, resurrection. This plant has been so called because it has the curious property of recovering its original form, however dry it may be, upon immersion in water. The common people believe that if you put this in water at the time when a woman first experiences the pains of childbirth, it will expand at the precise moment when the infant is brought into the world. Commonly called *Rose of Jericho*. It grows in the arid wastes of Arabia and Palestine, where it is called *kaf margam*, that is to say, Mary's hand.  
 1417. *Cakile.* An Arabic word employed by Serapio. Smooth fleshy annual plants, with pinnatifid leaves, and white or purple flowers. They all grow upon the sandy coasts of the northern hemisphere. *C. maritima* is said by Anguillara to be a powerful cathartic.

- 9132 Silicles even ciliated at edge, Radical leaves lyrate  
 9133 Silicles even ciliated at edge, Stem erect elongated leafy, Leaves sessile oblong remotely toothed [at base  
 9134 Sil. rough on edge and disk with a very fine down, Rad. lvs. obov. cun. acute tooth. Stem somew. nak. hisp.  
 9135 Silicles: rough on the edge and disk with a very fine down, Leaves lanc. serrate, Stem leafy branched hairy  
 9136 Silicles smooth even, Rad. leaves rough with hair oblong narrowed into stalk : cauline linear few entire  
 9137 Silicles smooth even, Leaves rough with hairs, generally radical pinnatifid with 2-3 rem. lobes on each side  
 9138 Sil. smth. even, Lvs. rough with hairs : rad. sin.-tooth. nar. at base ; caul. very few cord. at base  $\frac{1}{2}$  stem-clasp.  
 9139 Silicles smooth rough with elevated dots on the disk, Leaves hairy generally radical oblong  
 9140 Silicles smooth rough with elevated dots on disk, Lvs. mostly radical erect linear lanc. hoary nearly entire

9141 Silicles scabrous with a persistent subulate style, Cauline leaves stalked lanceolate

9142 The only species

9143 The only species

9144 Upper joint of the silicle ensiform

9145 Silicles smooth : upper joint ovate longer than style, Leaves pinnatifid, Lobes toothed cut acute

9146 Silicles downy : upper joint round rugose shorter than style, Leaves blunt toothed ; radical sublyrate

9147 Silicles furrowed smooth, Leaves oblong toothed sinuated

9148 Silique and leaves smooth : upper lanceolate toothed ; lower pinnatifid

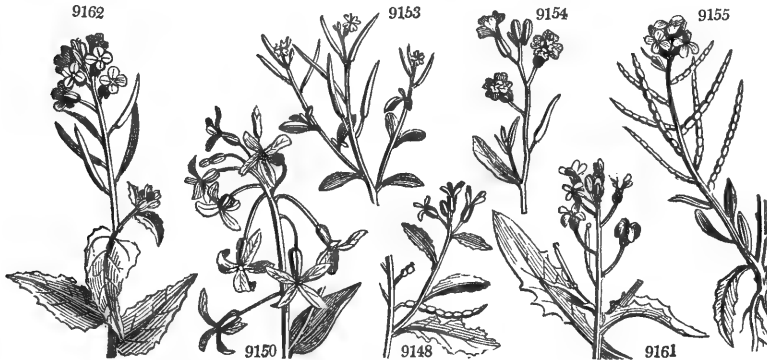
9149 Siliques and leaves hairy smooth, Leaves all sinuate pinnatifid

- 9150 Stem branched dif. Lvs. lanc. somew. toothed, Down 2-4-parted, Pedi. shorter than persist. cal. Siliq. rough  
 9151 Stem erect simple, Lvs. obl. cut tooth. Down 3-parted, Pedi. shorter than decid. cal. Siliq. smth. about 4-cor.  
 9152 Stem branched somew. hairy at base, Lvs. ov. acute toothed angul. and siliq. smooth, Pedi. shorter than cal.  
 9153 Stem erect branch. Lvs. obov. ent. Down 2-parted app. Pedi. length of cal. Siliq. round. pub. Style very short  
 9154 Stem erect branched, Lvs. ellipt. blunt ent. nar. at base, Down app. 2-4-parted, Pedicels shorter than cal.  
 9155 Stem erect branched, Lvs. lanc. acute : lower toothed sess. Down stel. Pedi. very short, Pods torulose subul.  
 9156 Stem erect branched, Lvs. obl. blunt nearly ent. Down tom. stel. Pedicels finally as long as cal. Pods pubesc.  
 9157 Stem erect branched, Lower lvs. lyrate stalked blunt, Down app. 2-part. Pedicels length of cal. Pods pubesc.  
 9158 Stem compound erect, Leaves lanceolate linear nearly entire hoary, Pedicels length of cal. Pods hoary

- 9159 Pedicels very long spreading stiff as broad as silique which is thickened at each edge, Petals obl. oblique  
 9160 Pedicels shorter than cal. Petals obovate oblong, Leaves obovate cut-toothed, Stem hispid  
 9161 Pedic. longer than cal. Petals obov. somew. pointed, Lvs. downy : lower lyrate runcinate ; upper lanc. acum.

9162 Pedicels length of cal. Petals obov. Siliq. erect torose smooth not thickened at edge, Lvs. ovate lanc. toothed

- 9163 Pedicels glandular hairy length of cal. Petals obovate, Leaves oblong blunt and stem simple ciliate hispid  
 9164 Pedic. scarcely so long as cal. Petals obovate, Leaves somewhat radical somewhat fleshy lanc. Scape simple



and Miscellaneous Particulars.

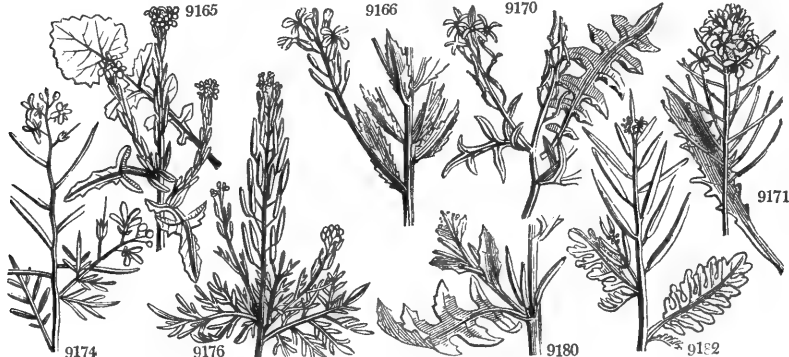
1418. *Rapistrum* ; that is to say, resembling *Rapa*. A genus very near *Cakile*, from which it differs in having yellow flowers, and leaves not fleshy, and more or less hairy.

1419. *Chorispora*. From  $\chi\omega\rho\iota\varsigma$ , separately, and  $\sigma\pi\omicron\rho\alpha$ , seed ; each seed being enclosed separately in the pod. This differs from *Raphanus* in having flat decumbent cotyledons, not folded incumbent ones. Little annual plants.

1420. *Malcolmia*. Named after Mr. William Malcolm, an eminent nurseryman in the neighbourhood of London, and a person of some botanical acquirements. *M. maritima* is a common annual, which, sown at different times, or left to sow itself, will be in flower nearly all the year.

1421. *Hesperis*. From  $\eta\sigma\pi\epsilon\rho\iota\varsigma$ , the evening. The flower is more fragrant towards evening than at other periods of the day. *H. matronalis*, in its double varieties, is rather difficult to keep, and requires to be yearly renewed by cuttings. It prefers a strong loamy soil ; and it has been remarked, that it neither thrives in the neighbourhood of London or Paris.

|  |                   |             |            |      |           |          |       |
|--|-------------------|-------------|------------|------|-----------|----------|-------|
| 1422. SISYMBRIUM. <i>L.</i>            | SISYMBRIUM.       | Cruciferae. | Sp. 90—58. |      |           |          |       |
| 9165 officinale Scop.                  | Hedge-Mustard     | ○ w         | 1½ my.jl   | Y    | Britain   | was.gr.  | S co  |
| 9166 strictissimum <i>L.</i>           | spear-leaved      | △ un        | 3 jn.au    | Y    | Switzerl. | 1658.    | D co  |
| 9167 juncum <i>Bieb.</i>               | rushy             | △ un        | 2 my.jn    | Y    | Hungary   | 1820.    | S co  |
| 9168 hispanicum <i>Jacq.</i>           | Spanish           | △ un        | 1½ my.jn   | Y    | Spain     | ...      | S co  |
| 9169 obtusangulum <i>W.</i>            | obtusely-angled   | ○ un        | 1½ my.au   | Y    | Switzerl. | 1823.    | S co  |
| 9170 sinapoides <i>R. Br.</i>          | Pyrenean          | △ un        | 1½ jn.jl   | Y    | Pyrenees  | 1791.    | S co  |
| 9171 austriacum <i>Jacq.</i>           | Austrian          | ○ un        | 1½ jn.au   | Y    | Austria   | 1799.    | S co  |
| β <i>Eckhartbergense</i> <i>W.</i>     | Austrian          | △ un        | 1½ jn.jl   | Y    | Austria   | 1799.    | S co  |
| 9172 I'rio <i>L.</i>                   | London Rocket     | ○ w         | 1½ my.au   | Y    | England   | walls.   | S co  |
| 9173 Colum'næ <i>Jacq.</i>             | Columna's         | ○ un        | 2 jn.jl    | Y    | Italy     | 1796.    | S co  |
| β <i>altissimum</i> <i>L.</i>          | tall              | ○ un        | 2 au       | Y    | Siberia   | 1759.    | S co  |
| γ <i>orientale</i> <i>L.</i>           | oriental          | ○ un        | 2 jl.au    | Y    | Levant    | 1759.    | S co  |
| 9174 pannonicum <i>Jacq.</i>           | Hungarian         | ○ un        | 2 jl.au    | Fa.Y | Hungary   | 1787.    | S co  |
| 9175 asperum <i>L.</i>                 | rough-podded      | ○ un        | 1½ my.jn   | Y    | S. France | 1778.    | S co  |
| 9176 Sophia <i>L.</i>                  | Flix-weed         | ○ un        | 1 jn       | Y    | Britain   | was.gr.  | S co  |
| 9177 millefolium <i>H. K.</i>          | Milfoil-leaved    | △ un        | 1½ my.s    | Y    | Canaries  | 1779.    | C co  |
| 9178 tanacetifolium <i>L.</i>          | Tansy-leaved      | △ un        | 3 jn.jl    | Y    | Italy     | 1731.    | D co  |
| 9179 supinum <i>L.</i>                 | dwarf             | ○ un        | 1 jn.jl    | W    | S. Europe | 1778.    | S co  |
| 9180 polyceratum <i>L.</i>             | Dandelion-lvd.    | ○ un        | 1½ jn.jl   | Y    | S. Europe | 1633.    | S co  |
| 9181 rigidum <i>Bieb.</i>              | stiff             | ○ un        | 1½ jn.jl   | W    | Crimea    | 1824.    | S co  |
| 9182 bursifolium <i>L.</i>             | various-leaved    | ○ un        | 1½ jn.jl   | W    | S. Europe | 1732.    | S co  |
| 9183 pinnatifidum <i>Dec.</i>          | pinnatifid        | △ un        | 1½ jn.jl   | W    | S. Europe | 1820.    | D co  |
| 9184 integrifolium <i>L.</i>           | entire-leaved     | △ un        | 1 jn       | W.pu | Siberia   | 1822.    | S co  |
| 1423. ALLIARIA. <i>Adans.</i>          | HEDGE GARLIC.     | Cruciferae. | Sp. 2.     |      |           |          |       |
| 9185 officinalis <i>Andrz.</i>         | common            | △ w         | 3 my       | W    | Britain   | hed.     | D co  |
| <i>Erysimum Alliaria</i> <i>L.</i>     |                   |             |            |      |           |          |       |
| 9186 brachycarpa <i>Bieb.</i>          | short-fruited     | △ un        | 1 jl.au    | W    | Iberia    | 1824.    | D co  |
| †1424. ERYSIMUM. <i>L.</i>             | HEDGE-MUSTARD.    | Cruciferae. | Sp. 15—41. |      |           |          |       |
| 9187 sessiliflorum <i>R. Br.</i>       | sessile-flowered  | △ un        | 2 jn.jl    | Y    | Siberia   | 1794.    | D co  |
| 9188 angustifolium <i>Ehr.</i>         | narrow-leaved     | ○ un        | 2 jl.au    | Y    | Hungary   | 1800.    | S co  |
| 9189 cuspidatum <i>Dec.</i>            | cuspidate         | △ un        | 2 my.jn    | Y    | Hungary   | 1822.    | S co  |
| 9190 odoratum <i>R. Br.</i>            | fragrant          | ○ un        | 1½ jl.au   | Y    | Austria   | 1795.    | D co  |
| 9191 virgatum <i>Roth.</i>             | twiggy            | △ un        | 1½ jl      | Y    | Portugal  | 1807.    | D co  |
| 9192 ibericum <i>Dec.</i>              | Armenian          | △ or        | 1 my       | Y    | Armenia   | 1803.    | C lp  |
| <i>Cheir. armeniacus</i> <i>Sims.</i>  |                   |             |            |      |           |          |       |
| 9193 cheiranthoides <i>L.</i>          | treacle           | ○ un        | 1½ jl.au   | Y    | Britain   | fields.  | S co  |
| 9194 repandum <i>L.</i>                | small-flowered    | ○ un        | 1 my.jn    | Y    | Spain     | 1772.    | S co  |
| 9195 helveticum <i>Dec.</i>            | Swiss             | △ un        | 1½ my.jn   | Y    | Switzerl. | 1793.    | S s.p |
| 9196 diffusum <i>Ehr.</i>              | Alpine            | △ un        | 1½ my.jl   | Y    | S. Europe | 1731.    | D co  |
| 9197 lanceolatum <i>R. Br.</i>         | spear-leaved      | ○ un        | 1 my.jl    | P.Y  | S. Europe | 1597.    | S co  |
| 9198 dubium <i>Dec.</i>                | doubtful          | ○ un        | 1½ my.jl   | Y    | .....     | 1823.    | S co  |
| 9199 asperum <i>Dec.</i>               | rough             | ○ un        | 1½ my.jn   | Y    | N. Amer.  | 1822.    | S co  |
| 9200 alpinum <i>Baumg.</i>             | Alpine            | △ un        | 1½ my.jn   | W    | Germany   | 1793.    | D s.l |
| <i>Brassica alpina</i> <i>L.</i>       |                   |             |            |      |           |          |       |
| 9201 orientale <i>R. Br.</i>           | Hare's Ear        | ○ un        | 1 jn       | W    | England   | cliffs.  | S co  |
| <i>austriacum</i> <i>Baumg.</i>        |                   |             |            |      |           |          |       |
| 1425. CAMELYNA. <i>Crantz.</i>         | GOLD OF PLEASURE. | Cruciferae. | Sp. 3—6.   |      |           |          |       |
| 9202 sativa <i>Crantz.</i>             | cultivated        | ○ ec        | 1 my.jl    | Y    | Britain   | corn fi. | S s.l |
| 9203 dentata <i>Pers.</i>              | tooth-leaved      | ○ un        | 1 my.jl    | Y    | Europe    | 1806.    | S s.l |
| 9204 austriaca <i>R. Br.</i>           | Austrian          | ○ un        | 1 jn.jl    | Y    | Austria   | 1795.    | S s.l |
| 1426. NES'LIA. <i>Desv.</i>            | NESLIA.           | Cruciferae. | Sp. 1.     |      |           |          |       |
| 9205 paniculata <i>Desv.</i>           | panicked          | ○ un        | 1½ jl.au   | Y    | Europe    | 1683.    | S co  |
| <i>Myagrimum paniculatum</i> <i>L.</i> |                   |             |            |      |           |          |       |
| *1427. CORONOPUS. <i>Smith.</i>        | WART CRESS.       | Cruciferae. | Sp. 2.     |      |           |          |       |
| 9206 didyma <i>Sm.</i>                 | lesser            | ○ w         | 1½ jl.au   | W    | England   | rubbish. | S co  |
| §9207 Ruel'lii <i>All.</i>             | Star of the Earth | ○ w         | 1½ jn.au   | W    | Britain   | ro. si.  | S co  |



History, Use, Propagation, Culture,

1422. *Sisymbrium*. *Συμβριον* was the name given by the Greeks to some aquatic plant not now recognized. It appears to have had an agreeable smell. Ovid advises that Venus should be propitiated with garlands of myrtle, of roses, and of *Sisymbrium*. *S. officinale* is a celebrated medicinal plant, and esteemed diuretic, detersive, and expectorant, and prescribed in asthma and hoarseness, whence the French call it *Herbe aux chantes*.

1423. *Alliaria*. From *allium*, garlic, in allusion to the smell of the leaves of this plant, for the sake of which it was formerly used in salads.

1424. *Erysimum*. From *ερωσω*, to cure, on account of the salutary effects of this plant in medicine. It is even now reckoned a powerful cure for the sore throat. The plant of the ancients appears to have been our garden cress; for Pliny says the Gauls called his *Erysimum velar*, and the garden cress is to this day called *vilhar* in

9165 Leaves runcinate hairy, Stem hairy, Siliques subulate appressed to the rachis  
 9166 Leaves lanceolate stalked toothed pubescent  
 9167 Leaves smooth glaucous : lower stalked runcinate pinnatifid ; upper linear lanceolate entire  
 9168 Leaves lanc. toothed sessile smooth, Stem branched divaricating, Siliques erect roundish smooth [base  
 9169 Leaves pinnated, Lobes oval oblong blunt sinuate-toothed with rounded recesses, Stem hispid backward at  
 9170 Stem and lvs. smth. : rad. runcin. ; caul. pinnatifid, Lobes and recesses acute, Cal. much spread, Pods rough  
 9171 Stem pods and lvs. smooth : rad. runcin. ; cauline cut or pinnatifid, Lobes and recesses acute, Cal. spreading

9172 Stem and leaves smooth runcinate pinnate, Lobes toothed terminal elongated, Cal. and pods spreading erect  
 9173 Stem villous somewhat hoary, Leaves runcinate pubes. Lobes toothed or ent. acute, Pods nearly erect, Cal. lax

9174 Lower leaves runcin. hispid with toothed lobes : upper pinnated smooth with lin. ent. lobes, Pods spreading  
 9175 Lvs. smth. pinnat. with obl. blunt somewhat tooth. lobes, Pedic. very sh. Pods muric. rough point. with sh. style  
 9176 Leaves bipinnate with oblong linear cut lobes, Pedicels 4 times as long as calyx, Petals smaller than calyx  
 9177 Leaves about 3-pinnate hoary with very small blunt lobes, Stem  $\frac{1}{2}$  shrubby, Petals larger than calyx  
 9178 Lvs. pinnated, Segm. lanc. cut serrated : outer confluent, Petals larger than calyx, Pods shorter than stalk  
 9179 Pedic. axillary very short solitary, Pods erect downy, Leaves sinuate pinnatifid, Stem downy backwards  
 9180 Pedic. about 3 axill. very short, Pods erect smooth, Lvs. sinuate runcin. Lobes acute toothed lowest largest  
 9181 Pedic. very short axill. or naked, Pods and stems erect hispid, Leaves somewhat obl. acutely runcin.-pectin.  
 9182 Leaves lyrate pinnatifid smooth, Stem erect leafy, Pedicels thick shorter than calyx  
 9183 Rad. leaves lyrate : cauline pinnat. Lobes linear ent. term. largest, Pedic. slender almost shorter than alix  
 9184 Leaves linear entire, Branches and pedicels glandular and hairy, Pods glandular

9185 Leaves cordate, Pods prismatical much longer than pedicel

9186 Leaves ovate roundish, Pods lanceolate the length of their stalk

9187 Pods length of style : when young covered by the persistent calyx, Fl. sessile, Leaves linear entire  
 9188 Pods much longer than style when young having a persistent calyx, Fl. subsessile, Leaves linear entire  
 9189 Pods thrice as long as style 2-edged naked, Fl. on short stalks, Leaves oblong lanceolate sinuate toothed  
 9190 Leaves lanc. toothed pubescent with a 3-parted down, Stem branched, Pods lax, Stigma 2-lobed [of pod  
 9191 Lvs. obl. lanc. some tooth. pub with 3-part. down, Stem straight round, Length of style great. than breadth  
 9192 Lower leaves runcinate toothed : upper lanc. undivided, Fl. branches and pods comp. 4-cor. erect spreading

9193 Lvs. lanc. somewhat toothlet, roughish green, Pods erect spread. twice as long as stalk, Stigma small subsessile  
 9194 Leaves linear lanc. repand-toothed, subpubes. Pods spreading, torulose scarcely thicker than short pedicel  
 9195 Lvs. lin. entire and stem cinereous with appressed 2-parted hair, Pods somewhat erect, Stigma stalked emarg.  
 9196 Lvs. lin. ent. or somewhat tooth. somewhat hoary with 2-part. hair, Claws long. than cal. Pods erect, Stig. near sess.  
 9197 Lower lvs. lanc. toothed : upper somewhat linear entire, Petals roundish obovate, Claws longer than calyx  
 9198 Leaves lanceolate toothed narrowed at base, Petals obovate oblong, Pods spreading, Style scarcely any  
 9199 Leaves lin. obl. : lower toothed runcin. and stem pubesc. rough, Pods spreading, Style very short and thick  
 9200 Leaves membranous smoothed : cauline cordate sagittate stem-clasping oblong ; radical stalked ovate

9201 Rad. lvs. obov. : cauline cordate stem-clasping, all blunt smooth glauc. Sides of square stalk without nerves

9202 Pods cuneate pyriform with 4 ribs and a longish style, Leaves lanceolate nearly entire

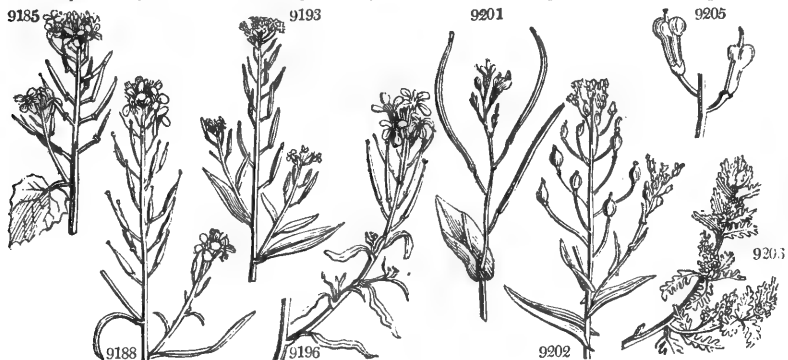
9203 Pods roundish pyriform with 4 ribs and a longish style, Leaves repand toothed

9204 Pods globose, Leaves oblong serrate toothed bluntly stem-clasping at base, Stem smooth

9205 The only species

9206 Leaves pinnatifid, Lobes oblong toothed or cut, Pods compressed twin netted

9207 Lvs. pinnatifid, Lobes ent. toothed or pinnatifid, Pods somewhat acute compressed with crested rugose valves



and Miscellaneous Particulars.

the Basque tongue, and in other dialects of France *beler* or *veler*. From the seeds of *E. perfoliatum*, a plant not known in this country, oil for lamps is expressed in Japan.

1425. *Camelina*; that is to say, *chamae-linum*, dwarf flax. *C. sativa* is cultivated in many parts of Europe for the seeds, from which oil is obtained. For the method of its culture see Parmentier, in *Roz. Cours d'Agric.*, v. xi. p. 291. *Bosc. Dict. d'Agr.* 3. p. 45. *Galliz. Bot. Agr.* 3. p. 170.

1426. *Nestia*. A name first employed by M. Desvaux, but not explained by him. A genus allied to *Camelina*, but well distinguished by its one-seeded indehiscent siliques.

1427. *Coronopus*. From *κορυφή*, a crown, and *πους*, a foot. The leaves are deeply cut, and resemble the feet of a bird. *Coronopus Ruellii* was formerly gathered and used as a salad, but has long since been deservedly neglected. *C. niloticus* is said, by Delile, to be used in Egypt for the same purpose.



| 1428. LEPIDIUM. L.      |                              | PEPPERWORT.    | Cruciferae. |     | Sp. 23-56. |       |       |                         |
|-------------------------|------------------------------|----------------|-------------|-----|------------|-------|-------|-------------------------|
| 9208                    | <i>Draba</i> L.              | Whitlow        | Δ           | un  | 1          | my.jn | W     | Europe 1896. D co       |
| 9209                    | <i>chalepense</i> L.         | Aleppo         | Δ           | un  | 1          | my.jl | W     | Aleppo 1798. S co       |
| 9210                    | <i>glastifolium</i> Desf.    | wood-leaved    | ○           | un  | 1 1/2      | my.jl | W     | Barbary 1823. S co      |
| 9211                    | <i>coronopifolium</i> Fisch. | Buckshorn-lv.  | Δ           | un  | 3          | my.jl | W     | Siberia 1824. D co      |
| 9212                    | <i>sativum</i> L.            | common Cress   | ○           | cul | 1 1/2      | jn.jl | W     | ..... 1548. S co        |
| 9213                    | <i>campestre</i> R. Br.      | hoary field    | ○           | un  | 3          | jn.jl | W     | Britain fields. S co    |
| 9214                    | <i>hirtum</i> Smith.         | hairy          | ○           | w   | 1          | jn.jl | W     | Britain fields. S co    |
| 9215                    | <i>spinosum</i> L.           | prickly        | ○           | un  | 1          | s     | W     | Levant 1787. S co       |
| 9216                    | <i>virginicum</i> L.         | Virginian      | ○           | un  | 1          | jn.jl | W     | America 1713. S co      |
| 9217                    | <i>subulatum</i> L.          | awl-leaved     | ○           | un  | 3          | jl.au | W     | Spain 1739. S pl        |
| 9218                    | <i>ruderale</i> L.           | narrow-leaved  | ○           | un  | 1          | jn.jl | W     | Britain sea co. S co    |
| 9219                    | <i>vesicarium</i> L.         | bladdery       | ○           | un  | 1 1/2      | ap.au | W     | Crimea 1820. S co       |
| 9220                    | <i>perfoliatum</i> L.        | various-leaved | ○           | un  | 3          | jl    | W     | Austria 1640. S co      |
| 9221                    | <i>Cardamines</i> L.         | Spanish Cress  | ○           | un  | 1 1/2      | jn.jl | W     | Spain 1789. C co        |
| 9222                    | <i>divaricatum</i> H. K.     | clock-spiked   | Δ           | un  | 1 1/2      | jn.jl | W     | S. Amer. 1732. S pl     |
| 9223                    | <i>bonariense</i> L.         | Buenos Ayres   | ○           | un  | 2          | my.jn | W     | C. G. H. 1774. S co     |
| 9224                    | <i>pisidium</i> Forst.       | Fish-poison    | ○           | ec  | 1          | s     | W     | Society Isl. 1779. S co |
| 9225                    | <i>oleraceum</i> Forst.      | eatable        | ○           | cul | 3          | s     | W     | N. Zeal. 1824. S co     |
| 9226                    | <i>lyratum</i> L.            | lyrate         | ○           | un  | 2 1/2      | jn.jl | W     | Levant S co             |
| 9227                    | <i>latifolium</i> L.         | broad-leaved   | Δ           | un  | 2          | jn.jl | W     | Britain sea co. D co    |
| 9228                    | <i>crassifolium</i> W.&K.    | thick-leaved   | Δ           | un  | 3          | my.jn | W     | Hungary 1820. D co      |
| 9229                    | <i>graminifolium</i> Cav.    | bushy          | Δ           | un  | 2          | au.s  | W     | Europe 1683. D co       |
| 9230                    | <i>Iberis</i> L.             | diandrous      | ○           | un  | 1 1/2      | jl.au | W     | Germany 1793. S co      |
| 1429. ETHIONEMA. R. Br. |                              | ETHIONEMA.     | Cruciferae. |     | Sp. 3-9.   |       |       |                         |
| 9231                    | <i>saxatile</i> R. Br.       | rock           | ○           | cu  | 1/2        | jn.jl | F     | S. Europe 1759. S co    |
| 9232                    | <i>Buxbaumii</i> Dec.        | Buxbaum's      | ○           | cu  | 1/2        | jn.jl | Pa.pu | Levant 1823. S co       |
| 9233                    | <i>monospermum</i> R. Br.    | one-seeded     | Δ           | cu  | 3          | jl.au | Pa.pu | Spain 1778. S co        |
| 1430. ISATIS. L.        |                              | WOAD.          | Cruciferae. |     | Sp. 9-17.  |       |       |                         |
| 9234                    | <i>armena</i> L.             | Armenian       | ○           | or  | 1 1/2      | jl.au | Y     | Levant 1825. S co       |
| 9235                    | <i>lusitânica</i> Brot.      | Portugal       | ○           | or  | 1          | my    | Y     | Portugal 1822. S co     |
| 9236                    | <i>alpina</i> All.           | Alpine         | Δ           | or  | 1/2        | jn.jl | Y     | Italy 1800. D s.l       |
| 9237                    | <i>præcox</i> Kit.           | early          | Δ           | or  | 1 1/2      | my.jn | Y     | Hungary 1822. S co      |
| 9238                    | <i>littoralis</i> Stev.      | sea side       | Δ           | or  | 1 1/2      | my.jn | Y     | Tauria 1823. D co       |
| 9239                    | <i>tinctoria</i> L.          | common dyer's  | Δ           | ag  | 4          | my.jl | Y     | England corn fl. S s.l  |
| 9240                    | <i>campestris</i> Stev.      | field          | Δ           | or  | 1 1/2      | my.jn | Y     | Persia 1824. D co       |
| 9241                    | <i>canescens</i> D. C.       | hoary          | Δ           | or  | 1          | my.jn | Y     | S. Europe 1822. S co    |
|                         | <i>iberica</i> Stev.         | Iberian        | Δ           | or  | 1          | my.jn | Y     | Iberia 1823. S co       |
| 9242                    | <i>alépica</i> Scop.         | oriental       | ○           | or  | 1          | jn.jl | Y     | Levant 1739. S s.l      |
| 1431. MYAGRUM. L.       |                              | MYAGRUM.       | Cruciferae. |     | Sp. 1.     |       |       |                         |
| 9243                    | <i>perfoliatum</i> L.        | perfoliate     | ○           | pr  | 1/2        | jn.jl | Pa.Y  | France 1648. S co       |
| 1432. BRASICA. L.       |                              | CABBAGE.       | Cruciferae. |     | Sp. 12-34. |       |       |                         |
| 9244                    | <i>oleracea</i> L.           | common         | Δ           | cu  | 2          | ap.jn | Y     | England cliff. S r.m    |



History, Use, Propagation, Culture,

1428. *Lepidium*. From *λεπτε*, a scale. The form of the silicles is that of little scales. *L. pisidium* is used by the natives of the Society Islands for the purpose of catching fish by inebriating them. It was used by the English voyagers as a salad, but it was very pungent. *L. oleraceum* is a powerful antiscorbatic, and is found of great service to the crews of ships visiting New Zealand; it resembles lettuce in taste, and acts as a moderate aperient. *L. sativum*, the common garden cress, is a salad-plant known to every one, and which even the cook can cultivate on moistened cloth or wool in a moist heat. Watering with water, impregnated with muriatic acid gas, or electrifying, will facilitate the germination and development of the seeds.

1429. *Ethionema*. So named by Mr. R. Brown, apparently in allusion to some tawny or sunburnt tinge in the stamens. From *αιθρα*, to scorch, and *νισσα*, a stamen. *Smith*.

1430. *Isatis*. From *ισα*, to render equal. The plant was believed to destroy, by its simple application, all roughness and inequalities of the skin. It was formerly called *glastum*, from the Celtic *glas*, blue, whence *Glastonbury* derived its name. The ancient Britons colored themselves with the blue preparation obtained from this plant, whence they received their appellation, *Briti* being the Celtic word for to paint. The Picts were so named by the Romans for the same reason. On account of the brightness of its manufactured colors the Celts called it *gued* (*guende*, French, at this day), whence the Anglo-Saxons obtained their name of *woad* or *wad*, and the English the word *woad*. *I. tinctoria* is in occasional cultivation for its leaves, from which a dye, as a substitute for indigo, is obtained. The seeds are sown on well prepared land in good heart; fresh broken old pasture land is preferred; and the great object is to have large leaves; for which purpose, as Miller observes, the culture given by the best gardeners to spinage should be imitated, that of sowing on a very rich well pulverised soil, thinning the plants so as they may not touch each other, keeping them perfectly clear of weeds, and frequently stirring the soil between the plants. The culture applied to the turnip in Northumberland would succeed well with woad. The seeds are sown in July, and the plants, when they come up, weeded and thinned; next July, or earlier, the first crop of leaves may be gathered, and two or three others will be ob-

- 9208 Pods cordate somewhat turgid entire at the end exceeded by the style, Leaves stem-clasping lina. toothed  
 9209 Pods elliptical twice as long as stalk, Style filiform, Leaves with acute stem-clasping lanceolate auricles  
 9210 Pods ellipt. smooth shorter than stalk, Style filif. Leaves with blunt stem-clasping obl. bluntly toothed auric.  
 9211 Pods ellipt. ent. somew. downy pointed with style, Cal. somew. persistent, Rad. lvs. pinnat. : caul. lin. ent.  
 9212 Pods orbicular winged, Leaves variously divided and cut, Branches not spiny  
 9213 Pods ovate winged emarginate scaly, Cauline leaves sagittate toothed  
 9214 Pods ovate winged emarginate hairy, Cauline leaves sagittate villous nearly entire  
 9215 Pods oblong winged emarginate about 2-horned smooth, Radical leaves pinnatifid with cut lobes  
 9216 Pods orbic. emarg. shorter than stalk, Flowers with 2-4-stamens, Caul. lvs. lin. lanceol. cut-serrate smooth  
 9217 Pods ovate somewhat emarginate, Leaves subulate entire, Stem  $\frac{1}{2}$  shrubby  
 9218 Pods ovate emarg. spreading shorter than stalk, Leaves smooth : radical pinnatifid, Fls. diandrous apetal.  
 9219 Pods elliptical slightly emarginate, Leaves pinnatifid. Lobes linear, Joints of stem inflated  
 9220 Pods ellipt. slightly emarg. Lower lvs. stalked pinnatifid with multifid lobes : upper cord. amplexicaul entire  
 9221 Pods oval somewhat emarginate, Leaves pinnatifid with oval entire lobes : terminal large roundish  
 9222 Pods oval somew. emarg. approximat. Lower leaves pinnati. with spread. acute lobes, Stem much branched  
 9223 Pods orbicular emarginate, Flowers diandrous, Leaves all pinnately multifid minutely ciliated  
 9224 Pods oblong obovate emarginate, Stigma exserted, Leaves oval-oblong toothed outwardly or entire  
 9225 Pods ovate acutish, Leaves smooth ellipt.-oblong deeply serrated : upper entire somewhat serrated at end  
 9226 Pods ovate pointed with stigma, Lower lvs. stalked lyrate pinnatifid, Lobes cut toothed : term. very large  
 9227 Pods ovate pointed with the stigma, Leaves ovate lanceolate undivided subserrate, lowest on long stalks  
 9228 Pods ovate pointed with stigma, Leaves smooth somew. fleshy entire, Rad. stalked ovate : caul. sess. sagitt.  
 9229 Pods elliptical pointed with stigma, Stems  $\frac{1}{2}$  shrubby, Radical lvs. obov. obl. toothed : cauline linear entire  
 9230 Pods ovate pointed with stigma, Rad. leaves cut or pinnatifid : cauline linear entire, Stem much branched

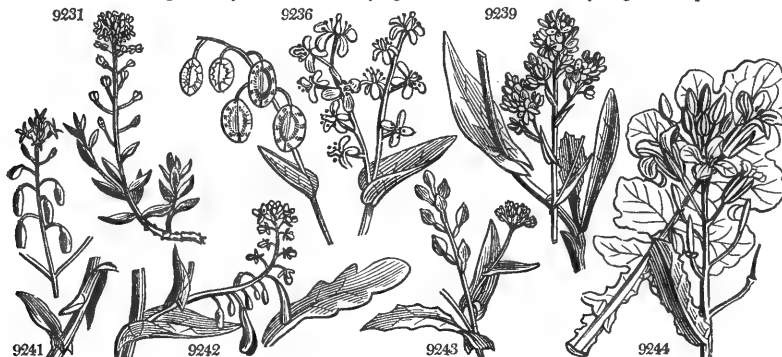
- 9231 Silicles 2-celled many-seeded obcordate, Valves winged at back and entire, Racemes in fruit lax  
 9232 Silicles 2-celled 2-seeded round emarg. at base and end, Racemes very close, Valves winged at back and ent.  
 9233 Silicles 1-celled 1-seeded not opening emarginate at end, Leaves oval or obovate

- 9234 Silicles round cordate at base with a wide margin pointed with the style  
 9235 Silicles obov. with a broad edge cuneate at base very blunt and emarginate at end, Stem and leaves smooth  
 9236 Silicles oval-oblong blunt at each end with a leafy winged margin 3 times as long as broad  
 9237 Silicles elliptical blunt at each end with a coriaceous winged edge three times as long as broad  
 9238 Silicles obl. cuneate very blunt truncate emarginate narrowed at base, three times as long as broad  
 9239 Silicles cuneate acuminate at base somewhat spatulate at end very blunt three times as long as broad  
 9240 Silicles oblong narrowed at base blunthish at end four times as long as broad [at end  
 9241 Silicles elongate-cuneate downy four times as long as broad and twice as long as the stalk which is obconical

- 9242 Silicles lin. blunt vill. with reversed down eight times as long as broad and three times as long as their stalk

- 9243 The only species

- 9244 Lvs. covered with glaucous pollen somew. fleshy repand or lobed even in their youngest state quite smooth



and Miscellaneous Particulars.

tained during the season. The end of the second year the plants may be ploughed down, as the third year they will run to seed, and yield but small leaves. The leaves are pressed, and the juice treated as in making indigo (see *Indigofera*); but such is the cheapness of the latter article, that no British farmer can afford to raise any sort of substitute.

1431. *Myagrwm*. An ancient plant, so named from its properties of catching flies, which the modern plant does not possess;  $\mu\upsilon\alpha$ , a fly,  $\alpha\gamma\gamma\alpha$ , capture.

1432. *Brassica*. The etymology of this word has been explained with great learning and ingenuity by Vossius, Ray, Dalechamp, and others. It comes, however, from the Celtic *brasic*, which signifies a cabbage. This genus affords the well known pot herbs and roots, and also the oil plant rape, extensively cultivated in agriculture. There is scarcely an instance in the vegetable kingdom of a plant that produces varieties so different in appearance and qualities as the *B. oleracea*; comparing the original plant as it is found on our shores, with wavy sea-green leaves, no appearance of a head, and flowering like wild mustard or charlock, with the red cabbage or cauliflower, the difference is astonishing. A new arrangement of the cultivated species of *Brassica* has been made by Professor Decandolle (*Hort. Trans.* vol. 1., and in his *Reg. Veg.*), whose varieties, or races of *B. oleracea*, are stated above.

The *colza* of the Dutch he makes a distinct species (*B. campestris*), and also the turnip (*B. rapa*); the rape (*B. napus*), and the summer rape of the Germans (*B. præcox*).

In Hungary, in the territory of Alba, the *B. elongata* is cultivated for its oil, for which purpose it is said to be better adapted than any other species.

The culture of all the *Brassica* tribe is so universally known that it would be a waste of space in a work of this sort to enlarge on it. They all prefer a loamy soil, well enriched with manure; and manures of the strongest kind, as nightsoil, offals from the shambles, blood, &c. are not found so powerful for common cabbage or cauliflower. The turnip prefers a lighter soil than the cabbage tribe, but it must be well manured, and if the

Garden Varieties.

| <i>β accephala</i> Dec.<br>Cavaller Cabbage<br>Thousand-headed<br>Cabbage<br>Chou moëllier | Borecole<br>Chou de Milan<br>Chou Palmier, &c.<br>&c. | <i>γ costata</i> Dec.<br>Chou à grosses côtes<br>Cove tronchuda | <i>δ bullata</i> Dec.<br>Savoy Cabbage<br>Brussels Sprouts, &c.<br>&c. |
|--|---|---|--|
| 9245 <i>campéstris</i> L.  | field   | ○ ag 2 jn   | Y England fields. S s.l Eng. bot. 2234                                 |
| <i>β rustabágs</i> Dec.  | Swedish Turnip  | ○ ag 1½ jn  | Y Sweden ... S co  |
| 9246 <i>Rápsa</i> L.   | Turnip  | ○ cul 2 ap  | Y England corn fi. S r.m Eng. bot. 2176                                |
| 9247 <i>Nápus</i> L.   | Rape  | ○ ag 2 my   | Y Britain dit. ba. S co Eng. bot. 2146                                 |
| 9248 <i>pre'cox</i> W. & K.  | Kohl.reps   | ○ ag 2 my   | Y Europe 1812. S co  |
| 9249 <i>chinénsis</i> L.   | Chinese   | ○ cul 4 jl  | Y China 1770. S s.l  |
| 9250 <i>repánda</i> Dec.   | repand  | ¥ Δ un ½ jn.au  | Y S. Europe ... D co Vil. dauph. 3. 39                                 |
| 9251 <i>Richérii</i> Vill.   | Richer's  | ¥ Δ un 1 jl   | Y S. Europe ... D co Vil. dauph. 3. t. 36                              |
| 9252 <i>monénsis</i> Huds.   | Ile of Man  | ○ un ½ jn.au  | Y Britain sea sh. S s.l Eng. bot. 962                                  |
| 9253 <i>erucástárum</i> L.   | runcinate-leav'd                                      | ○ un 1 jn.au  | Y S. Europe 1790. S s.l Bull. herb. 331                                |
| 9254 <i>elongáta</i> Ehr.  | stalk-leaved  | ○ un 3 my.jn  | Y Hungary 1801. S s.l Pl. rar. hu. 1. t. 28                            |
| 9255 <i>cheiranthiflóra</i> Dec.   | stock-leaved  | ¥ ○ un 1 jn.au  | Y Spain 1806. S co W. hort. ber. t. 19                                 |
| <i>Ráphanus cheir.</i> W.  |   |   |  |
| 1433. <i>SINA'PIS</i> L.   | MUSTARD.  | <i>Cruciferae.</i> Sp. 18—51.                                   |  |
| 9256 <i>nígra</i> L.   | common  | ○ ag 4 my.jn  | Y Britain corn fi. S r.m Eng. bot. 969                                 |
| <i>β túrgida</i> Pers.   | <i>túrgid</i>   | ○ ag 4 my.jn  | Y Britain corn fi. S r.m   |
| 9257 <i>lævígáta</i> L.  | smooth  | ¥ ○ un 2 jn.jl  | Y Spain 1769. S co   |
| 9258 <i>integriflóia</i> W.  | entire-leaved   | ○ un 1½ jl.au   | Y E. Indies 1804. S co Wil. hor. bert. t. 14                           |
| 9259 <i>júneea</i> L.  | fine-leaved   | ○ un 1½ jn.jl   | Y China 1710. S co Jac. vind. 2. t. 171                                |
| 9260 <i>chinénsis</i> L.   | Chinese   | ○ cul 1½ jl   | Y China 1782. S co Ard. spec. 1. t. 10                                 |
| 9261 <i>brassicáta</i> L.  | cabbage-leaved  | ○ un 1½ jn.jl   | Y China 1801. S co   |
| 9262 <i>pubéscens</i> L.   | downy   | ¥ Δ un 2 jn.jl  | Y Sicily 1789. D r.m Ardui. spec. 1. t. 9                              |
| 9263 <i>arvénsis</i> L.  | Charlock  | ○ w 1½ my.jl  | Y Britain corn fi. S s.l Eng. bot. 1748                                |
| 9264 <i>orientális</i> L.  | oriental  | ○ un 1½ jn.jl   | Y Levant 1778. S s.l Sch. han. 1. t. 186                               |
| 9265 <i>Káber</i> Dec.   | Persian   | ○ un 1 jn.jl  | Y Persia ... S co  |
| 9266 <i>Alliónii</i> Jacq.   | Allioni's   | ○ un 2 jn.jl  | Y ..... S co Jac. vind. 2. t. 168                                      |
| 9267 <i>incána</i> L.  | hoary-jointed   | ¥ ○ un 3 jl   | Y S. Europe 1771. S co Jac. vind. 2. t. 169                            |
| 9268 <i>heterophýlla</i> Lag.  | variously-leaved                                      | ¥ ○ un 1½ my.jn   | Y Spain 1822. S co   |
| 9269 <i>álba</i> L.  | white   | ○ ag 3 jn.jl  | Y Britain corn fi. S r.m Eng. bot. 1677                                |
| 9270 <i>hispida</i> W.   | hispid  | ○ un 2 jl   | Y Morocco 1804. S r.m Scho. Maroc. t. 4                                |
| 9271 <i>dissécta</i> Lag.  | cut   | ○ un 1 mr.ap  | Y Spain ... S co   |
| 9272 <i>foliósá</i> W.   | leafy   | ○ un 1 ap.my  | Y Levant 1820. S co  |
| 9273 <i>frutésceus</i> H. K.   | shrubby   | ■   cu 1½ jn.d  | Y Madeira 1777. C s.l  |
| 1434. <i>MORICAN'DIA</i> Dec.  | <i>MORICANDIA</i> .                                   | <i>Cruciferae.</i> Sp. 1—3.                                     |  |
| 9274 <i>arvénsis</i> Dec.  | cabbage-flower.                                       | ¥ Δ w 1½ jn   | V S. Europe 1739. co Boc. sic. t. 25. f. 3, 4                          |
| <i>Brássica arvénsis</i> L.  |   |   |  |
| 1435. <i>DIPLOTAX'IS</i> Dec.  | <i>DIPLOTAXIS</i> .                                   | <i>Cruciferae.</i> Sp. 9—13.                                    |  |
| 9275 <i>pendúla</i> Dec.   | pendulous   | ○ un 1½ f.mr  | Y Barbary 1823. S co Desf. atl. t. 156                                 |
| 9276 <i>hispida</i> Dec.   | hispid  | ○ un ½ ap.my  | Y Egypt ... co Deless. 89  |
| 9277 <i>erucoides</i> Dec.   | dwarf   | ○ un 1 jn.jl  | W. pu S. Europe 1736. r.m Jac. vind. 2. t. 170                         |
| <i>Sinápis erucoides</i> L.  |   |   |  |



History, Use, Propagation, Culture,

manure be well fermented, so much the better for the garden turnip; in the fields, where it is buried in rows or drills, more littersy dung will succeed.

The field culture of the turnip is become an important part of the agriculture of light soils; the best mode is by drills, as in Berwickshire and Northumberland, where are produced crops of treble the weight of those grown in the broad-cast manner in Norfolk. In the latter county a crop weighs from five to fifteen tons per acre; in Northumberland from twenty-five to thirty tons; and in Ayrshire as many as sixty tons have been raised on the statute acre. (*Encyc. of Agric.*)

The cabbage has been tried as a field plant; but, though it has been said by Sinclair (*Hortus Gram. Wob.*) to produce more nutritive matter than either turnips or field beet, professional farmers have not found it to answer. Of all the Brassica tribe it may be observed, that they attain to much the greatest perfection in temperate climates, such as those of Britain and Holland. Without constant and liberal supplies of water, they are small in size, and rigid or stringy in texture. In France and in Italy, and warm climates, it is only the cauliflower and broccoli that attain a large size; and that, in Italy at least, is during the coldest months of the year, and aided by liberal waterings. But in Tarragona the cauliflower is said to reach the enormous weight of 40 lbs.

1433. *Sinapis*. In Greek *σινάπις*, said to be derived from *nap*, the Celtic designation of all plants resembling the turnip or cabbage. Our English word *mustard*, and the French *mustarde*, are modernizations of *mustum ardens*, hot must; the sweet must of new wine being one of the ingredients of the French mustard for the table. The seeds of all the species are hot, acrid, and will afford an oil by expression, and a powder or meal by drying and grinding, which might serve as the condiment mustard. *S. nigra* is more particularly adapted for the latter purpose, though it is often mixed with the seeds of *S. alba* and *arvensis*, and often with those of the

Garden Varieties.

|  |  |   |   |
|--|--|---|---|
| ε <i>capitata</i> Dec.<br>Battersca Cabbage<br>Early York Cabbage<br>Early Dwarf Cabbage | Sugar-loaf Cabbage<br>Penton Cabbage<br>Red Cabbage, &c. &c. | ζ <i>caulorapa</i> Dec.<br>Chou-rave, or<br>Kohl Rabi<br>Chou-rave crépue,<br>&c. &c. | η <i>botrytis</i> Dec.<br>Cauliflower<br>Brocoli, &c. &c. |
|--|--|---|---|

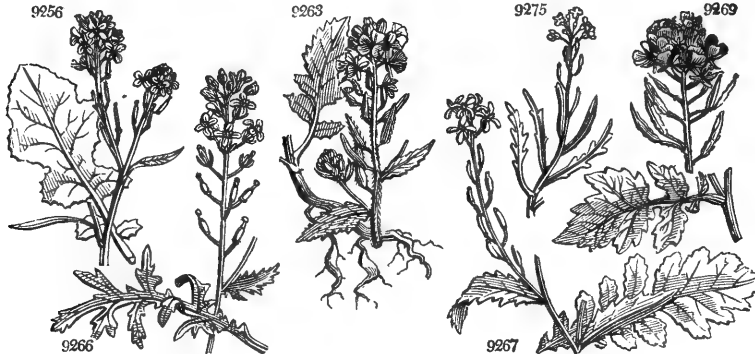
9245 Lvs. fleshy with glaucous bloom : the lower when young somew. hispid or ciliat. lyrate toothed ; the others [cordate amplexicaul acum.

- 9246 Rad. leaves lyrate without glauc. bloom rough ; cauline cut : upper entire
- 9247 Lvs. smooth cesiosus : radical lyrate ; cauline pinnatifid and cren. cord. ; upper lanc. stem-clasping
- 9248 Lvs. smooth cesiosus : radic. and lower cauline lyrate ; upper cord. lanc. stem-clasping cren. Pods erect
- 9249 Lvs. oval nectansifire : floral amplexicaul lanc. Cal. longer than the claw of the petals
- 9250 Radic. leaves fleshy smooth toothed, Scapes naked, Style slender distinct from silique
- 9251 Leaves smooth : lower stalked obl. somewhat toothed ; upper linear lanc. few
- 9252 Leaves smooth somewhat fleshy glauc. pinnated with linear distant somewhat toothed lobes
- 9253 Leaves runcinate somewhat smooth, Lobes unequal bluntly sinuated, Stem hispid at base
- 9254 Leaves stalked : lower sinuate pinnatifid hispid ; upper smooth toothed, Stem smooth
- 9255 Rad. leaves stalked lyrate pinnatifid somewhat hispid : cauline few with entire acute lobes

- 9256 Pods smooth about 4-cornered pressed to the peduncles, Lower lvs. lyrate : upper lanc. entire  
β Pods turgid veiny diverging with a conical striated beak
- 9257 Smooth, Lvs. stalked lyrate pinnatifid with acute lobes, Petiole not auricled at base
- 9278 Smooth, Lvs. ovate lanc. undivided acutely toothed, Pods erect torose with a subulate style
- 9259 Smooth, Lower leaves ovate lanc. coarsely serrated : upper lanc. entire, Branches fascicled
- 9260 At the base and nerves hairy, Lvs. blunt cut pinnatifid, Lobes toothed, Pods erect pointed with the style
- 9261 Smooth, Caul. lvs. cord. amplexicaul obl. entire : lower lyrate pinnatifid toothed, Pods spreading with a [conical beak
- 9262 Lvs. pubesc. villous lyrate pinnatifid, Terminal lobe large ovate, Pod hairy
- 9263 Pods smooth with many angles torulose three times as long as their slender two-edged beak, Stem and lvs. [hairy
- 9264 Pods hairy backwards about 4-cornered torulose shorter than the slender beak
- 9265 Pods smooth round with smooth valves twice as long as the conical beak
- 9266 Pods smooth ovate-oblong, Valves smooth scarcely longer than conical beak
- 9267 Pods smooth appressed to the raceme somew. torose, Stem branch. rough at base, Lvs. lyrate rough
- 9268 Pods downy appressed to raceme somew. torose, Stem bran. rough at base, Lvs. lyrate pinn. hispid on nerves
- 9269 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate and stem nearly smooth
- 9270 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate rough, Stem hispid backwards
- 9271 Pods suberect torulose shorter than the ensiform beak, Lvs. pinnat. Lobes narr. cut-toothed or pinnatifid
- 9272 Beak compressed very rough longer than the hispid pod, Lvs. lyrate repand angular smooth
- 9273 Calyx bisaccate, Lvs. coriaceous : lower oblong lanc. narrowed at base somewhat toothed

9274 Pods about 4-cornered, Cauline leaves cordate amplexicaul entire

- 9275 Pods pendulous stalked, Cauline leaves oblong hispid coarsely cut-toothed
- 9276 Pods pendulous sessile, Leaves obovate coarsely toothed hispid
- 9277 Pods sessile nearly erect, Style ensiform, Leaves sessile runcinate lyrate toothed



and Miscellaneous Particulars.

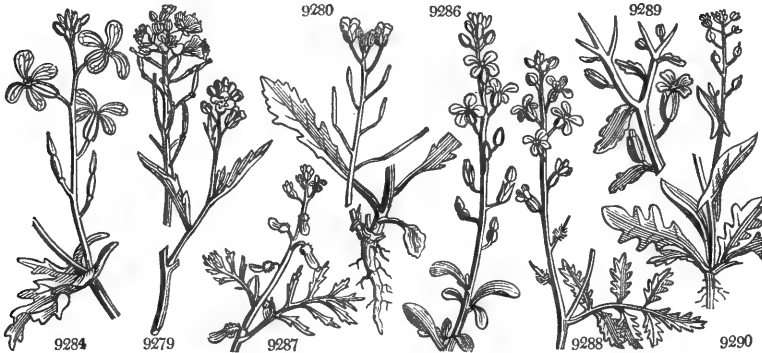
Brassica and Raphanus genera. Both *S. alba* and *nigra* are grown as small salads to be eaten with cress ; they are sown as thick as the seeds will lie, in pots or boxes, or in the area of forcing-houses, in the winter season, and forced, or in beds in the open air, and cut as soon as the seed leaf is fully expanded. For flower of mustard, or for the seed for oil or medical purposes, both white and black sorts are sown in the fields in rich well pulverized soil, in March or April, and kept free of weeds. The crop ripens in July and August, and is either threshed immediately or stacked like other grain. It is like other oleiferous seeds, exhausting for the soil, and such seeds as drop and are buried, will retain their vegetative qualities for an unknown length of time ; so that where mustard has once been grown, it will come up occasionally for a century or more afterwards.

If the seeds, Dr. Cullen observes, be taken fresh from the plant and ground, the powder has little pungency, but is very bitter ; by steeping in vinegar, however, the essential oil is cooled, and the powder becomes extremely pungent. In moistening mustard-powder for the table, it may be remarked, that it makes the best appearance when rich milk is used ; but the mixture in this case does not keep good for more than two days. The seeds of both the black and white mustard are often used in an entire state medicinally. Half or a quarter of a wine glass of mustard seeds, swallowed fasting, about five in the morning, is the most powerful tonic and strengthener of the digestive organs which is known.

1434. *Moricandia*. Named by Decandolle, after his friend Stephen Moricand, author of the *Flora Veneta*, and an excellent Italian botanist. *M. hesperidiflora* is a favourite food of the camel, notwithstanding its intense acidity.

1435. *Diplotaxis*. From διπλος, double, and ταξις, arrangement, on account of the double rows of seeds in each cell.

|       |                                  |                 |         |    |       |       |                    |            |   |     |                      |
|-------|----------------------------------|-----------------|---------|----|-------|-------|--------------------|------------|---|-----|----------------------|
| 9278  | <i>catholica</i> Dec.            | Spanish         | ○ un    | 1  | ap.my | Y     | Spain              | 1822.      | S | co  |                      |
| 9279  | <i>tenuifolia</i> Dec.           | fine-leaved     | △ un    | 1½ | jl.o  | Y     | England            | walls.     | D | s.l | Eng. bot. 525        |
| 9280  | <i>Sisymbrium tenuifolium</i> L. | sand            | ○ un    | 1½ | jl.s  | Y     | England            | san.pl.    | S | co  | Eng. bot. 1090       |
| 9281  | <i>Sisymbrium murale</i> L.      | small           | ○ un    | ¾  | jn.jl | Pa.Y  | S. Europe          | 1770.      | S | co  | Barr. ic. 1016       |
| 9282  | <i>viminea</i> Dec.              | twiggly         | ○ un    | ¾  | my    | Y     | S. Europe          | ...        | S | co  | Bocc. sic. 10        |
| 9283  | <i>saxatilis</i> Dec.            | rock            | △ un    | ¾  | jn    | Y     | S. Europe          | ...        | D | co  |                      |
| 1436. | ERU/CA. Tourn.                   | ROCKET.         |         |    |       |       | <i>Cruciferae.</i> | Sp. 2-3.   |   |     |                      |
| 9284  | <i>sativa</i> Lam.               | stripe-flowered | ○ cul   | 1½ | jl    | Pa.Y  | S. Europe          | 1573.      | S | s.l | Sch. han. 2. t. 186  |
| 9285  | <i>vesicaria</i> Cav.            | bladdery        | ○ un    | 1½ | jl    | Pa.Y  | Spain              | 1820.      | S | co  | Asso arr. t. 4       |
| 1437. | VEL/LA. L.                       | CRESS-ROCKET.   |         |    |       |       | <i>Cruciferae.</i> | Sp. 1.     |   |     |                      |
| 9286  | <i>pseudocystitis</i> L.         | shrubby         | □ or    | 3  | ap.my | Y     | Spain              | 1759.      | C | co  | Cav. ic. 1. t. 42    |
| 1438. | CARRICHTE/RA. Adans.             | CARRICHTERA.    |         |    |       |       | <i>Cruciferae.</i> | Sp. 1.     |   |     |                      |
| 9287  | <i>Vella</i> Dec.                | annual          | ○ w     | ¾  | jn.jl | Pa.Y  | England            | san.fi.    | S | s.l | Eng. bot. 1442       |
|       | <i>Vella annua</i> L.            |                 |         |    |       |       |                    |            |   |     |                      |
| 1439. | SUCCO/WIA. Mönch.                | SUCCOWIA.       |         |    |       |       | <i>Cruciferae.</i> | Sp. 1.     |   |     |                      |
| 9288  | <i>balcarica</i> R. Br.          | Minorca         | ○ pr    | ¾  | jn.jl | Y     | Minorca            | 1781.      | S | s.l | Jac. vind. 2. t. 144 |
| 1440. | ZIL/LA. Forsk.                   | ZILLA.          |         |    |       |       | <i>Cruciferae.</i> | Sp. 1.     |   |     |                      |
| 9289  | <i>myagroides</i> Forsk.         | spiny           | □ cu    | 2  | mr    | Li    | Egypt              | 1822.      | C | co  | Vent. malm. t. 16    |
| 1441. | CALEP/NA. Adans.                 | CALEPINA.       |         |    |       |       | <i>Cruciferae.</i> | Sp. 1.     |   |     |                      |
| 9290  | <i>Corvini</i> Desv.             | rugose          | ○ cu    | 1½ | ap.jn | W     | S. Europe          | ...        | S | co  | Brot. phyt. t. 42    |
| 1442. | CRAMBE. W.                       | SEA KAIL.       |         |    |       |       | <i>Cruciferae.</i> | Sp. 10-13. |   |     |                      |
| 9291  | <i>maritima</i> L.               | common          | * Δ cul | 1½ | my.jn | W     | Britain            | sea sh.    | D | r.m | Eng. bot. 924        |
| 9292  | <i>pinnatifida</i> R. Br.        | smooth-winged   | * Δ un  | 1  | jn.jl | W     | Siberia            | 1759.      | D | s.l | Jac. ic. 1. t. 128   |
| 9293  | <i>orientalis</i> L.             | oriental        | * Δ un  | 1  | jn.jl | W     | Levant             | 1752.      | D | s.l |                      |
| 9294  | <i>Tataria</i> Jacq.             | Tartarian       | * Δ cul | 3  | jn.jl | W     | Siberia            | 1789.      | D | s.l | Jac. ic. 1. t. 129   |
| 9295  | <i>aspera</i> Bieb.              | rough           | * Δ un  | 1  | my    | W     | Tauria             | 1820.      | D | co  |                      |
| 9296  | <i>cordata</i> W.                | gigantic        | * Δ or  | 6  | my    | W     | Caucasus           | 1822.      | D | co  |                      |
| 9297  | <i>hispanica</i> L.              | Spanish         | * Δ un  | 1½ | jn.jl | W     | Spain              | 1683.      | S | s.l | Sch. han. 2. t. 189  |
| 9298  | <i>filiformis</i> Jacq.          | Patagonian      | * Δ un  | 1½ | jl.au | W     | Patagonia          | 1796.      | D | s.l | Jac. ic. 3. t. 504   |
| 9299  | <i>fruticosa</i> L.              | Madeira         | * Δ un  | 2  | my.n  | W     | Madeira            | 1777.      | C | s.l |                      |
| 9300  | <i>strigosa</i> Lher.            | Canary          | * □ un  | 1½ | my.jn | W     | Canaries           | 1779.      | C | s.l | Jac. ic. 1. t. 120   |
| 1443. | RA/PHANUS. L.                    | RADISH.         |         |    |       |       | <i>Cruciferae.</i> | Sp. 5-9.   |   |     |                      |
| 9301  | <i>sativus</i> L.                | common          | * ○ cu  | 3  | my.jn | W.pu  | China              | 1548.      | S | r.m | Lam. ill. t. 566     |
|       | <i>radicula</i> Dec.             | long            | * ○ cu  | 3  | my.jn | W.pu  | China              | 1548.      | S | r.m |                      |
|       | <i>oblongus</i> Dec.             | Turnip          | * ○ cul | 3  | my.jn | W.pu  | China              | 1548.      | S | r.m |                      |
|       | <i>oleifera</i> Dec.             | Oil-seed        | * ○ ec  | 3  | my.jn | W.pu  | China              | 1548.      | S | r.m |                      |
|       | <i>niger</i> Dec.                | Black Spanish   | * ○ cul | 3  | my.jn | W.pu  | China              | 1548.      | S | r.m |                      |
| 9302  | <i>caudatus</i> L.               | long-podded     | * ○ cu  | 1½ | my.au | Pa.pu | Java               | 1815.      | S | co  | Linn. dec. 3. t. 10  |
| 9303  | <i>Raphanistrum</i> L.           | wild            | * ○ w   | 1½ | jn.jl | Y     | Britain            | corn fi.   | S | co  | Eng. bot. 856        |
| 9304  | <i>Landra</i> Morett.            | yellow-flowered | * ○ cu  | 3  | jn.jl | Y     | Italy              | 1820.      | S | co  |                      |
| 9305  | <i>maritimus</i> Sm.             | sea             | * Δ w   | 3  | my.jl | Y     | Britain            | sea co.    | D | co  | Eng. bot. 1643       |



History, Use, Propagation, Culture,

1436. *Eruca*. The meaning of this word is involved in obscurity. According to Isidore, of Seville, a learned Spaniard, who died in 636, and left a book of etymologies, *cruca* is an alteration of *urica*, derived from *uro*, to burn. From *cruca*, the Italians formed *ruchetta*, the French *rocketta*, and the English *rocket*. *E. sativa* is very pungent in the foliage, and is used as a salad in the South of Europe for its aphrodisiacal powers:

"Excitat ad venerem tardos *Eruca maritios*."

1437. *Vella*. Latinized from *valer*, the Gallic name of the cress. A pretty low shrub, with beautiful yellow flowers appearing in the early spring. It is hardy enough to live through the winter in a dry warm south border.

1438. *Carrichtera*. An unexplained name, first used by Adanson. A small annual plant, with pinnated leaves, and long erect racemes opposite to the leaves. Flowers small, pale yellow.

1439. *Succowia*. In honor of Professor Suckow, a learned botanist of Heidelberg. An annual, with the habit of the last, from which it differs in its subulate style and solitary seeds.

1440. *Zilla*. The Egyptian name of the plant, which is a large glabrous herb, with round white branches and oblong toothed leaves, which are boiled and eaten by the Arabs like those of cabbage.

1441. *Calepina*. A name used by Adanson, the meaning of which is unknown. This plant has been transferred by one author or another to almost every genus of Siliculose, but appears to be really akin to *Crambe* only, from which it differs in its sessile and purely unilocular silicle, in its stamens having no teeth, and in the outer petals being larger than the others.

1442. *Crambe*. One of the names applied by the Greeks to the cabbage, and especially to the marine cabbage. *C. maritima* grows on sandy shores in the west of England, and there the common people have from time immemorial been in the practice of watching when the shoots and leafstalks begin to push up the sand

- 9278 Pods sess. nearly erect, Style roundish 1-2-seed. Lvs. pinnatif. with cut lobes and lin. sinuate toothed segm.  
 9279 Pods somewhat stalked erect, Style filif. short without seeds, Upper lvs. entire lower pinnatifid compound  
 9280 Pods sess. erect, Style short somew. filif. Rad. lvs. toothed or lyrate smooth, Stems nearly naked ascending  
 9281 Pods sess. erect, Style short somew. filif. Rad. lvs. runcinate toothed hispid, Stems naked erect  
 9282 Pods sess. erect, Style short somew. filif. Rad. lvs. lyrate very blunt smooth, Stems naked decumbent  
 9283 Pods sess. erect narrowed at base, Style short conical, Rad. lvs. pinnatifid thickish with entire lobes  
 9284 Lvs. lyrate pinnated with toothed acute lobes, Stem hirsute, Pedicels shorter than deciduous calyx  
 9285 Lvs. pinnatifid, Lobes acute nearly entire, Stem hirsute, Calyx persistent somewhat bladderly  
 9286 The only species  
 9287 The only species  
 9288 The only species  
 9289 The only species  
 9290 The only species  
 9291 Long filaments forked, Pod blunt, Leaves roundish sinuated wavy toothed glauc. and stem quite smooth  
 9292 Long filaments forked, Pod blunt, Leaves pinnatifid with obl. acute toothed lobes, Stem smooth  
 9293 Long filaments forked, Pod blunt smooth, Leaves pinnatifid toothed rough, Stem smooth [smoothish  
 9294 Long filam. forked, Pod blunt, Rad. lvs. decomposed, Pinnae cut toothed: younger rough; old and stem  
 9295 Long filam. forked, Pod blunt rugose, Lvs. pinnated with obl. lin. toothed lobes and stem rough  
 9296 Long filam. forked, Pod nearly blunt, Lvs. stalked toothed: lower cord.; upper ov. and stem nearly smooth  
 9297 Long filam. toothed, Pod blunt, Lvs. lyrate rough, Terminal lobe cord. orbicular  
 9298 Long filam. scarcely toothed, Pod blunt, Lvs. pinnate-lyrate hairy, Terminal lobe ovate  
 9299 Long filam. toothed on one side, Pod mucronate, Lvs. lyrate pinnatifid toothed hoary  
 9300 Filam. not toothed, Pod mucronate, Lvs. ov. toothed unequal and somew. auricled at base and stem hispid  
 9301 Pods round torose acuminate scarcely longer than stalk  
 9302 Pods depressed acuminate decumbent longer than the whole plant  
 9303 Pods 1-celled jointed striated 3-8-seeded longer than the style, Lvs. simply lyrate  
 9304 Pods 1-celled jointed substriated 2-6-seeded longer than the subulate style, Lvs. interruptedly lyrate  
 9305 Pods 1-celled jointed striated 2-6-seeded, Style conical shorter than the last joint, Lvs. interruptedly lyrate



and Miscellaneous Particulars.

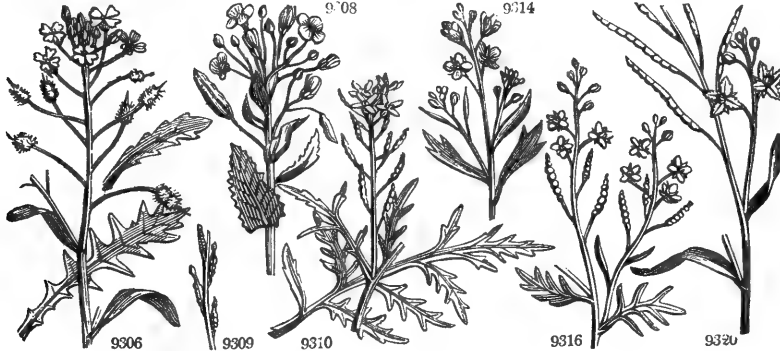
and gravel, in March and April; when they cut them off under ground, as is done in gathering asparagus, and boil them as greens. About the middle of the last century the plant was first introduced into gardens, grown on deep sandy soil, and blanched either by sand, ashes, litter, or by covering with flower pots, earthen pots made on purpose, or any opaque cover. It is now almost as universal in good gardens as asparagus, and like it is forced either by taking up the roots and planting them on a hotbed, or in the border of a forcing house, or by covering or surrounding them with litter in the open garden. Before covering a bed with warm litter, each plant or stool of plants is covered with an earthenware blanching pot, or a wicker case, to keep off the dung from the young shoots, and to ensure their being blanched. No plant is so easily forced; and, unlike asparagus, it yields produce the first spring after raising from seed.

C. tataria is called by the Hungarians *Tatar-Kenger* or Tartarian bread, and its root, stripped of the bark and sliced, is eaten with oil, vinegar, and salt. The boiled root is sweet, and eaten by children. The young shoots are boiled like those of sea kail, and have an excellent taste, but are stringy, which they would not be if well cultivated, which the plant appears to deserve.

1443. *Raphanus*. From *βρα*, quickly, and *ραφειναι*, to appear, on account of the rapidity of its germination and arriving at perfection. *R. sativus* is a well known salad root, requiring a deep sandy soil to attain a large size. There are several varieties both of the spindle-shaped and globular rooted kinds, and a very distinct sort known as the black or Spanish radish. In the Horticultural Transactions, sixteen varieties are mentioned besides subvarieties, arranged as spring, summer, turnip, autumn, and winter radishes. They are all of easy culture, and the spring, summer, and turnip sorts force well on hot-beds, or on dung-beds covered with mats.

*R. caudatus*, or tree radish, is remarkable for the length of its pod, which is greater than the whole height of the plant. The young leaves of *R. Landra* are eaten by the inhabitants of Insubria as salad.

|                          |                                |        |          |              |            |        |   |     |                         |
|--------------------------|--------------------------------|--------|----------|--------------|------------|--------|---|-----|-------------------------|
| 1444. BU'NIAS. L.        | BUNIAS                         |        |          | Cruciferae.  | Sp. 3.     |        |   |     |                         |
| 9306 Erucágo L.          | prickly-podded                 | ○ un   | 1½ jn,jl | Y            | Austria    | 1640.  | S | co  | Jac. aust. 4. t. 340    |
| 9307 áspera Retz.        | rough                          | ○ un   | 1½ jn    | Y            | Portugal   | ...    | S | co  |                         |
| 9308 orientális L.       | oriental                       | ☒ △ un | 1½ my,jl | Y            | Levant     | 1731.  | D | co  | Gmel. sib. 3. t. 57     |
| 1445. ERUCA'RIA. Gertn.  | ERUCARIA.                      |        |          | Cruciferae.  | Sp. 2-5.   |        |   |     |                         |
| 9309 aley'pica Gertn.    | Aleppo                         | ○ un   | 1 jl,au  | W,pu         | Levant     | 1680.  | S | a1  | Gæ.se. 2. t. 143. f. 9  |
| 9310 crassifólia Del.    | thick-leaved                   | ○ un   | ¾ jn,d   | W,pu         | Egypt      | 1823.  | S | co  | Del. egypt. t. 34. f. 1 |
| 1446. HELIO'PHILA. L.    | HELIOPHILA.                    |        |          | Cruciferae.  | Sp. 11-47. |        |   |     |                         |
| 9311 filifórmis L.       | awl-podded                     | ☒ pr   | 1½ jl,au | Pa,pu        | C. G. H.   | 1786.  | S | sp  | Lam. fil. 563. 3        |
| 9312 amplexicaulis L.    | opposite-leaved                | ○ pr   | ¾ jn,s   | W,pu         | C. G. H.   | 1774.  | S | sp  | Jac. fr. 46. 2          |
| 9313 pinnáta Vahl.       | wing-leaved                    | ○ pr   | 1½ jn,s  | Y,Br         | C. G. H.   | 1792.  | S | sp  | Ven. malin. t. 113      |
| 9314 pilósa Lam.         | hairy                          | ○ pr   | 1 my,s   | B            | C. G. H.   | 1768.  | S | sp  | Jac. ic. 3. t. 506      |
| 9315 digitáta L.         | digitate                       | ○ pr   | 1 my,s   | B            | C. G. H.   | ...    | S | sp  |                         |
| 9316 coronopifólia L.    | Buck's-horn-lv.                | ☒ pr   | 1½ jn,jl | V            | C. G. H.   | 1778.  | S | sp  | Her. lugd. t. 367       |
| 9317 feniculácea R. Br.  | Fennel-leaved                  | ○ pr   | 1½ jn,s  | Pu           | C. G. H.   | 1774.  | S | sp  |                         |
| 9318 crithmifólia W.     | Samphire-leav.                 | ○ pr   | ¾ jn,s   | V            | C. G. H.   | 1816.  | S | sp  |                         |
| 9319 platysliqua R. Br.  | broad-podded                   | ☒ pr   | 1 jl,au  | Pu           | C. G. H.   | 1774.  | C | sp  |                         |
| 9320 incána H. K.        | hoary                          | ☒ pr   | 2 my,au  | Pu           | C. G. H.   | 1774.  | C | sp  |                         |
| 9321 cleomoides Dcc.     | upright                        | ☒ pr   | 1 jl     | Y            | C. G. H.   | 1802.  | S | co  |                         |
|                          | <i>Cheiranthus strictus</i> L. |        |          |              |            |        |   |     |                         |
| 1447. SUBULA'RIA. L.     | AWLWORT.                       |        |          | Cruciferae.  | Sp. 1.     |        |   |     |                         |
| 9322 aquática L.         | water                          | ☒ ○ cu | ¾ jl     | W            | Britain    | allak. | S | m.s | Eng. bot. 732           |
| +1448. CLEO'ME. W.       | CLEOME.                        |        |          | Capparideae. | Sp. 15-53. |        |   |     |                         |
| 9323 Chelidónii W.       | Celandine-flow.                | ☒ pr   | 1½ jn,jl | R            | E. Indies  | 1790.  | S | sp  |                         |
| 9324 viscosa W.          | viscid                         | ○ pr   | 2 jn,jl  | F            | Ceylon     | 1730.  | S | sp  | Rhee. mal. 9. t. 23     |
| 9325 dodecándra W.       | three-leaved                   | ☒ pr   | 1½ jn,jl | W            | India      | 1795.  | S | sp  | Bur. zey. t. 100. f. 1  |
| 9326 pentaphýlla W.      | five-leaved                    | ☒ pr   | 2 jn,jl  | W            | India      | 1640.  | S | sp  | Jac. vind. 1. t. 21     |
| 9327 gigantéa W.         | gigantic                       | ☒ pr   | 6 jn,jl  | G            | S. Amer.   | 1774.  | C | sp  | Jac. obs. 4. t. 76      |
| 9328 spinósa W.          | white-fl. prickly              | ☒ pr   | 2 jn,jl  | W            | W. Indies  | 1731.  | S | sp  | Marcg. bras. t. 34      |
| 9329 póngens W.          | red-fl. prickly                | ☒ pr   | 2 jl,au  | R            | W. Indies  | 1812.  | S | a1  | W. ho. ber. 1. t. 18    |
|                          | <i>spinosa</i> B. M. 1640.     |        |          |              |            |        |   |     |                         |
| 9330 Houstóni H. K.      | Houstoun's                     | ☒ pr   | 1 jl     | W            | W. Indies  | 1750.  | S | a1  |                         |
| 9331 violácea W.         | violet-colored                 | ○ pr   | 1 jn,jl  | Pu           | Portugal   | 1776.  | S | a1  | Sc. han. 2. t. 180. b.  |
| 9332 rósea Dcc.          | rose-colored                   | ☒ pr   | 1½ jn,jl | Pk           | Brazil     | 1825.  | S | co  | Bot. reg. 960           |
| 9333 ornithopodioides W. | bird's-foot                    | ○ pr   | 1 jn,jl  | W,r          | Levant     | 1732.  | S | a1  | Dil. el. t. 266. f. 345 |
| 9334 arábica W.          | Arabian                        | ○ pr   | 2 jn,jl  | Y            | Arabia     | 1794.  | S | a1  | Lin. fil. fasc. t. 8    |
| 9335 monophýlla W.       | simple-leaved                  | ☒ pr   | ¾ jn,jl  | Y            | E. Indies  | 1759.  | S | a1  | Bur. zey. t. 100. f. 2  |
| 9336 procumbens W.       | procumbent                     | ☒ pr   | ¾ jn,jl  | Y            | W. Indies  | 1798.  | D | a1  | Jac. amer. t. 120       |
| 9337 pubéscens B. M.     | pubescent                      | ○ pr   | 1½ jl    | W            | .....      | 1815.  | S | a1  | Bot. mag. 1857          |



History, Use, Propagation, Culture,

1444. *Bunias*. From *Cucac*, a hill, because the plants grow upon exposed open situations. Linn.  
 1445. *Erucaria*. See *Eruca*, No. 1437. Plants with the habit of *Cakile*.  
 1446. *Heliophila*. From *ήλιος*, the sun, and *φίλος*, to love; a plant loving heat. All the species grow upon dry hot plains at the Cape of Good Hope. These are mostly beautiful annual or perennial plants.

- 9306 Pods 4-cornered : angles crested, Radical leaves runcinate  
 9307 Pods 4-cornered : angles crested, Leaves all lanceolate  
 9308 Pods ovate 2-celled not crested somewhat warted

- 9309 Pod style-bearing, Lvs. pinnated, Lobes linear : of the lower pinnatifid ; of the upper entire  
 9310 Stigma sessile, Beak longer than pod, Lvs. pinnated thick, Lobes linear

- 9311 Smooth, Pods rounded narrowed at each end, Leaves linear subulate  
 9312 Smooth, Pods moniliform, Lower lvs. opp. : upper altern. cord. stem-clasping obl. entire  
 9313 Smooth, Pods moniliform pendulous, Lvs. pinnated in 3-5-pairs, Lobes linear entire  
 9314 Hispid, Pods linear, Lvs. hairy either linear entire or trifid at end and cuneate at base  
 9315 Hispid, Pods linear, Lvs. oval entire or here and there coarsely cut-toothed  
 9316 Smooth, Pods linear, Leaves pinnated, Lobes and rachis linear entire  
 9317 Downy, Pods linear spreading, Lvs. pinnated or bipinnated : lobes filiform  
 9318 Velvety, Pods linear nodding, Lvs. pinnated somewhat fleshy : lobes subfiliform furrowed above  
 9319 Smooth, Pods linear erect or pendulous, Lvs. fleshy half round  
 9320 Pods linear compressed velvety, Style thick conical smooth, Leaves oblong  
 9321 Pods compressed stalked, Leaves linear lanceolate

9322 The only species

- 9323 Polyandrous hairy, Lvs. 5-7 cuneiform rough, Racemes term. Pods filiform  
 9324 Flowers dodecandrous, Leaves quinate and ternate  
 9325 Flowers dodecandrous, Leaves ternate  
 9326 Flowers gynandrous, Leaves quinate, Stem unarmed  
 9327 Flowers hexandrous, Leaves 7, Stem unarmed  
 9328 Flowers hexandrous, Leaves 7-5, Stem spiny  
 9329 Flowers hexandrous, Leaves quinate viscid, Stem spiny

- 9330 Prickly hexandrous, Leaves quinate and ternate : floral simple, Stigma dilated  
 9331 Flowers hexandrous, Leaves ternate and solitary, Leaflets lanc. lin. entire  
 9332 Unarmed, Lvs. 5 : lower and floral 3 ; upper sessile ovate, Pod smooth as long as its stalk  
 9333 Flowers hexandrous, Leaves ternate, Leaflets oval lanceolate  
 9334 Flowers hexandrous, Leaves ternate lanceolate blunt, Pods fusiform viscid  
 9335 Flowers hexandrous, Leaves simple ovate-lanceolate stalked  
 9336 Flowers hexandrous, Leaves simple lanceolate stalked, Stems procumbent  
 9337 Unarmed pubescent, Leaves 5-7 : floral simple cordate, Pod the length of the stalk



and Miscellaneous Particulars.

1447. *Subularia*. From *subula*, an awl, on account of the form of the leaves. A curious little aquatic, not of common occurrence.

1448. *Cleome*. A name employed by Octavius Horatius, a Latin physician, who lived in the fourth century, to designate a plant resembling *Sinapis*, and growing in humid places. It appears to have had no relation to the modern plant.





## CLASS XVI. — MONADELPHIA.

This class is distinctly characterized by the filaments being united together throughout the whole or a part of their length; and for the most part consists of plants belonging to the natural orders of Malvaceæ and Geraniaceæ. Of the former, the major part are of little moment, consisting, in a great measure, of weeds or worthless shrubs of various parts of the world. Among them, however, are some plants both of interest and ornament, especially the beautiful *Astrapeæ*, and the various species of *Bombax* and *Hibiscus*. The *Gossypium*, so important as producing the material of cotton, and the *Adansonia* or *Baobab* tree of Africa, remarkable for its immense size and use as an article of food, are found in this class. The *Geranium*, *Camellia* and *Passion* flower are also genera of much beauty; the latter yielding the well known West Indian fruit called the *Granadilla*. The common *Tamarind*, with which this class commences, would more properly be placed in the next, and the succeeding genera of *Paterosnia*, *Tigridia*, *Ferraria*, and *Galaxia*, are in every respect, except the union of their filaments, referable to the third class.

## Order 1. TRIANDRIA.



Stamens 3.

1449. *Tamarindus*. Petals 3, ascending. Three filaments longer than the others and fertile. Legumen 1-3-celled, pulpy inside.  
 1450. *Paterosnia*. Cor. tubular. Limb 6-parted, with 3 small segments. Caps. 3-celled, inferior.  
 1451. *Ferraria*. Spatha 2-leaved. Cal. O. Petals 6, wavy, curled. Filaments united at base. Style 1. Caps. 3-celled, inferior.  
 1452. *Tigridia*. Spatha 2-leaved. Cal. O. Petals 6, the 3 outer large. Filaments united into a very long tube.  
 1453. *Galaxia*. Spatha 1-leaved. Cal. O. Corolla monopetalous, 6-cleft, with a long tube. Style 1. Capsule 3-celled, inferior.

## Order 2. PENTANDRIA.



Stamens 5.

1454. *Waltheria*. Cal. 5-fid, with a lateral deciduous 3-leaved involucre. Petals 5. Style 1. Stigma penceiled. Caps. 1-celled, 2-valved, 1-seeded.  
 1455. *Hermannia*. Cal. nearly naked, campanulate, 5-fid. Pet. 5. Stamens 5. Filaments united at base, lanceolate, frequently winged. Styles 5, cohering in one. Caps. 5-celled, 5-valved, many-seeded.  
 1456. *Melochia*. Cal. 5-fid, naked, or with 1-3 bractæ. Petals 5, spreading. Stam. 5, monadelphous at base. Styles 5. Caps. 5-celled. Seeds 1-2 in each cell.  
 1457. *Methania*. Cal. 5-parted, persistent, with a 3-leaved involucre on one side. Pet. 5. Stam. 10, alternately sterile: the fertile ones bearing from 1-2 anthers each.  
 1458. *Ochroma*. Cal. double, outer 3-leaved. Petals 5. Anthers anfractuose. Capsule 5-celled, many-seeded. Seeds involved in wool.  
 1459. *Passiflora*. Cal. 5-parted, colored. Petals 5 or 0, inserted in the calyx. Crown of many filiform rays. Fruit stalked, fleshy.  
 1460. *Erodium*. Cal. 5-leaved. Petals 5. Scales 5, alternate, with filaments and honey glands at the base of the stamens. Cocci 5, 1-seeded, awned, at the base of a rostrate receptacle.

## Order 3. HEPTANDRIA.



Stamens 7.

1461. *Pelargonium*. Cal. 5-parted, the upper segment ending in a nectariferous tube running down the peduncle. Cor. 5-petalous, irregular.

## Order 4. OCTANDRIA.



Stamens 8.

1462. *Aitonía*. Cal. 4-parted. Cor. 4 petals. Style 1. Berry dry, quadrangular, 1-celled, many-seeded.

## Order 5. DECANDRIA.



Stamens 10.

1463. *Geranium*. Cal. 5-leaved. Petals 5, regular. Glands 5, honey-bearing, united to the base of the longer filaments. Cocci 5, 1-seeded, awned, at the base of a beaked receptacle.

## Order 6. DODECANDRIA.



Stamens 12.

1464. *Brounea*. Cal. tubular, bifid. Cor. double: outer 5-fid; inner of 5 petals. Legumen 1-celled.  
 1465. *Monsonia*. Sepals 5. Pet. 5. Stamens 15, united; their cup 5-fid. Style 5-fid. Cocci 5, 1-seeded awned, at the base of a beaked receptacle.  
 1466. *Helicteres*. Cal. tubular, obliquely 5-fid. Petals 5. Germen on a long stalk. Style about 5-fid. Caps. 5, 1-celled, many-seeded, spirally twisted.  
 1467. *Dombeya*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are sterile. Style 5-fid. Caps. 5, united, 1-celled, 1-many-seeded.  
 1468. *Pentapetes*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are barren. Style obsoletely 5-toothed. Caps. 5-celled, many-seeded, with contrary dissepiments.  
 1469. *Astrapeæ*. Flowers umbellate, with an involucre. Involucre many-leaved, unequal. Cal. simple, 5-leaved, with 1 bract. Petals 5, convolute-closed. Stamens 25, united into a tube bearing the corolla: 5-sterile.  
 1470. *Pterospermum*. Cal. simple, 5-parted. Petals 5. Stamens 20, of which 5 are sterile. Style cylindrical, Stigma thickish, Caps. woody, 5-celled. Seeds winged.

## Order 7. POLYANDRIA.



Stamens indefinite in number.

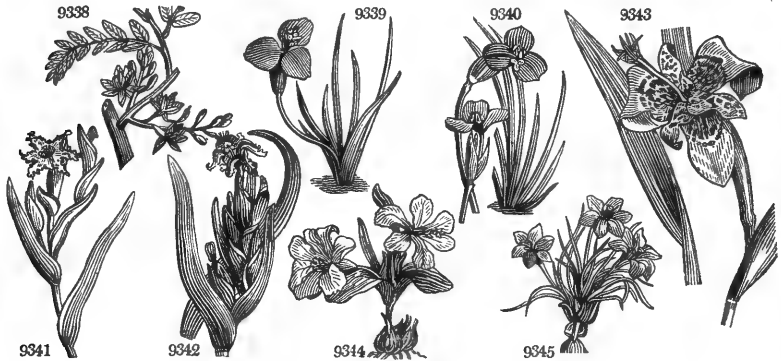
1471. *Malope*. Cal. double, outer 3-leaved. Capsules heaped without order, 1-seeded.  
 1472. *Muhua*. Cal. double, outer 3-leaved. Capsules many, 1-seeded.  
 1473. *Kitaibelia*. Cal. double, outer 7-9-fid. Caps. clustered in a 5-lobed head, 1-seeded.  
 1474. *Althæa*. Cal. double, outer 6-9-fid. Capsules many, 1-seeded.  
 1475. *Lavatera*. Cal. double, outer 3-fid. Capsules many, 1-seeded.  
 1476. *Malachra*. Common calyx 3-leaved, many-flowered, large. Caps. 5, 1-seeded.  
 1477. *Urena*. Cal. double, outer 5-fid. Capsule 5-celled, 5-partible, with close 1-seeded cells.  
 1478. *Pavonia*. Cal. double, outer many-leaved. Stigmas 10. Capsules 5, 2-valved, 1-seeded.  
 1479. *Achania*. Cal. double, outer many-leaved. Cor. convolute, closed. Stigmas 10. Berry 5 celled, 5-seeded.  
 1480. *Hibiscus*. Cal. double, outer many-leaved. Stigmas 5. Capsule 5-celled, many-seeded.  
 1481. *Gossypium*. Cal. double, outer 3-fid. Caps. 5-celled. Seeds enwrapped in wool.  
 1482. *Redoutea*. Cal. 5-parted, surrounded by a 10-12-leaved involucre. Stigmas 3. Capsules 3-celled, 3-valved, many-seeded, with three placentas alternate with the valves, and bearing on each side woolly seeds.  
 1483. *Palavia*. Cal. naked, 5-fid. Capsules many, 1-seeded, united in a head without order.  
 1484. *Cristaria*. Cal. naked, 5-fid. Fruit orbicular, depressed, covered with a skin, and consisting of several carpella, 2-winged in the centre, and many-seeded.  
 1485. *Anoda*. Cal. naked, 5-fid. Lobes acuminate, much spreading in fruit. Caps. hemispherical beneath, depressed and stellate above, many-celled, with 1-celled, 1-seeded divisions.  
 1486. *Periptera*. Cal. naked, 5-fid. Petals erect, spirally twisted in the tube, at length distinct. Capsule stellate, many-celled, with 1-seeded cells.  
 1487. *Sida*. Cal. simple, angular. Style many-parted. Capsules several, 1 or 3-seeded.  
 1488. *Lagunæa*. Cal. simple, 5-fid. Style 5-fid. Capsule 5-celled, with contrary dissepiments.  
 1489. *Ruizia*. Cal. double, outer 3-leaved. Styles 10. Caps. 10, 1-celled, 2-seeded, closely cohering.  
 1490. *Carolinea*. Cal. simple, subtruncate. Filaments branched. Style very long. Stigmas 6. Caps. woody, 1-celled, many-seeded.  
 1491. *Adansonia*. Cal. simple, deciduous. Style very long. Stigmas many. Caps. woody, 10-celled, many-seeded, with a farinaceous pulp.  
 1492. *Bombax*. Cal. 5-fid. Stamens 5, or many. Caps. woody, 5-celled, 5-valved. Seeds woolly. Receptacle 5-cornered.  
 1493. *Myrodia*. Cal. naked, tubular, 4-5-toothed, bursting laterally. Petals oblong, linear. Stamens with a long column. Anthers 10-15. Capsule drupaceous, 2-3-celled, with 1-seeded cells.  
 1494. *Gordonia*. Cal. simple. Style 5-cornered, with a 5-fid stigma. Caps. 5-celled. Seeds twin, with a leafy wing.  
 1495. *Stuartia*. Cal. simple, rotate. Petals 5. Styles 5, united or distinct. Caps. 5-celled, 5-valved. Seeds solitary or twin.  
 1496. *Camellia*. Cal. imbricated, many-leaved, the inner leaflets largest.  
 1497. *Barringtonia*. Cal. 2-leaved, superior. Petals 4. Drupe dry, large, quadrangular, with a 4-celled ut.  
 1498. *Gustavia*. Cal. 4-6-fid. Petals 4-6. Berry dry, 4-5-celled.  
 1499. *Careya*. Cal. superior, 4-fid. Petals 4. Berry many-seeded. Seeds nestling in pulp.

TRIANDRIA.

|  |  |
|--|--|
| 1449. TAMARINDUS. <i>W.</i> TAMARIND TREE.   | <i>Leguminosæ. Sp. 1.</i>                            |
| 9338 indica <i>W.</i> common                 | fr 60 jn.jl Y India 1633. C r.m Jac. amer. t 10      |
| †1450. PATERSONIA. <i>R. Br.</i> PATERSONIA. | <i>Irideæ. Sp. 2-7.</i>                              |
| 9339 sericea <i>R. Br.</i> silky             | Δ or 1½ my.jl B N. S. W. 1803. R s.p Bot. mag. 1041  |
| 9340 glabrata <i>R. Br.</i> smooth           | Δ or 1½ my.jl Pu N. S. W. 1814. C s.p Bot. reg. 51   |
| †1451. FERRARIA. <i>Ker.</i> FERRARIA.       | <i>Irideæ. Sp. 2-4.</i>                              |
| 9341 undulata <i>W.</i> curled               | mr.ap G.Br C. G. H. 1755. O s.p Bot. mag. 144        |
| 9342 antherosa <i>Ker.</i> variegated        | vr.jl G.Br C. G. H. 1800. O s.p Bot. mag. 751        |
| †1452. TIGRIDIA. <i>J.</i> TIGER FLOWER.     | <i>Irideæ. Sp. 1-2.</i>                              |
| 9343 Pavonia <i>P. S.</i> Mexican            | vr Δ or my.s O.n Mexico 1796. O s.p Bot. mag. 532    |
| β leona Hort. whole-colored                  | vr Δ or my.s O.n Mexico 1823. O s.p                  |
| †1453. GALAXIA. <i>W.</i> GALAXIA.           | <i>Irideæ. Sp. 2-3.</i>                              |
| 9344 ovata <i>W.</i> oval-leaved             | Δ or my.s D.Y C. G. H. 1799. s.p Bot. rep. 94        |
| β grandiflora B. R. plated-leaved            | Δ or my.s D.Y C. G. H. 1799. s.p Bot. rep. 164       |
| γ mucronultris Sal. mucronated               | Δ or my.s Pu C. G. H. 1799. s.p J.ic. t.291.f.in.si. |
| δ versicolor Sal. various-colored            | Δ or my.s Pu C. G. H. 1799. s.p Jac. f. inf. dextr.  |
| 9345 graminea <i>W.</i> narrow-leaved        | Δ or jl.au L.Y C. G. H. 1795. s.p Bot. mag. 1292     |

PENTANDRIA.

|  |  |
|--|--|
| 1454. WALTHERIA. <i>W.</i> WALTHERIA.    | <i>Byttneriaceæ. Sp. 4-12.</i>                                 |
| 9346 americana <i>W.</i> American        | vr Δ or 2 my.o Y S. Amer. 1691. C lp Jac. ic. 1. t. 130        |
| 9347 indica <i>W.</i> Indian             | vr Δ or 9 in.au Y E. Indies 1799. L pl Burm. zeyl. t. 68       |
| 9348 elliptica <i>W.</i> woolly          | vr Δ or 3 Y E. Indies 1812. C s.p Ca. dis. 6. t. 171. f. 2     |
| 9349 lævis Schrank. smooth               | vr Δ or 3 jl Y Guadalupe. 1823. C s.p Schrank mon. 55          |
| †*1455. HERMANNIA. <i>W.</i> HERMANNIA.  | <i>Byttneriaceæ. Sp. 34-42.</i>                                |
| 9350 althæifolia <i>W.</i> Althæa-leaved | vr Δ or 2½ mr.jl Y C. G. H. 1728. C lp Bot. mag. 307           |
| 9351 plicata <i>W.</i> plated-leaved     | vr Δ or 2 n.d Y C. G. H. 1774. C lp Jac. schæ. 2. t. 213       |
| 9352 glandulosa Link. glandular          | vr Δ or 2 ... C. G. H. 1822. C lp                              |
| 9353 cædicans <i>W.</i> white            | vr Δ or 2 ap.jn Y C. G. H. 1774. C lp                          |
| 9354 disticha <i>W.</i> round-leaved     | vr Δ or 2 my.au Y C. G. H. 1789. C lp Jac. schæ. 1. t. 117     |
| 9355 salvifolia <i>W.</i> Sage-leaved    | vr Δ or 2 ap.jn Y C. G. H. 1795. C lp Ca. dis. 6. t. 180. f. 2 |
| 9356 micans <i>W.</i> glittering         | vr Δ or 2 my.au Y C. G. H. 1790. C lp Jac. schæ. 1. t. 119     |



History, Use, Propagation, Culture,

1449. *Tamarindus*. Latinized from the Arabic name *Tamer-hindy*, or Indian date. This tree is a native of the East and West Indies, of Arabia, and Egypt. It is a large beautiful spreading tree. The leaves are abruptly pinnate, composed of sixteen or eighteen pairs of sessile leaflets, half an inch only in length, and one sixth of an inch broad, of a bright green color, downy, oblong, entire, and obtuse: the flowers are in loose bunches of five or six, which come out from the sides of the branches: the calyx is of a straw yellow color, and deciduous: the petals also yellowish, and beautifully variegated with red veins; ovate, concave, acute, indented, and plaited at the edge; and the filaments purplish, bearing incumbent brownish anthers: the pods are thick, compressed, and of a dull brown color when ripe: those from the West Indies from two to five inches long, with two, three, or four seeds: those from the East Indies are twice as long, and contain five, six, or seven seeds: the seeds in both are flat, angular, shining, and lodged in a dark pulpy matter.

In the West Indies, the pods are gathered in June, July, and August, when fully ripe; and the fruit being freed from the shelly fragments, is placed in layers in a cask, and boiling syrup poured over it, till the cask is filled; the syrup pervades every part quite down to the bottom; and when cool the cask is headed for sale. (*Long's Jamaica*, iii. 729.) The East India tamarinds are darker colored and drier, and are said to be preserved without sugar. Tamarinds are inodorous, and have an agreeable acid sweetish taste. The acid taste chiefly depends on the citric acid, the quantity of that being greater than of the other. The pulp is refrigerant, and gently laxative. The simple infusion of the pulp in warm water, or a whey made by boiling it in milk, forms a very grateful refrigerant beverage, which is advantageously used in febrile diseases. The dose of the simple fruit required to act upon the bowels is so large, that it is seldom given alone as a purgative, but is generally combined with cassia or manna, the action of which it augments, or with such of the neutral purgative salts as are not decomposed by it; which is the case with those that have potash for their base, and are therefore incompatible in mixtures with this fruit. (*Thompson's London Dispensatory*, 534.)

The plants thrive in loam and peat, and root under a glass in sand. They form handsome objects, but in our stoves are seldom allowed sufficient room to flower. Miller says, he had several plants twenty years old, and upwards, of fifteen feet high, which never had shewed blossoms.

## TRIANDRIA.

9338 The only species

9339 Stigma deflexed, Scape and spathes silky, Leaves ensiform straight striated

9340 Stigma deflexed, Scape and spathes smooth shining, Keel of leaves woolly at base

9341 Stem branched, Leaves equitant ensiform equal wavy; inner twice as narrow as the outer

9342 Stem simple, Leaves equitant ensiform; lower narrow

9343 Stem simple wavy, Leaves ensiform nerved, Petals flat; inner small panduriform

9344 Almost stemless, Leaves oblong, Spathe 1-valved 1-flowered

9345 Almost stemless, Leaves linear filiform dilated at base, Spathe 1-valved 1-flowered

## PENTANDRIA.

9346 Leaves oval plicate acutely and unequally toothed downy, Heads stalked

9347 Leaves oval plicate bluntly toothed downy, Heads sessile

9348 Leaves lanceolate oblong blunt plicate toothed downy, Heads sessile

9349 Leaves ovate mucronate serrate and stem quite smooth, Heads stalked, Calyxes ciliated

9350 Leaves ovate downy plicate crenate, Lower stipules ovate; upper broad lanceolate, Cal. angular

9351 Lvs. downy hairy ovate subcord. rugose denticulate, Stipules ovate acute, Cal. in fl. cylind. finally inflated

9352 Leaves oval unequally crenate subpubescent, Stipules ovate acute often cut, Stem glandular pubescent

9353 Leaves whitish downy round ovate crenate, Stipules lanceolate subulate, Cal. campanulate spreading

9354 Leaves hispid-vilous roundish-ovate blunt toothed, Stipules subovate acuminate, Cal. angular

9355 Leaves downy hispid rugose oblong blunt entire subsessile, Stipules long lanceolate subulate, Fls. naked

9356 Lvs. downy hispid somew. rugose obl. very blunt a little toothed at end with short stalks, Stip. lanc. subul.



## and Miscellaneous Particulars.

1450. *Patersonia*. Named after Colonel William Paterson, a gentleman whose remarks on the Cape of Good Hope, New Holland, and Norfolk Island, have been of much service to botany. Handsome plants, which grow readily in loam and peat, and are increased like other herbaceous vegetables.

1451. *Ferraria*. Named after Jean Baptiste Ferrari, an Italian botanist, author of a work on the culture of flowers, published in 1633, &c. According to Sweet, "a mixture of sandy loam and peat is the best soil for the species, and they should be kept without water, after they have done growing, till they begin to grow again, when they may be planted in fresh pots and regularly watered: they are increased by offsets from the bulbs, or by seeds." (*Bot. Cult.* 192.)

1452. *Tigrida*. In allusion to the spotted flowers, which are marked something like the skin of a tiger. Splendid plants, and tolerably hardy. They do best when planted in the soil and protected by a frame or hand-glass; but will also thrive in sheltered borders, provided they are protected from the winter's frost. They ripen seeds, from which, or from offsets, they may be readily increased.

1463. *Galaxia*. Thunberg, the author of the name, has not explained its meaning. Like other plants of the bulbous kind, these should be kept dry after flowering and seeding. At the return of the growing season, they should be fresh potted, and kept in a cool part of the greenhouse till they are well rooted, when they may be put into a warmer situation and regularly watered. They seed freely.

1454. *Waltheria*. In memory of Augustin Frider. Walther, professor of medicine at Leipsic; author of *Hortus Proprius*, 1735. The species grow in any light rich soil, and are readily propagated. They are of no importance.

1455. *Hermannia*. In memory of Paul Hermann, who practised physic in Ceylon, and at the Cape of Good Hope, and was afterwards professor of botany at Leyden. He was born in 1640, at Halle, in Saxony, and died in 1695. The species are low shrubs, for the most part, with wrinkled leaves and yellow flowers, which they produce in abundance. They grow freely in any light rich soil, and are readily increased in the same soil.

|  |                 |   |    |    |       |     |          |       |   |     |
|--|-----------------|---|----|----|-------|-----|----------|-------|---|-----|
| 9357 <i>frágrans</i> <i>Link.</i>      | fragrant        | ♂ | or | 2  | ...   | ... | C. G. H. | 1822. | C | l p |
| 9358 <i>involuta</i> <i>W.</i>         | involved        | ♂ | or | 2  | my.jn | Y   | C. G. H. | 1794. | C | l p |
| 9359 <i>scordifolia</i> <i>W.</i>      | Germander-iv.   | ♂ | or | 2  | ap.n  | Y   | C. G. H. | 1794. | C | l p |
| 9360 <i>mol'is</i> <i>W.</i>           | soft-leaved     | ♂ | or | 2  | my.jn | Y   | C. G. H. | 1814. | C | l p |
| 9361 <i>denu'data</i> <i>W.</i>        | smooth          | ♂ | or | 2  | my.jl | Y   | C. G. H. | 1774. | C | l p |
| 9362 <i>disermæ'folia</i> <i>W.</i>    | simple-flower'd | ♂ | or | 2  | mr.ap | Y   | C. G. H. | 1795. | C | l p |
| 9363 <i>alnifolia</i> <i>W.</i>        | Alder-leaved    | ♂ | or | 7  | f.my  | Y   | C. G. H. | 1728. | C | l p |
| 9364 <i>cuneifolia</i> <i>W.</i>       | wedge-leaved    | ♂ | or | 2  | aus.  | Y   | C. G. H. | 1791. | C | l p |
| 9365 <i>holosericea</i> <i>W.</i>      | velvet-leaved   | ♂ | or | 2  | my.jn | Y   | C. G. H. | 1792. | C | l p |
| 9366 <i>decumbens</i> <i>W. en.</i>    | decumbent       | ♂ | or | 1  | my.jn | Y   | C. G. H. | 1821. | C | l p |
| 9367 <i>hirsúta</i> <i>W.</i>          | hairy-branched  | ♂ | or | 2  | my.jn | Y   | C. G. H. | 1790. | C | l p |
| 9368 <i>scábura</i> <i>W.</i>          | rough-leaved    | ♂ | or | 3  | mr.ap | Y   | C. G. H. | 1789. | C | l p |
| 9369 <i>multiflóra</i> <i>W.</i>       | many-flowered   | ♂ | or | 3  | mr.my | Y   | C. G. H. | 1791. | C | l p |
| 9370 <i>flámmea</i> <i>W.</i>          | flame-flowered  | ♂ | or | 3  | ja.d  | Or  | C. G. H. | 1794. | C | l p |
| 9371 <i>anguláris</i> <i>W.</i>        | angular         | ♂ | or | 3  | ap.my | Y   | C. G. H. | 1791. | C | l p |
| 9372 <i>hyssopifolia</i> <i>W.</i>     | Hyssop-leaved   | ♂ | or | 7  | ap.jn | Str | C. G. H. | 1725. | C | l p |
| 9373 <i>trifurcáta</i> <i>W.</i>       | three-forked    | ♂ | or | 3  | ap.jl | B   | C. G. H. | 1789. | C | l p |
| 9374 <i>odoráta</i> <i>W.</i>          | sweet-scented   | ♂ | or | 3  | f.o   | Y   | C. G. H. | 1780. | C | l p |
| 9375 <i>lavandulifolia</i> <i>W.</i>   | Lavender-leav.  | ♂ | or | 1½ | my.s  | Y   | C. G. H. | 1732. | C | l p |
| 9376 <i>flififolia</i> <i>W.</i>       | thread-leaved   | ♂ | or | 1½ | my.au | Y   | C. G. H. | 1816. | C | l p |
| 9377 <i>trifolíata</i> <i>W.</i>       | three-leaved    | ♂ | or | 2  | my.au | Y   | C. G. H. | 1752. | C | l p |
| 9378 <i>procumbens</i> <i>W.</i>       | procumbent      | ♂ | or | 1½ | my.jn | Y   | C. G. H. | 1792. | C | l p |
| 9379 <i>grossularifolia</i> <i>W.</i>  | gooseberry-lvd. | ♂ | or | 2  | ap.my | Y   | C. G. H. | 1731. | C | l p |
| 9380 <i>pulverulénta</i> <i>B. R.</i>  | powdered        | ♂ | or | 2  | my.au | Y   | C. G. H. | 1800. | C | l p |
| 9381 <i>incisa</i> <i>W.</i>           | cut-leaved      | ♂ | or | 2  | jn.jl | Y   | C. G. H. | 1806. | C | l p |
| 9382 <i>coronopifolia</i> <i>Link.</i> | buckshorn-lvd.  | ♂ | or | 2  | jn.jl | Y   | C. G. H. | 1823. | C | l p |
| 9383 <i>tenuifolia</i> <i>B. M.</i>    | slender-leaved  | ♂ | or | 2  | jn.jl | Y   | C. G. H. | ...   | C | l p |

|                                      |                     |   |    |    |       |       |            |       |   |     |
|--------------------------------------|---------------------|---|----|----|-------|-------|------------|-------|---|-----|
| *1456. <i>MELO'CHIA. W.</i>          | <i>MELUCHIA.</i>    | ♂ | or | 1  | jl.au | Pu    | Brazil     | 1768. | C | p l |
| 9384 <i>pyramídta</i> <i>W.</i>      | pyramidal           | ♂ | or | 1  | jl.au | Pu    | Brazil     | 1768. | C | p l |
| 9385 <i>tomentósa</i> <i>W.</i>      | downy               | ♂ | or | 2  | my.jn | Pu    | W. Indies  | 1768. | C | p l |
| 9386 <i>caracásana</i> <i>Jacq.</i>  | Caracas             | ♂ | or | 2  | my.jn | Y     | Caracas    | 1820. | C | p l |
| 9387 <i>chorchorifolia</i> <i>W.</i> | Corchorus-lvd.      | ♂ | or | 1  | jl.au | Y     | E. Indies  | 1732. | S | l p |
| 1457. <i>MELHA'NIA. J.</i>           | <i>MELHANIA.</i>    | ♂ | or | 20 | my.au | W     | St. Helena | 1772. | C | s l |
| 9388 <i>Erythróxylon</i> <i>H.K.</i> | red-wood            | ♂ | or | 20 | jl.au | W     | St. Helena | 1800. | C | s l |
| 9389 <i>Melanóxylon</i> <i>H.K.</i>  | black-wood          | ♂ | or | 20 | jl.au | W     | St. Helena | 1800. | C | s l |
| 1458. <i>OCHRO'MA. W.</i>            | <i>OCHROMA.</i>     | ♂ | or | 20 | ...   | W     | S. Amer.   | 1816. | C | l p |
| 9390 <i>tomentósa</i> <i>W. en.</i>  | woolly-leaved       | ♂ | or | 20 | ...   | W     | S. Amer.   | 1816. | C | l p |
| 9391 <i>Lagópús</i> <i>W. en.</i>    | downy-leaved        | ♂ | or | 20 | ...   | W     | Jamaica    | 1802. | C | p l |
| †1459. <i>PASSIFLÓ'RA. W.</i>        | <i>PASSIFLOWER.</i> | ♂ | or | 20 | my.o  | G.Pk  | W. Indies  | 1731. | C | p l |
| 9392 <i>serratifolia</i> <i>W.</i>   | notched-leaved      | ♂ | or | 20 | jl.au | Or    | Bahama     | 1724. | C | p l |
| 9393 <i>cúprea</i> <i>W.</i>         | copper-colored      | ♂ | or | 20 | jl.n  | G.r   | W. Indies  | 1731. | C | p l |
| 9394 <i>malifórmis</i> <i>W.</i>     | Sweet Calabash      | ♂ | or | 20 | mr.o  | S.    | Brazil     | 1815. | C | p l |
| 9395 <i>racemósa</i> <i>Brot.</i>    | racemose            | ♂ | or | 20 | au.s  | G.B.R | Jamaica    | 1768. | S | r m |
| 9396 <i>quadranguláris</i> <i>W.</i> | square-stalked      | ♂ | or | 20 | au.s  | G.B.R | Jamaica    | 1768. | S | r m |



History, Use, Propagation, Culture,

1456. *Melochia*. According to Forskahl, it is an alteration of the Arabic name *melochieh*, or *melokkieh*. Light rich soil suits all the species, and they strike readily in moist heat.

1457. *Melhania*. A plant which grows upon Mount *Melham*, in Arabia. Pretty plants, which grow in sandy loam, and root in sand under cover. Sweet observes, that "they are very apt to become covered with insects."

1458. *Ochroma*. From *αχρος*, yellow, the flowers being of that color, according to Schreber. *O. Lagopus* is a very large tree, with divaricating branches, and leaves more than a foot long. The wood is white, tender, and so light, that it is used instead of corks to nets. The capsules contain a very soft fine rufous down, in which the seeds are involved, and which down is said to be used in the manufacture of English beavers (*Desportes Plantes de S. Domingue*, iii. 16.)

1459. *Passiflora*. This genus has been so named, on account of its being supposed to represent, in the appendages of its flower, the passion of Jesus Christ. A beautiful genus of climbers, partly herbaceous, but chiefly suffruticose or woody; and all of them exotics and very ornamental. Some species are odoriferous; others bear edible fruits, fleshy juicy berries of considerable size, though not rich in flavor. Of late, a number of hybrid sorts have been raised, some of which, as *P. caruleo-racemosa*, are considered more beautiful than almost any of the natural species.

*P. maliformis*, the sweet calabash of the West Indies, produces large flowers, red, white, and blue, but of short duration. They are succeeded by fruit, roundish, the size of a large apple, yellow when ripe, having a thicker rind than any of the other sorts; inclosing a sweetish pulp, in which are lodged many oblong black seeds, of a brownish color, a little rough to the touch. It grows naturally in the West Indies, where the inhabitants call it *Granadilla*. The fruit is served up there in deserts. It has borne fruit in the garden of the Bishop of Durham in Oxfordshire, and at Vere's, Kensington Gore. (*Hort. Trans.* iii. 101.)

*P. quadrangularis*, the *Granadilla* vine of the French, has leaves five or six inches long, and luxuriant four-

- 9357 Leaves stalked oval blunt wavy crenate and stem hairy, Stipules lanceolate
- 9358 Leaves downy hispid oblong acutish entire subsessile, Stipules lanceolate subulate, Flowers aggregate
- 9359 Leaves downy beneath oblong blunt crenate stalked, Stipules subulate, Pedic. 1-2-f. Calyxes spreading
- 9360 Leaves soft with down whitish obl. blunt toothed cuneate at base entire, Pedunc. 2-f. Cal. campan. velvety
- 9361 Leaves smooth with lanceolate serrate at end acute, Stipules ovate acuminate, Pedic. 2-4-flowered
- 9362 Leaves white with down lanceolate serrate bluntish wavy at edge, Stipules subul. Pedunc. 1-f. very short
- 9363 Leaves smooth broadly obovate cuneiform very blunt crenate emarginate toothed, Stip. lanc. subulate
- 9364 Leaves pubescent obovate cuneiform truncate emarginate toothed, Stipules ovate acute
- 9365 Leaves soft white with down oblong cuneiform rounded at end toothed, Stipules lanceolate
- 9366 Leaves pubescent downy oblong unequally toothed rounded at each end, Stipules ovate some. toothed
- 9367 Leaves beneath white with down oblong obov. cuneiform unequally toothed at end, Stip.  $\frac{1}{2}$  cord. acum.
- 9368 Leaves rough above downy beneath cuneif. obl. unq. toothed entire at base, Stip. half cordate acuminate
- 9369 Leaves smoothish cuneiform oblong truncate toothed at end, Stipules oblong acute, Racemes few-flow.
- 9370 Leaves smooth cuneiform lanceolate truncate toothed at end, Calyxes reflexed
- 9371 Leaves smooth above hairy beneath cuneiform lanceolate truncate toothed at end
- 9372 Leaves pubescent cuneiform lanceolate blunt toothed at end, Calyx inflated downy
- 9373 Leaves velvety cuneiform linear blunt entire or 3-toothed at end, Cal. campanulate
- 9374 Leaves velvety cuneiform lanceolate blunt : upper entire ; lower 3-5-toothed at end, Stipules lin. subul.
- 9375 Leaves velvety lanceolate blunt entire, Stipules linear subulate, Calyxes angular
- 9376 Leaves smooth rough at edge linear 3-cornered entire, Stipules large lanceolate
- 9377 Leaves white with down sess. cuneate obcord. some. crenate at end, Stip. obl. blunt resembling lat. lvs.
- 9378 Leaves smoothish oblong toothed pinnatifid : lower ovate ; upper elongate, Stem procumbent
- 9379 Leaves rough with scattered down linear-cuneiform coarsely toothed, Stipules linear entire
- 9380 Leaves roughish white bipinnatifid, Pedunc. 2-flowered very long
- 9381 Leaves pinnatifid with linear lanceolate entire segments, Petals cut-toothed
- 9382 Leaves linear pinnatifid fleshy smoothish, Stem pubescent
- 9383 Leaves pinnatifid with linear entire acute lobes

- 9384 Leaves ovate lanc. toothed smooth, Pedunc. 5-6-f. longer than petiole, Branches downy in decurrent lines
- 9385 Lvs. uneq. sided ovate obl. acutely crenate plaited hoary on each side, Umbels 3-8-f. longer than petiole
- 9386 Leaves cordate crenate downy beneath, Fl. capitate subsessile axillary and opposite the leaves
- 9387 Leaves ovate somewhat lobed serrated smooth, Flowers subterminal capitate sessile

- 9388 Leaves ovate cordate subpeltate acuminate crenulate beneath downy and reticulated
- 9389 Leaves cordate entire downy on each side

- 9390 Leaves cordate somewhat 3-lobed repand subtomentose
- 9391 Leaves cordate 5-angled somewhat lobed toothletted pubescent beneath

- 9392 Leaves ovate veiny subserrulate, Petioles with 2 glands, Invol. 3-leaved
- 9393 Leaves elliptical entire blunt 3-nerved, Petioles without glands, Invol. O.
- 9394 Leaves oblong ovate cordate 3-nerved veiny entire, Petioles with 2 glands, Invol. 3-leaved larger than fl.
- 9395 Leaves 3-lobed peltate, Petioles with 4 glands, Flowers terminal racemose
- 9396 Leaves obl. ovate subcord. entire veiny, Petioles with 6 glands, Stipules roundish ovate, Invol. 3-leaved



and Miscellaneous Particulars.

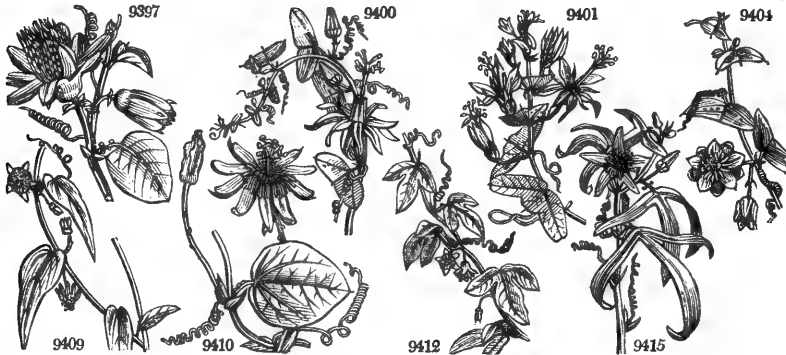
cornered ligneous stems. The flowers are red within, and white outside ; they are odoriferous, and generally the plant is covered with fruits and flowers at the same time, which makes a fine appearance. The fruit, Sabine describes (*Hort. Trans.* iii. 100.) as very large, of an oblong shape, about six inches in diameter, from the stalk to the eye, and fifteen inches in circumference. It is externally of a greenish-yellow when ripe, soft and leathery to the touch, and quite smooth ; the rind is very thick, and contains a succulent pulp of a purple color (which is the edible part), mixed with the seeds in a sort of sack, from which it is readily separated. Wine and sugar are commonly added to it when used. The flavor is sweet and slightly acid, and it is very grateful to the taste, and cooling in a hot climate. It has been successfully cultivated for its fruit in a few places, as at Lord Harewood's, Farley Hall, &c. (*Hort. Trans.* iv. 60.)

*P. laurifolia*, the water lemon, *Pomme de Liane*, Fr., has a suffrutescent stem, with divaricating filiform branches, oval smooth leaves, and very long tendrils. Flowers red and violet, sweet-scented ; the fruit about the size of a hen's egg, but rather more elongated, and tapering equally at both ends ; when ripe, it is yellow and dotted over with white spots ; it contains a whitish watery pulp, which, in the West Indies, is usually sucked through a small hole made in the rind ; the rind is tough, soft, and thin ; the juice has a peculiar aromatic flavor, is delicately acid, and allays thirst agreeably. It is grown in our stoves, but has not yet been cultivated for its fruit.

*P. normalis* has berries about the size of small grapes. The root has been extolled as a counterpoison and diuretic.

*P. Murucuja* produces fruit of an oblong oval form, about the size of a large olive, and flesh-colored when ripe. Both the syrup and decoction of the plant are much used in the leeward parts of Jamaica, where it is frequent ; and they are said to answer effectually all the purposes for which syrup of poppies and liquid laudanum are generally administered. The flowers are most in use : they are commonly infused in, or pounded and

|                           |                  |    |    |       |       |            |        |       |     |                    |                     |
|---------------------------|------------------|----|----|-------|-------|------------|--------|-------|-----|--------------------|---------------------|
| 9397 alata W.             | wing-stalked     | fr | 20 | ap.au | G.a.r | W          | Indies | 1772. | C   | p.l                | Bot. mag. 66        |
| 9398 laurifolia W.        | laurel-leaved    | fr | 20 | jn.jl | G.Pu  | W          | Indies | 1690. | C   | p.l                | Bot. reg. 13        |
| 9399 multiflora W.        | many-flowered    | or | 20 | jn.s  | ...   | VeraCruz   | 1731.  | C     | p.l | Plum.amer. t.90    |                     |
| 9400 Murucúja W.          | purple           | fr | 12 | jl.au | S     | W          | Indies | 1739. | C   | p.l                | Bot. reg. 574       |
| 9401 perfoliata W.        | perfoliate-leav. | or | 15 | jl.au | Pu    | W          | Indies | 1806. | C   | p.l                | Bot. reg. 78        |
| 9402 róbra W.             | red-fruited      | or | 15 | aps.  | R     | W          | Indies | 1771. | C   | p.l                | Bot. reg. 96        |
| 9403 normalis W.          | linear-lobed     | or | 15 | my.jn | ...   | VeraCruz   | 1731.  | C     | p.l | Bot. reg. 96       |                     |
| 9404 lunata W.            | crescent-leaved  | cu | 10 | jn.au | W     | Jamaica    | 1733.  | C     | p.l | Bot. mag. 2354     |                     |
| 9405 Vespertilio W.       | bat-winged       | cu | 8  | my.jn | W     | W          | Indies | 1732. | C   | p.l                | Bot. reg. 597       |
| 9406 rotundifolia W.      | round-leaved     | cu | 8  | my.au | W     | W          | Indies | 1779. | C   | p.l                | Cav. dia. 10. t.290 |
| 9407 punctata W.          | dotted-leaved    | cu | 6  | my.jn | W.y   | Peru       | 1784.  | C     | p.l | Bot. cab. 101      |                     |
| 9408 lótea W.             | yellow           | cu | 4  | my.jn | Y.w   | America    | 1714.  | R     | p.l | Bot. reg. 79       |                     |
| 9409 angustifolia W.      | narrow-leaved    | cu | 6  | jn.s  | W     | W          | Indies | 1773. | C   | p.l                | Bot. reg. 188       |
| 9410 al'bida Ker.         | long-stalked     | or | 15 | aus.  | W     | Brazil     | 1816.  | C     | p.l | Bot. reg. 677      |                     |
| 9411 pallida W.           | pale             | cu | 20 | aus.  | Y.g   | St. Domin. | ...    | C     | p.l | Bot. reg. 660      |                     |
| 9412 minima W.            | small            | cu | 6  | jl.au | W     | Curassao   | 1690.  | C     | p.l | Bot. reg. 144      |                     |
| 9413 grácilis Link.       | slender          | cu | 6  | au    | W     | .....      | 1823.  | O     | co  | Bot. reg. 870      |                     |
| 9414 suberosa W.          | Cork-barked      | cu | 6  | jn.s  | W     | W          | Indies | 1759. | C   | p.l                | Exot. bot. 1. t. 28 |
| 9415 peltata W.           | peltate          | cu | 6  | aus.  | G     | W          | Indies | 1778. | C   | p.l                | Bot. reg. 507       |
| 9416 hederácea W.         | Ivy-leaved       | un | 3  | jn.jl | W     | W          | Indies | ...   | C   | p.l                | Plum.amer. t.84     |
| 9417 glácea W.            | glaucous-leav'd  | un | 6  | aus.  | W     | Cayenne    | 1779.  | C     | p.l | Bot. reg. 88       |                     |
| <i>stipulata</i> Aublet.  |                  |    |    |       |       |            |        |       |     |                    |                     |
| 9418 picturata Ker.       | Newman's         | or | 15 | s     | Pu    | Brazils    | 1820.  | C     | p.l | Bot. reg. 673      |                     |
| 9419 holosericea W?       | silky-leaved     | or | 10 | my.au | W.pu  | VeraCruz   | 1733.  | C     | p.l | Bot. reg. 59       |                     |
| 9420 hirsúta W.           | hairy            | or | 8  | s     | W     | W          | Indies | 1778. | C   | p.l                | Bot. cab. 138       |
| 9421 tuberósa W.          | tuberous         | or | 12 | jn.o  | G     | W          | Indies | 1810. | C   | p.l                | Bot. reg. 432       |
| 9422 palmáta Link.        | palmete          | or | 12 | ...   | W     | Brazil     | 1818.  | C     | p.l | Bot. reg. 432      |                     |
| 9423 foetida W.           | stinking         | or | 10 | jl.au | W.g   | W          | Indies | 1731. | S   | p.l                | Bot. reg. 321       |
| 9424 rubricáulis Jacq.    | red-stalked      | pr | 6  | jl.au | R     | S. Amer.   | 1821.  | S     | co  | Bot. reg. 288      |                     |
| 9425 ciliáta W.           | ciliated         | or | 6  | jl.s  | Pk    | Jamaica    | 1783.  | C     | p.l | Bot. mag. 238      |                     |
| 9426 Herbertiána Ker.     | Lord Caernarv.   | or | 30 | jl.s  | G     | N. Holl.   | 1821.  | C     | p.l | Bot. reg. 737      |                     |
| 9427 adiantifolia B. Reg. | Adiantum-ld.     | or | 20 | jn.au | Or    | Norfolk I. | 1792.  | C     | p.l | Bot. reg. 233      |                     |
| 9428 pedunculáris Cav.    | long-peduncled   | or | 10 | ...   | Peru  | Peru       | 1815.  | C     | p.l | Cav. ic. 5. t. 426 |                     |
| 9429 edulis B. M.         | eatable          | fr | 30 | jl.au | W     | W          | Indies | ...   | C   | p.l                | Bot. mag. 1989      |
| 9430 incarnáta W.         | Rose-colored     | or | 30 | jl.au | Pk    | America    | 1629.  | C     | r.m | Miss Lawr. pass.   |                     |
| 9431 carúlea W.           | common           | or | 30 | jn.o  | W.b   | Brazil     | 1699.  | C     | s.p | Bot. mag. 58       |                     |
| <i>β cerúleo-racemosa</i> |                  |    |    |       |       |            |        |       |     |                    |                     |
| ?                         | Milne's hybrid   | or | 30 | jn.o  | Pu    | .....      | 1820.  | C     | co  | Bot. cab. 273      |                     |
| ?                         | angustifolia     | or | 30 | jn.o  | W.b   | .....      | ...    | C     | co  |                    |                     |
| ?                         | chinensis        | or | 30 | jn.o  | W.b   | China      | ...    | C     | co  |                    |                     |
| 9432 filamentósa W.       | thready          | or | 30 | jn.o  | W.b   | America    | 1817.  | C     | co  | Bot. reg. 584      |                     |
| 9433 serráta W.           | saw-leaved       | or | 20 | ...   | W.g   | Martiniq.  | 1801.  | C     | p.l | Plum. amer. t.79   |                     |
| 9434 pedáta W.            | curl-flowered    | or | 15 | ...   | W.g   | W          | Indies | 1781. | C   | p.l                | Plum. amer. t.81    |
| 9435 heterophýlla W.      | various-leaved   | or | 15 | ...   | W     | St.Domin.  | 1817.  | C     | p.l | Plum. ic. 139. f.1 |                     |



History, Use, Propagation, Culture,

mixed immediately with wine or spirits; and the composition is generally thought a very effectual and easy narcotic.

*P. incarnata*, the May apple, has a perennial root, herbaceous shoots, and sweet-scented flowers, variegated with purple. The fruit is about the size of an apple, orange-colored, with a sweetish yellow pulp, but it requires the heat of the stove to bring it forward.

*P. carulea* is the tallest and most ligneous of the species. The stem will grow almost as large as a man's arm, and the shoots will often grow the length of fifteen feet in one summer. The leaves are the most elegant of the genus. The flowers are blue outside, and purple and white within; they have a faint scent, and continue but for one day. The fruit is egg-shaped, of the size and color of the Mogul plum, the yellow skin of which encloses a sweetish disagreeable pulp and black seeds.

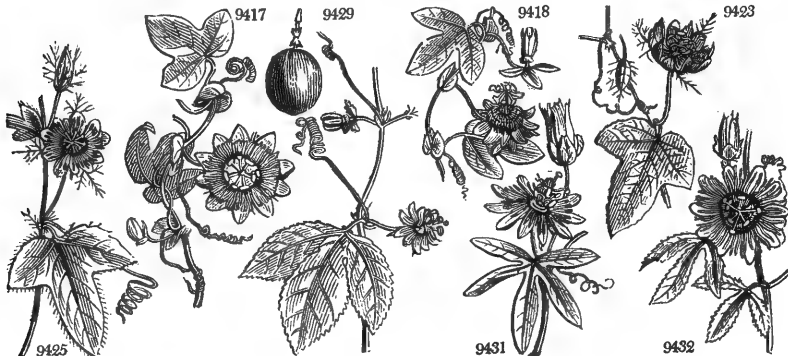
Besides the species thus enumerated, some varieties have been procured by cross impregnation, which are very remarkable for their beauty, and for having acquired the hardihood of their parent. The most valuable of these artificial productions, is the *P. ceruleo-racemosa*, raised by Mr. Milne, of Fulham, from seed of *P. racemosa* impregnated by *P. carulea*, and figured in the Transactions of the Horticultural Society, vol. 3. tab. 3., and the *P. alato-carulea*, obtained by Mr. J. H. Masters of Canterbury, between *P. alata* of the West Indies, and *P. carulea*.

All the species grow and flower freely in a mixture of loam, and light rich earth or peat, with plenty of room. Most of them fruit in the stove, but the *P. carulea* seldom fruits in the greenhouse. They are all easily increased either by seeds or very young cuttings, in a close moist heat.

As fruit-bearing plants the Passifloras are thus treated:—"Having procured plants with good roots, plant such as are intended to fruit in a border in the stove, and train them to a trellis near the glass; they will in general produce fruit the second year. The seedlings of the *P. incarnata*, will produce fruit the first year. All the species will fruit even in large pots; but Sabine says, the "best method is to plant them in an angle of the bark-bed, which has been parted off, either by boards or brick-work, as low as the pit goes. At the bottom of

- 9397 Leaves obl. ovate subcord. ent. veiny, Petioles with 4 glands, Stip. lanc. falcate suberrate, Invol. 3-leaved  
 9398 Leaves oblong entire veiny, Petioles with 2 glands, Invol. 3-leaved toothed at end  
 9399 Leaves obl. ent. acute 3-nerved veiny, Petioles with 2 glands, Ped. aggregate axill. Fl. apetalous, Invol. O.  
 9400 Leaves 2-lobed bluntly emarginate, Petioles without glands, Corona campanulate truncate entire  
 9401 Lvs. cord. 2-lobed blunt mucron. ; up. somew. stem-clasp. Petiol. without glands, Pet. twice as long as cal.  
 9402 Leaves cordate 2-lobed acute mucronate pubescent beneath, Petioles without glands, Fruit obovate  
 9403 Lvs. 2-lobed emarginate at base, Lobes linear blunt divaricating ; the intermediate obsolete mucronate  
 9404 Lvs. cord. 2-lobed blunt smooth, Petioles without glands, Pedunc. axillary twin, Threads of corona clav.  
 9405 Leaves cuneiform acuminate divaricating with 2 glands at base, Petioles without glands, Invol. O.  
 9406 Lvs. round. shortly and bluntly 3-lobed dott. downy ben. Petiol. without glands, Pet. twice as short as cal.  
 9407 Lvs. round. subcord. blunt obsolete 3-lobed smooth dott. Petioles without glands, Pet. twice as short as cal.  
 9408 Lvs. cord. 3-lobed blunt smooth, Petioles without glands, Pedunc. axill. twin, Pet. twice as narrow as cal.  
 9409 Lower leaves 3-lobed acuminate ; upper undivided lanceolate, Petioles with 2 glands, Flowers apetalous  
 9410 Leaves roundish cordate, Petioles with 2 glands, Flowers solitary long-stalked, Cal. keeled, Stam. 1-sided  
 9411 Leaves ovate entire 3-nerved veiny, Petioles with 2 glands, Flowers apetalous, Involucrum O.  
 9412 Lvs. 3-lobed smooth, Lobes lanc. ; middle one longest, Petioles with 2 glands, Fl. apetal. Stem corky at base  
 9413 Leaves subcordate 3-lobed, Lobes rounded with 2 glands, Pedunc. axillary solitary, Flower apetalous  
 9414 Lvs. 3-lobed smooth, Lobes oblong ; lat. very short, Petioles with 2 glands, Fl. apetal. Stem corky at base  
 9415 Lvs. peltate deeply 3-lobed smooth, Lobes lin. lanc. divaricating, Petioles with 2 glands, Flow. apetalous  
 9416 Leaves peltate half 3-lobed smooth, Lobes ovate blunt, Petioles with 2 glands, Fl. apetalous  
 9417 Leaves peltate cordate 3-lobed, Lobes equal oblong blunt, Petioles with 4 glands, Petals length of calyx  
 9418 Leaves discolored peltate  
 9419 Leaves 3-lobed downy with a reflexed tooth on each side at the base  
 9420 Leaves 3-lobed vill. ; lower smooth above, Lobes obl. entire ; intermediate longest, Petioles with 2 glands  
 9421 Leaves 2-lobed glandular beneath, Lobes oblong erect, Peduncles twin  
 9422 Leaves palmate about 5-parted suberrulate, Involucres 3-leaved entire, Rays a little shorter than corolla  
 9423 Leaves 3-lobed cordate hairy, Involucres multifid capillary  
 9424 Leaves and stems all fringed with red hairs  
 9425 Leaves 3-lobed cordate smooth ciliated serrated, Involucres multifid capillary  
 9426 Downy, Leaves cordate 3-lobed, Peduncles twice as short as petiole, Corona much shorter than corolla  
 9427 Lvs. rounded trunc. at base slightly 3-5-lobed, Lobes blunt, Petioles without glands, Pet. shorter than cal.  
 9428 Stem square, Leaves 3-lobed : lobes nearly equal serrated, Pedunc. long 1-flowered  
 9429 Leaves 3-lobed serrated smooth, Invol. glandular serrulate caducous, Ovary naked  
 9430 Lvs. 3-lobed serr. Lobes obl. acute, Petioles with 2 glands, Inv. 3-leaved, Threads of corona longer than cor.  
 9431 Lvs. palmate 5-parted entire, Petioles gland. Invol. 3-leaved entire, Threads of corona shorter than corolla

- 9432 Leaves palmate 5-parted serr. Petioles gland. Invol. 3-leaved serrate, Threads of corona longer than cor.  
 9433 Leaves palmate 7-parted serrated, Petioles glandular, Invol. 3-fid entire  
 9434 Leaves 7-pedate serrated, Petioles glandular, Invol. 3-leaved serrated  
 9435 Upper leaves quinate pedate obovate somewhat cut ; lower ternate linear-lanceolate or simple



and Miscellaneous Particulars.

the cavity formed by this division, should be laid some brick-rubbish, over which may be thrown a little dead tan, and the whole be then filled with equal parts of very old tan, and a compost of leaf-mould and rotten dung. Herein the roots will strike freely, and will even spread through the partition into the pit, growing into the fresh tan. Such roots may be trimmed and reduced whenever the tan is changed ; but should the plant have been some time in its station, it will be as well to leave part of the old tan in the bottom of the pit, in which the protruded roots may remain undisturbed. They do not require the full heat of the pine stove, for they flourish best in a temperature of from sixty-five to seventy degrees ; but they do not bring their fruit to perfection if kept in a common greenhouse or conservatory, though they will grow and flower in it. The shoots, as they advance, must be trained near to and under the inclined glass of the stove : the flowers will appear in May, and the blooming will continue until September, the fruit setting the whole time ; but if it does not set well, it will be advisable to impregnate the stigmas by applying the pollen with a feather. As they grow, the very strong shoots should be cut out from their origin, for these do not bear fruit so abundantly as those which are less vigorous ; but the fruiting branches must not be shortened on any account. The temperature must be kept up equally during the time of flowering and fruiting. The crop will begin to come in in August, and will continue until January ; but the earlier produce is the best. When the crop is all off, which will be early in January, the heat must be reduced to about fifty degrees, so as to check or stop the growth ; this being effected, the shoots must be well cut in. As little old wood as possible, besides the main stem, which rises from the pit to the glass, and a few pieces (about two or three feet of each) of the old branches should be retained ; for all that is to be trained under the glass to bear in each year, ought to be the growth of the same season. It is found that the shoots break better, and in greater quantity, from the older wood than from that of two years' standing. In this dormant and reduced state it is to be kept during January and February, after which the necessary heat may be applied to cause it to resume its functions for the ensuing season." (*Hort. Trans.* iii. and iv.)



|                                    |                         |      |           |                     |                   |         |                                |
|------------------------------------|-------------------------|------|-----------|---------------------|-------------------|---------|--------------------------------|
| †1460. <i>ERO'DIUM</i> . <i>W.</i> | HERON'S BILL.           |      |           | <i>Geraniaceae.</i> | <i>Sp. 20—45.</i> |         |                                |
| 9436 <i>petreum</i> <i>W.</i>      | rock                    | Δ pr | ↓ jn.jl   | Pu                  | S. Europe         | 1640.   | D co Gouan.ii.t.21.f.1         |
| 9437 <i>glandulgeum</i> <i>W.</i>  | glandular               | Δ pr | ↓ jn.jl   | Pu                  | Spain             | 1798.   | C lp Lapey. pyr.1. t.1         |
| 9438 <i>alpinum</i> <i>W.</i>      | Alpine                  | Δ pr | ↓ my.au   | R                   | Italy             | 1814.   | D co L'Her. ger. t.3           |
| 9439 <i>crassifolium</i> <i>W.</i> | thick-leaved            | Δ or | ↓ mr.au   | S                   | Cyprus            | 1788.   | R m Sweet ger. 111             |
| 9440 <i>laciniatum</i> <i>W.</i>   | lacinated               | Δ or | ↓ my.au   | R                   | Crete             | 1794.   | R m Ca. dis. 4. t. 113. f. 3   |
| 9441 <i>ciconium</i> <i>W.</i>     | long-beaked             | ○ un | ↓ jn.jl   | Pu                  | S. Europe         | 1711.   | S co Jac. vind. 1. t. 18       |
| 9442 <i>cicutarium</i> <i>W.</i>   | Hemlock-leav'd          | ○ w  | ↓ aps     | Pu                  | Britain           | ro.sid. | S co Eng. bot. 1768            |
| β <i>bipinnatum</i> <i>W.</i>      | Numidian                | ○ un | ↓ my.jn   | Pu                  | Numidia           | 1803.   | C s.l Ca. dis. 5. t. 126. f. 3 |
| 9443 <i>romānum</i> <i>W.</i>      | Roman                   | ○ pr | ↓ my.jn   | Pu                  | Rome              | 1724.   | S co Bot. mag. 377             |
| β <i>caucalyfolium</i> Sweet       | <i>Caucalis-leaved</i>  | ○ pr | ↓ 1 my.au | Pu                  | France            | 1816.   | S co Sweet ger. 6              |
| 9444 <i>moschatum</i> <i>W.</i>    | musky                   | ○ pr | ↓ 1 my.jl | Pu                  | England           | m.pas.  | S s.l Eng. bot. 902            |
| 9445 <i>gruinum</i> <i>W.</i>      | broad-leaved            | ○ un | ↓ jn.jl   | R                   | Crete             | 1596.   | S s.l Cav. dis. 4. t. 88. f. 2 |
| 9446 <i>chium</i> <i>W.</i>        | Chian                   | ○ un | ↓ 1 jn.jl | R                   | Levant            | 1724.   | S co Cav. dis. 4. t. 92. f. 1  |
| 9447 <i>hymenodes</i> <i>W.</i>    | three-leaved            | Δ or | ↓ ja.d    | Bk                  | Barbary           | 1789.   | D co Bot. mag. 2445            |
| 9448 Gussōni <i>Tenore.</i>        | Gousson's               | Δ or | ↓ 1 ja.d  | Pa.pu               | Naples            | 1821.   | D co Ca. dis. 4. t. 91. f. 2   |
| 9449 <i>malacoides</i> <i>W.</i>   | mallow-leaved           | Δ or | ↓ my.jl   | B                   | S. Europe         | 1596.   | S co Cav. dis. 4. t. 91. f. 2  |
| 9450 <i>incarnatum</i> <i>W.</i>   | flesh-colored           | Δ or | ↓ my.jl   | Fl                  | C. G. H.          | 1787.   | C r.m Sweet ger. 94            |
| 9451 <i>glaucochylum</i> <i>W.</i> | glaucous-leaved         | ○ un | ↓ jl.au   | R                   | Egypt             | 1732.   | S co Dil. et. l. 124. f. 150   |
| 9452 <i>maritimum</i> <i>W.</i>    | sea                     | Δ w  | ↓ my.s    | Fl                  | England           | san.sh. | D co Eng. bot. 646             |
| 9453 <i>Reichardi</i> <i>Dec.</i>  | dwarf                   | Δ un | ↓ 1 aps   | W                   | Minorca           | 1783.   | C s.l Bot. mag. 18             |
| 9454 <i>littoreum</i> <i>Dec.</i>  | shore                   | Δ un | ↓ 1 aps   | R                   | S. Europe         | 1821.   | D co Bot. mag. 18              |
| 9455 <i>serotinum</i> <i>Stev.</i> | late                    | Δ pr | ↓ 1 jls   | B                   | Siberia           | 1821.   | D co Sweet ger. 137            |
|                                    | <i>multicaule</i> Link. | Δ pr | ↓ 1 jls   | B                   | Siberia           | 1821.   | D co Sweet ger. 137            |

HEPTANDRIA.

|  |                           |        |         |                     |                           |       |                          |
|--|---------------------------|--------|---------|---------------------|---------------------------|-------|--------------------------|
| 1461. <i>PELARGONIUM</i> . <i>W.</i>   | STORK'S BILL.             |        |         | <i>Geraniaceae.</i> | <i>Sp. 186—uncertain.</i> |       |                          |
| 9456 <i>longifolium</i> <i>Jacq.</i>   | long-leaved               | * Δ pr | ↓ my.jn | Pk                  | C. G. H.                  | 1812. | R r.m Jac. ic. 3. t. 518 |
| 9457 <i>longiflorum</i> <i>Jacq.</i>   | long-flowered             | * Δ pr | ↓ my.jn | Y                   | C. G. H.                  | 1812. | R r.m Jac. ic. 3. t. 521 |
| 9458 <i>ovalifolium</i> Sweet          | oval-leaved               | * Δ pr | ↓ my.jn | W                   | C. G. H.                  | 1820. | R r.m Sweet ger. t. 106  |
| 9459 <i>reticulatum</i> Sweet          | netted                    | * Δ pr | ↓ my.jn | Pk                  | C. G. H.                  | 1820. | R r.m Sweet ger. t. 91   |
| 9460 <i>ciliatum</i> L'Her.            | ciliated                  | * Δ pr | ↓ ap.jn | F                   | C. G. H.                  | 1795. | R r.m Bot. rep. 247      |
| 9461 <i>punctatum</i> <i>W.</i>        | dotted-flower'd           | * Δ pr | ↓ ap.my | Y                   | C. G. H.                  | 1794. | R r.m Bot. rep. 60       |
| 9462 <i>radicatum</i> <i>Vent.</i>     | fleshy fringe-iv.         | * Δ pr | ↓ jn.jl | Y                   | C. G. H.                  | 1802. | R r.m Bot. mag. 1718     |
| 9463 <i>spatulatum</i> <i>Andr.</i>    | spatula-leaved            | * Δ pr | ↓ ap.my | Y                   | C. G. H.                  | 1795. | R r.m Bot. rep. 152      |
| β <i>affine</i> <i>Andr.</i>           | <i>fringe-spatul. lv.</i> | * Δ pr | ↓ ap.my | Y                   | C. G. H.                  | 1795. | R r.m Bot. rep. 282      |
| 9464 <i>radiatum</i> <i>Pers.</i>      | ray-leaved                | * Δ pr | ↓ jn.au | Y                   | C. G. H.                  | 1801. | R r.m Bot. rep. 222      |
| 9465 <i>virginicum</i> <i>Pers.</i>    | virgin                    | * Δ pr | ↓ my.jl | Y                   | C. G. H.                  | 1795. | R r.m Bot. rep. 317      |
| 9466 <i>undulatum</i> <i>Ait.</i>      | wave-flowered             | * Δ pr | ↓ my.jl | Y                   | C. G. H.                  | 1795. | R r.m Bot. rep. 232      |
| 9467 <i>lineare</i> <i>Pers.</i>       | linear-petalled           | * Δ pr | ↓ jn.jl | Y                   | C. G. H.                  | 1800. | R r.m Bot. rep. 193      |
| 9468 <i>niveum</i> Sweet               | snow-white                | * Δ pr | ↓ jn.jl | W                   | .....                     | 1821. | R r.m Sweet ger. 182     |
| 9469 <i>revolutum</i> <i>Pers.</i>     | revolute                  | * Δ pr | ↓ jl.au | Pu                  | C. G. H.                  | 1800. | R r.m Bot. rep. 354      |
| 9470 <i>auriculatum</i> <i>W.</i>      | ear-leaved                | * Δ pr | ↓ ap.jn | Pk                  | C. G. H.                  | ...   | R r.m Jac. ic. 3. t. 519 |
| 9471 <i>laciniatum</i> <i>Pers.</i>    | jag-loved                 | * Δ pr | ↓ my.jn |                     | C. G. H.                  | 1800. | R r.m Bot. rep. 131      |
| 9472 <i>oxalidifolium</i> <i>Jacq.</i> | Wood-sorrel-lv.           | * Δ pr | ↓ my.au | Y                   | C. G. H.                  | 1801. | R r.m Bot. rep. 300      |
| 9473 <i>nervifolium</i> <i>Jacq.</i>   | nerved-leaved             | * Δ pr | ↓ my.au | Va                  | C. G. H.                  | 1812. | R r.m Jac. ic. 3. t. 517 |
| 9474 <i>triphylum</i> <i>Jacq.</i>     | three-leaved              | * Δ pr | ↓ ap.my | F                   | C. G. H.                  | 1812. | R r.m Jac. ic. 3. t. 515 |
| 9475 <i>reflexum</i> <i>Pers.</i>      | reflex-leaved             | * Δ pr | ↓ jn.jl | W                   | C. G. H.                  | 1800. | R r.m Bot. rep. 224      |
| 9476 <i>roseum</i> <i>Ait.</i>         | Rose-colored              | * Δ pr | ↓ mr.my | Pk                  | C. G. H.                  | 1792. | R r.m Bot. rep. 173      |



History, Use, Propagation, Culture,

1460. *Erodium*. From *εραδιος*, a heron, because the fruit resembles the head and breast of that bird. The species are hardy plants, of common treatment, and no great beauty.

1461. *Pelargonium*. So called from *πελαργος*, a stork, in allusion to the beak of the fruit, which resembles the bill of that bird; as well as to preserve an analogy with the Geranium or Crane's-bill. It was detached by the late learned botanist Mons. L'Heritier, along with *Erodium*, from the Liongenus Geranium; and distinguished by its seven fertile stamens, irregular flower, tubular nectary, and spiral-leaved awns, or beaks to the capsule.

"This vast and favorite genus, for which we are almost entirely indebted to the Cape of Good Hope, consists of a number of well marked species. But that number is greatly augmented in almost every book, by the admission of spurious hybrid species or varieties, which continually start up from seed, wherever many of the primary ones are cultivated, and are for a while propagated by cuttings, and even by seed. Sooner or later,

- 9436 Stemless, Peduncles many-f. Lvs. smoothish pinnat. Segm. pinnatifid, Petals retuse twice as long as calyx  
 9437 Stemless, Peduncles many-f. Lvs. downy gland. pinnat. Segm. pinnatif. Petals acute twice as long as calyx  
 9438 Stem smooth. branch. Ped. many-f. Lvs. smooth. bipinnatif. Lobes lin. Pet. blunt long. than long-point. cal.  
 9439 Stem branched diffuse dowry, Lvs. thick pinnatif. cut, Lobes linear, Pedunc. many-f. Bractes ovate scariose  
 9440 Stem prostrate, Leaves bipinnate with linear acute lobes, Stipules and bractes ovate scariose, Ped. many-f.  
 9441 Stem ascend. and lvs. somew. villous pinnated, Seg. blunt pinnatif. tooth. Ped. many-f. Pet. length of calyx  
 9442 Stem prostrate or diffuse hairy, Leaves pinnated, Segm. sess. pinnatifid cut, Pedunc. many-f. Pet. unequal  
 β Caulcescent diffuse, Segments pinnated with linear lobes  
 9443 Nearly stemless, Leaves pinnate with ovate pinnatifid segments, Petals equal larger than calyx  
 β Plant of larger size  
 9444 Stem procumbent, Leaves pinnated with stalked ovate unequally serrated segm. Pedunc. downy glandular  
 9445 Stem erect nearly smooth, Leaves 3-cut. Segments cut-toothed, Pedunc. many-f. Calyx striated nerved  
 9446 Stem erect somewhat diffuse, Leaves smooth subcordate; upper 5-parted with cut toothed lobes  
 9447 Stem erect branch. shrubby at base, Lvs. 3-lobed or 5-parted very blunt, Stipules and bractes scariose ovate  
 9448 Stem erect soft, Pedunc. many-f. Leaves cordate blunt bluntly toothed undivided or 3-lobed  
 9449 Stem branched hairy, Leaves cordate undivided or 3-lobed blunt toothed, Petals length of calyx  
 9450 Stem ½ shrubby and leaves nearly smooth; lower cord. undivided toothed, Lobes cuneate 2-toothed at end  
 9451 Stem erect and leaves smooth oblong lobed crenate fleshy, Awns feathery from middle to end  
 9452 Caulcescent diffuse smooth, Leaves cordate ovate cut-crenate pubescent, Awns beardless  
 9453 Stemless, Leaves cordate crenate blunt smoothish, Pedunc. 1-f. Petals larger than calyx  
 9454 Caulcescent diffuse smoothish, Leaves cordate roundish 3-lobed unequally crenate, Awns bearded  
 9455 Stems diffuse, Leaves opposite 3-cut: segm. lateral cut-toothed divaricating, Peduncles many-flowered

## HEPTANDRIA.

† 1. HOAREA. Sweet. Petals 5, rarely 2 or 4 obl. lin., 2 upper parallel, with long claws abruptly reflexed in the middle. Stamens in a long tube, length of lower petals, bearing 5 or rarely 2-4 anthers, the others sterile, straight or incurved at end, the 3 lower shorter than the fertile ones. Stemless herbs, with tuberous turnip-like roots, and radical stalked leaves.

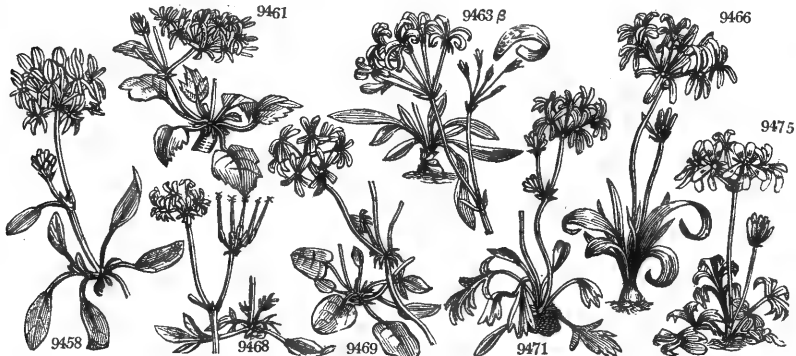
\* Leaves oblong, entire or lobed. Lobes entire or scarcely toothed.

- 9456 Stemless, Leaves lanceolate entire acute smooth; older pinnatifid linear, Umb. comp. Fl. tetrandrous  
 9457 Stemless, Leaves lanceolate entire acute smooth, Umb. comp. 4-f. Fl. tetrandrous, Petals linear  
 9458 Leaves oval or oval-oblong blunt flat or involute at edge entire hairy, Petals linear wavy twisted  
 9459 Stemless, Leaves ellipt. lanc. or obl. ent. hairy revol. at edge, Fl. pentandr. Pet. lin. spatul. wavy reflexed  
 9460 Stemless, Leaves ovate acute entire subciliated, Umb. compound, Fl. pentandrous, Petals linear spatulate  
 9461 Stemless, Leaves ovate toothed smooth, Umb. compound, Fl. diandrous, Pet. linear; 3 lower shortest  
 9462 Stemless, Leaves oval obl. entire acute at each end smooth ciliated, Umb. simple, Flowers pentandrous  
 9463 Stemless, Lvs. obl. spatul. blunt smooth, Umb. comp. Fl. pentandrous, Petals lin. blunt subrevolute

- 9464 Stemless, Leaves elliptical spatulate entire smooth, Umb. compound, Fl. pentandrous, Petals cuneiform  
 9465 Stemless, Lvs. ellipt. ovate acute at each end smooth, Umb. subcomp. Fl. pentandrous, Pet. lanc. cuneate  
 9466 Stemless, Leaves lin. lanc. entire ciliated, Umb. simple, Flowers pentandrous, Petals wavy nearly equal  
 9467 Stemless, Leaves linear lanceolate repand, Umbel nearly simple, Flowers pentandrous, Petals linear  
 9468 Stemless, Lvs. smooth: lower ovate ent.; upper pinnatif. Petals reflexed; lower ones much the smallest

\*\* Leaves sagittate, cordate, 3-lobed, or with an appendage at base.

- 9469 Stemless, Leaves cordate blunt nerved entire, generally with two ears at base, Leaves of invol. revolute  
 9470 Stemless, Lvs. obl. lanc. acum. at each end hairy ciliat. at edge, generally ent. somet. with 2 obl. lin. append.  
 9471 Stemless, Leaves entire and cut-lobed at end, Scape flexuose, Umbel compound  
 9472 Stemless, Leaves ciliated 3-cut: segm. ovate blunt, Umbel compound  
 9473 Stemless, Leaves smooth 3-cut: segm. blunt lobed nerved glauc. beneath, Scapes hispid, Umbel compound  
 9474 Stemless, Leaves smooth 3-cut: segm. blunt crenated, Scapes and petioles downy  
 9475 Stemless, Leaves smooth 3-cut: segm. lobed cut recurved, Two upper filaments and stigmas reflexed  
 9476 Stemless, Leaves cut-lobed downy, Umb. simple close, Three lower petals much the smallest



and Miscellaneous Particulars.

however, they for the most part vanish, even before the eyes of those who witnessed their origin." (Smith.)

The greater part of the species being of the easiest cultivation, and many bearing the confined air of a sitting room better than most plants, it has happened that they have become objects of universal cultivation and attention: of which, indeed, they are in many cases deserving, for their neatness and beauty alone. There is, however, an uniformity in their form, coloring, and foliage, for which the liveliest colors will scarcely compensate. The popular taste for the Pelargonium tribe, or for Geraniums, as they are commonly called, has been much aided by several splendid publications both in this country and abroad; and especially by the Geraniacæ of Mr. Sweet, in which it is proposed to figure not only all the species formed by the hand of nature, but the multitudes of hybrid creations produced by the assistance of modern ingenuity. It is very doubtful whether any permanent advantage is derived from the obtaining such of these productions as are truly

|                         |                 |        |         |       |          |       |       |                  |
|-------------------------|-----------------|--------|---------|-------|----------|-------|-------|------------------|
| 9477 rapiceum Jacq.     | Fumitory-flow.  | * Δ pr | ½ ap.jn | Pk    | C. G. H. | 1788. | R r m | Bot. rep. 239    |
| 9478 notans Dec.        | nodding         | * Δ pr | ½ ap.jn | Y     | C. G. H. | 1788. | R r m | Bot. mag. 1877   |
| 9479 corydalisfórum Su. | fine-cut        | * Δ pr | ½ ap.jn | Pa. Y | C. G. H. | 1821. | R r m | Sweet ger. t. 18 |
| 9480 barbátum Jacq.     | bearded         | * Δ pr | ½ jl.au | Pk    | C. G. H. | 1790. | R r m | Bot. rep. 323    |
| 9481 fissifólium Pers.  | cloven-leaved   | * Δ pr | ½ ap.au | Pk    | C. G. H. | 1795. | R r m | Bot. rep. 378    |
| 9482 setósum Sweet      | setose          | * Δ pr | ½ ap.au | Pk    | C. G. H. | 1821. | R r m | Sweet ger. 38    |
| 9483 bubonifólium Pers. | Bubon-leaved    | * Δ pr | ½ mr.jl | W.pu  | C. G. H. | 1800. | R r m | Bot. rep. 323    |
| 9484 violæfórum Sweet   | violet-flowered | * Δ pr | ½ mr.jl | W     | C. G. H. |       | R r m | Sweet ger. 123   |
| 9485 floribúndum Ait.   | many-flowered   | * Δ pr | ½ mr.my | Pk    | C. G. H. | 1795. | R r m | Bot. rep. 420    |
| 9486 pilósum Pers.      | hairy           | * Δ pr | ½ my.jl | Pk    | C. G. H. | 1801. | R r m | Bot. rep. 259    |
| 9487 pennifórmæ Pers.   | winged          | * Δ pr | ½ my.jn | Y     | C. G. H. | 1800. | R r m | Bot. rep. 269    |
| 9488 purpurásceus Pers. | purple-flowered | * Δ pr | ½ my.jn | Pu    | C. G. H. | 1800. | C r m | Bot. rep. 304    |
| 9489 hirsútum Jacq.     | various-leaved  | * Δ pr | ½ mr    | Pk    | C. G. H. | 1788. | C r m | Bot. rep. 317    |
| 9490 melánthum Jacq.    | black-flowered  | * Δ pr | ½ my.jn | D.Br  | C. G. H. | 1790. | R r m | Sweet ger. 73    |
| 9491 dioicum Ait.       | dioecious       | * Δ pr | ½ ju.jl | D.Br  | C. G. H. | 1795. | R r m | Bot. rep. 309    |
| 9492 átrum L'Her.       | dark-brown      | * Δ pr | ½ my.jl | D.Br  | C. G. H. | 1793. | R r m | Sweet. ger. 72   |

|                            |                 |        |         |      |          |       |       |               |
|----------------------------|-----------------|--------|---------|------|----------|-------|-------|---------------|
| 9493 viciefólium L'Her.    | wing-leaved     | * Δ pr | ½ ap.jn | Pk   | C. G. H. | 1779. | R r m | Bot. mag. 579 |
| 9494 astragalifólium Pers. | Astragalus-ld.  | * Δ pr | ½ jl    | W.pu | C. G. H. | 1788. | R r m | Bot. rep. 190 |
| 9495 coronillæfólium Pers. | Coronilla-ld.   | * Δ pr | ½ ju.jl | D.Br | C. G. H. | 1795. | R r m | Bot. rep. 306 |
| 9496 heracleifólium Lodd.  | Cow-parsnip-iv. | * Δ pr | ½ ju.jl | D.Br | C. G. H. | 1818. | R r m | Bot. cab. 437 |

|                        |               |        |         |    |          |       |       |                    |
|------------------------|---------------|--------|---------|----|----------|-------|-------|--------------------|
| 9497 incrassátum B. M. | fleshy-leaved | * Δ pr | ½ ju.jl | Pk | C. G. H. | 1801. | R r m | Bot. mag. 761      |
| 9498 cárneum Jacq.     | flesh-colored | * Δ pr | ½ ap.jn | Pk | C. G. H. | 1812. | R r m | Jac. ic. 3. t. 512 |

|                         |                |        |          |     |          |       |       |                  |
|-------------------------|----------------|--------|----------|-----|----------|-------|-------|------------------|
| 9499 laterítium W.      | brick-colored  | ■ □ or | 1½ ju.au | R   | C. G. H. | 1800. | C r m | Jac. ecl. 1. 57  |
| 9500 cynosbatifólium W. | Currant-leaved | ■ □ or | 1½ ap.jl | D.R | .....    | ..    | C r m | W.ho.ber.2. t.78 |

|                        |                |        |         |    |          |       |       |                    |
|------------------------|----------------|--------|---------|----|----------|-------|-------|--------------------|
| 9501 columbínium W.    | Dove's-foot    | ■ □ pr | ½ ju.o  | Pu | C. G. H. | 1795. | R r m | Jac.schœ.2.t.133   |
| 9502 procúmbens Pers.  | procumbent     | ■ □ pr | ½ ap.my | Pu | C. G. H. | 1801. | S r m | Bot. rep. 234      |
| 9503 humifósum W.      | trailing       | ■ □ pr | ½ my.jl | R  | C. G. H. | 1801. | S r m | Sweet ger. 42      |
| 9504 chamædryfólium J. | Chamædryls-iv. | ■ □ pr | ½ my.jn | R  | C. G. H. | 1812. | R r m | Jac. ic. 3. t. 523 |
| 9505 austrále W.       | Botany Bay     | ■ □ pr | ½ my.au | R  | N. S. W. | 1792. | S r m | Jac. ecl. 1. 100   |
| 9506 althæoides L'her. | Althæa-leaved  | ■ □ pr | ½ ap.jn | W  | C. G. H. | 1724. | S r m | Jac.col.4.t.21.f.2 |

|                          |                |        |         |      |          |       |       |                     |
|--------------------------|----------------|--------|---------|------|----------|-------|-------|---------------------|
| 9507 laxum Sweet         | loose-paniced  | ■ □ or | 1 ap.jn | W.pk | C. G. H. | 1821. | S p.l | Sweet ger. 196      |
| 9508 ceratophýlum L'Her. | horn-leaved    | ■ □ or | 1 my.jn | W.pu | Africa   | 1786. | C r m | Bot. mag. 315       |
| 9509 dasycálon Sims.     | thick-stemmed  | ■ □ or | 1 jl.d  | W.pu | C. G. H. | 1795. | C r m | Bot. mag. 3029      |
| 9510 crithmifólium Sm.   | Samphire-leav. | ■ □ or | 1 my.jn | W.pu | C. G. H. | 1790. | C r m | Smith. ic. pict. 13 |
| 9511 alter'nans Wendl.   | Parsley-leaved | ■ □ or | 1 my.au | W.pu | C. G. H. | 1791. | C r m | Wendl.her.2. t.9    |
| 9512 carnósum Ait.       | fleshy-stalked | ■ □ or | 1 ju.au | W.pu | C. G. H. | 1724. | C r m | Sweet ger. 98       |

|                         |            |        |         |      |          |       |       |                |
|-------------------------|------------|--------|---------|------|----------|-------|-------|----------------|
| 9513 multiradiátum Wen. | many-rayed | * Δ pr | 1 my.jn | D.Br | C. G. H. | 1820. | R r m | Sweet ger. 145 |
|-------------------------|------------|--------|---------|------|----------|-------|-------|----------------|

|                         |               |        |         |   |           |       |       |                |
|-------------------------|---------------|--------|---------|---|-----------|-------|-------|----------------|
| 9514 cotyledónis L'Her. | Hollyhock-ld. | ■ □ pr | ¾ my.jl | W | St.Helena | 1765. | S r m | Sweet ger. 126 |
|-------------------------|---------------|--------|---------|---|-----------|-------|-------|----------------|



History, Use, Propagation, Culture,

hybrid; but it is quite certain, that to admit them into works of science, is replete with the greatest inconvenience, and can lead to no useful end. In the arrangement here adopted, all those kinds which are manifestly or avowedly artificial productions, are therefore placed at the end of the legitimate species in alphabetical order, an order much more commensurate with their importance, than an arrangement upon scientific principles.

\*\*\* *Leaves pinnatifid. Segments cut or multifid.*

- 9477 Stemless, Leaves hairy bipinnated, Lobes linear somewhat blunt, Upper petals reflexed; lower connivent  
 9478 Nearly stemless, Lvs. bipinnated hairy, Lobes pinnati. cut multifid linear somewhat toothed, Fl. nodding  
 9479 Stemless, Lvs. hairy pinnated: segm. pinnatifid or trifid, Lobes linear acute  
 9480 Stemless, Lvs. pinnated: segm. trifid, Lobes linear acum. bearded at end, Pet. lin. blunt  
 9481 Stemless, Lvs. pinnated: segm. trifid cut at end naked, Pet. blunt all with an oblong spot  
 9482 Stemless, Lvs. pinnated pubesc: segm. cuneate 3-5-toothed at end, Teeth setose at end, Umb. compound  
 9483 Stemless, Lvs. pinnated smooth: segm. cut-lobed acute, Umb. simple, Petals emarginate  
 9484 Subcaulescent, Leaves pinnated or 3-cut: segm. obl. lanc. smooth entire ciliated at edge acum. at end  
 9485 Stemless, Lvs. pinnated: segments bipartite, Umbel compound  
 9486 Stemless, Lvs. pinnated hairy: segm. cut multifid, Umbel simple 4-6-fl. Petals linear  
 9487 Stemless, Lvs. pinnated: segm. lanc. linear, Umbel compound  
 9488 Stemless, Lvs. lanc. linear entire and pinnatifid, Umb. compound  
 9489 Stemless, Lvs. hairy ciliated obovate or lanc. entire or pinnatifid, Stipules adhering to petiole  
 9490 Nearly stemless, Lvs. hairy pinnated: segm. oval-obl. blunt subpinnatifid or toothed, Petals lin. blunt  
 9491 Stemless, Lvs. hispid entire or 3 cut, Umbel compound, Flowers dioecious [at end  
 9492 Stemless, Lvs. downy: some obl. and entire; others pinnated, Upper sepal erect, Barren filam. incurved

‡ 2. DIMACRIA. Lindl. *Petals 5, unequal, two upper connivent spreading at end. Stamens shorter than sepals, 5 fertile, two lowermost twice as long as the rest, upper very short; 5 sterile, very small, nearly equal. Stamens sterile herbs, with a tubercous turnip-like root; leaves stalked pinnatifid.*

\* *Leaves pinnated, with an odd segment. Segments entire.*

- 9493 Stemless, Lvs. pinnated villous: segm. ovate in 2 or 4 pairs, Petals nearly entire flat  
 9494 Stemless, Lvs. pinnated hairy: segm. elliptical in many pairs, Petals wavy twisted at base  
 9495 Stemless, Lvs. pinnated smooth: segm. of 1 or 2 pairs obovate or oblong  
 9496 Stemless, Lvs. pinnated smooth: segm. of 2 or 3 pair obovate: the terminal ones confluent

\*\* *Leaves pinnate, with an odd one. Segments lobed or multifid.*

- 9497 Nearly stemless, Leaves smooth pinnated: segments lobed blunt, Upper petals orbiculate  
 9498 Stemless, Lvs. smooth bipinnated, Lobes trifid linear blunt, Scape simple

‡ 3. CYNOSBATA. Dec. *Petals oval, nearly equal, almost twice as long as calyx. Stamens 10 erect, the 5 alternate ones bearing the anthers. Stems shrubby, erect.*

- 9499 Stem shrubby at base, Lvs. cordate 5-lobed hairy zoned, Lobes acutely toothed at end  
 9500 Stem shrubby branched, Lvs. cordate 3-lobed toothed hairy: middle lobe 3-lobed, Pedunc. 2-flowered

‡ 4. PERISTERA. Dec. *Petals nearly equal, as long as calyx, or a little larger. Stamens 10, 5 longer, nearly equal, or one only occasionally abortive, 5 alternate, very short, sterile, tooth like. Herbs with stems, and with the appearance of Erodium or Geranium.*

- 9501 Stems many diffuse, Lvs. cordate roundish many-parted, Lobes trifid, Lobelets linear blunt  
 9502 Cauliscent procumbent, Lvs. cord. somewhat lobed crenate-toothed, Pedunc. 2-flowered  
 9503 Stems many procumbent, Lvs. cord. usually 3-parted or 5-lobed toothed, Pedunc. 3-5-flowered  
 9504 Much branched procumbent, Leaves ellipt. blunt hoary toothed, Pedunc. 2-flowered, Anthers 5  
 9505 Diffuse procumbent, Lvs. cordate somewhat lobed villous beneath, Peduncles many-flowered  
 9506 Diffuse procumbent, Lvs. cordate ovate villous 3-lobed toothed: upper sinuated, Umbel many-flowered

‡ 5. OTIDIA. Lindl. *Petals oblong-linear, nearly equal, about twice as long as calyx, the two upper awicrict at the base on the upper side. Stamens 10, erect, 5 fertile, 2 upper spatulate or subulate, 3 lower shorter. Stems shrubby, fleshy. Leaves alternate pinnated, fleshy. Flowers whitish.*

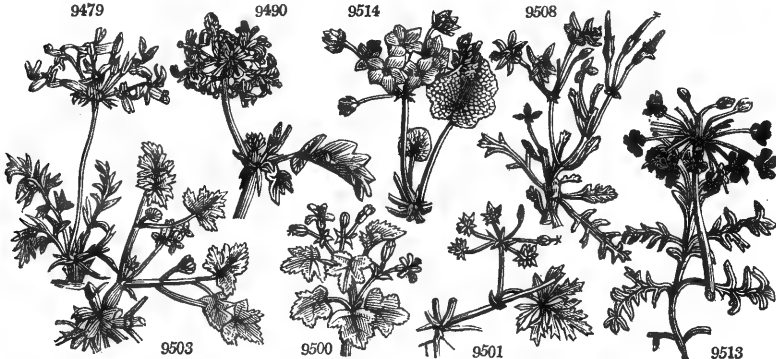
- 9507 Stem shrubby fleshy, Umb. many-flowered loosely paniced, Lvs. pinnated smooth, Petals somew. toothed  
 9508 Stem shrubby fleshy branched, Lvs. fleshy pinnated: lobes lin. round channelled entire or 3-toothed at end  
 9509 Stem shrubby fleshy warted, Lvs. fleshy pinnated: segm. cut pinnatifid subtrifid at end [at base  
 9510 Stem shrubby fleshy, Lvs. fleshy bipinnated: lobes dilated and cut at end, Pedunc. panic. Upper pet. crisp  
 9511 Stem shrubby fleshy, Branches hairy, Lvs. pinnat.: segm. stalked subalternate wedge-shaped toothed at end  
 9512 Stem fleshy thick suffruticose at base, Lvs. smooth thick sinuate-pinnat.: segm. obl. blunt cut toothed at end

‡ 6. POLYACTUM. Dec. *Sepals nearly equal, revolute. Petals 5, nearly equal, obovate. Stamens 10, 5 fertile: the four lower long, subulate; upper broad, spatulate, reflexed at end; the fertile ones shorter, incurved at end. Petals with a very large dark brown spot which is scarcely edged with yellow.*

- 9513 Subcaulesc. Lower lvs. pinnat. hairy: segm. pinnati.; lobes obl. blunt cut-toothed; upper smoothish bipinn.

‡ 7. ISOPETALUM. Sweet. *Upper sepal ending in a honey pore and not in a tube. Petals 5, equal. Stamens 10, united in a very short cup, 5-5 fertile, spreading incurved at end; sterile unequal, subulate incurved. Shrub with a fleshy stem.*

- 9514 Stem thick fleshy branched naked, Lvs. cord. subpeltate rugose pubesc. netted with downy veins beneath



and Miscellaneous Particulars.

The bulbous or fleshy stemmed species are generally very rare in collections, and are far more interesting than the common or vulgar kinds. They are distinguished by so peculiar a habit and constitution, that there can be little doubt of the propriety of separating them into one or more distinct genera, as has been done already by the authors quoted above; especially as the characters upon which they are founded, are generally more certain than those by which *Erodium* and *Geranium* are defined. Here, however, they are placed as

|      |                           |                |                              |                       |      |          |       |   |     |                    |
|------|---------------------------|----------------|------------------------------|-----------------------|------|----------|-------|---|-----|--------------------|
| 9515 | <i>blattarium Jacq.</i>   | downy-leaved   | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ jn.au | V    | C. G. H. | 1790. | S | r.m | Sweet ger. 88      |
| 9516 | <i>eriosémon Jacq.</i>    | velvet-leaved  | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ mr.jn | W    | C. G. H. | 1794. | C | r.m | Jac. echo.2. t.132 |
| 9517 | <i>holosericeum Sweet</i> | silky          | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ mr.jn | D.Pu | C. G. H. | 1820. | C | r.m | Sweet ger. t. 75   |
| 9518 | <i>Enothéræ Jacq.</i>     | Enothera-like  | $\frac{2}{2}$ $\triangle$ or | 1 mr.jn               | Pk   | C. G. H. | 1812. | S | r.m | Jac. ic. 3. t. 525 |
| 9519 | <i>coronifólium Jacq.</i> | Buckshorn-lvd. | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ jn.o  | P.v  | C. G. H. | 1791. | S | r.m | Bot. rep. 338      |
| 9520 | <i>cánium Pers.</i>       | hoary          | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ jn.o  | Pk   | C. G. H. | 1820. | S | r.m | Sweet ger. 114     |
| 9521 | <i>carinátum Sweet</i>    | carinate       | $\frac{2}{2}$ $\square$ or   | 1 $\frac{1}{2}$ jn.o  | W.pu | C. G. H. | 1820. | S | r.m | Sweet ger. 21      |

|      |                       |               |                            |                      |      |          |       |   |     |               |
|------|-----------------------|---------------|----------------------------|----------------------|------|----------|-------|---|-----|---------------|
| 9522 | <i>tricolor B. M.</i> | three-colored | $\frac{2}{2}$ $\square$ pr | 1 $\frac{1}{2}$ ja.d | W.pu | C. G. H. | 1791. | C | r.m | Bot. mag. 240 |
|------|-----------------------|---------------|----------------------------|----------------------|------|----------|-------|---|-----|---------------|

|      |                             |                |                            |                       |     |          |       |   |     |                    |
|------|-----------------------------|----------------|----------------------------|-----------------------|-----|----------|-------|---|-----|--------------------|
| 9523 | <i>canariéense W.</i>       | Canary         | $\frac{2}{2}$ $\square$ pr | 1 $\frac{1}{2}$ jl.s  | W.R | Canaries | 1802. | C | r.m | W.hort.ber. t.17   |
| 9524 | <i>myrrhifólium Ait.</i>    | Myrrh-leaved   | $\frac{2}{2}$ $\square$ pr | 1 $\frac{1}{2}$ my.au | W.R | C. G. H. | 1696. | R | r.m | Jac. ic. 3. t. 531 |
| 9525 | <i>coriandrifólium Jac.</i> | Coriander-lvd. | $\frac{2}{2}$ $\square$ pr | 1 mr.s                | W.R | C. G. H. | 1724. | S | r.m | Sweet ger. t. 34   |

|      |                       |             |                              |                       |    |          |       |   |     |                     |
|------|-----------------------|-------------|------------------------------|-----------------------|----|----------|-------|---|-----|---------------------|
| 9526 | <i>lácercum Jacq.</i> | toen-leaved | $\frac{2}{2}$ $\triangle$ or | 1 $\frac{1}{2}$ jn.au | Pk | C. G. H. | 1731. | S | r.m | Jacq. ic. 3. t. 532 |
|------|-----------------------|-------------|------------------------------|-----------------------|----|----------|-------|---|-----|---------------------|

|      |                            |                 |                            |                       |      |          |       |   |     |                    |
|------|----------------------------|-----------------|----------------------------|-----------------------|------|----------|-------|---|-----|--------------------|
| 9527 | <i>anemonifólium Jacq.</i> | Anemone-lvd.    | $\frac{2}{2}$ $\square$ or | 1 $\frac{1}{2}$ jn.au | Pk   | C. G. H. | ...   | S | r.m | Jacq. ic. t. 535   |
| 9528 | <i>caucalifólium Jacq.</i> | caucalis-leaved | $\frac{2}{2}$ $\square$ pr | $\frac{3}{4}$ mr.s    | Pk   | C. G. H. | 1812. | S | r.m | Jac. ic. 3. t. 529 |
| 9529 | <i>multicaúte Jacq.</i>    | many-stalked    | $\frac{2}{2}$ $\square$ pr | $\frac{3}{4}$ jn.au   | Pa.V | C. G. H. | 1802. | S | r.m | Jac. ic. 3. t. 534 |

|      |                          |               |                              |                     |       |          |       |   |     |                   |
|------|--------------------------|---------------|------------------------------|---------------------|-------|----------|-------|---|-----|-------------------|
| 9530 | <i>asarifólium Sweet</i> | Asarum-leaved | $\frac{2}{2}$ $\triangle$ el | $\frac{1}{2}$ d     | D.Pu  | C. G. H. | 1821. | D | l.p | Sweet ger. 206    |
| 9531 | <i>dipétalum L'Her.</i>  | two-petalled  | $\frac{2}{2}$ $\triangle$ el | $\frac{1}{2}$ ap.my | Pa.pu | C. G. H. | 1795. | D | l.p | L'her. ger. t. 43 |

|      |                       |               |                            |                     |      |          |       |   |     |                |
|------|-----------------------|---------------|----------------------------|---------------------|------|----------|-------|---|-----|----------------|
| 9532 | <i>péndulum Sweet</i> | pendulous     | $\frac{2}{2}$ $\square$ el | $\frac{1}{2}$ mr.jl | R    | C. G. H. | ...   | C | r.m | Sweet ger. 188 |
| 9533 | <i>quinátum B. M.</i> | five-fingered | $\frac{2}{2}$ $\square$ or | 1 mr.jl             | Pa.Y | C. G. H. | 1793. | C | r.m | Bot. mag. 547  |

|      |                                      |                |                            |         |    |          |       |   |     |               |
|------|--------------------------------------|----------------|----------------------------|---------|----|----------|-------|---|-----|---------------|
| 9534 | <i>tetragónum L'Her</i>              | square-stalked | $\frac{2}{2}$ $\square$ el | 2 jn.au | Pk | C. G. H. | 1774. | C | r.m | Sweet ger. 99 |
|      | <i><math>\beta</math> variegátum</i> | variegated     | $\frac{2}{2}$ $\square$ el | 2 jn.au | Pk | C. G. H. | 1774. | C | r.m | Bot. mag. 136 |

|      |                                      |                  |                            |                       |    |          |       |   |     |                    |
|------|--------------------------------------|------------------|----------------------------|-----------------------|----|----------|-------|---|-----|--------------------|
| 9535 | <i>acetósum Ait.</i>                 | Sorrel-leaved    | $\frac{2}{2}$ $\square$ or | 3 my.s                | Pk | C. G. H. | 1710. | C | r.m | Bot. mag. 103      |
| 9536 | <i>scándens Ehr.</i>                 | climbing         | $\frac{2}{2}$ $\square$ or | 3 jn.au               | Pk | C. G. H. | 1800. | C | r.m |                    |
| 9537 | <i>púmulum W.</i>                    | dwarf            | $\frac{2}{2}$ $\square$ or | 1 $\frac{1}{2}$ jn.jl | Pk | C. G. H. | 1800. | C | r.m |                    |
| 9538 | <i>stenopétalum Ehr.</i>             | narrow-petalled  | $\frac{2}{2}$ $\square$ or | 1 $\frac{1}{2}$ jn.jl | S  | C. G. H. | 1800. | C | r.m |                    |
| 9539 | <i>hybrídum Ait.</i>                 | bastard          | $\frac{2}{2}$ $\square$ or | 2 my.s                | S  | C. G. H. | 1732. | C | r.m | Sweet ger. 63      |
| 9540 | <i>sonále W.</i>                     | corn. horse shoe | $\frac{2}{2}$ $\square$ or | 2 ap.d                | S  | C. G. H. | 1710. | C | r.m | Cav.dis.4.t.98.f.2 |
|      | <i><math>\beta</math> marginátum</i> | white-margined   | $\frac{2}{2}$ $\square$ or | 2 ap.d                | S  | .....    | ...   | C | r.m |                    |
| 9541 | <i>Fothergillii Sweet</i>            | Fothergill's     | $\frac{2}{2}$ $\square$ or | 2 ap.d                | S  | C. G. H. | ...   | C | r.m | Sweet ger. 226     |
| 9542 | <i>in'quinans Ait.</i>               | scarlet-flowered | $\frac{2}{2}$ $\square$ or | 2 my.s                | S  | C. G. H. | 1714. | C | r.m | Ca.dis.4.t.106.f.2 |
| 9543 | <i>heterógamum L'Her.</i>            | six-stamened     | $\frac{2}{2}$ $\square$ or | 2 my.s                | Pk | .....    | 1786. | C | r.m | L'her. ger. t. 18  |
| 9544 | <i>mónstrum Ait.</i>                 | cluster-leaved   | $\frac{2}{2}$ $\square$ or | 2 jl.au               | R  | .....    | 1784. | C | r.m | Sweet ger. 13      |

|      |                    |           |                              |                    |       |          |       |   |     |                  |
|------|--------------------|-----------|------------------------------|--------------------|-------|----------|-------|---|-----|------------------|
| 9545 | <i>inodórum W.</i> | scentless | $\frac{2}{2}$ $\triangle$ pr | $\frac{1}{2}$ my.o | Pa.pu | N. Holl. | 1796. | C | r.m | W.ho.ber.1. t.34 |
|------|--------------------|-----------|------------------------------|--------------------|-------|----------|-------|---|-----|------------------|



History, Use, Propagation, Culture,

sectional names, so as to present a double arrangement, in which the purposes of combination and analysis are both combined.

As the cultivation of Pelargonium generally is of the easiest kind, so is that of the bulbous rooted species of the most difficult nature. They require plenty of air and light, not to be over-watered, and a great deal of

- § 8. *CAMPYLIA*. Lindl. *Petals 5, unequal, two upper larger, with an auricled claw. Stamens 10, hairy or pubescent, 5 fertile, erect, 5 alternate sterile, of which the two upper are longer and hooked back. Herbs at the base a little shrubby, branched. Leaves stalked, ovate or oblong, toothed or cut.*  
 \* *Petals with an appendage to the claw: 5 stamens fertile, erect; 5 sterile, of which the two uppermost are hooked backwards.* TRUE *CAMPYLIA*.  
 9515 Stem suffruticose erect, Lvs. ovate round blunt hoary silky toothed, Upper petals roundish: lower oblong  
 9516 Stem suffruticose erect, Lvs. ellipt. roundish blunt crenate silky, Upper pet. obovate sharply emarginate  
 9517 Stem suffruticose erect, Lvs. roundish ovate blunt doubly toothed silky, Upper petals round dark purple  
 9518 Stem herbaceous ascending, Lvs. obl. lanc. blunt toothed hoary, Pedunc. 1-3-fl. Upper petals obovate  
 9519 Stem suffruticose ascending, Lvs. lin. lanc. cut-toothed at end hoary beneath, Upper petals obov. oblong  
 9520 Stem suffruticose, Lvs. ovate plaited serrated downy, 3 upper petals very broad ovate  
 9521 Stem suffruticose ascending, Lvs. ovate unequally toothed or cut, Stipules carinate, Upper pet. oval wavy  
 \*\* *Upper petals warded above the claw. Tube of stamens very short, 5 fertile recurved, spreading, 5 sterile straight.* *PHYMATANTHUS*. Lindl.  
 9522 Stem suffruticose erect, Lvs. lanc. villous cut-toothed trifid, Upper petals blistered at base  
 § 9. *MYRRHIDIUM*. Dec. *Petals 4, or rarely 5, the two upper very large, obovate, cuneate, usually marked with branching lines, the two or three lower much smaller, oblong-linear. Stamens 10, with their tube and filaments straight, generally with 5 anthers, and 5 alternately barren, rarely 1 fertile. Biennial or perennial herbs rarely shrubby. Stems round. Leaves pinnate or ternate, often multifid.*  
 \* *Anthers 5. Petals 4.*  
 9523 Stem suffruticose, Lvs. 3-parted, Lobes toothed at end blunt: lower obovate; middle ovate often trifid  
 9524 Stem herbaceous strigose ascending, Lvs. hispid on each side rigid pinnate, Lobes cut-toothed  
 9525 Stem herbaceous biennial somewhat downy, Lvs. bipinnate smooth, Lobes linear subpinnatifid  
 \*\* *Anthers 5. Petals 5.*  
 9526 Stem herbaceous hairy suberect, Lvs. bipinnatifid, Segm. lanc. blunt toothed at end  
 \*\*\* *Anthers 7. Petals 4.*  
 9527 Stem herbaceous biennial hairy erect, Lvs. pinnated hairy beneath smooth above, Lobes toothed  
 9528 Stem herbaceous hairy, Lvs. bipinnate, Lobes linear smoothish, Pedunc. 1-fl.  
 9529 Stem herbaceous procumbent smooth, Lvs. subpinnatifid toothed, Pedunc. many-fl. capitate  
 § 10. *SEYMOURIA*. Sweet. *Petals 2, distinct at base, abruptly reflexed in the middle. Stamens 5, nearly equal, in a long straight tube, all fertile.*  
 9530 Lvs. roundish cordate bluntish entire ciliated shining on the upper side  
 9431 Leaves ovate entire acute smooth, Umb. simple, Flowers pentandrous  
 § 11. *JENKINSONIA*. Sweet. *Petals 5, the two upper much larger than the rest, emarginate at end, striated with colored lines, the 3 lower much smaller. Stamens 10, ascending, spreading at end, hairy at base, 7 fertile, of which the three upper are shorter, the three sterile shortened, subulate, of equal length. Stems shrubby. Flowers large.*  
 9532 Lvs. bipinnatifid hairy, Stem procumb. hairy, Flowers heptandrous, Petals 4  
 9533 Stem shrubby flexuose, Lvs. pubescent palmate 5-fid, Lobes cuneate 3-toothed at end  
 § 12. *CHORISMA*. Lindl. *Petals 4, rarely 5, the two upper with long claws largest, two lower much smaller. Stamens declinate, in a very long tube, jointed in middle, connate, 7 fertile, of which the two lower are loose; the 3 sterile shortened, subulate of equal length.*  
 9534 Branches 4-cornered fleshy, Leaves cordate bluntly lobed somewhat toothed  
 § 13. *PELARGONIUM*. Lindl. *Petals 5, unequal, the two upper approximating. Stamens 10, unequal, 7 fertile, 3 sterile, subulate.*  
 \* *Petals whole colored, the two upper shorter and narrower. Stamens short, erect, the two lowest very short with nearly sessile anthers. Stem shrubby, fleshy.* *CICONIUM*. Sweet.  
 9535 Leaves very smooth obovate crenate somewhat fleshy, Pedunc. few-fl. Petals linear  
 9536 Leaves roundish obsoletely lobed crenate smooth zoned, Petals linear breadth of sepals  
 9537 Leaves roundish obsoletely lobed crenate: younger somewhat zoned, Pedunc. 4-fl. Petals linear  
 9538 Leaves roundish obsoletely lobed crenate downy zoned, Petals linear narrower than sepals  
 9539 Leaves roundish obsoletely lobed crenate smooth not spotted, Petals linear cuneiform  
 9540 Leaves cordate-orbicular obsoletely lobed toothed zoned upwards, Pedunc. many-fl. Petals cuneate  
 9541 Leaves reniform 5-lobed crenate zoned, Stipules cordate obl. acute ciliated, Umbels many-fl. crowded  
 9542 Leaves round reniform scarcely divided crenate viscid, Petals obovate cuneate  
 9543 Leaves cordate orbicular cut-lobed toothed pubescent on each side, Petals obl. cuneate  
 9544 Leaves roundish reniform obsoletely lobed somewhat zoned complicate crisp downy on each side  
 \*\* *Petals nearly equal in size.*

§ A. *Stems herbaceous. Leaves cordate, palmate, lobed. Petals small.*  
 9545 Stem diffuse, Lvs. cord. ov. obsoletely lobed bluntly toothed ciliated, Pet. equal to the cal. and one another



and Miscellaneous Particulars.

attention at all periods. If well managed, they flower beautifully, and are incomparably superior in all points to the commoner races. They are no where in this country managed with so much success as by Sweet, who seems to hold the reins of nature in his hands in a more steady manner than any cultivator of the age.

|      |                           |                   |     |    |   |       |       |           |       |          |       |                     |     |               |
|------|---------------------------|-------------------|-----|----|---|-------|-------|-----------|-------|----------|-------|---------------------|-----|---------------|
| 9546 | glomeratum Jacq.          | heaped            | 2-Δ | pr | ½ | my.o  | W     | N. Holl.  | ...   | C        | r.m   | Sweet ger. 68       |     |               |
|      | <i>P. australe Sweet.</i> | not of Willd.     |     |    |   |       |       |           |       |          |       |                     |     |               |
| 9547 | odoratissimum Ait.        | sweet-scented     | 2   | or |   | my.o  | Pk    | C. G. H.  | 1794. | S        | r.m   | Ca.dis.4.t.103.f.1  |     |               |
| 9548 | frágans W.                | Nutmeg-scent.     | 2   | or |   | my.o  | Va    | C. G. H.  | ...   | C        | r.m   | Sweet ger. 172      |     |               |
| 9549 | grossularioides Ait.      | Gooseberry-lvd.   | 2   | or |   | ap.au | Pk    | C. G. H.  | 1731. | S        | r.m   | Ca.dis.4.t.119.f.2  |     |               |
| 9550 | anceps Ait.               | flat-stalked      | 2-Δ | pr | ½ | my.jl | Pk    | C. G. H.  | 1788. | S        | r.m   | Jac.col.4.t.22.f.3  |     |               |
| 9551 | tabulare L'Her.           | rough-stalked     | 2-Δ | pr | ½ | my.au | Pa.Y  | C. G. H.  | 1775. | S        | r.m   | L'Her. ger. t. 9    |     |               |
| 9552 | alchemilloides Ait.       | mantle-leaved     | 2-Δ | pr | ½ | my.o  | Pk    | C. G. H.  | 1693. | C        | r.m   | Cav.dis.4.t.98.f.1  |     |               |
| 9553 | senecioides L'Her.        | small white-fl.   | 2   | or |   | jn.jl | W     | C. G. H.  | 1775. | S        | r.m   | L'Her. ger. t. 11   |     |               |
| 9554 | abrotanifolium Jacq.      | Southernw.-lv.    | 2   | or |   | my.jl | R     | C. G. H.  | 1791. | S        | r.m   | Jac.schoe.2.t.136   |     |               |
| 9555 | incisum W.                | cut-leaved        | 2   | or |   | my.au | W.r   | C. G. H.  | 1791. | C        | r.m   | Bot. rep. 67        |     |               |
| 9556 | tenuifolium L'Her.        | fine-leaved       | 2   | or |   | my.jl | Pu    | C. G. H.  | 1768. | S        | r.m   | L'Her. ger. t. 12   |     |               |
| 9557 | tripartitum Sweet         | trifid-leaved     | 2   | or |   | ap.au | Pa.Y  | C. G. H.  | 1794. | C        | r.m   | Sweet ger. 115      |     |               |
| 9558 | spinosum W.               | thorny            | 2   | or |   | my.jn | Pk    | C. G. H.  | 1795. | C        | r.m   | Pater. it. t. p. 67 |     |               |
| 9559 | gibbosum W.               | gouty             | 2   | or |   | ft    | 1½    | my.jl     | G     | C. G. H. | 1712. | C                   | r.m | Sweet ger. 61 |
| 9560 | flavum Ait.               | carrot-leaved     | 2-Δ | ft | ½ | jl.s  | G Br  | C. G. H.  | 1724. | R        | r.m   | Jac. ic. 3. t. 522  |     |               |
| 9561 | filipendulifolium Su.     | Dropwort-lvd.     | 2-Δ | cu | ½ | my.o  | G.Br  | C. G. H.  | 1812. | R        | r.m   | Bot. mag. 1641      |     |               |
| 9562 | pedicellatum Sweet        | long-stalked      | 1   | or |   | my.o  | G.Br  | C. G. H.  | 1822. | R        | r.m   | Sweet ger. 250      |     |               |
| 9563 | triste Ait.               | night-smelling    | 1   | or |   | my.o  | G.Br  | C. G. H.  | 1632. | R        | r.m   | Ca.dis.4.t.107.f.1  |     |               |
| 9564 | schizopetalum Sweet       | cut-petalled      | 1   | or |   | jn    | Y.Br  | C. G. H.  | 1821. | R        | r.m   | Sweet ger. 232      |     |               |
| 9565 | lobatum W.                | Cow Parsnep-lv.   | 1   | or |   | jl.au | Y.Br  | C. G. H.  | 1710. | R        | r.m   | Sweet ger. 51       |     |               |
| 9566 | millefolium Sweet         | Milfoil-leaved    | 1   | or |   | jl.au | Y.Br  | C. G. H.  | ...   | R        | r.m   | Sweet ger. 230      |     |               |
| 9567 | sanguineum Wendl.         | bloody            | 2-Δ | or |   | jl.au | S     | C. G. H.  | ...   | S        | r.m   | Sweet ger. 76       |     |               |
| 9568 | fulgidum Ait.             | Celandine-lvd.    | 2   | or |   | ap.jl | S     | C. G. H.  | 1723. | C        | r.m   | Ca.dis.4.t.116.f.2  |     |               |
| 9569 | ignescens Sweet           | fiery             | 2   | or |   | mr.jn | S     | .....     | 1812. | C        | r.m   | Sweet ger. 2 55     |     |               |
| 9570 | quinquevulnerum W.        | dark-flowered     | 2   | or |   | my.o  | D.Pu  | C. G. H.  | 1796. | C        | r.m   | Bot. rep. t. 114    |     |               |
| 9571 | bicolor Ait.              | two-colored       | 2   | or |   | jl.au | Pa.pu | .....     | 1778. | R        | r.m   | Bot. mag. 201       |     |               |
| 9572 | pallens Sweet             | pallid            | 2-Δ | pr | ½ | mr.jl | Pa.Y  | C. G. H.  | ...   | S        | r.m   | Sweet ger. 143      |     |               |
| 9573 | pulchellum B. M.          | nonesuch          | 2-Δ | pr | ½ | mr.my | W     | C. G. H.  | 1795. | S        | r.m   | Bot. mag. 524       |     |               |
| 9574 | pictum Pers.              | pinked            | 2-Δ | pr | ½ | ap.my | W.r   | C. G. H.  | 1800. | R        | r.m   | Bot. rep. 168       |     |               |
| 9575 | echinatum B. M.           | prickly-stalked   | 2-Δ | pr | ½ | my.au | W.r   | C. G. H.  | 1789. | R        | r.m   | Bot. mag. 309       |     |               |
| 9576 | crassicaule L'Her.        | thick-stalked     | 2-Δ | pr | ½ | jl.au | Pa.Y  | S. Africa | 1786. | S        | r.m   | Sweet ger. 192      |     |               |
| 9577 | primulinum Sweet          | primrose-flow.    | 2   | or |   | jl.au | V     | C. G. H.  | ...   | C        | r.m   | Bot. mag. 477       |     |               |
| 9578 | cortusae folium L'Her.    | cortusa-leaved    | 2   | or |   | jl.au | Pk    | Africa    | 1786. | C        | r.m   | Bot. rep. 121       |     |               |
| 9579 | reniforme B. M.           | Kidney-leaved     | 2   | or |   | ja.d  | Pu    | C. G. H.  | 1791. | C        | r.m   | Bot. mag. 493       |     |               |
| 9580 | litéripes L'Her.          | Ivy-leaved        | 2   | or |   | jn.au | Pa.pu | C. G. H.  | 1787. | C        | r.m   | L'Her. ger. t. 24   |     |               |
| 9581 | peltatum Ait.             | peltated          | 2   | or |   | jn.au | Pu    | C. G. H.  | 1701. | C        | r.m   | Bot. mag. 20        |     |               |
| 9582 | ovale L'Her.              | oval-leaved       | 2   | or |   | my.jl | Pu    | C. G. H.  | 1774. | S        | r.m   | L'Her. ger. t. 23   |     |               |
| 9583 | elegans W.                | elegant           | 2   | or |   | mr.jn | W     | C. G. H.  | 1795. | C        | r.m   | Bot. rep. 28        |     |               |
| 9584 | glaucum L'Her.            | glaucous-leav'd   | 2   | or |   | jn.au | W.vy  | C. G. H.  | 1775. | C        | r.m   | Sweet ger. 235      |     |               |
| 9585 | diversifolium Wendl.      | different-leav'd  | 2   | or |   | jn.au | W.vy  | C. G. H.  | 1794. | C        | r.m   |                     |     |               |
| 9586 | cuspidatum W.             | sharp-pointed     | 2   | or |   | jn.au | W.vy  | C. G. H.  | ...   | C        | r.m   |                     |     |               |
| 9587 | sororium W.               | sister            | 2   | or |   | ap.jl | W.vy  | .....     | ...   | C        | r.m   |                     |     |               |
| 9588 | laevigatum W.             | glauc. tern.-lvd. | 2   | or |   | my.au | W.vy  | C. G. H.  | ...   | C        | r.m   | Ca.dis.4.t.121.t.1  |     |               |
| 9589 | grandiflorum W.           | great-flowered    | 2   | or |   | ap.jl | W.vy  | C. G. H.  | 1794. | C        | r.m   | Sweet ger. 29       |     |               |
| 9590 | variegatum W.             | variegated-flow.  | 2   | or |   | ap.jl | W.vy  | C. G. H.  | 1812. | C        | r.m   | Ca.dis.4.t.118.f.3  |     |               |
| 9591 | pátulum Jacq.             | spreading         | 2   | or |   | ap.jl | Pk.vy | C. G. H.  | 1812. | C        | r.m   | Jac. ic. 3. t. 541  |     |               |
| 9592 | saniculaefolium W.        | Sanicle-leaved    | 2   | or |   | jn.au | Pu.vy | C. G. H.  | 1806. | C        | r.m   | Jac. ic. t. 539     |     |               |
| 9593 | fuscatum Jacq.            | dark-marked       | 2   | or |   | ap.jl | Pu.vy | C. G. H.  | 1812  | C        | r.m   | Jac. ic. 3. t. 540  |     |               |



The most common free-growing kinds will thrive well in any rich light soil, or a mixture of loam and decayed leaves will suit them very well: the dwarfer woody kinds, as *P. tricolor*, *elegans*, *Blattarium*, *ovale*,

- 9546 Stem diffuse, Lvs. cord. somewhat lobed bluntly crenate villous beneath, Pet. larger than calyx
- 9547 Stem fleshy very short, Branches herbaceous long diffuse, Lvs. roundish cordate very soft
- 9548 Branches spreading soft with down, Lvs. roundish cordate about 3-lobed bluntly toothed very soft
- 9549 Stems square very smooth, Lvs. cordate roundish cut toothed, Pedunc. about 2-fl.
- 9550 Stems 3-cornered 2-edged smooth, Lvs. cordate roundish obsolete lobed toothed, Umb. many-fl.
- 9551 Stem hispid, Lvs. reniform 3-5-lobed blunt toothed at end smoothish, Pedunc. long 2-4-fl.
- 9552 Stem villous, Lvs. cordate 5-lobed palmate villous, Pedunc. few-fl. Stigma sessile
- 9553 Stem erect, Lvs. bipinnatifid laciniate smooth, Involucres and calyxes blunt
- § B. *Stem half shrubby, Leaves pinnate, Lobes multifid.*
- 9554 Leaves cinereous velvety palmately 3-cut, Lobes linear trifid, Calyxes somewhat hispid
- 9555 Leaves 3-cut dark-green, Lobes distant 3-parted lacinated, Petals linear flaccid
- 9556 Stem fleshy naked erect, Leaves hairy bipinnate decompound, Lobes linear subulate
- 9557 Leaves 3-parted fleshy cut-toothed glaucous, Segments subsessile cuneiform, Honey spur very long
- 9558 Leaves cuneiform trifid toothed, Petioles and stipules persistent spiny, Umb. comp. few-fl.
- § C. *Stem half-shrubby, fleshy. Leaves trifid or pinnate, fleshy, Petals yellowish brown.*
- 9559 Stem with tumid articulations, Leaves pinnate of 1 or 2 pairs with an odd one blunt cuneate cut-toothed
- § D. *Nearly stemless. Root fasciated, tuberous. Leaves decompound, lacinated. Petals yellowish brown.*
- 9560 Leaves decompound laciniate hairy, Segm. linear, Umb. many-fl.
- 9561 Leaves hairy pinnate, Segm. bipinnate; divisions ovate toothed somewhat acute
- 9562 Leaves smooth ciliated fleshy 5-7-lobed toothed reflexed at end, Umb. many-flow. Fls. on very long stalks
- 9563 Leaves hairy pinnate, Segm. bipinnatifid; divisions linear acute
- 9564 Leaves ternate oblong blunt wavy hairy on each side and revolute at end, Petals 2-parted multifid
- 9565 Leaves cordate downy beneath bluntly 3-5-lobed sinuate-toothed, Scape divided
- 9566 Leaves decompound smooth, Leaflets cut, Segments channelled linear, Calyx reflexed
- § E. *Stem short, or somewhat fleshy. Leaves divided, cut or toothed. Petals scarlet or crimson.*
- 9567 Leaves hairy pinnate, Segments lacinate pinnatifid decurrent, Lobes linear lanceolate
- 9568 Leaves 3-parted, Segm. sessile cuneate cut toothed, Middle lobe larger pinnatifid
- 9569 Leaves cord. 3-lobed, Segm. toothed: lateral bifid; middle 3-lobed, Stipules cord. acum. somew. toothed
- § F. *Stem half shrubby. Leaves lobed, hairy. Petals with a broad purple spot in the middle.*
- 9570 Leaves hispid 3-parted, Segm. multifid, Lobes linear-lanceolate serrated
- 9571 Leaves cordate 3-fid wavy hairy blunt toothed: lateral segments 3-lobed; upper 5-lobed
- § G. *Stem fleshy, half shrubby. Leaves oblong, or oftener cordate, somewhat cut. Stipules lanceolate, spreading, acute. Roots tuberous, fasciated.*
- 9572 Leaves 3-parted hairy, Lateral segments smaller lobed toothed; term. long cut-toothed, Pet. spreading
- 9573 Leaves oblong lobed pinnatifid, Petioles united at base, Umb. many-flowered
- 9574 Leaves cord. obl. subtruncate toothed downy, Scape branched, Umb. many-fl. Involucres leafy
- 9575 Leaves ovate cordate somewhat lobed crenate villous beneath, Stipules persistent spiny
- 9576 Leaves reniform obacuminate toothed silky on each side, Bractes 4 times shorter than pedicel
- 9577 Leaves reniform obacuminate toothed silky on each side, Bractes twice as short as pedicels
- 9578 Leaves cordate cut-lobed wavy bluntly toothed downy, Honey-tube 4 times as long as calyx
- 9579 Leaves reniform crenate-toothed downy beneath, Stipules persistent dilated at base
- § H. *Stem shrubby, fleshy. Leaves peltate, or cordate 5-lobed, fleshy. Honey-tube as long as stalk. Stipules broad ovate.*
- 9580 Branches fleshy round, Leaves cordate 5-lobed somewhat toothed fleshy smooth, Umb. many-fl.
- 9581 Branches fleshy angular, Leaves peltate 5-lobed entire fleshy, Umb. few-fl.
- \*\*\* Two upper petals broader, shorter, very blunt.
- 9582 Stem weak prostrate, Branches petioles and peduncles softly hairy, Leaves oval acute toothed hoary
- 9583 Leaves elliptical roundish finely serrate blunt rigid smooth, Petals all obovate
- \*\*\*\* Two upper petals longer and broader. Stems shrubby.
- § A. *Leaves smooth, or nearly smooth, more or less glaucous.*
1. *Petals white, the upper generally lined with red, or spotted.*
- 9584 Very smooth and glaucous, Leaves lanceolate entire acuminate, Peduncles 1-2-fl.
- 9585 Smooth glaucous, Leaves lanceolate entire or 3-parted; lower toothed, Pedunc. about 1-fl. panicle
- 9586 Very smooth somewhat glaucous, Leaves ovate acute glaucous somewhat cut remotely serrate
- 9587 Very smooth, Leaves deeply 3-parted, Segm. acinaciform cut serrate, Peduncles 3-flowered
- 9588 Very smooth glaucous, Leaves 3-parted, Segm. trifid cuneate; divisions linear lanc. Pedunc. about 2-fl.
- 9589 Smooth glauc. Lvs. 5-lobed palmati. cord. at base, Lobes toothed tow. the end, Pet. 3 times as long as cal.
- 9590 Smooth glaucous, Leaves 3-5-lobed palmate-parted, Segments trifid toothed, Stipules ovate cordate acute
2. *Petals rosy or violet, upper generally striped with purple.*
- 9591 Smooth glaucous, Leaves long-stalked cordate reniform 3-5-fid toothed, Petals lanceolate-cuneate
- 9592 Smooth glaucous, Leaves on long stalks cordate roundish 5-fid toothed zoned above
- 9593 Smooth glaucous, Leaves cord. 5-lobed toothed glaucous beneath: younger zoned above; upper 5-parted

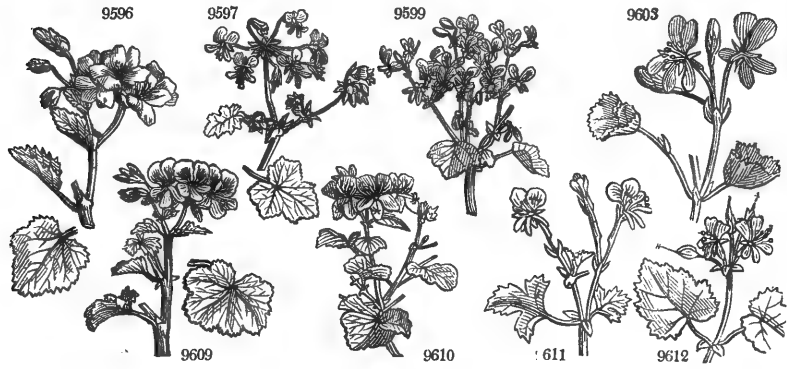


and Miscellaneous Particulars.

&c. thrive best in an equal mixture of sandy loam and peat, and require their pots to be well drained; the succulent kinds like a light sandy loam, and require scarcely any water when not in vigorous growth; the



|      |                             |                    |   |   |    |   |       |       |          |       |   |     |                      |
|------|-----------------------------|--------------------|---|---|----|---|-------|-------|----------|-------|---|-----|----------------------|
| 9594 | <i>penicillátum W.</i>      | pencilled          | 2 | 1 | el | 3 | jn.au | W.vy  | C. G. H. | 1794  | C | r.m | W.bor.be.1. t.32     |
| 9595 | <i>betulinum Ait.</i>       | Birch-leaved       | 2 | 1 | el | 3 | jn.au | W.vy  | C. G. H. | 1759. | C | r.m | Bot. mag. 148        |
| 9596 | <i>formosissimum Pers.</i>  | superb white       | 2 | 1 | el | 2 | jn.au | W.vy  | C. G. H. | ...   | C | r.m | Sweet ger. 215       |
| 9597 | <i>tomentosum Jacq.</i>     | Pennyroyal         | 2 | 1 | or | 3 | jn.jl | W     | C. G. H. | 1790. | S | r.m | Bot. mag. 518        |
| 9598 | <i>ribifolium Jacq.</i>     | currant-leaved     | 2 | 1 | or | 3 | my.jn | W     | C. G. H. | 1798. | C | r.m | Jac. ic. 3. t. 538   |
| 9599 | <i>papilionaceum Ait.</i>   | Butterfly          | 2 | 1 | or | 3 | ap.jl | Pu    | C. G. H. | 1724. | C | r.m | Sweet ger. 27        |
| 9600 | <i>cordátum Ait.</i>        | heart-leaved       | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | 1774. | C | r.m | Bot. mag. 165        |
| 9601 | <i>rubroinctum Link.</i>    | red-edged          | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | 1774. | C | r.m |                      |
| 9602 | <i>duplicátum W.</i>        | curled-heart-ly.   | 2 | 1 | or | 3 | mr.jl | Pur   | .....    | 1774. | C | r.m |                      |
| 9603 | <i>cucullátum Ait.</i>      | hooded-leaved      | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | 1690. | C | r.m | Ca.dis.4.t.106.f.1   |
| 9604 | <i>speciosum W.</i>         | specious           | 2 | 1 | or | 3 | ap.jl | Pu    | C. G. H. | 1794. | C | r.m |                      |
| 9605 | <i>cochleatum W.</i>        | concave-leaved     | 2 | 1 | or | 3 | mr.jl | Pu    | .....    | ..... | C | r.m |                      |
| 9606 | <i>scerifolium L'Her.</i>   | Maple-leaved       | 2 | 1 | or | 3 | ap.my | Pu    | C. G. H. | 1784. | C | r.m | L'Her. ger. t. 21    |
| 9607 | <i>angulosum Ait.</i>       | Marsh mallow-ly.   | 2 | 1 | or | 3 | jl.s  | Pu    | C. G. H. | 1724. | C | r.m | Ca.dis.4.t.112.f.2   |
| 9608 | <i>Barringtonii W.</i>      | Barrington's       | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | ...   | C | r.m |                      |
| 9609 | <i>Watsonii Link.</i>       | Watson's           | 2 | 1 | or | 3 | mr.jl | Pu    | .....    | ...   | C | r.m | Sweet ger. 130       |
| 9610 | <i>adulternum L'Her.</i>    | hoary trifid-ly.   | 2 | 1 | or | 3 | ap.jn | Pu    | C. G. H. | 1785. | C | r.m | Sweet ger. 22        |
| 9611 | <i>semitribolum Jacq.</i>   | three-lobed        | 2 | 1 | or | 3 | ap.jl | Pu    | C. G. H. | 1800. | C | r.m | Jac.schoe.2.t.136    |
| 9612 | <i>vitifolium Ait.</i>      | Vine-leaved        | 2 | 1 | or | 3 | ap.au | Pu    | C. G. H. | 1724. | C | r.m | Ca.dis.4.t.111.f.2   |
| 9613 | <i>capitatum Ait.</i>       | Rose-scented       | 2 | 1 | or | 3 | ap.au | Pu    | C. G. H. | 1690. | S | r.m | And. ger. c. ic.     |
| 9614 | <i>rubens W.</i>            | red-flowered       | 2 | 1 | or | 3 | my.jl | Pu    | .....    | ...   | C | r.m |                      |
| 9615 | <i>obtusifolium Ait.</i>    | blunt-leaved       | 2 | 1 | or | 3 | ap.au | Pu    | .....    | ...   | C | r.m | Sweet ger. t. 8      |
| 9616 | <i>tricuspidatum L'her.</i> | three-pointed      | 2 | 1 | or | 3 | my.au | W.pu  | C. G. H. | 1780. | C | r.m | L'Her. ger. t. 90    |
| 9617 | <i>scabrum Ait.</i>         | rough wedge-ly.    | 2 | 1 | or | 3 | ap.au | W.vy  | C. G. H. | 1775. | C | r.m | Jac. ic. 3. t. 542   |
| 9618 | <i>hermannifolium Jac.</i>  | Hermannia-ly.      | 2 | 1 | or | 3 | ap.jn | Pk.vy | C. G. H. | ...   | S | r.m | Jac. ic. 3. t. 545   |
| 9619 | <i>crispum Ait.</i>         | curl-leaved        | 2 | 1 | or | 3 | jl.n  | Pu    | C. G. H. | 1774. | C | r.m | L'he. ger. t. 32, 33 |
| 9620 | <i>exstipulatum Ait.</i>    | soft trifid-leavd. | 2 | 1 | or | 3 | my.au | Vi.vy | C. G. H. | 1779. | C | r.m | L'Her. ger. t. 35    |
| 9621 | <i>pustulosum Sweet</i>     | pimpled            | 2 | 1 | or | 3 | my.au | W     | C. G. H. | 1820. | C | r.m | Sweet ger. t. 11     |
| 9622 | <i>pallidum W.</i>          | pale-flowered      | 2 | 1 | or | 3 | ap.au | Pk    | .....    | ...   | C | r.m |                      |
| 9623 | <i>ternatum Jacq.</i>       | ternate            | 2 | 1 | or | 3 | ap.au | Pk.vy | C. G. H. | 1820. | C | r.m | Sweet ger. 165       |
| 9624 | <i>quercifolium Ait.</i>    | Oak-leaved         | 2 | 1 | or | 3 | mr.au | Pu    | C. G. H. | 1774. | C | r.m | L'Her. ger. t. 14    |
| 9625 | <i>gravifolens Ait.</i>     | Odor of Rose       | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | 1774. | C | r.m | L'Her. ger. t. 17    |
| 9626 | <i>glutinösium Ait.</i>     | clammy             | 2 | 1 | or | 3 | my.jn | Pk.vy | C. G. H. | 1777. | C | r.m | Bot. mag. 143        |
| 9627 | <i>hispidum W.</i>          | hispid             | 2 | 1 | or | 3 | my.jl | Pu    | C. G. H. | 1790. | C | r.m | Ca.dis.4.t.110.f.1   |
| 9628 | <i>hédula Ait.</i>          | Rasp-leaved        | 2 | 1 | or | 3 | mr.jl | Pu    | C. G. H. | 1774. | C | r.m | Bot. mag. 95         |
| 9629 | <i>balsameum Jacq.</i>      | balsamic           | 2 | 1 | or | 3 | jl.s  | Pk    | C. G. H. | 1790. | C | r.m | Jac. ic. 3. t. 543   |
| 9630 | <i>asperum W.</i>           | rough multifid     | 2 | 1 | or | 3 | jl.s  | Pk    | C. G. H. | 1795. | C | r.m | Roth.abhan.t.10      |
| 9631 | <i>denticulatum Jacq.</i>   | tooth-leaved       | 2 | 1 | or | 3 | jn.jl | Pk    | C. G. H. | 1789. | C | r.m | Sweet ger. 109       |
| 9632 | <i>delphinifolium W.</i>    | Larkspur-leav.     | 2 | 1 | or | 3 | ap.jl | Pk    | .....    | ...   | C | r.m |                      |
| 9633 | <i>dis'cipes Haw.</i>       | central-stalked    | 2 | 1 | eu | 5 | ...   | ...   | Africa   | 1808. | C | r.m |                      |
| 9634 | <i>spirium W.</i>           | spurious           | 2 | 1 | or | 2 | ap.jl | V     | .....    | ...   | C | r.m |                      |
| 9635 | <i>gratum W.</i>            | Citron-scented     | 2 | 1 | or | 2 | ap.au | Pk.vy | .....    | ...   | C | r.m |                      |
| 9636 | <i>nóthum W.</i>            | mixed              | 2 | 1 | or | 2 | ap.jl | Pk    | .....    | ...   | C | r.m |                      |
| 9637 | <i>consanguineum W.</i>     | kindred            | 2 | 1 | or | 2 | ap.au | Pk    | .....    | ...   | C | r.m |                      |
| 9638 | <i>Willdenovii Link.</i>    | Willdenow's        | 2 | 1 | or | 2 | my.au | W.vy  | C. G. H. | ...   | C | r.m |                      |
| 9639 | <i>unicolorum W.</i>        | self-colored       | 2 | 1 | or | 2 | my.au | C     | C. G. H. | ...   | C | r.m |                      |
| 9640 | <i>alnifolium W.</i>        | Alder-leaved       | 2 | 1 | or | 2 | ap.jl | Pk.vy | .....    | ...   | C | r.m |                      |
| 9641 | <i>amplissimum W.</i>       | stately            | 2 | 1 | or | 2 | ap.jl | Pu    | .....    | ...   | C | r.m |                      |



History, Use, Propagation, Culture,

tuberous rooted kinds thrive best in very sandy loam and peat, and require no water after they have flowered, till they begin to grow afresh. Cuttings of the shrubby kinds strike root freely under hand-glasses in the same

‡ B. *Flowers white, or scarcely rose-colored; two upper petals deep-red, lined. Leaves ovate, cordate, or reniform toothed, undivided.*

- 9594 Lvs. ovate cut serr.: the younger scabrous backwards; adult nearly smooth, Stipules ovate acuminate
- 9595 Leaves ovate unequally serrate smoothish, Stipules ovate-lanceolate, Peduncles 2-4-flowered
- 9596 Umb. many-fl. Leaves ovate acute concave rigid somew. lobed uneq. tooth. truncate at base many-nerved

§ C. *Petals white, narrow. Leaves cordate, soft with down. Stipules spreading much.*

- 9597 Stem shrubby fleshy, Branches peduncles and leaves hirsute, Leaves cordate hastate 5-lobed very soft
- 9598 Stem shrubby fleshy, Branches and pedunc. subhispid, Lvs. cord. hastate 5-lobed rough, Umb. many-fl.

§ D. *Leaves cordate, flat, toothed. Lower petals linear; upper purple, lined.*

- 9599 Branches leaves and pedunc. hairy, Leaves cordate roundish angular toothed, Umbels paniced many-fl.
- 9600 Lvs. cord. acute toothed flat hoary beneath and downy, Branches and ped. pilose, Lower pet. subulate-lin.
- 9601 Leaves cordate acutely crenulate quite smooth, Stipules linear reflexed, Umbels many-flowered
- 9602 Leaves roundish ovate truncate subcordate at base cut-toothed wavy beneath hoary pubescent

§ E. *Leaves cordate, or cuneate, toothed, undivided, or lobed. Lobes blunt, not divided down to the middle. Flowers purple. Lower petals oblong or obovate.*

1. *Leaves undivided, cucullate.*

- 9603 Leaves reniform cucullate toothed pubescent, Branches and peduncles softly hispid, Lower petals oblong
- 9604 Leaves roundish truncate reniform with acute cartilaginous teeth many-nerved subpubescent
- 9605 Leaves roundish ovate subcord. concave somewhat angular serr. pubesc. Honey-tube the length of calyx
- 9606 Leaves cum. at base entire at end palmately 5-lobed toothed many-nerved rather villous, Stip. cordate ovate
- 9607 Leaves truncate at base subcucul. roundish bluntly 5-lobed toothed pubesc. Stipules cord. ovate acuminate
- 9608 Leaves reniform blunt cucullate toothletted hairy on each side, Umbels many-flowered
- 9609 Leaves cord. roundish somewhat lobed tooth-crenate wavy at edge, Stipules cord. acute somew. toothed

2. *Leaves lobed, flattish.*

- 9610 Leaves cordate bluntly 3-lobed wavy villous soft, Pedunc. about 2-flowered
- 9611 Leaves truncate at base subcuneate 3-fid flat hairy, Lobes divaricating serrated at end, Lower petals lin.
- 9612 Leaves cordate 3-lobed roughish blunt toothed, Stipules broad cordate, Stem erect
- 9613 Leaves cordate lobed wavy softly villous toothed, Stipules broad cordate, Stems diffuse
- 9614 Lvs. subcord. acute slightly 5-lobed serrated, Umb. 5-fl. subcapitate, Ped. scarcely longer than involucrem

3. *Leaves lobed. Lobes acutely cut at end.*

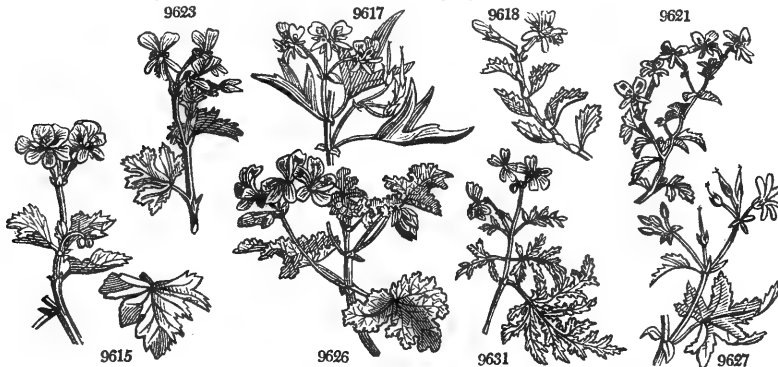
- 9615 Lvs. deeply 3-lobed, Lobes round, blunt unequally toothletted. Veins ben. and cal. roughish, Stipules cord.
- 9616 Leaves cuneate at base trifid, Lobes acute: middle longer subserrate with a midrib mucronate beneath
- 9617 Leaves cuneate at base trifid rough, Lobes lanc. loosely serrated, Pedunc. 1-4-flowered
- 9618 Leaves cuneiform distichous rough plaited truncate at end cut-toothed, Peduncles 2-flowered short
- 9619 Leaves distichous roundish fleshy subcuneate at base trifid wavy plaited rough toothed, Pedunc. about 2-fl.
- 9620 Leaves truncate cord. 3-lobed toothed hoary, Stipules scarcely any, Peduncles 3-4-flowered
- 9621 Lower lvs. deeply 3-lobed beneath pustular, Lateral lobes spreading unequally and acutely toothed
- 9622 Leaves deeply 3-lobed, Lobes spreading unequally and acutely toothed at end beneath and at edge rough
- 9623 Leaves 3-parted cucullate rough, Lobes cuneiform cut-serrate at end: the middle one trifid

§ F. *Leaves divided beyond the middle. Lobes toothed, cut, or pinnatifid. Flowers purplish or pale.*

- 9624 Leaves cord. pinnatifid with rounded recesses, Lobes blunt crenate, Branches and petioles hispid
- 9625 Leaves palmately 7-lobed, Lobes oblong blunt toothed revolute at edge, Umb. many-fl. capitate
- 9626 Leaves cord. hastate 5-angled toothed viscid smoothish, Umb. 2-4-fl. Honey tube a little longer than calyx
- 9627 Leaves palmatifid downy hispid, Lobes acuminate cut toothed, Umb. paniced many-fl.
- 9628 Leaves palmated rough, Lobes narrow pinnatifid revolute at edge, Segm. linear, Umb. few-fl.
- 9629 Leaves palmated roughish cuneate at base, Lobes lanc. remotely toothed, Umb. few-fl.
- 9630 Leaves somewhat palmated rough, Lobes 5-7-oblong blunt crisply toothletted at edge, Umb. 5-fl. in heads
- 9631 Leaves palmated viscid smooth, Lobes linear pinnatifid repand toothed flattish, Umb. few-fl.
- 9632 Leaves rough palmate 5-lobed, Lobes oblong serrated: middle 3-lobed, Umbels few-fl. compound

‡ *Uncertain species.*

- 9633 Stem fleshy branched arboreous. Lvs. cord. peltate pubesc. variably glauc. Petioles villous without stipules
- 9634 Leaves reniform distichous slightly 3-lobed blunt unequally toothed wavy
- 9635 Leaves slightly trifid unequally and acutely toothed wavy hairy, Peduncles 2-4-fl.
- 9636 Leaves roundish ovate blunt subtrifid folded together wavy toothed hairy beneath, Sepals erect
- 9637 Leaves slightly 3-lobed flat blunt, Lobes divaricating unequally and finely toothed, Pedunc. 3-fl.
- 9638 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Branches petioles and peduncles villous
- 9639 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Honey tube twice as short as reflexed calyx
- 9640 Leaves ellipt. blunt: floral obsoletely subtrifid unequally toothed somew. cuneate and entire at the base
- 9641 Leaves flat very smooth half round 7-lobed serrated slightly cordate at base, Pedunc. 2-5-flowered



and *Miscellaneous Particulars.*

kind of soil, or in pots, without being covered by glass, and placed in a shady situation. Many of the kinds may also be increased by pieces of their roots, or from seeds. The tuberous-rooted kinds may be propagated

Garden Varieties.

- |                            |                                |                                 |
|----------------------------|--------------------------------|---------------------------------|
| 1 Aceroides Sweet ger. 242 | 31 calocéphalon Sweet ger. 201 | 61 elátum Sweet ger. 96         |
| 2 acutilóbium Do. 184      | 32 calycinum Do. 81            | 62 electum Do. 238              |
| 3 affluens Do. 194         | 33 Campylisétórum Do. 251      | 63 elegans (Hoarea) Do. 132     |
| 4 ácidum Do. 231           | 34 cándidum Do. 198            | 64 elegans (Dimacria) Do. 202   |
| 5 Allénii Do. 229          | 35 cardiifólium Do. 15         | 65 elegans (Campylia) Do. 222   |
| 6 amœnum Do. 121           | 36 cerinum Do. 176             | 66 erectum Do. 187              |
| 7 æmulum Do. 160           | 37 chserophýllum Do. 257       | 67 eriophýllum Do. 141          |
| 8 anthriscifólium Do. 233  | 38 chrysanthemifólium Do. 124  | 68 extimium Do. 26              |
| 9 árdens Do. 45            | 39 coarctátum Do. 70           | 69 Fair'liæ Do. 178             |
| 10 ardescens Do. 231       | 40 Colvilliánum Do. 280        | 70 flexuósum Do. 180            |
| 11 armátum Do. 214         | 41 Colvillii Do. 86            | 71 floccósum Do. 129            |
| 12 asperifólium Do. 169    | 42 Comptóniæ Do. 122           | 72 floridum Do. 41              |
| 13 atrofúscum Do. 82       | 43 cómptum Do. 255             | 73 formósum Do. 120             |
| 14 atropurpúreum Do. 152   | 44 concávum Do. 237            | 74 fuscátum Do. 210             |
| 15 atosanguineum Do. 151   | 45 concinnum Do. 108           | 75 glaucifólium Do. 179         |
| 16 aurantiacum Do. 193     | 46 cóncolor Do. 140            | 76 grandidentátum Do. 217       |
| 17 Baileyánum Do. 87       | 47 coráscans Do. 173           | 77 Grenvilliánum And. ger.      |
| 18 Bakeriánum Do. 240      | 48 Cosmiánum Do. 189           | 78 Hammersléiæ Sweet ger. 225   |
| 19 Barnardiánum Do. 127    | 49 crenátum And. ger.          | 79 Hoare'sétórum Do. 133        |
| 20 Beadóniæ Do. 191        | 50 crenulátum Sweet ger. 162   | 80 Hoareánum Do. 80             |
| 21 Beaufortiánum Do. 138   | 51 cruéntum Do. 170            | 81 Husseyánum Do. 92            |
| 22 bel'tulum Do. 60        | 52 Daveyánum Do. 32            | 82 imbricatúm Do. 65            |
| 23 bipártitum Do. 142      | 53 Dennisiánum Do. 20          | 83 incanescens Do. 203          |
| 24 Blandfordiánum Do. 101  | 54 dentátum And. ger.          | 84 incórvum Do. 249             |
| 25 bliándum Do. 4          | 55 depéndens Sweet ger. 195    | 85 inscriptum Do. 193           |
| 26 Boyleæ Do. 50           | 56 diffor'me Do. 105           | 86 intertextum Do. 185          |
| 27 Brightiánum Do. 227     | 57 Dimacriæfórum Do. 220       | 87 involucratúum máximum Do. 33 |
| 28 Broughtóniæ Do. 181     | 58 disséctum Do. 247           | 88 Jenkinsóni Do. 154           |
| 29 Brównii Do. 146         | 59 Dobresénum Do. 253          | 89 jonquillinum Do. 241         |
| 30 Breesiánum Do. 64       | 60 dumósum Do. 19              | 90 Kin'gii Do. 245              |

OCTANDRIA.

- |                   |          |           |        |     |    |          |                           |
|-------------------|----------|-----------|--------|-----|----|----------|---------------------------|
| 1462. AITONIA. W. | AITONIA. | Meliæceæ. | Sp. 1. |     |    |          |                           |
| 9642 capénsis W.  | Cape     | n.        | or 2   | aps | Pk | C. G. H. | 1774. C r m Bot. mag. 178 |

DECANDRIA.

- |                           |                 |             |            |       |    |           |                                     |
|---------------------------|-----------------|-------------|------------|-------|----|-----------|-------------------------------------|
| †1463. GERA'NIUM. W.      | CRANE'S-BILL.   | Geraniaceæ. | Sp. 45—66. |       |    |           |                                     |
| 9643 sibiricum W.         | Siberian        | Δ pr        | 1          | jn.jl | B  | Siberia   | 1758. D s.l Jac. vind. l. t. 19     |
| 9644 sanguineum W.        | bloody          | Δ pr        | 2          | jn.s  | Bd | Britain   | rocks. D s.l Eng. bot. 272          |
| 9645 incánium W.          | hoary multifid  | Δ pr        | 2          | my.jl | Pk | C. G. H.  | 1701. S r m Cav. dia. 4.t. 82. f. 2 |
| 9646 canescens W.         | silky-leaved    | Δ pr        | 2          | my.jn | Pk | C. G. H.  | 1787. S r m L'Her. ger. t. 38       |
| 9647 argenteum W.         | silvery-leaved  | Δ pr        | 2          | jn.jl | St | S. Europe | 1639. D s.l Sweet ger. 59           |
| 9648 várium W.            | grey            | Δ pr        | 1          | jn.au | R  | Pyrenees  | ... D s.l L'Her. ger. t. 37         |
| 9649 anemonefólium W.     | Anemone-lvd.    | n.          | or 3       | my.au | R  | Madeira   | 1788. S r m Sweet ger. 244          |
| 9650 macrochizum W.       | long-rooted     | Δ pr        | 1          | my.jn | Pu | Italy     | 1576. D s.l Bot. mag. 2420          |
| 9651 tuberósum W.         | tuberous-root.  | Δ pr        | 1          | my.au | Pk | Italy     | 1596. R r m Sweet ger. 155          |
| 9652 ibéricum W.          | Iberian         | Δ el        | 1          | jn.s  | B  | Levant    | 1802. D s.l Sweet ger. 84           |
| 9653 nodósum W.           | knotty          | Δ pr        | 1          | my.o  | Pu | England   | moun. D s.l Eng. bot. 1091          |
| 9654 angulátum W.         | angular-stalked | Δ pr        | 1          | my.jn | B  | .....     | 1789. D s.l Bot. mag. 203           |
| 9655 Wallichianum Sw.     | Wallich's       | Δ un        | 2          | my.au | R  | Nepal     | 1819. D s.l Sweet ger. 90           |
| 9656 vlassoviánium Fisch. | Russian         | Δ pr        | 1          | my.au | Pu | Crimea    | 1821. D s.l Sweet ger. 228          |
| 9657 striátum W.          | streaked        | Δ pr        | 1          | my.o  | St | Italy     | 1629. D s.l Bot. mag. 55            |
| 9658 reflexum W.          | reflex-flowered | Δ or        | 1          | my.jn | B  | Italy     | 1758. D s.l Cav. dia. 4.t. 81. f. 1 |
| 9659 phæ'um W.            | dusky           | Δ or        | 1          | ap.jn | Bd | England   | m.thi. D s.l Eng. bot. 322          |
| 9660 fúscum W.            | brown           | Δ or        | 1          | jn.jl | Br | S. Europe | 1739. D co                          |
| 9661 lividum W.           | wrinkled-leav'd | Δ or        | 1          | jn.jl | Pu | Switzerl. | 1775. D s.l L'Her. ger. t. 39       |
| 9662 eriostémum Fisch.    | woolly-stamen.  | Δ pr        | 1          | jn.jl | Pu | Siberia   | 1822. D co Sweet ger. 197           |
| 9663 sylvísticum W.       | wood            | Δ el        | 1          | my.jn | B  | Britain   | m.thi. D s.l Eng. bot. 121          |
| 9664 praténsis W.         | Crowfoot-lvd.   | Δ el        | 1          | my.jl | B  | Britain   | me.pa. D s.l Eng. bot. 404          |
| 9665 lon'gipes Dec.       | long-stalked    | Δ or        | 1          | my.jl | Li | .....     | 1823. D co                          |
| Londésii Fisch.           |                 |             |            |       |    |           |                                     |



History, Use, Propagation, Culture.

by the little tubercles of the roots, or by seeds. For the general treatment of each species, see Sweet's Geraniaceæ. (Bot. Cha. 237.)

1462. Aitonia. In honor of the late Mr. William Aiton, the King's gardener at Kew. "A pretty genus," Sweet observes; "which thrives well in an equal mixture of sandy loam and peat: young cuttings will root in

Garden Varieties.

- |                                   |                                 |                              |
|-----------------------------------|---------------------------------|------------------------------|
| 91 Lambérti Sweet ger. 104        | 121 párticeps Sweet ger. 49     | 151 scútátum Sweet ger. 95   |
| 92 lanceolátum And. ger.          | 122 párens Do. 125              | 152 selectum Do. 190         |
| 93 latilóbum Sweet ger. 236       | 123 paucidentátum Do. 186       | 153 selenifólium Do. 159     |
| 94 laxifórum Do. 216              | 124 pavoninum Do. 40            | 154 serratifólium Do. 221    |
| 95 lépidum Do. 156                | 125 pectinifólium Do. 66        | 155 Seymouírae Do. 37        |
| 96 lineátum Do. 116               | 126 phœniceum Do. 207           | 156 Smithii Do. 110          |
| 97 Lousadiánum Do. 44             | 127 pingui-fólium Do. 52        | 157 solébile Do. 24          |
| 98 láteum Bot. rep. 328           | 128 planifólium Do. 219         | 158 spectáble Do. 136        |
| 99 macránthon Sweet ger. 83       | 129 platypétalon Do. 116        | 159 sphondyliifólium Do. 246 |
| 100 Mattocksianum Do. 234         | 130 Pottéri Do. 147             | 160 Stapelóni Do. 212        |
| 101 melissinum Do. 5              | 131 Principissæ Do. 139         | 161 striátum Do. 1           |
| 102 mixtum Do. 71                 | 132 pubescens And. ger.         | 162 stripháreum Do. 163      |
| 103 modéstum Do. 204              | 133 pulcherrimum Sweet ger. 134 | 163 Thyn'new Do. 74          |
| 104 Mostynæ Do. 10                | 134 púchrum Do. 107             | 164 Tibbisiánum Do. 158      |
| 105 multinérve Do. 17             | 135 pulveruléntum Do. 218       | 165 torrefáctum Do. 243      |
| 106 Murrayánum Do. 164            | 136 pyrethrifólium Do. 153      | 166 tryánthinum Do. 183      |
| 107 mutábile Do. 213              | 137 ramulósum Do. 177           | 167 Vandésiæ Do. 7           |
| 108 nánum Do. 102                 | 138 recurvátum Do. 223          | 168 várium Do. 166           |
| 109 nervósum Do. 47               | 139 reticulátum Do. 143         | 169 venifórum Do. 258        |
| 110 Newshamiánum Do. 144          | 140 rigescens Do. 112           | 170 venósum Do. 209          |
| 111 notátum Do. 208               | 141 ringens Do. 256             | 171 venústum Do. 167         |
| 112 nummularifólium Bot. rep. 123 | 142 Robinsóni Do. 150           | 172 verbascifólium Do. 157   |
| 113 oblátum Sweet ger. 35         | 143 rotundilóbum Do. 252        | 173 verbenacifólium Do. 149  |
| 114 obscúrum Do. 89               | 144 rubescens Do. 30            | 174 versicolor Do. 78        |
| 115 obtusifólium Do. 25           | 145 rugósum And. ger.           | 175 versipertinum Do. 239    |
| 116 optábile Do. 62               | 146 sæpefórens Sweet ger. 58    | 176 villósum Do. 100         |
| 117 opulifólium Do. 53            | 147 Saundersii Do. 205          | 177 viscosifólium Do. 118    |
| 118 ornátum Do. 39                | 148 Scarpórisæ Do. 117          | 178 Wellsiánum Do. 175       |
| 119 Pálkii Do. 224                | 149 scintillans Do. 28          | 179 Yoángii Do. 131          |
| 120 pannifólium Do. 9             | 150 Scóttii Do. 264             |                              |

OCTANDRIA.

9642 The only species

DECANDRIA.

- 9643 Stem erect diffuse branched, Peduncles longer than petiole, Leaves 5-parted, Lobes oblong cut-toothed  
 9644 Stem erect diffuse branched, Ped. longer than petiole, Leaves opp. 5-parted, Lobes trifid, Lobelets linear  
 9645 Stem diffuse, Leaves hoary beneath 7-part. Lobes multifid linear, Pedunc. elongated, Calyxes silky villous  
 9646 Stem diffuse, Leaves hoary beneath 5-parted, Lobes obl. cut-toothed, Ped. very long and cal. gland. hairy  
 9647 Stem very short, Radical leaves on long stalks silky on each side 5-7-parted, Lobes 3-fid, Lobelets linear  
 9648 Stem very short, Rad. leaves stalked glaucous pubescent 5-parted, Lobes cuneiform trifid, Pedunc. radical  
 9649 Stem shrubby, Leaves smooth palmate 5-cut, Segments bipinnatifid, Peduncles opposite erect hairy  
 9650 Stem suffruticose at base dichot. at end, Lvs. smooth 5-parted, Lobes toothed at end, Cal. globose infat.  
 9651 Root subglobose, Stem naked from base to the branches, Leaves 5-parted, Lobes lin. pinnately cut serrate  
 9652 Stem villous dichotomous, Leaves 5-7-parted, Lobes pinnately cut, Calyxes ciliate villous  
 9653 Stem 4-cornered, Lower leaves 5-lobed; upper 3-lobed, Lobes oblong acuminate serrate, Pet. emarginate  
 9654 Stem angular, Rad. leaves 7-lobed; cauline 5-lobed, Lobes oblong acuminate toothed, Petals emarginate  
 9655 Stem erect somewhat angular, Leaves opposite 5-lobed, Lobes cuneate ovate lobed-toothed, Stip. connate  
 9656 Stem round, Leaves 5-lobed, Lobes oval acuminate cut-toothed, Stipules connate bifid  
 9657 Stem round, Lower leaves 5-lobed; upper 3-lobed, Lobes ovate acute cut toothed, Stipules distinct  
 9658 Stem round, Leaves altern. 5-7-lobed cut-toothed; upper sessile, Petals reflexed toothed at end  
 9659 Stem round, Leaves 5-lobed cut-toothed; upper sessile, Petals spreading entire, Filaments hairy at base  
 9660 Like the last, but with dark fuscous petals  
 9661 Like Pheum, but the petals are rose-colored and emarginate  
 9662 Stem round simple, Lvs. 5-lobed, Lobes ovate coarsely toothed; lower on long stalks altern.; up. sess. opp.  
 9663 Stem round erect smooth, Lvs. about 7-lobed, Lobes obl. cut serr. Ped. corymbose, Pet. somew. emarginate  
 9664 Stem round erect downy, Lvs. about 7-lobed, Lobes linear obl. cut serrate, Ped. somew. corymb. Pet. entire  
 9665 Stem round erect smooth, Leaves palmate subpeltate 5-7-lobed, Lobes oblong coarsely cut, Ped. very long



and Miscellaneous Particulars.

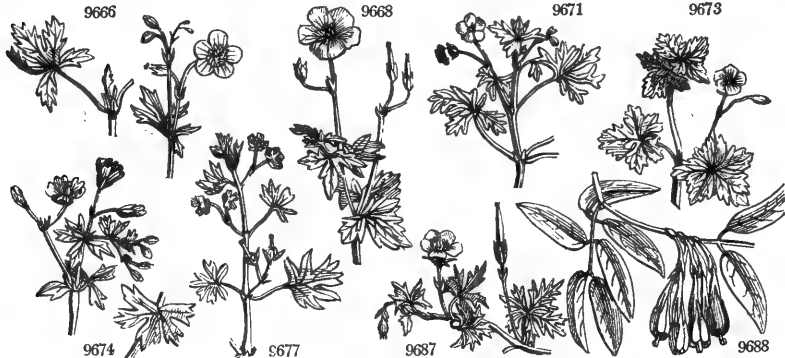
sand, under a bell-glass, plunged in heat. The cuttings must not be put in very close together, and the glass must be wiped frequently, as they are apt to damp off." (Bot. Cult. 129.)

1463. *Geranium*. *Γερανιον* of the ancient Greeks, so called from *γερανος*, a crane, the capsule and its beak resembling the head of that bird. These are chiefly European plants, in many cases being mere weeds, of no

|        |                     |                |         |          |      |                        |                |       |                          |
|--------|---------------------|----------------|---------|----------|------|------------------------|----------------|-------|--------------------------|
| 9666   | maculatum W.        | spotted        | ♂ Δ pr  | ♄ my.au  | Pu   | N. Amer.               | 1792           | D a.l | Cav. dis. 4. t. 86. f. 2 |
| 9667   | collinum W.         | hill           | ♂ Δ pr  | 1 my.au  | Pu   | Siberia                | 1815.          | D co  |                          |
| 9668   | palustre W.         | marsh          | ♂ Δ pr  | 2 in.au  | Pu   | Germany                | 1792.          | D a.l | Sweet ger. 3             |
| 9669   | aconitifolium W.    | Aconite-leaved | ♂ Δ pr  | 1½ my.jn | B    | Switzerl.              | 1775.          | D a.l | L'Her. ger. t. 40        |
| 9670   | dahuricum Dec.      | Dahurian       | ♂ Δ un  | 1 my.jn  | Pu   | Dahuria                | 1820.          | D co  |                          |
| 9671   | pilosum Forst.      | pilose         | ♂ Δ un  | ♄ my.au  | Pu   | N. Zeal.               | 1821.          | D co  | Sweet ger. 119           |
| 9672   | parviflorum W. em.  | small-flowered | ♂ Δ un  | ♄ my.jn  | Pu   | V. Di. L.              | 1816.          | D co  |                          |
| 9673   | nepalense Sweet     | Nepal          | ♂ Δ pr  | ♄ my.au  | R    | Nepal                  | 1818.          | D co  | Sweet ger. 12            |
| 9674   | pyrenaicum W.       | mountain       | ♂ Δ pr  | 1 my.au  | Pu   | Britain me.pa.         | D a.l          | D co  | Eng. bot. 405            |
| 9675   | umbrosum P. S.      | naked-stalked  | ♂ Δ pr  | 1 jn.s   | Pu   | Hungary                | 1804.          | D co  | Pl. rar. h. 2. t. 144    |
| 9676   | molle W.            | Dove's-foot    | ♂ ○ w   | ½ ap.au  | Pu   | Britain was.gr.        | S co           | D co  | Eng. bot. 778            |
| 9677   | pusillum W.         | small-flowered | ♂ ○ w   | ½ jn.s   | Pu   | England was.gr.        | S co           | D co  | Eng. bot. 385            |
| 9678   | rotundifolium W.    | round-leaved   | ♂ ○ w   | ½ in.jl  | Pk   | England gra.ba.        | S co           | D co  | Eng. bot. 157            |
| 9679   | columbinum W.       | long-stalked   | ♂ ○ w   | ♄ in.jl  | Pk   | Britain cha.ba.        | S co           | D co  | Eng. bot. 259            |
| 9680   | dissectum W.        | jagged-leaved  | ♂ ○ w   | ♄ my.jl  | Pu   | Britain was.gr.        | S co           | D co  | Eng. bot. 753            |
| 9681   | carolinianum Ph.    | spreading      | ♂ ○ un  | ½ jl.au  | W.vy | N. Amer.               | 1725.          | S co  | Cav. dis. 4. t. 84. f. 1 |
| 9682   | bohemicum W.        | Bohemian       | ♂ ○ un  | ♄ in.au  | Pu   | Bohemia                | 1683.          | S co  | Cav. dis. 4. t. 81. f. 2 |
| 9683   | divaricatum W.      | straddling     | ♂ ○ un  | ♄ jl.au  | Pu   | Hungary                | 1799.          | S co  | Pl. rar. h. 2. t. 123    |
| 9684   | lucidum W.          | shining        | ♂ ○ w   | ½ my.au  | Pk   | Britain ston.pl.       | S co           | D co  | Eng. bot. 75             |
| 9685   | Robertianum W.      | Herb-Robert    | ♂ ○ w   | 1 ap.o   | R    | Britain ston.pl.       | S co           | D co  | Eng. bot. 1486           |
| 9686   | purpureum W.        | purple         | ♂ ○ w   | 1 ap.o   | Pu   | Britain ...            | S co           | D a.l | Vill. delph. 3. t. 40    |
| 9687   | Lancastriense With. | Lancash're     | ♂ Δ pr  | ♄ jn.s   | St   | Britain ...            | D a.l          | D a.l | Cav. dis. 4. t. 76. f. 3 |
| †1464. | BROWNEA. W.         | BROWNEA.       | ♀ □ spl | 18 jl.au | Sc   | Leguminosae. W. Indies | Sp. 1-3. 1793. | C r.l | Jac. amer. t. 121        |
| 9688   | coccinea W.         | scarlet        |         |          |      |                        |                |       |                          |

DODECANDRIA.

|        |                     |                  |         |          |    |                |           |       |                          |
|--------|---------------------|------------------|---------|----------|----|----------------|-----------|-------|--------------------------|
| †1465. | MONSONIA. W.        | MONSONIA.        |         |          |    | Geraniaceae.   | Sp. 5-8.  |       |                          |
| 9689   | speciosa W.         | large-flowered   | ♀ Δ or  | 1 ap.my  | Pu | C. G. H.       | 1774.     | R r.m | Sweet ger. 77            |
| 9690   | pilosa W.           | hairy            | ♀ Δ or  | 1 jl.au  | Pu | C. G. H.       | 1778.     | R r.m | Sweet ger. 199           |
| 9691   | lobata W.           | broad-leaved     | ♀ Δ or  | 1 ap.my  | Pu | C. G. H.       | 1774.     | R r.m | Bot. mag. 385            |
| 9692   | ovata W.            | oval-leaved      | ♀ Δ or  | 1 au     | Pu | C. G. H.       | 1774.     | R r.m | L'Her. ger. t. 40        |
| 9693   | spinosa W.          | thorny           | ♀ □ or  | 1 my.jn  | Pu | C. G. H.       | 1790.     | R r.m | L'Her. ger. t. 42        |
| 1466.  | HELICTERES. W.      | SCREW-TREE.      |         |          |    | Bombaceae.     | Sp. 5-17. |       |                          |
| 9694   | baruensis W.        | small-fruited    | ♂ □ or  | 12 s.o   | Pu | W. Indies      | 1799.     | C p.l | Jac. amer. t. 149        |
| 9695   | jamaicensis W.      | great-fruited    | ♂ □ or  | 8 jn.jl  | Pu | Jamaica        | 1799.     | C l.p | Jac. vind. 2. t. 143     |
| 9696   | Isdra W.            | East Indian      | ♂ □ or  | 12 jn.jl | Pu | E. Indies      | 1793.     | C p.l | Bot. mag. 9061           |
| 9697   | verbascofolia Cels. | Mullein-leaved   | ♂ □ or  | 8 jn.jl  | Br | Brazil         | 1820.     | C p.l | Bot. reg. 903            |
| 9698   | ferruginata Link.   | rusty            | ♂ □ or  | 8 jn.jl  | Y  | Brazil         | 1823.     | C p.l |                          |
| †1467. | DOMBEYA. J.         | DOMBEYA.         |         |          |    | Byttneriaceae. | Sp. 2-10. |       |                          |
| 9699   | tiliaefolia Cav.    | linden-leaved    | ♀ □ or  | 15 ...   | W  | Bourbon        | 1820.     | C a.l | Cav. dis. 3. t. 39. f. 2 |
| 9700   | ferruginea W.       | ferruginous      | ♀ □ or  | 15 ...   | W  | Mauritius      | 1815.     | C a.l | Cav. dis. 3. t. 42. f. 2 |
| 1468.  | PENTAPETES. W.      | PENTAPETES.      |         |          |    | Byttneriaceae. | Sp. 2.    |       |                          |
| 9701   | phoenicea W.        | scarlet-flower'd | ♀ Δ or  | 2 jl.au  | S  | India          | 1690.     | C a.p | Mill. ic. t. 201         |
| 9702   | ovata P. S.         | oval-leaved      | ♀ Δ or  | 2 jn.s   | S  | N. Spain       | 1805.     | C a.p | Cav. ic. t. 433          |
| 1469.  | ASTRAPEA. A. Lindl. | ASTRAPEA.        |         |          |    | Byttneriaceae. | Sp. 1-3.  |       |                          |
| 9703   | Wallchii Lindl.     | Wallich's        | ♀ □ spl | 20 jl.au | Pk | Madagasc.      | 1820.     | C a.p | Bot. mag. 2503           |
| †1470. | PTEROSPERMUM. W.    | PTEROSPERMUM.    |         |          |    | Byttneriaceae. | Sp. 3-4.  |       |                          |
| 9704   | suberifolium W.     | various-leaved   | ♂ □ or  | 10 s.o   | W  | E. Indies      | 1783.     | C p.l | Bot. mag. 1526           |
| 9705   | acerifolium W.      | Maple-leaved     | ♂ □ or  | 10 jls   | W  | E. Indies      | 1790.     | C p.l | Bot. mag. 620            |
| 9706   | semisagittatum Rox. | half-sagittate   | ♂ □ or  | 10 ...   | W  | E. Indies      | 1820.     | C p.l |                          |



History, Use, Propagation, Culture,

interest, and in others, being extremely showy border-flowers. The G. Lancastriense is the most elegant, and G. sanguineum the most ornamental of our British kinds. G. anemonifolium, a Cape species, is singularly beautiful, on account of its fine caulescent stem, loaded with large fern-like glossy leaves of the most delicate green, and its fine red rich blossoms broader than half a crown.

1464. *Brownea*. Named after Dr. Patrick Browne, an English physician, who published a Natural History of Jamaica, in 1756, illustrated with figures from the pencil of Ehret. A splendid genus, as yet rare in British gardens. Loamy soil best suits rooted plants; and ripened cuttings root in sand in close moist heat.

1465. *Monsonia*. In memory of Lady Ann Monson, a lady of eminent botanical acquirements, who resided for many years in the East Indies, and is said to have assisted in compiling Lee's Introduction to Botany. The species are curious and beautiful plants: they grow well in turfy loam and rotten leaves, and are increased by cuttings of the shoots or roots.

- 9666 Stem somew. angul. erect dichotomous pubesc. backw. Lvs. 3-5-part. cut-toothed : radlc. on very long stalks  
 9667 Stem angular diffuse pubesc. backw. Lvs. palmate 5-part. : lobes 3-lobed cut serrate, Ped. and cal. vill. viscid  
 9668 Stem decumbent villous with spreading hairs, Leaves 5-7-lobed : lobes cut-toothed, Ped. very long hairy  
 9669 Stem ascending smoothish, Leaves peltate 7-parted : lobes cut, Peduncles and calyx villous  
 9670 Stem naked at base erect smooth, Caul. lvs. opposite 3-5-part. : lobes cut acute, Ped. 3 times as long as leaf  
 9671 Stems decumbent branched, Petioles and peduncles hispid, Leaves 3-5-parted : lobes linear blunt trifid  
 9672 Stems decumbent, Petioles pedunc. and calyx smoothish, Caul. lvs. opp. 3-5-parted : lobes trifid toothed  
 9673 Stem prostrate compressed, Lvs. opp. 5-lobed : lobes oblong unequally toothed, Ped. elong. and cal. hairy  
 9674 Stem erect branched, Leaves reniform 7-lobed : segm. oblong obtuse trifid ; lobes 3-toothed  
 9675 Stem more flaccid and nearly naked, Grains nearly smooth. Otherwise like the last  
 9676 Leaves ren. : rad. 9-lobed ; caul. 7-lobed : lobes 3-fid, Pet. bifid length of pointless cal. Fruit smooth rugose  
 9677 Leaves subreniform 7-lobed : lobes 3-fid, Petals emarg. length of pointless cal. Fruit downy not rugose  
 9678 Radic. lvs. reniform 7-lobed ; caul. roundish trunc. at base 5-lobed : lobes trifid, Pet. length of awned cal.  
 9679 Leaves 5-parted : lobes multifid linear, Petals emarginate length of awned calyx, Fruit smooth  
 9680 Leaves 5-parted : lobes trifid linear, Petals emarginate length of awned calyx, Fruit hairy  
 9681 Lvs. 5-lob. beyond middle : lobes cut 3-5-fid, Ped. clustered at end, Petals emargin. length of awned calyx  
 9682 Lvs. 5-lobed : lobes cuneate ovate cut-tooth. Hair of stem spread. hispid, Pet. emarg. length of awned calyx  
 9683 Lvs. 5-lob. : upp. 3-lob. : lobes obl. coarsely and irreg. tooth. Hair of stem spread. hisp. Pet. shorter than cal.  
 9684 Very smooth, Leaves rounded 5-lobed, Calyx pyramidal angular transversely wrinkled, Fruit muricate  
 9685 Leaves 3-5-parted : lobes trifid pinnatifid, Petals entire twice as long as the angular awned calyx  
 9686 Like the last, but the petals only a little longer than calyx  
 9687 Stem prostrate nodose, Leaves opposite deeply 5-lobed

9688 Stamens length of cor. Pedunc. aggregate, Branches smooth

### DODECANDRIA.

- 9689 Leaves palmate 5-parted, Segm. finely bipinnatifid, Petioles and calyxes smooth  
 9690 Leaves palmate 5-parted, Segm. 3-parted pinnatifid ; beneath calyxes and petioles hairy  
 9691 Leaves cordate 5-7-fid : lobes blunt serrated ; beneath petioles and calyxes somewhat hairy  
 9692 Leaves ovate oblong subcordate crenate wavy, Stipules rigid, Pedunc. 1-f. with 2 bractes  
 9693 Leaves ovate mucronate entire, some sessile, some on long stalks

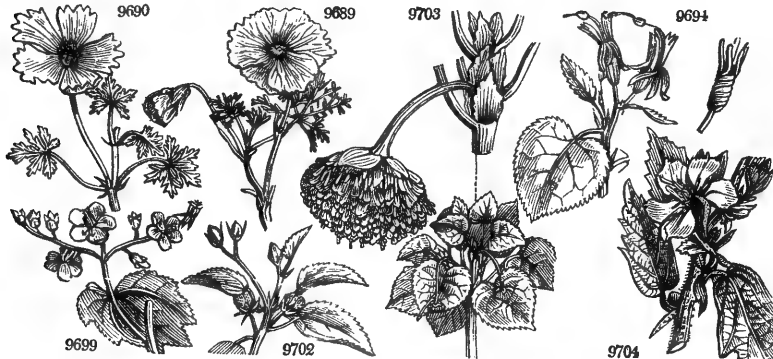
- 9694 Decandrous, Leaves cordate finely serrate downy beneath, Peduncles 2-flowered, Calyxes sub-bilabiate  
 9695 Decandrous, Leaves cordate crenate velvety with down on each side, Flowers subterminal few corymbose  
 9696 Decandrous, Leaves cordate ovate tooth-serrate acuminate axillary, Flowers axillary  
 9697 Lvs. cordate acuminate serrate downy green, Peduncles axillary few-flowered, Fruit-stalk very long  
 9698 Leaves cordate lanceolate crenulate downy beneath rusty, Fl. terminal subracemose

- 9699 Young leaves downy, adult smoothish cordate 7-nerved crenate, Corymb bifid  
 9700 Leaves downy beneath smooth above ovate oblong 7-nerved subcordate-peltate toothed

- 9701 Leaves hastate lanceolate serrate  
 9702 Leaves ovate serrated

9703 Leaves roundish cordate acuminate very large, Stipules large persistent ovate wavy

- 9704 Leaves oblong acuminate coarsely somewhat toothed at end, Pedicels scarcely longer than petiole  
 9705 Leaves cordate blunt toothed  
 9706 Leaves oblong acuminate entire cordate at base sagittate on one side



### and Miscellaneous Particulars.

1466. *Helicteres*. Derived from  $\epsilon\lambda\iota\kappa\epsilon$ , a screw, in allusion to the manner in which the fruit is twisted. Free-flowering plants of easy culture, and increased in sand closely covered. They have little or no merit.

1467. *Dombeya*. Named after Joseph Dombey, a famous French botanist, who travelled in Peru with Ruiz and Pavon, in 1777. Ripened cuttings root in sand in moist heat.

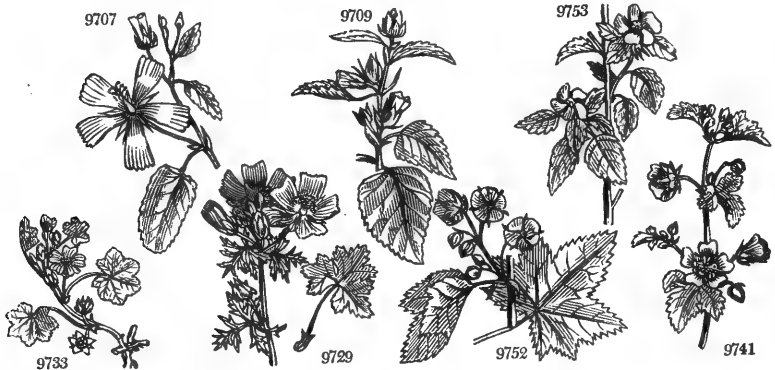
1468. *Pentapetes*. One of the names given by the Greeks to the Cinquefoil ; but having no reference to the present genus, except that the calyx and capsules are in five. The species are of easy culture in any rich light soil, and are readily increased by cuttings in sand.

1469. *Astrapea*. So called from  $\alpha\sigma\tau\rho\alpha\iota\mu$ , lightning, in allusion to the splendid colors of the flowers. A noble genus, remarkable for the large heads of flowers, and the great dilated stipules at the base of the leaves.

1470. *Pteropermum*. From  $\pi\tau\rho\epsilon\mu\mu$ , a wing, and  $\sigma\tau\rho\epsilon\mu\mu$ , a seed. Light soil suits the plants, and cuttings with their leaves on root in sand covered close.

POLYANDRIA.

| †*1471. MAL'LOPE. W. |                     | MALOPE.  |                 | Malvaceae. |       | Sp. 2-4.   |       |            |          |      |                          |
|----------------------|---------------------|----------|-----------------|------------|-------|------------|-------|------------|----------|------|--------------------------|
| 9707                 | malacoides W.       | Barbary  | trifid          | un         | 1     | jn, jl     | Pu    | Barbary    | 1710.    | C a1 | Cav. dis. 2. t. 97. f. 1 |
| 9708                 | trifida W.          |          |                 | un         | 1     | jl         | Pu    | Barbary    | 1808.    | S a1 | Cav. dis. 2. t. 97. f. 2 |
| †*1472. MAL'VA. W.   |                     | MALLOW.  |                 | Malvaceae. |       | Sp. 56-82. |       |            |          |      |                          |
| 9709                 | tricuspidata H. K.  | Jamaica  |                 | pr         | 1     | jl, au     | Y     | W. Indies  | 1796.    | C co | Cav. dis. 2. t. 22. f. 2 |
| 9710                 | americana W.        | American |                 | pr         | 1     | jn, jl     | Y     | W. Indies  | 1756.    | S co |                          |
| 9711                 | scabra W.           |          | rough-stemmed   | pr         | 4     | jn, jl     | Y     | Peru       | 1798.    | C co | Ca. dia. 5. t. 138. f. 1 |
| 9712                 | scoparia W.         |          | Birch-leaved    | pr         | 6     | au, s      | Y     | Peru       | 1782.    | C co | Jac. ic. 1. t. 139       |
| 9713                 | borbonica W. en.    |          | Bourbon         | pr         | 4     | jl, au     | Y     | Mauritius  | 1816.    | C co |                          |
| 9714                 | polystachya W.      |          | many-spiked     | pr         | 6     | jl, au     | Y     | Peru       | 1798.    | C co | Ca. dia. 5. t. 138. f. 3 |
| 9715                 | spicata W.          |          | simple-spiked   | pr         | 2     | s o        | O     | Jamaica    | 1796.    | C co | Cav. dis. 2. t. 20. f. 4 |
| 9716                 | tomentosa L.        |          | downy           | pr         | 3     | s o        | Y     | E. Indies  | 1820.    | C co | Pluk. t. 356. f. 1       |
| 9717                 | Waltherifolia Link. |          | soft-leaved     | pr         | 1 1/2 | ...        | Y     | Java       | 1824.    | D co |                          |
| 9718                 | trachelifolia Link. |          | pointed         | un         | 1 1/2 | jl, au     | Y     | .....      | 1821.    | S co |                          |
| 9719                 | gangetica L.        |          | Ganges          | un         | 1     | jl, au     | Y     | E. Indies  | 1823.    | S co | Flu. alm. t. 74. f. 6    |
| 9720                 | domingensis Spr.    |          | Domingo         | pr         | 2     | jl, au     | Y     | St. Domin. | 1824.    | S co |                          |
| 9721                 | leprosa W. en.      |          | leprous         | pr         | 2     | my, jl     | Pu    | Cuba       | 1815.    | C co |                          |
| 9722                 | eretica Cav.        |          | Candian         | un         | 1     | my, jl     | Pu    | Candia     | 1825.    | S co | Ca. dia. 5. t. 138. f. 2 |
| 9723                 | hispanica W.        |          | Spanish         | un         | 1     | jl         | F     | Spain      | 1710.    | S co | Deaf. atl. 2. t. 170     |
| 9724                 | stipulacea W.       |          | long-stipuled   | un         | 1     | jn, au     | Pu    | Spain      | 1815.    | S co | Cav. dis. 2. t. 15. f. 2 |
| 9725                 | egyptia W.          |          | Egyptian        | un         | 1     | jn, jl     | L.B   | Egypt      | 1739.    | S co | Cav. dis. 2. t. 17. f. 1 |
| 9726                 | trifida W.          |          | large-flowered  | un         | 1 1/2 | jn, jl     | Pu    | Spain      | 1815.    | S co | Ca. dia. 5. t. 137. f. 2 |
| 9727                 | Tournefortiana W.   |          | Tournefort's    | un         | 1     | jl, au     | B     | Spain      | 1759.    | S co | Cav. dis. 2. t. 17. f. 3 |
| 9728                 | Alcea W.            |          | Vervain         | pr         | 3     | l o        | Pu    | Germany    | 1757.    | D co | Bot. mag. 2297           |
| 9729                 | moschata L.         |          | musk            | pr         | 2     | jl, au     | F     | Britain    | bor. fl. | D co | Eng. bot. 754            |
|                      | β undulata Sims.    |          | wavy            | pr         | 2     | jl, au     | W     | .....      | ...      | D co | Bot. mag. 2298           |
| 9730                 | althaeoides Cav.    |          | Althaea-like    | un         | 2     | jl, au     | Pu    | Spain      | 1822.    | S co | Cav. dis. 2. t. 135      |
| 9731                 | mauritanica W.      |          | Ivy-leaved      | or         | 6     | jn, jl     | Pk    | S. Europe  | 1768.    | S co | Sweet fl. gard. 81       |
| 9732                 | sylvestris W.       |          | common          | m          | 4     | my, o      | Pu    | Britain    | was. pl. | D co | Eng. bot. 671            |
| 9733                 | rotundifolia W.     |          | round-leaved    | w          | 1 1/2 | jn, s      | F     | Britain    | ro. sid. | S co | Eng. bot. 1092           |
|                      | β pusilla Sm.       |          | dwarf           | w          | 1/2   | jn, s      | Pu    | Britain    | ro. sid. | S co | Eng. bot. 241            |
| 9734                 | braziliensis Dec.   |          | Brazil          | un         | 2     | jn, s      | Pu    | R. Janeiro | 1824.    | S co |                          |
| 9735                 | microcarpa Desf.    |          | small-fruited   | w          | 2     | jn, s      | Pu    | Egypt      | 1823.    | D co |                          |
| 9736                 | parviflora W.       |          | small-flowered  | un         | 2     | jn, jl     | Pu    | Barbary    | 1779.    | C co | Cav. dis. 2. t. 26. f. 1 |
| 9737                 | verticillata W.     |          | whorl-flowered  | un         | 2     | jn, jl     | Pu    | China      | 1683.    | S co | Cav. dis. 2. t. 25. f. 3 |
| 9738                 | crispa W.           |          | curled          | or         | 5     | jn, au     | W     | Syria      | 1573.    | S co | Cav. dis. 2. t. 23. f. 1 |
| 9739                 | amea'na Sims.       |          | pleasant        | pr         | 3     | ap, my     | Pu    | C. G. H.   | 1796.    | C co | Bot. mag. 1998           |
| 9740                 | virgata W.          |          | twiggly         | or         | 6     | my, jl     | Pu    | C. G. H.   | 1727.    | C co | Cav. dis. 2. t. 18. f. 2 |
| 9741                 | capensis W.         |          | Cape            | pr         | 10    | ja, d      | R     | C. G. H.   | 1713.    | C pl | Bot. reg. 295            |
| 9742                 | balsamica W.        |          | balsamic        | or         | 4     | my, s      | Pu    | C. G. H.   | 1800.    | C co | Jac. ic. 1. t. 140       |
| 9743                 | tridactylites W.    |          | reflex-flowered | pr         | 3     | jn, au     | Pk    | C. G. H.   | 1791.    | C pl | Bot. rep. 135            |
| 9744                 | divaricata H. K.    |          | straddling      | pr         | 3     | jn, s      | W. vy | C. G. H.   | 1792.    | C co | Bot. reg. 182            |
| 9745                 | retusa W.           |          | blunt-leaved    | or         | 4     | mr, my     | Pk    | C. G. H.   | 1803.    | C pl | Cav. dis. 2. t. 21. f. 1 |
| 9746                 | calycina W.         |          | large-calyxed   | pr         | 4     | my, au     | R     | C. G. H.   | 1812.    | S co | Bot. reg. 297            |
| 9747                 | fragrans W.         |          | fragrant        | pr         | 3     | my, jl     | Sc    | C. G. H.   | 1759.    | C co | Bot. reg. 296            |
| 9748                 | stricta W.          |          | upright         | pr         | 3     | my, au     | W. vy | C. G. H.   | 1805.    | C co | Jac. schen. 3. t. 294    |
| 9749                 | bryoniifolia W.     |          | Bryony-leaved   | or         | 4     | jl, au     | Pu    | C. G. H.   | 1731.    | C co | W. hor. ber. 1. t. 4     |
| 9750                 | grossularifolia W.  |          | Gooseberry-lv.  | pr         | 3     | my, s      | Pk    | C. G. H.   | 1732.    | C pl | Bot. reg. 561            |
| 9751                 | asperrima W. en.    |          | roughest        | pr         | 3     | jn, s      | R     | C. G. H.   | 1796.    | C co | Jac. schen. 2. t. 39     |
| 9752                 | lactea W.           |          | panicked white  | or         | 4     | ja, f      | W     | Mexico     | 1780.    | C co | Cav. ic. 1. t. 20        |
| 9753                 | miniata W.          |          | painted         | or         | 4     | my, jl     | Ve    | S. Amer.   | 1798.    | C pl | Cav. ic. 3. t. 278       |
| 9754                 | operculata W.       |          | lid-capsuled    | pr         | 3     | jl, au     | R     | Peru       | 1795.    | C co | Cav. dis. 2. t. 35. f. 1 |
| 9755                 | peruviana W.        |          | Peruvian        | un         | 2     | jn, au     | Pu    | Peru       | 1759.    | S co | Jac. vind. 2. t. 156     |
| 9756                 | limensis W.         |          | blue-flowered   | un         | 4     | jl         | B     | Peru       | 1763.    | S co | Jac. vind. 2. t. 141     |
| 9757                 | capitata W.         |          | various-leaved  | or         | 1     | n, d       | R     | Peru       | 1798.    | S co | Ca. dia. 5. t. 137. f. 1 |
| 9758                 | umbellata Cav.      |          | umbelled        | or         | 4     | ja, mr     | Cr    | S. Amer.   | 1814.    | C co | Bot. cab. 292            |
| 9759                 | ambuloides W.       |          | Bahama          | or         | 4     | jn, s      | W     | Bahama     | 1725.    | C co | Bot. mag. 2544           |
| 9760                 | elegans W.          |          | elegant         | or         | 3     | my, au     | R     | C. G. H.   | 1791.    | C co | Jac. col. 4. t. 6. f. 1  |
| 9761                 | angustifolia W.     |          | narrow-leaved   | pr         | 3     | au         | St    | Mexico     | 1780.    | C co | Cav. ic. 1. t. 68        |
| 9762                 | caroliniana W.      |          | creeping        | un         | 1     | jn, jl     | R     | Carolina   | 1723.    | C co | Cav. dis. 2. t. 15. f. 1 |
| 9763                 | prostrata W.        |          | trailing        | un         | 1     | jn, au     | Pk    | Brazil     | 1806.    | S co | Bot. mag. 2515           |
| 9764                 | decumbens W. en.    |          | procumbent      | pr         | 1     | jn, s      | Pk    | S. Amer.   | 1815.    | D co |                          |

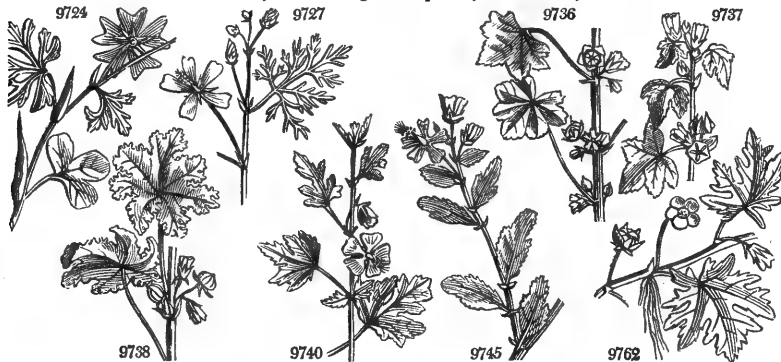


History, Use, Propagation, Culture,

1471. Malope. A name given by the Greeks to the Tree Mallow.  
 1472. Malva. Altered by the Latins from the Greek word, μαλαχην, soft, in allusion to the soft mucilaginous qualities of the species. Some of the species are shewy plants, and M. capensis is valued in small greenhouses as flowering all the year. M. sylvestris, Masue, Fr., has still a place in the Materia Medica, on account of its

## POLYANDRIA.

- 9707 Leaves ovate crenate, Stipules oblong-linear  
 9708 Leaves 3-nerved trifid toothed smooth : lobes acuminate
- 9709 Leaves oblong or ovate acute serrate, Flowers axillary clustered  
 9710 Leaves ovate acute crenate serrate hairy, Fl. axillary subsolitary  
 9711 Leaves ovate-lanceolate doubly toothed obsolete 3-lobed beneath rough, Peduncles axillary 2-flowered  
 9712 Leaves ovate crenate-serrate beneath velvety, Fl. axillary clustered  
 9713 Leaves ovate acute coarsely toothed pubescent ; upper cuneate at base, Fl. axillary and terminal spiked  
 9714 Leaves ovate acuminate serrate rough, Fl. axillary and terminal spiked  
 9715 Leaves ovate or subcordate rough above downy beneath, Flowers in ovate spikes  
 9716 Leaves cordate crenate blunt and branches downy, Flowers lateral heaped  
 9717 Leaves subcordate acute toothed downy beneath, Fl. sessile, Lobes of calyx ovate  
 9718 Leaves cordate acuminate serrated rough ; lower lobed, Pedunc. axillary, Flowers in heads  
 9719 Leaves cordate blunt smooth, Flowers sessile heaped  
 9720 Dwarfs, Leaves ovate toothed : adult smoothish ; younger hairy, Fl. axillary solitary on short stalks  
 9721 Leaves reniform broadly crenate and branches leprous, Stems prostrate  
 9722 Leaves cordate roundish 5-angled crenate villous, Pedicels longer than petiole  
 9723 Leaves half orbicular crenate ; upper rhomboid, Stem erect hairy  
 9724 Lower leaves 3-lobed entire ; upper multifid, Segm. trifid toothed at end  
 9725 Leaves 3-parted, Segm. trifid ciliated toothed at end, Cor. less than calyx  
 9726 Leaves 3-parted, Segm. trifid linear blunt, Cor. 3 times as large as calyx  
 9727 Leaves many-parted : lobes trifid linear, Stem decumbent, Hairs stellated  
 9728 Lower leaves angular ; upper 5-parted cut, Stems and calyxes velvety  
 9729 Lower leaves reniform cut ; cauline many-parted, Segments linear, Stems and calyxes hairy
- 9730 Leaves palmated : lobes lanceolate toothed, Hairs simple, Pedicels longer than leaf  
 9731 Stem erect, Leaves 5-lobed blunt, Pedicels and petioles smoothish or downy on the upper side  
 9732 Stem erect, Leaves 5-7-lobed acute, Pedicels and petioles hairy  
 9733 Stem prostrate, Leaves cord. orbic. bluntly 5-lobed, Pedicels in fruit drooping and petioles downy
- 9734 Stem diffuse, Lvs. cord. orbicular 7-lobed soft : lobes acute, Fls. aggreg. stalked, Leaves of involucre bristly  
 9735 Stem erect, Leaves cordate roundish about 5-lobed crenate smooth, Fl. axillary sessile clustered  
 9736 Stem spreading, Leaves roundish bluntly angular crenate smoothish, Fl. axillary sessile clustered  
 9737 Stem erect, Leaves cordate roundish bluntly angular, Fls. axill. clustered sess. Cal. rough somew. inflated  
 9738 Stem erect, Leaves angular toothed crisp smooth, Flowers axillary sessile  
 9739 Pedicels 1-flowered aggregate shorter than leaf, Invol. ovate acuminate, Leaves 5-lobed hairy rugose  
 9740 Pedicels 1-flowered solitary or twin longer than petiole, Invol. linear, Leaves cut crenate smooth rigid  
 9741 Pedicels 1-fl. solitary or twin longer than petiole, Inv. ov. lanc. Lvs. 5-lobed or 3-lobed cren. toothed glutin.  
 9742 Pedicels 1-fl. solitary longer than petiole, Invol. obl. linear, Lvs. sub-three-lobed acute unequally toothed  
 9743 Pedicels 1-flowered solitary length of leaves, Leaves subsessile cuneiform trifid entire  
 9744 Pedicels solitary longer than petiole, Leaves lobate plaited toothed roughish, Branches divaricating  
 9745 Pedicels solitary longer than petiole, Invol. lanceolate, Leaves oblong very blunt 3-lobed toothed  
 9746 Pedicels solitary 1-fl. twice as long as petiole, Invol. ovate acute very large, Leaves cordate crenate hairy  
 9747 Pedicels solitary 1-fl. length of petiole, Invol. lanc. Leaves cordate 5-lobed toothed, Branches glutinous  
 9748 Pedicels solitary 1-fl. length of petiole, Invol. nearly linear, Leaves ovate about 3-lobed toothed hairy  
 9749 Pedicels solitary 1 or 2-fl. shorter than petiole, Leaves cordate about 5-lobed blunt rough with stellat. hair  
 9750 Pedicels solitary 1-3-fl. length of petiole, Invol. obl. linear, Leaves sinuate lobed serrate rugose hairy  
 9751 Pedicels 1-2-fl. solitary longer than petiole, Invol. linear, Leaves 5-lobed blunt rugose very rough  
 9752 Leaves angular acute cordate villous, Petals obovate shorter than calyx, Pedunc. panicled  
 9753 Leaves ovate 3-lobed toothed downy, Pedunc. axillary racemose few-flowered  
 9754 Leaves angular 5-lobed ; middle lobe largest, Pedunc. axillary racemose, Flowers 1-sided  
 9755 Leaves palmate, Spikes axillary 1-sided, Fruit toothletted  
 9756 Leaves 7-lobed rugose, Spikes axillary 1-sided, Fruit smooth  
 9757 Leaves 5-lobed : lobes pinnatifid sinuate toothed, Pedunc. corymbose capitate, Fruit with two beaks  
 9758 Leaves subpeltate 5-lobed blunt, Pedunc. axillary umbelled, Invol. obovate stipitate deciduous  
 9759 Leaves 5 angular downy, Pedunc. axillary bifid few-flowered, Fruit oblong small  
 9760 Leaves 3-parted hoary, Segm. toothed at end ; middle trifid, Pedunc. axillary 1-flowered  
 9761 Leaves lanceolate toothed downy, Pedunc. axillary 2 few-fl. Invol. setaceous deciduous  
 9762 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit villous  
 9763 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit smooth, Petals entire  
 9764 Leaves ovate cut toothed lobed, Pedicels longer than petiole, Fruit villous, Petals entire



and Miscellaneous Particulars.

demulcent properties ; but it is greatly inferior to Althaea, and therefore little used. Malva was an excellent vegetable among the Romans, but what species is uncertain. A tree of the mallow kind is said, by Prosper Alpinus, to afford food to the Egyptians ; and the Chinese use some sort of mallow as food.

All the species are of the easiest culture and propagation.



|  |                 |   |    |                  |        |            |            |       |                                  |                             |
|--|-----------------|---|----|------------------|--------|------------|------------|-------|----------------------------------|-----------------------------|
| 1473. KITAIBE'LIA. <i>W.</i> KITAIBELIA. |                 |   |    | <i>Malvaceæ.</i> | Sp. 1. |            |            |       |                                  |                             |
| 9765 vitifolia <i>W.</i>                 | Vine-leaved     | Δ | or | 5 jls            | W      | Hungary    | 1801.      | D     | pl Bot. mag. 821                 |                             |
| †1474. ALTHÆ'A. <i>W.</i>                | MARSH MALLOW.   |   |    |                  |        |            |            |       |                                  |                             |
| 9766 officinalis <i>W.</i>               | common          | Δ | m  | 6 jls            | F      | Britain    | salt m.    | D     | co Eng. bot. 147                 |                             |
| 9767 narbonensis <i>W.</i>               | Narbonne        | Δ | or | 6 aus            | Pk     | S. Europe  | 1780.      | D     | co Cav. dia. 2. t. 29. f. 2      |                             |
| 9768 cannabina <i>W.</i>                 | Hemp-leaved     | Δ | or | 6 in. jl         | Pu     | S. Europe  | 1597.      | D     | co Cav. dia. 2. t. 30. f. 1      |                             |
| 9769 hirsuta <i>W.</i>                   | hairy           | Δ | or | 6 in. jl         | Pu     | S. Europe  | 1683.      | S     | co Cav. dia. 2. t. 29. f. 1      |                             |
| 9770 Ludwigi <i>W.</i>                   | Ludwig's        | ○ | or | 6 in. jl         | Pk     | Sicily     | 1791.      | S     | co Cav. dia. 2. t. 30. f. 3      |                             |
| 9771 acadii <i>W.</i>                    | stemless        | ○ | or | 1½ in. jl        | Pu     | Aleppo     | 1680.      | S     | co Cav. dia. 2. t. 27. f. 3      |                             |
| 9772 rosea <i>W.</i>                     | Hollyhock       | ○ | or | 8 jls            | R      | China      | 1573.      | S     | co Cav. dia. 2. t. 28. f. 1      |                             |
| 9773 pallida <i>W.</i>                   | pale-flowered   | ○ | or | 6 jl. au         | W      | Hungary    | 1805.      | S     | co                               |                             |
| 9774 caribæa <i>B. M.</i>                | West Indian     | ○ | or | 3 mr. ap         | Pk     | W. Indies  | 1816.      | S     | co Bot. mag. 1916                |                             |
| 9775 flexuosa <i>B. M.</i>               | Seringapatam    | ○ | or | 3 in. au         | Pk     | E. Indies  | 1803.      | D     | co Bot. mag. 892                 |                             |
| 9776 ficifolia <i>W.</i>                 | Antwerp Hollyh. | ○ | or | 6 in. s          | O      | Levant     | 1597.      | S     | co Cav. dia. 2. t. 28. f. 2      |                             |
| *1475. LAVATE'RA. <i>W.</i>              | LAVATERA.       |   |    |                  |        |            |            |       |                                  |                             |
| 9777 arborea <i>W.</i>                   | Tree Mallow     | ○ | or | 6 jl. o          | Pu     | Britain    | sea cl.    | S     | co Eng. bot. 1841                |                             |
| 9778 micans <i>W.</i>                    | glittering      | ○ | or | 3 in. jl         | Pu     | Spain      | 1796.      | C     | co Mo. his. 1. t. 17. f. 9       |                             |
| 9779 O'ibia <i>W.</i>                    | downy-leaved    | ○ | or | 3 in. o          | R. Pu  | France     | 1570.      | C     | co Cav. dia. 2. t. 32. f. 2      |                             |
| 9780 unguiculata <i>P. S.</i>            | clawed          | ○ | or | 6 jls            | Li     | .....      | 1807.      | C     | co                               |                             |
| 9781 hispida <i>P. S.</i>                | hispid          | ○ | or | 6 in. jl         | Pk     | Algiers    | 1804.      | C     | co Bot. mag. 2541                |                             |
| 9782 triloba <i>W.</i>                   | three-lobed     | ○ | or | 3 in. jl         | L. Pu  | Spain      | 1759.      | C     | co Bot. mag. 2226                |                             |
| 9783 lusitânica <i>W.</i>                | Portugal        | ○ | or | 3 au. s          | Pu     | Portugal   | 1731.      | C     | co                               |                             |
| 9784 plebeia <i>Sims.</i>                | vulgar          | ○ | or | 2                | Pa     | N. Holl.   | 1820.      | D     | co Bot. mag. 2269                |                             |
| 9785 maritima <i>W.</i>                  | sea-side        | ○ | or | 2 ap. jn         | W      | S. Europe  | 1597.      | S     | co Cav. dia. 2. t. 32. f. 3      |                             |
| 9786 thuringiaca <i>W.</i>               | large-flowered  | ○ | or | 4 jls            | L. B   | Germany    | 1731.      | D     | co Bot. mag. 517                 |                             |
| 9787 crética <i>W.</i>                   | Creten          | ○ | or | 1 jls            | L. B   | Candia     | 1723.      | S     | co Jac. vind. 1. t. 41           |                             |
| 9788 punctata <i>W.</i>                  | spotted-stalked | ○ | or | 2 jls            | Pa     | Italy      | 1800.      | S     | co                               |                             |
| 9789 trimestris <i>W.</i>                | common annual   | ○ | or | 2 jls            | F      | S. Europe  | 1633.      | S     | co Bot. mag. 109                 |                             |
| *1476. MALA'CHRA. <i>W.</i>              | MALACHRA.       |   |    |                  |        |            |            |       |                                  |                             |
| 9790 capitata <i>W.</i>                  | headed          | ○ | un | 1 au. s          | W      | W. Indies  | 1759.      | S     | lt. l. C. dia. 2. t. 33. f. 1, 2 |                             |
| 9791 alceaefolia <i>W.</i>               | Hollyhock-lvd.  | ○ | un | 1 au. s          | Y      | Saraccas   | 1805.      | S     | lt. l. Jac. ic. 3. t. 549        |                             |
| 9792 radiata <i>W.</i>                   | rayed           | ○ | un | 1 jl. au         | W      | St. Domin. | 1794.      | S     | lt. l. Cav. dia. 2. t. 33. f. 3  |                             |
| †1477. URE'NA. <i>W.</i>                 | URENA.          |   |    |                  |        |            |            |       |                                  |                             |
| 9793 lobata <i>W.</i>                    | angular-leaved  | ○ | un | 2 in. jl         | F      | China      | 1731.      | C     | pl Ca. dia. 6. t. 185. f. 1      |                             |
| 9794 americana <i>W.</i>                 | American        | ○ | un | 2                | ...    | W          | Surinam    | 1816. | C                                | pl Sloane 1. t. 11. f. 2    |
| 9795 sinuata <i>W.</i>                   | cut-leaved      | ○ | un | 3 jl. au         | F      | E. Indies  | 1759.      | C     | pl Ca. dia. 6. t. 185. f. 2      |                             |
| 9796 multifida <i>W.</i>                 | multifid        | ○ | un | 2 ja. o          | Pu     | E. Indies  | 1817.      | C     | pl Ca. dia. 6. t. 184. f. 2      |                             |
| 1478. PAVO'NIA. <i>W.</i>                | PAYONIA.        |   |    |                  |        |            |            |       |                                  |                             |
| 9797 præmorsa <i>W.</i>                  | bitten-leaved   | ○ | un | ½ jn. au         | W      | C. G. H.   | 1774.      | C     | pl Bot. mag. 436                 |                             |
| 9798 spinifera <i>W.</i>                 | prickly-seeded  | ○ | un | 2 jl. au         | W      | W. Indies  | 1778.      | C     | pl Jac. vind. 2. t. 103          |                             |
| 9799 odorata <i>W.</i>                   | fragrant        | ○ | un | 2                | ...    | R          | E. Indies  | 1807. | C                                | pl                          |
| 9800 coccinea <i>W.</i>                  | scarlet         | ○ | un | 2                | ...    | Sc         | St. Domin. | 1816. | C                                | pl Cav. dia. 3. t. 47. f. 1 |
| 9801 columella <i>W.</i>                 | angular-leaved  | ○ | un | 2 jl             | W. pu  | Bourbon    | 1807.      | C     | pl Cav. dia. 3. t. 48. f. 3      |                             |
| 9802 urens <i>W.</i>                     | stinging        | ○ | un | 2                | ...    | W          | Mauritius  | 1801. | C                                | pl Jac. ic. 3. t. 522       |
| 9803 zeylanica <i>W.</i>                 | Ceylon          | ○ | un | 3 jls            | W      | E. Indies  | 1790.      | S     | pl Cav. dia. 3. t. 48. f. 2      |                             |
| †*1479. ACHA'NIA. <i>W.</i>              | ACHANIA.        |   |    |                  |        |            |            |       |                                  |                             |
| §3804 Malvasicus <i>W.</i>               | scarlet         | ○ | or | 12 ja. d         | S      | Jamaica    | 1714.      | C     | pl Bot. mag. 2305                |                             |
| 9805 mollis <i>W.</i>                    | woolly          | ○ | or | 12 au. s         | S      | America    | 1780.      | C     | pl Bot. reg. 11                  |                             |
| 9806 pilosa <i>W.</i>                    | hairy           | ○ | or | 12 on            | R      | Jamaica    | 1780.      | C     | pl Bot. cab. 829                 |                             |
| †*1480. HIBIS'CUS. <i>W.</i>             | HIBISCUS.       |   |    |                  |        |            |            |       |                                  |                             |
| 9807 Moschedos <i>Ph.</i>                | swamp           | Δ | or | 2 au. o          | Pu     | N. Amer.   | ...        | D     | pl Cav. dia. 3. t. 65. f. 1      |                             |
| 9808 palustris <i>L.</i>                 | marsh           | Δ | or | 3 jls            | Pk     | N. Amer.   | 1759.      | D     | pl Cav. dia. 3. t. 65. f. 2      |                             |
| 9809 Patersonii <i>H. K.</i>             | Norfolk Island  | Δ | or | 15 in. au        | Pu     | Norfolk I. | 1792.      | C     | sp Bot. rep. 286                 |                             |
| <i>Laguna' a-Patersonia B. M. 769.</i>   |                 |   |    |                  |        |            |            |       |                                  |                             |



History, Use, Propagation, Culture,

1473. *Kitabelia*. Named after Dr. Paul Kitabel, professor of botany at Pest, in Hungary, and author, in conjunction with Count Waldstein, of a noble work upon the plants of that country. A tall mallow-like plant with vine-like leaves, and white flowers.

1474. *Althæa*. From ἄλθω, to cure. The salutary effects of the mucilaginous root, are well known in medicine. *Guimanne*, Fr. A. officials has long been in repute as a demulcent. Its roots are sometimes used as an emollient suppurative cataplasm; and a decoction of the leaves forms a useful fomentation in external abrasions, and in cutaneous eruptions, accompanied with a sharp ichorous discharge.

A. rosea is the parent of nearly twenty splendid varieties of border flowers, which seed readily, and the offspring generally resembles the parent variety. All the species are of the easiest culture in common garden soil.

1475. *Lavatera*. In memory of two Lavaters, physicians of Zurich, neither the physiognomist, but two friends of Tournefort. The species resemble those of Malva, in general appearance and culture: much the handsomest is *L. arborea*, which is a magnificent plant in shrubberies, or in the back of wide borders.

9765 Leaves 5-lobed acute toothed

9766 Leaves soft on each side cordate or ovate toothed undivided or 3-lobed. Pedunc. axillary many-fl.  
 9767 Leaves pubescent: lower 5-7-parted; upper trifid, Peduncles many-fl. longer than leaf  
 9768 Leaves downy hoary beneath: lower palmate; upper 3-parted: lobes narrow coarsely toothed  
 9769 Leaves cordate rough with hairs smooth above: lower blunt; upper 5-lobed, Stem hispid  
 9770 Leaves smooth cordate roundish lobed toothed, Pedicels axillary clustered 1-flowered  
 9771 Leaves roundish cordate 5-angled crenate, Pedicels 1-fl. much shorter than petiole  
 9772 Stem upright hairy, Leaves cordate 5-7-angled crenate rugose, Flowers axillary sessile  
 9773 Stem erect hispid, Leaves roundish cordate, Invol. as long as calyx  
 9774 Stem upright smoothish, Leaves rounded lobed crenulate serrate, Flowers solitary subsessile  
 9775 Stem subflexuose hispid, Leaves cordate about 7-lobed blunt on long stalks, Flowers axillary solitary  
 9776 Stem erect hairy, Leaves palmate 7-lobed beyond the middle: lobes oblong blunt irregularly toothed

9777 Leaves 7-angled downy plicate, Pedicels axillary 1-fl. clustered much shorter than petiole  
 9778 Leaves 7-angled acute crenate plaited downy, Racemes terminal  
 9779 Leaves soft hoary 5-lobed; upper 3-lobed: middle lobe elongated; upper oblong undivided  
 9780 Leaves downy on each side acutely 5-lobed; upper 3-lobed, Flowers solitary on short stalks  
 9781 Stem hispid, Leaves hoary 5-lobed; upper 3-lobed or undivided, Flowers subsessile  
 9782 Stem and leaves downy subcordate sub-three-lobed round crenate, Pedicels aggregate, Calyxes acuminate  
 9783 Leaves 7-angular downy plaited, Racemes terminal  
 9784 Stem rough, Leaves 5-lobed downy beneath, Pedunc. axillary aggregate, Petals emarginate  
 9785 Stem and leaves downy roundish bluntly angular crenate, Pedicels axillary solitary  
 9786 Leaves somewhat downy: lower angular; upper 3-lobed: middle lobe longer than the rest  
 9787 Stem herbaceous hispid, Leaves 5-lobed acute, Pedicels axillary 1-flowered aggregate  
 9788 Stem rough, Leaves somewhat downy: lower round cordate; upper 3-lobed, Pedicels solitary 1-fl.  
 9789 Stem herbaceous, Leaves smoothish roundish cordate; upper angular, Pedicels solitary

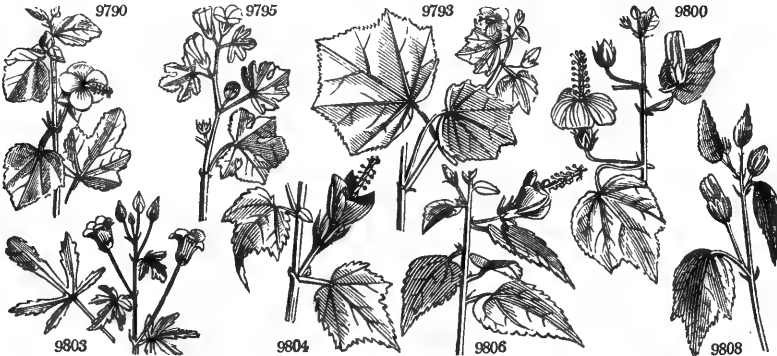
9790 Leaves cordate roundish bluntly angular toothletted, Invol. stalked 3-leaved 7-flowered, Stem rough  
 9791 Leaves cordate palmate 5-lobed, Heads stalked 5-leaved 10-flowered, Stem with scattered hairs  
 9792 Leaves palmate-lobed, Heads stalked 5-leaved many-flowered, Invol. acuminate, Calyxes and stems hairy

9793 Leaves roundish very bluntly 3-lobed velvety on each side 7-nerved 1-glanded, Cal. oblong lanceolate  
 9794 Lower leaves 3-lobed; upper lanceolate panduriform beneath hoary netted with one gland  
 9795 Leaves trifid downy pale beneath with 3 glands: lobes angular toothletted blunt  
 9796 Leaves broad ovate cut lobed with narrow recesses: lobes acute coarsely and unequally toothed

9797 Leaves broadly obovate truncate crenate at end, Pedic. axillary 1-fl. longer than leaf  
 9798 Leaves ovate acuminate subcordate doubly toothed, Pedicels axillary 1-fl.  
 9799 Leaves ovate subcordate 3-pointed somewhat toothed and branches covered with viscid hairs  
 9800 Leaves cordate 3-lobed serrate, Pedicels axillary 1-fl. ascending, Involucre 3-leaved  
 9801 Leaves 5-angular: lobes toothed acuminate, Pedic. axillary 1-fl. much shorter than petiole  
 9802 Leaves 7-angular acuminate toothed hairy, Fl. axillary subsessile clustered  
 9803 Lower leaves roundish cord. crenate others 3-5-lob. Pedicels axillary 1-fl. Inv. 10-leaved setaceous ciliated

9804 Leaves cordate 3-5-lobed acuminate roughish, Leaflets of invol. erect  
 9805 Leaves cordate about 3-lobed acuminate soft downy, Leaf. of invol. somewhat spreading  
 9806 Leaves cordate crenate blunt or acuminate, Branches and petioles hairy

9807 Leaves ovate acuminate serrate downy beneath, Invol. and cal. downy  
 9808 Leaves ovate toothed somewhat 3-lobed hoary with down beneath  
 9809 Leaves lanceolate oblong entire white with scales beneath



and Miscellaneous Particulars.

1476. *Malachra*. A name under which Pliny speaks of a tree from the north of Persia, producing a certain gum. It had no reference to the plant called Malachra by the moderna. Sow in light rich soil, and transplant as with other stove annuals.

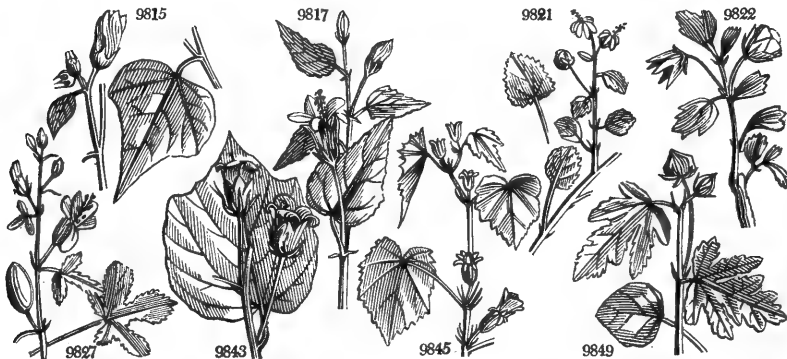
1477. *Urena*, the vernacular name in Malabar. The species are of easy culture, seed freely, or may be propagated by cuttings in sand under a hand-glass.

1478. *Favonia*. In honor of Don José Favon, the companion of Dombey, in his voyage to Peru, and one of the authors of *Flora Peruviana*. The species are free-growers, and seed readily: they are also increased by cuttings in sand under a hand-glass.

1479. *Achanta*. From *axeris*, closed; so called because the corolla does not open out as in most Malvaceous plants, but remains always rolled together.

1480. *Hibiscus*. One of the Greek names of the mallow. The species are for the most part showy plants, and not difficult of culture. All of them abound in mucilage, like many of the same natural family, and the

|                                  |                  |   |    |    |       |      |           |       |   |     |                    |
|----------------------------------|------------------|---|----|----|-------|------|-----------|-------|---|-----|--------------------|
| 9810 incanus <i>Pa.</i>          | hoary            | △ | or | 3  | s     | Y    | Carolina  | 1806. | D | a.p | W.hort.ber. t.24   |
| 9811 militaris <i>Pa.</i>        | smooth           | △ | or | 3  | aus.  | Pu   | Louisiana | 1804. | D | s.p | Bot. mag. 2385     |
| 9812 populneus <i>W.</i>         | Poplar-leaved    | △ | or | 15 | ...   | W    | E. Indies | 1770. | C | p.l | Rhee.mal.1. t.29   |
| 9813 tilliaceus <i>W.</i>        | Lime-tree-ldv.   | □ | or | 10 | jl.au | Pu   | E. Indies | 1739. | C | p.l | Bot. reg. 232      |
| 9814 elatus <i>Su.</i>           | tall             | □ | or | 20 | ...   | Pu   | Jamaica   | 1790. | C | p.l | Bot. reg. 232      |
| 9815 Lámpas <i>W.</i>            | three-pointed    | □ | or | 10 | ...   | Pk   | E. Indies | 1806. | C | p.l | Cav.dia.3.t.56.f.2 |
| 9816 Rósa Malabárica <i>Ker.</i> | Malabar          | □ | or | 2  | aus.  | Sc   | E. Indies | 1818. | C | p.l | Bot. reg. 337      |
| 9817 membranaceus <i>W.</i>      | leafy-calyxed    | □ | or | 10 | ...   | Pk   | .....     | 1816. | C | a.l | Cav.dia.3.t.57.f.2 |
| 9818 lunariifolius <i>W.</i>     | Lunaria-leaved   | □ | or | 10 | ...   | Pu   | E. Indies | ..... | C | a.l | Bot. mag. 153      |
| 9819 Rósa-sinensis <i>W.</i>     | Chinese          | □ | or | 10 | jl.au | D.R  | E. Indies | 1731. | C | p.l | Bot. mag. 513      |
| β rubro-plénu                    | double red       | □ | or | 10 | jl.au | D.R  | E. Indies | ..... | C | p.l | Bot. cab. 153      |
| γ flavo-plénu                    | double buff      | □ | or | 10 | jl.au | Y    | E. Indies | ..... | C | p.l | Bot. cab. 963      |
| δ variegatus plénu               | double striped   | □ | or | 10 | jl.au | St   | E. Indies | ..... | C | p.l | Bot. cab. 982      |
| ε luteus                         | double yellow    | □ | or | 10 | jl.au | Y    | E. Indies | 1823. | C | p.l | Bot. reg. 230      |
| 9820 phœniceus <i>W.</i>         | purple-flowered  | □ | or | 8  | jl.au | Pu   | E. Indies | 1796. | C | p.l | Cav.dia.3.t.61.f.1 |
| 9821 micranthus <i>H. K.</i>     | small-flowered   | □ | or | 6  | ...   | Pu   | E. Indies | 1794. | C | p.l | Cav.dia.3.t.61.f.1 |
| 9822 æthiopicus <i>W.</i>        | dwarf wedge-ldv. | □ | or | 6  | au    | Pu   | C. G. H.  | 1774. | C | p.l | Bot. rep. 228      |
| 9823 mutabilis <i>W.</i>         | changeable       | □ | or | 15 | od    | W    | E. Indies | 1690. | C | p.l | Bot. rep. 228      |
| β flore pléno                    | double-flowered  | □ | or | 15 | od    | W    | E. Indies | ..... | C | p.l | Bot. mag. 83       |
| 9824 syriacus <i>W.</i>          | Althæa frutex    | □ | or | 8  | aus.  | Pu   | Syria     | 1596. | L | co  | Bot. mag. 83       |
| α purpureus                      | purple-flowered  | □ | or | 8  | aus.  | Pu   | .....     | ...   | L | co  | Bot. reg. 29       |
| β ruber                          | red-flowered     | □ | or | 8  | aus.  | R    | .....     | ...   | L | co  | Bot. reg. 29       |
| γ albus                          | white-flowered   | □ | or | 8  | aus.  | W    | .....     | ...   | L | co  | Bot. reg. 29       |
| δ variegatus                     | striped-flowered | □ | or | 8  | aus.  | St   | .....     | ...   | L | co  | Bot. reg. 29       |
| ε albo-plénu                     | double white     | □ | or | 8  | aus.  | W    | .....     | ...   | L | co  | Bot. reg. 29       |
| ζ purpureo-plénu                 | double purple    | □ | or | 8  | aus.  | Pu   | .....     | ...   | L | co  | Bot. reg. 29       |
| 9825 acrifolius <i>P. L.</i>     | Maple-leaved     | □ | or | 5  | mr.jn | Pk   | China     | 1798. | C | a.l | Par. lond. c. ic.  |
| 9826 diversifolius <i>W.</i>     | different-leaved | □ | or | 6  | jn.jl | Y    | E. Indies | 1798. | C | a.l | Bot. reg. 381      |
| 9827 ficulneus <i>W.</i>         | Fig-leaved       | □ | or | 4  | jn.jl | W    | Ceylon    | 1732. | C | p.l | Cav.dia.3.t.52.f.2 |
| 9828 Sabdariffa <i>W.</i>        | Indian           | □ | or | 2  | jn.s  | Y    | E. Indies | 1596. | C | p.l | Ca.dia.6.t.198.f.1 |
| 9829 speciosus <i>W.</i>         | superb           | □ | or | 2  | jn.au | S    | Carolina  | 1778. | C | a.l | Bot. mag. 360      |
| 9830 pruriens <i>B. K.</i>       | stinging         | □ | or | 3  | jl.s  | Y    | E. Indies | 1804. | C | a.l | Bot. rep. 498      |
| 9831 heterophyllus <i>H. K.</i>  | various-leaved   | □ | or | 6  | aus.  | W.n  | N. S. W.  | 1803. | C | a.p | Bot. reg. 29       |
| 9832 cannabis <i>W.</i>          | Hemp-leaved      | □ | or | 5  | jn.jl | Y    | E. Indies | 1759. | C | a.l | Rox. cor. 2.t.190  |
| 9833 surattensis <i>W.</i>       | prickly-stalked  | □ | or | 2  | jl.s  | Y    | E. Indies | 1731. | S | a.l | Bot. mag. 1356     |
| 9834 radiatus <i>W.</i>          | rayed            | □ | or | 2  | jn.au | Y    | E. Indies | 1790. | S | a.l | Bot. mag. 1911     |
| 9835 Mánihot <i>W.</i>           | palmated         | □ | or | 3  | jl.s  | Y    | China     | 1712. | C | p.l | Bot. mag. 1702     |
| 9836 scáber <i>Pa.</i>           | scabrous         | □ | or | 2  | jl.s  | Y    | Carolina  | 1810. | D | a.l | Bot. reg. 29       |
| 9837 furcatus <i>W. en.</i>      | forked-calyxed   | □ | or | 2  | jl.s  | Y    | E. Indies | 1816. | C | a.l | Bot. reg. 608      |
| 9838 digitatus <i>Can.</i>       | digitate         | □ | or | 2  | jl.s  | W.n  | Brazil    | 1816. | S | co  | Bot. reg. 608      |
| 9839 Abelmoschus <i>W.</i>       | Musk Okro        | □ | or | 3  | jl.s  | Y    | India     | 1640. | C | r.m | Rhee.mal.2. t.38   |
| 9840 pedunculatus <i>W.</i>      | long-peduncled   | □ | or | 2  | my.d  | R    | C. G. H.  | 1812. | C | a.l | Bot. reg. 231      |
| 9841 esculéntus <i>W.</i>        | eatable          | □ | or | 4  | jn.jl | Y    | W. Indies | 1692. | S | r.m | Cav.dia.3.t.61.f.2 |
| 9842 strigosus <i>Lindl.</i>     | strigose         | □ | or | 6  | jn.jl | Pk   | Peru      | 1820. | C | a.l | Bot. reg. 860      |
| 9843 clypeatus <i>W.</i>         | shield-capsuled  | □ | or | 6  | jl.au | Y    | Jamaica   | 1759. | C | p.l | Cav.dia.3.t.58.f.2 |
| 9844 unidens <i>Lindl.</i>       | one-toothed      | □ | or | 3  | jl    | Y    | Brazil    | 1822. | C | co  | Bot. reg. 878      |
| 9845 tubulosus <i>W.</i>         | tubular          | □ | or | 2  | jl.o  | Y    | E. Indies | 1796. | C | a.l | Cav.dia.3.t.63.f.2 |
| 9846 vitifolius <i>W.</i>        | Vine-leaved      | □ | or | 2  | jl.o  | Y    | E. Indies | 1790. | C | p.l | Rhee.mal.6. t.46   |
| 9847 virginicus <i>W.</i>        | Virginian        | □ | or | 2  | jl.s  | Y    | Virginia  | 1798. | D | a.l | Jac. ic. 1. t. 142 |
| 9848 pentacárpos <i>W.</i>       | angular-fruited  | □ | or | 3  | jl.s  | Y.R  | Venice    | 1732. | S | a.l | Jac. ic. 1. t. 143 |
| 9849 vesicarius <i>W.</i>        | African          | □ | or | 14 | jl.au | Y.Br | Africa    | 1713. | S | co  | Cav.dia.3.t.64.f.2 |
| 9850 Triónum <i>W.</i>           | Bladder Ketmia   | □ | or | 2  | jn.s  | Y.Br | Italy     | 1596. | S | co  | Bot. mag. 209      |
| 9851 hispidus <i>Müll.</i>       | hispid           | □ | or | 14 | jn.s  | Y.Br | C. G. H.  | ..... | S | co  | Bot. reg. 306      |
| 9852 Richardsóni <i>Lindl.</i>   | rough-leaved     | □ | or | 3  | jn.s  | Y    | N. Holl.  | 1820. | S | co  | Bot. reg. 875      |



History, Use, Propagation, Culture,

bark of the ligneous sorts may be manufactured into mats or cordage. Of *H. tilliaceus*, in the island of Otaheite, they make matting of the bark, as fine as our coarse cloth; it also ropes and lines, from the size of an inch to that of a small packthread; and fishing nets. (*Hæuss. Voy.* ii. 217.) Forster informs us, they also suck this bark for food, when the bread-fruit fails them: and in New Caledonia, the inhabitants frequently subsist on it, though it is an insipid food, affording very little nourishment.

*H. Rosa-sinensis* is extremely common in the gardens of China, and the East Indies; but its native country is unknown. Loureiro, however, affirms, that it is spontaneous as well as cultivated both in China and Cochinchina; and that it is so common in the latter, that they have entire hedges of it to their gardens. It has been long known from its appearance on Chinese screens and paper hangings. The variety with double flowers is most frequently cultivated, both in the East and in European hothouses: the plant is, indeed, rarely seen with single flowers. (*Smith, spicil.*)

*H. syriacus* is one of our most beautiful hardy shrubs, the more valuable as it is a free-flowerer, will grow in common garden soil, and propagates freely by seeds, layers, and even by cuttings.

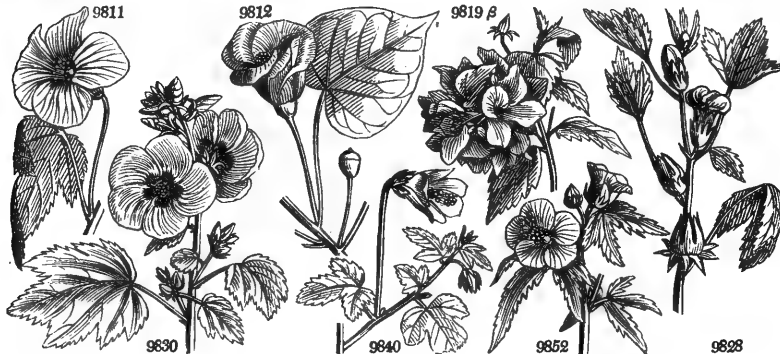
*H. Sabdariffa* (the Turkish name) in the West Indies is called Red Sorrel. The calyxes and capsules, freed

9810 Leaves ovate acuminate bluntly serrate hoary on each side, Pedicels axillary 1-f.  
 9811 Leaves 3-lobed hastate acuminate serrate smooth on each side, Pedicels jointed in the middle  
 9812 Leaves roundish cordate acuminate (Thespesia Dec.)  
 9813 Leaves roundish cordate acuminate crenate hoary beneath, Invol. 10-toothed  
 9814 Leaves roundish cordate entire hoary beneath, Pedunc. very short 1-flowered  
 9815 Leaves cordate 3-pointed smooth dotted beneath, Pedicels solitary 1-f. longer than petiole  
 9816 Leaves cordate acutely serrate, Branches somewhat hairy  
 9817 Leaves cordate ovate-lanceolate acuminate toothed, Pedicels twice as long as petiole  
 9818 Leaves roundish cordate acuminate finely toothed hairy beneath, Pedicels thick villous  
 9819 Leaves ovate acuminate smooth entire at base coarsely toothed at end, Pedicels length of leaf

9820 Leaves ovate acuminate serrate; lower subcordate 3-pointed, Pedicels jointed at end  
 9821 Leaves ovate or roundish undivided serrate rough, Pedic. longer than leaf, Cor. reflexed  
 9822 Leaves cuneiform about 5-toothed hairy, Pedicels longer than leaf, Invol. 8-10-leaved hispid  
 9823 Leaves cordate angular 5-lobed acuminate toothed downy, Pedicels nearly as long as leaf

9824 Leaves cuneiform ovate 3-lobed toothed, Pedic. scarcely longer than petiole, Invol. 6-7-leaved

9825 Leaves cordate 5-lobed hairy: lobes acuminate subrepand, Inv. 6-7-leaved setaceous [undivided  
 9826 Stem and petiol. prickly, Pedic. short unarmed very hairy, Lvs. 3-5-lobed blunt toothed; upper obl. lanc.  
 9827 Stem prickly, Leaves palmate 5-lobed; upper 3-lobed: lobes blunt unequally toothed narrowed at base  
 9828 Leaves toothed: lower ovate undivided; upper 3-lobed cuneate at base, Flowers subsess. Invol. 12-toothed  
 9829 Leaves palmate 5-parted: lobes lanceolate acuminate subserrate at end, Pedicels jointed under the end  
 9830 Stem hairy, Leaves on long stalks ovate about 3-lobed serrate membranous smoothish, Pedic. very short  
 9831 Stem prickly, Leaves linear lanceolate acuminate usually lobed prickly-serrate, Inv. 10-leaved  
 9832 Stem prickly, Leaves palmate 5-parted with 1 gland beneath, Fl. subsess. Cal. covered with glandul. hairs  
 9833 Stem rough with recurved prickles, Stipules 4-cord. Leaves palmate 5-lobed, Pedicels length of petiole  
 9834 Stem rough with recurved prickles, Stipules lanc. Leaves 5-7-parted with lanc. acuminate serrated lobes  
 9835 Leaves smoothish palmate: lobes 5-7-acuminate coarsely toothed, Inv. hispid 4-6-leaved, Fls. declinate  
 9836 Stem rough, Leaves rough roundish truncate at base; upper palmate-lobed: lobes dilat. crenate upwards  
 9837 Stem petioles and calyx muricate, Leaves ovate at base trifid; lower 5-fid: lobes acuminate serrate  
 9838 Leaves palmated: lobes lanceolate serrate, Petioles muricate, Fl. subsessile solitary, Inv. 7-fid  
 9839 Leaves subpeltate cordate 7-angular acuminate serrate, Stem hispid, Pedicels longer than petiole  
 9840 Leaves 3-5-lobed blunt crenate hairy, Pedic. twice as long as leaf, Inv. many-leaved, Cor. campanulate  
 9841 Leaves cord. 5-lobed blunt toothed, Petioles longer than fl. Inv. 10-leaved decidu. Cal. bursting lengthwise  
 9842 Stem strigose, Leaves 3-lobed angular cordate toothed downy, Peduncle longer than petiole  
 9843 Leaves cord. angular sparingly toothed nearly smooth, Branches velvety, Caps. turbinate truncate hispid  
 9844 Stem prickly, Leaves smoothish coarsely toothed without glands, Leaves of the invol. with a tooth inside  
 9845 Leaves cordate unequally toothed beneath hairy: lower about 5-lobed; upper acum. Pedic. 1-f. very short  
 9846 Stem somewhat prickly, Leaves smoothish toothed 5-angular acuminate, Fls. cernuous, Caps. 5-winged hairy  
 9847 Leaves acuminate unequally toothed subvillous: lower undivided cordate; upper ovate-cordate 3-lobed  
 9848 Leaves cordate oblong toothed blunthish angular slightly 3-lobed smooth, Pedicels longer than petiole  
 9849 Lvs. toothed: lower undivided; upper 5-fid: lobes oblong nearly equal blunt, Cal. inflat. membran. nerved  
 9850 Lvs. toothed: lower undivided; upper 3-parted: lobes lanc. middle one very long, Cal. infl. membr. nerved  
 9851 Leaves toothed: lower leaves 3-lobed; upper 5-parted blunt, Stem hispid  
 9852 Leaves hairy 5-lobed: lobes linear oblong coarsely toothed, Cal. very villous longer than involucrem



and Miscellaneous Particulars.

from the seeds, make very agreeable tarts; and a decoction of them, sweetened and fermented, is commonly called sorrel cool drink. It is a small diluting liquor, much used in our sugar colonies, and reckoned very refreshing in those sultry climates. (*Browne's Jam.*) The bark of this species, and also of *H. cannabinus*, is full of strong fibres, which the inhabitants of the Malabar coast prepare and make into cordage; and it seems as if it might be wrought into fine strong thread of any size.

The leaves of *H. surattensis* are gratefully acid, and eaten in salads. The mucilage of the root of *H. manihot* is used in Japan for giving consistence to paper.

*H. Abelmoschus*, from the Arabic *Ab-el-Mosch*, grain or seed of musk, has large seeds of a very musky odor, and are frequently used as a substitute for animal musk in scenting powders and pomatus. In Arabia and Egypt they are ground and mixed with coffee, to render it more agreeable to the head and stomach.

*H. esculentus*, the Okro of the West Indies, is cultivated there, and in some parts of France, for the pods, which are gathered green and used in soups, or pickled like capers. They are full of a nutritive mucilage, and buttered and spiced make a very rich dish.

|   |   |    |            |                   |             |       |   |                               |
|---|---|----|------------|-------------------|-------------|-------|---|-------------------------------|
| 1481. GOSSYPIMUM. <i>W.</i> COTTON.           |   |    |            | <i>Malvaceae.</i> | Sp. 6—16.   |       |   |                               |
| 9853 herbaceum <i>W.</i> common               | ☐ | ag | 3 jl       | Y                 | E. Indies   | 1594. | S | a.l. Ca. dia. 6. t. 164. f. 2 |
| 9854 arboreum <i>W.</i> tree                  | ♂ | or | 12 jl. au  | Y                 | E. Indies   | 1694. | C | a.p. Cav. dia. 6. t. 193      |
| 9855 vitifolium <i>W.</i> Vine-leaved         | ☐ | ag | 3 ...      | Y                 | E. Indies   | 1805. | C | a.p. Cav. dia. 6. t. 166      |
| 9856 hirsutum <i>W.</i> hairy                 | ☑ | ag | 3 jl. au   | Y                 | S. Amer.    | 1731. | C | a.p. Cav. dia. 6. t. 167      |
| 9857 religiosum <i>W.</i> spotted-barked      | ☑ | ag | 3 jl       | Y                 | India       | 1777. | C | a.p. Ca. dia. 6. t. 164. f. 1 |
| 9858 barbadense <i>W.</i> Barbadoes           | ☑ | ag | 5 s        | Y                 | Barbadoes   | 1759. | C | a.p. Bot. reg. 84             |
| 1482. REDOUTE'A. <i>Vent.</i> REDOUTEA.       |   |    |            | <i>Malvaceae.</i> | Sp. 1—2.    |       |   |                               |
| 9859 heterophylla <i>Vent.</i> various-leaved | ☐ | or | 3 jn       | Y                 | S. Amer.    | 1822. | S | co Vent. cels. t. 11          |
| 1483. PALA'VIA. <i>W.</i> PALAVIA.            |   |    |            | <i>Malvaceae.</i> | Sp. 1—2.    |       |   |                               |
| 9860 malvifolia <i>W.</i> Mallow-leaved       | ○ | un | 1½ jn. au  | Pu                | Peru        | 1794. | C | co Cav. dia. 1. t. 11. f. 4   |
| 1484. CRISTA'RIA. <i>Cav.</i> CRISTARIA.      |   |    |            | <i>Malvaceae.</i> | Sp. 1—4.    |       |   |                               |
| 9861 coccinea <i>Ph.</i> scarlet              | ☑ | Δ  | pr ½ jl. s | S                 | Missouri    | 1811. | D | p Bot. mag. 1673              |
| 1485. ANO'DA. <i>Cav.</i> ANODA.              |   |    |            | <i>Malvaceae.</i> | Sp. 3—7.    |       |   |                               |
| 9862 hastata <i>W.</i> halberd-leaved         | ☐ | un | 1½ jn. jl  | B                 | Mexico      | 1799. | S | a.p. Bot. mag. 1541           |
| 9863 cristata <i>W.</i> crested               | ☐ | un | 1½ jl. s   | Pu                | Mexico      | 1730. | S | a.p. Cav. dia. 1. t. 10. f. 3 |
| 9864 Dilleniána <i>W.</i> Dillenius's         | ☐ | un | 1½ jn. n   | B                 | Mexico      | 1725. | C | co Bot. mag. t. 380           |
| 1486. PERIP'TERA. <i>Dec.</i> PERIPTERA.      |   |    |            | <i>Malvaceae.</i> | Sp. 1.      |       |   |                               |
| 9865 punicea <i>Dec.</i> Shuttlecock          | ☑ | pr | 3 my. jn   | Cr                | N. Spain    | 1814. | C | co Bot. mag. 1644             |
| *1487. SI'DA <i>W.</i> SIDA.                  |   |    |            | <i>Malvaceae.</i> | Sp. 69—195. |       |   |                               |
| 9866 linifolia <i>Cav.</i> flax-leaved        | ☑ | un | 3 jl       | Pk                | Guiana      | 1822. | C | co L'Her. stirp. t. 52        |
| 9867 angustifolia <i>W.</i> narrow-leaved     | ☑ | un | 1½ jl. s   | Y                 | Brazil      | 1796. | C | co Cav. dia. 1. t. 1. f. 9    |
| 9868 spinosa <i>W.</i> prickly                | ☑ | un | 1½ jl. s   | Y                 | E. Indies   | 1680. | C | co Dil. el. t. 171. f. 210    |
| 9869 alba <i>W.</i> white-flowered            | ☑ | un | 2 jn. jl   | W                 | E. Indies   | 1732. | S | co Jac. ic. 1. t. 135         |
| 9870 bracteolata <i>Dec.</i> bracteolate      | ☑ | un | 2 jn. jl   | Y                 | Chili       | 1824. | C | co Cav. dia. 1. t. 3. f. 9    |
| 9871 carpinifolia <i>W.</i> Hornbeam-ld.      | ☑ | un | 3 jl. s    | Y                 | Canaries    | 1774. | C | co Dil. el. t. 172. f. 211    |
| 9872 erosa <i>Link.</i> bitten                | ☑ | un | 2 jl. s    | Y                 | Brazil      | 1824. | C | co                            |
| 9873 ciliaris <i>W.</i> ciliated              | ☑ | un | 1½ jn. s   | Y                 | Jamaica     | 1759. | C | co                            |
| 9874 alnifolia <i>W.</i> Alder-leaved         | ☑ | un | 2 jl. s    | Y                 | E. Indies   | 1732. | C | co                            |
| 9875 compressa <i>Dec.</i> compressed         | ☐ | un | 2 jn. s    | Y                 | Nepal       | 1823. | S | co                            |
| 9876 canariensis <i>W.</i> Canary             | ☐ | un | 2 jn. s    | W                 | E. Indies   | 1820. | S | co                            |
| 9877 rhombifolia <i>W.</i> rhomboid-ld.       | ☑ | un | 2 jn. au   | Y                 | India       | 1732. | C | co                            |
| 9878 recta <i>Link.</i> cut                   | ☑ | un | 2 jn. au   | Y                 | Brazil      | 1823. | C | co                            |
| 9879 micans <i>Cav.</i> glittering            | ☑ | un | 1½ jn. au  | Y                 | E. Indies   | 1820. | C | co                            |
| 9880 pilosa <i>W.</i> pilose                  | ☑ | un | 1 jl. s    | Y                 | St. Domin.  | 1793. | C | co                            |



History, Use, Propagation, Culture.

1481. *Gossypium*. Pliny says, that in Upper Egypt, on the borders of Arabia, grew a shrub called *gossypium* or *aylon*. Its fruit enclosed a sort of soft white wool, of which the garments of the Egyptian priests were manufactured. Golius remarks, that *goz*, which expresses in Arabia, a silky substance, may be the root of the word. An important genus, as furnishing the down used in the cotton manufacture. This down is found lining the capsules which contain the seeds. There are several species cultivated for this purpose in different parts of the world. *G. herbaceum* is the only species cultivated in Europe, especially in the Levant, and in Malta, Sicily, and Naples: it is also grown in many parts of Asia.

*G. hirsutum* is occasionally grown in the West Indies; but *G. barbadense* is the prevailing species there. In the East Indies and China, *G. herbaceum* and *arboreum* are cultivated, and some other species, especially that which produces the nankeen-colored down, not yet introduced to Europe. An oil is obtained from the seeds of all the species, while those of the *G. herbaceum* are eaten in the Levant, and esteemed wholesome and nutritive.

In the Levant, the herbaceous cotton is sown in well prepared land in March, in lines at three feet distance, and the patches of seeds two feet apart in the lines. The plants are thinned out to two or three in a place, and the earth is stirred by a one-horse plough, or by manual labor with hoes, and irrigated once or twice a week by directing the water along the furrows between the rows. The flowering season is generally over about the middle of September, and then the ends of the shoots are pinched off to determine the sap to the capsules. The capsules are collected by hand as they ripen, a tedious process, which lasts till the end of November. The cotton and the seeds are then separated by manual labor, and the former packed in bales or bags for sale. The seeds are bruised for oil or eaten, and a portion kept for sowing.

The Barbadoes cotton plant is sown in the West Indies in rows, about five feet asunder, at the end of September, or the beginning of October; at first but slightly covered, but after it is grown up, the root is well moulded. The soil should not be stiff nor shallow, as this plant has a tap-root. The ground is hoed frequently, and kept very clean about the young plants, until they rise to a moderate height. It grows from four to six feet high, and produces two crops annually; the first in eight months from the time of sowing the seed; the second, within four months after the first; and the produce of each plant is reckoned about one pound weight. The branches are pruned or trimmed after the first gathering; and if the growth is over luxuriant,

- 9843 Leaves 5-lobed 1-glandular beneath : lobes round mucronate, Invol. serrate, Stem smooth  
 9854 Leaves 5-lobed palmate : lobes lanceolate blunt mucronate with 1 gland beneath, Invol. nearly entire  
 9855 Lower leaves 5-lobed palmate ; upper 3-lobed with 1 gland beneath, Inv. tern. Cal. with 3 glands at base  
 9856 Upper leaves undivided cordate ; lower 3-5-lobed with 1 gland beneath, Branches and petioles hirsute  
 9857 Upper leaves 3-lobed ; lower 5-lobed with 1 gland beneath, Branches and petioles spotted with black  
 9858 Upper leaves 3-lobed ; lower 5-lobed with 3 glands beneath, Stem smoothish
- 9859 Leaves ciliated elliptical entire rarely trifold
- 9860 Smoothish prostrate, Peduncles nearly as long as petiole
- 9861 Leaves very cassius, Stem very short
- 9862 Lower leaves cordate acuminate 5-angled somewhat toothed blunt ; upper hastate acuminate  
 9863 Leaves all crenate : lower roundish cordate blunt 5-angled ; upper round hastate acuminate  
 9864 Lower leaves triangular hastate crenate ; upper ovate lanc. nearly entire, Ped. sol. axill. length of leaves
- 9865 Lower leaves cord. about 5-lobed hastate : upper hastate, Petals erect spatulate somewhat toothed at end  
 1. Capsules 5-12, 1-seeded, not bladder.  
 \* Flower-stalks not longer than the leafstalk. Leaves oblong or ovate
- 9866 Leaves linear entire much longer than the diameter of the flower, Racemes terminal  
 9867 Leaves linear-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axill. subsolitary  
 9868 Leaves ovate-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axill. solitary  
 9869 Leaves oblong ovate subcordate blunt tooth, Pedicels as long as petiole  
 9870 Leaves ovate-lanceolate acuminate toothed smooth, Branches round downy, Rac. very short bracteolate  
 9871 Leaves ovate-oblong doubly serrate, Pedunc. axillary very short about 4-flowered, Branches flattened  
 9872 Leaves rhomboid narrowed at base serrate-toothed forwards beneath downy, Pedicels shorter than petiole  
 9873 Lvs. ellipt. subov. blunt toothed at end, Pedic. axill. solitary very short, Stipules ciliated longer than flow.  
 9874 Lower lvs. roundish ov. ; upp. obl. toothed cun. and nearly ent. at base, Pedic. axill. many shorter than pet.
- \*\* Flower stalks elongated, distinctly jointed. Leaves oblong or ovate
- 9875 Lvs. ovate lanc. acumin. toothed hoary beneath, Branches compr. dotted, Pedic. thrice as long as petiole  
 9876 Leaves lanceolate toothed smooth, Pedic. axillary 1-fl. length of leaf  
 9876 Leaves oblong-lanceolate toothed cuneate at base hoary beneath, Pedic. axillary 1fl. shorter than leaf  
 9878 Leaves somewhat rhomboid retuse crenate towards the end hoary beneath, Pedic. longer than petiole  
 9879 Leaves ovate blunt serrated downy shining, Pedic. axillary solitary much longer than petiole
- \*\*\* Flower-stalks elongated. Leaves cordate at base, toothed, not lobed.
- 9880 Leaves ovate cordate blunt toothed, Pedicels solitary 1-flowered longer than petiole



and Miscellaneous Particulars.

this should be done sooner. When great part of the pods are expanded, the wool is picked, and afterwards cleared from the seeds by a machine called a gin, composed of two or three smooth wooden rollers of about one inch diameter, ranged horizontally, close and parallel to each other, in a frame; at each extremity they are toothed or channelled longitudinally, corresponding one with the other; and the central roller being moved with a treadle or foot-lath, resembling that of a knife-grinder, makes the other two revolve in contrary directions. The cotton is laid in small quantities at a time upon these rollers, whilst they are in motion, and readily passing between them, drops into a sack placed underneath to receive it, leaving the seeds, which are too large to pass with it, behind. The cotton thus separated from the seeds, is afterwards hand-picked and cleansed thoroughly from any little particles of the pods or other substances which may be adhering to it. It is then stowed in large bags, where it is well trod down, that it may be close and compact; and the better to answer this purpose, some water is every now and then sprinkled upon the outside of the bag; the marketable weight of which is usually three hundred pounds. An acre may be expected to produce from two hundred and forty pounds to that quantity; or two hundred and seventy pounds on an average. (*Long's Jam.* vol. iii. p. 686. *gc.* and *Browne.*)

1482. *Redoutia*. Named after P. J. Redouté, a celebrated French botanical draughtsman, still living. His drawings are inferior to those of the Bauers as accurate representations of nature; but they are generally tastefully arranged and please the eye, notwithstanding a coldness of coloring which often injures their effect.

1483. *Palavia*. In honor of Don Antonio Palau y Verdera, second professor of botany at Madrid, and author of an excellent translation of the *Species Plantarum* of Linnæus in Spanish.

1484. *Cristaria*. From *crista*, a crest, in allusion to the crested form of the capsules. A pretty plant, not very easily preserved. It answers better in a peat border than a pot, and is increased by division or seed.

1485. *Anoda*. Named by Cavanilles, from  $\alpha$ , privative, and *nodus*, an articulation; because the peduncles do not possess the joints which are found in *Sida*, from which the plants of this genus have been extracted.

1486. *Periptera*. So named from the resemblance of the flowers in form to a shuttlecock,  $\pi\epsilon\rho\iota\pi\tau\epsilon\rho\alpha$ .

1487. *Sida*. A name of Theophrastus, said by some to have been applied to a Malvaceous plant; but

|                                |                  |  |             |       |            |       |   |    |                           |
|--------------------------------|------------------|--|-------------|-------|------------|-------|---|----|---------------------------|
| 9881 <i>húmilia W.</i>         | dwarf            | <input type="checkbox"/> un            | 1/2 jlau    | Y     | E. Indies  | 1800. | S | co | Cav. dia. 5. t. 134. f. 2 |
| 9882 <i>supina L'Her.</i>      | procumbent       | <input checked="" type="checkbox"/> un | 1/2 jlau    | Y     | Jamaica    | 1821. | S | co | Ca. dia. 5. t. 196. f. 2  |
| 9883 <i>argúta W.</i>          | smth. sharp-lvd. | <input type="checkbox"/> un            | 3 jlau      | Y     | W. Indies  | 1792. | C | co |                           |
| 9884 <i>cordifolia W.</i>      | heart-leaved     | <input type="checkbox"/> un            | 1 1/2 jns.  | Y     | C. G. H.   | 1732. | S | co | Dil. el. t. 171. f. 209   |
| 9885 <i>althæifolia Swz.</i>   | Althæa-leaved    | <input checked="" type="checkbox"/> un | 3 jns.      | Or    | Jamaica    | 1820. | C | co | Sloane t. 1. 136. f. 2    |
| 9886 <i>grens W.</i>           | stinging         | <input type="checkbox"/> un            | 1 1/2 jls.  | Y     | Jamaica    | 1781. | C | co | Cav. diss. 1. t. 2. f. 7  |
| 9887 <i>dumôsa Swz.</i>        | bushy            | <input type="checkbox"/> un            | 2 jls.      | Y     | Jamaica    | 1818. | C | co |                           |
| 9888 <i>paniculata W.</i>      | panicled         | <input checked="" type="checkbox"/> un | 1 1/2 jls.  | Pu    | Jamaica    | 1795. | C | co | Cav. dis. 1. t. 12. f. 5  |
| 9889 <i>triloba W.</i>         | three-lobed      | <input checked="" type="checkbox"/> un | 3 jls.      | W     | C. G. H.   | 1794. | C | co | Jac. schœ. 2. t. 142      |
| 9890 <i>jatrophoides W.</i>    | Physic-nut-like  | <input type="checkbox"/> un            | 4 au        | V     | S. Amer.   | 1787. | S | co | L'Her. stir. 1. t. 56     |
| 9891 <i>ricinoides L'Her.</i>  | Ricinun-like     | <input type="checkbox"/> un            | 4 au        | W     | Peru       | 1818. | S | co | Cav. dis. 1. t. 3. f. 3   |
| 9892 <i>Napæa Cav.</i>         | smooth           | <input checked="" type="checkbox"/> un | 4 au.s.     | W     | Virginia   | 1748. | D | co | Bot. mag. 2193            |
| 9893 <i>dioica Cav.</i>        | rough            | <input checked="" type="checkbox"/> un | 6 au.s.     | W     | Virginia   | 1759. | D | co | Ca. dia. 5. t. 132. f. 2  |
| 9894 <i>occidentalis W.</i>    | downy            | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | America    | 1732. | S | co | Dill. elt. 7. t. 6. f. 6  |
| 9895 <i>foetida W.</i>         | stinking         | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | Peru       | 1795. | S | co | L'Her. stir. 1. t. 53     |
| 9896 <i>brévipes Dec.</i>      | short-stalked    | <input type="checkbox"/> un            | 1 jlau      | Y     | St. Martha | 1822. | S | co |                           |
| 9897 <i>periplocifolia W</i>   | Periploca-lvd.   | <input checked="" type="checkbox"/> un | 2 jlau      | Y     | India      | 1691. | S | co | Dill. elt. 4. t. 3. f. 2  |
| <i>β zeylanica</i>             | Ceylon           | <input checked="" type="checkbox"/> un | 2 jlau      | Y     | Ceylon     | ...   | S | co | Pluk. t. 74. f. 7         |
| <i>γ caribæa</i>               | Caribbee         | <input checked="" type="checkbox"/> un | 2 jlau      | Y     | W. Indies  | ...   | S | co | Sloane t. 139. f. 3       |
| 9898 <i>hernandioides W.</i>   | Hernandia-lvd.   | <input type="checkbox"/> un            | 6 ...       | Y     | Hispanio.  | 1798. | C | co | L'Her. stir. 1. t. 58     |
| 9899 <i>nudiflora W.</i>       | naked-flowered   | <input type="checkbox"/> un            | 3 my.jn     | Y     | Péru       | 1731. | C | co | L'Her. stir. 1. t. 59     |
| 9900 <i>polyantha Link.</i>    | many-flowered    | <input checked="" type="checkbox"/> un | 3 my.jn     | Y     | .....      | 1821. | C | co |                           |
| 9901 <i>aúrta Wall.</i>        | eared            | <input checked="" type="checkbox"/> un | 3 my.jn     | Y     | Bengal     | 1823. | C | co | Bot. mag. 2495            |
| 9902 <i>triquetra W.</i>       | triangular       | <input checked="" type="checkbox"/> un | 2 jlau      | Y. P  | W. Indies  | 1775. | C | co | Jac. vind. 2. t. 118      |
| 9903 <i>incana Link.</i>       | hoary            | <input checked="" type="checkbox"/> un | 3 jlau      | Y     | Sandw. Is. | 1818. | C | co |                           |
| 9904 <i>umbellata W.</i>       | umbelled         | <input type="checkbox"/> un            | 1 1/2 jls.  | Y     | Jamaica    | 1788. | S | co | Jac. vind. 1. t. 16       |
| 9905 <i>reflexa W.</i>         | reflex-flowered  | <input checked="" type="checkbox"/> un | 3 jlau      | R     | Peru       | 1799. | C | co | L'Her. stir. 1. t. 64     |
| 9906 <i>crispa W.</i>          | curled           | <input type="checkbox"/> un            | 1 jlau      | Y     | Carolina   | 1726. | S | co | Ca. dia. 5. t. 135. f. 2  |
| 9907 <i>arborea W.</i>         | great-flowered   | <input type="checkbox"/> un            | 6 jlau      | Y     | Peru       | 1772. | C | co | L'Her. stir. 1. t. 63     |
| 9908 <i>mauritiana W.</i>      | Mauritius        | <input type="checkbox"/> un            | 2 jls.      | Y     | Mauritius  | 1789. | S | co | Jac. ic. 1. t. 137        |
| 9909 <i>grandifolia W.</i>     | large-leaved     | <input checked="" type="checkbox"/> un | 20 nd       | Y     | .....      | 1816. | C | co | Bot. reg. 360             |
| 9910 <i>liliegolia Fisch.</i>  | lime-leaved      | <input type="checkbox"/> un            | 2 jlau      | Y     | China      | 1821. | S | co |                           |
| 9911 <i>americana W.</i>       | woolly           | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | Jamaica    | 1730. | S | co |                           |
| 9912 <i>Abútilon W.</i>        | broad-leaved     | <input type="checkbox"/> un            | 1 1/2 jn.au | Y     | India      | 1596. | S | co | Houtt. syst. t. 61        |
| 9913 <i>asiática W.</i>        | small-flowered   | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | E. Indies  | 1768. | S | co | Cav. dis. 1. t. 7. f. 2   |
| 9914 <i>Sonneratiána W.</i>    | Sonnerat's       | <input checked="" type="checkbox"/> un | 2 jn.jl     | Y     | C. G. H.   | 1806. | C | co | Cav. diss. 1. t. 6. f. 4  |
| 9915 <i>populifolia W.</i>     | Poplar-leaved    | <input type="checkbox"/> un            | 1 jlau      | Y     | E. Indies  | 1796. | S | co | Cav. dis. 1. t. 7. f. 9   |
| 9916 <i>mollissima W.</i>      | soft-leaved      | <input checked="" type="checkbox"/> un | 2 jn.jl     | Y     | Peru       | 1789. | C | co | Cav. dia. 2. t. 14. f. 1  |
| 9917 <i>orbiculata Dec.</i>    | orbicular        | <input checked="" type="checkbox"/> un | 3 jn.jl     | Y     | China      | 1820. | C | co |                           |
| 9918 <i>indica W.</i>          | rough-capsuled   | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | India      | 1731. | S | co | Cav. dia. 1. t. 7. f. 10  |
| 9919 <i>vesicaria W.</i>       | bladdery         | <input checked="" type="checkbox"/> un | 3 jlau      | Y     | Mexico     | 1822. | C | co | Cav. dia. 2. t. 14. f. 3  |
| 9920 <i>ávida W.</i>           | whitish          | <input checked="" type="checkbox"/> un | 3 jlau      | W. v  | Canaries   | 1822. | C | co |                           |
| 9921 <i>acerrifolia Lag.</i>   | Maple-leaved     | <input type="checkbox"/> un            | 3 jlau      | B     | N. Spain   | 1822. | C | co |                           |
| 9922 <i>Milléri Dec.</i>       | Miller's         | <input type="checkbox"/> un            | 1 1/2 jlau  | Y     | .....      | 1749. | S | co |                           |
| 9923 <i>viminea Fisch.</i>     | twiggy           | <input checked="" type="checkbox"/> un | 2 jn        | Or    | Brazil     | 1821. | C | co |                           |
| 9924 <i>semicrenata Link.</i>  | half crenate     | <input checked="" type="checkbox"/> un | 2 jls.      | Y     | Manilla    | 1823. | C | co |                           |
| 9925 <i>acrantha Link.</i>     | pointed          | <input type="checkbox"/> un            | 3 jl        | Y     | Brazil     | 1820. | C | co |                           |
| 9926 <i>spiræifolia Link.</i>  | Spiræa-leaved    | <input checked="" type="checkbox"/> un | 3 au.s.     | Y     | .....      | 1824. | C | co |                           |
| 9927 <i>brasiliensis Cav.</i>  | Brazilian        | <input checked="" type="checkbox"/> un | 2 jls.      | Y     | Brazil     | 1818. | C | co | Cav. dis. 1. t. 34. f. 1  |
| 9928 <i>villôsa Mill.</i>      | villous          | <input type="checkbox"/> un            | 3 jlau      | Pa. Y | S. Amer.   | 1739. | C | co |                           |
| 9929 <i>verruculata Dec.</i>   | warted           | <input type="checkbox"/> un            | 4 jlau      | Y     | Brazil     | 1822. | C | co |                           |
| 9930 <i>purpurascens Link.</i> | purplish         | <input checked="" type="checkbox"/> un | 3 jlau      | Pk    | Brazil     | 1822. | C | co |                           |
| 9931 <i>pátens H. K.</i>       | spreading        | <input checked="" type="checkbox"/> un | 3 jls.      | Y     | Abyssinia  | 1806. | C | co | Bot. rep. 571             |
| 9932 <i>contracta Link.</i>    | contracted       | <input checked="" type="checkbox"/> un | 3 jls.      | Y     | Madagas.   | 1823. | C | co |                           |
| 9933 <i>conférta Link.</i>     | clustered        | <input checked="" type="checkbox"/> un | 4 au.s.     | Y     | Brazil     | 1822. | C | co |                           |
| 9934 <i>lasioséga Link.</i>    | woolly           | <input checked="" type="checkbox"/> un | 3 au.s.     | Y     | Brazil     | 1824. | C | co |                           |



History, Use, Propagation, Culture.

Adanson is of opinion, that our *Nymphæa* was the *Sida* of Theophrastus. The species are free-flowerers of no

- 9881 Leaves roundish cordate hairy above serrated, Pedicels subsolitary longer than petiole  
 9882 Leaves roundish cordate bluish crenate softly velvety, Pedic. solitary 1-fl. longer than petiole  
 9883 Leaves cordate serrate attenuated at end downy on the edge of the petiole and the nerves beneath  
 9884 Leaves ovate cordate toothed somewhat angular bluish downy, Pedic. sol. 1-fl. a little shorter than petiole  
 9885 Leaves cord. somewhat angular blunt serrate cren. downy on each side, Pedic. shorter than petiole 1.5-fl  
 9886 Leaves ovate cordate acuminate toothed, Pedunc. 3-4-flowered very short  
 9887 Leaves cordate ovate acuminate serrate smooth on each side, Peduncles many-fl.  
 9888 Leaves ovate cordate toothed acuminate downy, Pedunc. loosely panicle capillary

\*\*\*\* *Leaves palmate, divided into 3-5-7-9 lobes.*

- 9889 Leaves cordate toothed 3-lobed; middle lobe acute long, Pedicels solitary nearly equal to the leaf  
 9890 Leaves subpeltate 7-lobed: lobes lanceolate acuminate pinnatifid toothed, Peduncles many-fl.  
 9891 Leaves subpeltate 5-lobed: lobes ovate acute toothed undivided, Peduncles about 1-flowered  
 9892 Leaves palmate 5-lobed smooth: lobes oblong acuminate toothed, Peduncles many-fl.  
 9893 Leaves palmate 7-lobed rough: lobes lanceolate cut-toothed, Pedunc. many-fl. bracteate corymbose

2. *Capsules 15-40, 1-seeded, bladdery.*

- 9894 Leaves oblong cordate toothed somewhat lobed, Pedicels solitary shorter than petiole  
 9895 Lvs. cord. ovate acute toothed downy on each side, Petioles and pedicels hairy, Stip. setaceous spreading  
 9896 Lvs. cord. roundish acumin. tooth. velvety, Petioles and branches with spreading hairs, Pedic. very short

3. *Capsules 5-10, many-seeded, often bladdery.*

\* *Capsules 5-8.*

- 9897 Leaves cord. lanc. acuminate entire downy beneath, Pedicels divided slender longer than petiole  
 β Leaves narrow rough above  
 γ Leaves more cordate smooth and a little rugose above  
 9898 Leaves subpeltate cordate ovate acuminate entire downy, Pedic. 1-fl. shorter than petiole  
 9899 Leaves roundish cordate acuminate entire downy beneath, Panicle terminal racemose  
 9900 Leaves cordate shortly acuminate subcrenate slightly downy and green on each side, Panicle leafless  
 9901 Lvs. deeply cord. with a nar. base acumin. serrul. hairy above hoary beneath, Stips. broad-eared acumin.  
 9902 Leaves cordate acuminate serrulate velvety on each side, Pedicels solitary 1-flowered  
 9903 Leaves hoary cordate acuminate acutely crenate, Pedicels 1-fl. longer than petiole  
 9904 Leaves roundish cordate toothed angular acuminate, Pedicels 4-fl. umbellex axillary

\*\* *Capsules 9 or more.*

- 9905 Leaves roundish cordate acuminate crenate downy, Pedicels sol. longer than petiole  
 9906 Leaves cordate acuminate crenate velvety; upper sessile, Pedicels sol. longer than petiole  
 9907 Leaves round cordate acuminate crenate downy, Pedicels longer than petiole  
 9908 Leaves roundish cordate acuminate toothed downy beneath, Pedicels longer than petiole  
 9909 Leaves roundish cordate unequally toothed soft, Pedunc. 2-3-fl. shorter than petiole, Capsules acuminate  
 9910 Leaves roundish cordate with a broad sinus acuminate toothed soft, Pedicels shorter than petiole  
 9911 Leaves cordate oblong undivided downy, Pedicels shorter than leaf  
 9912 Leaves roundish cordate acuminate toothed downy, Peduncles shorter than petiole  
 9913 Leaves cordate ovate oblong toothed velvety on each side, Pedicels longer than petiole  
 9914 Leaves roundish cordate acuminate toothed downy, Peduncles longer than leaves  
 9915 Leaves roundish cordate acuminate unequally repand toothed downy, Peduncles longer than petiole  
 9916 Leaves roundish cordate acuminate toothed velvety, Peduncles 2-flowered shorter than petiole  
 9917 Leaves ovate orbicular reniform toothed hoary beneath, Pedicels longer than petiole  
 9918 Leaves cordate somewhat lobed soft, Stipules reflexed, Pedicels erect 3 times as long as petiole  
 9919 Leaves ovate cordate toothed tricuspidate, Pedicels twice as long as petiole  
 9920 Leaves roundish cordate acuminate toothed hoary on each side, Pedicels length of petiole  
 9921 Leaves cordate subpeltate 3-5-lobed unequally toothed villous, Pedicels 1-flowered longer than petiole

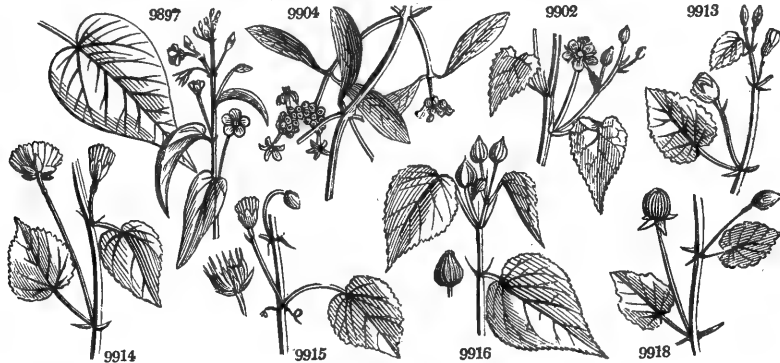
4. *Uncertain species.*

\* *Leaves linear, oblong, ovate, or lanceolate.*

- 9922 Leaves linear lanceolate toothed villous beneath, Pedicels axillary 1-fl.  
 9923 Leaves lanceolate very long entire hairy, Racemes terminal very short  
 9924 Leaves broad lanceolate obtuse crenate entire at base 3-nerved; younger downy beneath  
 9925 Middle leaves oblong blunt acutely crenate in front; upper lanceolate acute serrated in front  
 9926 Leaves oblong lanceolate serrated entire at base smooth, Pedunc. axillary solitary longer than petiole  
 9927 Leaves ovate acuminate 5-nerved scarcely toothletted; beneath and branches downy, Stipules filiform

\*\* *Leaves cordate, undivided.*

- 9928 Leaves subcordate sessile serrate subvillous, Flowers axillary clustered  
 9929 Stem warted, Leaves cordate lanceolate acuminate acutely crenate downy  
 9930 Leaves cordate acuminate crenate toothletted, and stems green and downy, Pedic. axillary 1-fl.  
 9931 Leaves cordate acuminate cut serrate, Peduncles solitary longer than petiole  
 9932 Leaves cordate acuminate repand rarely crenate hoary, Panicle contracted bracteate  
 9933 Leaves cordate acute crenate rugose and stems yellow with down, Flowers subsessile aggregate  
 9934 Leaves cordate acuminate hoary beneath, Pedicels axillary 1-flowered longer than petiole



and Miscellaneous Particulars.

great beauty. They are increased by seeds, which they produce freely, or by cuttings in sand under a hand-glass.



|                         |                                   |   |     |     |                          |                 |           |           |       |      |                          |                      |
|-------------------------|-----------------------------------|---|-----|-----|--------------------------|-----------------|-----------|-----------|-------|------|--------------------------|----------------------|
| 1488. LAGUNE'A. W.      | LAGUNEA.                          |   |     |     | <i>Malvaceae.</i>        | <i>Sp. 1—4.</i> |           |           |       |      |                          |                      |
| 9935 lobata W.          | Mapel-leaved                      | ☐ | un  | 3   | jl.au                    | W               | Bourbon   | 1787.     | S     | co   | Ca. dis. 5. t. 136. f. 1 |                      |
| †1489. RUI'ZIA W        | RUIZIA.                           |   |     |     | <i>Byttneriaceae.</i>    | <i>Sp. 1—3.</i> |           |           |       |      |                          |                      |
| 9936 variabilis W.      | various-leaved                    | ■ | or  | 6   | my                       | W               | Bourbon   | 1792.     | C     | p. l | Jac. schœ. 3. t. 295     |                      |
| 1490. CAROLINEA. W.     | CAROLINEA.                        |   |     |     | <i>Bombaceae.</i>        | <i>Sp. 4—5.</i> |           |           |       |      |                          |                      |
| 9937 alba Lodd.         | white                             | ♀ | or  | spl | 90                       | jl.au           | W         | Brazil    | 1817. | C    | p. l                     | Bot. cab. 752        |
| 9938 princeps W.        | digitated                         | ♀ | or  | spl | 30                       | ...             | W         | W. Indies | 1787. | C    | p. l                     | Aub. gui. t. 291. 2  |
| 9939 minor H. K.        | lesser                            | ♀ | or  | spl | 30                       | jl.au           | W         | Guiana    | 1793. | C    | p. l                     | Bot. mag. 1412       |
| 9940 insignis W.        | great-flowered                    | ♀ | or  | spl | 20                       | ...             | R         | W. Indies | 1793. | C    | p. l                     | Cav. diss. 5. t. 154 |
| 1491. ADANSO'NIA. W.    | ADANSONIA.                        |   |     |     | <i>Bombaceae.</i>        | <i>Sp. 1.</i>   |           |           |       |      |                          |                      |
| 9941 digitata W.        | Sour Gourd                        | ♂ | ec  | 60  | ...                      | W               | Senegal   | 1724.     | C     | p. l | Cav. diss. 5. t. 157     |                      |
| 1492. BOMBAX. W.        | SILK-COTTON-TREE.                 |   |     |     | <i>Bombaceae.</i>        | <i>Sp. 4—7.</i> |           |           |       |      |                          |                      |
| §9942 eriánthes Cav.    | woolly-fl.                        | ☐ | tm  | 60  | ...                      | W               | Brazil    | 1818.     | C     | p. l | Ca. dis. 5. t. 152. f. 1 |                      |
| §9943 pentandrum W.     | five-stamened                     | ☐ | tm  | 60  | ...                      | Y. w            | E. Indies | 1739.     | C     | p. l | Jac. am. pict. t. 176    |                      |
| 9944 Ceiba W.           | five-leaved                       | ☐ | tm  | 100 | ...                      | W               | India     | 1692.     | C     | p. l | Ca. dis. 5. t. 152. f. 2 |                      |
| 9945 heptaphyllum W.    | seven-leaved                      | ♂ | tm  | 50  | ...                      | W               | America   | 1693.     | C     | p. l | Flu. alm. t. 168. f. 4   |                      |
| 1493. MYRO'DIA. W.      | MYRODIA.                          |   |     |     | <i>Bombaceae.</i>        | <i>Sp. 1—3.</i> |           |           |       |      |                          |                      |
| 9946 turbinata W.       | short-flowered                    | ☐ | or  | 6   | ...                      | W               | W. Indies | 1793.     | C     | p. l |                          |                      |
| 1494. GORDO'NIA. W.     | GORDONIA.                         |   |     |     | <i>Ternstroemiaceae.</i> | <i>Sp. 2—4.</i> |           |           |       |      |                          |                      |
| 9947 Lasiánthus W.      | smooth                            | ♂ | or  | 6   | au. n                    | Y               | N. Amer.  | 1739.     | L     | p. l | Bot. mag. 698            |                      |
| 9948 pubescens W.       | pubescent                         | ♂ | or  | 4   | au. n                    | W               | Carolina  | 1774.     | L     | s. p | Vent. malm. t. 1         |                      |
|                         | <i>Lacathæa fibrída</i> P. L. 56. |   |     |     |                          |                 |           |           |       |      |                          |                      |
| 1495. STUARTIA. W.      | STUARTIA.                         |   |     |     | <i>Ternstroemiaceae.</i> | <i>Sp. 2.</i>   |           |           |       |      |                          |                      |
| §9949 Malachodéndron W. | Common                            | ♀ | or  | 10  | my. au                   | W               | N. Amer.  | 1742.     | L     | p. l | Bot. rep. 397            |                      |
| §9950 pentágyrus W.     | curled                            | ♀ | or  | 9   | jl. au                   | W               | N. Amer.  | 1785.     | L     | p. l | Excot. bot. 2. t. 110    |                      |
|                         | <i>Malachodéndron ovatum</i> Cav. |   |     |     |                          |                 |           |           |       |      |                          |                      |
| †1486. CAMEL'IA. Ker.   | CAMELIA.                          |   |     |     | <i>Camellieae.</i>       | <i>Sp. 6—8.</i> |           |           |       |      |                          |                      |
| §9951 Bohea             | Bohea Tea                         | ■ | clt | 4   | au. d                    | W               | China     | 1768.     | C     | p. l | Bot. cab. 226            |                      |
| §9952 viridis           | Green Tea                         | ■ | clt | 4   | f. n                     | W               | China     | 1768.     | C     | p. l | Bot. cab. 227            |                      |



History, Use, Propagation, Culture.

1488. *Lagunea*. Named after Andreas Laguna, a Spanish naturalist, who published, in 1543, a work upon plants. It may be treated like other tender annuals.

1489. *Ruizia*. In honor of Don Hippolito Ruiz, author of *Quinologia*, Madrid, 1792, and other works, and, in conjunction with Pavon, of the famous Flora Peruviana. A plant of easy culture, but of little merit.

1490. *Carolinea*. Named by the younger Linnæus, in honor of the Princess Sophia Caroline, of Baden; a name which, he says, will always be cherished by botanists. A splendid family, which thrive in loam; and large cuttings, well clothed with leaves, root in sand under a hand-glass.

1491. *Adansonia*. In honor of Michel Adanson, a famous French botanist, born in 1727, and author of various works, of which his voyage into Senegal, and *Families des Plantes*, are the most remarkable. He was an eccentric man, but certainly far more learned for his time than many of his modern detractors. 'Monkies'-bread, or *Boabab*, is considered the largest or rather broadest tree in the world. Several measured by Adanson were from sixty-five to seventy-eight feet in circumference, but not extraordinarily high. The trunks were from twelve to fifteen feet high, before they divided into many horizontal branches, which touched the ground at their extremities; these were from forty-five to fifty-five feet long, and were so large, that each branch was equal to a monstrous tree; and where the water of a neighbouring river had washed away the earth, so as to leave the roots of one of these trees bare and open to the sight, they measured one hundred and ten feet long, without including those parts of the roots which remained covered. It yields a fruit which resembles a gourd, and which serves for vessels of various uses; the bark furnishes a coarse thread, which they form into ropes, and into a cloth, with which the natives cover their middle from the girdle to the knees; the small leaves supply them with food in a time of scarcity, while the large ones are used for covering their houses, or, by burning, for the manufacture of good soap. At Sierra Leone this tree does not grow larger than an orchard apple-tree.

The ligneous part of this tree appears to be of little or no use as timber. In our stoves it grows in rich soil in heat, and cuttings root in sand, covered and plunged.

1492. *Bombax*. From *βομβαξ*, one of the Greek names of the cotton; the seeds of the plants now so called are enveloped in a cottony substance. *B. pentandrum* bears oval fruit larger than a swan's egg, having a thick woolly cover, which, when ripe, opens in five parts, and is full of a short dark cotton, inclosing many roundish seeds as large as small peas.

*B. Ceiba* has a spiny trunk, and is one of the tallest trees of both Indies; but the wood is very light, and not much valued, except for canoes. Their trunks are so large as, when hollowed, to make very large ones. In the West Indies they frequently carry from fifteen to twenty hogsheads of sugar, and from six to twelve hundred weight each. When sawn into boards, and then well saturated with lime-water, the wood bears exposure to the weather many years; it is also formed into laths for roofs, curing-pots, and hoghead-heading. When the tree decays, it becomes a nest for the *Macaca* beetle, the caterpillar of which, gutted and fried, is esteemed by many persons one of the greatest delicacies. The down which is enclosed in the seed-vessels is seldom used, except by the poorer inhabitants to stuff pillows or chairs; and it is generally thought unwholesome to lie upon.

9935 Leaves cordate 3-lobed; lobes oval oblong acuminate toothed with a very narrow base

9936 Leaves of the flowering branches palmatifid; of the sterile palmate

9937 Leaves digitate, Filaments numerous forked united at base into a tube

9938 Leaflets 5-8 ovate-lanceolate acuminate

9939 Leaflets 7 elliptical-oblong acute at each end, Calyx truncate, Petals erect

9940 Leaflets 5-7 obovate oblong, Calyx sinuated, Petals erect spreading at end

9941 A tree with a very thick trunk with a diameter of 25 feet

9942 Anthers rectilinear, Leaflets 7, Corolla large woolly outside, Trunk prickly

9943 Anthers anfractuose, Leaflets entire, Trunk generally prickly

9944 Stem prickly, Leaves palmate, Leaflets 5, Fruit turbinate concave at end

9945 Stem prickly, Leaves palmate, Leaflets 7 entire acuminate, Fruit oblong blunt

9946 Leaves ovate-oblong, Calyxes turbinate, Column of stamens shorter than petals

9947 Pedicels axillary half as short as leaves, Leaves oblong coriaceous smooth serrated

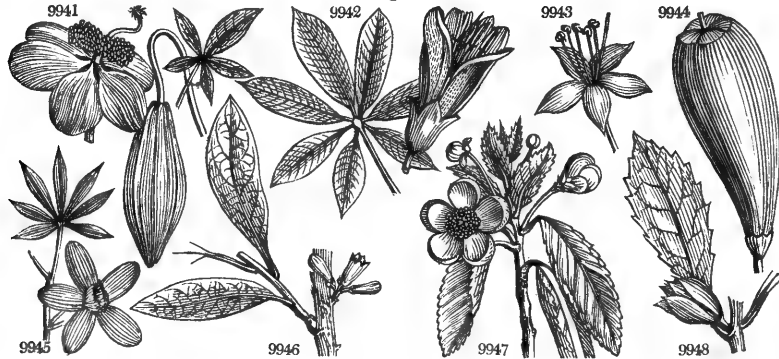
9948 Fls. subsessile, Leaves obov. lanc. downy beneath subserrate membranous, Petals and sepals silky outside

9949 Flowers large white, Filaments purple, Anthers blue

9950 Leaves ovate acute, Flowers solitary subsessile

9951 Leaves elliptical oblong subrugose twice as broad as long

9952 Leaves lanceolate flat three times as broad as long



and Miscellaneous Particulars.

1493. *Myrodia*. From *μυρον*, myrrh, and *ωσμη*, smell. A tree which emits an odor similar to myrrh. (Linn.)

1494. *Gordonia*. In memory of James Gordon, an eminent nurseryman at Mile-End, near London, a correspondent of Linnæus and other eminent botanists, and the introducer and successful cultivator of many new plants. *G. Lasianthus* (woolly flower, from *λαειος* and *ανθος*), the loblolly-bay, is said to grow naturally in water or very moist situations. Miller, on that account, was unsuccessful in keeping the plant. Gordon and Lee, who, as Ellis relates, (*Correc. with Linnæus*) were better cultivators than Miller, were probably more successful. Sweet soil suits them best, and a little loam mixed with it; they are readily propagated by layers, or ripened cuttings may be struck in sand under a hand-glass. (*Bot. Cœl.* 189.)

1495. *Stuartia*. So named by Linnæus, in honor of the Marquis of Bute, in memory of whom there also exists another genus named *Butea*, by Roxburgh. The species are handsome shrubs, grow in peat soil, and are most readily increased by layers.

1496. *Camellia*. In honor of George Joseph Kamel, (or *Camellus*) a Jesuit. His *Syllabus Stirpium in Insula Luzone Philippinarum*, forms the appendix to the third volume of Ray's *History*. This is a remarkable genus, as at once furnishing the domestic drug tea, in universal use, and flowering trees and shrubs as universally admired. The seeds of all the species are crushed for oil, which is used like that of hemp or poppy in cookery.

*C. Bohea* and *viridis* are the species which chiefly furnish the tea; but *C. Sasanqua* is also used, and sometimes the leaves of the other species are taken, though that practice is rather to be considered in the light of adulteration. The tea districts of China extend from the twenty-seventh to the thirty-first degree of north latitude. According to the missionaries, it thrives in the more northern provinces; and from Kämpfer, it appears to be cultivated in Japan as far north as latitude 45°. It seems, according to Dr. Abel's observation, to succeed best on the sides of mountains, where there can be but little accumulation of vegetable mould. The soils from which he collected the best specimens consisted chiefly of sandstone, schistus, or granite. The plants are raised from seeds sown where they are to remain. Three or more are dropped into a hole four or five inches deep; these come up without further trouble, and require little culture, except that of removing weeds, till the plants are three years old. The more careful stir the soil, and some manure it; but the latter practice is seldom adopted. The third year the leaves are gathered, at three successive gatherings, in February, April and June, and so on till the bushes become stunted or tardy in their growth, which generally happens in from six to ten years. They are then cut in to encourage the production of fresh roots.

The gathering of the leaves is performed with care and selection. The leaves are plucked off one by one: at the first gathering only the unexpanded and tender are taken; at the second those that are full grown; and at the third the coarsest. The first forms what is called in Europe imperial tea; but as to the other

|                         |              |   |     |    |       |    |       |       |   |     |               |
|-------------------------|--------------|---|-----|----|-------|----|-------|-------|---|-----|---------------|
| 9953 <i>Sasánqua W.</i> | Lady Banks's | ■ | pr  | 4  | f.n   | W  | China | 1811. | I | p.l | Bot. reg. 19  |
| β <i>pilena</i>         | double       | ■ | pr  | 4  | f.n   | Pk | China | 1818. | I | p.l | Bot. reg. 547 |
| 9954 <i>japonica W.</i> | common       | ■ | spl | 10 | my.jl | R  | China | 1739. | C | p.l |               |

## Garden Varieties.

|                          |   |     |    |       |    |       |       |   |     |                |
|--------------------------|---|-----|----|-------|----|-------|-------|---|-----|----------------|
| 1 single red             | ■ | spl | 10 | my.jl | R  | China | 1739. | C | p.l | Bot. mag. 42   |
| 2 single white           | ■ | spl | 10 | my.jl | W  | China | ...   | I | p.l | Bot. cab. 636  |
| 3 semi-double red        | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. rep. 559  |
| 4 double red             | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. rep. 199  |
| 5 Middlemist's red       | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. cab. 455  |
| 6 Myrtle-leaved          | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. mag. 1670 |
| 7 Loddiges' red          | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l |                |
| 8 Waratah                | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. cab. 537  |
| 9 variegated Waratah     | ■ | spl | 10 | my.jl | St | China | ...   | I | p.l | Bot. reg. 887  |
| 10 Pæony-flowered        | ■ | spl | 10 | my.jl | Bl | China | ...   | I | p.l | Bot. cab. 238  |
| 11 double-striped        | ■ | spl | 10 | my.jl | Bl | China | ...   | I | p.l | Bot. rep. 91   |
| 12 Kew bluish            | ■ | spl | 10 | my.jl | Bl | China | ...   | I | p.l | Bot. reg. 22   |
| 13 Hume's bluish or buff | ■ | spl | 10 | my.jl | W  | China | ...   | I | p.l | Bot. reg. 112  |
| 14 double white          | ■ | spl | 10 | my.jl | W  | China | ...   | I | p.l | Bot. rep. 25   |
| 15 Welbank's             | ■ | spl | 10 | my.jl | W  | China | ...   | I | p.l | Bot. reg. 708  |
| 16 Lady Long's           | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. reg. 633  |
| 17 Pompona               | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l | Bot. cab. 596  |
| 18 hexangular            | ■ | spl | 10 | my.jl | R  | China | ...   | I | p.l |                |



## History, Use, Propagation, Culture,

names by which tea is known, the Chinese know nothing; and the compounds and names are supposed to be made and given by the merchants at Canton, who, from the great number of varieties brought to them, have an ample opportunity of doing so. Formerly it was thought that green tea was gathered exclusively from *C. viridis*; but that is now doubtful: though it is certain there is what is called the green tea district, and the black tea district; and the varieties grown in the one district differ from those grown in the other. Dr. Abel was told by competent persons, that either of the two plants will afford the black or green tea of the shops, but that the broad thin-leaved plant (*C. viridis*) is preferred for making the green tea.

The tea leaves being gathered, are cured in houses which contain from five to ten or twenty small furnaces, about three feet high, each having at the top a large flat iron pan. There is also a long low table covered with mats, on which the leaves are laid, and rolled by workmen, who sit round it: the iron pan being heated to a certain degree by a little fire made in the furnace underneath, a few pounds of the fresh-gathered leaves are put upon the pan; the fresh and juicy leaves crack when they touch the pan, and it is the business of the operator to shift them as quick as possible with his bare hands, till they become too hot to be easily endured. At this instant he takes off the leaves with a kind of shovel resembling a fan, and pours them on the mats before the rollers, who, taking small quantities at a time, roll them in the palm of their hands in one direction, while others are fanning them, that they may cool the more speedily, and retain their curl the longer. This process is repeated two or three times, or oftener, before the tea is put into the stores, in order that all the moisture of the leaves may be thoroughly dissipated, and their curl more completely preserved. On every repetition the pan is less heated, and the operation performed more closely and cautiously. The tea is then separated into the different kinds, and deposited in the store for domestic use or exportation.

The different sorts of black and green arise not merely from soil, situation, or the age of the leaf; but after winnowing the tea, the leaves are taken up in succession as they fall; those nearest the machine being the heaviest, are the gunpowder tea; the light dust the worst, being chiefly used by the lower classes. That which is brought down to Canton then undergoes a second roasting, winnowing, packing, &c., and many hundred women are employed for these purposes.

As more select sorts of tea, the blossoms of the *C. sasanqua* appear to be collected; the buds also appear to be gathered in some cases. By far the strongest tea which Dr. Abel tasted in China, was that called *guten*, used on occasions of ceremony. It scarcely colored the water, and on examination was found to consist of buds and half expanded leaves of the plant.

As substitutes for tea used by the Chinese, may be mentioned a species of moss common to the mountains of Shan-tung, an infusion of ferns of different sorts, and Dr. Abel thinks the leaves of the common camellia and oil camellia may be added. Du Halde observes, that all the plants called tea by the Chinese, are not to be considered as the true tea plant; and Kämpfer asserts, that in Japan a species of *Camellia*, as well as the *Olea fragrans*, is used to give it a high flavor.

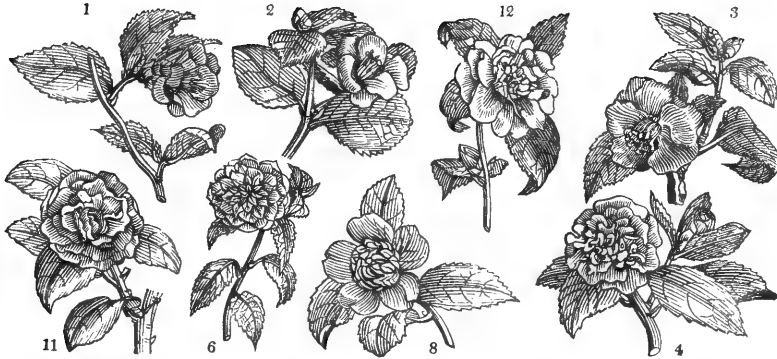
The oil-bearing *Camellia*, *C. oleifera*, is cultivated for its seeds, from which an oil is expressed, in very general use in the domestic economy of China. It grows best in a red sandy soil, attaining the height of six or eight feet, and producing a profusion of white blossoms and seeds. These seeds, as well as those of any of the other species, are reduced to a coarse powder, which is stewed or boiled in bags, and then pressed, when the oil is yielded. (*Dr. Abel's Nar.* 176.)

The culture of the tea *Camellias* in our greenhouses is very simple. The plants are very hardy, and may be preserved in a pit without fire-heat; they grow in loamy soil, or loam and peat well drained, and increase freely by layers, or cuttings of the young wood taken off when it begins to ripen, planted in sand, and covered with a hand-glass in a cool frame or pit.

*C. japonica*, in the groves and gardens of Japan, is a lofty tree, much admired for its fine form, rich clothing of shining deep green foliage, and elegant red or white flowers, single or double. It is equally admired in

9953 Leaves ovate-oblong bluntly serrated, Flowers terminal subsolitary, Petals obcordate

9954 Leaves ovate acuminate acutely serrate, Flowers terminal subsolitary



and Miscellaneous Particulars.

China as in Japan, and much cultivated in both countries. It is of frequent occurrence in Chinese paintings, with Hibiscus and Chrysanthemum, two of their great favorites. There are several varieties of *C. japonica* in China, most of which have been imported here, and their number considerably increased, and daily increasing, from seedlings raised in this country. The double white, double striped, and double Waratah, (from the central petals resembling those of the Waratah plant of New Holland, *Teloepa speciosissima*), are considered the grandest and most marked varieties, and are also free-growers and flowerers; the peony-flowered and fringed white, are also standard beauties; but all are much admired.

The single red *Camellia* is propagated by cuttings, layers, and seeds, for stocks; and on these the other sorts are generally inarched, and sometimes budded or grafted. The cuttings are formed of ripened or ripening shoots, taken off in August, cut smoothly across at a joint or bud, two or three of the lower leaves only taken off, and the cuttings then planted and made firm with a small dibber, in pans of sand or loam, or, by some cultivators, sand and peat, or sand alone. The pans are kept in a pit or cold frame, without being covered with glass, but shaded during powerful sunshine; and in the following spring such as are struck will begin to push, when they are to be placed in a gentle heat. In September or October following, the rooted plants will be fit to pot off; and in the second or third spring they may be used as stocks. Such is the practice in the London nurseries. Henderson, of Woodhall, near Edinburgh, puts in *Camellia* cuttings at any time of the year, excepting when they are making young wood. He puts fifty cuttings in a pot of sand eight inches in diameter, sets them in a cool place in the back of a vinery or peach-house for a month or six weeks, and then plunges them to the brim in a hot-bed where is a little bottom heat. A speedy mode of obtaining stocks is by planting stools in a pit devoted to that purpose, and laying them in autumn; the following autumn most of the layers will have produced roots, when they may be taken off and potted, and used as stocks in the succeeding spring. Inarching or grafting is performed early in spring, when the plants begin to grow; the chief care requisite is so to place and fix the pot containing the stock, as that it may not be disturbed during the connection of the scion with the parent plant. The graft being clayed over, is then covered with moss to prevent its cracking. When independent grafting is resorted to, the mode called side grafting is often used; but the operation of tonguing is generally omitted, as weakening the stock and unnecessary, with a view to prevent the scion from being blown off. A few seeds are sometimes obtained from the single red and semi-double *Camellias*, and from the single Waratah; these require two years to come up, but make the best stocks of any.

Before they are grafted they are often allowed to come into flower, in case some new variety should be produced; but the best cultivators, as Messrs. Loddiges, Sweet, and Mackay, regularly cross-impregnate the blossoms in Knight's manner, by cutting out the stamens before the anthers are mature, and when the stigma is in a proper state, dusting it with the pollen of the species or variety intended as the male parent.

*C. Sasanqua* seeds most readily, and is mostly employed as the female parent for raising new varieties. The plants, if well treated, flower in four or five years, and if nothing new is produced they still make excellent stocks.

Some cultivators grow the *Camellias* chiefly in peat. Messrs. Loddiges, who have the most numerous collection of this genus, formerly used loam, with a little sand and peat; and they are grown in a similar soil in Hammersmith nursery. Of late, Messrs. Loddiges find light loam alone to answer as well or better. In the Comte de Vandes garden at Bayswater, rotten dung is mixed with loam and peat. Sweet recommends sandy loam and peat. Henderson of Woodhall is one of the most successful growers of the *Camellia* in Scotland: his compost is as follows: take one part of light-brown mould, one part of river-sand, one part of peat-earth, one half part rotten leaves; mix them all well together, and when the *Camellias* require shifting, put some broken coal-char in the bottom of the pots, and some dry moss or hypnum over it. (*Caled. Mem.* iii. 316.)

*Camellias* have the best effect, and are grown to most advantage in a house entirely devoted to them. Such

|                                |               |   |     |     |      |   |           |          |   |     |                   |
|--------------------------------|---------------|---|-----|-----|------|---|-----------|----------|---|-----|-------------------|
| 9955 <i>oleifera</i> Abel.     | oil-seed      | ☐ | pr  | 3   | ...  | W | China     | 1830.    | C | r.m | Bot. cab. 1065    |
| †9956 <i>axillaris</i> Sims.   | axillary      | ☐ | pr  | 3   | f.mr | W | E. Indies | 1818.    | C | r.m |                   |
| †1497. BARRINGTONIA. <i>W.</i> | BARRINGTONIA. |   |     |     |      |   |           |          |   |     |                   |
| 9957 <i>speciosa</i> W.        | Laurel-leaved | ☐ | spl | 20  | ...  | S | E. Indies | 1786.    | S | r.m | Rum.am.3.t. 114   |
| 1498. GUSTAVIA. <i>W.</i>      | GUSTAVIA.     |   |     |     |      |   |           |          |   |     |                   |
| 9958 <i>augusta</i> W.         | august        | ☐ | spl | 30  | ...  | W | Myrtaceæ. | Sp. 1-2. |   |     |                   |
| †1499. CA'REYA. <i>Rozb.</i>   | CAREYA.       | ☐ | spl | 30  | ...  | W | Myrtaceæ. | Sp. 1-2. |   |     |                   |
| 9959 <i>herbacea</i> Rozb.     | herbaceous    | ☐ | spl | 1/2 | jlau | R | E. Indies | 1808.    | D | lp  | Rox. cor. 3.t.217 |



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a house should be rather lofty, as the plants never look so well as when six or eight feet high, trained in a conic form, and clothed with branches from the root upwards. The plants should be raised near to the glass by means of a stage, which should be so contrived, that, as they advance in height, it may be lowered in proportion: only the very best crown or patent glass should be used; because it is found from experience, that the least inequality of surface or thickness of material, so operates on the sun's rays, as to concentrate them, and burn or produce blotches on the leaves of the plants. Every cultivator must have observed that leathery shining leaves, like those of the orange, myrtle, &c. are more or less subject to this solar injury; but the leaves of the Camellia are particularly so. Some nurserymen recommend a roof which will not admit much light; others the use of green glass; of an opaque roof, with glass in front only; or of a house facing the north. Our opinion is, that a light house facing the south, or, better still, glass on all sides, is essential to the perfect growth of the plants; and that all solar accidents may be avoided, or at least rendered of no consequence, by using the best glass, and placing the plants as near it as possible.

To grow the Camellia to a high degree of perfection, considerable care is requisite. The roots are very apt to get matted in the pot, and, by the space they occupy, so to compress the ball of mould, as after a time to render it impervious to water. Hence frequent attention should be had, to see that the water poured on the pots moistens all the earth, and does not escape by the sides of the pot, moistening only the web of fibres. When the plants are in flower and in a growing state, they require to be liberally watered, and also a degree of heat somewhat greater than is usually given to greenhouse plants. If this heat is not given in November and December, the plants will not expand their blossoms freely; and if both water and heat are not regularly applied after the blossoming season, vigorous shoots and flower-buds will not be produced. To form handsome plants, they should be trained with single stems to rods, and pruned so as to make them throw out side branches from every part of the stem: to encourage these, the plants should not be set close together on the stage. In summer they may either be set out of doors on a stratum of scoria, or on a pavement, in a sheltered but open situation; or the glass roof may be taken off. The hardier sorts, as the double red, blush, paony-flowered, &c. answer very well when planted in the bed or border of a conservatory, provided the roof or entire superstructure can be removed in summer to admit the full influence of the weather. When this cannot be done, the Camellia and most other plants are better in portable utensils, which admit both of examining their roots, and placing them in the open air, or in a greater degree of heat at pleasure. The single and double red Camellia will endure the open air when trained against a south wall, and protected by mats in winter; and there can be no doubt that in time these and other species will be more perfectly inured to our climate.

Henderson of Woodhall gives the following account of his mode of treating the Camellia. "The best time for a regular shifting of the Camellias is the month of February or beginning of March. After shifting all those that require it, put them into the peach-house or vinery, when there is a little heat; if there be no peach-house, vinery, nor pinery, set them in the warmest part of the greenhouse. They will soon begin to make young wood. From the time they begin to make their young shoots, till they have finished their growth, give them plenty of water. They may be kept in the vinery or peach-house till they have formed their flower-buds at the extremity and sides of the young growths, when a few of them may be removed to a colder place, say behind the stage of the greenhouse; for the Camellias are fond of being shaded during

- 9955 Leaves thin ovate finely serrate pale-green, Branches slender twiggy  
 9956 Leaves obovate oblong serrulate; upper entire, Flowers solitary subsessile subaxillary
- 9957 Leaves oblong blunt large fleshy stalked shining tinged with red
- 9958 Sepals 4 roundish petaloid, Petals 4, Leaves oblong acuminate toothed
- 9959 Flowers stalked, Outer stamens longest sterile



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strong sunshine. In three or four weeks after, a few more of the Camellias may be brought from the vinery or peach-house, and put into a cooler situation. This may be repeated three or four times, which will make as many different successions of flowering. Those that are wanted to come into flower early, may remain in the warm house till they are beginning to flower, when they should be taken to a cold place, say the coldest place of the greenhouse; then give them plenty of light only, and they will open their flowers well, and stand long. A Camellia cannot stand heat when in flower, indeed they seldom open their flowers fine when in heat, and, at all events, the flowers soon fall off. Those that are kept all the summer in the vinery, will come into flower by the first or middle of October, and a pretty large plant, having perhaps fifty or a hundred flower-buds, will continue in flower till the month of January. Those plants that are removed early from the vinery, will now be in flower, to succeed those that were in flower in October, and have now done flowering. These last should be immediately taken into the heat. They will make their young wood early, and they may remain in heat till they come into flower, which will perhaps be a month earlier next year. By attending to shifting the Camellia plants from the warm-house to the cold, a regular succession of flowers may thus be had from the first of October to the middle of July. I have even had them all the summer, but the flowers are best in the winter. Those produced in summer are far from being so fine, and do not stand half the time of those that come into flower in November, December, January, February, March and April. Camellias delight to be kept damp all the summer months, and a little shaded from the strong sun. Give them plenty of water while they are making their young shoots; they may also get a gentle sprinkling over the leaves once every week during the summer season, except when they are in flower. Camellias will stand a great deal of cold without being much injured, but they will not form many flower-buds without some artificial heat." (*Caled. Mem.* iii. 316.)

1497. *Barringtonia*. In memory of the Hon. Daines Barrington, F. R. S., an active Fellow of the Society of Antiquaries, and author of several papers in their Transactions. A lofty tree, the handsomest in the equinoctial flora. It has thick shady bunches of long wedge-shaped coriaceous leaves, and large handsome purple and white flowers, which open at night, and fall at sunrise. They are succeeded by a reddish brown drupe, the seed of which mixed with the bait, inebriates fish in the same manner as *Cocculus indicus*. It grows on the sea shore and at the mouths of rivers, and is cultivated in the governor's garden at St. Helena. It is very rare in our stoves, though not difficult to manage. Sweet says, "a mixture of two-thirds loam and one-third peat, is a good soil for it. Cuttings taken off at a joint, when the wood is ripe, and put in a pot of sand under a hand-glass in moist heat, will strike root readily: none of the leaves should be taken off or shortened." (*Bot. Cult.* 21.)

1498. *Gustavia*. In memory of Gustavus III., king of Sweden, who presented a great collection of Indian plants to the elder Linnæus. A tree remarkable for its large white flowers, larger than those of the water-lily, but with a large naked bald receptacle between the corolla and the style. The flowers smell sweet, but the wood is extremely fetid. In Surinam it is used for hoops. In the stove it grows in sand and loam, and roots in sand under a hand-glass.

1499. *Careya*. Named after Dr. William Carey, the editor of Roxburgh's *Flora Indica*, and an English physician and botanist residing at Serampore. Beautiful Indian plants, with long red stamens.



CLASS XVII. — DIADELPHIA. STAMENS united in two separate parcels.

This class essentially requires, as its name implies, that the stamens should be united in two separate parcels. These may either be equal, each bearing more anthers than one, as in *Smithia*, *Æschynomene*, *Fumaria*, and others; or unequal, one parcel being reduced to a single stamen, and the other bearing several anthers, as in the greater number of genera included in the class. But besides the plants whose stamens are thus disposed, it has been the practice to admit other genera having papilionaceous flowers, but with their stamens united in one parcel only, such as *Platylobium*, *Bossiaea*, *Arachis*, and others. The propriety of this measure is extremely questionable. It has been before remarked in this work, that the value of an artificial arrangement of objects depends wholly upon the precision with which they are referred to those heads or divisions with the characters of which they agree. If this does not obtain, an artificial system ceases to be useful, and its only merit, that of facilitating the discovery of the name of a given object, cannot be said to exist. This principle is particularly applicable to the genera just mentioned. Their artificial character refers them to Monadelphia, but they are retained in Diadelphia, to which their artificial character does not refer them, because, as is alleged, of the natural relation which they bear to other genera in Diadelphia. If this reasoning, which is only applicable to an arrangement of plants according to their natural affinities, and which has no allowable reference to an artificial system, were to be admitted, it would follow that *Tamarindus*, actually included in Monadelphia by the most eminent Linnean botanists, and all the papilionaceous genera stationed in Decandria, should be referred hither also. With such objections attaching to the contrivance of this class, it is not easy to understand in what way it "does honor to the comprehensive powers of Linneus's mind," as has been somewhere remarked by one of his most distinguished panegyrists.

The structure of the corolla of plants of this class is, for the most part, with the exception of *Fumaria* and its allies, what has been popularly termed papilionaceous; that is to say, it consists of five petals of different forms and direction, of which the upper, called the *vexillum* or standard, is larger than the rest, upon which it is incumbent; the two lateral, called the *alæ* or wings, are oblong, distinct, and parallel with the ovarium; and the two lower, called the *carina* or keel, are enclosed within the *alæ*, are also parallel with the ovarium, and cohere by their lower edges, so as together to form, as it were, one boat-shaped petal. To this common form of corolla there are, however, some exceptions, as in *Amorpha*, where the *alæ* and *carina* are absent, and in *Erythrina*, where the *alæ* are in some cases almost obliterated. In *Trifolium* the petals all cohere by their claws into an undivided tube.

With regard to the importance of Diadelphous plants as applicable to the purposes of mankind, they may be said to hold the very highest rank. All the numerous varieties of pulse, whether eaten by men or cattle, peas, beans, haricots, caravances, lentils, and others, are all produced by Diadelphous plants. The best of our artificial grasses, such as clover, nonesuch, cow-grass, lucerne, saintfoin, serradilla, &c. &c., belong to various Diadelphous genera. A large proportion of the class also consists of useful and ornamental trees and herbs, which will be noticed in their respective places.

Order 1. PENTANDRIA.  Stamens 5.

1500. *Monniera*. Cal. 5-parted, with the upper segment long. Cor. ringent. Stamens 2: upper with two anthers; lower with three. Caps. 5, 1-seeded.

1501. *Petalostemum*. Petals 4, between the stamens, all united into a slit tube. Vexillum none, but in its place a fifth petal. Legume surrounded by calyx, 1-seeded.

Order 2. HEXANDRIA.  Stamens 6.

1502. *Corydalis*. Pet. 4, 1-spurred at base. Pod 2-valved, compressed, many-seeded.

1503. *Cysticapsos*. Petals 4, one gibbous at base. Capsule bladder, many-seeded; the placenta connected by a membranous net work.

1504. *Diclytra*. Petals 4, two outer equally spurred or gibbous at base. Pod 2-valved, many-seeded.

1505. *Adumia*. Petals 4, united in a fungous monopetalous corolla, persistent, and with two protuberances at base. Pod 2-valved, many-seeded.

1506. *Sarcocapsos*. Petals 4, 1-spurred at base. Caps. 2-valved, not opening, 2-seeded. Valves 3-nerved, flattish.

1507. *Fumaria*. One petal gibbous or spurred at base. Cariopsis indehiscent, 1-seeded, not pointed with a style.

Order 3. OCTANDRIA.  Stamens 8.

1508. *Polygala*. Cal. of 5 leaves, two of them wing-shaped and colored. Caps. compressed, orbiculate.

1509. *Murallia*. Sepals 5, glumaceous, nearly equal. Petals 3, united, the middle bifid with blunt lobes. Ovary with 4 horns or tubercles, 2-valved, 2-celled.

1510. *Mundia*. Sepals 5, glumaceous, persistent, the two inner wing-shaped. Petals 3, scarcely united at base; the middle one cucullate, beardless. Stamens 7-8, somewhat villous, monadelphous at base, with a tube divided in front.

1511. *Securidaca*. Sepals 5, the two inner petaloid. Petals 5, united at base: three united into a 3-lobed keel; two oblong. Stamens 8, diadelphous.

Order 4. DECANDRIA.  Stamens 10.

1512. *Nissolia*. Cal. 5-toothed. Legume 1-seeded, ending in a ligulate wing.

1513. *Dalbergia*. Cal. obsolete 5-toothed. Legume leafy, flat, not opening. Seeds solitary or twin.

1514. *Pongamia*. Cal. colored, cyathiform, obliquely truncate, 5-toothed. Petals clawed. Vexillum spreading. Alæ and carina conniving. Legume substipitate, compressed, flat, rostrate, valveless, 1-2-seeded. Anthers ciliate, glandular at end.

1515. *Pterocarpus*. Cal. 5-toothed. Legume falcate, foliaceous, varicose, indehiscent, encompassed by a wing. Seeds a few, solitary.

1516. *Ecastaphyllum*. Cal. campanulate, sub-bilabiate: upper segment emarginate; lower trifid. Filaments equally diadelphous. Legume roundish, valveless, 1-seeded.

1517. *Geoffroya*. Cal. 5-fid. Drupe ovate. Kernel compressed.
1518. *Dipteria*. Segm. of cal. 2, wing-shaped. Legume 1-celled, 1-seeded, coriaceous, 2-valved.
1519. *Pariva*. Cal. 3-4-fid. Vexillum ample. Alæ and carina O. Legume compressed, 1-seeded.
1520. *Amerimum*. Cal. sub-bilabiate. Legume compressed, leafy, 2-valved, dehiscent. Some seeds, solitary.
1521. *Erythrina*. Cal. bilabiate, †. Vexillum very long, lanceolate. Legume torulose.
1522. *Butea*. Cal. sub-bilabiate. Vexillum very long, lanceolate. Legume compressed, membranous, one-seeded at end.
1523. *Viborgia*. Cal. 5-toothed, with rounded recesses. Legume turgid, sulcate, winged.
1524. *Piscidia*. Stigma acute. Legume with four wings.
1525. *Platylobium*. Cal. bracteate, 2-lipped, upper lip round, large, bifid. Stam. all united. Legume stalked, compressed, winged at back, many-seeded.
1526. *Boronia*. Stigma emarginate. Calyx acuminate, spiny. Legume mucronate.
1527. *Rafnia*. Cal. tingent : upper lip bifid ; lower spreading trifold ; the middle tooth narrowest. Legume lanceolate, compressed.
1528. *Aspalathus*. Cal. 5-fid, upper segment largest. Legume ovate, blunt, about 2-seeded.
1529. *Sarcophyllum*. Cal. campanulate, 5-parted, regular. Legume acinaciform, acute.
1530. *Crotalaria*. Legume turgid, inflated, stalked. Filaments united with a dorsal fissure.
1531. *Bossiaea*. Cal. 2-lipped, upper lip largest, half bifid, obtuse. Stam. all united. Legume plano-compressed, stalked, many-seeded, thickened at each edge. Seeds stropholate.
1532. *Scottia*. Cal. imbricated with bractes, 5-toothed, with nearly equal teeth. Vexillum complicate, shorter than alæ, which are as long as carina. Stam. all united. Legume stalked, compressed, thickened at each edge. Seeds 3-4, stropholate.
1533. *Templetonia*. Cal. ebracteate, with 5 nearly equal teeth. Carina oblong. Stamens all united, with uniform anthers. Legume pedicellate, plano-compressed, many-seeded. Seeds stropholate.
1534. *Goodia*. Cal. with 2 nearly equal lips, upper half bifid, acute. Vexillum unfurled, large. Stamens all united. Legume stalked, compressed, about 2-seeded. Seeds stropholate.
1535. *Lodigesia*. Vexillum much shorter than alæ or carina.
1536. *Hovea*. Cal. bilabiate, the upper lip half bifid, retuse. Stamens all united. Carina blunt. Legume sessile, roundish, ventricose, 2-seeded. Seeds stropholate.
1537. *Spartium*. Stigma longitudinal, villous above. Filaments adhering to ovary. Cal. lengthened at the base.
1538. *Genista*. Cal. 2-lipped : upper one with 2 ; lower one with 3 teeth. Vexillum bent backwards from the rest of the flower.
1539. *Lebeckia*. Cal. 5-parted, with acute segments and rounded recesses. Legume cylindrical, many-seeded.
1540. *Ulex*. Cal. of 2 leaves, with a small scale at the base on each side. Legume turgid, scarcely longer than the calyx.
1541. *Ononis*. Cal. 5-cleft, its divisions linear. Vexillum striated. Legume turgid, sessile. Filaments in one undivided set.
1542. *Anthyllis*. Cal. inflated, 5-toothed, inclosing the small roundish 1-3-seeded legume.
1543. *Arachis*. Cal. 2-lipped. Cor. resupinate. Filaments united. Legume gibbous, torulose, veiny, coriaceous.
1544. *Lupinus*. Cal. 2-lipped. Anthers, 5 oblong, 5 round. Legume coriaceous, torulose, compressed.
1545. *Amorpha*. Cal. campanulate, 5-fid. Vexillum ovate, concave. Alæ O. Carina O. Legume 2-seeded, falcate.
1546. *Abrus*. Cal. obsolete 4-lobed, the upper broader. Filaments 9, united at base, opening at back. Stigma blunt. Seed spherical.
1547. *Phaseolus*. Carina with the stamens and style twisted spirally.
1548. *Teramunus*. Carina very small, inclosed in the calyx. Five alternate stamens fertile. Stigma sessile, capitate.
1549. *Carpopogon*. Vexillum not callous. Flowers capitate. Pods short, broad, 1-seeded.
1550. *Dolichos*. Vexillum with two calli at base, parallel, oblong, compressing the wings beneath.
1551. *Strobilium*. Cal. campanulate, 2-lipped : upper lip entire, erect ; lower trifold, with the middle segment longest. Vexillum ascending. Alæ dolabriform, lunate at base, the length of carina. Anthers 2-formed, hairy. Legume torose, 1-celled, with partitions. Seeds round, with a crested hilum.
1552. *Glycine*. Cal. 2-lipped. Carina pushing back the vexillum with its end.
1553. *Kennedia*. Cal. 2-lipped : upper emarginate ; lower trifold, equal. Vexillum reflexed, recurved. Alæ pressed to the carina. Carina remote. Stigma blunt. Legume oblong.
1554. *Cytista*. Cal. 4-fid, larger than cor. : upper segment bifid at end, or emarginate ; lower very large. Cor. persistent. Legume about 2-seeded.
1555. *Galactia*. Cal. 4-toothed, with 2 bractes. Petals all oblong ; the vexillum broadest and incumbent upon the others. Stigma obtuse. Legume round. Seeds roundish.
1556. *Citoria*. Cor. resupinate, with a large spreading vexillum overshadowing the wings.
1557. *Orobus*. Style linear, cylindrical, downy above. Cal. obtuse at the base, its upper segments deeper and shorter.
1558. *Lathyrus*. Style plane, downy above, broader upwards. Cal. with its two upper segments shortest.
1559. *Ochrus*. Cal. with the two upper segments conniving. Vexillum with two teeth at the sides. Style flat, villous above. Legume having a membranous wing upon the seed-bearing suture.
1560. *Pisum*. Style triangular, keeled above, downy. Two upper segments of calyx shorter than the rest.
1561. *Vicia*. Style bearded beneath the stigma.
1562. *Ervum*. Stigma capitate, hairy all over on the outside.
1563. *Ervilia*. Like *Vicia*, but the ovary is plaited in folds.
1564. *Cicer*. Cal. 5-parted, length of cor ; four upper segments incumbent on the vexillum. Legume turgid, 2-seeded.
1565. *Liparia*. Cal. 5-fid, with the lower segment long. Alæ 2-lobed below. Three teeth of the larger stamens shorter than the rest. Legume ovate.
1566. *Cytisus*. Cal. 2-labiate, 2-3. Legume attenuated at base.
1567. *Mullera*. Cal. 4-toothed. Loment moniliform, with fleshy 1-seeded globules cohering by a thread.
1568. *Robinia*. Cal. 4-fid ; upper segment 2-parted. Legume gibbous, long. Leaves unequally pinnate.
1569. *Caragana*. Cal. subcampanulate. Stigma smooth, truncate. Legume cylindrical. Leaves abruptly pinnated.
1570. *Suaionia*. Cal. 5-toothed. Vexillum unfurled, larger than the blunt carina. Stigma terminal. Style bearded lengthwise in front, not bearded at back. Legume turgid, not bladderly.
1571. *Sutherlandia*. Cal. 5-toothed. Vexillum without callosities, folded back at edge, shorter than oblong carina. Stigma terminal. Style with a longitudinal beard behind, a transverse one before. Legume inflated, scarious.
1572. *Lessertia*. Cal. half 5-fid. Vexillum unfurled. Carina blunt. Stigma capitate. Style bearded transversely at end in front, beardless behind. Legume scarious without valves (compressed or inflated).
1573. *Colutea*. Cal. 5-toothed. Vexillum with two callosities, unfurled, larger than the blunt carina. Stigma lateral under the hooked end of the style, which is longitudinally bearded behind. Legume inflated, scarious.
1574. *Glycyrrhiza*. Cal. bilabiate, 3-1. Legume ovate, compressed.
1575. *Liquoritia*. Cal. tubular, equal, 5-parted. Vexillum erect, reflexed at sides. Alæ spreading. Carina bifid. Legume oblong, smooth, 3-4-seeded.



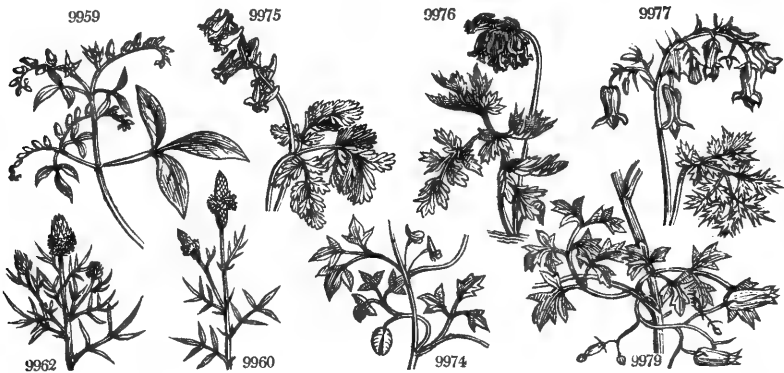
1576. *Coronilla*. Cal. 2-lipped, 2-3. Upper teeth connate. Vexillum scarcely longer than ala. Loment round, jointed, straight.  
 1577. *Hippocrepis*. Loment compressed, with many notches on one edge, curved.  
 1578. *Ornithopus*. Legume jointed, curved, cylindrical.  
 1579. *Scorpiurus*. Loment intercepted by divisions, revolute, round.  
 1580. *Smilix*. Stamens divided into two equal bundles. Legume jointed, plaited, included in the bifid calyx.  
 1581. *Sesbania*. Cal. 5-toothed. Legume long (round or linear), 2-valved, many-celled, with transverse partitions.  
 1582. *Eschynomene*. Stamens divided into two equal bundles. Legume jointed, straight, exserted. Cal. 2-parted, with toothed lips.  
 1583. *Stylosanthes*. Cal. tubular, very long, bearing the corolla. Ovarium below the corolla. Loment one or two-jointed, hooked.  
 1584. *Hallia*. Cal. 5-parted, regular. Legume 1-seeded, 2-valved.  
 1585. *Lespedeza*. Cal. 5-parted, nearly equal. Carina transversely blunt. Legume lenticular, unarmed, 1-seeded.  
 1586. *Flemingia*. Cal. 5-fid. Vexillum striated. Legume sessile, oval, turgid, 2-valved, 2-seeded. Seeds spherical.  
 1587. *Zornia*. Cal. campanulate, 2-lipped. Cor. inferior. Vexillum cordate, revolute. Anthers alternately oblong and round. Legume jointed, hispid.  
 1588. *Hedyarum*. Cal. 5-fid. Carina transversely blunt. Loment with 1-seeded compressed joints.  
 1589. *Indigofera*. Cal. spreading. Carina with a spreading subulate spur on each side.  
 1590. *Tephrosia*. Cal. with subulate nearly equal teeth. Stamens monadelphous. Legume compressed, subcoriaceous.

PENTANDRIA.

1500. **MONNIERIA**. *W.* **MONNIERIA**. *Rutaceae*. *Sp.* 1.  
 9959 *trifolia W.* three-leaved ☐ un 1½ jl.au W Guiana 1792. S s.l Aub.gui.2.t.293  
 1501. **PETALOSTEMUM**. *Mi.* **PETALOSTEMUM**. *Leguminosae*. *Sp.* 4-5.  
 9960 *candidum Ph.* white ½ Δ pr 1 jl.au W N. Amer. 1811. D 1 p Mi. am. 2.t.37.f.1  
 9961 *carneum Ph.* flesh-colored ½ Δ pr 1½ jl.au Pk N. Amer. 1811. D 1 p  
 9962 *violaceum Ph.* purple ½ Δ pr 1 jls V N. Amer. 1811. D 1 p Bot. mag. 1707  
 9963 *corymbosum Ph.* corymbose ½ Δ pr 1½ jls W N. Amer. 1811. D 1 p  
*Dalea Kuhnistera W.*

HEXANDRIA.

1502. **CORYDALIS**. *Vent.* **CORYDALIS**. *Fumariaceae*. *Sp.* 10-31.  
 9964 *nobilis P. S.* great-flowered ½ Δ or 1 my L.Y Siberia 1783. D pl Bot. mag. 1953  
 9965 *tuberosa Dec.* hollow-rooted ½ Δ or ½ f.ap Pu.W Europe 1596. D co Bot. m. 232. 2340  
 9966 *fabacea W. en.* Bean-leaved ½ Δ or ½ f.ap Pu Germany 1815. D co Fl. dan. 1394  
 9967 *sólida Smith* solid-rooted ½ Δ or ½ f.my Pk Britain groves. D co Eng. bot. 1471  
 9968 *sempervirens P. S.* glaucous ½ Δ or 2 jl.au Y.Pu N. Amer. 1833. D co Bot. mag. 179  
 9969 *aurea W. en.* golden ½ Δ or 1 my.jl Y N. Amer. 1812. D co Bot. reg. 65  
 9970 *lutea P. S.* yellow ½ Δ or 1½ ap.o Y England old w. D co Eng. bot. 588  
 9971 *uralensis Fisch.* Úral ½ Δ or 1 au Pa.Y Altai 1824. S co  
 9972 *capnoides P. S.* white-flowered ½ Δ or 2 my.o R.y S. Europe 1596. S co Plu.alm. t.90. f.2  
 9973 *claviculata W.* climbing ½ Δ or 6 njl W.Y Britain thick. S co Eng. bot. 103  
 1503. **CYSTICAPNOS**. *W. en.* **CYSTICAPNOS**. *Fumariaceae*. *Sp.* 1.  
 9974 *africana W. en.* African ½ Δ or 4 njl Y C. G. H. 1696. S s.l Boer. lug. 1. t.300  
*Fumaria vesicaria H. K.*  
 1504. **DICLYTRA**. *Dec.* **DICLYTRA**. *Fumariaceae*. *Sp.* 4-8.  
 9975 *Cucullaria Dec.* naked-stalked ½ Δ or ½ njl W N. Amer. 1731. D ap Bot. mag. 1127  
 9976 *formosa Dec.* bluish ½ Δ or 1 njl F N. Amer. 1796. D pl Bot. mag. 1335  
 9977 *extima Dec.* choice ½ Δ or 1½ njl F N. Amer. 1812. D pl Bot. reg. 51  
 9978 *canadensis Dec.* Canadian ½ Δ or ½ njl Pk N. Amer. 1819. D co Bot. mag. 3031  
 1505. **ADLUMIA**. *Raf.* **ADLUMIA**. *Fumariaceae*. *Sp.* 1.  
 9979 *cirrhusa Raf.* spongy-flower'd ½ Δ or 15 jns W.pu N. Amer. 1778. D s.l Swt. fl. gard. 189



History, Use, Propagation, Culture,

1500. *Monniera*. In memory of Monsieur Le Monnier, professor of botany in the garden of plants at Paris. He published, in 1745, "Observations sur les Plantes dangereuses des Pyrénées et du Roussillon."  
 1501. *Petalostemum*. From *πτελον*, a petal, and *στημον*, a stamen; in allusion to the union of these two parts into a tube.  
 1502. *Corydalis*. *Καρδαλις* is an ancient Greek name for the Fumitory, from which genus this has been separated. Pretty little plants, well adapted for rock-work or growing on pots. They are easily cultivated and increased.

1591. *Galega*. Cal. with subulate nearly equal teeth. Legume with oblique streaks between the seeds.  
 1592. *Phaca*. Cal. 5-toothed, two upper teeth most distant. Legume half 2-celled, inflated.  
 1593. *Oxytropis*. Carina ending in a mucro. Legume 2-celled or half-2-celled, with the upper suture turned inwards.  
 1594. *Astragalus*. Legume 2-celled, more or less gibbous, with the lower suture turned inwards. Carina blunt.  
 1595. *Biserrula*. Legume 2-celled, flat, with a contrary dissepiment serrated on each edge.  
 1596. *Dalea*. Alæ and carina adhering to the column of stamens. Stamens 5-10, united, without a separate filament. Legume 1-seeded.  
 1597. *Psoralea*. Cal. the length of pod. Stamens diadelphous. Legume 1-seeded, subrostrate, valvulse.  
 1598. *Melilotus*. Cal. tubular, 5-toothed. Carina simple, shorter than alæ and vexillum. Legume longer than calyx, rugose.  
 1599. *Lupinaster*. Cal. campanulate, 5-toothed, with setaceous teeth. Stigma uncinatè. Legume not knotted, round, many-seeded.  
 1600. *Trifolium*. Legume (in general) shorter than the cal., 1 or many-seeded, indehiscent, deciduous. Flowers more or less capitate.  
 1601. *Lotus*. Legume cylindrical, straight. Alæ of the cor. cohering by their upper edge. Filaments dilated upwards.  
 1602. *Tetragonolobus*. The characters of Lotus, but the pod square with 4 wings.  
 1603. *Trigonella*. Vexillum and alæ nearly equal, spreading, in the form of a tripetalous corolla.  
 1604. *Dorycnium*. Cal. 5-toothed, 2-lipped. Filaments subulate. Stigma capitate. Legume turgid, 1 or 2-seeded.  
 1605. *Medicago*. Legume falcate or spirally twisted, compressed, membranaceous.  
 1606. *Hymenocarpus*. Like Medicago, but the legumes reniform, winged at edge.

## PENTANDRIA.

9959 Stem dichotomous, Leaves ternate, Spike bifid

9960 Spike cylindrical stalked, Bractes longer than flower, Leaves in 3 pairs lanceolate

9961 Spike cylindrical stalked, Bractes subulate length of calyx, Leaflets lanceolate

9962 Spike cylindrical stalked, Bractes nearly as long as calyx, Leaves in 2 pairs linear

9963 Heads with a scaly involucre, Calyxes plumose, Leaflets linear pointless

## HEXANDRIA.

9964 Stem erect simple without scales, Leaves bipinnate, Lobes cuneate cut at end, Bractes acute

9965 Stem simple without scales, Lvs. 2 biternate, Segm. cuneate multifid, Bractes ovate entire, Roots hollow

9966 Stem subsimple erect with scales below the lowest leaf, Leaves 3-4-stalked biternate, Segments obl. blunt

9967 Stem subsimple erect with scales below the lowest leaf, Lvs. 3-4-stalk. bitern. cut, Segm. cuneate or oblong

9968 Stem erect branched, Leaves glaucous decomposit, Segm. stalked cuneate trifid, Pods linear

9969 Stem branched diffuse, Leaves glaucous bipinnate, Lobes obl. linear, Bractes lanceol. linear acuminate

9970 Pods roundish shorter than peduncle, Stems angular, Bractes minute, Spur very short and round

9971 Stem erect somewhat branched scarcely longer than radical lvs. Lvs. on long stalks 3-cut, Raceme few-fl.

9972 Stem branched diffuse, Lvs. bipinnate, Segm. obov. cuneate trifid, Pods lin. scarcely longer than pedicel

9973 Stem branched climbing, Leaves bipinnate, Petioles cirrhose, Segm. oval entire

9974 The only species

9975 Spurs 2 straight acute, Scape naked, Raceme simple

9976 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 2 angles

9977 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 4 angles

9978 Spurs 2 short blunt, Scape naked simple few-fl. Leaves multifid

9979 The only species. — *Fumaria fungosa*, Hort.



and Miscellaneous Particulars.

1503. *Cystacapsus*. From *κυστις*, a bladder, and *καπνός*, fumitory. A genus divided from *Fumaria* on account of its bladderly fruit.

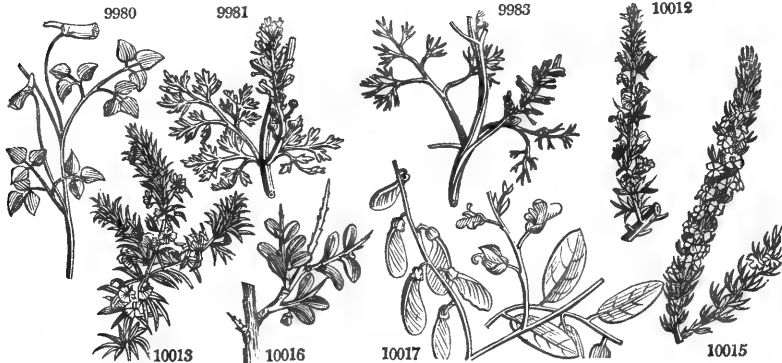
1504. *Dicytra*. So named by Borkhausen, a German botanist, on account of the two spurs or pouches of the flower. Handsome herbaceous plants, frequently cultivated among choice collections of rare flowers. Their roots are impatient of cold and wet, and should therefore be planted in a warm dry border well exposed to the southern sun.

1505. *Aduma*. A name unexplained by its author, M. Rafinesque Schmalz. A tall climbing annual plant of little beauty in its flowers, but covering a large space in the course of a summer.

|                         |                |                    |             |           |         |      |                      |
|-------------------------|----------------|--------------------|-------------|-----------|---------|------|----------------------|
| 1506. SARCOCAPNOS. Dec. | SARCOCAPNOS.   | <i>Fumariaceæ.</i> | Sp. 1-2.    |           |         |      |                      |
| 9980 enneaphylla Dec.   | nine-leaved    | Δ or               | 1 my.jl P.Y | Spain     | 1714.   | D co | Bocc. 2. t. 73. f. 1 |
| 1507. FUMARIA. P. S.    | FUMITORY.      | <i>Fumariaceæ.</i> | Sp. 4-10.   |           |         |      |                      |
| 9981 officinalis P. S.  | common         | ○ w                | 2 my.au Pk  | Britain   | cul.gr. | S co | Eng. bot. 589        |
| 9982 capreolata P. S.   | ramping        | ○ w                | 4 my.s F    | Britain   | corn.f. | S co | Eng. bot. 943        |
| 9983 parviflora P. S.   | small-flowered | ○ w                | 2 aus. Pk   | England   | corn.f. | S co | Eng. bot. 590        |
| 9984 spicata P. S.      | narrow-leaved  | ○ w                | 8 jl.au F   | S. Europe | 1714.   | S co | M.bis.3. t.12. f.11  |

OCTANDRIA.

|                        |                  |                   |                 |           |        |       |                      |
|------------------------|------------------|-------------------|-----------------|-----------|--------|-------|----------------------|
| †1508. POLYGALA. W.    | MILKWORT.        | <i>Polygaleæ.</i> | Sp. 27-163.     |           |        |       |                      |
| 9985 incarnata W.      | flesh-colored    | ○ or              | 1 ju.jl Pk      | N. Amer.  | 1812.  | S co  | Pluk. t. 438. f. 5   |
| 9986 amara W.          | bitter           | Δ or              | 1 ju.jl B       | Europe    | 1775.  | D lp  | Bot. mag. 2457       |
| 9987 vulgaris W.       | common           | Δ or              | 1 my.jn B       | Britain   | drypa. | D al  | Eng. bot. 76         |
| 9988 major W.          | large Austrian   | Δ or              | 1 jl.au R       | Austria   | 1739.  | D al  | Jac. aust. 5. t. 413 |
| 9989 paucifolia W.     | naked-stalked    | Δ or              | 1 my.au Pu      | N. Amer.  | 1812.  | D sl  | Bot. mag. 2852       |
| 9990 bracteolata W.    | spear-leaved     | Δ or              | 6 my.o Pu       | C. G. H.  | 1713.  | S sp  | Bot. mag. 345        |
| 9991 speciosa B. M.    | showy            | Δ or              | 6 my.o Pu       | C. G. H.  | 1814.  | C sp  | Bot. reg. 150        |
| 9992 teretifolia W.    | columnar-ldv.    | Δ or              | 3 my.au Pu      | C. G. H.  | 1791.  | S sp  | Bot. rep. 370        |
| 9993 purpurea H. K.    | purple           | Δ or              | 1 my.jn Pu      | N. Amer.  | 1791.  | C sp  |                      |
| §9994 virgata Th.      | twiggy           | Δ or              | 3 my.au Pu      | C. G. H.  | 1812.  | C sp  |                      |
| 9995 myrtifolia W.     | Myrtle-leaved    | Δ or              | 3 my.au Pu      | C. G. H.  | 1707.  | S pl  | Bot. reg. 669        |
| 9996 oppositifolia W.  | opposite-leaved  | Δ or              | 2 my.au R       | C. G. H.  | 1790.  | C sp  | Bot. mag. 492        |
| 9997 cordifolia W.     | heart-leaved     | Δ or              | 3 mr.au Pu      | C. G. H.  | 1791.  | C sp  | Bot. mag. 2438       |
| 9998 tomentosa W.      | wooly-leaved     | Δ or              | 2 mr.au Pu      | C. G. H.  | 1812.  | C sp  |                      |
| 9999 Chamæboxus W.     | Box-leaved       | Δ or              | 1 my.jn Y       | Austria   | 1638.  | Sk al | Bot. mag. 316        |
| 10000 latifolia Ker.   | broad-leaved     | Δ or              | 1 my.jn Pu      | C. G. H.  | 1820.  | C al  | Bot. reg. 645        |
| 10001 ligularis Ker.   | strap-leaved     | Δ or              | 1 my.au Pu      | C. G. H.  | 1820.  | C sp  | Bot. reg. 637        |
| §10002 filiformis W.   | filiform         | Δ or              | 1 my.d Pu       | C. G. H.  | 1812.  | C sp  |                      |
| §10003 micrantha W.    | small-flowered   | Δ or              | 1 ja.d Pu       | C. G. H.  | 1800.  | S sp  | Bot. rep. 424        |
| 10004 paniculata W.    | panicked         | □ pr              | 1/2 jl.au Pa.pu | S. Amer.  | 1822.  | S co  | Bot. reg. 761        |
| 10005 Senega W.        | Rattlesnake root | Δ or              | 1/2 jl W        | N. Amer.  | 1739.  | S co  | Bot. mag. 1051       |
| 10006 lutea W.         | golden           | ○ or              | 1/2 ju.jl Y     | N. Amer.  | 1739.  | S co  | Plu.am. t. 438. f. 6 |
| 10007 viridescens W.   | greenish-flower. | ○ or              | 1 jl.au G.Pu    | N. Amer.  | 1815.  | S co  |                      |
| 10008 humilis Lodd.    | dwarf            | □ pr              | 1/2 my Pk       | C. G. H.  | 1817.  | C sp  | Bot. cab. 490        |
| 10009 sanguinea W.     | purple-spiked    | ○ or              | 1 jl.s Pu       | N. Amer.  | 1739.  | S co  | Pluk. t. 438. f. 5   |
| 10010 verticillata W.  | whorl-leaved     | ○ or              | 1/2 jl.au W     | N. Amer.  | 1739.  | S co  | Pluk. t. 438. f. 4   |
| 10011 cruciata W.      | four-leaved      | ○ or              | 1/2 ju.jl G.Pu  | N. Amer.  | 1739.  | S co  |                      |
| 1509. MURALTIA. Neck.  | MURALTIA.        | <i>Polygaleæ.</i> | Sp. 4-57.       |           |        |       |                      |
| 10012 Heisteria W.     | Furze-leaved     | Δ or              | 6 ja.d Pu       | C. G. H.  | 1787.  | C sp  | Bot. mag. 340        |
| 10013 alopecuroides W. | Foxtail          | Δ or              | 3 my.au Pu      | C. G. H.  | 1800.  | S sp  | Bot. mag. 1006       |
| 10014 stipulacea W.    | stipuled         | Δ or              | 3 ap.s R        | C. G. H.  | 1801.  | C sp  | Bot. mag. 1715       |
| 10015 mixta W.         | Heath-leaved     | Δ or              | 3 ja.d Pu       | C. G. H.  | 1791.  | C sp  | Bot. mag. 1714       |
| †1510. MUNDIA. Kunth.  | MUNDIA.          | <i>Polygaleæ.</i> | Sp. 1.          |           |        |       |                      |
| 10016 spinosa W.       | spiny            | Δ or              | 3 ja.my Pu      | C. G. H.  | 1780.  | C sp  |                      |
| 1511. SECURIDACA. W.   | SECURIDACA.      | <i>Polygaleæ.</i> | Sp. 1-8.        |           |        |       |                      |
| 10017 volubilis W.     | climbing         | □ ft              | 10 ... W        | W. Indies | 1739.  | C pl  | Ja.am. t.183. f.38   |



History, Use, Propagation, Culture.

1506. *Sarcocapnos*. From *sarcos*, flesh, and *capnos*, fumitory. So named by Decandolle on account of the fleshy substance of the leaves of the plants contrasted with those of other allied genera.

1507. *Fumaria*. From *fumus*, smoke; in allusion to the disagreeable smell of the plant. The French, with the same meaning, call it *Fumeterre*, whence our English word *Fumitory*. The species are handsome weeds. *F. officinalis* was formerly considered a valuable antiscorbatic, and much used in obstructions of the viscera.

1508. *Polygala*. From *polu*, much, and *gala*, milk. Dioscorides says, that the plant was believed to excite the lactal secretions in women. The species are handsome free-flowering plants. The greenhouse kinds are highly ornamental, and some of them continue in bloom all the winter: *P. stipulacea* all the year. They grow freely in sandy loam, or loam and peat; and are readily increased by cuttings of the young wood, in sand, under a bell-glass.

*P. vulgaris* was thought to possess something of the properties of *P. Senega*. Sir J. E. Smith found that an infusion of the herb taken in a morning, fasting, about a quarter of a pint daily, promoted expectoration, and was good in a catarrhus cough. He tried it at Montpellier by the advice of Professor Gouan with success, and has since known it useful. Foreign writers celebrate it as a grateful and nutritious food for cattle. According to the Swedish experiments, kine, sheep, and goats eat it, but swine refuse it.

*P. Senega* has a woody, branched, contorted root, about half an inch thick, and covered with ash-colored

9980 Leaves with a branched stalk triternate, Segments ovate angular

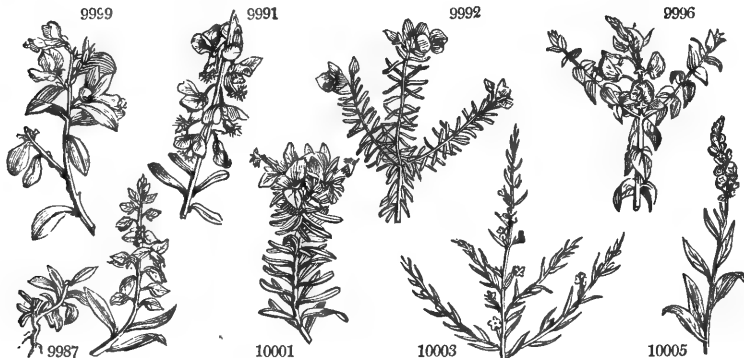
9981 Pods round retuse, Pedicels of fruit erect twice as long as bractes, Racemes lax  
 9982 Pods globose, Pedicels of fruit recurved longer than bract, Racemes lax  
 9983 Pods globose with a little point, Pedicels of fruit erect longer than bract  
 9984 Pods compressed oval smooth, Raceme spiked, Pedicels much shorter than bract

## OCTANDRIA.

- 9985 Flowers crested spiked, Stem herbaceous branched erect, Leaves alternate subulate  
 9986 Fl. crested racem. Wings of cal. 3-nerved blunt longer than cor. Stems erect, Lvs. blunt: radic. obovate  
 9987 Fl. crested racem. Wings of cal. 3-nerved blunt length of cor. Stems procumb. Leaves linear-lanc. acute  
 9988 Fl. crest. racem. Wings of cal. many-nerv. blunt mucron. short than cor. Stems erect, Lvs. lin. lanc. acute  
 9989 Fl. crested term. in threes, Stems quite simple erect naked beneath, Leaves ovate  
 9990 Fl. crested, Raceme term. Wings of cal. cuspidate many-nerv. Stem erect shrubby, Lvs. lin. lanc. smooth  
 9991 Fl. crest. Appendage double, Racemes without bractes subterm. many-fl. Lvs. altern. obl. cuneate smooth  
 9992 Fl. crest. Raceme term. few-fl. Wings of cal. ovate acute many-nerved, Stem shrubby, Lvs. linear subulate  
 9993 Fl. crested somewhat umbelled, Leaves ovate fleshy  
 9994 Fl. crested racemose, Bractes 3-leaved, Leaves obovate oblong  
 9995 Fl. crested, Racemes few-fl. term. Keel falcate, Stem shrubby, Leaves obl. bluntnish smooth  
 9996 Fl. crested, Stem shrubby, Leaves opposite ovate acute  
 9997 Fl. crested, Raceme terminal, Stem shrubby, Branches downy, Leaves cordate mucronate opposite  
 9998 Fl. crested whorled, Leaves cordate downy beneath  
 9999 Fl. beardless, Pedunc. terminal and axill. about 2 fl. Stem shrubby, Leaves obl. lanceolate acute  
 10000 Fl. crested, Branches downy, Leaves decussating coriaceous glaucous ovate downy beneath  
 10001 Fl. crest. Branches vill. Lvs. scattered lingulate smooth, Outer lobe of the petals of vexillum very short  
 10002 Fl. beardless lateral, Leavcs solitary 3-cornered mucronate  
 10003 Fl. beardless axillary sessile, Leaves linear mucronate  
 10004 Fl. crested, Racemes axillary on long stalks, Stems erect branched upwards, Leaves linear acute  
 10005 Fl. beardless, Spike terminal filiform, Stem erect herbaceous quite simple, Leaves oblong lanceolate  
 10006 Fl. beardless, Raceme cylindr. capitate terminal, Stem simple, Leaves obl. lanc. acute  
 10007 Fl. beardless globose capitate terminal, Stem erect simple, Leaves linear bluntnish  
 10008 Leaves ovate-lanceolate imbricated, Stem branched decumbent  
 10009 Flowers beardless, Pedunc. squarrose, Stem branched erect  
 10010 Flowers beardless distant, Leaves linear whorled, Stem branched  
 10011 Flowers beardless in headed spikes, Leaves in fours linear-lanceolate, Stem somewhat branched erect
- 10012 Fl. beardless lateral, Stem arborescent, Leaves 3-cornered mucronate spiny  
 10013 Fl. beardless, Peduncles solitary axillary, Leaves fascicled ovate mucronate ciliated at edge  
 10014 Fl. beardless lateral, Leaves in threes linear acute  
 10015 Fl. beardless sessile, Leaves round mucronate very close

10016 Leaves obovate or oval, Branches short spiny

10017 Branches a little downy, Leaves oval-obl. acute, Racemes lateral



and Miscellaneous Particulars.

bark. It is inodorous; the taste is at first sweetish and nauseous, but after being chewed for less than a minute, becomes pungent and hot, producing a very peculiar tingling sensation in the fauces. Medically, it is considered stimulating, expectorant, and diuretic, and in large doses emetic and cathartic: it increases absorption, and consequently augments the natural excretions, particularly that of urine, and frequently occasions a copious pytalism. It was introduced to the notice of physicians by Dr. Tennant, who, having discovered that it was the antidote employed by the Senegare Indians against the bite of the rattlesnake, and reasoning from the effects of the poison, and of the remedy in removing these, was induced to try it in pneumonic affections, and found it useful. On account of its stimulant properties, however, it can be employed in these complaints only after the resolution of the inflammation by bleeding and evacuations. It proves more directly useful in humoral asthma, chronic catarrh, and some kinds of dropsy. (*Thomson's London Dispensatory*, p. 450.)

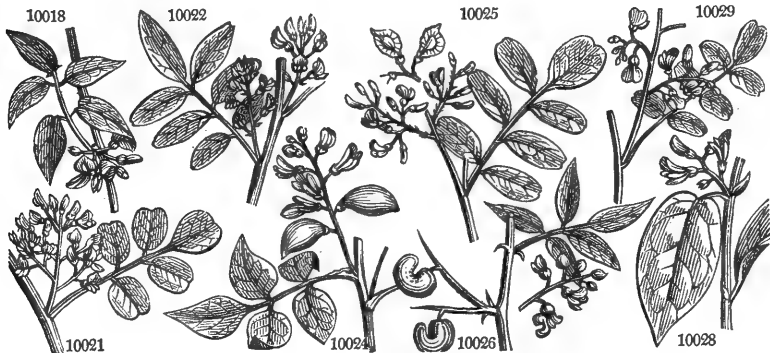
1509. *Muraltia*. Named after John Von Muralt, a Swiss botanist, who lived in the commencement of the eighteenth century. Handsome bushes, of easy cultivation in a greenhouse, or even in a good pit.

1510. *Mundia*. So named, in allusion, we presume, to the neatness (*munditia*) of its appearance. No explanation of the word is given by its author. Pretty little Cape bushes, easily cultivated in a good pit.

1511. *Securidaea*. From *securis*, a hatchet, in allusion to the form of the end of the pod. It grows freely in light loam, or loam and peat; and cuttings root in sand covered with a glass.

## DECANDRIA.

|                                  |                       |   |       |                    |            |           |       |                              |
|----------------------------------|-----------------------|---|-------|--------------------|------------|-----------|-------|------------------------------|
| 1512. NISSOLIA. <i>W.</i>        | NISSOLIA.             |   |       | <i>Leguminosæ.</i> | Sp. 3—6.   |           |       |                              |
| 10018 fruticosa <i>W.</i>        | shrubby               | ♂ | or 15 | jl.n               | Y          | S. Amer.  | 1766. | S p.l Jac. vind. 2. t. 167   |
| 10019 retusa <i>W. en.</i>       | blunt                 | ♂ | or 6  | ...                | ...        | S. Amer.  | 1819. | C a.l                        |
| 10020 glabrata <i>Link.</i>      | polished              | ♂ | or 12 | ...                | W          | .....     | 1823. | C a.l                        |
| 1513. DALBERGIA. <i>W.</i>       | DALBERGIA.            |   |       | <i>Leguminosæ.</i> | Sp. 4—9.   |           |       |                              |
| 10021 latifolia <i>W.</i>        | broad-leaved          | ♂ | or 30 | ...                | W          | E. Indies | 1811. | C a.l Rox. cor. 2. t. 113    |
| 10022 rubiginosa <i>W.</i>       | climbing              | ♂ | or 10 | ...                | W          | E. Indies | 1811. | C a.l Rox. cor. 2. t. 115    |
| 10023 paniculata <i>W.</i>       | panicled              | ♂ | or 30 | ...                | W          | E. Indies | 1811. | C a.l Rox. cor. 2. t. 114    |
| 1514. PONGAMIA. <i>Vent.</i>     | PONGAMIA.             |   |       | <i>Leguminosæ.</i> | Sp. 1—3.   |           |       |                              |
| 10024 glabra <i>P. S.</i>        | smooth-leaved         | ♂ | or 30 | ...                | W          | E. Indies | 1699. | C a.l Vent. malm. t. 23      |
| *1515. PTEROCARPUS. <i>W.</i>    | PTEROCARPUS.          |   |       | <i>Leguminosæ.</i> | Sp. 3—9.   |           |       |                              |
| 10025 Marsipium <i>W.</i>        | emarginate-lyd.       | ♂ | or 40 | ...                | W          | E. Indies | 1811. | C a.l Rox. cor. 2. t. 116    |
| 10026 lunatus <i>W.</i>          | crescent-poided       | ♂ | or 6  | ...                | W          | S. Amer.  | 1792. | C a.l Lam. ill. t. 602. f. 5 |
| 10027 santalinus <i>W.</i>       | Red Saunders Wood     | ♂ | ec 60 | ...                | Y          | E. Indies | 1800. | C a.l                        |
| 1516. ECASTAPHYLUM. <i>Rich.</i> | ECASTAPHYLUM.         |   |       | <i>Leguminosæ.</i> | Sp. 1—4.   |           |       |                              |
| 10028 Brownei <i>Rich.</i>       | oval-leaved           | ♂ | or 10 | ...                | W          | W. Indies | 1733. | C r.m Br. jam. t. 32. f. 1   |
| *1517. GEOFFROYA. <i>W.</i>      | BASTARD CABBAGE-TREE. |   |       | <i>Leguminosæ.</i> | Sp. 1—5.   |           |       |                              |
| 10029 inermis <i>W.</i>          | smooth                | ♂ | or 8  | ...                | ...        | Jamaica   | 1778. | C p.l Ph. tran. 1777. t. 10  |
| 1518. DIPTERIX. <i>W.</i>        | TONGVIN BEAN.         |   |       | <i>Leguminosæ.</i> | Sp. 1—2.   |           |       |                              |
| 10030 odorata <i>W.</i>          | sweet-scented         | ♂ | ec 60 | ...                | Pu         | Guiana    | 1793. | C l.p Aub. gui. 2. t. 296    |
| 1519. PARIVOA. <i>Aubl.</i>      | PARIVOA.              |   |       | <i>Leguminosæ.</i> | Sp. 1.     |           |       |                              |
| 10031 grandiflora <i>Aubl.</i>   | large-flowered        | ♂ | or 30 | ...                | Pu         | Guiana    | 1821. | C r.m Aub. gul. t. 303       |
| †1520. AMERIMNUM. <i>W.</i>      | AMERIMNUM.            |   |       | <i>Leguminosæ.</i> | Sp. 3—5.   |           |       |                              |
| 10032 Brownei <i>W.</i>          | Browne's              | ♂ | or 10 | ...                | W          | W. Indies | 1793  | C r.m Ja. an. t. 180. f. 58  |
| 10033 latifolium <i>W.</i>       | broad-leaved          | ♂ | or 12 | ...                | Y          | S. Amer.  | 1814. | C l.p Ja. an. t. 177. f. 50  |
| 10034 E'benus <i>W.</i>          | Jamaica Ebony         | ♂ | or 12 | jl.au              | Y          | W. Indies | 1713. | C r.m Br. jam. t. 31. f. 2   |
| †1521. ERYTHRINA. <i>W.</i>      | CORAL TREE.           |   |       | <i>Leguminosæ.</i> | Sp. 10—21. |           |       |                              |
| 10035 herbacea <i>W.</i>         | herbaceous            | ♂ | or 3  | jn.s               | S          | Carolina  | 1724. | C l.p Bot. mag. 877          |
| 10036 carnea <i>W.</i>           | flesh-colored         | ♂ | or 12 | my                 | Pk         | Vera Cruz | 1733. | S r.m Trew. ehret. t. 8      |
| 10037 Corallodendrum <i>W.</i>   | smooth-leaved         | ♂ | or 20 | my.jn              | S          | W. Indies | 1690. | S r.m Com. hor. 1. t. 108    |
| 10038 indica <i>W.</i>           | Indian                | ♂ | or 20 | ...                | S          | E. Indies | 1814. | S r.m Rheed. mal. 6. t. 7    |
| 10039 flava <i>W.</i>            | brown-flowered        | ♂ | or 20 | ...                | S          | E. Indies | 1800. | C l.p Rum. amb. 2. t. 78     |
| 10040 cæffa <i>W.</i>            | Cape                  | ♂ | or 6  | ...                | S          | C. G. H.  | 1816. | C l.p Bot. reg. 736          |
| 10041 picta <i>W.</i>            | prickly-leaved        | ♂ | or 6  | ...                | S          | E. Indies | 1696. | S r.m Rum. amb. 2. t. 77     |
| 10042 speciosa <i>H. K.</i>      | large-flowered        | ♂ | or 10 | au.o               | S          | W. Indies | 1805. | S r.m Bot. rep. 443          |



## History, Use, Propagation, Culture,

1512. *Nissolia*. In honor of William Nissolle, an industrious French botanist. He was a member of the academy of Montpellier, and author of some papers in its Transactions. He was born in 1647, and died in 1735. Cuttings root in sand, but not very readily.

1513. *Dalbergia*. Nicholas Dalberg was surgeon in ordinary to the king of Sweden, and published in 1755 a work upon the Metamorphoses of Plants. Another Dalberg, a pupil of Linnaeus, travelled in Dutch Guiana, whence he communicated specimens to his preceptor. Ripened cuttings root in sand.

1514. *Pongamia*. An alteration of the vernacular name of the plant in India.

1515. *Pterocarpus*. From *πτερον*, a wing, and *καρπος*, fruit. Its pods have membranous wings. *P. santalinus* is a lofty tree, with alternate branches, and a bark resembling that of the common alder; it yields the true official red saunders wood, first detected by Koenig in India. It is brought home in billets, which are very heavy, and sink in water. Red saunders wood has an aromatic odor, and is nearly insipid. It is extremely hard, of a fine grain, takes a high polish, and a bright garnet red color, which depends on exposure to the air. It yields its coloring matter, which appears to be of a resinous nature, to ether and alcohol, but not to water. (*Thomson's London Dispensatory*, 458.)

The sap yields one sort of *Sanguis draconis*. Many of the red Indian woods traude a blood red juice through the clefts of the bark, which hardens into a red resin, not differing from *Sanguis draconis*, which, therefore, is collected from several trees, and from this among others. (*Linn. Suppl.*) This drug, however, is chiefly obtained from the *P. Draco*, and the fruit of *Calamus Rotang*.

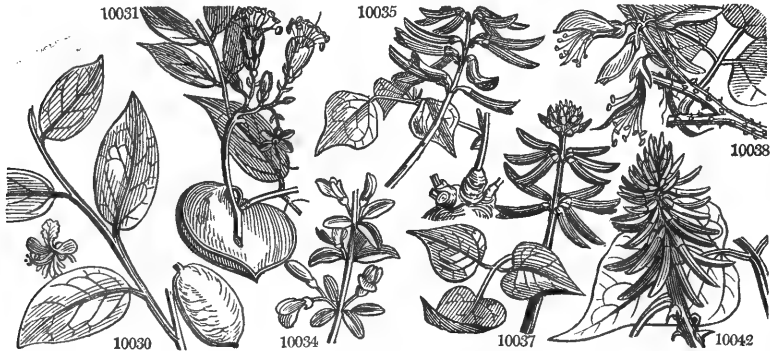
In our stoves these plants thrive in light loamy soil; and cuttings, with their leaves untouched, will root in sand under a common hand-glass.

1516. *Ecastaphyllum*. From *εκαστος*, every one, and *φυλλον*, a leaf; that is to say, a leaf which is always simple, and not compounded of several others, as those of neighbouring genera.

1517. *Geoffroya*. In honor of Etienne Francois Geoffroi, Memb. Acad. Par., Professor of botany at the Jardin du Roi, and a foreign member of the Royal Society of London. He was the author of several medical botanical works, especially of a *Materia Medica*. He was born in 1672, and died in 1731. A tree, branching at top, with a smooth grey bark and pinnate leaves; and, what is remarkable in papilionaceous plants, a drupe for a fruit.

## DECANDRIA.

- 10018 Stem shrubby twining, Leaves pinnated, Leaflets ovate acute smoothish  
 10019 Leaves pinnated, Leaflets ovate-oblong emarginate  
 10020 Leaves ternate and quinately, Leaflets oval acuminate smooth, Fl. racemose
- 10021 Leaves pinnated, Leaflets roundish emarginate, Fruit lanceolate  
 10022 Leaves pinnated, Leaflets obl. obtuse, Branches and petioles downy  
 10023 Leaves pinnated, Leaflets ellipt. emarginate smooth, Panicle terminal, Fruit lanceolate
- 10024 Leaves pinnated, Leaflets ovate acuminate smooth, Fruit ovate acute veinless
- 10025 Leaves pinnated, Leaflets elliptical emarginate, Stipules none, Panicle termin.  
 10026 Leaves pinnated, Spines stipulary, Fruit unate  
 10027 Leaves ternate roundish blunt quite smooth, Petals crenate wavy
- 10028 Leaves simple cordate-ovate downy beneath
- 10029 Unarmed, Leaflets ovate-lanceolate
- 10030 Leaves alternate, Raceme terminal
- 10031 Leaves pinnated, Flowers smooth
- 10032 Unarmed, Leaves simple stalked alternate subcordate ovate, Racemes compound axillary and lateral  
 10033 Leaves pinnated, Leaflets ovate acuminate, Stem arborescous  
 10034 Spiny, Leaves subsessile aggregate obovate oblong, Peduncles 2-flowered
- 10035 Leaves ternate rhomboid smooth, Stem herbaceous unarmed, Calyx truncate  
 10036 Leaves ternate smooth, Stem arborescous prickly, Calyx campanulate truncate  
 10037 Leaves ternate unarmed, Stem arborescous prickly, Calyx truncate 5-toothed  
 10038 Leaves ternate unarmed, Stem arborescous prickly, Calyx spatheaceous  
 10039 Leaves ternate unarmed lanceolate, Stem arborescous prickly, Calyx bifid  
 10040 Leaves ternate unarmed, Leaflets blunt, Stem arborescous prickly  
 10041 Leaves ternate prickly, Stem arborescous prickly  
 10042 Leaves ternate prickly beneath, Petioles unarmed, Stem prickly



## and Miscellaneous Particulars.

This drupe is large, subovate, and incloses a woody nut. The bark, which has a mucilaginous sweetish taste and a disagreeable smell, was first noticed as a vermifuge by Peter Duguid; but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree. According to him, the bark is powerfully medicinal; and its anthelmintic effects have been established at Jamaica by long experience.

1518. *Dipterix*. From *dis*, double, and *πτερυξ*, a wing, in allusion to the two appendages of the calyx. A tree much branched at top, with large alternate pinnate leaves, and racemes of flowers succeeded by almond-like fruits. The kernels of these are very fragrant, and are put by the Creoles into chests of clothes, in order to drive away insects, and communicate a grateful odor. They are in their own country called *Tongva*, and are the sweet-scented seed sold in shops under the corrupted name of *Tonquin* bean, for perfuming snuff and other substances. Ripened cuttings root in sand in moist heat.

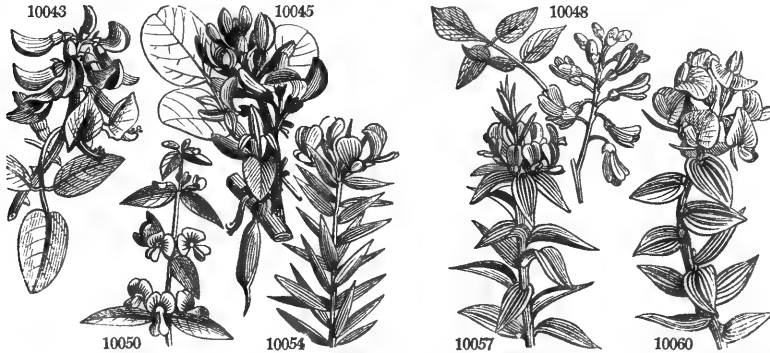
1519. *Pariwoa*. The name of the tree in Guiana. A very handsome tree.

1520. *Amerimnum*. One of the names given to the Houseleek by the Greeks. It is derived from *α*, private, and *μεριμνα*, care, because the plants require no attention. It is not easy to tell why the name was applied to this genus, which has nothing in common either with the Houseleek or its ancient name. A. Ebenus is common in the West Indies, and the wood is sent to Europe under the name of American Ebony. Though not the true ebony, yet being of a fine greenish-brown color, and polishing well, it is much coveted by the instrument makers, and is of a very hard durable nature. The flowers of *Amerimnum latifolium* are yellow, and smell like new hay. In our stoves the species may be treated like *Pterocarpus*.

1521. *Erythrina*. From *ερυθρος*, red; nearly all the species being remarkable for the brilliant scarlet color of their flowers. The species are small trees, prickly or unarmed, or else shrubs, sometimes almost herbaceous; leaves, as in *Dolichos*, ternate, stipulaceous, the petiolules jointed and awned, or glandular, very seldom simple; flowers in fascicles from the axils, or in spikes at the end of the stem and branches, often scarlet. (*Jussieu*.)

In our stoves they thrive well in a light loamy soil. "The best way to flower them," Sweet observes, "is to place them on a dry shelf in winter, when they have no leaves, and give them scarcely any water; when they show flower-buds, they may be plunged in a moist heat, which will make the flowers finer than they

|   |                            |   |     |    |       |    |           |       |   |     |                       |
|---|----------------------------|---|-----|----|-------|----|-----------|-------|---|-----|-----------------------|
| 10043 Crista-gall <i>W.</i>               | Cock's-Comb                | ♂ | or  | 40 | my.jl | S  | Brazil    | 1771. | S | r.m | Exot. bot. 2. t. 95   |
| 10044 ovális <i>Wall.</i>                 | oval                       | ♂ | or  | 6  | ...   | S  | Nepal     | 1820. | C | lp  |                       |
| 1522. <i>BUTEA. W.</i>                    |                            |   |     |    |       |    |           |       |   |     |                       |
| 10045 frondósa <i>W.</i>                  | downy-branch.              | ♀ | spl | 30 | ...   | S  | E. Indies | 1796. | C | r.l | Roxb. cor. 1. t. 21   |
| 10046 supérba <i>W.</i>                   | smooth-branch.             | ♀ | spl | 30 | ...   | S  | E. Indies | 1798. | C | r.l | Roxb. cor. 1. t. 22   |
| 1523. <i>VIBOR'GIA. W.</i>                |                            |   |     |    |       |    |           |       |   |     |                       |
| 10047 sericea <i>W.</i>                   | VIBOR'GIA.<br>silky        | ♂ | or  | 3  | jl.au | Y  | C. G. H.  | 1780. | C | lp  |                       |
| 1524. <i>PISCIDIA. W.</i>                 |                            |   |     |    |       |    |           |       |   |     |                       |
| 10048 Erythrina <i>W.</i>                 | PISCIDIA.<br>Jamaica Dogw. | ♀ | tm  | 25 | ...   | W  | W. Indies | 1690. | S | p.l | Lam. ill. t. 605      |
| †1525. <i>PLATYLO'BIUM. Sm. FLAT-PEA.</i> |                            |   |     |    |       |    |           |       |   |     |                       |
| 10049 formósum <i>H. K.</i>               | large-flowered             | ♂ | or  | 4  | ju.au | Or | N. S. W.  | 1790. | S | s.p | Bot. mag. 469         |
| 10050 parvifórum <i>H. K.</i>             | small-flowered             | ♂ | or  | 4  | my.s  | Or | N. S. W.  | 1792. | S | s.p | Bot. mag. 1520        |
| 10051 trianguláre <i>H. K.</i>            | triangular-lvd.            | ♂ | or  | 4  | ju.s  | Or | V. Di. L. | 1805. | S | s.p | Bot. mag. 1508        |
| *1526. <i>BORBO'NIA. W.</i>               |                            |   |     |    |       |    |           |       |   |     |                       |
| 10052 ericifólia <i>W.</i>                | Heath-leaved               | ♂ | or  | 4  | jl.au | Y  | C. G. H.  | 1812. | C | lp  |                       |
| 10053 trinérvia <i>W.</i>                 | three-nerved               | ♂ | or  | 6  | jl.au | Y  | C. G. H.  | 1759. | S | p.l | Plu.alm. t. 297. f. 4 |
| 10054 lanceoláta <i>W.</i>                | many-nerved                | ♂ | or  | 5  | jl.au | Y  | C. G. H.  | 1752. | C | p.l | Jac. schœ. 2. t. 217  |
| §10055 perfoliáta <i>W.</i>               | perfoliate                 | ♂ | or  | 6  | jl.au | Y  | C. G. H.  | 1812. | C | p.l |                       |
| 10056 unduláta <i>W.</i>                  | wave-leaved                | ♂ | or  | 4  | jl.au | Y  | C. G. H.  | 1812. | C | p.l |                       |
| 10057 cordáta <i>W.</i>                   | heart-leaved               | ♂ | or  | 6  | jl.s  | Y  | C. G. H.  | 1795. | C | p.l |                       |
| 10058 arenáta <i>W.</i>                   | notch-leaved               | ♂ | or  | 6  | ju.au | Y  | C. G. H.  | 1774. | S | p.l | Jac. schœ. 2. t. 218  |
| 10059 lævigáta <i>B. C.</i>               | polished                   | ♂ | or  | 3  | jl.au | Y  | C. G. H.  | 1799. | S | p.l | Bot. cab. 247         |
| 10060 ruscifólia <i>B. M.</i>             | Butcher's Broom            | ♂ | or  | 3  | jl    | Y  | C. G. H.  | 1790. | S | p.l | Bot. mag. 2128        |
| 1527. <i>RAF'NIA. Th.</i>                 |                            |   |     |    |       |    |           |       |   |     |                       |
| 10061 tríflóra <i>W.</i>                  | RAF'NIA.<br>three-flowered | ♀ | or  | 3  | ju.jl | Pu | C. G. H.  | 1786. | S | s.l | Bot. mag. 482         |
| 1528. <i>ASPA'LATHUS. W. ASPALATHUS.</i>  |                            |   |     |    |       |    |           |       |   |     |                       |
| 10062 Chenopódia <i>W.</i>                | Goosefoot                  | ♂ | pr  | 3  | jl.au | Y  | C. G. H.  | 1759. | C | p.l | Breyn. cent. t. 11    |
| 10063 álbens <i>W.</i>                    | silky                      | ♂ | pr  | 4  | jl.au | W  | C. G. H.  | 1774. | C | p.l |                       |
| 10064 pedunculáta <i>H. K.</i>            | small-leaved               | ♂ | pr  | 6  | jl.au | Y  | C. G. H.  | 1775. | S | p.l | Bot. mag. 344         |
| 10065 ericifólia <i>W.</i>                | Heath-leaved               | ♂ | pr  | 2  | jl.au | Y  | C. G. H.  | 1789. | C | p.l | Pl. man. t. 413. f. 6 |
| 10066 asparagoides <i>W.</i>              | Asparagus-lvd.             | ♂ | pr  | 3  | jl.au | Y  | C. G. H.  | 1812. | C | p.l | Pluk. am. 425. 1      |
| 10067 carnéa <i>W.</i>                    | fleshy-leaved              | ♂ | pr  | 3  | my.jn | Y  | C. G. H.  | 1795. | C | p.l | Bot. mag. 1299        |
| 10068 crassifólia <i>B. Rep.</i>          | bristle-pointed            | ♂ | pr  | 2  | jl.au | Y  | C. G. H.  | 1800. | S | p.l | Bot. rep. 353         |
| 10069 ciliáris <i>W.</i>                  | ciliated                   | ♂ | pr  | 2  | jl.au | Y  | C. G. H.  | 1799. | C | p.l | Bot. mag. 2933        |
| 10070 unifóra <i>W.</i>                   | single-flowered            | ♂ | pr  | 3  | jl.au | Y  | C. G. H.  | 1812. | C | p.l | Pl. man. t. 414. f. 7 |
| 10071 subuláta <i>W.</i>                  | awl-leaved                 | ♂ | pr  | 14 | jl.au | Y  | C. G. H.  | 1789. | C | p.l |                       |
| 10072 globósa <i>B. Rep.</i>              | globular                   | ♂ | pr  | 3  | ju.jl | Or | C. G. H.  | 1802. | S | p.l | Bot. rep. 510         |
| 10073 araneósa <i>W.</i>                  | cobweb                     | ♂ | pr  | 3  | ju.jl | Y  | C. G. H.  | 1795. | S | p.l | Bot. mag. 829         |
| 10074 índica <i>W.</i>                    | Indian                     | ♂ | pr  | 3  | jl.au | R  | E. Indies | 1759. | S | p.l | Rhev. mal. 9. t. 37   |
| 10075 argénteá <i>W.</i>                  | silver-leaved              | ♂ | pr  | 2  | jl.au | Y  | C. G. H.  | 1759. | C | p.l |                       |
| 10076 cándicans <i>H. K.</i>              | white                      | ♂ | pr  | 2  | ju.jl | Y  | C. G. H.  | 1774. | C | lp  |                       |
| 10077 callósa <i>W.</i>                   | oval-spiked                | ♂ | pr  | 3  | jl.au | Y  | C. G. H.  | 1812. | C | lp  | Bot. mag. 2329        |
| 10078 mucronáta <i>W.</i>                 | thorny-branch.             | ♂ | pr  | 3  | ju.jl | Y  | C. G. H.  | 1796. | C | lp  |                       |
| 10079 affinis <i>Thunb.</i>               | kindred                    | ♂ | pr  | 3  | ju.jl | Y  | C. G. H.  | 1822. | C | lp  |                       |



History, Use, Propagation, Culture.

would be, if the plants stay out till they are in bloom. Cuttings taken off at a joint, and planted in sand, without being deprived of any of their leaves, strike root readily under a hand-glass in moist heat." (*Bot. Cult.* 54.)

1522. *Butea*. Named in honor of the late Earl of Bute, a munificent patron of botanical science. This splendid genus, though of free growth and easy propagation, is yet rare in British collections. From *B. frondosa* is obtained the *Gum lac* of commerce. Infusions of the flowers dye cotton cloth, previously impregnated with a solution of alum, or of alum and tartar, of a beautiful yellow color. The plant grows in loam and peat, and "cuttings should be taken off at a joint, and planted in a pot of sand, without being deprived of any of their leaves: one pot is enough under a hand-glass, as the leaves take up much room, and, if too confined, are apt to damp off. They should be plunged in a moist heat." (*Bot. Cult.* 30.)

1523. *Viborgia*; usually written *Wiborgia*, received its name after M. Eric Viborg, a learned and acute Danish botanist, author of several botanical treatises in his own language in the end of the eighteenth century. The species, like those of the four preceding genera, may be treated as *Scotia*.

1524. *Piscidia*. From *piscis*, a fish; the inhabitants of America use the bark as a fish poison. This tree has spreading branches and pinnate leaves, and is very common in Jamaica, where it is reckoned one of the best timber-trees in the island. The wood is very hard and resinous, and lasts almost equally in or out of water. It is of a light-brown color, coarse, cross-grained, and heavy. (*Browne*.) It makes excellent piles for wharfs. The stakes soon form a good live fence. The bark of the trunk is very astringent; a decoction of it stops the immoderate discharge of ulcers, especially when it is combined with the mangrove bark; it cures the mange in dogs, and would probably answer well for tanning leather. (*Long*, 824.) The bark of the root is used for the same purposes and with the same effects as the leaves and branches of Surinam poison; it is pounded and mixed with the water in some deep and convenient part of a river or creek, whence it may spread itself;

10043 Leaves ternate, Petioles prickly glandular, Stem arboreous unarmed  
10044 Leaves ternate oblong oval blunt

10045 Branches downy, Leaflets roundish emarginate  
10046 Branches smooth, Leaflets obovate roundish blunt

10047 Leaflets and twiggy branches pubescent

10048 Leaves unequally pinnate, Leaflets ovate

10049 Leaves cordate ovate, Ovary hairy  
10050 Leaves lanceolate ovate, Ovary smooth  
10051 Leaves deltoid or hastate with spiny angles

10052 Leaves sublinear acute villous beneath, Heads terminal  
10053 Leaves lanceolate 3-nerved entire  
10054 Leaves lanceolate many-nerved entire  
10055 Leaves amplexicaul. entire netted  
10056 Leaves amplexicaul. wavy with a reflexed mucro  
10057 Leaves cordate many-nerved entire  
10058 Leaves cordate many-nerved toothbitted  
10059 Leaves ovate cordate acuminate pungent, Stem hirsute  
10060 Leaves rigid pointed pungent oblong dense

10061 Leaves ovate smooth, Branches angular, Peduncles 3 lateral 1-flowered

10062 Leaves fascic.ed 3-angular mucronate stiff hairy, Heads hairy  
10063 Leaves fascicled filiform silvery blunt, Racemes leafy, Flowers not hairy  
10064 Leaves fascicled subulate smooth, Pedunc. filiform twice as long as leaf  
10065 Leaves fascicled filiform blunt hairy, Flowers somewhat racemose  
10066 Leaves fascicled 3-cornered mucronate hairy, Flowers lateral  
10067 Leaves fascicled fleshy round smooth, Fl. lateral and terminal, Flowers smooth  
10068 Leaves fascicled fleshy round smooth setaceous at end, Fl. capitate terminal  
10069 Leaves fascicled scabrous somewhat hairy, Heads terminal  
10070 Leaves fascicled filiform mucronate smooth, Flowers lateral  
10071 Leaves fascicled 3-cornered mucronate smooth  
10072 Leaves linear downy imbricated, Heads terminal crowded  
10073 Leaves fascicled filiform lax hairy, Heads hairy  
10074 Leaves quinately sessile, Peduncles 1-flowered  
10075 Leaves ternate and fascicled ovate silky, Heads downy, Stem dichotomous  
10076 Leaves ternate and fascicled filiform silky, Fl. somewhat lateral, Vexillum naked  
10077 Leaves three 3-cornered smooth, Spikes ovate  
10078 Leaves ternate, Leaflets blunt, Branches spiny  
10079 Leaves fascicled fleshy round smooth. Flowers lateral without bractes, Branches twiggy



and Miscellaneous Particulars.

in a few minutes the fish that lie hid under the rocks or banks rise to the surface, where they float as if they were dead; most of the large ones recover after a time, but the smaller fry are destroyed. The eel is not intoxicated with common doses, though it is affected very sensibly; for the moment the particles spread where it lies, it moves off with great agility. Jacquin observes that this quality of intoxicating fish is found in many other American plants.

It is a very free grower in our stoves, but is seldom allowed to grow large enough to flower. Cuttings root in sand under a hand-glass.

1525. *Platylobium*. From *πλατυς*, broad, and *λοβος*, a pod, in allusion to the form of the pod. Handsome free-flowering plants, which grow in sandy loam and peat; and are increased by cuttings in sand under a hand-glass, or by seeds.

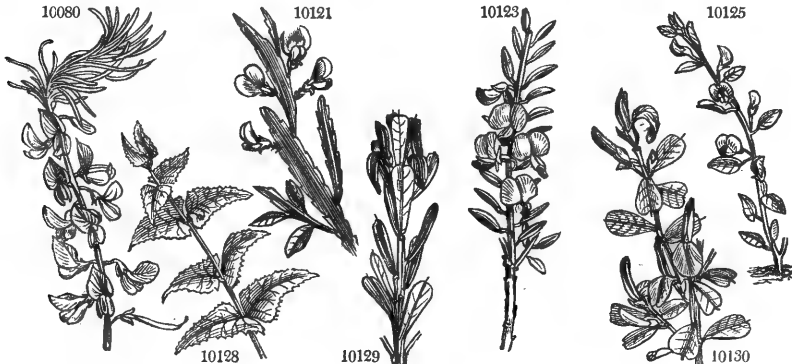
1526. *Borbonia*. In memory of Gaston Bourbon, Duke of Orleans, son of Henry IV. of France, a great lover and patron of botany. See Gastonia. Shrubs of easy culture and propagation.

1527. *Rafnia*. Named, according to Sir James Smith, after Mr. C. G. Rafn of Copenhagen, author of a Flora of Denmark and Holstein, published in 1796 and 1800, in two octavo volumes. A genus of Cape plants, separated from the Linnean *Crotalaria* and *Liparia*.

1528. *Aspalathus*. A native of the island *Aspalathus* on the coast of Lycia. It was a common practice with the ancients to fix the names of places upon certain plants, as *Cytisus*, *Lycium*, and others. It is not certain what plant the ancients intended by their *Aspalathus*. Shrubs and under-shrubs, with fasciculate linear leaves, and yellow flowers, all of which grow freely in a mixture of sandy loam and peat; and young cuttings, planted in sand under bell-glasses will strike root freely, if the glasses are wiped occasionally, otherwise they are liable to damp off. Some species ripen seeds freely, by which young plants are readily produced. (*Bot. Cult.* 140.)



|   |                                |    |       |      |             |       |                           |
|---|--------------------------------|----|-------|------|-------------|-------|---------------------------|
| 1529. SARCOPHYLLUM Th. SARCOPHYLLUM.      | <i>Leguminosae. Sp. 1.</i>     |    |       |      |             |       |                           |
| 10080 carnosum Th. jointed-leaved         | ■   cu                         | 3  | my.au | Y    | C. G. H.    | 1812. | C s.l Bot. mag. 2502.     |
| †1530. CROTALARIA. W. CROTALARIA.         | <i>Leguminosae. Sp. 40—87.</i> |    |       |      |             |       |                           |
| 10081 sagittalis W. Virginian             | □   un                         | 1  | jn.jl | Y    | America     | 1731. | S co Plu.am.t.169.f.6.    |
| 10082 prostrata W. en. prostrate          | ✕   un                         | 1  | jl    | Y    | E. Indies   | 1804. | S co                      |
| §10083 floribunda B. C. many-flowered     | □   pr                         | 2  | jl.au | Y    | C. G. H.    | 1810. | C co Bot. cab. 509        |
| 10084 rubiginosa W. ferrugineous          | □   un                         | 1  | jl    | Or   | E. Indies   | 1807. | S co                      |
| 10085 platycarpa Link. flat-podded        | □   un                         | 1  | jl    | Y    | N. Amer.    | 1823. | S co                      |
| 10086 anthylloides H. K. large-fl. cupped | □   or                         | 4  | aus   | Y    | E. Indies   | 1789. | S s.l                     |
| 10087 tetragona H. K. square-stalked      | ✓   un                         | 2  | o.n   | Y    | E. Indies   | 1803. | S s.l Bot. rep. 593       |
| 10088 paulina Schrank. St. Pauls          | ✓   Δ   un                     | 2  | aus   | Y    | Brazil      | 1893. | S co                      |
| 10089 parviflora Roth. small-flowered     | □   un                         | 2  | aus   | Y    | E. Indies   | 1817. | S co                      |
| 10090 benghalensis P. S. Bengal           | □   un                         | 2  | jn.jl | Y    | E. Indies   | 1806. | S s.l Plu.al.m.t.169.f.5  |
| 10091 jincea W. striated-stalked          | □   un                         | 1  | jn.jl | Y    | E. Indies   | 1700. | S p.l Bot. rep. 422       |
| 10092 diffusa Link. diffuse               | □   un                         | 1  | jn.jl | Y    | .....       | ..... | S co                      |
| 10093 nepalensis Link. Nepal              | □   un                         | 1  | jn.jl | B    | Nepal       | 1823. | S co                      |
| 10094 fenestrata B. M. window-calyced     | □   un                         | 2  | jn.jl | Y    | E. Indies   | 1815. | S p.l Bot. mag. 1963      |
| 10095 sericea W. silky                    | □   un                         | 1  | jn.jl | Y    | E. Indies   | 1807. | S p.l                     |
| 10096 retusa W. wedge-leaved              | □   un                         | 1  | jn.jl | Y.Pu | E. Indies   | 1731. | S p.l Bot. reg. 253       |
| 10097 verrucosa W. blue-flowered          | □   un                         | 1  | jl.au | B    | E. Indies   | 1731. | C r.m Bot. rep. 308       |
| 10098 micans Link. glittering             | ✓   un                         | 2  | jl.au | Pa.Y | .....       | 1820. | C co                      |
| 10099 curtata Link. short-keeled          | □   un                         | 1  | ap.my | Y    | .....       | ..... | S co                      |
| 10100 pichura H. K. short-podded          | ■   un                         | 2  | mr.my | Y    | E. Indies   | 1800. | S p.l Bot. rep. 601       |
| 10101 semperflorens P. S. ever-blowing    | ■   un                         | 3  | mr.s  | Y    | E. Indies   | 1806. | S p.l Vent. cels. t. 17   |
| 10102 hirta W. en. hairy                  | ■   un                         | 1  | jn.au | Y    | E. Indies   | 1816. | S p.l                     |
| 10103 biflora W. two-flowered             | □   un                         | 1  | jl.au | Y    | E. Indies   | 1790. | S p.l Bur. ind t.48. f.2  |
| 10104 micrantha Link. small-flowered      | □   un                         | 1  | jl.au | Y    | Ceylon      | 1823. | S co                      |
| 10105 vitellina Ker. Yolk of egg          | □   un                         | 2  | my.jn | Y    | Brazil      | 1819. | C co Bot. reg. 447        |
| 10106 pulcherrima B. M. Mysore            | ■   un                         | 2  | jn.jl | Y    | Mysore      | 1814. | C co Bot. mag. 2027       |
| 10107 paniculata W. panicked              | □   or                         | 3  | ...   | Y    | E. Indies   | 1807. | C lp                      |
| 10108 lotifolia W. Lotus-leaved           | □   un                         | 3  | jn.jl | Y.G  | Jamaica     | 1732. | S co Di.l.el.t.102.f.121  |
| 10109 laburnifolia W. Laburnum-ldv.       | ✓   un                         | 5  | jl.s  | Y    | E. Indies   | 1739. | S co Rhee.mal.9.t.27      |
| §10110 cordifolia W. heart-leaved         | ■   un                         | 8  | ap.jn | D.Pu | C. G. H.    | 1790. | C p.l Bot. cab. 1158      |
| 10111 purpurea H. K. dark-purple          | ■   un                         | 4  | mr.my | Pu   | C. G. H.    | 1790. | C p.l Bot. reg. 128       |
| 10112 pulchella H. K. large-flowered      | ■   un                         | 3  | jl.au | Y    | C. G. H.    | 1800. | C p.l Bot. mag. 1699      |
| 10113 Saltiana B. Kerp. Salt's            | ■   un                         | 3  | jn.jl | Y    | Abyssinia   | 1810. | C p.l Bot. rep. 648       |
| 10114 axillaris W. axil-flowered          | □   un                         | 1  | jl.au | Y    | Guinea      | 1781. | S p.l                     |
| 10115 orixensis W. en. strigose           | □   un                         | 1  | jl.au | Y    | E. Indies   | 1816. | S p.l                     |
| 10116 incanescens W. spreading            | ■   un                         | 6  | jn.o  | Y    | C. G. H.    | 1774. | S s.p Jac. vind. 3. t. 64 |
| 10117 inaeua W. hoary                     | □   un                         | 2  | jn.jl | G.v  | W. Indies   | 1774. | S s.p Bot. reg. 377       |
| 10118 pallida W. pale-flowered            | □   un                         | 2  | jn.jl | Pa.Y | Africa      | 1715. | S s.p                     |
| 10119 angustifolia W. narrow-leaved       | ■   un                         | 1  | my.s  | Pa.Y | C. G. H.    | 1815. | S s.p Jac.schœ.2. t.219   |
| 10120 quinquefolia W. five-leaved         | □   un                         | 1  | jn.jl | Y    | E. Indies   | 1792. | C s.p Rhee. mal.9. t.28   |
| 1531. BOSSIEA A. Sm. BOSSIEA.             | <i>Leguminosae. Sp. 8—12.</i>  |    |       |      |             |       |                           |
| 10121 Scolopendrium H. K. Plank-plant     | ■   or                         | 10 | my.jl | Y    | N. S. W.    | 1792. | C s.l.p Bot. rep. 191     |
| 10122 rufa H. K. red-flowered             | ■   or                         | 6  | jn.s  | R    | N. Holl.    | 1803. | C s.l.p Bot. cab. 1119    |
| 10123 heterophylla V. various-leaved      | ■   or                         | 3  | my.d  | Y    | N. S. W.    | 1792. | C s.l.p Bot. mag. 1144    |
| 10124 linophylla H. K. narrow-leaved      | ■   or                         | 3  | jl.s  | Or   | N. Holl.    | 1803. | C s.l.p Bot. mag. 2491    |
| 10125 prostrata H. K. procumbent          | ■   or                         | 4  | jl.s  | Y    | N. S. W.    | 1803. | C s.l.p Bot. mag. 1493    |
| 10126 cinerea H. K. downy sharp-lv.       | ■   or                         | 3  | my.jl | Y    | V. Di. Isl. | 1803. | C s.l.p Bot. reg. 306     |
| 10127 microphylla H. K. small-leaved      | ■   or                         | 3  | my.au | Y    | N. S. W.    | 1803. | C s.l.p Bot. cab. 656     |
| †1532. SCOTTIA R. Br. SCOTTIA.            | <i>Leguminosae. Sp. 1.</i>     |    |       |      |             |       |                           |
| 10128 dentata R. Br. tooth-leaved         | ■   or                         | 3  | jn.s  | N.   | Holl.       | 1803. | C s.p Bot. cab. 1458      |
| 1533. TEMPLETONIA H. K. TEMPLETONIA.      | <i>Leguminosae. Sp. 2.</i>     |    |       |      |             |       |                           |
| 10129 retusa H. K. wedge-leaved           | ■   or                         | 2  | mr.jn | R    | N. Holl.    | 1803. | C s.p Bot. mag. 2334      |
| 10130 glauca B. M. glaucous               | ■   or                         | 2  | ap.my | R    | N. Holl.    | 1818. | C s.p Bot. reg. 859       |



History, Use, Propagation, Culture,

1529. *Sarcophyllum*. From *σαρξ*, flesh, and *φυλλον*, a leaf. The leaves are thick and fleshy. A somewhat succulent plant, easily injured by over-watering; but otherwise not difficult to preserve or increase.

1530. *Crotalaria*. *Κροταλον* was the name of a noisy Greek musical instrument, similar to the cymbals of the present day. The pods of this genus are inflated, and rattle, when shaken, in a similar manner. The species are all of easy culture, mostly free-flowerers; but they are shabby plants under cultivation, and possess no good quality which can render them objects of interest or beauty.

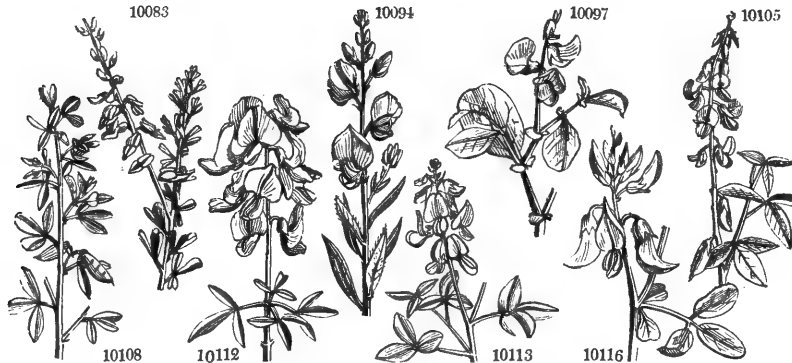
1531. *Bossiea*. Named by Ventenat, after M. Boissieu-Lamartinière, who accompanied the unfortunate La Pérouse in his voyage round the world. This beautiful genus, according to Sweet, "thrives best in an equal mixture of sandy loam and peat; if not very sandy, some sand must be added to it to have the plants in health. The pots must be well drained with broken potsheds, as nothing injures them more than too much

## 10090 The only species

- 10081 Leaves simple obl. lanceolate, Stipules lanceolate acuminate decurrent, Racemes opposite the leaves  
 10082 Leaves simple lanc. ellipt. blunt downy beneath, Racemes opposite the leaves  
 10083 Leaves very small ternate glaucous, Racemes few-flowered, Vexillum reflexed  
 10084 Leaves simple lanc. villous, Upper stipules lanc. decurrent, Racemes opposite the leaves, Cal. villous  
 10085 Branches winged upwards, Lower leaves obl. : upper lanc. acute hairy, Racemes lateral  
 10086 Leaves simple lin. lanc. acute villous beneath, Flowers and pods inclosed in hairy calyx  
 10087 Leaves simple long-lanc. Pods downy, Raceme terminal, Stem square  
 10088 Leaves obl. lanceolate silky beneath, Fl. racemose, Bractes linear much shorter than pedicel  
 10089 Leaves simple lanc. Upper stipules decurrent with 2 short teeth, Racemes opposite the leaves  
 10090 Leaves lanceolate subsessile. Lower lip of cal. 3-parted beyond the middle, Stem virgate simple  
 10091 Leaves simple lanc. subsessile, Pods smooth, Raceme terminal, Stem furrowed  
 10092 Leaves lanceolate blunt hairy, Fl. terminal, Calyx hairy as long as corolla  
 10093 Leaves lanceolate, Raceme terminal, Cal. very villous as long as corolla  
 10094 Leaves simple ov. lanceolate silky ciliated, Standard large erect pointed  
 10095 Leaves simple lanc. beneath, Pods silky, Raceme terminal, Stem furrowed  
 10096 Leaves simple obl. cuneiform retuse, Raceme terminal  
 10097 Leaves simple ovate retuse, Stipules lunate declinate, Raceme term. Branches square  
 10098 Leaflets 3 oval acute, Hairs shining scattered, Racemes opposite the leaves  
 10099 Leaflets 3 oval blunt with scattered hairs, Raceme terminal long, Keel shorter than vexillum  
 10100 Leaves simple obovate oblong silky on each side, Pod 4-seeded length of calyx  
 10101 Stems round striated, Leaves oval emarginate mucronate, Stipules lunate amplicaul  
 10102 Leaves simple lin.-lanceolate blunt hairy, Pedunc. terminal subsolitary, Stem branched diffuse  
 10103 Leaves simple obl. blunt hairy, Stems prostrate herbaceous, Pedunc. 2-3-fl. axillary  
 10104 Leaflets 3 oblong blunt mucronate with scattered hairs beneath, Raceme terminal, Calyx&c silky  
 10105 Leaves ternate, Leaflets oval-lanc. acute twice as long as villous petiole, Pods pendulous  
 10106 Leaves obovate cuneate silky, Racemes term. Bractes and calyx colored  
 10107 Leaves obl. blunt silky villous, Stipules linear subulate reflexed, Panic. terminal bracteate  
 10108 Leaves ternate, Leaflets cuneiform emarginate silky beneath, Peduncles axillary solitary 1-flowered  
 10109 Leaves ternate ovate acuminate smooth, Stipules none, Raceme terminal, Pods stalked pendulous  
 10110 Leaves ternate obovate mucronate, Flowers corymbose, Stem shrubby  
 10111 Leaves ternate, Leaflets obovate retuse, Racemes terminal  
 10112 Leaves ternate, Leaflets linear lanceolate acute half as long again as petiole downy beneath  
 10113 Leaves ternate on long stalks, Leaflets oval downy, Racemes axillary lax, Standard blunt  
 10114 Leaves ternate obl. lanceolate acute silky beneath, Stipules lanceolate subulate, Pedunc. axill. 1-flowered  
 10115 Leaves ternate obovate strigose beneath, Stipules lanceol. and bractes ovate reflexed, Racemes terminal  
 10116 Leaves ternate obovate, Stipules leaf-like stalked, Racemes terminal, Pods stalked  
 10117 Leaves ternate oval villous beneath, Racemes spiked, Keel downy at edge, Pods sessile hairy  
 10118 Leaves ternate lanceolate smooth, Racemes terminal spiked  
 10119 Leaves ternate lanc. hoary silky shorter than petiole, Raceme terminal  
 10120 Leaves quinate  
 10121 Branches flat linear leafless, Denticulations flower-bearing, Keel naked, Calyx smooth  
 10122 Branches flat linear leafless, Denticulations flower-bearing, Keel fringed, Calyx smooth  
 10123 Branches leafy compressed, Leaves obovate and linear flat, Pod many-celled with spongy septa  
 10124 Branches leafy compressed, Leaves linear with recurved edges, Pod 1-celled  
 10125 Branches leafy filiform, Leaves oval smooth, Stipules shorter than petiole, Pod 1-celled  
 10126 Branches leafy round, Stem erect much branched, Leaves ovate-lanc. rough above  
 10127 Branches leafy spiny round, Leaves obovate cuneiform

## 10128 The only species

- 10129 Leaves green retuse  
 10130 Leaves glaucous blunt



and Miscellaneous Particulars.

water. Cuttings, not too ripe, will strike root if planted in sand under a bell-glass, not too close together, as they are apt to damp; when rooted, they must be potted off in little pots and kept in a close frame, and hardened to the air by degrees." (*Bot. Cult.* 151.)

1532. *Scottia*. Named in memory of Robert Scott, M. D., formerly professor of botany at Dublin. A shrub found by Mr. Brown upon the south-west coast of New Holland. Young cuttings root in sand under a bell-glass.

1533. *Templetonia*. Named after John Templeton, Esq., of Orange Grove, near Belfast, a gentleman to whom the editor of the English Botany was under frequent obligations for Irish plants during the progress of that work.

|                                 |                        |   |   |    |                           |       |       |                               |                   |
|---------------------------------|------------------------|---|---|----|---------------------------|-------|-------|-------------------------------|-------------------|
| 1534. GOODIA. <i>R. Br.</i>     | GOODIA.                |   |   |    | <i>Leguminosæ. Sp. 2.</i> |       |       |                               |                   |
| 10131 lotifolia <i>H. K.</i>    | smooth                 | ♂ | □ | or | 3                         | ap,jl | Y     | V. Di. Isl.                   | 1793. S s.p       |
| 10132 pubescens <i>H. K.</i>    | downy                  | ♂ | □ | or | 3                         | ap,jl | Y     | V. Di. Isl.                   | 1805. S s.p       |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. mag. 958     |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. mag. 1310    |
| 1535. LODDIGESIA. <i>B. M.</i>  | LODDIGESIA.            |   |   |    |                           |       |       | <i>Leguminosæ. Sp. 1.</i>     |                   |
| 10133 oxalidifolia <i>B. M.</i> | Oxalis-leaved          | ♂ | □ | pr | 1½                        | my,s  | Pa.pu | C. G. H.                      | 1802. C p.l       |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. mag. 965     |
| †1536. HOVEA. <i>H. K.</i>      | HOVEA.                 |   |   |    |                           |       |       | <i>Leguminosæ. Sp. 5.</i>     |                   |
| 10134 linearis <i>H. K.</i>     | linear-leaved          | ♂ | □ | or | 3                         | mr,jl | Pu    | N. S. W.                      | 1796. S s.p       |
| 10135 longifolia <i>H. K.</i>   | long-leaved            | ♂ | □ | or | 3                         | jn,s  | Pu    | N. S. W.                      | 1805. S s.p       |
| 10136 lanceolata <i>B. M.</i>   | spear-leaved           | ♂ | □ | or | 3                         | mr,jl | Pu    | N. Holl.                      | 1805. S s.p       |
| 10137 elliptica                 | oval-leaved            | ♂ | □ | or | 3                         | mr,jl | Pu    | N. Holl.                      | 1817. C s.p       |
| 10138 Celsi Bonpl.              | Cels's                 | ♂ | □ | or | 4                         | mr,jl | B     | N. Holl.                      | 1818. C s.p       |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. cab. 1450    |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. reg. 280     |
| †1537. SPARTIUM. <i>W.</i>      | BROOM.                 |   |   |    |                           |       |       | <i>Leguminosæ. Sp. 21–37.</i> |                   |
| 10139 juncum <i>W.</i>          | Spanish                | ♂ | □ | ec | 6                         | jl,s  | Y     | S. Europe                     | 1548. S co        |
|                                 | <i>double-flowered</i> | ♂ | □ | or | 6                         | jl,s  | Y     | S. Europe                     | 1548. S co        |
| 10140 monospermum <i>W.</i>     | white single-seed.     | ♂ | □ | or | 4                         | jn,jl | W     | S. Europe                     | 1690. S p.l       |
| 10141 sphaerocarpon <i>W.</i>   | yellow single-seed.    | ♂ | □ | or | 4                         | jn,jl | Y     | S. Europe                     | 1731. S p.l       |
| 10142 procerum <i>W. ex.</i>    | tall                   | ♂ | □ | or | 4                         | jn,jl | Y     | Portugal                      | 1816. C s.l       |
| 10143 congestum <i>W. ex.</i>   | close-branched         | ♂ | □ | or | 4                         | ap,jl | Y     | Tenerife                      | ...               |
| 10144 virgatum <i>W.</i>        | long-twigg'd           | ♂ | □ | or | 5                         | mr,jn | Y     | Portugal                      | 1777. C s.l       |
| 10145 purgans <i>W.</i>         | purg'g                 | ♂ | □ | or | 4                         | jn,jl | Pa.Y  | S. France                     | 1768. S p.l       |
| 10146 umbellatum <i>W.</i>      | umbell'd               | ♂ | □ | or | 3                         | ap,jn | Y     | Barbary                       | 1799. C p.l       |
| 10147 Scorpium                  | Scorpion               | ♂ | □ | or | 4                         | mr,ap | Y     | S. Europe                     | 1570. S p.l       |
| 10148 sericeum <i>Vent.</i>     | silky                  | ♂ | □ | or | 3                         | my,au | Y     | Mogadore                      | 1812. C p.l       |
| 10149 multiflorum <i>W.</i>     | white Portugal         | ♂ | □ | or | 6                         | my    | W     | Portugal                      | 1752. S co        |
| 10150 angulatum <i>W.</i>       | small-flower'd         | ♂ | □ | or | 3                         | my,jn | Y     | Levant                        | 1739. C p.l       |
| 10151 patens <i>W.</i>          | woolly-pod'd           | ♂ | □ | or | 4                         | jn,jl | Y     | Portugal                      | 1752. S p.l       |
| 10152 pilocarpum <i>Link.</i>   | hairy-fruited          | ♂ | □ | or | 4                         | jn,jl | Y     | .....                         | 1823. S p.l       |
| 10153 cinereum <i>W.</i>        | cinereous              | ♂ | □ | or | 4                         | jn,jl | Y     | S. Europe                     | ...               |
|                                 | cluster-flower'd.      | ♂ | □ | ft | 6                         | my,au | W     | Tenerife                      | 1779. C p.l       |
| 10154 nubigenum <i>W.</i>       | Flax-leaved            | ♂ | □ | or | 3                         | ja,jn | Y     | Spain                         | 1739. C p.l       |
| 10155 limifolium <i>W.</i>      | common                 | ♂ | □ | or | 6                         | ap,jn | Y     | Britain                       | dry hill. S co    |
| 10156 scoparium <i>W.</i>       |                        | ♂ | □ | or | 6                         | ap,jn | Y     | Italy                         | 1758. S s.p       |
| 10157 radatum <i>W.</i>         | starry                 | ♂ | □ | or | 1½                        | jn,jl | Y     | Barbary                       | 1800. C p.l       |
| 10158 ferox <i>W.</i>           | fierce                 | ♂ | □ | or | 1½                        | jn,jl | Y     | Barbary                       | 1800. C p.l       |
| 10159 spinosum <i>W.</i>        | prickly                | ♂ | □ | or | 2                         | jn,jl | Y     | S. Europe                     | 1596. C p.l       |
|                                 |                        |   |   |    |                           |       |       |                               | Lob. ic. 2. p. 95 |
| 1538. GENISTA. <i>W.</i>        | GENISTA.               |   |   |    |                           |       |       | <i>Leguminosæ. Sp. 21–42.</i> |                   |
| 10160 canariensis <i>W.</i>     | Canary                 | ♂ | □ | ft | 2                         | my    | Y     | Canaries                      | 1656. S s.l       |
| 10161 candicans <i>W.</i>       | hoary                  | ♂ | □ | or | 2                         | ap,jl | Y     | Spain                         | 1735. C s.l       |
| 10162 viscosa <i>W.</i>         | clammy                 | ♂ | □ | or | 2                         | ap,jl | Y     | Canaries                      | 1815. C s.l       |
| 10163 triquetra <i>W.</i>       | triangular             | ♂ | □ | or | 3                         | my,jn | Y     | Corsica                       | 1770. C s.p       |
| 10164 sagittalis <i>W.</i>      | jointed                | ♂ | □ | or | ½                         | my,jn | Y     | Germany                       | 1570. L co        |
| 10165 triangularis <i>W.</i>    | three-sided            | ♂ | □ | or | 2                         | my,jn | Y     | Hungary                       | 1815. C co        |
| 10166 tinctoria <i>W.</i>       | Green-weed             | ♂ | □ | or | 3                         | jn,au | Y     | Britain                       | dry pa. S co      |
| 10167 sibirica <i>W.</i>        | Siberian               | ♂ | □ | or | 2                         | jn,au | Y     | Siberia                       | 1785. L co        |
| 10168 ovata <i>W.</i>           | oval-leaved            | ♂ | □ | or | 3                         | jn,au | Y     | Hungary                       | 1816. C co        |
| 10169 scariosa <i>Viviant</i>   | scariosæ               | ♂ | □ | or | 6                         | jn,jl | Y     | Italy                         | 1821. C co        |
|                                 |                        |   |   |    |                           |       |       |                               | Bot. cab. 1135    |



History, Use, Propagation, Culture,

1534. *Goodia*. In memory of Peter Good, an industrious gardener employed by the Kew garden in collecting seeds in New Holland, where he died.

1535. *Loddigesia*. Named in compliment to Mr. Conrad Loddiges, a successful cultivator of plants, an assiduous collector, and a most worthy man, whose virtues are inherited by his sons.

1536. *Hovea*. In honor of Mr. Antony Pantaleon Hove, a Polish botanist, who travelled in the Crimea and Persia, whence many plants were sent to Kew garden. He is still alive, and naturalized in England. Pretty plants, easily cultivated in sandy loam and peat, and rooted in sand under a hand-glass.

1537. *Spartium*. From *σπάρτον*, cordage; the earliest ropes were made of this and similar tough plants. The species are shrubs thick-set with verdant flexible rush-like twigs, which are very ornamental in winter, and generally profusely covered with shewy white or yellow odoriferous and mellifluous blossoms in summer. *S. junceum* is grown as a green food for sheep in the south of France, and there and in Spain it affords a thread from its fibres, which is sometimes wove into cloth, but more generally twisted into cordage. Bees are very fond of the flowers, as they are of those of most of the species.

*S. monospermum*, is a very handsome shrub, remarkable for its numerous snow-white flowers. Osbeck remarks, that it grows like willow-bushes along the shore of Spain, as far as the flying sands reach, where scarcely any other plant exists except the *Ononis repens*, or creeping Restharrow. The use of this shrub is very great in stopping the sand. The leaves and young branches are delicious food for goats. It converts the most barren spot into a fine odoriferous garden by its flowers, which continue a long time. It serves to shelter hogs and goats against the scorching heat of the sun. The twigs are used for tying bundles; and all kinds of herbs that are brought to market are fastened together with them. Forskahl found it in Arabia; and Desfontaines in Barbary, on the sandy coast. The Spaniards call it *Retamas*, from the Arabic name *Retam*.

10131 Leaflets obovate and calyxes smooth, Pod varicose  
 10132 Leaflets obovate cuneate and calyxes downy, Pod smooth

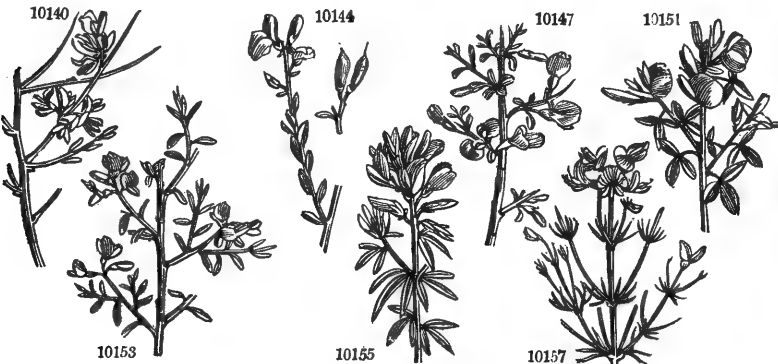
10133 The only species

10134 Leaves linear hairy beneath, Pods smooth  
 10135 Leaves long linear: beneath veiny, Pods downy  
 10136 Branches twiggy, Leaves lanc. mucronate downy beneath, Fl. axill. twin  
 10137 Leaves elliptic oblong  
 10138 Leaves lanc. somewhat rhomboid blunt at end mucronate, Peduncles axillary many-flowered

10139 Branches opposite round flowering at end, Leaves lanceolate

10140 Branches round striated, Racemes lateral few-fl. Flowers subaggregate, Leaves lanceolate silky  
 10141 Branches round striated, Racemes lateral many-fl. Flowers remote, Leaves lanc. sessile a little hairy  
 10142 Branches round striated, Fl. solitary axillary, Pods villous, Leaves lanceolate hairy  
 10143 Branches round striated very close, Fl. terminal racemose, Vexillum smooth, Leaves lanc. silky  
 10144 Branches round striated, Fl. axill. solitary subracemose, Standard and keel downy, Lvs. obl. lanc. silky  
 10145 Branches round striated, Fl. axillary solitary, Leaves lanc. silky subsessile  
 10146 Branches round striated, Fl. term. capitate, Leaves lin. lanc. silky  
 10147 Branches round striated spreading spiny, Pedunc. axill. many-fl. Leaves obl. acute silky  
 10148 Leaves lanc. silky beneath, Corolla silky, Branches erect round  
 10149 Leaves ternate and simple silky, Twigs straight striated flowering on all sides  
 10150 Leaves solitary and ternate linear lanceolate hoary, Branches hexangular flowering at the ends  
 10151 Leaves ternate stalked obovate, Branches round striated, Lateral flowers twin nodding  
 10152 Branches angular, Leaves simple lanceolate silky beneath, Fl. racemose, Pods hairy  
 10153 Branches round with ten furrows, Flowers axillary solitary downy  
 10154 Leaves ternate lanc. hairy stalked, Fl. lateral fascicled, Pods smooth, Branches round striated  
 10155 Leaves ternate sessile linear silky beneath, Raceme terminal, Branches round furrowed  
 10156 Leaves ternate and solitary oblong, Fl. axillary, Pods hairy at edge, Branches angular  
 10157 Leaves ternate linear, Petioles dilated persistent, Racemes capitate term. Branches angl. opp. clustered  
 10158 Leaves ternate and simple oblong mucronate, Raceme terminal, Branches striated round spiny  
 10159 Leaves ternate obovate, Peduncles axillary, Cal. and pods smooth, Branches angular spiny

10160 Leaves tern. obl. downy beneath with spreading hairs, Pedunc. many-fl. terminal, Branches angular  
 10161 Leaves ternate obovate downy with closely pressed hairs, Pedunc. many-fl. terminal, Branches angular  
 10162 Leaves ternate obl. smooth, Racemes terminal, Cal. and pods glandular viscid, Branches round striated  
 10163 Leaves ternate: upper simple, Branches triquetrous procumbent  
 10164 Branches 2-edged membranous jointed, Leaves ovate lanceolate  
 10165 Leaves lanceolate mucronate smooth, Branches 3-cornered ascending, Pods smooth  
 10166 Leaves lanceolate smooth, Branches round striated erect, Pods smooth  
 10167 Leaves lanceolate smooth, Branches equal round erect  
 10168 Leaves oblong ovate and pods hairy, Branches round striated  
 10169 Quite smooth, Leaves not ciliated, Cor. 5 lines long, Calyx smooth

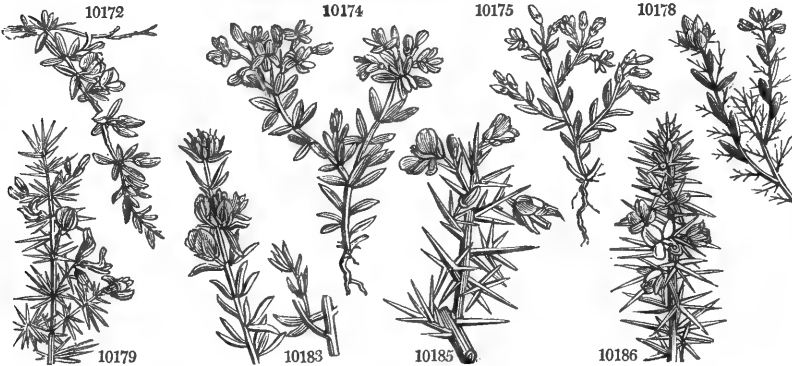


and Miscellaneous Particulars.

*S. scoparium*, though in some places a troublesome weed in old pastures, is a very ornamental shrub in garden scenery: it is also useful in agriculture, domestic economy, and medicine. It is sometimes used as winter food for sheep, frequently for thatching cottages and ricks, and as litter. Bees are fond of the flowers: the flower-buds, just before they become yellow, are pickled in the manner of capers: the branches are said to be capable of tanning leather, and of being manufactured into coarse cloth; when tender, they are mixed with hops in brewing: the old wood furnishes the cabinet-maker with a beautiful material for veneering. The twigs, when bruised, smell disagreeably, which perhaps may be one reason why our broom is generally rejected by cattle (*Curia*); but they have also a nauseous bitter taste. The plant when burnt affords a tolerably pure alkaline salt. Broom tops are diuretic and cathartic; the seeds are said to be emetic. The effects of this plant have been very long known to the common people; and both Mead and Cullen found them useful in dropsy. The usual mode of exhibiting them is in the form of decoction, made by boiling the green tops in water. Speaking of this decoction, of which two table spoonfuls were given every hour till it operated by stool, Cullen says, "it seldom fails to operate both by stool and urine, and by repeated exhibition every day, or every second day, some dropsies have been cured. (*Thompson's London Dispensatory*, 514.)

1338. *Genista*. *Gen*, signifies, in Celtic, a small bush, whence also *Génet*, French. The species are shrubs or undershrubs, some of them evergreen, and many with numerous flexible rush-like green twigs like the brooms. They are of easy culture and free flowerers. *G. tinctoria* is common in most parts of Europe, in unimproved pastures on dry gravelly soils. When cows feed on it, their milk, and the butter or cheese made from it, are said to be very bitter. A bright yellow color may be prepared from the flowers; and for wool that it is to be dyed green with woad, the dyers prefer it to all others. A dram and a half of the powdered seeds operates as a mild purgative. A decoction of the plant is sometimes diuretic, and therefore

|                                  |                             |   |    |    |       |       |                     |                   |         |    |    |
|----------------------------------|-----------------------------|---|----|----|-------|-------|---------------------|-------------------|---------|----|----|
| 10170 <i>florida W.</i>          | Spanish                     | ♂ | or | 6  | jn.au | Y     | Spain               | 1752.             | S       | co |    |
| 10171 <i>procumbens W.</i>       | procumbent                  | ♂ | or | 1½ | jn.au | Y     | Hungary             | 1816.             | C       | co |    |
| 10172 <i>decumbens W.</i>        | trailing                    | ♂ | or | ½  | my.jn | Y     | France              | 1775.             | L       | p1 |    |
| 10173 <i>pilosa W.</i>           | hairy green-weed            | ♂ | or | 6  | my.jn | Y     | England san.he      | S                 | co      | co |    |
| 10174 <i>diffusa W.</i>          | diffuse                     | ♂ | or | 3  | my.jn | Y     | Italy               | 1816.             | C       | co |    |
| 10175 <i>sericea W.</i>          | silky                       | ♂ | or | 3  | my.jn | Y     | Austria             | 1812.             | S       | a1 |    |
| 10176 <i>ánglica W.</i>          | Petty whin                  | ♂ | or | 2  | my.jn | Y     | Britain moi.he      | S                 | co      | co |    |
| 10177 <i>germánica W.</i>        | German                      | ♂ | or | 2  | jn.au | Y     | Germany             | 1773.             | L       | co |    |
| 10178 <i>hispánica W.</i>        | dwarf-prickly               | ♂ | or | 2  | jn.jl | Y     | Spain               | 1759.             | C       | co |    |
| 10179 <i>lusitánica W.</i>       | Portugal                    | ♂ | or | 2  | mr.my | Y     | Portugal            | 1771.             | C       | co |    |
| 10180 <i>bracteolata Link.</i>   | bracteolate                 | ♂ | or | 2  | mr.my | Y     | .....               | 1823.             | C       | co |    |
| 1539. <i>LEBECKIA W.</i>         | <i>LEBECKIA.</i>            |   |    |    |       |       | <i>Leguminosae.</i> | <i>Sp. 4—12.</i>  |         |    |    |
| 10181 <i>contaminata W.</i>      | narrow-leaved               | ♂ | or | 5  | ap.my | Br    | C. G. H.            | 1787.             | S       | p1 |    |
| 10182 <i>sericea W.</i>          | silky                       | ♂ | or | 2  | ap    | Y     | C. G. H.            | 1774.             | S       | p1 |    |
| 10183 <i>cytisoides W.</i>       | Cytisus-leaved              | ♂ | or | 3  | ap    | Pk    | C. G. H.            | 1774.             | S       | p1 |    |
| 10184 <i>subternata Link.</i>    | yellow-flowered             | ♂ | or | 3  | jn.jl | Y     | C. G. H.            | 1824.             | C       | co |    |
| †1540. <i>U'LEX W.</i>           | <i>FURZE.</i>               |   |    |    |       |       | <i>Leguminosae.</i> | <i>Sp. 2.</i>     |         |    |    |
| 10185 <i>europæus W.</i>         | common                      | ♂ | ag | 6  | ap.au | Y     | Britain             | san.he            | S       | co |    |
| 10186 <i>nánuus W.</i>           | dwarf                       | ♂ | or | 2  | aud   | Y     | Britain             | dry.he            | S       | co |    |
| 1541. <i>ONO'NIS W.</i>          | <i>REST-HARROW.</i>         |   |    |    |       |       | <i>Leguminosae.</i> | <i>Sp. 24—73.</i> |         |    |    |
| 10187 <i>antiquorum W.</i>       | tall                        | ♂ | Δ  | un | 1     | jn.jl | Pu                  | S. Europe         | 1790.   | D  | co |
| 10188 <i>spinosa W.</i>          | common                      | ♂ | Δ  | un | 1     | jn.au | F                   | Britain           | ...     | D  | co |
| 10189 <i>hircina W.</i>          | stinking                    | ♂ | Δ  | un | 1½    | my.au | R                   | Italy             | 1596.   | D  | co |
| 10190 <i>repens W.</i>           | creeping                    | ♂ | Δ  | un | 1     | jn.au | Pk                  | Europe            | ...     | D  | co |
| 10191 <i>Colomne W.</i>          | small-flowered              | ♂ | Δ  | un | 1     | jn.jl | Y                   | S. Europe         | 1732.   | D  | co |
| 10192 <i>mitissima W.</i>        | cluster-flowered            | ♂ | Δ  | un | 1     | jn.jl | Pu                  | Portugal          | 1732.   | S  | co |
| 10193 <i>alopeuroides W.</i>     | Fox-tail                    | ♂ | ○  | un | ½     | jl.au | Pu                  | Portugal          | 1696.   | S  | co |
| 10194 <i>variegata W.</i>        | variegated                  | ♂ | ○  | un | ½     | jl.au | Y                   | Spain             | 1784.   | S  | co |
| 10195 <i>pubescentes W.</i>      | downy                       | ♂ | ○  | un | 1     | jn.au | Pu                  | S. Europe         | 1680.   | S  | co |
| 10196 <i>cérnuu W.</i>           | hanging-podded              | ♂ | ○  | un | 2     | jl.s  | Y                   | C. G. H.          | 1774.   | C  | co |
| 10197 <i>geminata W.</i>         | two-flowered                | ♂ | Δ  | un | 1½    | jl.s  | Pk                  | C. G. H.          | 1787.   | S  | p1 |
| 10198 <i>reclinata W.</i>        | spreading                   | ♂ | Δ  | un | ½     | jn.au | St                  | S. Europe         | 1800.   | S  | co |
| 10199 <i>cenisia W.</i>          | narrow-leaved               | ♂ | Δ  | un | ½     | jn.au | Pk                  | Italy             | 1759.   | D  | co |
| 10200 <i>vaginális P. S.</i>     | sheathed                    | ♂ | Δ  | un | 2     | jn.au | Y                   | Egypt             | 1815.   | C  | co |
| 10201 <i>Cherleri W.</i>         | dwarf                       | ♂ | Δ  | un | ½     | jn.jl | Pu                  | S. Europe         | 1771.   | D  | p1 |
| 10202 <i>viscosa W.</i>          | clammy                      | ♂ | Δ  | un | 1     | jl.au | Y                   | S. Europe         | 1759.   | S  | a1 |
| 10203 <i>ornithopodioides W.</i> | Bird's-foot                 | ♂ | ○  | un | 1½    | jl.au | Y                   | Sicily            | 1713.   | S  | co |
| 10204 <i>pinguis W.</i>          | greasy                      | ♂ | ○  | un | 1½    | jl    | Y                   | S. Europe         | 1739.   | C  | co |
| 10205 <i>Náxia W.</i>            | yellow-shrubby              | ♂ | ○  | un | 1½    | mys   | Y                   | S. Europe         | 1683.   | S  | p1 |
| 10206 <i>hispánica W.</i>        | Spanish                     | ♂ | ○  | un | 1½    | mys   | Y                   | Spain             | 1799.   | C  | p1 |
|                                  | <i>β otigophylla Tenore</i> | ♂ | ○  | un | 1½    | mys   | Y                   | Naples            | 1823.   | C  | p1 |
|                                  | <i>feu-leaved</i>           | ♂ | ○  | un | 1½    | mys   | Y                   | Naples            | 1823.   | C  | p1 |
| 10207 <i>tridentata W.</i>       | three-toothed               | ♂ | ○  | un | 1½    | jn.au | Pu                  | Spain             | 1752.   | C  | p1 |
| 10208 <i>crispa W.</i>           | curl-leaved                 | ♂ | ○  | un | 2     | jn.au | Y                   | Spain             | 1739.   | S  | p1 |
| 10209 <i>fruticosa W.</i>        | shrubby                     | ♂ | pr | 2  | my.jn | Pk    | S. France           | 1680.             | S       | a1 |    |
| 10210 <i>rotundifolia W.</i>     | round-leaved                | ♂ | un | 1  | my.jl | Pk    | Switzerl.           | 1870.             | C       | a1 |    |
| *1542. <i>ANTHYLLIS W.</i>       | <i>KIDNEY VETCH.</i>        |   |    |    |       |       | <i>Leguminosae.</i> | <i>Sp. 14—35.</i> |         |    |    |
| 10211 <i>tetraphylla W.</i>      | four-leaved                 | ♂ | ○  | or | 1     | jl.au | W                   | S. Europe         | 1640.   | S  | co |
| 10212 <i>Vulneraria W.</i>       | common                      | ♂ | Δ  | or | ½     | my.au | Y                   | Britain           | ch.pas. | D  | a1 |
|                                  | <i>β rábra</i>              | ♂ | Δ  | or | ½     | my.au | R                   | .....             | ...     | D  | a1 |



History, Use, Propagation, Culture,

has proved serviceable in dropical cases. A salt prepared from the ashes is recommended in the same disorder.

*G. triquetra* is the handsomest hardy species: it is evergreen, and produces a vast profusion of bloom. 1539. *Lebeckia*. Named by Thunberg; possibly in honor of some forgotten botanist. Young cuttings root freely in sand under close cover.

1540. *Ulex*. A word of very obscure meaning. De Theis derives it from *ae*, a point in Celtic. *U. europæus, Jonc-marim*. Fr., is a beautiful evergreen shrub, which flowers freely, both when wild and cultivated, the greater part of the year. It abounds in some places, and there it is despised by the common people; but the greatest botanists have admired its deep green shoots and leaves, brilliant yellow flowers, and tufted picturesque shape. About Petersburg, it forms one of their most valuable greenhouse plants, flowering in winter. Linnæus lamented that he could hardly preserve it alive in a greenhouse. Many parts of Germany are wholly destitute of the furze bush, inasmuch that Dillenius was in a perfect extasy when he first saw our commons covered with its golden flowers. And Gerard relates, that about Dantzic, Brunswick, and in Poland, there was not a branch of it growing, except some few plants and seeds that he sent, which were most curiously kept in their fairest gardens. As an agricultural plant the furze has been sown in several parts of the island as hedges; but excepting where it occupies a breadth of ten or twelve feet on a raised mound, it does not last long, getting naked below. Sown on a mound the sides may be cut, and the prunings used as fuel or as green food, and the fence thus rendered close at bottom and durable. It is sown in fields, and

- 10170 Leaves lanceolate silky, Branches striated round, Racemes 1-sided  
 10171 Leaves lanceolate acute, Pedunc. axill. 3 longer than leaves, Cor. smooth, Branches striated round  
 10172 Leaves lanceolate blunt silky beneath, Pedunc. axillary as long as leaf, Cor. silky, Branches angular  
 10173 Leaves lanceolate complicate, Pedunc. axill. very short, Cor. hairy, Stem warted striated procumbent  
 10174 Leaves lanceolate smooth subulate, Pedunc. axillary, Cor. smooth, Branches 3-cornered procumbent  
 10175 Leaves lanceolate silky beneath, Fl. terminal somewhat racemose, Cor. silky, Branches erect round  
 10176 Spines simple or compound, Flowering branches unarmed, Leaves oblong smooth, Racemes leafy term.  
 10177 Spines warted compound, Fl. branches unarmed, Lvs. lanc. hairy, Racemes term. naked, Keel pubesc.  
 10178 Spines compound pungent, Leaves lanceolate villous, Racemes terminal subcapitate  
 10179 Stem leafless, Spines crossing each other  
 10180 Leaflets ternate obovate, Racemes short, Bracts linear under the flower

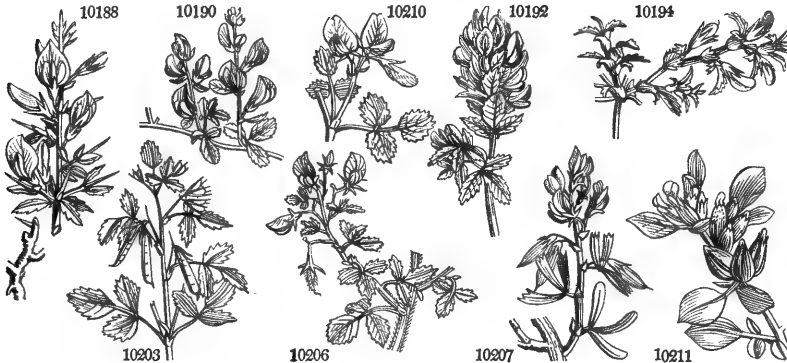
- 10181 Leaves simple linear filiform smooth, Flowers umbelled  
 10182 Leaves ternate silky, Leaves linear, Flowers racemose  
 10183 Leaves ternate villous, Raceme long terminal  
 10184 Leaves simple binate or ternate sessile lanceolate acute rough

- 10185 Teeth of cal. conniving, Bracts ovate loose  
 10186 Teeth of cal. distant, Bracts minute appressed

- 10187 Fl. solitary larger than leaflet, Lower leaves ternate lanceolate toothed at end, Branches spiny smooth  
 10188 Fl. twin axillary, Lower leaves ternate lanc. serrate, Branches spiny villous  
 10189 Fl. twin, Lower leaves ternate ellipt. serrate pubescent, Stem unarmed villous viscid  
 10190 Fl. solitary axill. Lower leaves ternate roundish serrate, Branches ascending spiny villous  
 10191 Fl. subsess. lateral, Leaves ternate obl. pubesc. Stipules lanc. tobletted, Cal. scarious longer than cor.  
 10192 Fl. sessile spiked, Bracts stipular ovate ventricose scarious imbricated  
 10193 Fl. subsess. lateral spiked, Leaves simple ovate blunt, Stipules dilated, Cal. larger than smooth corolla  
 10194 Fl. somewhat stalked axill. Lvs. simple obov. striated serrated, Stipules ovate toothed, Stem procumbent  
 10195 Pedunc. unarmed very short, Upper leaves simple, Stipules ovate lanc. entire  
 10196 Racemes straight, Leaves cuneiform, Pods nodding linear recurved  
 10197 Leaves ternate obovate, Pedunc. lateral 2-flowered  
 10198 Pedunc. unarmed 1-fl. Leaves ternate roundish crenate, Pods cernuous  
 10199 Pedunc. unarmed 1-fl. Leaves ternate cuneate, Stipules serrate, Stems prostrate  
 10200 Pedunc. 1-fl. awned, Leaves sessile ternate, Stipules sheathing toothed  
 10201 Pedunc. 1-fl. awned, Leaves tern. cuneate toothed at end villous viscid, Cal. larger than corolla  
 10202 Pedunc. 1-fl. awned length of leaves, Leaves simple oblong serrated viscid; lower ternate  
 10203 Pedunc. 2-fl. awned shorter than petiole, Leaves tern. oblong, Pods linear cernuous  
 10204 Pedunc. 1-fl. awned longer than leaf, Awns length of cor. Leaves ternate lanc. serrated at end  
 10225 Pedunc. 1-fl. awned longer than leaf, Leaves ternate viscid obl. toothed at end  
 10206 Pedunc. awned about 1-fl. Leaves all ternate channelled recurved wholly serrated

- 10207 Shrubby, Leaves tern. linear fleshy 3-toothed, Pedunc. 2-flowered  
 10208 Shrubby, Leaves tern. roundish wavy toothed viscid, Pedunc. 1-flower unarmed  
 10209 Shrubby, Leaves sessile ternate lanceolate serrated, Stipules sheathing, Pedunc. 3-flowered  
 10210 Shrubby, Leaves tern. ovate toothed, Cal. with 3 bracts, Pedunc. 3-flowered

- 10211 Herbaceous, Leaves quaternate-pinnate, Flowers lateral  
 10212 Herbaceous, Leaves pinnated unequal, Head double



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allowed to grow three or four years, and then it is cut down for fuel or for heating ovens; but the most profitable application of furze, whether sown or grown wild, is that of using it as green food for cattle. For this purpose, the shoots should not be more than two years old, and they require to be passed between rollers to bruise the ligneous parts and the thorns. It has been tried in this way by a number of agriculturists, and found a highly nutritive food for horses, oxen, and kine. Though a hardy plant and enduring the sea breeze, yet it is frequently killed by severe winters. It is never found on wet-bottomed clays, but generally on dry rocky or stony soils. There is a very luxuriant variety called the Irish whin, and one with double flowers found a few years ago in Devonshire, and now in propagation by cuttings in the nurseries.

*U. nanus* greatly resembles the common species, but is smaller in all its parts. It flowers from August to January, which renders it valuable in shrubberies as a successor to the other.

1541. *Ononis*. From *ovis*, an ass, because asses only feed upon so prickly a plant. *O. spinosa*, *Arrêtée boeuf*, Fr., *Rest harrow*, Eng., was formerly very troublesome in corn fields, on account of its long ligneous roots obstructing the progress of the plough, and its thorny branches the harrow; but in all properly cultivated lands the plant has disappeared. It is frequent in aboriginal pastures on dry soils, and is eaten by cows, sheep, and goats, but not freely by horses. All the species are of easy culture, and the greenhouse kinds are readily increased by young cuttings under a bell-glass in sand.

1542. *Anthyllis*. From *anthes*, a flower, and *ουλας*, a beard. So called from the silky appearance of its heads of flowers; whence also one species is called *Barba Jovis*. *A. Vulneraria* is recommended as a herbage

|                                   |                        |    |   |     |    |       |      |                     |            |   |     |                     |
|-----------------------------------|------------------------|----|---|-----|----|-------|------|---------------------|------------|---|-----|---------------------|
| 10213 <i>montana</i> W.           | mountain               | 3  | Δ | or  | 1  | jn,jl | Pu   | S. Europe           | 1759.      | D | s.1 | Bot. cab. 578       |
| 10214 <i>sericea</i> W.           | wing-leaved            | 3  | ○ | or  | 1  | jl,au | W    | Barbary             | 1786.      | C | p.1 | Desf.ac.par.1.t.3   |
| 10215 <i>corniculata</i> W.       | horry                  | ○  | ○ |     | 1  | jl,au | W    | Spain               | 1759.      | S | p.1 | Cav.ic.1.t.39.f.2   |
| 10216 <i>lotoides</i> W.          | Lotus-like             | ○  | ○ |     | 1  | jn,jl | Y    | Spain               | 1789.      | S | co  | Cav. ic. 1. t. 40   |
| 10217 <i>Gerardi</i> W.           | Gerard's               | ○  | ○ | or  | 1  | jn,au | W    | Provence            | 1806.      | S | co  | Ger. prov. t. 18    |
| 10218 <i>Bárba-jóvis</i> W.       | Jupiter's Beard        | 3  | ○ | or  | 3  | mr,my | Pa.Y | S. Europe           | 1640.      | C | p.1 | Bot. mag. 1927      |
| 10219 <i>cretica</i> W.           | Cretan                 | 1  | ○ | or  | 1  | jn,jl | Pk   | Candia              | 1737.      | C | p.1 | Bot. mag. 1082      |
| 10220 <i>heterophylla</i> W.      | various-leaved         | 3  | ○ | or  | 1  | jn,jl | Pk   | S. Europe           | 1768.      | C | p.1 |                     |
| 10221 <i>cytisoides</i> W.        | downy-leaved           | 2  | ○ | or  | 2  | ap,jn | W    | Spain               | 1731.      | C | p.1 | Barr. ic. 1182      |
| 10222 <i>Hermanniae</i> W.        | Lavender-lvd.          | 1  | ○ | or  | 1  | ap,jl | Y    | Levant              | 1739.      | C | p.1 | Alp. exot. t. 96    |
| 10223 <i>tragacanthoides</i> P.s. | Goat's-thorn-like      | 1  | ○ | or  | 1  | jn,jl | W    | Barbary             | ...        | C | p.1 | Desf. at. 2. t. 194 |
| 10224 <i>erinacea</i> W.          | prickly                | 1  | ○ | or  | 1  | ap,my | Pu   | Spain               | 1759.      | C | s.p | Bot. mag. 676       |
| 1543. <i>A'RACHIS</i> W.          | EARTH-NUT.             |    |   |     |    |       |      | <i>Leguminosae.</i> | Sp. 1-2.   |   |     |                     |
| 10225 <i>hypogaea</i> W.          | American               | 2  | ○ | clt | 2  | my,jn | Y    | S. Amer.            | 1712.      | O | s.1 | Trew.pl.rar.3.t.3   |
| 1544. <i>LUPINUS</i> W.           | LUPINE.                |    |   |     |    |       |      | <i>Leguminosae.</i> | Sp. 14-16. |   |     |                     |
| 10226 <i>perennis</i> Ph.         | smooth-perenn.         | 2  | Δ | or  | 2  | my,jl | B    | N. Amer.            | 1658.      | D | p.1 | Bot. mag. 902       |
| 10227 <i>nootkatensis</i> Ph.     | hairy-perennial        | 2  | Δ | or  | 6  | jn,au | Pu   | NootkaSo.           | 1794.      | D | p.1 | Bot. mag. 1311      |
| 10228 <i>albus</i> W.             | white                  | 3  | ○ | ag  | 3  | jl,au | W    | Levant              | 1596.      | S | co  |                     |
| 10229 <i>Thérms</i> W.            | Egyptian               | 3  | ○ | or  | 3  | jn,jl | W    | Egypt               | 1802.      | S | co  |                     |
| 10230 <i>várius</i> W.            | small-blue             | 3  | ○ | or  | 3  | jl,au | B.W  | S. Europe           | 1596.      | S | co  |                     |
| 10231 <i>hirsútus</i> W.          | great-blue             | 2  | ○ | or  | 2  | jl,au | B    | S. Europe           | 1629.      | S | co  | Bau.h.11.p.289      |
| 10232 <i>microcarpus</i> B.M.     | small-fruited          | 1  | ○ | or  | 1  | ap    | B    | Chili               | 1821.      | S | co  | Bot. mag. 2413      |
| 10233 <i>mexicánu</i> Lag.        | Mexican                | 2  | ○ | or  | 2  | f     | B    | Mexico              | 1819.      | S | co  | Bot. reg. 457       |
| 10234 <i>pilósus</i> W.           | rose                   | 3  | ○ | or  | 3  | jl,au | F    | S. Europe           | 1710.      | S | co  |                     |
| 10235 <i>angustifólius</i> W.     | narrow-leaved          | 2  | ○ | or  | 2  | jl,au | B    | Spain               | 1686.      | S | co  | Knor.del.2.t.L7     |
| 10236 <i>limifólius</i> W.        | Flax-leaved            | 2  | ○ | or  | 2  | jl,au | B    | .....               | 1799.      | S | co  | Roth. abb.14.t.5    |
| 10237 <i>luteus</i> W.            | yellow                 | 2  | ○ | or  | 2  | jl,au | Y    | .....               | 1596.      | S | co  | Bot. mag. 140       |
| 10238 <i>villósus</i> W.          | villous                | 1  | ○ | or  | 1  | jl,au | Pk   | Sicily              | 1787.      | R | s.1 |                     |
| 10239 <i>arbóreus</i> H. K.       | tree                   | 6  | ○ | or  | 6  | jl,au | Y    | Carolina            | 1787.      | R | s.1 | Bot. mag. 682       |
| 1545. <i>AMOR'PHA</i> W.          | BASTARD-INDIGO.        |    |   |     |    |       |      | <i>Leguminosae.</i> | Sp. 6.     |   |     |                     |
| 10240 <i>fruticósa</i> W.         | shrubby                | 6  | ○ | or  | 6  | jn,jl | Pu   | Carolina            | 1794.      | S | s.p | Bot. reg. 427       |
| <i>β emarginata</i>               | <i>emarginate-lvd.</i> | 6  | ○ | or  | 6  | jn,jl | Pu   | Carolina            | 1794.      | C | s.p |                     |
| 10241 <i>microphýlla</i> Ph.      | dwarf                  | 2  | ○ | or  | 2  | jl,au | Pu   | Missouri            | 1811.      | C | s.p |                     |
| 10242 <i>pubescens</i> Ph.        | pubescent              | 3  | ○ | or  | 3  | jn,jl | B    | Carolina            | 1803.      | C | s.p | Bot. cab. 689       |
| 10243 <i>canescens</i> Ph.        | canescent              | 3  | ○ | or  | 3  | jl,au | B    | Missouri            | 1812.      | C | s.p |                     |
| 10244 <i>nána</i> Nutt.           | pygmy                  | 1  | ○ | or  | 1  | jl,au | B    | Missouri            | 1811.      | C | s.p |                     |
| 10245 <i>erócea-lanáta</i> Wats.  | yellow-haired          | 5  | ○ | or  | 5  | jl,au | Pu   | N. Amer.            | 1820.      | C | s.p | Dend. brit. 139     |
| 1546. <i>A'BRUS</i> W.            | WILD-LIQUORICE.        |    |   |     |    |       |      | <i>Leguminosae.</i> | Sp. 1.     |   |     |                     |
| 10246 <i>precatórius</i> W.       | Jamaica                | 12 | ○ | or  | 12 | mr,my | W    | Indies              | 1680.      | S | s.p | Rhec. mal.8.t.39    |
| 1547. <i>PHASE'OLUS</i> W.        | KIDNEY-BEAN.           |    |   |     |    |       |      | <i>Leguminosae.</i> | Sp. 90-55. |   |     |                     |
| 10247 <i>vulgáris</i> W.          | common                 | 1  | ○ | cul | 1  | jn,s  | W    | India               | 1597.      | S | co  | Lob. ic. 2. p. 59   |
| 10248 <i>multifórus</i> W.        | scarlet                | 12 | ○ | cul | 12 | jl,s  | S    | S. Amer.            | 1633.      | S | co  | Sch.h.2.t.159.a     |
| 10259 <i>lunátus</i> W.           | scymetar-podded        | 12 | ○ | cul | 12 | jn,jl | G    | E. Indies           | 1799.      | S | co  | H.n.h.10.t.63.f.1   |
| 10250 <i>inacó'nus</i> W.         | various-colored        | 6  | ○ | un  | 6  | jl,au | G    | Africa              | 1794.      | S | co  | Jac. vind. 1. t. 66 |
| 10251 <i>farinósus</i> W.         | mealy                  | 3  | ○ | un  | 3  | jl,au | Pk   | E. Indies           | 1759.      | C | co  | Nac.p.1730.t.42     |
| 10252 <i>vexillátus</i> W.        | sweet-scented          | 3  | ○ | cul | 3  | jl,au | G    | W. Indies           | 1732.      | S | co  | Jac.vind. 2. t. 102 |
| 10253 <i>héivólus</i> W.          | pale red               | 3  | ○ | cul | 3  | jl,au | Pa.R | Carolina            | 1732.      | S | co  | Dil.el.t.233.f.300  |



History, Use, Propagation, Culture.

plant by some agricultural writers, as A. Young; and is by others confounded with Birdsfoot trefoil (*Lotus corniculata*, and major), and with the Liquorice-vetch (*Astragalus glycyphyllos*), to which, to a curious observer, it bears considerable resemblance. Linnaeus observes, that in Oeland, where the soil is a red calcareous clay, the flowers of *Anthyllis vulneraria* are red; but that in Gothland, where the soil is white, the flowers also are white: ours are yellow.

A. Barba Jovis is a silvery looking bush, with white and hairy leaves, pale yellow flowers, and woolly pods. Like most of the *Leguminosae*, this genus seeds freely; but in default of seeds, increase may be effected by young cuttings planted under a bell-glass in sand, which are not difficult to root; the glasses must be kept wiped, or the dew is apt to make them mouldy, which destroys them." (*Bot. Cult.* 135.)

1543. *Arachis*, *Aracos*, or *Araciana*, is a name applied by Pliny to a plant which had neither stem nor leaves, but was all root. The moderns have applied it to a plant, the fruit of which is borne underground. The specific name *hypogæa* (*ορα γη*, below ground), is in allusion to the curious circumstance of the pods, as they increase in size, forcing themselves into the earth, where they ripen their seeds, thence called earth-nuts. The plant is generally cultivated in the warmer parts of North and South America, but is supposed to be originally from Africa. In South Carolina the seeds are used as chocolate; in the eastern countries as almonds, and in Cochinchina they furnish an oil used for lamps, and as a substitute for oil of olives. About Paris it is raised on hotbeds and transplanted into the open garden, where it ripens its seeds, which are used as other legumes. It has also been brought to maturity in a stove in England, and proved very prolific. (See *Hort. Trans.* vol. v. p. 372.)

1544. *Lupinus*. Said to be derived from *lupus*, a wolf, because this plant devours, as it were, all the fertility

- 10213 Herbaceous, Leaves pinnated equal, Head terminal 1-sided, Flowers oblique
- 10214 Herbaceous, Leaves pinnated equal silky, Spike peduncled ovate
- 10215 Herbaceous, Leaves pinnated unequal, Head solitary stalked, Pods hooked blunt shorter than calyx
- 10216 Herbaceous, Cauline leaves ternate : radical pinnate unequal trifid or simple
- 10217 Herbaceous, Leaves pinnated unequal, Pedunc. lateral longer than leaf, Heads leafless
- 10218 Shrubby, Leaves pinnated equal silky, Bractes as long as globose many-flowered head
- 10219 Shrubby, Leaves pinnated equal and ternate villous, Flowers spiked
- 10220 Shrubby, Leaves pinnated : floral ternate
- 10221 Shrubby, Leaves ternate unequal, Calyxes woolly lateral
- 10222 Shrubby, Leaves ternate linear-cuneate somewhat stalked, Calyxes campanulate, Branches spiny
- 10223 Shrubby, Petioles spiny, Leaves pinnated, Flowers axillary subsessile, Cal. inflated
- 10224 Shrubby spiny, Leaves simple

10225 Leaves in fours cuneate rounded, Stipules undivided, Stem nearly smooth

- 10226 Cal. altern. without appendage : upper lip emarginate ; lower entire
- 10227 Cal. whorled without appendage : lower lip entire, Stem and leaves hairy
- 10228 Cal. altern. without appendage : upper lip entire ; lower 3-toothed
- 10229 Cal. altern. with an appendage : upper lip entire ; lower 3-toothed
- 10230 Cal. half-whorled with an appendage : upper lip bifid ; lower about 3-toothed
- 10231 Cal. altern. with an appendage : upper lip 2-parted ; lower 3-toothed
- 10232 Leaves digitate, Cal. whorled without append. Upper lip emarg. ; lower bifid, Pods 2-seeded
- 10233 Cal. altern. with an appendage : upper lip half-bifid ; lower obscurely 3-toothed
- 10234 Cal. whorled with an appendage : upper lip 2-parted ; lower entire
- 10235 Cal. altern. with an appendage : upper lip 2-fid ; lower entire, Leaflets linear-lanceolate flat
- 10236 Cal. altern. with an appendage : upper lip 2-fid ; lower subtrifid, Leaflets linear channelled
- 10237 Cal. whorled with an appendage : upper lip 2-parted ; lower 3-toothed
- 10238 Cal. half-whorled with an appendage : upper lip 2-fid ; lower undivided, Leaves simple obl. villous
- 10239 Shrubby, Cal. whorled without appendage stalked : lips acute entire

10240 Teeth of calyx 4 blunt, one acuminate

β Leaflets emarginate, Calyxes hoary

- 10241 Smoothish, Leaves on short stalks blunt at each end, Spikes solitary short, Pods 1-seeded
- 10242 Leaves on short stalks without a point obtuse smooth, Spikes long paniced downy
- 10243 Hoary, Leaflets subsessile ovate-elliptical acute mucronate, Spikes paniced hoary
- 10244 Said to be the same as *A. microphylla*
- 10245 Ferruginous, Spikes simple clustered, Leaflets ovate-lanceolate downy mucronate

10246 The only species

- 10247 Raceme solitary shorter than leaves, Pedunc. 2, Bractes less than cal. spreading, Pods pendulous
- 10248 Raceme solitary length of leaves, Pedunc. 2, Bractes less than cal. appressed, Pods pendulous
- 10249 Pods scymetar-shaped somewhat lunate smooth
- 10250 Vexillum of flowers revolute, Calyxes whole colored
- 10251 Peduncles subcapitate, Seeds 4-cornered cylindrical powdery
- 10252 Peduncles thicker than petiole capitate, Wings subfalcate deformed, Pods linear straight
- 10253 Flowers capitate, Cal. bracteate, Vexill. short, Wings expanded very large, Leaflets deitoid oblong



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of the soil : but this is a very doubtful explanation. The species are border flowers, in much esteem for their velvet-like leaves and fine large flowers. They are vigorous growing plants, and most of them would afford the agriculturist a considerable bulk of herbage.

*L. albus* is supposed to be the species that was cultivated for this purpose by the Romans ; though *L. luteus* is what is at present grown in the fields in the south of Italy as human food. In the south of France, it is grown in poor dry extensive plains, as a meliorating crop to be ploughed in where no manure is to be had, and the ground is too sterile for clover or other better plants. (*Villars.*) The perennial and ligneous species may be increased by pieces of the root, but they all seed freely.

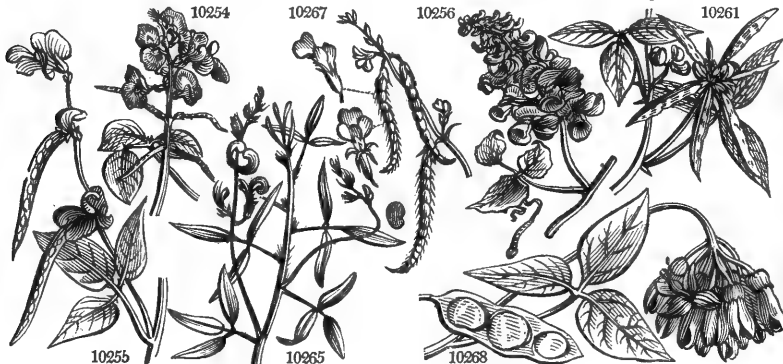
1545. *Amorpha*. From α, privative, and μορφη, form, in allusion to the deformity of the corolla, which has neither ale or carina. *A. fruticosa* was once used in Carolina as an indigo plant, but is now neglected. All the species are of easy cultivation, and increase by seeds or cuttings in sand.

1546. *Abrus*. From αβρος, elegant. The roots are used in the West Indies similarly to those of our liquorice, and the seeds are strung and worn as beads for ornaments, and also as rosaries, whence the specific name *precatorius*. They are frequently thrown, with other West Indian seeds, on the north-west coast of Scotland. *Linneus* affirms, that they are very deleterious ; but they are eaten in Egypt, though the hardest and most indigestible of the pulse tribe. In our stoves the plant requires a good deal of room and heat in order to flower freely. It is generally raised from seed, but cuttings will root in sand plunged in heat.

1547. *Phaseolus*. From φασέλιος, a little boat, which the pods may easily be supposed to resemble. *P. vulgaris* and multiflorus, *Haricot*, Fr., *Schminkbohne*, Ger., *Fagiolata*, Ital., are well known culinary legumes. The dwarf kidney bean is earlier than the other, and better adapted for forcing ; but much the largest crop



|        |                                  |                              |   |    |    |       |       |                     |                   |       |     |                           |                    |
|--------|----------------------------------|------------------------------|---|----|----|-------|-------|---------------------|-------------------|-------|-----|---------------------------|--------------------|
| 10254  | <i>semerectus W.</i>             | dark red                     | 3 | pr | 2  | jl    | R     | W. Indies           | 1732              | S     | co  | Bot. reg. 743             |                    |
| 10255  | <i>alatus W.</i>                 | winged                       | 3 | pr | un | 3     | jl    | Pu                  | Carolina          | 1732  | C   | s.l. Dil.elt. 235. f. 303 |                    |
| 10256  | <i>Caracalla W.</i>              | Snail-flower                 | 3 | pr | 1  | au.s  | G     | India               | 1690.             | S     | r.m | Bot. rep. 341             |                    |
| 10257  | <i>aconitifolius W.</i>          | Aconite-leaved               | 3 | cu | 2  | jn.au | Pk    | E. Indies           | 1731.             | S     | s.l | Jac. obs. 3. t. 52        |                    |
| 10258  | <i>trilobus W.</i>               | three-lobed                  | 3 | un | 2  | jl.au | G     | E. Indies           | 1777.             | S     | s.l | Bur.ind. t.50. f.1        |                    |
| 10259  | <i>stipularis W.</i>             | large-stipuled               | 3 | un | 2  | jl.au | Y.Br  | Peru                | 1805.             | S     | s.l |                           |                    |
| 10260  | <i>nanus W.</i>                  | common dwarf                 | 3 | un | 1  | jn.s  | W     | India               | ...               | S     | s.l |                           |                    |
| 10261  | <i>radiatus W.</i>               | rayed                        | 3 | un | 1  | jn.jl | Pu    | China               | 1732.             | S     | s.l | Dil.elt. 235. f. 1304     |                    |
| 10262  | <i>Max W.</i>                    | hairy-podded                 | 3 | cu | 1  | jn.jl | G     | India               | 1758.             | S     | s.l | Rum.am.5. t.140           |                    |
| 10263  | <i>Mungo W.</i>                  | small-fruited                | 3 | cu | 1  | jn.jl | Y     | India               | 1790.             | S     | s.l |                           |                    |
| 10264  | <i>diversifolius P. S.</i>       | various-leaved               | 3 | un | 1  | jn.jl | Pu    | N. Amer.            | 1806.             | S     | s.l |                           |                    |
|        | <i>trilobus Fh.</i>              |                              |   |    |    |       |       |                     |                   |       |     |                           |                    |
| 10265  | <i>lathyroides W.</i>            | Lathyrus-like                | 3 | or | 2  | jl.au | Sc    | Jamaica             | 1786.             | S     | s.l | Slo. ja. 1. t.116. f.1    |                    |
| 10266  | <i>subtrilobus Link.</i>         | three-lobed                  | 3 | un | 1  | jl.au | Y     | Brazil              | 1824.             | S     | co  |                           |                    |
| 1548.  | <b>TERAMNUS.</b> <i>Brown.</i>   | <b>TERAMNUS.</b>             |   |    |    |       |       | <b>Leguminosae.</b> | <b>Sp. 1—2.</b>   |       |     |                           |                    |
| 10267  | <i>volubilis Swz.</i>            | hook-podded                  | 3 | or | 10 | ...   | ...   | Jamaica             | 1824.             | C     | r.m |                           |                    |
| *1549. | <b>CARPOPO'GON.</b> <i>Roz.</i>  | <b>CARPOPOGON.</b>           |   |    |    |       |       | <b>Leguminosae.</b> | <b>Sp. 2.</b>     |       |     |                           |                    |
| 10268  | <i>giganteus Rox.</i>            | gigantic                     | 3 | or | 20 | ...   | ...   | Pu                  | E. Indies         | 1815. | C   | lp                        | Rhee. mal. 8. 36   |
| 10269  | <i>imbricatus Rox.</i>           | imbricated                   | 3 | or | 10 | ...   | ...   | Pu                  | E. Indies         | 1815. | C   | lp                        |                    |
| *1550. | <b>DO'LICHOS.</b> <i>W.</i>      | <b>DOLICHOS.</b>             |   |    |    |       |       | <b>Leguminosae.</b> | <b>Sp. 23—76.</b> |       |     |                           |                    |
| 10270  | <i>Láblab W.</i>                 | black-seeded                 | 3 | un | 8  | jn.jl | Pu    | Egypt               | 1694.             | S     | s.l | Bot. mag. 896             |                    |
| 10271  | <i>sinensis W.</i>               | Chinese                      | 3 | or | 6  | jl.au | Pu    | India               | 1776.             | S     | s.l | Bot. mag. 2232            |                    |
| 10272  | <i>luteolus Ph.</i>              | yellow                       | 3 | un | 4  | jl.au | Y     | America             | 1805.             | S     | s.l | Jac. hort. t. 90          |                    |
| 10273  | <i>unguiculatus W.</i>           | Bird's-foot                  | 3 | un | 3  | jn.jl | Y     | W. Indies           | 1780.             | S     | s.l | Jac. vind. 1. t. 23       |                    |
| 10274  | <i>tranquebaricus W.</i>         | Tranquebar                   | 3 | un | 3  | jn.jl | Y     | E. Indies           | 1801.             | S     | s.l | Jac. vind. 3. t. 70       |                    |
| 10275  | <i>gladiatus W.</i>              | sabre-podded                 | 3 | or | 6  | au    | Pk    | E. Indies           | 1790.             | S     | s.l | Jac. ic. 3. t. 560        |                    |
| 10276  | <i>tetragonolobus W.</i>         | square-podded                | 3 | un | 4  | sn    | Y     | E. Indies           | 1816.             | S     | s.l |                           |                    |
| 10277  | <i>sesquipedalis W.</i>          | long-podded                  | 3 | un | 6  | au    | Pap.k | W. Indies           | 1781.             | S     | s.l | Jac. vind. 1. t. 67       |                    |
| 10278  | <i>hirsutus W.</i>               | hirsute                      | 3 | or | 10 | jn    | Pu    | China               | 1802.             | C     | s.l | Kæmpf. ic. t. 41          |                    |
| 10279  | <i>pilosus W.</i>                | hairy-podded                 | 3 | un | 3  | au    | Pa    | E. Indies           | 1790.             | S     | s.l |                           |                    |
| 10280  | <i>minimus W.</i>                | small                        | 3 | un | 1  | jl.au | Y     | Jamaica             | 1776.             | S     | s.l | Jac. obs. 1. t. 22        |                    |
| 10281  | <i>tetraspermus W.</i>           | four-seeded                  | 3 | un | 3  | my.au | Pa.Y  | E. Indies           | 1816.             | S     | s.l |                           |                    |
| 10282  | <i>scarabeoides W.</i>           | silver-leaved                | 3 | un | 2  | jn.jl | Pa    | E. Indies           | 1773.             | S     | s.l | Plu. alm. t. 53. f. 3     |                    |
| 10283  | <i>reticulatus W.</i>            | net-leaved                   | 3 | un | 3  | jn.jl | Pa    | N. S. W.            | 1781.             | C     | s.l |                           |                    |
| 10284  | <i>bulbosus W.</i>               | bulbous                      | 3 | or | 4  | jl    | Pu    | W. Indies           | 1781.             | S     | s.l | Rum.am.5. t.132           |                    |
| 10285  | <i>purpureus W.</i>              | purple                       | 3 | or | 12 | au.s  | Pu    | E. Indies           | 1790.             | S     | s.l | Bot. reg. 830             |                    |
| 10286  | <i>lignosus W.</i>               | woody                        | 3 | or | 12 | jl.au | Pu    | E. Indies           | 1776.             | S     | p.l | Bot. mag. 380             |                    |
| 10287  | <i>latus W.</i>                  | yellow-flowered              | 3 | un | 3  | jl.au | Y     | Jamaica             | 1812.             | S     | s.l |                           |                    |
| 10288  | <i>ensiformis W.</i>             | scymetar-podded              | 3 | un | 3  | jl.au | Pu    | E. Indies           | 1778.             | S     | s.l | Jac. ic. 3. t. 559        |                    |
| 10289  | <i>Sója W.</i>                   | Soy                          | 3 | un | 3  | jl.au | Pu    | E. Indies           | 1780.             | S     | s.l | Jac. ic. 1. t. 145        |                    |
| 10290  | <i>Cat iang W.</i>               | small-fruited                | 3 | un | 3  | jl.au | Pa    | E. Indies           | 1793.             | S     | s.l | Rhee. mal. 3. t. 41       |                    |
| 10291  | <i>biflorus W.</i>               | two-flowered                 | 3 | un | 3  | jl.au | Pa.Y  | E. Indies           | 1776.             | S     | s.l | Plu.alm.t.213.f.4         |                    |
| 10292  | <i>roseus W.</i>                 | Rose-colored                 | 3 | or | 3  | jl.au | Pk    | Jamaica             | 1812.             | S     | s.l |                           |                    |
| *1551. | <b>STIZOLOBIUM.</b> <i>P. S.</i> | <b>COW-AGE, or COW-ITCH.</b> |   |    |    |       |       | <b>Leguminosae.</b> | <b>Sp. 3—8.</b>   |       |     |                           |                    |
| 10293  | <i>altissimum P. S.</i>          | tall                         | 3 | or | 50 | ...   | ...   | Pu                  | Martinico         | 1779. | C   | lp                        | Ja.am. t.182. f.85 |
| 10294  | <i>arens P. S.</i>               | broad-podded                 | 3 | cu | 12 | jn.jl | Y     | W. Indies           | 1691.             | C     | lp  | Plum. ame. t. 107         |                    |
| 10295  | <i>brariens P. S.</i>            | common                       | 3 | cu | 12 | ...   | ...   | Pu                  | India             | 1690. | C   | lp                        | Jac. amer. t. 122  |

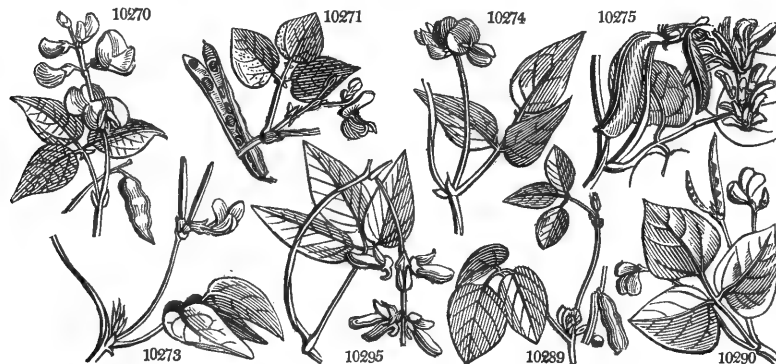


History, Use, Propagation, Culture,

is produced by the twining species. Neither sorts can be safely planted in the open air before the end of April, or first week of May, and the leaves are blackened by the first frosts of autumn. But in a stove or pit, green pods of the dwarf kinds may be gathered all the winter, and with this advantage over forced productions of the fruit kind required to be ripened, that the pods are as good from plants in the stove in midwinter, as from those in the open garden in midsummer. The garden culture of both species is so easy and universally known, that we shall not occupy ourselves with details. Though in this country the green pods only are used, on the continent the ripened seeds are as much the object of culture. In Holland, the twiner is grown in every cottage garden for both purposes; and in France and Switzerland, it is grown chiefly for the ripened seeds: in the latter countries it grows on very poor dry soil. On the first blackening of the leaves with frost, the plants are pulled up, dried like tobacco leaves under the dripping eaves of the houses; and in winter threshed out for the seeds, to be boiled and eaten with cream or butter, stewed in haricots, or put in soups. According to the analysis of Einhoff, 3840 parts of kidney bean afforded 1805 parts of matter analogous to starch, 857 of vegeto-animal matter, and 799 parts of mucilage: from which is to be inferred, that it is the most nourishing of all the legumes.

The perennial stove species thrive best in a light rich soil, and may be propagated readily from cuttings or from seed. *P. caracalla*, or Snail-flower, is a very curious species, and will grow and flower freely, if kept clear from the red spiders. This species was so named by the Portuguese, who first brought it from South America, in consequence of its hooded flower. *Caracalla* (from the Celtic words *car*, a head, and *cal*, a covering) was the name of a hooded dress much worn by the Gauls, and gave his nickname to the Emperor Marcus Aurelius Antoninus, who was accustomed to wear the dress.

- 10254 Flowers spiked, Cal. without bractes, Wings expanded larger, Leaflets ovate  
 10255 Flowers loosely spiked, Wings the length of vexillum  
 10256 Vexillum and keel spirally twisted together  
 10257 Stem hairy, Lateral leaflets 3-lobed : terminal 5-parted, Segm. lanceol. Peduncles 3-f. shorter than petiole  
 10258 Stem smooth, Lateral leaf. 2-lobed ; terminal 3-lobed : segments ovate, Pedunc. 3-f. longer than petiole  
 10259 Stem smooth, Leaf. blunt : lateral sinuose ; terminal hastate 3-lobed, Peduncles longer than leaf spiked  
 10260 Stem smooth, Bractes larger than calyx, Pods pendulous compressed rugose  
 10261 Stem round, Flowers capitate, Pods cylindrical horizontal  
 10262 Stem angular hispid, Pods pendulous hairy  
 10263 Stem flexuose round hairy, Pods capitate hairy  
 10264 Downy, Lower leaves rhomboid oval : upper 3-lobed, Heads on long stalks, Pods round subulate  
  
 10265 Leaflets oblong acuminate, Peduncles elongated, Pods round subulate  
 10266 Leaflets about 3-lobed, Lobes acuminate, Racemes axillary  
  
 10267 Leaflets ovate-lanceolate downy  
  
 10268 Leaflets ternate smooth, Flowers in heads, Calyxes hairy campanulate  
 10269 Flowers imbricated  
  
 10270 Pods ovate acinaciform, Seeds ovate with a hilum curved towards one end  
 10271 Pods pendulous cylindrical torulose, Peduncles erect many-flowered  
 10272 Pods capitate many cylindrical, Seeds rounded  
 10273 Pods capitate subcylindrical with a recurved concave end  
 10274 Pods capitate few cylindrical with a mucronate straight point  
 10275 Pods racemose ensiform with 3 keels at back straight at point, Seeds with an arillus  
 10276 Pods membranous quadrangular  
 10277 Pods subcylindrical smooth very long  
 10278 Pods racemose compressed hairy, Outer leaflets 2-lobed  
 10279 Pods subracemose linear hairy, Leaflets ovate-lanceolate downy  
 10280 Pods racemose compressed 4-seeded, Leaflets rhomboid  
 10281 Pods racemose acinaciform 4-seeded, Leaflets rhomboid smooth  
 10282 Leaves ovate downy, Flowers solitary, Seeds 2-horned  
 10283 Leaves ovate acute rugose netted villous, Racemes few-flowered  
 10284 Leaves smooth toothed with many angles  
 10285 Stem smooth, Petioles downy, Wings of corolla spreading  
 10286 Peduncles capitate, Pods straight linear  
 10287 Flowers somewhat spiked, Pods subcylindrical smooth, Leaves roundish rhomboid blunt entire smooth  
 10288 Pods acinaciform with 3 keels  
 10289 Racemes axillary erect, Pods pendulous hispid about 2-seeded  
 10290 Pods twin linear nearly erect  
 10291 Stem smooth, Peduncles 2-flowered, Outer leaflets somewhat angular  
 10292 Stem creeping, Leaflets roundish shining, Fl. racemose, Pods with 3 keels at back  
  
 10293 Pods racemose hairy equal, Seeds surrounded by the hilum, Leaves smooth on each side  
 10294 Pods racemose with transverse lamellæ hairy, Seeds surrounded by the hilum  
 10295 Pods racemose : valves keeled hairy, Peduncles in threes



and Miscellaneous Particulars.

1548. *Teramnus*. So called by Browne, apparently in allusion to its delicately-shaped legume, *τεραμνότης* being used particularly to express the tenderness of eatable pulse ; *ατεραμνότης* was a weed hostile to leguminous plants.

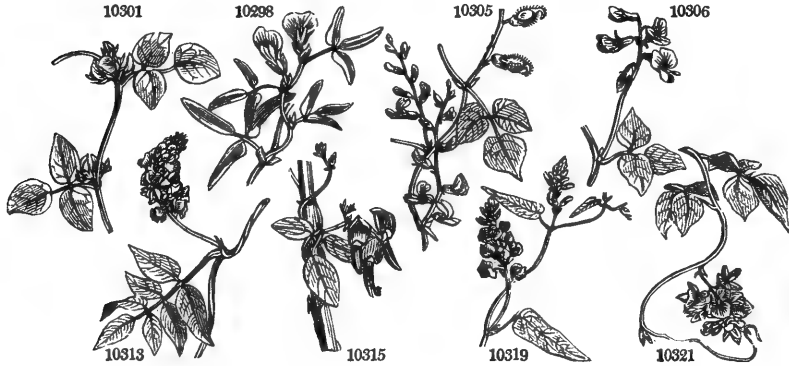
1549. *Carpopogon*. From *καρπος*, fruit, and *πυγών*, a beard ; the pods being bearded. Rapid growing climbers of the easiest culture.

1550. *Dolichos*. A name under which Dioscorides describes a plant supposed to have been the kidney bean of the moderns. The species are climbers, some of them to the height of the highest trees. The pods of most of them are eatable, but far inferior to the kidney bean. Some of them have tuberous roots which may be eaten. The seeds of *D. Soja* (*Soja*, Jap.), which are usually called *Miso* in Japan, are put into soups, and are the most common dish there, inasmuch that the Japonese frequently eat them three times a day. The *Soja* of the Japanese, which is preferred to the Kitjap of the Chinese, is prepared from these seeds, and is used in almost all their dishes instead of common salt. The Chinese also have a favorite dish made of these seeds, called *Tau hu* or *Tau hu*, which looks like curd, and though insipid in itself, yet with proper seasoning is agreeable and wholesome. (*Thunb.* and *Loureiro*.)

The perennial kinds are easily increased by cuttings, and all the species seed freely. *D. purpureus* and *ligulosus* have the handsomest flowers, but none of them can be considered of much beauty.

1551. *Stizolobium*. From *στίζω*, to prick, and *λοβός*, a pod. *S. urens* and *pruriens* produce on the outside of their pods the irritating substance used in medicine as a vermifuge, under the name of Cowhage. The species are twining shrubs of the West Indies, with long bunches of yellow scentless flowers. The seeds of *S. urens* are often seen in cabinets of curiosities : many qualities are attributed to them by the superstitious Creoles. The French settlers call them *Yeux bourrique*, asses' eyes. *S. pruriens* is considered a powerful diuretic.

|                                 |                 |   |    |    |                     |                   |                     |                   |                          |
|---------------------------------|-----------------|---|----|----|---------------------|-------------------|---------------------|-------------------|--------------------------|
| *1552. <i>GLYCINE L.</i>        | GLYCINE         |   |    |    | <i>Leguminosae.</i> | <i>Sp. 19—55.</i> |                     |                   |                          |
| §10296 sarméntosa <i>W.</i>     | sarmentose      | △ | un | 2  | jn.au               | Pa                | Carolina            | 1805.             | S a1 Sch.bo.an.12 t.2    |
| §10297 monóica <i>W.</i>        | pale-flowered   | △ | cu | 4  | s                   | F                 | N. Amer.            | 1781.             | C s.p W.in.Rac.A.3.t.2   |
| §10298 angustifolia <i>W.</i>   | narrow-leaved   | △ | un | 6  | jn.au               | Y                 | C. G. H.            | 1775.             | C p.l Jac.schc.2.t.231   |
| §10299 débilis <i>W.</i>        | hairy           | △ | un | 1½ | jn.jl               | Pa                | E. Indies           | 1778.             | S p.l                    |
| §10300 comosa <i>W.</i>         | tufted          | △ | un | 1½ | jl.s                | B                 | N. Amer.            | 1812.             | C p.l                    |
| §10301 tomentosa <i>Ph.</i>     | downy           | △ | un | 1½ | jn.s                | Y                 | N. Amer.            | 1732.             | C p.l Dillett.t.26.f.29  |
| §10302 reniformis <i>Ph.</i>    | Kidney-leaved   | △ | pr | 2  | jl.au               | Y                 | Carolina            | 1806.             | C p.l                    |
| §10303 suavéolens <i>W.</i>     | sweet-scented   | △ | or | 3  | jl.s                | Y.a               | E. Indies           | 1816.             | C p.l                    |
| §10304 reticulata <i>W.</i>     | net-leaved      | △ | or | 6  | jl.s                | Y                 | Jamaica             | 1779.             | C p.l                    |
| §10305 caribæa <i>W.</i>        | trailing        | △ | pr | 2  | s.o                 | Y                 | W. Indies           | 1742.             | C p.l Bot. reg. 275      |
| §10306 bituminosa <i>W.</i>     | clammy          | △ | pr | 4  | aps.                | Y                 | C. G. H.            | 1774.             | C p.l Bot. reg. 261      |
| §10307 parviflora <i>P. S.</i>  | small-flowered  | △ | un | 3  | jl                  | Y                 | E. Indies           | 1812.             | C p.l                    |
| §10308 sagittata <i>W. en.</i>  | arrow-shaped    | △ | un | 4  | my.au               | Y                 | Havannah            | 1815.             | C p.l                    |
| §10309 rhombifolia <i>W.</i>    | rhomb-leaved    | △ | un | 6  | my.au               | Y                 | E. Indies           | 1815.             | C p.l                    |
| §10310 vinentina <i>Ker.</i>    | St. Vincent's   | △ | pr | 2  | my.au               | Y                 | St. Vincent         | 1822.             | C co Bot. reg. 799       |
| §10311 phaseoloides <i>Suz.</i> | Kidn.-bean-like | △ | un | 2  | jn.jl               | Br                | Jamaica             | 1818.             | C r.m Bot. mag. 5284     |
| §10312 sinénsis <i>B. M.</i>    | Chinese         | △ | or | 15 | my.jn               | B                 | China               | 1818.             | L p.m Bot. mag. 2083     |
| §10313 A'píos <i>Ph.</i>        | tuberous-rooted | △ | ft | 6  | aus.                | Pk                | N. Amer.            | 1640.             | C s.p Bot. mag. 1198     |
| §10314 frutescens <i>Ph.</i>    | shrubby         | △ | or | 10 | jn.s                | Pu                | N. Amer.            | 1724.             | R s.p Bot. mag. 2103     |
| †1553. <i>KENNEDIA Vent.</i>    | KENNEDIA        |   |    |    |                     |                   | <i>Leguminosae.</i> | <i>Sp. 6.</i>     |                          |
| §10315 rubicunda <i>V.</i>      | dingy-flowered  | △ | or | 10 | mr.au               | Br                | N. S. W.            | 1788.             | S s.p Bot. mag. 268      |
| §10316 coccinea <i>V.</i>       | many-flowered   | △ | or | 10 | my.au               | S                 | N. Holl.            | 1803.             | S s.p Vent. malm. 105    |
| §10317 prostrata <i>H. K.</i>   | single-flowered | △ | or | 4  | mr.jn               | S                 | N. S. W.            | 1790.             | C s.p Bot. mag. 270      |
| §10318 Comptoniana <i>B. R.</i> | Compton's       | △ | or | 12 | mr.jn               | B                 | N. Holl.            | 1803.             | C s.p Bot. rep. 602      |
| §10319 monophylla <i>V.</i>     | simple-leaved   | △ | or | 10 | mr.jn               | Pu                | N. S. W.            | 1790.             | S s.p Bot. mag. 263      |
| §10320 ovata <i>B. M.</i>       | ovate           | △ | or | 6  | my.au               | Pu                | N. Holl.            | 1818.             | C s.p Bot. mag. 2169     |
| 1554. <i>CYLISTA W.</i>         | CYLISTA         |   |    |    |                     |                   | <i>Leguminosae.</i> | <i>Sp. 3.</i>     |                          |
| §10321 villosa <i>H. K.</i>     | Cape            | △ | or | 6  | ap.my               | Y                 | C. G. H.            | 1776.             | S p.l Bot. rep. 446      |
| §10322 albiflora <i>B. M.</i>   | white-flowered  | △ | or | 6  | ap.my               | W                 | Mauritius           | ...               | C p.l Bot. mag. 1859     |
| §10323 scariosa <i>W.</i>       | Coromandel      | △ | or | 4  | ...                 | Y                 | E. Indies           | 1806.             | S p.l Rox. cor. 1. t. 92 |
| †1555. <i>GALACTIA Mi.</i>      | GALACTIA        |   |    |    |                     |                   | <i>Leguminosae.</i> | <i>Sp. 1—5.</i>   |                          |
| §10324 péndula <i>Pers.</i>     | pendulous       | △ | pr | 6  | jl.au               | R                 | Jamaica             | 1794.             | C lp Bot. reg. 269       |
| †1556. <i>CLITORIA W.</i>       | CLITORIA        |   |    |    |                     |                   | <i>Leguminosae.</i> | <i>Sp. 8—16.</i>  |                          |
| §10325 Ternatea <i>W.</i>       | wing-leaved     | △ | or | 4  | jl.au               | B                 | E. Indies           | 1739.             | C s.p Bot. mag. 1542     |
| §10326 heterophylla <i>Lam.</i> | various-leaved  | △ | or | 1  | jl.au               | B                 | E. Indies           | 1812.             | S s.p Bot. mag. 2111     |
| §10327 brasiliána <i>W.</i>     | Brazilian       | △ | or | 4  | jl.au               | Pu                | Brazil              | 1759.             | S s.p Brey. cent. t. 1   |
| §10328 virginiána <i>W.</i>     | small-flowered  | △ | or | 6  | jl.au               | B                 | America             | 1732.             | C s.p Par. lond. 51      |
| §10329 mariána <i>W.</i>        | Maryland        | △ | or | 3  | au                  | B                 | N. Amer.            | 1759.             | C s.p                    |
| §10330 arboréscens <i>H. K.</i> | tree            | △ | or | 8  | aus.                | Pk                | Trinidad            | 1804.             | C s.p                    |
| §10331 Plumieri <i>Pers.</i>    | Plumier's       | △ | or | 6  | s.n                 | W.r               | W. Indies           | ...               | C s.p Bot. reg. 268      |
| §10332 mexicana <i>Link.</i>    | Mexican         | △ | or | 3  | s.n                 | Pu                | Mexico              | 1823.             | S co                     |
| †1557. <i>O'ROBUS W.</i>        | BITTER-VETCH.   |   |    |    |                     |                   | <i>Leguminosae.</i> | <i>Sp. 16—42.</i> |                          |
| §10333 lathyroides <i>W.</i>    | upright         | △ | or | 1½ | jn                  | L.B               | Siberia             | 1758.             | R p.l Am.ruth. t.7. f.2  |
| §10334 lúeus <i>W.</i>          | yellow          | △ | or | 1½ | jn.jl               | L.Y               | Siberia             | 1759.             | R h.l Bot. cab. 783      |
| §10335 digitátus <i>Bieb.</i>   | digitate        | △ | or | 1½ | my                  | Pu                | Tauria              | 1825.             | R co Bux. cent. 2. t. 38 |
| §10336 vérnus <i>W.</i>         | spring          | △ | or | 1  | mr.ap               | Pu                | Europe              | 1629.             | R s.l Bot. mag. 521      |
| §10337 tuberósus <i>W.</i>      | tuberous        | △ | or | 1  | my.jn               | Pu                | Britain             | 1823.             | R co Eng. bot. 1153      |
| §10338 palléscens <i>Bieb.</i>  | pallid          | △ | or | 1  | my                  | W                 | Tauria              | 1823.             | R co                     |
| §10339 canéscens <i>L.</i>      | hoary           | △ | or | 1½ | my.jn               | W.B               | France              | 1816.             | R co Bot. mag. 3117      |
| §10340 álbus <i>W.</i>          | white-flowered  | △ | or | 1  | my.jn               | W                 | Austria             | 1794.             | R s.l Sweet fl. g. 22    |
| §10341 várius <i>Schneev.</i>   | particled       | △ | or | 1½ | my.jn               | Y.r               | Italy               | 1759.             | R p.l Bot. mag. 675      |
| §10342 lacteus <i>Bieb.</i>     | milk-white      | △ | or | 1½ | my.jn               | W                 | Caucasus            | 1820.             | R co                     |
| §10343 hirsútus <i>L.</i>       | hairy           | △ | or | 1  | my.jn               | B                 | Thrace              | 1822.             | R co Bot. mag. 2345      |



History, Use, Propagation, Culture,

1552. *Glycine.* From γλυκύς, sweet. *G. monica* perfects its seeds under ground like *Arachis hypogæa*, *Trifolium subterraneum*, and *Lathyrus subterraneus*. They are all of easy culture, like their preceding and following allies. *G. frutescens*, and especially *G. sinensis*, are most beautiful hardy climbing shrubs, with long pendulous branches of blue flowers, like the *Laburnum*.

1553. *Kennedia.* Named after Mr. Kennedy, a nurseryman of celebrity in the vicinity of London. Handsome conservatory climbers of the easiest culture.

1554. *Cylista.* From κύλις, a calyx, that of the species so called being very large.

1555. *Galactia.* From γάλα, milk; the plant is milky in all its parts. A pretty flowering climber of easy culture in the soil indicated, and increased by cuttings in sand under a bell-glass.

1556. *Clitoria.* A name derived from an anatomical term, a resemblance to the subject of which has been fancied to exist in the flower. *C. Ternatea* was first brought to Europe from Ternate, one of the Molucca islands, which induced Tournefort to adopt *Ternatea* as a generic appellation, and it was continued by Linnaeus as a specific one.

- 10296 Leaves ternate ovate smooth, Racemes filiform about 3-fl. Flowers apetalous, Pods oblong 2-seeded  
 10297 Leaves ternate ovate smooth, Stem hairy, Racemes pendulous, Fls. of stem with cor. of root apetalous  
 10298 Leaves ternate, Leaflets linear lanceolate silky, Fl. axillary solitary, Pods 2-seeded  
 10299 Leaves ternate, Leaf. oval hairy beneath, Pods subsolitary linear many-seeded, Style persistent straight  
 10300 Leaves ternate hairy, Racemes lateral  
 10301 Leaves ternate tomentose, Racemes axillary very short, Pods 2-seeded  
 10302 Downy, Leaves simple reniform rounded rugose netted, Racemes few-flowered  
 10303 Leaves ternate ovate acute hairy viscid, Peduncles jointed 1-2-fl. Pods oblong  
 10304 Leaves tern. ovate rhomboid pubesc. beneath netted tomentose, Racemes axillary, Pods subpubescent  
 10305 Leaves ternate ovate rhomboid beneath dotted with resin, Racemes longer than leaf  
 10306 Leaves ternate, Flowers racemose, Pods tumid villous  
 10307 Leaves ternate ovate somewhat hairy, Racemes axillary, Pods linear hooked at end  
 10308 Leaves simple sagittate, Petioles winged, Stem twining shrubby  
 10309 Leaves tern. roundish rhomboid smooth beneath dotted with resin, Racemes 1-sided longer than leaf  
 10310 Leaves pinnate, Leaflets 5 oblong apiculate, Flowers 3 axillary  
 10311 Leaves ternate villous beneath, Racemes terminal  
 10312 Leaves pinnated, Leaflets 11 ovate lanceolate silky, Raceme terminal nodding lax many-flowered  
 10313 Root tuberous, Lvs. pinn. Leaf. 5-7 ov. lanc. narrowed towards the end, Spikes dense shorter than leaves  
 10314 Leaves pinnated, Leaflets 9 ovate downy, Racemes dense terminal with bractea, Pods coriaceous
- 10315 Leaves ternate, Leaflets ovate, Pedunc. about 3-fl. Pods very hairy  
 10316 Leaves ternate, Leaflets obovate, Flowers capitate, Pods smoothish  
 10317 Leaves ternate, Leaflets obovate villous, Pedunc. 1-2-fl. Keel longer than obl. wings, Stem prostrate  
 10318 Leaves ternate, Leaflets ovate retuse netted, Racemes erect many-flowered  
 10319 Leaves simple smooth netted subcordate at base, Flowers racemose  
 10320 Leaves simple ovate, Racemes axillary few-flowered

- 10321 Cal. membranous, Upper segment bifid  
 10322 Down rusty, Cal. half 5-fid, Bractes ovate acuminate, Cor. larger than cal.  
 10323 Cal. scarious, Upper segment emarginate

- 10324 Leaves ternate, Raceme erect, Flowers pendulous

- 10325 Leaves quinate pinnate, Peduncles axillary 1-flowered  
 10326 Leaves pinnate, Leaflets 5 round lanceolate or linear  
 10327 Leaves ternate, Calyxes solitary campanulate  
 10328 Leaves ternate, Calyxes twin campanulate  
 10329 Leaves ternate, Calyxes cylindrical  
 10330 Leaves ternate, Peduncles many-flowered, Ovary downy, Style villous  
 10331 Leaves ternate, Leaflets ovate-oblong acuminate, Cal. campanulate shorter than ovate bractes  
 10332 Leaves ternate, Leaflets mucronate glaucous beneath hairy, Cal. cylind. much larger than bractes

- 10333 Leaves conjugate subsessile, Stipules toothed  
 10334 Leaves pinnate in 4 or 5 pairs obl. glaucous beneath, Stipules half sagittate toothed at base  
 10335 Leaves of 2 pairs linear subulate approximating, Stip. half-sagittate subulate 1-toothed at base  
 10336 Leaves pinnate in 3 pairs ovate acuminate, Stipules half-sagittate entire, Stem simple  
 10337 Leaves pinnate in 3 or 4 pairs lanceolate, Stipules half-sagittate entire, Stem winged  
 10338 Leaves of 2 pairs linear-subulate downy, Stip. half-sagittate subulate nearly entire, Stem simple downy  
 10339 Stem branched, Leaves in 2 pairs linear, Stipules half sagittate subulate  
 10340 Leaves in 2 pairs ensiform stalked, Stipules simple, Stem simple  
 10341 Leaves in 4 pairs lin. lanc. Stipules half-sagittate entire, Stem winged branched upwards  
 10342 Leaves of 2 pairs lin-lanc. mucronate stalked nerved, Stipules half-sagittate toothed at base  
 10343 Leaves conjugate stalked, Stipules entire, Plant covered with long hairs

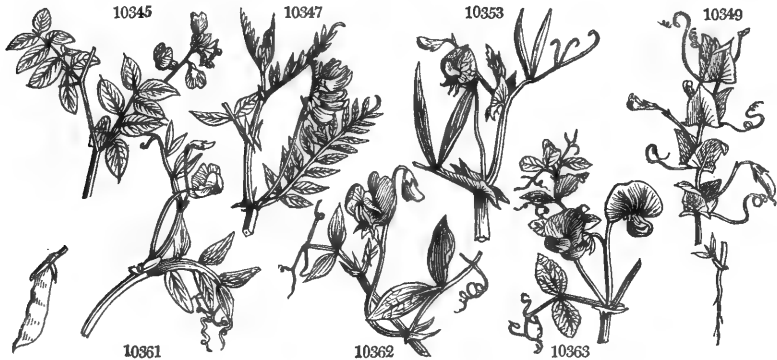


and Miscellaneous Particulars.

1557. *Orobis*. From *œsa*, to excite, and *βωc*, an ox; that is to say, a food nourishing to cattle. Handsome plants, and free flowerers. *O. luteus* Haller considers as one of the handsomest of the papilionaceous tribe. *O. tuberosus*, according to Lightfoot, is in great esteem among the Highlanders of Scotland for the tubercles of the root; they dry and chew them in general to give a better relish to their liquor; they also affirm them to be good against most disorders of the thorax, and that by the use of them they are enabled to repel hunger and thirst for a long time. In Breadalbane and Ross-shire, they sometimes bruise and steep them in water, and make an agreeable fermented liquor with them. They have a sweet taste, something like the roots of liquorice, and when boiled are well flavored and nutritive, and in times of scarcity have served as a substitute for bread. (*Lightfoot*.)

Boiled well, a fork will pass through them, and dried slightly and roasted, they are served up in Holland and Flanders in the manner of chestnuts, which they resemble in flavor. Dickson (*Hort. Trans.* ii. 359.) recommends cultivating them in a bed or border of light rich soil, paved at the depth of twenty inches, to prevent their roots from running down. Plant the tubers six inches apart, and three inches below the surface;

|        |                               |                       |    |       |       |       |       |     |                    |            |   |     |                         |
|--------|-------------------------------|-----------------------|----|-------|-------|-------|-------|-----|--------------------|------------|---|-----|-------------------------|
| 10344  | <i>angustifolius</i> W.       | narrow-leaved         | 3  | Δ     | or    | 1     | my.jn | W   | Siberia            | 1766.      | R | s.l | Gmel. sib. 4. t. 5      |
| 10345  | <i>niger</i> W.               | black                 | 3  | Δ     | or    | 3     | jn.jl | Pu  | Europe             | 1596.      | R | p.l | Bot. mag. 9261          |
| 10346  | <i>pyrenæicus</i> W.          | Pyrenean              | 2  | my.jn | Pu    |       |       |     | Spain              | 1699.      | R | p.l | Pl. alm. t. 210. f. 2   |
| 10347  | <i>sylvaticus</i> W.          | wood                  | 1  | Δ     | or    | 2     | my.jl | Cr  | Britain            | m. w.      | R | p.l | Eng. bot. 518           |
| 10348  | <i>ochroleucus</i> W. & K.    | sulphur-colored       | 2  | my.jl | Pa. Y |       |       |     | Hungary            | 1816.      | R | p.l | Pl. rar. hu. 2. t. 118  |
| †1558. | <i>LATHYRUS.</i> W.           | <i>LATHYRUS.</i>      |    |       |       |       |       |     | <i>Leguminosæ.</i> | Sp. 30—57. |   |     |                         |
| 10349  | <i>Aphaca</i> W.              | yell. Vetchling       | 1  | ○     | or    | 3     | jn.jl | Y   | England            | san. fi.   | S | co  | Eng. bot. 1167          |
| 10350  | <i>Nissolia</i> W.            | crimson               | ○  | or    | 2     | my    | Cr    |     | England            | bus. pl.   | S | co  | Eng. bot. 112           |
| 10351  | <i>amphicarpus</i> W.         | Earth Pea             | 1½ | jn.jl | Ap    |       |       |     | Levant             | 1690.      | S | co  | Mo. his. 2. t. 23. f. 1 |
| 10352  | <i>Cicera</i> W.              | flat-podded           | ○  | or    | 2     | jn.jl | R     |     | S. Europe          | 1633.      | S | co  | Ger. emac. f. 3         |
| 10353  | <i>sativus</i> W.             | Chickling Vetch       | 1  | ○     | ag    | 3     | jn.jl | L.B | S. Europe          | 1640.      | S | co  | Bot. mag. 115           |
| 10354  | <i>inconspicua</i> W.         | small-flowered        | ○  | un    | 1     | jl.au | Pu    |     | Levant             | 1739.      | S | co  | Jac. vind. 1. t. 86?    |
| 10355  | <i>setifolius</i> W.          | bristle-leaved        | ○  | or    | 1     | jn.jl | Sc    |     | S. Europe          | 1739.      | S | co  | Bau. h. 2. p. 306       |
| 10356  | <i>coccineus</i> P. S.        | scarlet               | ○  | or    | 2     | jn.jl | Sc    |     | Italy              | 1800.      | S | co  |                         |
| 10357  | <i>sphaericus</i> W.          | round-seeded          | ○  | or    | 2     | jn.jl | Cr    |     | S. Europe          | 1801.      | S | co  | Decand. ic. t. 32       |
| 10358  | <i>angulatus</i> W.           | angular-seeded        | ○  | or    | 2     | jn.jl | R     |     | S. Europe          | 1633.      | S | co  | Bu. cen. 3. t. 42. f. 2 |
| 10359  | <i>spurius</i> W. en.         | bastard               | ○  | or    | 2     | jn.jl | Pu    |     | .....              | 1815.      | S | co  |                         |
| 10360  | <i>monanthus</i> W.           | one-flowered          | ○  | or    | 2     | my.jl | Pk    |     | Russia             | 1731.      | S | co  |                         |
| 10361  | <i>articulatus</i> W.         | joint-podded          | ○  | or    | 4     | jl.au | F.w   |     | S. Europe          | 1640.      | S | co  | Bot. mag. 253           |
| 10362  | <i>odoratus</i> W.            | Sweet Pea             | ○  | ft    | 4     | jn.jl | W     |     | Sicily             | 1700.      | S | r.m | Bot. mag. 93            |
| 10363  | <i>grandiflorus</i> B. M.     | perennial             | 1  | Δ     | or    | 4     | jn.au | Pu  | S. Europe          | 1814.      | R | co  | Bot. mag. 1938          |
| 10364  | <i>annuus</i> W.              | two-flowered          | ○  | or    | 4     | jn.au | Y     |     | S. Europe          | 1621.      | S | co  |                         |
| 10365  | <i>tingitanus</i> W.          | Tangier               | ○  | or    | 4     | jn.au | D.P   |     | Barbary            | 1680.      | S | co  | Bot. mag. 100           |
| 10366  | <i>Clymenum</i> W.            | various-flower.       | ○  | or    | 4     | jn.jl | Pu    |     | Levant             | 1713.      | S | co  | Plu. alm. t. 114. f. 6  |
| 10367  | <i>hirsutus</i> W.            | rough-podded          | ○  | or    | 4     | jl    | Pu    |     | England            | bor. fi.   | S | co  | Eng. bot. 1255          |
| 10368  | <i>magellanicus</i> W.        | Ld. Anson's Pea       | ○  | or    | 6     | jn.jl | Y     |     | Cape Horn          | 1744.      | S | co  |                         |
| 10369  | <i>tuberosus</i> W.           | tuberous              | 1  | Δ     | cul   | 2     | jl.au | R   | Holland            | 1596.      | R | co  | Bot. mag. 111           |
| 10370  | <i>tumidus</i> L.             | tumid                 | ○  | or    | 1     | jl.au | R     |     | .....              | 1820.      | S | co  | All. ped. 1. 26. 2      |
| 10371  | <i>rotundifolius</i> Bieb.    | round-leaved          | ○  | or    | 1½    | jl.au | Pu    |     | Tauria             | 1822.      | S | co  |                         |
| 10372  | <i>pratensis</i> W.           | meadow                | ○  | or    | 3     | jn.au | Y     |     | Britain            | me. pa.    | R | co  | Eng. bot. 670           |
| 10373  | <i>sylvestris</i> W.          | Wood Everlasting Pea  | 1  | Δ     | or    | 3     | jl.s  | Pu  | Britain            | moi. w.    | R | co  | Eng. bot. 805           |
| 10374  | <i>latifolius</i> W.          | broad-ld. Everlasting | 1  | Δ     | or    | 6     | jl.s  | Pk  | England            | woods.     | R | co  | Eng. bot. 1108          |
| 10375  | <i>heterophyllus</i> W.       | various-leaved        | 1  | Δ     | or    | 4     | jl.s  | F   | Europe             | 1731.      | R | co  | Bau. h. 2. p. 304       |
| 10376  | <i>palustris</i> W.           | marsh                 | 1  | Δ     | or    | 4     | jl.au | B   | Britain            | moi. w.    | R | co  | Eng. bot. 169           |
| 10377  | <i>incurvus</i> W.            | curve-podded          | 1  | Δ     | or    | 2     | jl.au | B   | Russia             | 1802.      | R | co  | Bux. cent. 4. t. 46     |
| 10378  | <i>pisiformis</i> W.          | Siberian              | 1  | Δ     | or    | 3     | jn.jl | W.B | Siberia            | 1759.      | R | co  | Lin. fil. dec. t. 20    |
| 1559.  | <i>OCHRUS.</i> Bauh.          | <i>OCHRUS.</i>        |    |       |       |       |       |     | <i>Leguminosæ.</i> | Sp. 1.     |   |     |                         |
| 10379  | <i>pallida</i> P. S.          | yellow-flowered       | 1  | ○     | or    | 3     | jn.jl | Y   | S. Europe          | 1633.      | S | s.l | Sch. han. 2. t. 200     |
|        | <i>Pisum</i> <i>Ochrus</i> W. |                       |    |       |       |       |       |     |                    |            |   |     |                         |
| 1560.  | <i>PIVSUM.</i> W.             | <i>PEA.</i>           |    |       |       |       |       |     | <i>Leguminosæ.</i> | Sp. 3.     |   |     |                         |
| 10380  | <i>sativum</i> W.             | common                | 1  | ○     | cu    | 3     | jn.s  | W   | S. Europe          | ...        | S | co  | Lam. ill. t. 638        |



History, Use, Propagation, Culture,

the second year some will be fit to gather, and by taking only the largest, the bed will continue productive for several years, adding some fresh compost every year.

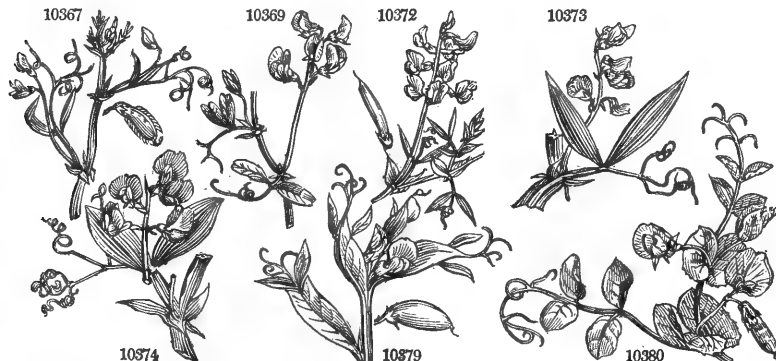
1558. *Lathyrus.* A name employed by Theophrastus to designate a leguminous plant. It is said by his commentator Bodæus a Stapel, to have been derived from *λαε*, an augmentative particle, and *βωπος*, any thing which is exciting; and to have been applied to this plant in consequence of certain aphrodisiacal qualities ascribed to it. *L. sativus*, *Gessæ*, Fr., is frequently sown in Switzerland for soiling horses. In several parts of the continent, a white light pleasant bread is made from the flour of this pulse, but it produced such dreadful effects in the last century, that the use of it was forbid by an edict of George, Duke of Wurttemberg, in 1671; and this not being observed, was enforced by two other edicts under his successor Leopold, in 1705, and 1714.

Mixed with wheat flour in half the quantity, it makes a very good bread, that appears to be harmless. But bread made with this flour only has brought on a most surprising rigidity of the limbs in those who have used it for a continuance; inasmuch that the exterior muscles could not by any means be reduced, or have their natural action restored. These symptoms usually appeared on a sudden, without any previous pain; but sometimes they were preceded by a weakness and disagreeable sensation about the knees. Baths, both hot and cold, fomentations and ointments of various kinds have been tried without effect; inasmuch that it is regarded as incurable, and being neither very painful nor fatal, those who are seized with it usually submit to it with patience.

Swine fattened with this meal lost the use of their limbs, but grew very fat lying on the ground. A horse fed some months on the dried herb, was said to have his legs perfectly rigid. Kine are reported to grow lean on it, but sheep not to be affected. Pigeons, especially young ones, lose the power of walking by feeding on the seed. Poultry will not readily touch it, but geese eat it without any apparent damage. In some parts of Switzerland, cattle feed on the herb without any harm. It would be worth enquiring, therefore, whether the soil may not contribute something to the ill qualities of the plant; and it is remarked that the seed from a strong, fat, moist soil, is much more deleterious than from a light dry one. (*Duvernoy.*)

Fabroni, from Florence, in 1786, says, that the government there has cautioned the peasants against the

- 10344 Leaves in 2 pairs ensiform, Stipules subulate, Stem simple  
 10345 Stem branched, Leaves in 6 pairs ovate oblong  
 10346 Stem branched, Leaves in 2 pairs lanceolate nerved, Stipules somewhat spiny  
 10347 Leaves pinnate hairy of many pairs ovate lanc. Stip. half-sagitt. Stem branched decumbent hairy  
 10348 Leaves pinnate smooth of many pairs elliptical, Stipules ovate lauceol. Stem branched erect hairy
- 10349 Peduncles 1-flowered, Tendrils leafless, Stipules sagittate cordate  
 10350 Peduncles many-flowered, Leaves simple, Stipules subulate  
 10351 Peduncles 1-flowered longer than calyx, Tendrils 2-leaved simple  
 10352 Peduncles 1-flowered, Tendrils 2-leaved, Pods ovate compressed channelled at back  
 10353 Peduncles 1-flowered, Tendrils 2-leaved and 4-leaved, Pods ovate compressed with 2 edges at back  
 10354 Peduncles 1-flowered shorter than calyx, Tendrils 2-leaved simple, Leaflets lanceolate  
 10355 Peduncles 1-flowered, Tendrils 2-leaved, Leaflets setaceous linear  
 10356 Peduncles 1-flowered as long as cal. Petioles 2-leaved, Leaflets lanc. Pods linear roughish mucronate  
 10357 Peduncles 1-flowered awned, Tendrils 2-leaved simple ensiform  
 10358 Peduncles 1-flowered awned, Tendrils 2-leaved simple, Leaflets linear  
 10359 Peduncles 1-flowered, Tendrils 4-leaved, Petioles winged, Pods compressed  
 10360 Peduncles 1-flowered awned, Tendrils many-leaved, Leaflets linear truncate mucronate  
 10361 Peduncles about 1-fl. Tendrils many-leaved, Leaflets alternate lanceolate, Petioles winged  
 10362 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ovate oblong, Pods hairy  
 10363 Peduncles 2-flowered naked, Tendrils 2-leaved, Leaflets obovate wavy, Stems rigid 4-angled  
 10364 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ensiform, Pods smooth, Stipules 2-parted  
 10365 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets altern. lanc. smooth, Stipules lunate  
 10366 Peduncles 2-flowered, Tendrils many-leaved, Leaflets lanceolate, Stipules toothed  
 10367 Peduncles about 3-flowered, Tendrils many-leaved, Leaves lanc. Pods hairy, Seeds rough  
 10368 Peduncles long many-fl. Stipules broad cordate sagittate, Tendrils 2-leaved  
 10369 Pedunc. many-fl. Tendrils 2-leaved, Leaflets oval, Joints naked  
 10370 Pedunc. 1-fl. shorter than stipules, Tendrils 2-4-leaved, Stip. toothed, Pods erect turgid and villous  
 10371 Pedunc. many-fl. Tendrils 2-leaved, Leaflets roundish, Joints membranous  
 10372 Pedunc. many-fl. Tendrils 2-leaved quite simple, Leaflets lanceolate  
 10373 Pedunc. many-fl. Tendrils 2-leaved, Leaflets ensiform, Joints membranous  
 10374 Pedunc. many-fl. Tendrils 2-leaved, Leaflets lanceolate, Joints membranous  
 10375 Pedunc. many-fl. Tendrils 2-leaved and 4-leaved, Leaflets lanc. Joints membranous  
 10376 Pedunc. many-fl. Tendrils many-leaved, Leaflets linear lanc. acute  
 10377 Pedunc. many-fl. Tendrils many-leaved, Leaf. lanc. obl. blunt mucronate, Joints membran. Pods curved  
 10378 Pedunc. many-fl. Tendrils many-leaved, Leaf. ellipt. blunt, Stipules half-sagitt. ovate broader than leaflet
- 10379 Petioles decurrent membranous 2-leaved, Peduncles 1-flowered
- 10380 Petioles round, Stipules rounded below crenate, Peduncles many-flowered



and Miscellaneous Particulars.

use of *Lathyrus sativus*; swine having lost the use of their limbs, and become pitiable monsters by being fed on this pulse exclusively. The peasants, however, eat it boiled, or mixed with wheat flour, in the quantity of one-fourth, without any harm.

The poisonous *Lathyrus* from Barbary, is *L. semine punctato* of Casp. Bauhin, and seems to be only a variety; for in the crops of *L. sativus* in Italy, they find black seeds striped with white, as in the African seed. Fabroni suspects it to be a male between *L. sativus* and *Cicera*, for the flower and seed partake of the characters of both; having a black seed marked with white; and a white banner with a red keel to the corolla. (*Fabroni's Letters* in MSS. Banks.)

*L. odoratus* is one of our most esteemed border annuals, and is extensively grown in pots for decorating chambers and windows. *L. tingitanus*, *articulatus*, and *annuus* are also sown as border annuals.

*L. tuberosus* produces tubers on the roots, like those of the earth nut (*Bunium bulbocastanum*); these are sold in the markets of Holland, like those of *Orobus tuberosus* and *Trapa natans*, and their flavor is highly esteemed.

*L. latifolius* is a very showy plant for shrubberies, arbors, and trellis work, and yields a great quantity both of green fodder and seeds, which some botanists have suggested might be applied to agricultural purposes.

1559. *Ochrus*; *oxces*, yellow, in allusion to the color of its flowers. A small annual plant with yellow flowers, native of hedges in the south of Europe.

1560. *Pisum*. From the Celtic *pis*, a pea. *P. sativum*, *Pois*, Fr., *Erbs*, Ger., and *Pisello*, Ital., is the most valuable of culinary legumes. Like most domestic plants of great antiquity, its native country is unknown, though it is commonly referred to the south of Europe. The varieties of the pea are numerous, and differ widely among themselves from the early frame, a low plant bearing only one white blossom on each footstalk, to the crown-bearing, having pink blossoms on a terminating corymb. The rouncival grows ten or twelve feet high, and the imperial not two feet. The sugar-pea has pods in which the inner film is wanting, or much less tough than usual, which admits of boiling the pods entire, and eating them in the same manner as kidney beans.

In the open garden, the pea is sown at intervals from January to the middle of July, and a succession of

| Number | Common Name        | Field/Sea       | Fl. Shape | Color | Origin | Year  | Region | Country | Notes                    |
|--------|--------------------|-----------------|-----------|-------|--------|-------|--------|---------|--------------------------|
| 10381  | arven'se W.        | field           | ♂         | o     | ag     | 3     | jn.s   | R       | S. Europe ... S co       |
| 10382  | maritimum W.       | sea             | ♂         | Δ     | or     | 1 1/2 | jl     | B       | England sea sh. D a1     |
| 1561   | VICIA W.           | Veruca.         |           |       |        |       |        |         | Leguminosae. Sp. 38-100. |
| 10383  | pisiformis W.      | Pea-shaped      | ♂         | Δ     | or     | 2     | jl.au  | Pa.Y    | Austria 1739. R co       |
| 10384  | dumetorum W.       | great-wood      | ♂         | Δ     | or     | 1     | my.jn  | Pu      | France 1752. R co        |
| 10385  | sylvatica W.       | common-wood     | ♂         | Δ     | or     | 6     | jl.au  | W       | Britain mol.w. R co      |
| 10386  | casabica W.        | Casabian        | ♂         | Δ     | or     | 3     | jn.jl  | L.B     | Germany 1711. R co       |
| 10387  | atropurpurea W.    | dark-purple     | ♂         | Δ     | or     | 3     | jn.jl  | Pu      | Algiers 1815. R co       |
| 10388  | villosa W.         | villous         | ♂         | o     | or     | 3     | jn.jl  | D.Pu    | Germany 1815. S co       |
| 10389  | Crac'ca W.         | tufted          | ♂         | Δ     | or     | 2     | jn.au  | V       | Britain hed. R co        |
| 10390  | tenuifolia W.      | slender-leaved  | ♂         | Δ     | or     | 1 1/2 | jn.jl  | V       | Germany 1799. R co       |
| 10391  | onobrychioides W.  | Saintfoin       | ♂         | o     | or     | 2     | jn.jl  | Pu      | S. Europe 1789. S co     |
| 10392  | biennis W.         | biennial        | ♂         | o     | or     | 2     | jl.s   | Pu      | Siberia 1753. S co       |
| 10393  | nissoliána W.      | red-flowered    | ♂         | o     | or     | 3     | jn.jl  | D.Pu    | Levant 1773. S co        |
| 10394  | benghalensis W.    | Bengal          | ♂         | o     | or     | 3     | jn.jl  | D.Pu    | E. Indies 1792. S co     |
| 10395  | canescens W.       | hoary           | ♂         | o     | or     | 1     | jn.au  | B       | Libanus 1800. S co       |
| 10396  | capensis W.        | Cape            | ♂         | o     | or     | 1     | jn.au  | Pa      | C. G. H. 1802. R co      |
| 10397  | pellucida W.       | pellucid        | ♂         | Δ     | or     | 1     | jn.au  | Pa      | C. G. H. 1812. R co      |
| 10398  | biflora W.         | two-flowered    | ♂         | o     | or     | 1 1/2 | jn.au  | B       | Algiers 1801. S co       |
| 10399  | globosa W.         | globular        | ♂         | o     | or     | 1 1/2 | jn.au  | B       | ..... 1804. S co         |
| 10400  | sativa W.          | common          | ♂         | o     | ag     | 3     | my.jn  | Pu      | Britain corn fl. S h.1   |
|        | β vegetális        | hedge           | ♂         | o     | ag     | 3     | my.jn  | Pu      | Britain corn fl. S h.1   |
|        | γ nemordis         | wood            | ♂         | o     | ag     | 3     | my.jn  | Pu      | Britain corn fl. S h.1   |
| 10401  | angustifolia W.    | narrow-leaved   | ♂         | o     | or     | 1 1/2 | my.jn  | R       | Germany ... S co         |
| 10402  | amphicarpus W.     | subterraneous   | ♂         | o     | or     | 1     | my.jn  | B       | France 1815. S co        |
| 10403  | lathyroides W.     | spring          | ♂         | o     | or     | 1 1/2 | ap.jn  | Pu      | Britain fall. fl. S h.1  |
| 10404  | lútea W.           | yellow          | ♂         | Δ     | or     | 1 1/2 | jn.au  | Y       | Britain sea sh. R co     |
| 10405  | hybrida W.         | hairy-flowered  | ♂         | Δ     | or     | 1 1/2 | jn.au  | Y       | England thick. R co      |
| 10406  | striata Bieb.      | streaked        | ♂         | Δ     | or     | 1 1/2 | jn.au  | Pu      | Tauria 1823. R co        |
| 10407  | lavigata Bieb.     | smooth-podded   | ♂         | Δ     | or     | 1 1/2 | jl.au  | Pa.Y    | England sea sh. R co     |
| 10408  | megalospérna Bieb. | Taurian         | ♂         | o     | or     | 2     | jl.au  | Pu      | Tauria 1798. S co        |
| 10409  | articulata W. en.  | jointed         | ♂         | o     | or     | 1 1/2 | jn.jl  | Pu      | ..... 1798. S co         |
| 10410  | pannónica W.       | Hungarian       | ♂         | o     | or     | 1 1/2 | jn.jl  | Pu      | Hungary 1638. S co       |
| 10411  | sordida W.         | sordid          | ♂         | o     | or     | 1 1/2 | jn.jl  | Y       | Hungary 1802. S co       |
| 10412  | Michaxii W. en.    | white-flowered  | ♂         | o     | or     | 1 1/2 | jl.au  | Pu      | ..... 1803. S co         |
| 10413  | peregrina W.       | broad-podded    | ♂         | o     | or     | 1 1/2 | jl.au  | Pu      | France 1779. S co        |
| 10414  | monántha W.        | single-flowered | ♂         | o     | or     | 2     | jl.au  | R       | Barbary 1790. R co       |
| 10415  | sépnica W.         | bush            | ♂         | Δ     | or     | 2     | my.jn  | B       | Britain hed. R h.1       |
| 10416  | bithynica W.       | purple          | ♂         | Δ     | or     | 1 1/2 | jl.au  | Pu      | England san. fl. S co    |
| 10417  | platycarpus W.     | flat-podded     | ♂         | o     | or     | 1 1/2 | jl.au  | Pu      | Germany 1723. S co       |
| 10418  | narbonensis W.     | broad-leaved    | ♂         | o     | ag     | 3     | jn.jl  | Pu      | France 1696. S co        |
| 10419  | serratifolia W.    | saw-leaved      | ♂         | o     | ag     | 3     | jn.jl  | Pu      | Hungary 1723. S h.1      |
| 10420  | Faba W.            | Garden Bean     | ♂         | o     | cul    | 3     | jn.jl  | Pa      | Egypt ... S h.1          |
|        | β equína           | Horse Bean      | ♂         | o     | ag     | 3     | jn.jl  | Pu      | ..... S h.1              |



History, Use, Propagation, Culture.

crops is thus obtained from the end of May to the beginning of November. By raising in hotbeds and transplanting, the first crop may be gathered in the beginning of May; and by raising and maturing in pits, pease may be gathered in April. The pea, however, does not force well, and requires extraordinary attention to giving air, otherwise the blossoms will not set. The culture of the pea is known to every countryman.

The grey pea, cultivated in agriculture, is by some considered as a species, though it is obviously a mere variety, not further removed from the frame pea than is the blue Prussian, or the crown pea. A dry soil and season is essential for a good crop, unless the plants can be supported by sticks like the garden crops. The seed is chiefly used for feeding pigs, and splitting for soup. In boiling split pease, some samples, without reference to variety, fall or moulder down freely into pulp, while others continue to maintain their form. The former are called boilers. This property of boiling depends on the soil; stiff land, or sandy land that has been limed or marled, uniformly produces pease that will not melt in boiling, no matter what the variety may be. Pease straw cut green and dried, is reckoned as nourishing as hay, and is considered as excellent for sheep. The produce of pease in flour is as three to two of the bulk in grain, and husked and split for soups as four to two. A thousand parts of pea flour afforded Sir H. Davy 57 1/2 parts of nutritive or soluble matter; viz. 501 of mucilage, or vegetable animal matter, 22 of sugar, 35 of gluten, and 16 of extract, or matter rendered insoluble during the operation.

*P. maritimum* has seeds of a bitterish disagreeable taste, but are reported nevertheless to have been eaten in times of scarcity. (Turner's Herbal.)

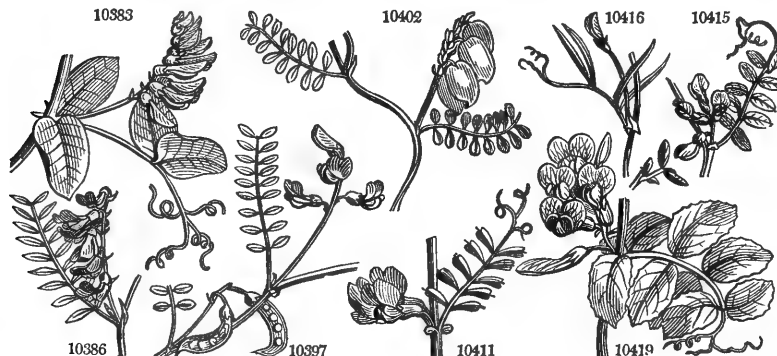
1561. *Vicia*. From *gwig*, Celtic; whence *vicino*, Greek, *vicia*, Latin, *vesce*, French, *vetch*, English, &c. *V. sylvatica* and *cracca*, where they occur in meadows, are considered valuable herbage plants. They yield great bulk of fodder, which is allowed to be very nutritive. Some have proposed to cultivate them alone, but Curtis observes, they would probably in that case choke themselves for want of support.

*V. sativa*, the winter and summer tare, fetch or vetch, is a valuable agricultural plant. Some consider the winter variety as a distinct species; but Professor Martyn proved, by cultivating both, that they were not

- 10381 Petioles 4-leaved, Stipules crenate, Peduncles 1-flowered  
 10382 Petioles flat above, Stem angular, Stipules sagittate, Peduncles many-flowered

- 10383 Peduncles many-fl. Petioles many-leaved, Leaflets ovate : lower sessile  
 10384 Peduncles many-fl. Leaflets reflexed ovate mucronate, Stipules somewhat toothed  
 10385 Peduncles many-fl. longer than leaf, Leaflets ellipt. Stipules lunate with setaceous teeth  
 10386 Peduncles many-fl. shorter than leaf, Leaflets oblong subpubesc. Stipules half sagittate entire lanceolate  
 10387 Peduncles many-fl. shorter than leaf, Teeth of calyx setaceous very villous, Leaflets lanceolate villous  
 10388 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaflets obl. ovate villous, Stip. half-sagittate  
 10389 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lanc. blunt, Stip. half-sagitt. lin. subulate  
 10390 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lin. smoothish 3-nerved, Stip. lin. entire  
 10391 Peduncles many-fl. longer than leaf, Flowers distant, Leaf. lin. Stip. half-sagitt. lin. lanc. toothed at base  
 10392 Peduncles many-fl. Petioles sulate 12-leaved, Leaflets lanc. smooth, Stip. half-sagittate stalked  
 10393 Peduncles many-fl. Leaflets obl. Stipules entire, Pods villous ovate oblong  
 10394 Peduncles many-fl. Leaves entire, Stipules entire, Pods nearly erect  
 10395 Peduncles many-fl. long, Upper leaves subcirrhous, Stipules half-sagittate entire, Leaf. oval-obl. hoary  
 10396 Peduncles many-fl. long, Leaves not cirrhous, Leaf. obl. lanc. silky beneath, Stip. lanceol. entire  
 10397 Peduncles many-fl. shorter than leaf which is not cirrhous, Leaflets obovate emarginate, Stip. oblong  
 10398 Peduncles 2-flowered awned shorter than leaf, Leaflets linear narrowed at each end, Stip. half-sagittate  
 10399 Pods subsessile solitary, Leaflets ovate, Stipules marked 4-toothed  
 10400 Pods sessile sub-binate, Leaflets obl. ovate truncate mucronate, Stipules toothed marked

- 10401 Pods sessile sub-binate spreading, Lower leaflets ovate emarginate : upper lin. entire, Seeds globose  
 10402 Pods sessile : lower subterranean, Leaflets linear truncate, Stipules half-sagittate  
 10403 Pods sessile solitary erect smooth, Leaflets 6 : lower subcordate  
 10404 Pods sessile solitary reflexed hairy, Stems diffuse, Stipules colored, Standard smooth  
 10405 Pods sessile solitary reflexed hairy 5-seeded, Standard villous  
 10406 Pods stalked reflexed, Standard silky, Stipules lanceolate marked, Upper leaflets obl. elliptical acute  
 10407 Pods sessile solitary reflexed smooth, Stems nearly erect, Leaves quite smooth  
 10408 Pods sessile solitary reflexed downy, Leaflets linear blunt, Stipules half-sagittate entire  
 10409 Pedunc. 1-fl. in fruit longer than leaf and awned, Leaflets linear blunt mucronate, Stipules multifid  
 10410 Pods stalked about 3, and the standard hairy, Stipules lanceolate marked  
 10411 Pods subsessile twin reflexed smooth, Leaflets obl. ovate retuse, Stipules marked  
 10412 Pedunc. 1-fl. very short, Leaf. lin. lanc. truncate, Stipules lanc. undivided, Pods finely downy  
 10413 Pods subsessile pendulous smooth 4-seeded, Leaflets linear emarginate  
 10414 Pedunc. 1-fl. awned, Leaflets lanceolate blunt, Stipules bifid  
 10415 Pods stalked about 4 erect, Leaflets ovate entire  
 10416 Pods stalked solitary erect, Leaflets 4 oval-lanceolate, Stipules to thed  
 10417 Pods subsessile solitary compressed somewhat inflated, Leaflets oate toothed at end, Stip. cil. toothed  
 10418 Pods subsessile subternate compressed, Leaflets ovate entire, Stipules ciliate toothed at base  
 10419 Pods subsessile subternate, Leaves and stipules serrate  
 10420 Pods subsess. subtern. torulose, Leaflets ovate entire, Petioles not cirrhous, Stip. sagittate toothed at base



and Miscellaneous Particulars.

even very distinct varieties. The winter variety is sown in September and October, and the summer at different periods, from February to June, for successional cuttings. The soil requires to be in a good heart, otherwise they will produce but a poor crop of herbage: on a good soil they will yield ten or twelve tons, which is found excellent for milch cows and working stock. The crop is seldom left to ripen its seeds, but when seeds are wanted; the only use made of them being for sowing or feeding pigeons.

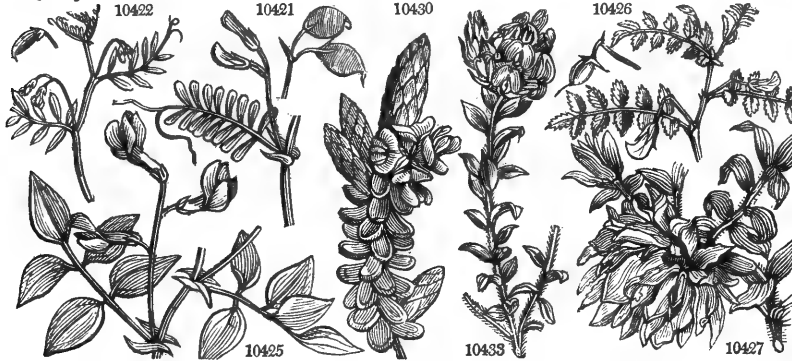
*V. narbonensis* and *serratifolia* are cultivated in Germany in the same manner as our tare. *Vicia sepium* has been recommended to be sown among clover for mowing.

*V. Faba* is a well known legume both of the garden and the field. The garden varieties are numerous; the earliest is a small seeded variety, the Mazagan, and the largest the Windsor. Beans are planted at the various times in which pease are sown; but the late sowings of this plant do not answer so well as those of the pea. When the ground is properly pulverised and in good heart, they succeed well when transplanted; and where a first crop is injured by insects, if the stems are cut down to the ground during their flowering season, they will send up a succession of shoots, which will bear a crop. In this way, according to some, the bean may be rendered perennial, as it is certain the scarlet kidney bean may by merely protecting the roots from the frost.

The field bean, of which there is a larger and smaller sort. the latter called *ticks*, is sown in drills by a machine, so as to admit of horse hoeing, and otherwise ploughing or stirring between the rows. By this means a larger crop is produced, and the land cleaned and brought into a better state for a succeeding corn crop. Beans are excellent food for hard working horses, and for fattening hogs for bacon. The flower of beans and pease is more nutritive than that of oats, but less easy of digestion. A bushel of beans is supposed to yield fourteen pounds more of flour than a bushel of oats, and a bushel of pease eighteen pounds more, or, according to some, twenty pounds. A thousand parts of bean flour were found, by Sir H. Davey, to yield 570 parts of nutritive matter, of which 426 were mucilage or starch, 103 gluten, and 41 extract, or matter rendered insoluble during the process.



|                                    |                       |   |    |     |                     |           |           |                     |            |               |                      |
|------------------------------------|-----------------------|---|----|-----|---------------------|-----------|-----------|---------------------|------------|---------------|----------------------|
| 1562. ERVUM. <i>W.</i>             | TARE.                 |   |    |     | <i>Leguminosae.</i> | Sp. 4-16. |           |                     |            |               |                      |
| 10421 <i>Lens L.</i>               | Lentil                | ♂ | ○  | clt | 1                   | my        | Pa        | France              | 1548. S    | r.m           | Rivini tet. t. 35    |
| 10422 <i>tetraspermum W.</i>       | smooth                | ♂ | ○  | un  | 14                  | jn        | Pa        | Britain             | corn fl. S | h.l           | Eng. bot. 1923       |
| 10423 <i>hirsutum W.</i>           | hairy                 | ♂ | ○  | un  | 2                   | jn,jl     | B         | Britain             | corn fl. S | h.l           | Eng. bot. 970        |
| 10424 <i>dispersum W.</i>          | two-seeded            | ♂ | ○  | un  | 14                  | jn,jl     | Pa        | E. Indies           | 1802. S    | co            |                      |
| 1563. ERVILIA. <i>Link.</i>        | ERVILIA.              |   |    |     |                     |           |           | <i>Leguminosae.</i> | Sp. 1.     |               |                      |
| 10425 <i>sativa Link.</i>          | common                | ♂ | ○  | clt | 14                  | jn,jl     | Pu        | S. Europe           | 1596. S    | co            | Black. t. 208. f. 3  |
| 1564. CYCER. <i>W.</i>             | CHICK-PEA.            |   |    |     |                     |           |           | <i>Leguminosae.</i> | Sp. 1.     |               |                      |
| 10426 <i>arietinum W.</i>          | common                | ♂ | ○  | clt | 1                   | jl,au     | Pa        | S. Europe           | 1548. S    | co            | Bot. mag. 2274       |
| *1565. LIPARIA. <i>W.</i>          | LIPARIA.              |   |    |     |                     |           |           | <i>Leguminosae.</i> | Sp. 8-13.  |               |                      |
| 10427 <i>sphaerica W.</i>          | globe-flowered        | ♂ | ○  | or  | 4                   | jl,au     | Or        | C. G. H.            | 1794. S    | p.l           | Bot. mag. 1241       |
| 10428 <i>capitata W.</i>           | headed                | ♂ | ○  | or  | 3                   | jl,au     | Y         | C. G. H.            | 1812. C    | co            |                      |
| 10429 <i>tomentosa W.</i>          | downy                 | ♂ | ○  | or  | 3                   | jl,au     | Y         | C. G. H.            | 1812. C    | co            |                      |
| 10430 <i>vestita W.</i>            | concave-leaved        | ♂ | ○  | or  | 3                   | my,jn     | Y         | C. G. H.            | 1800. S    | p.l           | Bot. rep. 382        |
| 10431 <i>graminifolia W.</i>       | narrow-leaved         | ♂ | ○  | or  | 3                   | jn,jl     | Y         | C. G. H.            | 1800. C    | co            |                      |
| 10432 <i>villosa W.</i>            | woolly                | ♂ | ○  | or  | 3                   | jn,jl     | Y         | C. G. H.            | 1774. C    | co            | Ho.n.h.5.t.29.f.1    |
| 10433 <i>hirsuta W.</i>            | shaggy-stem'd         | ♂ | ○  | or  | 3                   | ap,d      | Y         | C. G. H.            | 1792. S    | p.l           | Bot. reg. 8          |
| 10434 <i>sericea W.</i>            | silky-leaved          | ♂ | ○  | or  | 3                   | jn,jl     | Y         | C. G. H.            | 1794. S    | p.l           |                      |
| †1566. CYTISUS. <i>W.</i>          | CYTISUS.              |   |    |     |                     |           |           | <i>Leguminosae.</i> | Sp. 24-41. |               |                      |
| 10435 <i>Laburnum W.</i>           | comm. Laburn.         | ♀ | tm | 15  | my,jn               | Y         | Switzerl. | 1596. S             | co         | Bot. mag. 176 |                      |
| 10436 <i>alpinum W. en.</i>        | Scotch Laburn.        | ♀ | tm | 30  | jn                  | Y         | Europe    | 1596. S             | co         | Schmidt arb.  |                      |
| 10437 <i>tomentosus B. R.</i>      | tomentose             | ♂ | ○  | or  | 14                  | jl,au     | Y         | C. G. H.            | 1796. S    | p.l           | Bot. rep. 237        |
| 10438 <i>nigricans W.</i>          | black-rooted          | ♂ | ○  | or  | 3                   | jn,jl     | Y         | Austria             | 1736. S    | s.l           | Bot. reg. 802        |
| 10439 <i>foliolosus W.</i>         | leafy                 | ♂ | ○  | or  | 2                   | jl,au     | Y         | Canaries            | 1779. C    | p.l           | Bot. mag. 426        |
| 10440 <i>divaricatus W.</i>        | clammy                | ♂ | ○  | or  | 3                   | jl,au     | Y         | S. Europe           | 1656. S    | p.l           | Bot. mag. 1387       |
| 10441 <i>sessilifolius W.</i>      | common                | ♂ | ○  | or  | 6                   | my,jn     | Y         | Italy               | 1629. S    | s.l           | Bot. mag. 255        |
| 10442 <i>wolgaricus W.</i>         | wing-leaved           | ♂ | ○  | or  | 2                   | my,jn     | Y         | Siberia             | 1786. S    | s.l           | Pall. ross. 1. t. 47 |
| 10443 <i>Cajan W.</i>              | Pigeon-Pea            | ♀ | ○  | or  | 2                   | jl,au     | Y         | E. Indies           | 1687. S    | s.l           | Rhee. mal.6.t.13     |
| 10444 <i>nanus W. en.</i>          | dwarf                 | ♂ | ○  | or  | 2                   | my,jn     | Y         | Levant              | 1816. S    | s.l           | Dend. brit. 81       |
| 10445 <i>hirsutus W.</i>           | hairy                 | ♂ | ○  | or  | 5                   | jn,au     | Y         | S. Europe           | 1739. S    | co            | Jac. obs. 4. t. 96   |
| 10446 <i>capitatus W.</i>          | cluster-flowered      | ♂ | ○  | or  | 3                   | jn,jl     | Y         | Austria             | 1774. S    | s.l           | Bot. cab. 497        |
| 10447 <i>austriacus W.</i>         | Austrian              | ♂ | ○  | or  | 3                   | jn,s      | Y         | Austria             | 1741. S    | s.l           | Jac. aust. 1. t. 21  |
| 10448 <i>leucanthus W.</i>         | cream-colored         | ♂ | ○  | or  | 4                   | jn,jl     | Pa,Y      | Hungary             | 1806. C    | s.l           | Bot. mag. 1438       |
| 10449 <i>purpureus W.</i>          | purple-flowered       | ♂ | ○  | or  | 3                   | my,au     | Pu        | Austria             | 1792. S    | s.l           | Bot. mag. 1176       |
|                                    | <i>white-flowered</i> |   |    |     |                     |           |           |                     |            |               |                      |
| 10450 <i>supinus W.</i>            | trailing              | ♂ | ○  | or  | 1                   | my,au     | Y         | S. Europe           | 1755. S    | s.l           | Jac. aust. 1. t. 20  |
| 10451 <i>biflorus W.</i>           | two-flowered          | ♂ | ○  | or  | 3                   | my,jn     | Y         | Hungary             | 1760. S    | s.l           | Bot. reg. 308        |
| 10452 <i>falcatus W. &amp; K.</i>  | sickle-shaped         | ♂ | ○  | or  | 3                   | jn,au     | Y         | Hungary             | 1816. S    | s.l           | Bot. cab. 530        |
| 10453 <i>triflorus W.</i>          | three-flowered        | ♂ | ○  | or  | 4                   | jn,jl     | Y         | Spain               | 1640. S    | s.l           |                      |
| 10454 <i>elongatus W. &amp; K.</i> | long-branched         | ♂ | ○  | or  | 4                   | my,jn     | Y         | Hungary             | 1804. C    | s.l           | Pl. rar.hu.2.t.183   |
| 10455 <i>rhombifolius Ph.</i>      | rhomb-leaved          | ♂ | ○  | or  | 3                   | .....     | Y         | Louisiana           | 1811. C    | s.l           |                      |
| 10456 <i>proliferus W.</i>         | silky                 | ♂ | ○  | or  | 2                   | ap,my     | Y         | Canaries            | 1779. C    | p.l           | Bot. reg. 121        |
| 10457 <i>argenteus W.</i>          | silver-leaved         | ♂ | ○  | or  | 3                   | au        | Y         | France              | 1739. S    | s.l           | Bau.h.2.p.359        |
| 10458 <i>calycinus Bieb.</i>       | few-flowered          | ♂ | ○  | or  | 2                   | au        | Y         | Tauria              | 1820. C    | co            | Bot. cab. 673        |
|                                    | <i>pauciflorus W.</i> |   |    |     |                     |           |           |                     |            |               |                      |



History, Use, Propagation, Culture,

1562. *Ervum*. From *erv*, tilled land, in Celtic; to which this plant is a pest. *E. lens* (from *lentil*, Celtic), *Lentille*, Fr., *Lentze*, Ger., and *Lenticia*, Ital., is a legume of the greatest antiquity, being in esteem in Esau's time, and much prized in eastern countries ever since. In Egypt and Syria they are parched in a frying-pan and sold in the shops, and considered by the natives as the best food for those who undertake long journeys. There are three varieties of lentils cultivated in France and Germany; the small brown, which is the lightest flavored, and the best for haricots and soups; the yellowish, which is little larger, and the next best; and the lentil of Provence, which is almost as large as a pea, with luxuriant straw, and more fit to be cultivated as a tare, than for the grain as human food. A dry warm sandy soil is requisite for the lentil; it is sown rather later than the pea, at the rate of a bushel, or one and a half bushel, to the acre; in other respects its culture and harvesting are the same, and it ripens sooner. The produce of the lentil in grain is about a fourth less than that of the tare; and in straw it is not a third as much, the plants seldom growing above one and a half foot high. The straw is, however, very delicate and nourishing, and preferred for lambs and calves; and the grain, on the continent, sells at nearly double the price of pease. Einhoff obtained from 3840 parts of lentils, 1260 parts of starch, and 1433 of a matter analogous to animal matter.

1563. *Ervilia*. A word with the same meaning as *Ervum*. See that word.

1564. *Cicer*. All authors agree in deriving the name from *cicus*, force; on account of the eminent qualities the ancients attributed to it. It grows naturally in the South of Europe, and is cultivated there for the same purposes as the lentil, but it is too delicate for field culture in this country. It is called *Arietinum*, because the young seed bears a very curious resemblance to a ram's head.

1565. *Liparia*. From *liparag*, brilliant, in allusion to the surface of the leaves. "The species," Sweet observes, "thrive very well in a mixture of loam and peat, and do not require so much water as some other genera of the order. *L. villosa*, *vestita*, *sericea*, and some others, if they get too much water over their leaves

- 10421 Pedunc. 2-fl. Seeds compressed, Leaflets entire  
 10422 Pedunc. about 2-fl. Pods smooth 4-seeded, Leaflets oblong truncate  
 10423 Pedunc. many-fl. Pods hairy 2-seeded, Leaflets lin. blunt  
 10424 Pedunc. 2-fl. awned, Pods smooth 2-seeded, Leaflets lin. lanceolate downy
- 10425 Pedunc. awned shorter than leaf, Leaflets obl. truncate smooth, Stipules hastate
- 10426 Pedunc. 1-fl. Seeds globose gibbous, Leaflets serrated
- 10427 Flowers capitate, Leaves lanceolate nerved smooth  
 10428 Flowers capitate: head erect, Leaves lanceolate smooth  
 10429 Flowers capitate, Leaves lanceolate downy  
 10430 Flowers capitate, Leaves ovate concave woolly beneath  
 10431 Flowers spiked hairy, Leaves lanceolate, and angular stem smooth  
 10432 Flowers fasciated, Leaves ovate villous downy  
 10433 Flowers racemose, Leaves obovate oblong smooth, Stem hairy  
 10434 Flowers somewhat spiked, Leaves ovate villous downy
- 10435 Racemes simple pendulous, Leaflets ovate oblong, Pods hairy  
 10436 Racemes simple pendulous, Leaflets ovate oblong rounded at base, Pods quite smooth  
 10437 Racemes lateral erect, Branches round spreading, Leaflets ovate downy  
 10438 Racemes terminal erect, Calyxes hairy: teeth minute, Leaflets ellipt. hairy  
 10439 Racemes terminal erect, Calyxes villous: segments falcate, Leaf. obovate oblong  
 10440 Racemes terminal erect, Calyxes and pods viscid, Leaflets oblong  
 10441 Racemes erect, Calyx with a triple bractea, Floral leaves sessile  
 10442 Racemes terminal l-sided, Leaves pinnated hoary, Leaflets rounded elliptical  
 10443 Racemes axillary erect, Leaflets sublanceolate downy: the middle one in a long stalk  
 10444 Raceme term. 1-sided 4-fl. Leaflets obovate downy beneath, Calyxes deeply 3-parted  
 10445 Pedunc. aggregate subterminal, Calyxes hairy trifid, Leaflets obov. mucronate hairy beneath  
 10446 Flowers capitate, Branches straight round villous, Leaflets ovate ellipt. villous, Bract linear  
 10447 Fl. in term. umbels, Stems erect, Leaflets lanc. strigose pubescent  
 10448 Fl. umbelled term. Stems erect, Leaflets ellipt. smooth acute  
 10449 Fl. axillary solitary stalked, Stems procumbent, Leaflets obovate, Pods linear repand
- 10450 Fl. stalked sub-binate axillary, Stem decumbent, Leaflets obovate blunt  
 10451 Pedunc. sub-binate axillary, Stems diffuse-erect, Leaflets oblong lanceolate  
 10452 Flowers stalked lateral about 3 erect, Stem declinate branched, Leaflets obovate mucronate  
 10453 Flowers stalked axillary about 3, Calyxes campanulate, Leaflets obovate blunt hairy  
 10454 Flowers stalked lateral about 4, Stem erect, Branches long, Cal. tubular, Leaflets obovate  
 10455 Racemes term. erect, Leaflets obl. rhomboid blunt, Stipules rounded ovate oblique  
 10456 Flowers in lateral umbels, Stems erect, Leaves ellipt. erect silky beneath, Calyxes woolly  
 10457 Pedunc. about 3 term. Leaflets oblong lanceolate silky, Pods linear silky, Stems decumbent  
 10458 Flowers umbelled terminal, Cal. 3-parted: lower tooth trifid, Leaflets rounded obovate, Stems ascending



and Miscellaneous Particulars.

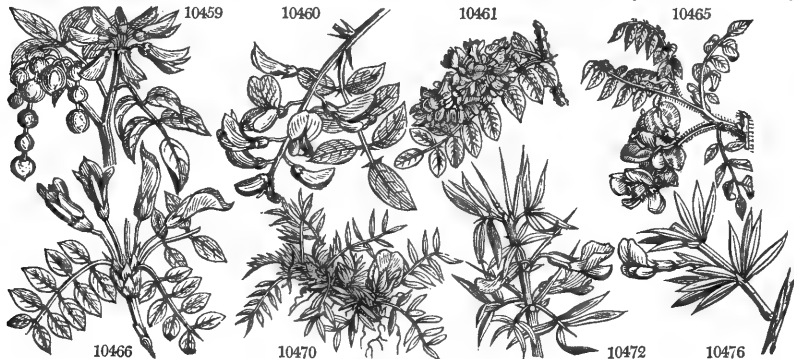
will be killed. Very young tops, taken off for cuttings, and planted under a bell-glass, in sand, are not difficult to root. (*Bot. Cult.* 217.)

1566 *Cytisus*. Pliny says it was so called because found in *Cythus*, one of the Cyclades. The *Cytisus* of the ancients is believed to have been our *Medicago arborea*. A genus of ornamental trees and shrubs, of which the *Laburnum*, *Cytisus des alpes*, Fr., *Bohnenbaum*, Ger., are well known and universally admired examples. There are two species of *Laburnum*, which are so much alike, that in most nurseries they are confounded together, or only one in cultivation. *C. alpinus* is the tree *Laburnum*, whose timber (the false ebony of the French) is much prized by cabinet-makers and turners, for its hardness, beauty of grain, and durability. The tree is frequently sown in plantations infested with hares and rabbits, who will touch no other tree as long as a twig of *laburnum* remains. "Though eaten to the ground in winter," as Boutcher observes, "it will spring again next season, and thus afford a constant supply for these animals, so as to save the other trees till of a size to resist their attacks. The timber has been sold for upwards of half a sovereign per foot." It becomes most valuable in light loams and sandy soils.

*C. volgaricus* and *purpureus* are very handsome shrubs; and make a fine appearance when grafted on stocks of *laburnum* five or six feet in height.

*C. cajan* (an alteration of the Malay name, *Catjang*), *Pois d'Angola*, Fr., is frequently planted in the West India Islands, chiefly in rows as a fence to the sugar plantations, and will thrive on barren land. The seed is much eaten by poor people and negroes, and is esteemed a wholesome pulse. In the island of Martinico even the better sort of people hold it in estimation, and prefer it to the European pea. The chief use of it in Jamaica is for feeding pigeons, whence its name. The branches, with the ripe seed and leaves, are given to feed hogs, horses, and other cattle, which grow very fat on them. (*Sloane and Jacq. Obs.*)

|                                   |                            |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
|-----------------------------------|----------------------------|---|----|----|-------|-------|---------|-----------|-------|-----|---------------|------------------|------------|--|--|--|--|--|--|--|
| 1567. MULLE'RA. <i>W.</i>         | MULLERA.                   |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10439 moniliformis <i>W.</i>      | bracelet                   | ♀ | □  | or | 20    | ..... | Y       | Guiana    | 1792. | C   | 1p            | Merian.          | sur. t. 35 |  |  |  |  |  |  |  |
| 1568. ROBINIA. <i>W.</i>          | ROBINIA.                   |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10480 Pseudacacia <i>W.</i>       | commun. Acacia             | 辛 | tm | 40 |       | my.jn | Pa.pu   | N. Amer.  | 1640. | S   | s.1           | Schmid.ar.       | l.t. 32    |  |  |  |  |  |  |  |
|                                   | <i>β inermis W.</i>        | 辛 | tm | 40 |       | my.jn | Pa.pu   | N. Amer.  | ..... | S   | s.1           | Bot. mag.        | 560        |  |  |  |  |  |  |  |
| 10461 viscosa <i>W.</i>           | clammy                     | 辛 | tm | 30 |       | jn.au | Pk      | N. Amer.  | 1797. | G   | s.1           | Bot. mag.        | 560        |  |  |  |  |  |  |  |
| 10462 violæa <i>W.</i>            | Ash-leaved                 | ♀ | □  | or | 12    | ..... | V       | W. Indies | 1759. | S   | p.1           | G                | co         |  |  |  |  |  |  |  |
| 10463 purpûrea <i>Link.</i>       | purple                     | ♀ | □  | or | 15    | jl.au | Pu      | .....     | 1810. | G   | co            |                  |            |  |  |  |  |  |  |  |
| 10464 guineensis <i>W. en.</i>    | Guinea                     | ♀ | □  | or | 6     | ...   | Y       | S. Leone  | 1822. | C   | p.1           | Bot. mag.        | 311        |  |  |  |  |  |  |  |
| 10465 hispida <i>W.</i>           | Rose-acacia                | ♀ | □  | or | 10    | my.s  | Pk      | Carolina  | 1743. | G   | s.1           | Bot. mag.        | 311        |  |  |  |  |  |  |  |
|                                   | <i>β rôsea</i>             | ♀ | □  | or | 10    | my.s  | Pk      | .....     | ..... | G   | s.1           |                  |            |  |  |  |  |  |  |  |
| *1569. CARAGA'NA. <i>Royen.</i>   | SIBERIAN PEA-TREE.         |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10466 sibirica <i>Roy.</i>        | common                     | ♀ | □  | or | 15    | ap.my | Y       | Siberia   | 1752. | S   | co            | Schm.arb.        | l.t. 33    |  |  |  |  |  |  |  |
|                                   | <i>Robinia Caragana L.</i> |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10467 arenaria <i>Downe</i>       | sand                       | ♀ | or | 1  | jn.jl | Y     | Siberia | 1802.     | Sk    | s.1 | Bot. mag.     | 1886             |            |  |  |  |  |  |  |  |
| 10468 grandiflora <i>Bieb.</i>    | large-flowered             | ♀ | or | 2  | jn.jl | Y     | Iberia  | 1823.     | G     | s.1 |               |                  |            |  |  |  |  |  |  |  |
| 10469 Altagana <i>W.</i>          | flat-podded                | ♀ | or | 3  | ap.jn | Y     | Siberia | 1789.     | G     | s.1 | L'her.stirp.  | t. 76            |            |  |  |  |  |  |  |  |
| 10470 jubata <i>W.</i>            | bearded                    | ♀ | or | 1½ | ...   | Y     | Siberia | 1796.     | G     | s.1 | Bot. cab.     | 522              |            |  |  |  |  |  |  |  |
| 10471 tragacanthoides <i>W.</i>   | Goat's thn.-like           | ♀ | or | 4  | ap.my | Y     | Siberia | 1816.     | G     | s.1 | Pa.act.pet.   | 10.t. 7          |            |  |  |  |  |  |  |  |
| 10472 spinosa <i>W.</i>           | thorny                     | ♀ | or | 6  | ap.my | Y     | Siberia | 1775.     | L     | s.p | Schm.arb.     | l.t. 36          |            |  |  |  |  |  |  |  |
| †10473 Halodendron <i>W.</i>      | salt-tree                  | ♀ | or | 6  | my.jn | Pu    | Siberia | 1779.     | R     | s.1 | Bot. mag.     | 1016             |            |  |  |  |  |  |  |  |
| †10474 Chamægu <i>W.</i>          | shining                    | ♀ | or | 4  | my.jn | Y     | China   | 1773.     | G     | co  | L'her.stirp.  | t. 77            |            |  |  |  |  |  |  |  |
| 10475 frutescens <i>W.</i>        | shrubby                    | ♀ | or | 2  | ap.my | Y     | Siberia | 1752.     | L     | co  | Schm.arb.     | l.t. 34          |            |  |  |  |  |  |  |  |
| 10476 pygmaea <i>W.</i>           | dwarf                      | ♀ | or | 1  | ap.my | Y     | Siberia | 1751.     | Sk    | s.p | Schm. arb.    | l. t. 37         |            |  |  |  |  |  |  |  |
| 1570. SWAINSONIA. <i>H. K.</i>    | SWAINSONIA.                |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10477 galegifolia <i>H. K.</i>    | red-flowered               | ♀ | □  | or | 2     | jl.au | R       | N. S. W.  | 1800. | S   | s.p           | Bot. mag.        | 792        |  |  |  |  |  |  |  |
| 10478 corymbifolia <i>H. K.</i>   | purple-flowered            | ♀ | □  | or | 2     | jl.au | Pu      | N. S. W.  | 1802. | S   | s.p           | Bot. mag.        | 1725       |  |  |  |  |  |  |  |
| †1571. SUTHERLANDIA. <i>H. K.</i> | SUTHERLANDIA.              |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10479 frutescens <i>H. K.</i>     | scarlet                    | ♀ | □  | or | 3     | jn.jl | Sc      | C. G. H.  | 1683. | S   | s.1           | Bot. mag.        | 181        |  |  |  |  |  |  |  |
| 1572. LESSERTIA. <i>H. K.</i>     | LESSERTIA.                 |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10480 annua <i>H. K.</i>          | annual                     | ♀ | □  | or | 1     | jn.jl | R       | C. G. H.  | 1731. | S   | s.1           | Ex. fl.          | 84         |  |  |  |  |  |  |  |
| 10481 diffusa <i>H. K.</i>        | procumbent                 | ♀ | □  | or | 1     | jl.au | R       | C. G. H.  | 1792. | S   | s.1           | Jac. ic. 3. t.   | 576        |  |  |  |  |  |  |  |
| 10482 perennans <i>H. K.</i>      | perennial                  | ♀ | □  | or | 1     | au    | R       | C. G. H.  | 1753. | C   | s.1           | Jac. vind. 3. t. | 3          |  |  |  |  |  |  |  |
| 10483 pâlchra <i>B. M.</i>        | pretty                     | ♀ | □  | or | 1½    | my    | R       | C. G. H.  | 1817. | S   | co            | Bot. mag.        | 2064       |  |  |  |  |  |  |  |
| †1573. COLUTE' A. <i>L.</i>       | BLADDER-SENNA.             |   |    |    |       |       |         |           |       |     |               |                  |            |  |  |  |  |  |  |  |
| 10484 arborescens <i>W.</i>       | common                     | ♀ | or | 10 | jn.au | Y     | France  | 1568.     | S     | co  | Bot. mag.     | 81               |            |  |  |  |  |  |  |  |
| 10485 média <i>W. en.</i>         | smaller                    | ♀ | or | 10 | jn.au | Or    | .....   | .....     | ..... | L   | co            | Dend. brit.      | 140        |  |  |  |  |  |  |  |
| 10486 cruenta <i>W.</i>           | oriental                   | ♀ | or | 4  | jn.jl | Sc    | Levant  | 1710.     | L     | co  | Schm. arb. t. | 119              |            |  |  |  |  |  |  |  |
| 10487 Poczokkii <i>W.</i>         | Poczokk's                  | ♀ | or | 6  | my.o  | Y     | Levant  | 1752.     | S     | co  | Schm. arb. t. | 120              |            |  |  |  |  |  |  |  |



History, Use, Propagation, Culture,

1567. *Mullera*. In honor of Otho Frederick Müller, a Dane, one of the editors of the *Flora Danica*. There have also lived four other Müllers, Germans, and botanists. The fruit is remarkable for its form, which is that of a necklace; a number of little balls being united by stalks, and not opening as in other leguminosæ, but always remaining closed. The flowers are pink, and the size of a bunch of Laburnum.

1568. *Robinia*. In memory of Jean Robin, herbarist to Henry IV. of France, author of *Histoire des Plantes*, &c., Paris, 1620. His son, *Vespasian*, was subdemonstrator at the Jardin de Roi, and was the first person who cultivated the *R. pseudacacia* in Europe.

*R. pseudacacia* is a thorny fast-growing tree, of middling stature, of no great beauty as a tree, but ornamental when young, and very well adapted for copse-wood and rough timber. The leaves come out late in spring, and fall off early in autumn, like those of the ash. The timber is much valued in North America, and said to be superior to that of the laburnum; "being close-grained, hard, and finely veined; and in America more valued by the cabinet-maker than any other native timber whatever. Pursh, in his *Flora*, asserts, that being nearly incorruptible, it is equally useful for posts and gates. We are informed by a friend, that gate-posts of this timber, on a property near Baltimore, have remained fresh for nearly a century. The finest pinnated leaves, and pendulous white odorous flowers, add greatly to its beauty. Its value is scarcely known in this country." (*Cated. Mem.* ii. 414.) It prefers a deep sandy soil, and rather sheltered situation; being very apt to throw up suckers from the running roots, and as it stoles freely, it seems peculiarly calculated for copse-woods. *Beatson* (*Conn. to Board of Agr.*) has cultivated it in this way to great advantage.

In North America the use of the locust-tree has hitherto been confined to treails, on account of its scarcity, but were it as plentiful as oak, it would be applied for more purposes by the shipwright, such as knees, floor-timbers, and foot-hooks, being much superior to oak for its strength and duration, and, from the tree spreading into branches, affords full as large a proportion of crooks or compass timber as oak.

A cubic foot of acacia, in a dry state, weighs from 48 to 53 pounds avoirdupois. If we compare its toughness in an unseasoned condition with that of oak, it will not be more than 2-100 less. Its stiffness is equal to 99-100 of oak; and its strength nearly 96-100; but were it properly seasoned, it might, possibly, be found much superior to oak in strength, toughness, and stiffness. A piece of unseasoned acacia, two feet six inches long, and an inch square in the vertical section, broke when loaded with a weight of 247 pounds avoirdupois. Its medium cohesive force is about 11,500 pounds. (*Dict. of Archi.*)

10459 The only species

10460 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Stipules spiny, Pods smooth

10461 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Branches and pods viscid with glands

10462 Racemes with 2-fl. pedicels, Cal. truncate, Leaves pinnated with an odd one, Stem unarmed

10463 Racemes axillary few-flowered, Leaflets lanceolate mucronate downy, Pedic. 1-flowered

10464 Racemes axillary few-flowered, Calyxes and branchlets finely bristly

10465 Racemes axillary, Leaves pinnate with an odd one, Stem hispid

10466 Pedunc. simple several, Leaves in 4 pairs, Petioles unarmed, Pods cylindrical

10467 Leaves about 4 pair; leaflets obcordate, Peduncles twin shorter than flower

10468 Pedunc. simple, Leaves 4 stalked hoary terminated by a weak spine, Pods downy

10469 Pedunc. simple solitary, Leaves in about 8 pairs, Stipules spiny, Pods compressed

10470 Pedunc. simple, Leaves in many pairs downy, Petioles filiform spiny, Branches villous

10471 Pedunc. simple, Leaves in 2 pairs, Leaf. obl. lanc. silky, Stipules and petioles spiny

10472 Pedunc. simple, Leaves in 4 pairs, Leaf. cuneate smooth, Stipules and petioles spiny

10473 Pedunc. 3-fl. Leaves in 2 pairs silky, Petioles spiny persistent, Pods bladderly

10474 Pedunc. simple, Leaves in 2 pairs, Leaflets obovate shining, Stipules and petioles spiny

10475 Pedunc. simple, Leaves about 4 somewhat petiolated terminated by a weak spine

10476 Pedunc. simple, Leaves 4 sessile

10477 Stalk of pod longer than persistent filaments

10478 Stalk of pod shorter than persistent filaments

10479 Leaflets obl. blunt hoary beneath, Stem shrubby, Branches silky with down

10480 Leaflets linear emarginate smooth, Stem weak, Raceme axillary

10481 Leaflets linear emarginate hairy, Cal. without bracts with black hairs

10482 Leaf. obl. downy, Stem erect, Racemes terminal

10483 Leaflets in 7 pairs ovate acute smoothish, Racemes axillary subcapitate 1-sided

10484 Leaflets ellipt. retuse, Prominences of the standard short

10485 Leaflets obcordate glaucous, Pedunc. about 6-flowered, Pods closed at end

10486 Leaf. obovate emarginate glauc. Prom. of standard blunt very small, Pods open at end

10487 Leaf. roundish ellipt. very blunt mucronate, Prom. of standard long ascending, Stem shrubby



and Miscellaneous Particulars.

*R. hispida* is a very handsome shrub, but it requires a sheltered situation, otherwise the branches are very liable to be shattered or blown off by high winds. In young trees grafted above ground, the fracture commonly takes place at the graft, so that a good preventative is to graft on the root a little below the surface. Grafts in this manner are also much more certain of success.

*R. viscosa* resembles, in its leaves and flowers, the common acacia; but is, altogether, a much handsomer tree. 1569. *Caragana*. This genus has been confounded by Linnæus and his followers with *Robinia*. The name is derived from the appellation of the most common species in Tartary, where it is called among the Moguls, *Carachaná*. *Altagana*, the name of another species, is in like manner a slight alteration of the Tartar name *Aldachaná*.

*C. spinosa*, on account of the length and toughness of the branches, and its large stout thorns, is admirably adapted to form impenetrable hedges, and is sufficiently hardy to bear our climate. About Pekin, they stick the bushes in clay on the tops of their walls, to prevent persons from getting or looking over them. (*Pallas*.)

*C. Halodendron* is a handsome shrub, and grows in Siberia on dry naked salt-fields, and it is probably from the want of this principle in our garden soils, that it so seldom flowers here.

*C. pygmaea* is a weak low shrub, with a shining yellow bark, with wood of a deep bay, almost as hard as horn.

*C. frutescens* is used by the Tartars for the same purposes as osiers, for which its tough shoots render it proper.

*C. jubata* is remarkable plant, its shoots always remaining covered by the persistent brown stipulae of the fallen leaves. It is extremely difficult to propagate, and is rarely even seen in this country. The most successful cultivators of it are Messrs. Loddiges and Son.

1570. *Swainsonia*. Named after the late Mr. Isaac Swainson, who had a botanic garden at Twickenham.

1571. *Sutherlandia*. In honor of Mr. James Sutherland, who published, in 1683, an 8vo. catalogue of the Physic Garden at Edinburgh. This and the former genus seed freely, and may also be readily increased by cuttings.

1572. *Lessertia*. Named by Decandolle in honor of M. Stephen Delessert, to whose mother Rousseau's Letters on Botany were addressed.

1573. *Colutea*. An ancient name of a bush with sweet-scented flowers; probably similar to the genus now

|                                 |                  |                     |            |        |     |           |          |                          |
|---------------------------------|------------------|---------------------|------------|--------|-----|-----------|----------|--------------------------|
| 1574. GLYCYRRHIZA. <i>W.</i>    | GLYCYRRHIZA.     | <i>Leguminosae.</i> | <i>Sp.</i> | 5-6.   |     |           |          |                          |
| 10488 echinata <i>W.</i>        | prickly-headed   | △ or                | 3          | jn.s   | Pa  | Italy     | 1596.    | R s.p Bot. mag. 2154     |
| 10489 glandulifera <i>W.</i>    | glandulous       | △ or                | 3          | jn.au  | Pa  | Hungary   | 1805.    | R lp Pl.rar.hul.1.t.21   |
| 10490 lepidota <i>Ph.</i>       | silky-leaved     | △ or                | 3          | jl.au  | Pa  | Missouri  | 1811.    | R s.p Bot. mag. 2150     |
| 10491 asperma <i>W.</i>         | rough            | △ clt               | 2          | jl.au  | L.B | Siberia   | 1795.    | R s.l Pall. Iapt.M.f.3   |
| 10492 hirsuta <i>W.</i>         | hairy            | △ clt               | 3          | jl.au  | Pa  | Levant    | 1739.    | R s.p                    |
| 1575. LIQUORITIA. <i>Mönch.</i> | LIQUORICE.       | <i>Leguminosae.</i> | <i>Sp.</i> | 1.     |     |           |          |                          |
| 10493 officinalis <i>Mönch.</i> | common           | △ clt               | 4          | jl.au  | L.B | S. Europe | 1562.    | R r.m Lam. ill.t.625.f.2 |
| *1576. CORONIL/LA. <i>H. K.</i> | CORONILLA.       | <i>Leguminosae.</i> | <i>Sp.</i> | 12-25. |     |           |          |                          |
| 10494 E'merus <i>W.</i>         | Scorpion Senna   | △ or                | 3          | ap.jn  | R   | France    | 1596.    | L co Bot. mag. 445       |
| 10495 jóncea <i>W.</i>          | Rush             | △ or                | 3          | jn.jl  | Y   | France    | 1656.    | C r.m Bot. cab. 235      |
| 10496 valentina <i>W.</i>       | nine-leaved      | △ or                | 2          | mr.n   | Y   | S. Europe | 1596.    | C r.m Bot. mag. 185      |
| 10497 glauca <i>W.</i>          | seven-leaved     | △ or                | 2          | my.s   | Y   | France    | 1722.    | C r.m Bot. mag. 13       |
| 10498 viminális <i>H. K.</i>    | stender          | △ or                | 3          | my.n   | Y   | Mogador   | 1798.    | C lp Par. lond. 13       |
| 10499 coronata <i>W.</i>        | large-headed     | △ or                | 2          | jn.jl  | Y   | S. Europe | 1776.    | C co Bot. mag. 907       |
| 10500 minima <i>W.</i>          | least            | △ or                | 2          | my.jl  | Y   | S. Europe | 1658.    | C co Bot. mag. 2179      |
| 10501 argentea <i>W.</i>        | silvery-leaved   | △ or                | 2          | my.jn  | Y   | Crete     | 1664.    | L s.l Mil.ic.2.t.289.f.1 |
| 10502 vária <i>W.</i>           | purple           | △ or                | 4          | jl.n   | Pu  | Europe    | 1597.    | C co Bot. mag. 258       |
| 10503 crética <i>W.</i>         | Cretan           | △ or                | 2          | jn.jl  | St  | Candia    | 1731.    | C s.l Jac. vind. 1.t.25  |
| §10504 Securidáca <i>W.</i>     | Hatchet-Vetch    | ○ or                | 1½         | jl.au  | Y   | Spain     | 1562.    | C co G.de f.2.153.f.3    |
| 10505 ibérica <i>Bieb.</i>      | Iberian          | △ or                | 2          | jl.au  | Y   | Iberia    | 1822.    | C co Bot. cab. 789       |
| 1577. HIPPOCREPIS. <i>W.</i>    | HORSESHOE-VETCH. | <i>Leguminosae.</i> | <i>Sp.</i> | 4-7.   |     |           |          |                          |
| 10506 unisiliquosa <i>W.</i>    | single-podded    | ○ pr                | 1          | jn.jl  | Y   | Italy     | 1570.    | S co Lam.ill.t.630       |
| 10507 multisiliquosa <i>W.</i>  | many-podded      | ○ pr                | 1          | jl.au  | Y   | S. Europe | 1683.    | S co Schk. ha. 2.t.206   |
| 10508 balearica <i>W.</i>       | shrubby          | △ pr                | 2          | my.jn  | Y   | Minorca   | 1776.    | C r.m Bot. mag. 427      |
| 10509 comosa <i>W.</i>          | tufted           | △ pr                | ½          | ap.au  | Y   | England   | ch.hil.  | D s.l Eng. bot. 31       |
| *1578. ORNITHOPUS. <i>W.</i>    | BIRD'S-FOOT.     | <i>Leguminosae.</i> | <i>Sp.</i> | 6-10.  |     |           |          |                          |
| 10510 perpusillus <i>W.</i>     | common           | ○ pr                | ½          | my.au  | R   | Britain   | dry pas. | S co Eng.bot. 369        |
| §10511 ebracteatus <i>Brot.</i> | round-podded     | △ pr                | ½          | my.jn  | Vy  | Portugal  | ...      | S co Cav. ic. 1. t. 41   |
| <i>O. durus</i> Cav.            | hairy            | ○ pr                | ½          | jn.jl  | Vy  | S. Europe | 1730.    | S co                     |
| 10512 compressus <i>W.</i>      | Purslane-leav'd  | ○ pr                | ½          | jn.jl  | Vy  | S. Europe | 1596.    | S co Cav. ic. 1. t. 37   |
| §10513 scorpioides <i>W.</i>    | repand           | ○ pr                | ½          | jn.jl  | Vy  | Barbary   | 1805.    | S co Lam. ill.t.631.f.2  |
| §10514 repandus <i>P. S.</i>    | Serradilla       | ○ pr                | ½          | jn.jl  | Vy  | Portugal  | 1818.    | S co                     |
| 10515 sativus <i>P. S.</i>      | Serradilla       | ○ ag                | 3          | jn.jl  | Vy  | Portugal  | 1818.    | S co                     |
| 1579. SCORPIURUS. <i>W.</i>     | CATERPILLAR.     | <i>Leguminosae.</i> | <i>Sp.</i> | 4.     |     |           |          |                          |
| 10516 vermiculata <i>W.</i>     | common           | △ or                | 2          | jn.jl  | Y   | S. Europe | 1621.    | S co Mor.hi.2.t.11.f.3   |
| 10517 muricata <i>W.</i>        | two-flowered     | △ or                | 2          | jn.jl  | Y   | S. Europe | 1640.    | S co Mor.hi.2.t.11.f.4   |
| 10518 sulcata <i>W.</i>         | three-flowered   | △ or                | 2          | jn.jl  | Y   | S. Europe | 1596.    | S s.l Mor. ox. 2. 11. 1  |
| 10519 subvillosa <i>W.</i>      | four-flowered    | △ or                | 2          | jn.jl  | Y   | S. Europe | 1731.    | S co Mor.hi.2.t.11.f.2   |
| 1580. SMITHIA. <i>Salisb.</i>   | SMITHIA.         | <i>Leguminosae.</i> | <i>Sp.</i> | 1-2.   |     |           |          |                          |
| 10520 sensitiva <i>Sal.</i>     | annual           | △ un                | ½          | jl.s   | Y   | E. Indies | 1785.    | S s.l Par. lond. 92      |



History, Use, Propagation, Culture,

so called. Shrubs with membranaceous inflated pods, free-growers and flowerers, well adapted to introduce in extensive shrubberies.

*C. arborescens* grows on Mount Vesuvius, even in the ascent to the crater, where there are scarcely any other plants. The leaves are recommended as answering all the purposes of senna, and Allioni has given particular directions for the preparation of them. A larger dose seems to be required to produce the same effect. The seeds, in a quantity of a drachm or two, excite vomiting. It is said by Haller and Ray to afford food grateful to cattle.

1574. *Glycyrrhiza*. From γλυκυσ, sweet, and ῥίζα, a root; the sweet taste of the liquorice root is well known. But the species from which the name is derived now constitutes a different genus. See Liquiritia.

1575. *Liquoritia*. A Latinized appearance of our common English word *Liquorice*, which in its turn is said to be an alteration or corruption of the French word *Reglisse*, itself a corruption of *Glycyrrhiza*. So, at least, says De Theis. To others, however, it is appears more probable that the name alludes to the quantity of *liquid* or *liquid* which the roots contain, and which constitutes their great value.

*L. officinalis* is a deep-rooting perennial, which has long been much cultivated in Spain; and since Elizabeth's time has been grown in different parts of England. The soil should be a deep sandy loam, trenched by the spade or plough, or with the aid of both, to two and a half or three feet in depth, and manured, if necessary. The plants are procured from old plantations, and consist of the side-roots, which have eyes or buds. These may be taken off, either in autumn, when a crop of liquorice is taken up for use, and laid in earth till spring; or taken from a growing plantation, as wanted for planting. The planting season may be either October, or February and March. In general the latter is preferred. The plants are dibbled in, in rows three feet apart, and from eighteen inches to two feet in the row, according to the richness of the soil. The after-culture consists in horse-hoeing and deep stirring, in weeding, and in cutting over and carrying away the haulm every autumn, after it is completely withered. As the plants do not rise above a foot the first season, a crop of onions or beans is sometimes taken in the intervals. The plants must have three summers' growth, at the

- 10488 Pods echinate, Fl. capitate, Stipules lanc. Leaflets smooth oblong mucronate  
 10489 Pods glandular echinate, Fl. racemose, Stipules withering, Leaf. oblong lanc. emarg. clammy beneath  
 10490 Leaflets oblong acute silky, Pods racemose oblong hispid  
 10491 Pods smooth moniliform, Raceme term. Stipules lanc. Leaf. obovate emarg. rough beneath  
 10492 Pods hirsute, Leaf. obl. lanc. Flowers racemose

10493 Pods smooth, Stipules 0, Leaflets ovate retuse clammy beneath

- 10494 Pedunc. about 3-fl. Claws of cor. three times as long as calyx, Stem angular  
 10495 Leaves 5-nate and 3-nate linear lanceolate fleshy blunt  
 10496 Leaflets about 9, Stipules nearly round  
 10497 Leaflets 7 very blunt, Stipules lanceolate  
 10498 Leaflets 6-10 pair more or less obovate and retuse, Pods very long curved upwards  
 10499 Leaflets 9 ellipt. : inner close to stem, Stipules opp. the leaves lanceolate  
 10500 Procumbent, Leaf. 9 ovate, Stipule opp. the leaf emarg. Pods angular knotty  
 10501 Leaflets 11 silky: the outer the largest  
 10502 Leaflets several lanceolate smooth, Pods rounded erect  
 10503 Leaflets 15 cuneate retuse, Pods rounded erect 5 together  
 10504 Leaflets several obl. cuneate, Pods compressed ensiform  
 10505 Leaflets 9 very blunt somewhat emarginate, Stipules round toothletted

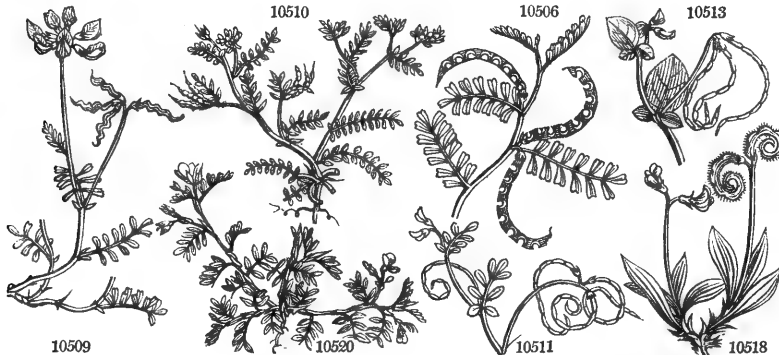
- 10506 Pods sessile solitary erect  
 10507 Pods stalked clustered circular: lobed on one edge  
 10508 Pods stalked clustered smooth lobed on the outer edge, Leaves and cal. hairy  
 10509 Pods stalked clustered arcuate rough sinuated on one side

- 10510 Leaves pinnated, Flowers capitate with a bractea, Pods roundish incurved  
 10511 Leaves pinnated, Flowers capitate without a bractea, Pods round incurved

- 10512 Leaves pinnated, Flowers capitate with a bractea, Pods compressed recurved rugose  
 10513 Leaves ternate subsessile: the odd one very large  
 10514 Leaves ternate or quinate: the odd one largest, Stipules large membranous 2-toothed  
 10515 Leaves pinnated, Pods rugose pendulous scarcely bowed, Joints compressed roundish

- 10516 Pedunc. 1-fl. Pods covered over with blunt scales  
 10517 Pedunc. 2-fl. Pods bluntly aculeate outwardly  
 10518 Pedunc. about 3-fl. Pods bearing outwardly distinct acute spines  
 10519 Pedunc. about 4-fl. Pods bearing outwardly clustered acute spines

10520 Lips of calyx entire, Racemes stalked few-flowered



and Miscellaneous Particulars.

end of which the roots may be taken up by trenching over the ground. The roots are either immediately sold to the brewers' druggists, or to common druggists, or preserved, like carrots or potatoes, in sand, till wanted for use. They are used in medicine and porter-brewing.

1576. *Coronilla*. From *corona*, a crown. Its pretty flowers are disposed in little tufts like coronets. Hand-some free-flowering shrubs, of easy culture. *C. valentina*, glauca, and *viminalis* are valuable as flowering in winter, and often all the summer. *C. argentea* bears a profusion of flowers, which have a strong sweet scent. The silvery color of this plant is occasioned by its growing on a poor dry soil; and if it is removed into better ground, it will take a glaucous color; and the contrary. *C. emerus* is a popular shrub of much beauty.

*C. varia* is a strong coarse-growing plant, and has been grown as an adjunct to clover, lucern, &c. Curtis says, it is bitter; but others have found horses and cows to eat it greedily.

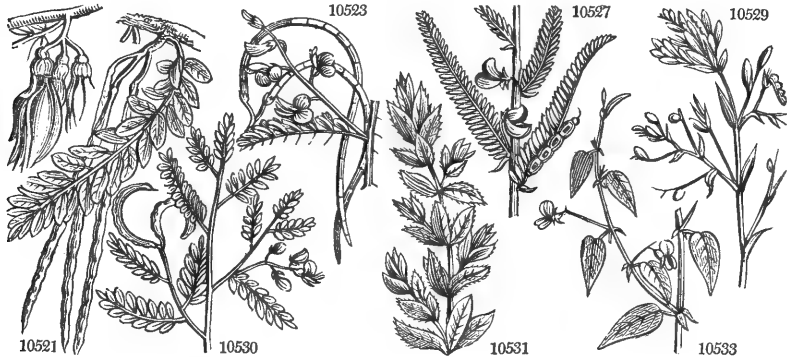
1577. *Hippocrepis*. From *hippos*, an horse, and *crepis*, a shoe; in allusion to the form of its pod. Pretty little annual plants, with bright yellow flowers.

1578. *Ornithopus*. From *ornis*, a bird, and *pus*, a foot. The pods are twisted and curved in such a manner as to resemble the claws of a small bird. Curious on account of their jointed pods, but not worth culture as plants of ornament. *O. sativus* is a most valuable agricultural plant. It was introduced for purposes of field culture about the year 1818, from Portugal, under the name of Serradilla. Sown upon the barren, light, sandy downs of Theiford, in Norfolk, it produced an abundant crop of most excellent fodder, where nothing else would grow. It is exceedingly like *O. scorpioides*, except that it arrives at the height of two feet instead of as many inches.

1579. *Scorpiurus*. From *scorpius*, a scorpion, and *ura*, a tail; on account of the twisted pod, which is very like the tail of some reptile.

1580. *Smithia*. In memory of Sir James Edward Smith, M. D., F. R. S., knight, president of the Linnean Society, possessor of the Linnean herbarium, and author of various elementary and other useful botanical works. These are inconspicuous worthless weeds, possessing little interest beyond their irritable foliage.

|  |   |    |    |                              |        |   |  |
|--|---|----|----|------------------------------|--------|---|--|
| *1581. <i>SESBA'NIA</i> . <i>H. K.</i> <i>SESBA'NIA</i> .        |   |    |    | <i>Leguminosae. Sp. 5-9.</i> |        |   |  |
| §10521 <i>grandiflora</i> <i>H. K.</i> great-flowered            | ☼ | □  | or | 10                           | jl. au | Or  | E. Indies 1768. C lp Rhee. mal. 1. t. 51       |
| 10522 <i>ægyptiaca</i> <i>H. K.</i> Egyptian                     | ☼ | ○  | or | 4                            | jl. au | Y   | Egypt 1680. S co Al. ægypt. 81. t. 82          |
| 10523 <i>aculeata</i> <i>H. K.</i> prickly                       | ☼ | ○  | or | 4                            | jl. au | Y   | E. Indies 1690. S co Jac. ic. 3. t. 564        |
| 10524 <i>cannabinæ</i> <i>P. S.</i> Hemp                         | ☼ | ○  | or | 4                            | jl. au | Y   | E. Indies 1800. S co                           |
| 10525 <i>picta</i> <i>Cav.</i> painted                           | ☼ | □  | or | 6                            | jl. au | Y   | W. Indies 1823. C co Bot. reg. 873             |
| 1582. <i>ÆSCHYNO' MENE</i> . <i>H. K.</i> <i>ÆSCHYNO MENE.</i>   |   |    |    |                              |        |   | <i>Leguminosae. Sp. 5-27.</i>                  |
| 10526 <i>sensitiva</i> <i>W.</i> shrubby                         | ☼ | □  | or | 3                            | ...    | Y   | W. Indies 1733. C s. l. Plum. ic. t. 149       |
| 10527 <i>aspera</i> <i>W.</i> rough-stemmed                      | ☼ | ○  | or | 2                            | jn. jl | Y   | E. Indies 1759. S s. l. Brey. cent. t. 52      |
| 10528 <i>hispida</i> <i>W.</i> hispid                            | ○ | or | 2  | ...                          | Y      | ...   | ...  |
| 10529 <i>americana</i> <i>W.</i> hairy                           | ○ | or | 2  | jl. au                       | Y      | Jamaica 1732. S s. l. Slo. h. 1. t. 118. f. 3 |  |
| 10530 <i>indica</i> <i>W.</i> Indian                             | ☼ | ○  | or | 2                            | jn. jl | Y   | E. Indies 1799. S s. l. Rhee. mal. 9. t. 18    |
| †1583. <i>STYLOSAN' THES.</i> <i>Swz.</i> <i>STYLOSAN' THES.</i> |   |    |    |                              |        |   | <i>Leguminosae. Sp. 1-7.</i>                   |
| 10531 <i>procumbens</i> <i>Swz.</i> procumbent                   | ☼ | △  | un | 1                            | jl. au | Y   | W. Indies 1821. S co Slo. jam. t. 110. f. 2    |
| *1584. <i>HALLIA</i> . <i>Th.</i> <i>HALLIA.</i>                 |   |    |    |                              |        |   | <i>Leguminosae. Sp. 3-10.</i>                  |
| 10532 <i>flaccida</i> <i>W.</i> long-leaved                      | ☼ | ○  | un | 1½                           | au. s  | Pu  | C. G. H. 1789. C lp Jac. schæ. 3. t. 296       |
| 10533 <i>cordata</i> <i>W.</i> heart-leaved                      | ☼ | △  | un | 2                            | au     | Pu  | C. G. H. 1787. D lp Bot. mag. 1850             |
| 10534 <i>imbricata</i> <i>W.</i> imbricated                      | ☼ | △  | un | 1½                           | au     | Pu  | C. G. H. 1812. C s. l.                         |
| 1585. <i>LESPEDE'ZA</i> . <i>Mich.</i> <i>LESPEDEZA.</i>         |   |    |    |                              |        |   | <i>Leguminosae. Sp. 7-14.</i>                  |
| 10535 <i>fruticosa</i> <i>P. S.</i> shrubby                      | ☼ | pr | 4  | jl. au                       | Pu     | Virginia 1739. C lp Jac. vind. 3. t. 89       |  |
| 10536 <i>sessiliflora</i> <i>Ph.</i> sessile-flowered            | ☼ | pr | 3  | jl. au                       | Pu     | N. Amer. ... D lp                             |  |
| 10537 <i>júncea</i> <i>P. S.</i> slender-branch.                 | ☼ | pr | 2  | jl. au                       | W      | India 1776. D lp Lin. fil. dec. 1. t. 4       |  |
| 10538 <i>capitata</i> <i>Ph.</i> headed                          | ☼ | pr | 2  | jn. jl                       | W      | N. Amer. 1783. D lp                           |  |
| 10539 <i>polystachia</i> <i>Ph.</i> hairy                        | ☼ | pr | 3  | jn. au                       | W      | N. Amer. 1789. D lp Mic. amer. 2. t. 40       |  |
| 10540 <i>violæcæa</i> <i>Ph.</i> violet-flowered                 | ☼ | pr | 2  | jl. au                       | Pu     | N. Amer. 1789. D lp                           |  |
| 10541 <i>lagopodioides</i> <i>P. S.</i> Hare's-foot-like         | ☼ | pr | 2  | my. jn                       | Pa     | China 1790. D s. l. Bur. ind. t. 53. f. 2     |  |
| 1586. <i>FLEMINGIA</i> . <i>Roz.</i> <i>FLEMINGIA.</i>           |   |    |    |                              |        |   | <i>Leguminosae. Sp. 6-10.</i>                  |
| 10542 <i>stricta</i> <i>H. K.</i> straight                       | ☼ | △  | un | 2                            | jl. s  | Pu  | India 1798. D s. p. Rox. cor. 348              |
| 10543 <i>semialata</i> <i>H. K.</i> many-spiked                  | ☼ | □  | un | 3                            | jl. au | Pu  | Nepaul 1805. S p. l. Rox. cor. 349             |
| 10544 <i>congêsta</i> <i>H. K.</i> crowded-spiked                | ☼ | □  | un | 3                            | jl. s  | Pu  | India 1802. C lp                               |
| 10545 <i>nána</i> <i>H. K.</i> dwarf                             | ☼ | □  | un | 1½                           | au     | Pu  | India 1804. C lp                               |
| 10546 <i>lineata</i> <i>H. K.</i> branch-spiked                  | ☼ | ○  | un | 2                            | jl. au | Pu  | India 1793. C lp Bur. ind. t. 53. f. 1         |
| 10547 <i>strobilifera</i> <i>H. K.</i> Beech-leaved              | ☼ | □  | un | 3                            | jl. au | Pu  | E. Indies 1787. C p. l. Bot. reg. 617          |
| *1587. <i>ZORNIA</i> . <i>Mich.</i> <i>ZORNIA.</i>               |   |    |    |                              |        |   | <i>Leguminosae. Sp. 2-7.</i>                   |
| §10548 <i>pulchella</i> <i>P. S.</i> neat-Indian                 | ☼ | □  | un | 1½                           | jl. au | Pu  | E. Indies 1799. C lp Burm. zeyl. t. 52         |
| 10549 <i>diphýlla</i> <i>P. S.</i> two-leaved                    | ☼ | □  | un | 1                            | jl. au | Pu  | India 1733. S lp Rhee. mal. 9. t. 82           |
| *1588. <i>HEDYSARUM</i> . <i>W.</i> <i>HEDYSARUM.</i>            |   |    |    |                              |        |   | <i>Leguminosae. Sp. 56-220.</i>                |
| §10550 <i>Alhâgi</i> <i>W.</i> prickly-stem.                     | ☼ | □  | un | 2                            | jl. au | R   | Levant 1714. C s. l. Rauw. it. 94. t. 14       |
| §10551 <i>bupleurifolium</i> <i>W.</i> Hare's-ear-iv.            | ☼ | □  | un | 1                            | jl. au | Pu  | India 1793. S s. l. Roxb. cor. 2. t. 194       |
| §10552 <i>nummularifolium</i> <i>W.</i> Money-wort-iv.           | ☼ | □  | un | 1                            | jl. s  | Pu  | India 1777. S lp Pet. gaz. t. 26. f. 4         |
| §10553 <i>styracifolium</i> <i>W.</i> Storax-leaved              | ☼ | □  | un | 2                            | ...    | Pu  | E. Indies 1796. C lp                           |
| §10554 <i>gângeticum</i> <i>W.</i> oval-leaved                   | ☼ | □  | un | 1½                           | jl. au | Pa. Y   | E. Indies 1762. S r. m. Bur. zeyl. t. 49. f. 2 |
| §10555 <i>triquetrum</i> <i>W.</i> triangul.-stalk.              | ☼ | ○  | or | 1                            | jl. au | Pu  | E. Indies 1802. S lp Bur. ind. t. 52. f. 2     |
| §10556 <i>maculatum</i> <i>W.</i> spotted                        | ☼ | □  | un | 1                            | jl. au | Pu  | India 1732. S lp Dil. el. t. 141. f. 168       |
| §10557 <i>vaginale</i> <i>W.</i> sheath                          | ☼ | □  | un | 2                            | jl. au | R   | E. Indies 1790. S lp Bur. zeyl. t. 49. f. 1    |
| §10558 <i>sagittatum</i> <i>P. S.</i> arrow-leaved               | ☼ | □  | un | 3                            | ...    | R   | E. Indies 1807. C lp                           |
| §10559 <i>vespertilionis</i> <i>W.</i> bat-winged                | ☼ | □  | un | 1                            | jl. au | W   | C China 1780. C r. m. Jac. ic. 3. t. 566       |



History, Use, Propagation, Culture,

1581. *Sesbania*. The Arabic name *Sesban*, a little Latinized. Most of these plants are ornamental. *S. grandiflora* is a beautiful plant; it grows in peat and loam, and cutting root in sand under a hand-glass.

1582. *Æschynomene*. A name given by Pliny to a plant which withdrew its leaves from the contact of the hand. It is derived from *αἰσχρῶναι*, to be modest. One of the species of *Æschynomene* is sensitive, but it is not the plant of Pliny.

1583. *Stylosanthes*. From *σῦλος*, a style, and *ανθος*, a flower: a flower with a very long style. Worthless tropical weeds.

1584. *Hallia*. Named after Birger Martin Hale, a pupil of Linnaeus, and the student under whose name the thesis called *Nectararia florum* stands in the *Amenitates Academicæ*.

1585. *Lespedeza*. Named by Michaux, in honor of Lespedez, a governor of Florida, who protected that botanist in his botanical researches. Herbaceous, chiefly North American plants with little merit.

1586. *Flemingia*. Named after Dr. John Fleming, president of the East India Company's Medical Board at Bengal.

1587. *Zornia*. Supposed to have been named after Mr. John Zorn, an apothecary at Kempton, in Bavaria, author of a work called *Icones Plantarum Medicinalium*, in five volumes, octavo, between the years 1779 and 1784. There was also a Dr. Bartholomew Zorn, of Berlin, author of *Botanologia Medica*, 1714, &c. &c.

1588. *Hedysarum*. From *ἴδως*, sweet, and *αρωμα*, smell; some the species have fragrant flowers. A

- 10521 Racemes about 3-fl. Leaf. obl. emarg. smooth, Pods filiform straight compressed  
 10522 Racemes many-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth, Pods filiform round  
 10523 Racemes few-fl. Leaf. linear blunt mucronate, Rachis of leaves prickly, Pods filiform round  
 10524 Pedunc. 1-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth  
 10525 Racemes many-fl. pendulous, Leaf. lin. blunt, Pods filiform round moniliform
- 10526 Stem smooth, Leaf. lin. blunt, Racemes few-flowered, Pods smooth  
 10527 Stem rough below, Leaf. lin. blunt, Racemes comp. hispid, Joints of pod rough in middle  
 10528 Stem hispid, Leaf. lin. blunt, Racemes simple, Pods hispid  
 10529 Stem hispid, Leaf. lin. falcate acuminate, Racemes simple, Joints of pods roundish distinct smooth  
 10530 Stem smooth, Pods smooth torose on one side and blunt, Leaflets blunt
- 10531 Leaves ovate lanc. smooth, Spikes many-fl. Bractes smooth mucronate, Stem downy
- 10532 Leaves lanc. mucronate smooth, Pedunc. 1-fl. the length of leaves  
 10533 Leaves cordate obl. acute smooth, Pedunc. the length of leaves  
 10534 Leaves cordate ovate convolute imbricated, Flowers axillary sessile
- 10535 Leaf. subovate villous beneath, Flowers in sessile fascicles, Stem shrubby  
 10536 Leaf. oblong, Fascicles of flowers sessile numerous, Pods nearly naked acute  
 10537 Leaf. somewhat lin. hairy beneath, Racemes axillary, Pods smooth length of calyx  
 10538 Simple, Leaf. ellipt. Spikes capitate on short stalks axillary and terminal, Cal. vill. length of cor.  
 10539 Branched villous, Leaf. round oval, Spikes axillary on long stalks, Cor. as long as calyx  
 10540 Branched diffuse, Leaf. ellipt. blunt hairy beneath, Racemes short umbelled  
 10541 Leaves ternate ovate, Racemes oblong, Pods inflexed, Calyx hairy
- 10542 Stem subsimple upright, Leaf. broad lanc. smooth, Racemes axill. sol. length of petiole  
 10543 Branched nearly upright, Leaf. ellipt. smooth, Petioles winged, Racemes paniced term. and axillary  
 10544 Nearly erect, Leaf. broad-lanc. Racemes axillary clustered  
 10545 Somewhat branched, Leaf. obovate, Petioles winged, Racemes clustered, Pods gland. viscid  
 10546 Erect branched, Leaf. obovate cuneate, Racemes axill. on long stalks dichotomous  
 10547 Leaves simple, Spikes like cones, Bractes cucullate foliaceous netted
- 10548 Leaves ternate large, Bractes numerous orbicular lined  
 10549 Leaves binate ovate-lanc. Bractes ovate acute
- 10550 Leaves simple lanc. blunt, Stem spiny  
 10551 Leaves simple lanc. acute, Stem unarmed, Stipules scarious  
 10552 Leaves simple obovate roundish, Stipules scarious shorter than petiole, Pods smooth netted  
 10553 Leaves simple cordate-roundish blunt smooth above downy beneath  
 10554 Leaves simple ovate acute with stipules  
 10555 Leaves simple cordate oblong stalked winged, Branches 3-cornered  
 10556 Leaves simple ovate blunt  
 10557 Leaves simple cordate oblong, Petioles simple, Stipules sheathing  
 10558 Leaves simple cordate lanc. sagittate, Flowers solitary, Pedunc. capillary very long  
 10559 Leaves simple and ternate intermediate 2-lobed : lobes spreading lanc. Joints of pod wavy plaited



and Miscellaneous Particulars.

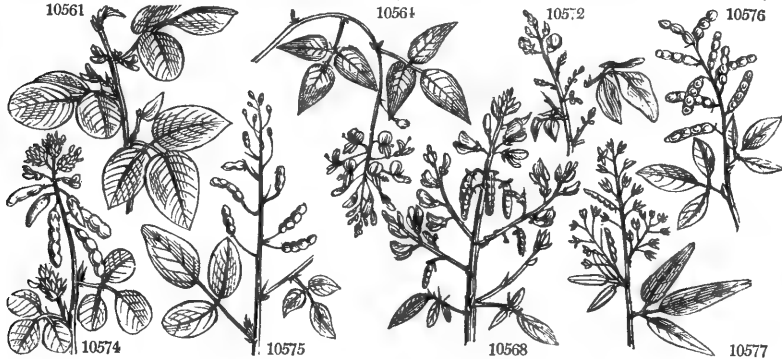
numerous genus, not remarkable for beauty, but containing two curious species, the manna plant, and the turning Hedyсарum ; and one of considerable importance in European agriculture, the Saint-foin.

H. Alhagi is a thorny shrub, with lanceolate leaves, and coriaceous, subcylindric, and scarcely jointed pods. It is on this plant that Manna Truncheon is found in Mesopotamia (*Russ. Aleppo*.) and other eastern countries. It is chiefly gathered about Tauris, where the shrub grows plentifully. Sir George Wheeler found it growing in Tinos; Tournefort also found it in many plains of Armenia and Georgia, and made a distinct genus of it, under the name of Alhagi, from the Arabic *Aghul* or *Al-gul*.

H. gyrans is a native of Bengal near the Ganges; and is called there *Burram Chadali*, or *Burram Chandali*. This is a wonderful plant, Linnaeus observes, on account of its voluntary motion, which is not occasioned by any touch, irritation, or movement in the air, as in *Mimosa*, *Oxalis*, and *Dionea*; nor is it so evanescent as in *Amorpha*. No sooner had the plants raised from seed acquired their ternate leaves, than they began to be in motion this way and that; this movement did not cease during the whole course of their vegetation, nor were they observant of any time, order or direction; one leaflet frequently revolved, whilst the other on the same petiole was quiescent; sometimes a few leaflets only were in motion, then almost all of them would be in movement at once: the whole plant was very seldom agitated, and that only during the first year. It continued to move in the stove during the second year of its growth, and was not at rest even in winter. (*Suppl. Linn.*) Swartz observes, that the motion is irregular, and that it sometimes ceases entirely; that in a very hot day it is immovable, being agitated only in the evening, and that slowly. In our climate, the leaves, in



|       |                          |                 |    |       |        |        |        |             |         |   |     |                          |
|-------|--------------------------|-----------------|----|-------|--------|--------|--------|-------------|---------|---|-----|--------------------------|
| 10560 | tomentosum W.            | woolly          | △  | un    | 1 1/2  | jn, jl | Pu     | China       | 1782    | C | l p |                          |
| 10561 | umbellatum W.            | umbel-flowered  | △  | un    | 3      | ...    | W      | E. Indies   | 1801    | C | l p | Jac. schœ. 3. t. 297     |
| 10562 | biarticulatum W.         | two-jointed     | □  | un    | 3      | ...    | Pu     | E. Indies   | 1806    | C | l p | Bur. zeyl. t. 50. f. 2   |
| 10563 | latifolium Roxb.         | broad-leaved    | □  | pr    | 2      | au     | Pu     | China       | 1818    | C | l p | Bot. reg. 355            |
| 10564 | uncinatum Jacq.          | hooked          | □  | un    | 3      | ...    | Pu     | Caracas     | 1823    | C | co  | Jac. schôn. t. 298       |
| 10565 | lagocephalum Link.       | woolly-headed   | △  | un    | 2      | jl     | Y      | Brazil      | 1824    | C | co  |                          |
| 10566 | aparinis Link.           | Bedstraw        | △  | un    | 2      | jn, jl | Pu     | Mexico      | 1823    | C | p l |                          |
| 10567 | malacophyllum Link.      | soft-leaved     | △  | un    | 2      | jn, jl | Pu     | Manilla     | 1822    | C | p l |                          |
| 10568 | gyrans W.                | Moving-plant    | □  | cu    | 3      | jl, au | Pu     | E. Indies   | 1775    | S | ... | Jac. ic. 3. t. 565       |
| 10569 | trigünium W.             | three-sided     | □  | un    | 1      | jl, au | Pu     | Jamaica     | 1733    | D | s l |                          |
| 10570 | canadense W.             | Canadian        | △  | un    | 6      | jl, au | Pu     | N. Amer.    | 1640    | D | s l | Corn. canad. t. 45       |
| 10571 | canescens W.             | hoary           | △  | un    | 2      | jl, au | W. pu  | N. Amer.    | 1733    | D | s l |                          |
| 10572 | mariandicum W.           | Maryland        | △  | un    | 1 1/2  | lo     | Pu     | N. Amer.    | 1725    | D | s l | Dil. el. t. 144. f. 171  |
| 10573 | obtusum W.               | obtuse          | △  | un    | 2      | jl, au | Pu     | N. Amer.    | 1805    | D | s l |                          |
| 10574 | capitatum W.             | headed          | □  | un    | 3      | jl, au | Pu     | Ceylon      | ...     | C | s l | Bur. ind. t. 54. f. 1    |
| 10575 | tortuosum W.             | twisted-podded  | □  | un    | 3      | jl, au | Pu     | Jamaica     | 1781    | C | s l | Slo. ja. l. t. 116. f. 2 |
| 10576 | viridiflorum W.          | green-flowered  | △  | un    | 3      | jl, s  | G      | N. Amer.    | 1787    | D | s l | Plu. alm. t. 308. f. 5   |
| 10577 | paniculatum W.           | panicked        | △  | pr    | 2      | jl     | Pu     | N. Amer.    | 1753    | C | s l | Pl. mant. t. 432. f. 6   |
| 10578 | tuberosum W.             | tuberous        | □  | un    | 3      | ...    | Pu     | E. Indies   | 1806    | D | s l |                          |
| 10579 | cuspidatum W.            | sharp-pointed   | △  | un    | 1 1/2  | jl, au | V      | N. Amer.    | 1803    | D | s l |                          |
| 10580 | glutinösium W.           | glutinous       | △  | un    | 1 1/2  | jl, au | Pu     | N. Amer.    | 1805    | D | s l |                          |
| 10581 | serotinum W. en.         | late-flowering  | △  | un    | 1 1/2  | jl, s  | V      | .....       | ...     | D | s l |                          |
| 10582 | triflorum W.             | three-flowered  | □  | un    | 2      | jn, jl | Pu     | India       | 1796    | S | s l | Bur. ind. t. 54. f. 2    |
| 10583 | volubile W.              | twining         | △  | un    | 3      | jl, s  | Pu     | N. Amer.    | 1727    | C | s l | Dil. el. t. 143. f. 170  |
| 10584 | pictum W.                | painted-leaved  | □  | un    | 6      | ...    | Pu     | E. Indies   | 1788    | C | p l | Jac. ic. 3. t. 567       |
| 10585 | argenteum L.             | silver-leaved   | △  | un    | 1 1/2  | jl, au | Pa. pu | Siberia     | 1796    | D | s l | Pall. it. 3. t. 9        |
| 10586 | fruticosum W.            | Siberian-shrub. | el | 1 1/2 | jn, jl |        | Pu     | Siberia     | 1782    | C | s l | Pall. it. 3. t. 5 f. 1   |
| 10587 | semoidea W.              | Sempe like      | □  | un    | 3      | jl, au | Pu     | .....       | 1823    | C | co  |                          |
| 10588 | alpinum W.               | alpine          | △  | el    | 4      | jn, jl | Pu     | Siberia     | 1798    | D | s l | Bot. reg. 808            |
| 10589 | obscurum W.              | creeping-rooted | △  | el    | 4      | jl     | Pa. pu | Alps of Eu. | 1640    | D | s l | Bot. mag. 282            |
| 10590 | tauricum W.              | Taurian         | △  | pr    | 4      | jl     | Pa. pu | Tauria      | 1804    | D | s l |                          |
| 10591 | roseum H. K.             | Rose-colored    | △  | pr    | 4      | jl, au | Pk     | Caucasus    | 1803    | S | s l | Bot. mag. 996            |
| 10592 | coronarium W.            | Fr. Honeysuckle | △  | sp    | 4      | jn, jl | Sc     | Italy       | 1596    | S | co  |                          |
| 10593 | flexuosum W.             | wave-podded     | ○  | un    | 1      | jl, au | Pu     | Asia        | 1680    | S | s l | Sck. hand. 2. t. 207     |
| 10594 | humile W.                | dwarf           | △  | un    | 1 1/2  | jl, au | Pu     | Spain       | 1640    | D | s l |                          |
| 10595 | muricatum W.             | prickly-podded  | △  | un    | 1 1/2  | jn, jl | Y      | Patagonia   | 1793    | D | s l | Jac. ic. 3. t. 568       |
| 10596 | spinostissimum W.        | thorny          | △  | un    | 1      | jl, au | Pa. pu | Spain       | 1731    | S | s l | Plu. alm. t. 50. f. 2    |
| 10597 | Onobrychis W.            | Saint-foin      | △  | ag    | 1      | jn, jl | Pk     | Britain     | ch. pa. | D | s l | Eng. bot. 96             |
| 10598 | saxatile W.              | rock            | △  | or    | 1      | jn, au | L. Y   | S. Europe   | 1790    | D | s l | All. ped. l. t. 19. f. 1 |
| 10599 | album W.                 | white           | △  | pr    | 1      | jn, au | W      | Hungary     | 1804    | D | s l | Pl. rar. hu. 2. t. 111   |
| 10600 | ascendens Swz.           | ascending       | □  | un    | 1 1/2  | jn, au | Pu     | Jamaica     | 1818    | C | s l |                          |
|       | β <i>caeruleum</i> Lind. | blue            | □  | un    | 2      | jn, au | B      | W. Indies   | 1818    | C | s l | Bot. reg. 815            |
| 10601 | grandiflorum Bieb.       | large-flowered  | △  | pr    | 1 1/2  | jn, au | Pu     | Tauria      | 1821    | D | co  | Bieb cent. t. 63         |
| 10602 | candidum Bieb.           | white           | △  | pr    | 1 1/2  | jn, au | Pu     | Tauria      | 1824    | D | co  |                          |
| 10603 | Caput-galli W.           | Cock's-head     | ○  | pr    | 1 1/2  | jn, au | F      | France      | 1731    | S | s l |                          |
| 10604 | Crista-galli W.          | Cock's-comb     | ○  | pr    | 1      | jn, au | F      | S. Europe   | 1710    | S | s l |                          |
| 10605 | crinitum W.              | crook-podded    | □  | un    | 4      | jl, s  | Pk     | E. Indies   | 1780    | C | s l | Burm. ind. t. 53         |



History, Use, Propagation, Culture,

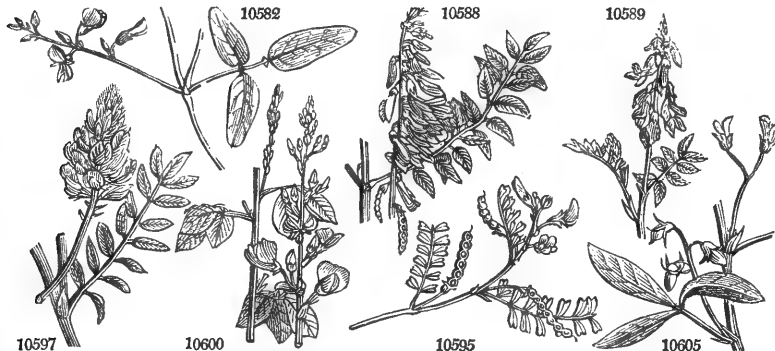
general, only make a faint and feeble attempt towards the middle of the day at exerting their extraordinary faculty. (Shaw.)

This motion does not depend upon any external cause that we can trace, and we are not able to excite it by any art that we possess. It is not the action of the sun's rays, for this plant is fond of shade, and the leaves revolve well on rainy days, and during the night: exposed to too much wind or sun, it is quiet. Perhaps, says Linnaeus, there may be some part in vegetables, as in animals, where the cause of motion resides.

H. coronarium, *Sulla*, or *Sainfoin à bouquets*, Fr., is an esteemed border biennial, and some speculative agriculturists recommend it for cultivation as a field plant. In Calabria it grows wild in great luxuriance, near four feet high, affording excellent nourishment to horses and mules, both green and made into hay; but it does not well bear the spring in the north of Italy; we may presume, therefore, that it will scarcely bear our climate well enough to answer the purposes of husbandry. Osbeck mentions, that he saw it brought into Cadiz in great bundles, as food for cattle.

H. Onobrychis, *L'eparcet*, Fr., *Espazette*, Ger., and *Cedrangolo*, Ital., is a deep rooting perennial, with branching spreading stems, compound leaves, and shewy red flowers. It is a native of many parts of Europe, but never found but on dry warm chalky soils, where it is of great duration. It has been long cultivated in France, and in other parts of the continent, and as an agricultural plant, a good deal in England, in the chalky districts; and its peculiar value is, that it may be grown on soils unfit for being constantly under tillage, and which would yield little undergrass. This is owing to the long and descending roots of the saint-foin, which will penetrate and thrive in the fissures of rocky and chalky understrata. Its herbage is said to be equally suited for pasturage or for hay, and eaten green it is not so apt to swell or hove cattle as the clovers or lucern. Arthur Young says, that upon soils proper for this grass no farmer can sow too much of it, and in

- 10560 Leaves ternate downy beneath, Stem angular downy, Racemes axillary  
 10561 Leaves ternate roundish ovate and branches 3-cornered hairy, Pedunc. umb. axill. shorter than petiole  
 10562 Leaves ternate oblong, Stem branched, Raceme terminal, Pods with 2 joints strigose  
 10563 Leaves simple reniform cordate repand, Racemes axillary with hooked hairs  
 10564 Leaves ternate ovate villous, Stem climbing, Racemes terminal  
 10565 Leaf. roundish hairy beneath, Panic. term. contracted bracteate, Pedunc. and cal. very hairy  
 10566 Leaves tern. Stem hairy rough, Leaf. roundish and obl. pale beneath somew. hairy, Racemes terminal  
 10567 Leaves tern. obl. subcordate pale and soft beneath, Raceme terminal  
 10568 Leaves tern. oval-lanc. blunt: lateral very minute, Panicle terminal, Pods repand below pendulous  
 10569 Leaves tern. ovate acute hairy, Stem climbing 3-cornered, Racemes very long axillary  
 10570 Leaves tern. obl. lanc. Stipules filiform, Fl. racemose, Pods hispid  
 10571 Leaves tern. roundish downy beneath, Stipules ovate acuminate, Stem angl. cil. hispid  
 10572 Leaves tern. oblong villous beneath, Stipules subulate, Racemes paniced, Pods with 3 joints  
 10573 Leaves tern. ovate blunt subcordate at base, Stipules lanc. subulate, Panicle terminal  
 10574 Leaves tern. roundish obovate downy beneath, Stipules lanc. Racemes axillary  
 10575 Leaves tern. ovate-obl. blunt smoothish, Racemes erect axillary, Pods tortuous  
 10576 Leaves tern. ovate-obl. rough beneath, Stip. lanc. cuspid. Racemes paniced with bractes  
 10577 Leaves tern. oblong lanc. smooth, Panic. term. Joints of pod rhomboid downy  
 10578 Leaves tern. ovate acute, Raceme term. very long, Pods repand villous  
 10579 Leaves tern. ovate acum. Panicle term. Joints of pod netted downy at edge  
 10580 Leaves tern. roundish ovate acuminate, Panicle scape-like from the base of stem, Peduncles viscid  
 10581 Leaves tern. ellipt. blunt beneath and petioles hirsute, Raceme term. simple  
 10582 Leaves tern. orbordate, Stem procumb. Pedunc. 1-fl. axillary, Pods with upper edge repand  
 10583 Leaves tern. lanc. blunt, Racemes axillary, Stem twining  
 10584 Leaves pinnate lanc. Raceme very long spiked, Joints of pod ellipt. plaited  
 10585 Leaves pinnate oval broader at base silky beneath, Cal. shorter than corolla, Joints of pod downy rough  
 10586 Leaves pinnate, Leaf. ellipt. blunt downy beneath alternat, Joints of pod netted  
 10587 Leaves pinn. Leaf. altern. smooth obovate retuse, Racemes axill. few-fl.  
 10588 Leaves pinn. ovate lanc. smooth, Racemes long axill. Bractes shorter than peduncle  
 10589 Leaves pinn. ovate smooth, Racemes axill.  
 10590 Leaves pinn. lanc. linear downy beneath, Joints of pod roundish roughish  
 10591 Leaves pinn. in 7 pairs ellipt. Racemes capitate axillary stalked, Standard striped  
 10592 Leaves pinn. roundish ellipt. Joints of pod roundish aculeate naked  
 10593 Leaves pinn. oblong, Pods flexuose, Joints prickly  
 10594 Leaves pinn. linear cuneiform, Wings very short, Joints of pod roundish hairy prickly  
 10595 Leaves pinn. obovate emarg. hispid at edge, Raceme term. Pods with many joints muricated  
 10596 Leaves pinn. obovate emarg. Flowers in capitate racemes, Joints of pod round villous acuminate  
 10597 Leaves pinn. cuneate smooth, Wings as long as calyx, Pods smooth 1-seeded prickly  
 10598 Leaves pinn. linear smooth, Wings shorter than calyx, Pods smooth 1-seeded prickly  
 10599 Leaves pinn. linear silky beneath, Wings shorter than cal. Pods downy 1-seeded prickly-toothed  
 10600 Leaves ternate roundish downy beneath, Stem round, Branches declinate ascending hairy  
 10601 Leaves pinnate ellipt. silky, Cal. as long as wings, Joints of pod villous  
 10602 Leaves pinnate silky shining roundish ovate, Cal. length of corolla, Joints of pod rugose downy  
 10603 Leaves pinnate obl. smooth, Wings shorter than cal. Pods 1-seeded prickly, Teeth of crest subulate  
 10604 Leaves pinnate obl. smooth, Petals nearly equal, Pods 1-seeded prickly, Teeth of crest lanceolate  
 10605 Leaves pinnate, Racemes long, Pods inflexed



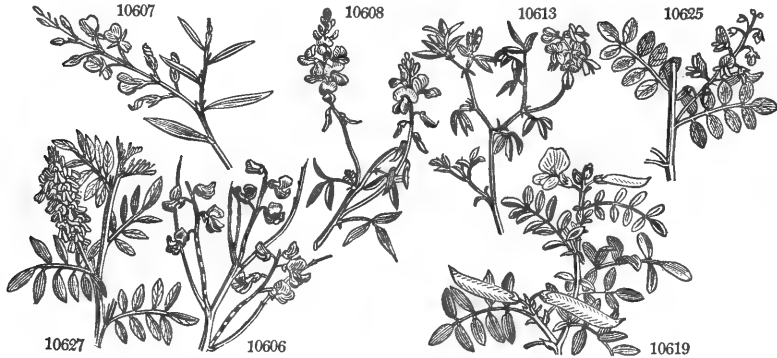
and Miscellaneous Particulars.

*The Code of Agriculture*, it is said to be "one of the most valuable herbage plants we owe to the bounty of providence."

The deeper the soil is stirred previously to sowing the better; the seed is generally put in broad cast, at the rate of three or four bushels the acre, and sometimes a little red clover is sown afterwards to produce a crop the second season, when the saint-foin plants are but small. When saint-foin is annually mown, it should be top-dressed with manure; but if only occasionally mown, the benefits derived from the grazing of sheep or cattle will, to a considerable extent, answer for surface dressings in a plant that derives a part of its nutriment from the subsoil. Saint-foin is highly nutritive, either cut green or made into hay. The produce, on a medium of soils and cultivation, may probably be estimated at from about one and a half to two tons the acre. And on the poorer and thinner staple sorts of land, it will perhaps seldom afford less than from a ton to a ton and a half on the acre. One thousand parts of saint-foin afforded Sir H. Davy thirty-nine of nutritive matter, which is the same as that afforded by the red and white clover.

The usual duration of saint-foin, in a profitable state, is from eight to ten years. It usually attains its perfect growth in about three years, and begins to decline towards the eighth or tenth on calcareous soils, and about the seventh and eighth on gravels. There are instances, however, of fields of saint-foin, which had been neglected and left to run into pasture, in which plants have been found upwards of fifty years from the time of sowing. It has been cultivated upwards of a century on the Cotswold hills, and there roots of it have been traced down into stone quarries from ten to twenty feet in length, and in Germany, Von Thaeer found them attain the length of sixteen feet. In general, the great enemy to the endurance of saint-foin, is the grass which accumulates, and forms a close turf on the surface, and thus chokes up the plant.

|  |   |    |   |       |       |           |       |   |     |                     |
|--|---|----|---|-------|-------|-----------|-------|---|-----|---------------------|
| 11589. <b>INDIGOFERA.</b> <i>W.</i> <b>INDIGO.</b> naked-stalked | ☐ | or | 1 | jl.o  | Pu    | C. G. H.  | 1812. | C | a1  | Bot. reg. 104       |
| 10606 <i>filifolia W.</i>  | ☐ | or | 1 | jl.au | Pu    | E. Indies | 1792. | S | a1  | Rox. cor. 2.t.194   |
| 10607 <i>linifolia W.</i>  | ☐ | or | 1 | jl.s  | R     | C. G. H.  | 1758. | S | a.p | Bot. mag. 476       |
| 10608 <i>psoraloides W.</i>                                      | ☐ | or | 1 | my.s  | R     | C. G. H.  | 1774. | C | a.p | Bot. mag. 198       |
| 10609 <i>candicans W.</i>  | ☐ | or | 1 | mr.ap | Sc    | C. G. H.  | 1774. | C | a.p | Bot. reg. 300       |
| 10610 <i>amca'na W.</i>  | ☐ | or | 2 | my.jl | Pu    | C. G. H.  | 1812. | C | a.p |                     |
| 10611 <i>incana W.</i>   | ☐ | or | 2 | jn.jl | Pu    | C. G. H.  | 1786. | C | a.p |                     |
| 10612 <i>sarmentosa W.</i>                                       | ☐ | or | 2 | my.jl | Pu    | C. G. H.  | 1790. | C | a.p | Bot. cab. 500       |
| 10613 <i>denudata W.</i>   | ☐ | or | 1 | jn.jl | Pk    | E. Indies | 1802. | C | a.p |                     |
| 10614 <i>trita W.</i>  | ☐ | or | 1 | ja.d  | Pu    | C. G. H.  | 1812. | C | a.p |                     |
| 10615 <i>microphylla Lam.</i>                                    | ☐ | or | 3 | jl.au | Pu    | C. G. H.  | 1774. | C | a.p |                     |
| 10616 <i>coriacea W.</i>   | ☐ | or | 3 | jl.au | Pu    | E. Indies | 1776. | C | a.p | Bur. ind. t. 55.f.1 |
| 10617 <i>enneaphylla W.</i>                                      | ☐ | or | 4 | jl.au | R     | C. G. H.  | 1774. | C | a.p | Bot. mag. 742       |
| 10618 <i>cytisoides W.</i>                                       | ☐ | or | 3 | jl.au | Pu    | C. G. H.  | 1812. | C | a.p | Jac. schuz. 2.t.236 |
| 10619 <i>stricta W.</i>  | ☐ | or | 3 | jl.au | Pu    | C. G. H.  | 1812. | C | a.p | Burm. zeyl. t. 14   |
| 10620 <i>hirsuta W.</i>  | ☐ | or | 3 | ...   | Pu    | E. Indies | 1759. | C | a.p | Bot. mag. 465       |
| 10621 <i>angustifolia W.</i>                                     | ☐ | or | 1 | jn.o  | Pu    | C. G. H.  | 1774. | C | a.p | Bot. cab. 149       |
| 10622 <i>australis W.</i>  | ☐ | or | 1 | mr.jn | Pk    | N. S. W.  | 1790. | S | a.p | Bot. cab. 465       |
| 10623 <i>viscosa W.</i>  | ☐ | or | 1 | jn.jl | Pu    | E. Indies | 1806. | C | a.p | Sert. han. 2. t. 12 |
| 10624 <i>A'nil W.</i>  | ☐ | or | 3 | jl.au | Pu    | W. Indies | 1731. | C | a.p |                     |
| 10625 <i>tinctoria W.</i>  | ☐ | or | 3 | jl.au | Pu    | E. Indies | 1731. | C | a.p | Rhe. mal. l. t. 54  |
| 10626 <i>argentea W.</i>   | ☐ | or | 2 | jl.au | Pu    | W. Indies | 1776. | C | a.p | L'Her. stirp.t.79   |
| 10627 <i>endecaphylla W.</i>                                     | ☐ | or | 4 | jl.au | Sc    | S. Leone  | 1823. | S | a.p | Bot. reg. 789       |
| 10628 <i>stipularis Link.</i>                                    | ☐ | or | 1 | ...   | ...   | C. G. H.  | 1824. | C | a.p |                     |
| 10629 <i>aphylla Link.</i>                                       | ☐ | or | 1 | ...   | ...   | C. G. H.  | 1825. | C | a.p |                     |
| 1590. <b>TEPHROSIA.</b> <i>P. S.</i> <b>TEPHROSIA.</b>           | ☐ | or | 3 | ...   | ...   | S. Amer.  | 1791. | S | p.1 | Plum. ic. t. 135    |
| 10630 <i>toxicaria P. S.</i>                                     | ☐ | or | 4 | jn.au | Pk    | N. Amer.  | 1765. | C | a.p | Plu. alm.t. 23.f.2  |
| 10631 <i>virginiana Ph.</i>                                      | ☐ | or | 4 | my.s  | Pk    | C. G. H.  | 1774. | C | p.1 | Bot. reg. 769       |
| 10632 <i>grandiflora P. S.</i>                                   | ☐ | or | 3 | my.jn | Pk    | C. G. H.  | 1774. | C | p.1 | Scop. insub. l.t.2  |
| 10633 <i>stricta P. S.</i>                                       | ☐ | or | 3 | jn.au | Pk    | C. G. H.  | 1779. | C | p.1 |                     |
| 10634 <i>pallens P. S.</i>                                       | ☐ | or | 2 | jn.jl | W     | E. Indies | 1787. | S | p.1 | Plu. alm. t.59.f.6  |
| 10635 <i>villosa P. S.</i>                                       | ☐ | or | 2 | jn.jl | Pu    | India     | 1778. | C | l.p |                     |
| 10636 <i>piscatoria P. S.</i>                                    | ☐ | or | 2 | jl.au | Pu    | E. Indies | 1768. | C | l.p | Burm. zeyl. t. 32   |
| 10637 <i>purpurea P. S.</i>                                      | ☐ | or | 1 | jl.au | Pu    | Owhyhee   | 1823. | C | co  |                     |
| 10638 <i>capitulata Link.</i>                                    | ☐ | or | 3 | jl.au | Pa. Y | .....     | 1820. | C | co  |                     |
| 19039 <i>lancea'folia Link.</i>                                  | ☐ | or | 3 | jl.au | Pa. Y | .....     | 1820. | C | co  |                     |
| 1591. <b>GALEGA.</b> <i>P. S.</i> <b>GOAT'S-RUE.</b>             | ☐ | or | 4 | jn.s  | Il    | Spain     | 1568. | D | co  | Sc.ha.2.t.208.a.    |
| 10640 <i>officialis W.</i>                                       | ☐ | or | 4 | jn.s  | W     | Spain     | ...   | D | co  |                     |
| <i>β alba</i>  | ☐ | or | 4 | jn.au | W     | Levant    | 1801. | C | p.1 | Bot. mag. 2192      |
| 10641 <i>orientalis W.</i>                                       | ☐ | or | 3 | jn.jl | Pa    | Caribees  | 1786. | C | l.p | Jac. amer. t. 125   |
| 10642 <i>caribæa W.</i>  | ☐ | or | 3 | ...   | Pa. Y | .....     | 1799. | C | l.p | Jac. ic. l. t. 150  |
| 10643 <i>ochroleuca W.</i>                                       | ☐ | or | 2 | jn.jl | Pa    | C. G. H.  | 1823. | C | l.p |                     |
| 10644 <i>mucronata Thunb.</i>                                    | ☐ | or | 2 | jn.jl | Pa    | C. G. H.  | 1823. | C | l.p |                     |



History, Use, Propagation, Culture,

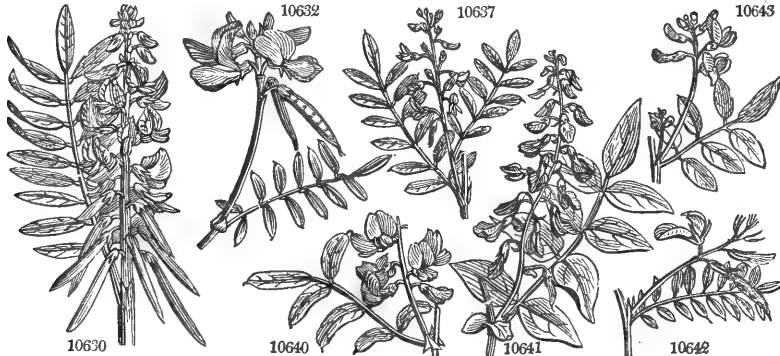
1589. *Indigofera.* That is to say, a plant bearing *indigo*. The species are elegant little shrubs, free-flowerers, and of easy culture. Most of them will yield the dye, but those chiefly cultivated for this purpose are the *I. Anil* (*Alnyl*, Arab.), in the West Indies, and the *I. tinctoria*, *argentea*, and some other species in the East Indies. The indigo is one of the most profitable articles of culture in Hindustan; because an immense extent of land is required to produce but a moderate bulk of the dye; because labor and land here are cheaper than any where else; and because the raising of the plant and its manufacture may be carried on without even the aid of a house. The first step in the culture of the plant is to render the ground, which should be friable and rich, perfectly free from weeds, and dry if naturally moist. The seeds are then sown in shallow drills about a foot apart. The rainy season must be chosen for sowing, otherwise if the seed is deposited in dry soil, it heats, corrupts, and is lost. The crop being kept clear of weeds, is fit for cutting in two or three months, and this may be repeated in rainy seasons every six weeks. The plants must not be allowed to come into flower, as the leaves in that case become dry and hard, and the indigo produced is of less value; nor must they be cut in dry weather, as they would not spring again. A crop generally lasts two years. Being cut, the herb is first steeped in a vat till it has become macerated and parted with its coloring matter; then the liquor is let off into another, in which it undergoes the peculiar process of beating, to cause the fecula to separate from the water. This fecula is let off into a third vat, where it remains some time, and is then strained through cloth bags, and evaporated in shallow wooden boxes placed in the shade. Before it is perfectly dry, it is cut in small pieces of an inch square; it is then packed in barrels, or sowed up in sacks for sale. Indigo was not extensively cultivated in India before the British settlements were formed there; its profits were at first so considerable, that, as in similar cases, its culture was carried too far, and the market glutted with the commodity. The indigo is one of the most precarious of oriental crops; being liable to be destroyed by hail storms, which do comparatively little injury to the sugar-cane and other plants. The indigo cultivated in the West Indies, thrives best in a free rich soil, and a warm situation, frequently refreshed with moisture. Having first chosen a proper piece of ground, and cleared it, hoe it into little

- 10606 Leaves simple filiform, Flowers racemose  
 10607 Leaves simple linear hoary, Pods globose  
 10608 Leaves ternate lanc. silky beneath, Racemes longer than leaf, Pods pendulous  
 10609 Leaves ternate lin. lanc. silky beneath, Racemes longer than leaf few-fl. Pods straight  
 10610 Leaves ternate oblong downy beneath, Racemes longer than leaf, Pods reflexed appressed  
 10611 Leaves ternate obovate silky beneath, Raceme term. long, Stem decumbent  
 10612 Leaves ternate, Leaf. ovate mucronate sessile, Pedunc. axill. about 2-fl. Branches filiform spreading  
 10613 Leaves ternate obcordate smooth, Racemes longer than leaf, Pods pendulous  
 10614 Leaves ternate ovate acute, Racemes short, Stem erect  
 10615 Leaves ternate obovate on short stalks, Pedunc. long filiform, Pods pendulous  
 10616 Leaves quinate obovate mucronate hairy, Stipules subulate, Pods straight smooth  
 10617 Leaves pinnate cuneate 7, Racemes as long as leaves, Pods 4-cornered 2-seeded  
 10618 Leaves pinnate 5 or 7 oblong narrowed at each end, Racemes longer than leaf  
 10619 Leaves pinnate 7 or 9 oblong downy beneath, Racemes about 5-flowered sessile, Stem straight  
 10620 Leaves pinnate of 4 or 5 pairs hoary beneath, Racemes length of leaves spiked, Pods 4-cornered villous  
 10621 Leaves pinnate linear, Racemes axillary, Stem shrubby downy  
 10622 Leaves pinnate smooth of many pairs oblong, Racemes shorter than leaf, Standard smooth  
 10623 Leaves pinnate of 6 pairs obovate strigose, Racemes shorter than leaf, Pods pendulous, Stem viscid  
 10624 Leaves pinnate oblong of 3 pairs, Racemes shorter than leaf, Pods falcate  
 10625 Leaves pinnate obl. smooth of 4 pairs, Racemes shorter than leaf, Pods round arcuate  
 10626 Leaves simple ternate and pinnate silky, Pods torulose pendulous  
 10627 Leaves pinn. obl. smooth, Racemes spiked shorter than leaf, Pods 4-cornered reflexed  
 10628 Stem muricate downy, Leaf. oval hairy, Stip. oval acute, Racemes longer than leaves  
 10629 Leaves about 3, Leaf. lanc. blunt mucronulate smooth deciduous, Petioles persistent

- 10630 Leaf. obl. lanc. blunt downy beneath, Raceme terminal long, Pods round spreading  
 10631 Pods falcate backwards compressed villous spiked, Calyxes woolly, Leaf. oval-obl. acuminate  
 10632 Leaf. obl. mucronate downy beneath, Stip. ovate acuminate, Raceme 4-fl. terminal, Pods pendulous  
 10633 Leaf. cuneate-obl. recurved mucronate villous beneath, Stipules subulate, Raceme few-fl.  
 10634 Pods straight spreading ciliated, Stip. subulate, Leaf. 9-11 obl. acute downy beneath  
 10635 Leaf. lanc. cuneate retuse silky beneath, Stip. setaceous, Pods falcate backwards villous pendulous  
 10636 Pods straight ascending villous, Stip. subulate, Pedunc. 2-edged, Leaf. obl. blunt  
 10637 Leaf. obl. cuneate emarg. mucronate smooth, Stip. subulate, Pods racemose straight ascending  
 10638 Leaf. inversely lanc. obtuse emarg. silky beneath, Racemes terminal short  
 10639 Leaf. inversely lanc. emarg. mucronate hairy, Stip. subulate, Racemes terminal

10640 Leaf. lanc. mucronate smooth, Stip. lanc. sagittate, Pods erect straight

- 10641 Leaf. ovate acuminate smooth, Stip. ovate, Flowers cernuous  
 10642 Leaf. obl. acute downy beneath, Stip. subulate, Pods smooth racemose pendulous  
 10643 Leaf. ovate acute downy, Stip. subulate, Pods straight pendulous smooth racemose  
 10644 Leaves pinn. ovate mucron. villous, Stem erect, Branches downy



and Miscellaneous Particulars.

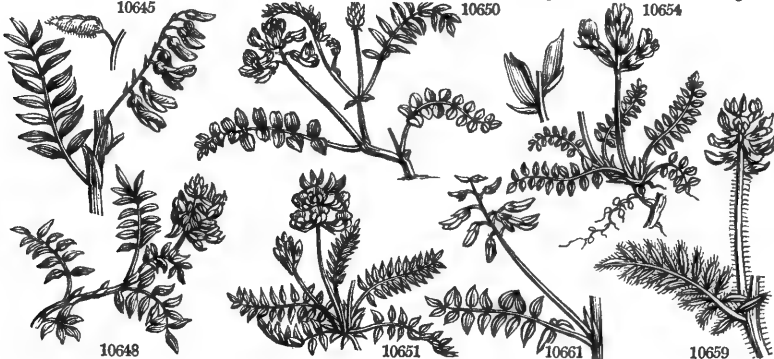
trenches, not above two inches, or two inches and a half in depth, not more than fourteen or fifteen inches asunder. In the bottom of these, at any season of the year, strew the seeds pretty thick, and immediately cover them. As the plants shoot, they should be frequently weeded, and kept constantly clean, until they spread sufficiently to cover the ground. Those who cultivate great quantities, only strew the seeds pretty thick in little shallow pits, hoed up irregularly, but generally within four, five, or six inches of one another, and covered as before. Plants raised in this manner, are observed to answer as well, or rather better, than the others; but they require more care in the weeding. They grow to full perfection in two or three months, and are observed to answer best when cut in full blossom. The plants are cut with reaping hooks, a few inches above the root, tied in loads, carried to the works, and laid by strata in the steeper. Seventeen negroes are sufficient to manage twenty acres of indigo; and one acre of rich land, well planted, will, with good seasons and proper management, yield five hundred pounds of indigo in twelve months, for the plant ratoons (i. e. it sends out stolones), and gives four or five crops a year; but must be replanted afterwards.

Indigo has long been cultivated in Spain, but is on the decline in that country, owing to the more favorable circumstances of the East and West Indies. It was tried in the south of France and Italy, during the Buonaparte dynasty, but found not worth following for the same reason.

1590. *Tephrosia*. From *tepeos*, ash-colored, in allusion to the color of the foliage. *T. toxicaria* is a spreading shrubby plant. The leaves and branches, well pounded, and thrown into a river or pond, very soon affect the water, and intoxicate the fish, so as to make them float on the surface, as if dead; most of the large ones recover after a short time, but the greatest part of the small fry perish on these occasions. It has been introduced to Jamaica, and cultivated there, on account of its intoxicating qualities. (*Browne*)

1591. *Galega*. A name of unexplained meaning. Ruellius says, it is the word *Glaux*, Italianized! *G. officinalis* was formerly accounted cordial and sudorific, but is now out of repute. The species are handsome border flowers.

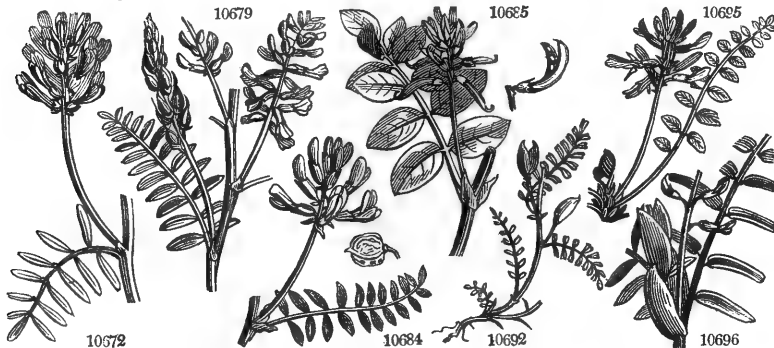
| 1592. PHA'CA. W.           |                      | BASTARD VETCH.          |      | Leguminosæ. Sp. 6-14. |      |           |              |
|----------------------------|----------------------|-------------------------|------|-----------------------|------|-----------|--------------|
| 10645                      | boëtica W.           | hairy                   | Δ pr | 4 jl                  | Y    | Spain     | 1640. R s.l  |
| 10646                      | frigida W.           | small                   | Δ pr | 1 jl                  | Y    | Austria   | 1795. R s.l  |
| 10647                      | alpina W.            | smooth-Alpine           | Δ pr | 2 jl                  | Y    | Austria   | 1759. R s.l  |
| 10648                      | australis W.         | trailing                | Δ pr | ½ my.jn               | B    | S. Europe | 1779. R s.l  |
| 10649                      | arenaria W.          | sand                    | Δ pr | ½ jl.au               | B    | Siberia   | 1796. R s.l  |
| 10650                      | astragalina P. S.    | procumbent              | Δ pr | 1 jn.jl               | W.B  | N. Europe | 1771. R s.l  |
| 1593. OXYTROPIS. Dec.      | OXYTROPIS.           | Leguminosæ. Sp. 19-21.  |      |                       |      |           |              |
| 10651                      | montana Dec.         | mountain                | Δ pr | ½ jl.au               | Pu   | Austria   | 1581. D s.l  |
| 10652                      | Lamberti Ph.         | Lambert's               | Δ pr | 1 aus.                | Pu   | Missouri  | 1811. D s.l  |
| 10653                      | uralensis P. S.      | silky                   | Δ pr | ½ jl                  | Pu   | Siberia   | 1800. D s.l  |
| 10654                      | sordida P. S.        | hairy-mountain          | Δ pr | ½ my.au               | Y.Pu | Scotland  | ... D s.l    |
| Astragalus walen'sis E. B. |                      |                         |      |                       |      |           |              |
| 10655                      | campestris Dec.      | field                   | Δ pr | ½ jn.jl               | Pu   | Germany   | 1778. S s.l  |
| 10656                      | uncata Dec.          | Aleppo                  | Δ pr | 1 jl.au               | W    | Aleppo    | 1768. D co   |
| 10657                      | altica Dec.          | Altai                   | Δ pr | ½ jl.s                | B    | Siberia   | 1802. S co   |
| 10658                      | ymbicarpus Dec.      | boat-podded             | Δ pr | ½ jl.au               | Pa   | Portugal  | 1800. S co   |
| 10659                      | pilosá Dec.          | pale-flowered           | Δ pr | ½ jn.au               | Pa.Y | Siberia   | 1732. D s.l  |
| 10660                      | dealbata Dec.        | mealy                   | Δ pr | ½ jl.au               | Pu   | Caucasus  | 1803. D s.l  |
| 10661                      | deflexa Dec.         | small-flowered          | Δ pr | ½ jn.jl               | Pu   | Siberia   | 1800. D s.l  |
| 10662                      | dichoptera Dec.      | pubescent               | Δ pr | ½ jn.jl               | Pu   | Siberia   | 1815. D s.l  |
| 1594. ASTRA'GALUS. Dec.    | MILK VETCH.          | Leguminosæ. Sp. 63-110. |      |                       |      |           |              |
| 10663                      | christianus W.       | great-yellow            | Δ or | 3 jl                  | Y    | Armenia   | 1737. D s.l  |
| 10664                      | tomentosus W.        | downy-leaved            | Δ or | 3 jl                  | Y    | Egypt     | 1800. C p.l  |
| 10665                      | alopecuroides W.     | Fox-tail-like           | Δ or | 2 jn.jl               | L.Y  | Spain     | 1737. C s.l  |
| 10666                      | vulpinus W.          | Fox-tail                | Δ or | 2 jn.jl               | L.Y  | Siberia   | 1815. C s.l  |
| 10667                      | narbonensis W.       | French                  | Δ or | 3 jn.jl               | Pa.Y | S. Europe | 1789. C s.l  |
| 10668                      | capitatus W.         | headed                  | Δ or | 3 jl.au               | Pa.Y | Levant    | 1759. C s.l  |
| 10669                      | sulcatus W.          | furrowed                | Δ pr | 4 jl                  | L.B  | Siberia   | 1785. C co   |
| 10670                      | melilotoides W.      | Melilot-like            | Δ pr | 3 jn.jl               | Pu   | Siberia   | 1785. C co   |
| 10671                      | virgatus W.          | twiggy                  | Δ pr | 3 my.au               | Vi   | Siberia   | 1806. C co   |
| 10672                      | seniifolius W.       | fine-leaved             | Δ pr | 1 jl.au               | Pu   | Siberia   | 1780. C p.l  |
| 10673                      | asper W.             | rough Astracan          | Δ pr | 3 jl.au               | Pa.Y | Astracan  | 1796. C p.l  |
| 10674                      | galeiformis W.       | Goat's-Rue-ly.          | Δ or | 2 jn.au               | Y.G  | China     | 1729. C s.l  |
| 10675                      | chinensis W.         | upright Chinese         | Δ or | 1 jn.jl               | R    | China     | 1793. C p.l  |
| 10676                      | virescens Dec.       | green-flowered          | Δ or | 3 jn.jl               | G.Y  | Siberia   | 1737. D p.l  |
| 10677                      | falcatus Dec.        | sickle-podded           | Δ or | 3 jn.jl               | Pa.Y | Siberia   | ... D p.l    |
| 10678                      | uliginosus W.        | marsh                   | Δ or | 2 jn.au               | L.B  | Siberia   | 1752. D p.l  |
| 10679                      | carolinianus W.      | Carolina                | Δ or | 1½ jl.au              | G.Y  | N. Amer.  | 1732. D s.l  |
| 10680                      | canadensis W.        | woolly                  | Δ or | 1½ jn.jl              | Y    | N. Amer.  | 1732. D s.l  |
| 10681                      | semibilocularis Dec. | semibilocular           | Δ or | 1½ jn.au              | Pa.Y | Siberia   | 1804. D s.l  |
| 10682                      | Cicer W.             | bladdered               | Δ or | 2 jn.jl               | Y    | Europe    | 1570. D s.l  |
| 10683                      | carnosus Ph.         | fleshy-podded           | Δ or | 2 jn.jl               | W    | Louisiana | 1811. D s.l  |
| 10684                      | caryocarpus B. reg.  | swelled-podded          | Δ or | 1 jn.jl               | Pu   | N. Amer.  | 1811. D s.l  |
| 10685                      | glycyphylus W.       | sweet                   | Δ or | 3 jn.jl               | Y o  | Britain   | ch.wo. D s.l |
| 10686                      | microphylla W.       | small-leaved            | Δ or | 1 jn.jl               | Y    | Siberia   | 1773. D p.l  |
| 10687                      | trimeris W.          | Egyptian                | Δ or | 4 jn.jl               | Y    | Egypt     | 1739. S co   |
| 10688                      | Bicerus W. en.       | horned                  | Δ or | 2 jn.jl               | Pa.Y | Spain     | 1833. S co   |
| 10689                      | hamosus W.           | hook-podded             | Δ or | 2 jn.jl               | W    | .....     | 1816. S co   |
| 10690                      | canaliculatus W. en. | channel-podded          | Δ or | 1 jl.au               | Y    | Siberia   | 1764. S co   |
| 10691                      | contortuplicatus W.  | wave-podded             | Δ or | 3 jn.jl               | Pu   | S. Europe | 1759. S co   |
| 10692                      | boëticus W.          | triang.-podded          | Δ or | 1 jn.jl               | Pu   | S. Europe | 1568. S co   |
| 10693                      | Stella W.            | star-podded             | Δ or | ½ jl.au               | Pu   | S. Europe | 1658. S co   |
| 10694                      | ægliceras W. en.     | Goat's-horned           | Δ or | 1 jl.au               | Pa.Y | .....     | 1818. S co   |
| 10695                      | brachycarpus Bieb.   | short-fruited           | Δ or | 1½ jn.jl              | Pu   | Caucasus  | 1820. D s.l  |
| 10696                      | stipulatus B. M.     | large-stipuled          | Δ or | 1 jn.jl               | Y    | Nepal     | 1822. D s.l  |
| 10697                      | cruciatus Link.      | cruciate                | Δ or | 1½ jn.jl              | Vi   | .....     | 1820. S s.l  |
| 10698                      | verticillaris W.     | whorled                 | Δ or | 1 jn.jl               | Pk   | Siberia   | 1822. D s.l  |
| 10699                      | sesames W.           | Bird's-foot             | Δ or | 1 jn.jl               | Pa.B | S. Europe | 1616. S s.l  |
| 10700                      | annularis W.         | ring-podded             | Δ or | 1½ jn.jl              | Pu   | Egypt     | 1800. S s.l  |
| 10701                      | pentaglottis W.      | rough-Spanish           | Δ or | ½ jn.jl               | Pu   | Spain     | 1733. S s.l  |
| 10702                      | epiglottis W.        | heart-podded            | Δ or | ½ jn.jl               | W    | S. Europe | 1737. S s.l  |



History, Use, Propagation, Culture.

1592. *Phaca*. Φακκν, or φακκος, was the Greek name of the lentil; and was derived from φακκα, to eat. These are pretty herbaceous plants, with the habit of *Astragalus*.  
 1593. *Oxytropis*. From οξυς, pointed, and τροπις, a keel. A genus entirely resembling *Astragalus* in habit; but considered distinct by modern botanists.  
 1594. *Astragalus*. This was a name given by the Greeks to one of their leguminous plants, but it is not known to which. The modern genus is composed of plants, the greater number of which are very orna-

- 10645 Erect hairy, Leaf. oval acute, Stip. lanc. Pods obl. cymbiform compressed  
 10646 Erect undivided, Leaf. 11 obl. blunt subciliated, Pods oblong inflated  
 10647 Erect branched downy, Leaf. in many pairs obl. lanc. blunt, Pods half ovate acute  
 10648 Branched ascending, Leaf. about 17 lanc. : the odd one subsessile, Alæ bifid  
 10649 Branched ascending smooth, Leaf. about 11 lin.-lanc. : the odd one subsess. Pods obovate inflated erect  
 10650 Caulescent procumb. Fl. pendulous racemose, Pods acute at each end hairy
- 10651 Stemless villous, Pods erect roundish-obl. villous acuminate with style half 2-celled  
 10652 Stemless silky, Leaf. 19 lanc. ellipt. acute at each end, Spikes capitate  
 10653 Stemless villous silky, Pods erect ovate cylindr. inflated 2-celled  
 10654 Stemless, Leaf. lanc. silky, Scape longer than leaf and calyxes silky, Heads few-fl. cernuous
- 10655 Stemless, Calyx and pods villous, Leaf. lanc. acute, Stem decumbent  
 10656 Stemless, Pods subulate hooked longer than leaf, Leaf. obovate  
 10657 Stemless, Leaf. lanc. smooth, Scapes as long as leaves hairy, Flowers in obl. heads  
 10658 Stemless; Leaf. cuneiform retuse subsessile, Pods smooth, Flowers nearly apetalous  
 10659 Caulescent erect hairy, Leaf. lanc. acute, Spikes stalked longer than leaf, Pods subulate hairy  
 10660 Caulescent erect hairy, Leaf. 3-pair lanc. acute, Stip. obl. acun. Spikes stalked longer than leaf  
 10661 Caulescent ascending, Leaf. ovate lanc. deflexed hairy, Spikes stalked longer than leaf  
 10662 Caulescent diffuse downy, Stipules united, Wings emarg. Peduncles as long as leaf
- 10663 Caulescent erect, Leaf. ellipt. stalked, Stip. lin. subulate, Pedunc. about 3-fl. axill. clustered  
 10664 Caulescent erect, Leaf. roundish cordate sessile downy, Stip. ovate acuminate, Pedunc. 1-fl. axill.  
 10665 Caulescent erect, Spikes cylindrical subsessile, Cal. and pods woolly  
 10666 Caulescent erect, Heads of flowers stalked globose, Pods 4-seeded inclosed in woolly calyx  
 10667 Caulescent erect, Heads of flowers sessile axill. short, Corolla larger than calyx  
 10668 Caulescent erect, Heads globose, Pedunc. very long, Leaf. emarginate  
 10669 Caulescent erect striated, Leaf. lin. lanc. smooth, Stip. lanc. Racemes longer than leaf  
 10670 Caulescent erect panicled, Leaves of 2 or 3 pair linear cuneate retuse smooth, Racemes filiform  
 10671 Caulescent erect shrubby, Leaves in 6 pairs lin. lanc. hoary, Racemes long spiked  
 10672 Caulescent erect, Leaf. linear lanc. Spikes obl. stalked longer than leaf, standard twice as long as alæ  
 10673 Caulescent erect rough, Leaf. lin. lanc. Spikes stalked longer than leaves straight, Pods 3-cornered  
 10674 Caulescent erect straight smooth, Leaf. ellipt. blunt, Fl. racemose pendulous, Pods 3-cornered smooth  
 10675 Caulescent erect straight smooth, Leaf. ellipt. blunt, Fl. racemose pendulous, Pods inflated rugose  
 10676 Caulescent erect smooth, Leaf. lanc. acute, Racemes longer than leaf, Pods falc. acute pendulous  
 10677 Caulescent erect, Peduncles as long as leaves, Leaflets 33-41, Pods about 3-cornered acute  
 10678 Caulescent erect, Leaf. obl. downy, Spikes stalked, Bractes obl. length of calyx  
 10679 Caulescent erect, Leaf. obl. downy beneath, Spikes stalked, Bractes lanc. length of peduncle  
 10680 Caulescent diffuse, Pods subcylindrical mucronate, Leaf. naked beneath  
 10681 Pedunc. as long as leaves, Leaf. 33-41 scarcely downy, Pods 3-cornered bowed nodding  
 10682 Pedunc. as long as lvs. Leaf. smoothish obl. blunt mucro. Stip. lanc. Racemes stalked longer than leaf  
 10683 Pedunc. as long as lvs. silky-white, Leaf. 21 ellipt. smooth above, Spikes subsessile, Pods fleshy  
 10684 Pedunc. longer than leaf, Fl. erect closely spiked, Pods half 2-celled
- 10685 Caulescent prostrate, Leaf. smooth ovate mucronate blunt, Stip. ovate-lanceolate  
 10686 Caulescent erect spread, Leaf. ov. hairy, Stip. solitary opp. the lvs. 2-parted, Spikes stalked long. than leaf  
 10687 Caulescent, Scapes 2-fl. Pods hooked subulate with 2-keels  
 10688 Caulescent prostrate, Leaf. ellipt. cuneate emarg. Racemes few-fl. Peduncles longer than leaf  
 10689 Caulescent procumbent, Leaf. cuneate emarg. Stip. ov. Racemes few-fl. stalked shorter than leaf  
 10690 Caulescent erect, Leaf. obl. retuse, Fl. axill. sol. subsessile, Pods deeply channeled  
 10691 Caulescent procumbent downy, Leaf. obovate emarg. Racemes stalked arcuate twisted  
 10692 Caulesc. procumb. Leaf. obl. blunt mucro. Spikes stalked few-fl. shorter than lvs. Pods obl. hooked at end  
 10693 Caulescent diffuse, Heads stalked lateral, Pods straight subulate mucronate  
 10694 Caulescent diffuse, Leaf. ellipt. emarg. Racemes few-fl. stalked shorter than leaf, Pods hooked  
 10695 Stemless, Leaves ellipt. downy, Scapes racemose longer than leaf, Pods obovate the length of calyx  
 10696 Caulescent, Leaflets oval-oblong or obovate smooth, Stipules very large leafy  
 10697 Stem decumb. Leaf. obl. downy, Pedunc. axill. few-fl. Pods arcuate with elevated veins  
 10698 Stemless, Leaf. subulate 4 whorled pilose, Scapes spiked longer than leaf, Lower flowers remote  
 10699 Caulescent diffuse, Heads subsessile lateral, Pods erect subulate with a reflexed point  
 10700 Caulescent diffuse, Pods subulate incurved smooth, Leaf. obovate  
 10701 Caulescent procumb. Leaf. obl. retuse, Heads stalked shorter than leaf, Pods half ovate squamose at end  
 10702 Caulescent procumb. Leaf. lin. narrowed at base, Heads subsessile, Pods half ovate reflexed downy



and Miscellaneous Particulars.

mental. *A. glycyphyllos* is the largest of the European species. The leaves are sweet, with a mixture of bitterness, and do not seem to be agreeable to cattle; at least the plant, in its wild state, is left untouched; otherwise it might have been desirable to cultivate it.

*A. Tragacantha* was formerly considered as the plant yielding the gum *Tragacanth* of commerce; but Olivier (*Voyage dans l'Empire Ottoman*, v. 342, pl. 44.) discovered that it was generally procured from *A. verus*. It is probable that both species, and perhaps some others, yield this gum. *A. verus* is a native of the north

|                                  |                   |    |    |    |       |      |                     |            |   |     |                        |
|----------------------------------|-------------------|----|----|----|-------|------|---------------------|------------|---|-----|------------------------|
| 10703 hypoglóttis <i>W.</i>      | purple-mountain-* | △  | or | ½  | jn.jl | Pu   | Britain             | sa.he      | D | s.l | Eng. bot. 274          |
| 10704 austricus <i>W.</i>        | Austrian          | △  | or | ½  | jn.jl | Pa.B | Austria             | 1640.      | D | s.l | Jac. aus. 2. t. 195    |
| 10705 fruticosus <i>W.</i>       | woody             | △  | or | ½  | jn.jl | Vi   | Siberia             | 1804.      | D | s.l | Pall. astrag. t. 19    |
| 10706 arenarius <i>W.</i>        | sand              | △  | or | 1  | jn.jl | B    | Germany             | 1798.      | D | s.l | Retz. obs. 3. t. 3     |
| 10707 leucophaeus <i>W.</i>      | dwarf-white       | △  | or | ½  | my.au | W    | .....               | 1776.      | D | s.l | Jac. aus. 1. t. 38     |
| 10708 depressus <i>W.</i>        | depressed         | △  | or | ½  | my.jn | W    | Europe              | 1772.      | D | s.l | Bot. cab. 680          |
| 10709 leontinus <i>Jac.</i>      | Lion's-tail       | △  | or | ½  | my.jn | B    | Austria             | 1816.      | D | s.l | Bot. cab. 432          |
| 10710 Glaux <i>W.</i>            | small-Spanish     | △  | or | ○  | jn.jl | Pu   | Spain               | 1596.      | S | s.l | Clus. hist. 2. t. 241  |
| 10711 stinicus <i>W.</i>         | Chinese-annual    | △  | or | ○  | jl.au | Pu   | China               | 1763.      | S | s.l | Bot. mag. 1350         |
| 10712 álbidas <i>W.</i>          | white-Italian     | △  | or | △  | jl.au | W.V  | Europe              | 1737.      | D | s.l | Pl.rar.hun.1. t. 40    |
| 10713 Onobrychis <i>W.</i>       | purple-spiked     | △  | or | ½  | jn.jl | Pu   | Austria             | 1640.      | D | s.l | Jac. aus. 1. t. 38     |
| 10714 Laxmanni <i>W.</i>         | Laxmann's         | △  | or | 1  | jn.au | B    | Siberia             | 1804.      | D | s.l | Jac. vind. 3. t. 37    |
| 10715 physódes <i>W.</i>         | inflated          | △  | or | ½  | jn.jl | Pu   | Siberia             | 1759.      | D | s.l | Dec. astrag. t. 48     |
| 10716 haliécacabus <i>Lam.</i>   | bladdered         | △  | or | ½  | jn.jl | Pa.Y | Armenia             | 1806.      | D | s.l | Schreb.decad. t. 3     |
| 10717 caprinus <i>W.</i>         | goat-scented      | △  | or | 1  | jn.jl | Pa.Y | Barbary             | 1833.      | D | s.l | Mor.h. 2. t. 24. f. 3  |
| 10718 longiflorus <i>W.</i>      | long-flowered     | △  | or | 1  | jl.au | Pu   | Tartary             | 1806.      | D | s.l | Pall. astrag. t. 80    |
| 10719 monspessulanus <i>W.</i>   | Montpelier        | △  | or | 1  | jl.au | Pu   | France              | 1710.      | D | s.l | Bot. mag. 375          |
| 10720 incanus <i>W.</i>          | hoary             | △  | or | ½  | jn.jl | Pu   | Montpel.            | 1759.      | D | s.l |                        |
| 10721 exscapus <i>W.</i>         | hairy-podded      | △  | or | ½  | my.jl | Y    | Hungary             | 1787.      | D | s.l | Jac. ic. 3. t. 561     |
| 10722 tragacanthoides <i>W.</i>  | Armenian          | △  | or | ½  | my.jl | Y    | Armenia             | 1791.      | D | s.l | Bu.cen. 3. t. 38. f. 2 |
| 10723 aristatus <i>W.</i>        | goat's            | △  | or | 1  | my.jl | Pu   | Pyrenees            | 1791.      | D | s.l | Pall. astrag. t. 3     |
| 10724 Tragacantha <i>W.</i>      | gt. Goat's Thorn. | or |    | 1  | my.jl | Pa.Y | S. Europe           | 1640.      | C | s.p | Den. brit. 84          |
| 10725 Poterium <i>W.</i>         | sm. Goat's Thorn. | or |    | ½  | jn.jl | W    | Levant              | 1640.      | C | s.p | Park. theat. f. 2      |
| 1595. BISER RULA <i>W.</i>       | HATCHET VETCH.    |    |    |    |       |      | <i>Leguminosae.</i> | Sp. 1.     |   |     |                        |
| 10726 Pelecinus <i>W.</i>        | bastard           | ○  | pr | 1  | jl.au | Pa.  | S. Europe           | 1640.      | S | s.p | Lam. ill. t. 622       |
| 1596. DA'LEA. P. S.              | DALEA.            |    |    |    |       |      | <i>Leguminosae.</i> | Sp. 9-19.  |   |     |                        |
| 10727 Cliffortiána <i>W.</i>     | Vera Cruz         | ○  | pr | 1½ | jl.au | B    | Vera Cruz           | 1737.      | S | co  | Linn. cliff. t. 22     |
| 10728 alopecuroides <i>W.</i>    | Fox-tail          | ○  | pr | 1  | jl.au | Pa.B | Mississippi         | 1812.      | S | co  | Mich. am. 2. t. 38     |
| 10729 áurea <i>Ph.</i>           | golden            | △  | or | 2  | jl.au | Y    | Louisiana           | 1811.      | D | co  |                        |
| 10730 laxiflóra <i>Ph.</i>       | loose-flowered    | △  | or | 6  | jl.au | W    | Louisiana           | 1811.      | D | co  |                        |
| 10731 enneaphýlla <i>W.</i>      | nine-leaved       | △  | or | 5  | jl.au | Pk   | W. Indies           | 1772.      | S | co  | Cav. ic. 3. t. 271     |
| 10732 citriodóra <i>W.</i>       | leafy             | ○  | pr | 1  | o.n   | Pk   | N. Spain            | 1780.      | S | co  | Cav. ic. 1. t. 86      |
| 10733 Lagópús <i>W.</i>          | downy-spiked      | ○  | pr | 4  | o.n   | Vi   | Mexico              | 1780.      | S | co  | Bot. mag. 2486         |
| 10734 mutábilis <i>W.</i>        | changeable        | △  | or | 1½ | o.n   | Pu   | Mexico              | 1818.      | C | co  | Hook. ex. fl. 43       |
| 10735 bicolor <i>W. en.</i>      | two-colored       | △  | or | 2  | o.n   | Y.B  | S. Amer.            | 1817.      | C | co  |                        |
| 1597. PSORA'LEA <i>W.</i>        | PSORALEA.         |    |    |    |       |      | <i>Leguminosae.</i> | Sp. 38-62. |   |     |                        |
| 10736 pinnáta <i>W.</i>          | wing-leaved       | △  | or | 6  | my.jl | B    | C. G. H.            | 1690.      | C | p.l | Bot. rep. 474          |
| 10737 odoratis'sima <i>W.</i>    | fragrant          | △  | or | 6  | my.jl | Pa.B | C. G. H.            | 1795.      | C | p.l | Jac. schc. 2. t. 229   |
| 10738 verrucósa <i>W.</i>        | warted            | △  | or | 3  | my.au | B    | C. G. H.            | 1774.      | C | p.l | Jac. schc. 2. t. 226   |
| 10739 aculeáta <i>W.</i>         | prickly           | △  | or | 4  | jn.jl | B    | C. G. H.            | 1774.      | C | p.l | Bot. mag. 2158         |
| 10740 bractéata <i>W.</i>        | oval-spiked       | △  | or | 4  | jn.jl | Pu   | C. G. H.            | 1731.      | S | p.l | Bot. mag. 446          |
| 10741 spicáta <i>W.</i>          | long-spiked       | △  | or | 4  | jl.au | B    | C. G. H.            | 1774.      | C | p.l | Bot. rep. 411          |
| 10742 aphýlla <i>W.</i>          | leafless          | △  | or | 2  | jn.jl | B    | C. G. H.            | 1790.      | S | p.l | Bot. mag. 1727         |
| 10743 multicaúlis <i>W.</i>      | many-stalked      | △  | or | 3  | au.o  | W.B  | C. G. H.            | 1793.      | C | p.l | Jac. schc. 2. t. 230   |
| 10744 tenuifólia <i>W.</i>       | fine-leaved       | △  | or | 2  | mr.jl | W.B  | C. G. H.            | 1793.      | C | p.l | Jac. schc. 2. t. 225   |
| 10745 decumbens <i>W.</i>        | trailing          | △  | or | 2  | ap.my | W.B  | C. G. H.            | 1774.      | S | p.l | Bot. cab. 282          |
| 10746 hírtá <i>W.</i>            | hairy             | △  | or | 3  | my.au | W.B  | C. G. H.            | 1713.      | C | p.l | Jac. schc. 2. t. 228   |
| 10747 Stáchydis <i>W.</i>        | Stachys-leaved    | △  | or | 3  | ap.my | Br   | C. G. H.            | 1793.      | C | s.l |                        |
| 10748 répens <i>W.</i>           | creeping          | △  | or | 1½ | jl.au | B    | C. G. H.            | 1774.      | C | s.l |                        |
| 10749 bituminósa <i>W.</i>       | bituminous        | △  | or | 4  | ap.s  | Pa.B | S. Europe           | 1370.      | C | p.l | Lam. ill. t. 614. f. 1 |
| 10750 glandulósa <i>W.</i>       | Mexican tea       | △  | or | 4  | my.au | Pa.B | Peru                | 1770.      | C | p.l | Bot. mag. 90           |
| 10751 pedunculáta <i>B. reg.</i> | flat-headed       | △  | or | 3  | o.au  | Pu   | C. G. H.            | 1815.      | C | p.l | Bot. reg. 223          |
| 10752 palestina <i>W.</i>        | Palestine         | △  | or | 2  | ap.s  | Vi   | Levant              | 1771.      | S | p.l | Jac. vind. 2. t. 184   |



History, Use, Propagation, Culture,

of Persia, flowering in July and August. It rises two or three feet only in height, on a stem about an inch in thickness; with many branches closely crowded together, and covered with imbricated scales and spines, formed from the petioles of the former year. The leaves, which scarcely exceed half an inch in length, are composed of six, seven, or eight pairs of opposite, villous, stiff, pointed leaflets; and the mid-rib is terminated with a sharp yellowish point. The flowers are small, yellow, and proceed from the axillæ of the leaves with cottony bracts. The calyx is five-toothed, and shorter than the corolla, which is papilionaceous. The gum exudes in summer, more or less copiously according to the heat of the weather, in tortuous filaments, which are allowed to dry on the plant before being collected. A large portion of the Tragacanth collected in Persia, is sent to India, Bagdad, Bassorah, and Russia. But what we receive is sent to Aleppo, whence it is exported, packed in cases.

Good gum Tragacanth is inodorous; impressing a very slightly bitter taste as it dissolves in the mouth. Its mucilage differs from that of acacia gum, in being precipitated by the superacetate of lead, and oxymuriate of tin; and not by silicated potass (*Bostock. Nich. Journ.* lviii. 30.), or the oxysulphate of iron. Medically it is de-

- 10703 Caulescent procumb. Leaf. obl. blunt, Spikes ov. stalked longer than leaf, Pods erect ovate channelled  
 10704 Caulescent procumb. Leaf. lin. trunc. emarg. Racemes stalked longer than leaf, Wings of cor. bifid  
 10705 Caulescent erect. Lvs. 7 pairs obl. bluntnish subpubescent, Heads few-flowered stalked, Pods obl. villous  
 10706 Caulescent branched prostrate, Leaf. lin. lanc. silky complicate, Racemes 6-fl. longer than leaf  
 10707 Caulescent procumb. Leaf. obcordate silky beneath, Racemes stalked as long as leaves  
 10708 Subcaulescent procumb. Leaf. obovate, Racemes shorter than petiole, Pods round lanc. reflexed  
 10709 Caulescent decumb. Leaf. ellipt. blunt, Spikes obl. stalked longer than leaf  
 10710 Caulescent diffuse, Heads stalked imbricated ovate, Fl. erect, Pods ovate callous inflated  
 10711 Caulescent prostrate, Umbels stalked, Pods prismatical 3-cornered erect subulate at end  
 10712 Caulescent diffuse hoary, Leaves 5 pairs, Leaf. ellipt. blunt, Spikes stalked longer than leaf  
 10713 Caulescent diffuse, Pedunc. spiked, Standard twice as long as flower  
 10714 Caulescent procumb. Spikes long, Pods oblong 3-cornered furrowed mucronate villous  
 10715 Stemless, Leaf. ov. glauc. Scapes longer than leaf, Fl. capitate, Pods inflated membranous smooth  
 10716 Stemless smooth, Calyxes bladdery contracted at mouth  
 10717 Stemless, Leaf. ov. obl. acute hairy, Scapes racemose erect twice as short as leaf, Pods ovate villous  
 10718 Stemless, Leaf. ellipt. retuse somewhat hairy, Scapes racemose few-fl. twice as short as leaf  
 10719 Stemless, Leaf. ellipt. blunt, Scapes racemose declinate longer than leaf, Standard long  
 10720 Stemless, Scapes decumb. Leaf. ovate subsessile downy beneath, Pods hoary  
 10721 Stemless, Leaf. obl. blunt hairy, Flower somewhat stalked aggregate, Cal. appressed hairy  
 10722 Nearly stemless, Fl. numerous radical subsessile  
 10723 Petioles spiny, Leaf. obl. mucro. hairy, Pedunc. very short about 4-fl. Cal. teeth setaceous  
 10724 Petioles spiny, Leaf. ellipt. hoary, Pedunc. about 4-fl. as long as leaves, Cal. teeth ovate  
 10725 Petioles spiny, Leaf. obl. hoary, Pedunc. very short 2-flowered

10726 The only species

- 10727 Pentandrous, Spikes obl. stalked terminal, Bractes length of cal. Leaves in 6 pairs lin. cuneate retuse  
 10728 Pentandrous, Spikes cylindric. stalked term. Bractes shorter than cal. Lvs. in 10 pairs ellipt. retuse mucr.  
 10729 Spikes obl. term. sol. Lvs. about 3 pair obl. and obovate obtuse  
 10730 Spikes long paniced, Lvs. about 4 pairs linear  
 10731 Decandrous, Spikes capitate stalked axillary, Leaves in 4 pairs obl. blunt  
 10732 Decandrous, Spikes capitate stalked term. Lvs. in 10 pairs obovate  
 10733 Decandrous, Spikes cylindr. terminal, Lvs. of 15 pairs lanc. blunt  
 10734 Decandrous, Spikes cylindr. terminal, Lvs. of 10 pairs obcordate  
 10735 Decandrous, Spikes term. long, Lvs. of 5 pairs obovate

- 10736 Lvs. pinn. of 2 pairs lin. Pedunc. axill. 1-fl.  
 10737 Lvs. pinn. of 7 pairs lin-lanc. Pedunc. 1-fl. axillary  
 10738 Lvs. pinn. and term. lanc. Pedunc. axill. 1-3-flowered, Branches warted  
 10739 Lvs. tern. cuneiform recurve mucronate, Flowers axillary solitary approximated  
 10740 Lvs. tern. obovate recurve mucro. with pellucid spots, Spike term. capitate, Bractes ciliated  
 10741 Lvs. tern. obovate recurve mucronate dotted beneath, Spike terminal oblong  
 10742 Lvs. of the stem and branches ternate and simple; of the branchlets none, Stipules imbricated  
 10743 Upper lvs. simple; rest ternate, Leaf. lin. lanc. mucronate, Pedunc. axill. clustered capitate  
 10744 Upper lvs. simple; rest ternate, Leaf. lin. lanc. mucro. Pedunc. axill. solitary  
 10745 Leaves tern. lanc. cuneate with a recurved mucro. Pedunc. axill. aggregate  
 10746 Leaves tern. obovate with a recurved mucro. Pedunc. axill. solitary  
 10747 Leaves tern. stalked obl. mucro. Spikes terminal interrupted, Calyxes villous  
 10748 Leaves tern. obovate emarg. Stem creeping, Flowers in umbels  
 10749 Leaves tern. Leaf. ov-lanc. Petioles downy smooth, Spikes capitate stalked axillary  
 10750 Leaves tern. Leaf. ov-lanc. acum. Petioles rough, Racemes axillary  
 10751 Leaves ternate silky beneath, Pedunc. axillary about twice as long as leaves, Heads depressed involucred  
 10752 Leaves tern. ovate, Petioles downy sulcate, Spikes capitate stalked axillary



and Miscellaneous Particulars.

mulcent, and may answer the purposes of the acacia gum; being even better adapted for allaying tickling cough, and sheathing the fauces in catarrhal affections, owing to its great viscosity. It is chiefly, however, employed for pharmaceutical purposes. (*Thomson's London Dispensatory*, 187.) The seeds of *A. bœticus* are roasted, ground, and used as a substitute for coffee in Hungary.

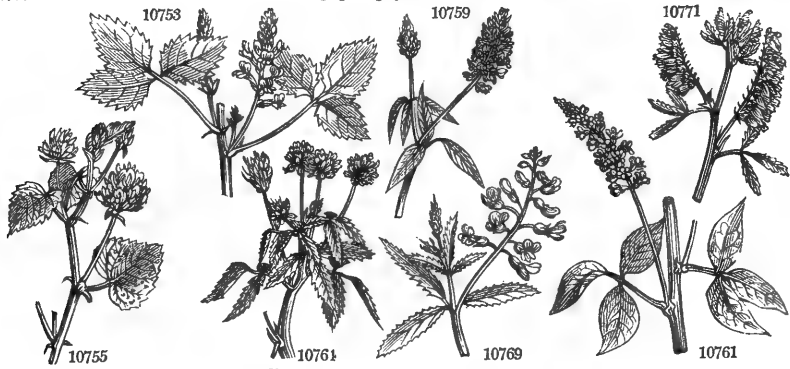
1595. *Biserrula*. From *bis*, twice, and *serrula*, a little saw. The pods are toothletted on each edge. Pelecinon was the name given by the Greeks to the plant called by the Latins *Securidaca*.

1596. *Dalea*. Named after Thomas Dale, an English botanist, who lived in the beginning of the last century. There was another Dale, an author of a Pharmacologia. These are pretty little plants, with the aspect of Psoralea.

1597. *Psoralea*. From *ψωραλέος*, warted, on account of the numerous little tubercles with which most of the species are covered. The species are chiefly low shrubs; some of them are ornamental, and all are of easy culture and propagation by young cuttings in sand or seeds, which they produce in abundance. *P. esculenta*, the bread-root of America, is cultivated in Missouri, and other parts of that country. In this climate it will



|                                       |                              |                |   |     |    |       |       |           |           |                         |     |                    |
|---------------------------------------|------------------------------|----------------|---|-----|----|-------|-------|-----------|-----------|-------------------------|-----|--------------------|
| 10753                                 | <i>americana</i> W.          | Madeira        | ■ | or  | 3  | jl.au | Pu    | Madeira   | 1640.     | C                       | p.l | Jac.schce.2.t.227  |
| 10754                                 | <i>capitata</i> W.           | headed         | ■ | or  | 2  | jl.au | Pu    | C. G. H.  | 1793.     | S                       | p.l | Bot mag. 665       |
| 10755                                 | <i>corylifolia</i> W.        | Hazel-leaved   | ■ | or  | 2  | jn.jl | Vi    | India     | 1739.     | C                       | p.l | Pursh.amer.t.22    |
| 10756                                 | <i>esculenta</i> Ph.         | Bread-root     | ■ | clt | 3  | jn.jl | B     | Missouri  | 1811.     | C                       | p.l |                    |
| 10757                                 | <i>cuspidata</i> Ph.         | large-rooted   | ■ | or  | 3  | jn.jl | Pu    | Louisiana | 1811.     | C                       | p.l |                    |
| 10758                                 | <i>Lupinellus</i> Ph.        | small-flowered | ■ | or  | 2  | jn.jl | B     | Carolina  | 1812.     | C                       | p.l |                    |
| 10759                                 | <i>melilotoides</i> Mich.    | Melilot-like   | ■ | or  | 3  | au    | Vi    | Carolina  | 1814.     | C                       | p.l | Bot. mag. 2063     |
| 10760                                 | <i>arbores</i> B. M.         | tree           | ■ | or  | 6  | my    | Pa.pu | C. G. H.  | 1814.     | C                       | p.l | Bot. mag. 2090     |
| 10761                                 | <i>onobrychis</i> Nutt.      | rough-podded   | ■ | or  | 3  | au    | Pu    | N. Amer.  | 1818.     | C                       | p.l | Bot. reg. 453      |
| 10762                                 | <i>divaricata</i> W. en.     | divaricating   | ■ | or  | 3  | au    | Pu    | S. Amer.  | 1820.     | C                       | p.l |                    |
| 10763                                 | <i>pubescens</i> W. en.      | downy          | ■ | or  | 2  | au    | B     | Mexico    | 1825.     | C                       | p.l |                    |
| * 1598. MELLILOTUS. J. MELLILOT.      |                              |                |   |     |    |       |       |           |           | Leguminosæ. Sp. 16—25.  |     |                    |
| 10764                                 | <i>cærulea</i> P. S.         | blue           | ○ | m   | 3  | au.s  | L.B   | Germany   | 1562.     | S                       | co  | Bot. mag. 2283     |
| 10765                                 | <i>indica</i> P. S.          | Indian         | ○ | un  | 2  | jn.au | W     | India     | 1690.     | S                       | co  | Plu.alm.t.45.f.4   |
| 10766                                 | <i>rugulosa</i> W. en.       | white-Indian   | ○ | un  | 3  | jn.au | W     | India     | 1798.     | S                       | co  |                    |
| M. parviflora Desf.                   |                              |                |   |     |    |       |       |           |           |                         |     |                    |
| 10767                                 | <i>messanensis</i> P. S.     | Sicilian       | ○ | un  | 3  | jn.au | Y     | Sicily    | 1680.     | S                       | co  |                    |
| 10768                                 | <i>polonica</i> P. S.        | Polish         | ○ | un  | 2  | jn.au | L.Y   | Poland    | 1778.     | S                       | co  |                    |
| 10769                                 | <i>macrorhiza</i> P. S.      | long-rooted    | △ | un  | 3  | jl.au | Y     | Hungary   | 1801.     | D                       | co  | Pl.rar.hu.1.t.26   |
| 10770                                 | <i>dentata</i> P. S.         | toothed        | △ | un  | 3  | jn.au | Y     | Hungary   | 1802.     | D                       | co  | Pl.rar.hu.1.t.46   |
| 10771                                 | <i>officinalis</i> W. en.    | common         | △ | un  | 1  | jl.s  | Y     | Britain   | bus.pl.   | S                       | s.l | Eng. bot. 1340     |
| 10772                                 | <i>vulgaris</i> W. en.       | white-flowered | △ | un  | 3  | jl.s  | W     | Europe    | ...       | S                       | co  |                    |
| 10773                                 | <i>Kochiana</i> W. en.       | smooth-podded  | △ | un  | 3  | jn.s  | Y     | Germany   | 1816.     | S                       | co  |                    |
| 10774                                 | <i>Petitierréana</i> W.en.   | rough-podded   | △ | un  | 2  | jn.s  | W     | Germany   | 1816.     | S                       | co  |                    |
| 10775                                 | <i>italica</i> P. S.         | Italian        | ○ | un  | 2  | jn.au | Y     | Italy     | 1596.     | S                       | co  | Camer.hort.t.29    |
| 10776                                 | <i>crética</i> P. S.         | Cretan         | ○ | un  | 1  | jn.au | Y     | Candia    | 1713.     | S                       | co  | Bau.prod.r.t.142   |
| 10777                                 | <i>ornithopodioides</i> P.S. | Bird's-foot    | ○ | un  | 1  | jn.jl | R     | Britain   | bar.he.a. | S                       | co  | Eng. bot. 1047     |
| 10778                                 | <i>mauritánica</i> Schousb.  | Moorish        | ○ | un  | 2  | jn.jl | Y     | Barbary   | 1798.     | S                       | co  |                    |
| M. sulcata P. S.                      |                              |                |   |     |    |       |       |           |           |                         |     |                    |
| 10779                                 | <i>hamosa</i> Link.          | hooked         | ○ | un  | 1  |       | Y     | Tauria    | 1824.     | S                       | co  | Bux.ce.2.t.44.f.1  |
| 1599. LUPINASTER. Ph. BASTARD-LUPINE. |                              |                |   |     |    |       |       |           |           | Leguminosæ. Sp. 1.      |     |                    |
| 10780                                 | <i>pentaphyllus</i> Ph.      | five-leaved    | △ | cl  | 1½ | jl.au | Pu    | Siberia   | 1741.     | D                       | co  | Bot. mag. 879      |
| 1600. TRIFOLIUM. J. TREFOIL.          |                              |                |   |     |    |       |       |           |           | Leguminosæ. Sp. 60—140. |     |                    |
| 10781                                 | <i>reflexum</i> W.           | reflexed       | △ | pr  | 1  | jn.au | Pu    | Virginia  | 1794.     | D                       | s.l |                    |
| 10782                                 | <i>angulatum</i> W.          | angular        | △ | pr  | 1½ | jn.au | R     | Hungary   | 1803.     | S                       | s.l | Pl.rar.hu.1.t.37   |
| 10783                                 | <i>strictum</i> W.           | upright        | △ | pr  | 1  | jl.au | Pu    | S. Europe | 1805.     | S                       | s.l | Pl.rar.hu.1.t.37   |
| 10784                                 | <i>hybridum</i> P. S.        | mule           | △ | pr  | ½  | jl.au | Pu    | Europe    | 1777.     | D                       | s.l | Mic.ge.t.25.f.2.6  |
| 10785                                 | <i>Micheliianum</i> P. S.    | Italian        | △ | pr  | ½  | jn.au | Pu    | Italy     | 1815.     | S                       | s.l | Mi.n.g.pl.t25.f.2  |
| 10786                                 | <i>caespitosum</i> W.        | turfy          | △ | pr  | 1½ | my.s  | W     | Switzer.  | 1815.     | D                       | s.l | Vill.delph.3.t.41  |
| 10787                                 | <i>repens</i> W.             | white Clover   | △ | pr  | 1½ | my.s  | W     | Britain   | mea.      | D                       | co  | Eng. bot. 1769     |
| 10788                                 | <i>comsum</i> W.             | tufted         | △ | pr  | ½  | jn.jl | W     | America   | 1798.     | D                       | s.l |                    |
| 10789                                 | <i>alpinum</i> W.            | Alpine         | △ | pr  | ½  | jn.au | Pu    | Italy     | 1775.     | D                       | co  | Pon. bald. t. 340  |
| 10790                                 | <i>pallescens</i> P. S.      | pale           | △ | pr  | 1  | jn.au | Pu    | Carinthia | 1804.     | D                       | s.l | Mic. ge. t. 25. 3  |
| 10791                                 | <i>subterraneum</i> W.       | subterraneous  | △ | pr  | ½  | my    | W     | England   | bar.he.   | S                       | s.l | Eng. bot. 1048     |
| 10792                                 | <i>globosum</i> W.           | globular       | ○ | pr  | 1  | jn.au | Pu    | Levant    | 1713.     | S                       | s.l |                    |
| 10793                                 | <i>Cherleri</i> W.           | hairy          | ○ | pr  | ½  | my.ju | Pu    | Montpel.  | 1750.     | S                       | s.l | Barr. ic. 859      |
| 10794                                 | <i>pictum</i> W.             | painted        | ○ | or  | 1  | jl.au | Pu    | .....     | 1800.     | S                       | s.l |                    |
| 10795                                 | <i>lappaceum</i> W.          | burr           | ○ | pr  | ½  | jn.au | Pu    | Montpel.  | 1787.     | S                       | s.l |                    |
| 10796                                 | <i>diffusum</i> W.           | diffuse        | △ | pr  | ½  | jl.au | Pu    | Hungary   | 1801.     | S                       | s.l | Pl.rar. hu. 1.t.50 |



History, Use, Propagation, Culture,

grow in the open air, but requires the protection of a frame to produce abundant crops of roots, which are used like those of the potatoe in the countries where it is a native. (Pursh. Amer. t. 22.)

1598. *Melilotus*. From *Mei*, honey, and *Lotus*. These plants are similar to the Lotus, and are the favorite resort of bees. *M. officinalis* is the chief ingredient in favoring the Gruyère cheese. This cheese no doubt owes its chief excellence to the mixture of herbs in the mountain pasturage which surrounds the valley of Gruyère, but partly also to the flowers and seeds of this plant, which are bruised and mixed with the curd before it is pressed.

1599. *Lupinaster*. That is to say, *Lupine-like*. A pretty little herbaceous plant, with bright flowers.  
 1600. *Trifolium*. A plant with three leaves; the *τριφυλλον*, of the Greeks, *trèfle*, of the French, and *trefoil*, of the English. This genus includes the two most valuable herbage plants adopted in European agriculture, the white and red clover. Notwithstanding all that has been said of the superiority of lucern to clover, and of the excellence of saint-foin, and various Leguminosæ of the pea kind, yet the red clover for mowing, and the white species for pasturage, are, and probably ever will be, found to excel all other plants in these respects. The yellow clover, *T. procumbens*, and the cow or meadow clover, *T. medium*, are also in cultivation, but are far inferior to the others. The meadow clover is a useful addition to the white sort in laying down permanent pastures; the yellow grows on poor soils, but the herbage is not much liked by cattle. The soil best adapted for clover is a deep sandy loam, which is favorable to its long tap-roots; but it will grow in any soil, provided it is dry. So congenial is calcareous matter to clovers, that the mere strewing of lime on

- 10753 Leaves tern. roundish ovate repand at end, Spikes interrupted axillary  
 10754 Leaves tern. and simple linear, Head terminal  
 10755 Leaves simple ovate somewhat toothed, Spikes ovate  
 10756 Leaves digitate quinate lanc. unequal flat entire villous, Spikes axillary dense  
 10757 Leaves digitate quinate obovate mucro. entire, Spikes axillary dense  
 10758 Leaves digitate quinate very narrow, Spike few-flowered, Pods ovoid  
 10759 Leaves 3 lanc. Spikes obl. Bractes with long points, Pods round rugose  
 10760 Leaves pinnate of 5 pairs, Leaflets linear lanceolate, Pedunc. axillary 1-fl. longer than leaf  
 10761 Leaves ternate, Leaflets ovate-lanceolate somewhat downy, Racemes 1-sided on long stalks  
 10762 Leaves ternate lanc. smooth, Spikes interrupted stalked axill. longer than leaf  
 10763 Leaves tern. ovate-obl. downy, Spikes interrupted stalked axill. shorter than leaf

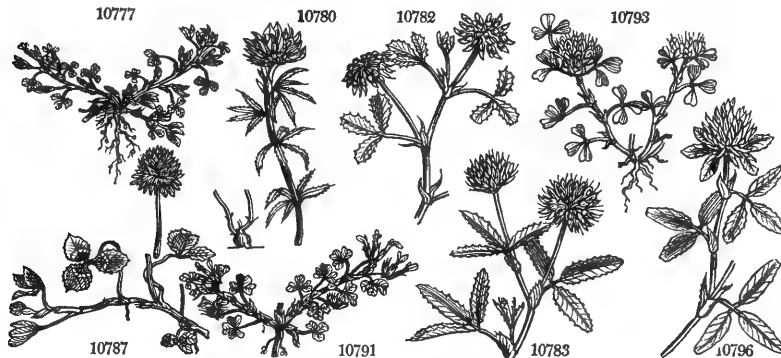
- 10764 Racemes obl. stalked, Stipules lanc. membranous  
 10765 Pods racemose naked smooth mucronate 1-seeded  
 10766 Pods racemose about 4-seeded oblong rugose, Leaflets ellipt. toothed

- 10767 Pods 1-seeded ovate acute naked rugose, Racemes shorter than leaf  
 10768 Pods racemose naked 2-seeded lanceolate  
 10769 Pods racemose naked rugose 1-seeded, Stems and branches ascending, Leaf. linear  
 10770 Pods racemose naked 2-seeded somewhat rugose acute, Stipules toothed at base  
 10771 Pods racemose naked 2-seeded rugose acute, Stipules lanc. subulate undivided  
 10772 Pods racemose naked 1-seeded rugose obovate acute, Stipules setaceous  
 10773 Pods racemose naked 2-seeded smoothish ovate acute compressed, Stipules toothed  
 10774 Pods racemose naked 1-seeded rugose obovate, Stipules setaceous  
 10775 Pods racemose naked 2-seeded rugose blunt, Leaflets entire  
 10776 Pods racemose naked 2-seeded membranous oval, Stem nearly erect  
 10777 Pods naked 8-seeded about 3 times as long as calyx, Stems declinate  
 10778 Pods 1-seeded obovate blunt naked rugose, Racemes longer than leaf, Stems diffuse

- 10779 Pods racemose naked compressed 1-seeded nerved hooked, Stipules subulate

- 10780 Heads halved, Leaves quinate sessile

- 10781 Heads in fruit reflexed, Pods 3-seeded  
 10782 Heads umbelled: in fruit reflexed, Pods 4-seeded, Stem angular with furrows flexuose  
 10783 Heads globose, Pods 2-seeded, Cal. the length of corolla, Leaf. serrulate, Stipules rhomboid  
 10784 Heads umbelled, Pods 4-seeded, Teeth of cal. nearly equal, Leaf. ovate-obl. emarg. serrulate  
 10785 Heads umbelled stalked, Teeth of cal. subulate equal, Leaf. obcord. serrate  
 10786 Heads umbelled, Pods 4-seeded, Teeth of calyx equal, Leaf. obovate blunt serrated  
 10787 Heads umbelled, Pods 4-seeded, Teeth of calyx nearly equal, Leaf. ovate obl. emarg. serrulate  
 10788 Heads in globose umbels imbricated, Standards deflexed persistent, Pods 4-seeded  
 10789 Heads umbelled, Scape naked, Pods 2-seeded pendulous, Leaves linear lanc.  
 10790 Heads umbelled, Pods 2-seeded, Teeth of cal. unequal, Leaf. obovate blunt toothed  
 10791 Heads villous 5-flowered, Central tuft reflexed rigid wrapping up the fruit  
 10792 Heads villous globose, Upper calyxes without florets  
 10793 Heads villous globose terminal solitary, Teeth of calyx setaceous longer than corolla  
 10794 Heads villous globose terminal solitary, Teeth of calyx setaceous shorter than corolla  
 10795 Heads subglobose hispid, Teeth of calyx subulate as long as cor. Leaf. obovate retuse  
 10796 Spikes roundish ovate villous, Teeth of calyx unequal setaceous as long as corolla



and Miscellaneous Particulars.

some soils will call into action clover-seeds, which it would appear have lain dormant for ages. At least this appears the most obvious way of accounting for the well-known appearance of white clover in such cases.

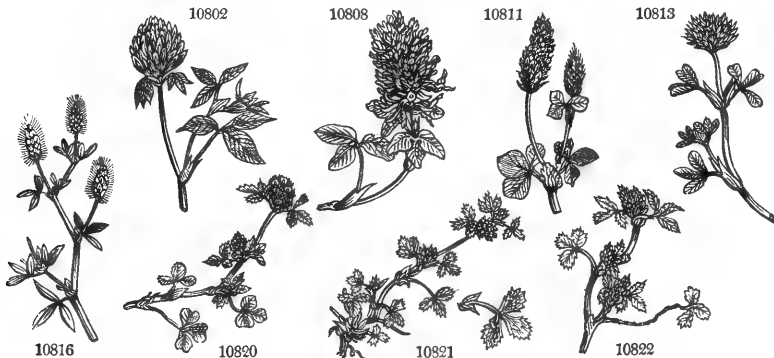
The climate most suitable for the clovers, as of most plants natives of Europe, is one neither very hot nor very dry and cold. Most leguminous plants delight both in a dry soil and climate, and warm temperature; and the clover will be found to produce most seed under such circumstances; but as the production of seed is only in some situations an object of the farmer's attention, a season rather moist, provided it be warm, is always attended by the most bulky crops of clover herbage.

The time of sowing seeds is generally the spring, during the corn-seed time, or from February to May; but they may also be sown from August to October; and when they are sown by themselves, that is, unaccompanied by any corn crop, this will be found the best season, as the young plants are less liable to be dried up and impeded in their progress by the sun, than when sown alone in spring, and remaining tender and unshaded during the hot and dry weather of July.

The manner of sowing is almost always broad-cast. When sown with spring corn, clover and grass-seeds are usually put in immediately after the land has been pulverized by harrowing in the corn-seed, and are themselves covered by one course more of the harrows; or, if the corn is drilled, the small seeds are sown immediately before or after hand-hoeing; and the land is then finished by a course of the harrows.

In the operation of sowing, some consider it best to sow the clover and rye-grass separately, alleging that the weight of the one seed and lightness of the other, are unfavorable to an equal distribution of both.

|                           |                  |          |     |       |       |             |             |         |   |    |                    |
|---------------------------|------------------|----------|-----|-------|-------|-------------|-------------|---------|---|----|--------------------|
| 10797 nöricum Pers.       | alpine           | * ○      | pr  | 1     | jl.au | W           | Al. of Eur. | 1821.   | S | s1 |                    |
| 10798 hispidum Desf.      | hispid           | ○        | pr  | 1     | jl.au | Pa          | Barbary     | 1817.   | S | s1 | Desf.atl.t.209.f.1 |
| 10799 malacanthum Link.   | soft-flowered    | ○        | pr  | 1     | jl.au | Pa          | .....       | 1824.   | S | s1 |                    |
| 10800 saxatile W.         | rock             | ○        | pr  | 2     | my.jl | Pu          | Switzerl.   | 1816.   | S | co | All. ped. t.59.f.3 |
| 10801 rübens W.           | long-spiked      | ○        | pr  | 2     | jn.s  | D.R         | S. Europe   | 1633.   | D | co | Jac. aust. 4.t.385 |
| 10802 pratense W.         | common Clover    | ○        | ag  | 2     | my.s  | Pu          | Britain     | me.pa.  | D | h1 | Eng. bot. 1770     |
| 10803 pensylvanicum W.en. | Buffalo Clover   | ○        | pr  | 1 1/2 | jn.s  | R           | N. Amer.    | 1811.   | D | lp |                    |
| 10804 medium W.           | Cow-grass        | ○        | ag  | 2     | jn.jl | Pu          | England     | dr.pa.  | D | h1 | Eng. bot. 190      |
| 10805 alpêtre W.          | oval-spiked      | ○        | pr  | 1     | jl    | Pu          | Europe      | 1789.   | S | co | Jac. aust.5.t.433  |
| 10806 bracteatum W.en.    | large-bracted    | ○        | pr  | 1     | jn.jl | Pu          | Morocco     | 1804.   | S | s1 |                    |
| 10807 pannonicum W.       | Hungarian        | ○        | pr  | 1     | jn.jl | W.y         | Hungary     | 1752.   | S | co | Jac. obs. 2. t.42  |
| 10808 canescens W.        | gray             | ○        | pr  | 1     | my.jn | W.y         | Caucasus    | 1803.   | S | co | Bot. mag. 1168     |
| 10809 maritimum W.        | feasel-headed    | ○        | pr  | 1 1/2 | jn.jl | Pa.pu       | Britain     | sal.m.  | S | s1 | Eng. bot. 230      |
| 10810 squarrosum W.       | various-leaved   | ○        | pr  | 1 1/2 | jn.jl | Pa.pu       | Spain       | 1640.   | S | s1 | Mor. hi.2.t.13.f.1 |
| 10811 incarnatum W.       | flesh-colored    | ○        | pr  | 1     | jl    | F           | Italy       | 1596.   | S | co | Bot. mag. 323      |
| 10812 pallidum W.         | pale-flowered    | ○        | pr  | 1     | jn.jl | W           | Hungary     | 1803.   | S | s1 | Pl.rar. hu. 1.t.36 |
| 10813 ochroleucum W.      | sulphur-colored  | ○        | pr  | 1     | my.jl | Sul         | England     | dr.pa.  | D | s1 | Eng. bot. 1224     |
| 10814 angustifolium W.    | narrow-leaved    | ○        | pr  | 1 1/2 | jn.au | Pu          | S. Europe   | 1640.   | S | s1 | Barr. ic. t. 698   |
| 10815 lasiocephalum Link. | woolly-leaved    | ○        | pr  | 1 1/2 | jn.au | Pu          | C. G. H.    | 1823.   | S | co |                    |
| 10816 arvensis W.         | Hare's-foot      | ○        | w   | 1     | jl.au | F           | Britain     | san.fi. | S | s1 | Eng. bot. 944      |
| 10817 stellatum W.        | starry           | * ○      | pr  | 1     | jl    | Pu          | England     | so.co.  | S | s1 | Eng. bot. 1546     |
| 10818 clypeatum W.        | oriental         | ○        | pr  | 1     | jn.au | W.y         | Levant      | 1711.   | S | s1 | Alp. exot. t. 306  |
| 10819 albidum W.          | white            | ○        | pr  | 1 1/2 | jl.au | W           | .....       | 1796.   | S | s1 |                    |
| 10820 scabrum W.          | rough            | ○        | pr  | 1 1/2 | my.jn | W           | Britain     | san.fi. | S | s1 | Eng. bot. 903      |
| 10821 glomeratum W.       | round-headed     | ○        | w   | 1 1/2 | jn    | Pk          | England     | gra.pa. | S | s1 | Eng. bot. 1063     |
| 10822 striatum W.         | soft-knotted     | ○        | w   | 1 1/2 | jn    | Pu          | Britain     | bar.gr. | S | s1 | Eng. bot. 1843     |
| 10823 alexandrinum W.     | Egyptian         | ○        | w   | 1 1/2 | jn.jl | Pa.y        | Egypt       | 1793.   | S | s1 |                    |
| 10824 suffocatum W.       | suffocated       | ○        | w   | 1 1/2 | jn.jl | W           | England     | sea.sh. | S | s1 | Eng. bot. 1049     |
| 10825 involucreatum W.    | involucreated    | ○        | pr  | 1     | jn.jl | Pa.pu       | Morocco     | 1802.   | S | co |                    |
| 10826 spumosum W.         | bladdered        | ○        | un  | 1 1/2 | jn.jl | R           | France      | 1771.   | S | s1 |                    |
| 10827 resupinatum W.      | resupinate       | ○        | un  | 1 1/2 | jn.jl | Pu          | Germany     | 1713.   | S | s1 | Barr. ic. t. 872   |
| 10828 recurvum P. S.      | recurved         | ○        | or  | 3     | jn.il | W           | Hungary     | 1805.   | S | s1 | Pl.rar.hu.2.t.165  |
| 10829 tomentosum W.       | woolly           | ○        | pr  | 1 1/2 | jn.jl | Pu          | S. Europe   | 1640.   | S | s1 | Mag. mons.t.264    |
| 10830 fragiferum W.       | Strawb.-headed   | ○        | ag  | 1     | jl.au | F           | England     | moip.   | D | s1 | Eng. bot. 1050     |
| 10831 montanum W.         | mountain         | ○        | or  | 1     | jl.au | W           | Europe      | 1786.   | D | co | Flor. dan. t. 1172 |
| 10832 badius P. S.        | villous-stalked  | ○        | pr  | 1 1/2 | jn.au | Y           | Pyrenees    | .....   | D | s1 | Barr. ic. 1024     |
| 10833 spadicum W.         | bay-colored      | ○        | pr  | 1 1/2 | jn.au | Br          | Europe      | 1778.   | D | s1 | Bot. mag. 557      |
| 10834 speciosum W.        | large-flowered   | ○        | pr  | 1 1/2 | jn.jl | Pu          | Candia      | 1752.   | D | s1 |                    |
| 10835 agrarium W.         | golden           | ○        | pr  | 1     | jn.jl | Y           | Europe      | 1815.   | D | s1 | Flor. dan. t. 558  |
| 10836 procumbens H. K.    | Hop              | ○        | ag  | 1     | jn.jl | Y           | Britain     | dr.pa.  | S | s1 | Eng. bot. 945      |
| 10837 minus H. K.         | lesser-yellow    | ○        | w   | 1 1/2 | jn.jl | Y           | Britain     | gra.gr. | S | co | Eng. bot. 1256     |
| 10838 filiforme W.        | slender-yellow   | ○        | w   | 1 1/2 | my.jl | Y           | Britain     | gra.pa. | S | co | Eng. bot. 1257     |
| 10839 phleoides W.        | Cats'-tail-head. | ○        | un  | 1 1/2 | my.jl | W.v         | Spain       | 1818.   | S | co |                    |
| 10840 strictum L.         | upright          | ○        | pr  | 1 1/2 | my.jl | W           | Spain       | 1805.   | S | co | Mic. gen. t.25.f.7 |
| †1601. LOTUS. W.          | BRD'S-FOOT       | TREFOIL. |     |       |       | Leguminosa. | Sp. 24—60.  |         |   |    |                    |
| 10841 edulis W.           | esculent         | ○        | clt | 1 1/2 | jl.au | Y           | Italy       | 1710.   | S | s1 | Cav. ic. 2. t. 157 |
| 10842 peregrinum W.       | flat-podded      | ○        | pr  | 1 1/2 | jl.au | Y           | S. Europe   | 1713.   | S | s1 | Scop. del. 1. 6    |



History, Use, Propagation, Culture,

The quantity of seed varies from eight to fourteen pounds per acre, according to the intention of the crop, the quantity of grass-seeds sown, &c. The after culture of clover and rye-grass consists chiefly of picking off any stones or rather hard bodies which may appear on the surface in the spring succeeding that in which it was sown, and cutting out by the roots any thistles, docks, or other large grown weeds. After this, the surface should be rolled once to smooth it for the scythe. This operation is best performed in the first dry weather of March. Some give a top-dressing of soot, gypsum, common lime, peat, or wood-ashes, at this time or earlier; gypsum has been particularly recommended as a top-dressing for clovers and the other herbage legumes, because as their ashes afford that substance in considerable quantities, it appears to be a necessary ingredient of their food.

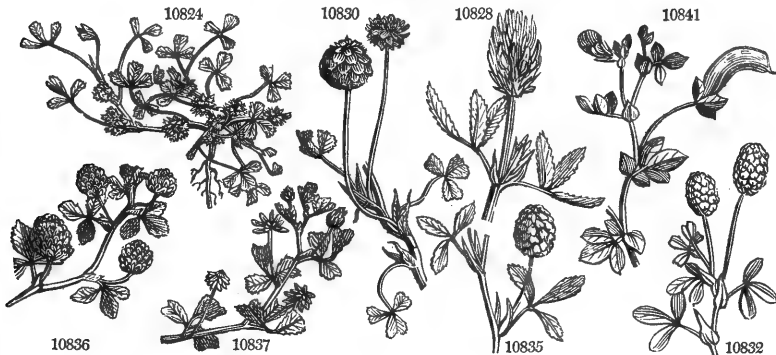
The taking of the clover, or clover and rye-grass crop, is either by cutting green for soiling, by making into hay, or by pasturing. It is observed in *The Code of Agriculture*, that it is a most important point to ascertain, in what cases cutting or feeding is most beneficial. If fed, the land has the advantage of the dung and urine of the pasturing stock; but the dung being dropt in irregular quantities, and in the heat of summer, when it is devoured by insects, loses much of its utility. If the dung arising from the herbage, whether consumed in soiling, or as hay, were applied to the land in one body and at the proper season, the operation would be more effectual. The smother of a thick crop, continued for any time upon the ground, greatly tends to promote its fertility; and it has been pretty uniformly found, after repeated trials, upon soils of almost every description, that oats taken after clover that has been cut, either for soiling or hay, is superior to the crop taken after clover pastured by sheep.

The produce of clover-hay, without any mixture of rye-grass, on the best soils, is from two to three tons per acre, and in this state in the London market it generally sells twenty per cent. higher than meadow-hay, or

- 10797 Spikes term. globose hairy subsessile, Leaf. oval entire and stem densely villous  
 10798 Heads villous globose term. solitary, Teeth of calyx setaceous shorter than cor. Leaf. obovate entire  
 10799 Stem flexuose hairy, Leaf. obcord. hairy, Cal. camp. lined  
 10800 Leaves obovate hirsute, Heads lateral and terminal minute, Stem erect  
 10801 Spikes cylindr. obl. Teeth of cal. villous; lower as long as monopetalous unequal cor.  
 10802 Spikes dense ovate, Stipules awned, Leaf. oval nearly entire  
 10803 Leaf. ovate ellipt. blunt entire, Stipules awned, Spikes ovate cylindr. solitary dense  
 10804 Spikes lax subglobose sol. Stipules subulate, Leaf. ellipt. finely serrulate, Stems branched flexuose  
 10805 Spikes dense subglobose twin, Stipules setaceous, Leaf. lanc. finely serrulate, Stems quite simple  
 10806 Spikes ovate conical dense sol. sessile, Corolla monopetalous, Leaf. ovate blunt  
 10807 Spikes dense obl. ellipt. solitary, Leaf. obl. lanc. entire emarg. vill. Stem simple straight  
 10808 Spikes ovate lax sol. Leaf. obovate emarg. villous, Stem simple ascending  
 10809 Spikes subglobose dense, Leaf. obovate lanc. serrulate at end hairy  
 10810 Spikes obl. somewhat hairy, Lower tooth of cal. very long reflexed, Stem herbaceous erect  
 10811 Spikes obl. villous blunt leafless, Leaf. roundish obcordate ovate crenate villous  
 10812 Spikes sol. roundish, Stipules membranous, Leaf. roundish, Edge of corolla bearded inside  
 10813 Spikes villous elliptical, Stem erect branched downy, Leaf. obl.: lower obcordate  
 10814 Spikes vill. conical obl. Teeth of cal. setaceous nearly equal, Leaf. linear  
 10815 Stem erect hairy, Leaf. linear, Calyx hairy with lanc. subulate spreading teeth  
 10816 Heads very hairy subcylindrical, Cal. teeth setaceous longer than the cor. Leaf. narrow obovate  
 10817 Spikes hairy ovate, Calyxes much spreading, Stem diffuse, Leaf. obcordate  
 10818 Spikes ovate, Calyxes spreading: lower tooth very large lanc. Leaf. obovate  
 10819 Spikes subglobose stalked, Cal. spreading: lower tooth subulate linear, Leaf. oblong  
 10820 Heads term. and axill. sess. ov. Cal. teeth unequal narr. lanc. rigid at length recurved, Leaf. obcor. serru.  
 10821 Heads round axill. sessile, Teeth of cal. equal subulate spreading rigid, Leaf. obovate serrulate  
 10822 Heads term. and axill. ov. subsol. sessul. Cal. striat. hairy with unequal straight teeth. Leaf. obcor. nearly  
 10823 Heads obl. stalked, Cal. vill.: teeth subul. unequal, Upper lvs. opp. Leaf. ellipt. toothletted [entire pubesc.  
 10824 Heads sessile lateral roundish smoothish, Teeth of cal. lanc. acute recurved longer than cor.  
 10825 Heads orbicular stalked in a round toothed involucre, Stipules awned  
 10826 Heads ovate, Cal. in fruit ovate ventricose smooth, Comm. involucre membranous 5-leaved  
 10827 Heads roundish, Cor. resupinate, Cal. of fruit inflated membranous downy, Leaf. obovate acute  
 10828 Heads ov. obl. Cal. of fruit inflated naked, Branches recurved, Leaf. setaceous serrulate  
 10829 Heads round, Cal. of fruit inflated membranous downy, Teeth obliterated. [creep. Leaf. obcord. serrated  
 10830 Heads upon long stalks round, Cal. after flow. inflat. membran. pubesc.: two of teeth setaceous reflex. Stems  
 10831 Spikes about 3 somewhat imbricated, Standard subulate withering, Cal. naked  
 10832 Spikes round imbr. Standard deflexed persistent, Leaf. obcord. serrate, Stem hirsute  
 10833 Spikes oval imbr. Vexillum deflexed persistent, Leaf. obovate: intermediate sessile  
 10834 Spikes obl. with reflexed flowers, Standard roundish flat toothletted persistent, Stem flexuose  
 10835 Spikes oval imbr. Standard deflexed persistent, Teeth of cal. subulate unequal smooth  
 10836 Spikes oval imbr. Standard deflexed persistent sulcated, Stems procumbent, Leaf. obovate [upwards  
 10837 Spikes capit. hemispherical, Pedunc. straight, Standards smoothish, Stems procumb. Petiole lengthened  
 10838 Heads lax of few-fl. Pedunc. capillary flexuose, Standards smooth, Stems procumb. Leaf. subsessile  
 10839 Heads obl. Cal. teeth subulate unequal rigid spreading, Leaf. obl. nearly entire emarg.  
 10840 Heads ellipt. Pods 2-seeded, Cal. length of cor. Leaf. lanc. blunt serrulate

10841 Pods subsolitary gibbous incurved

10842 Pods subinnate compressed lin. cernuous, Leaf. obovate hairy, Stem procumbent



and Miscellaneous Particulars.

clover and rye-grass mixed. The weight of hay from clover and rye-grass varies according to the soil and the season, from one to three tons per English acre, as it is taken from the tramp-ricks; but after being stacked, and kept till spring, the weight is found to be diminished twenty-five or thirty per cent.

The value of clover and rye-grass hay, in comparison with the straw of beans or peas, may be in the proportion of three to two; and with the finest straw of corn crops, in the proportion of two to one. One acre of red or broad clover will go as far in feeding horses or black cattle, as three or four of natural grass. And when it is cut occasionally, and given to them fresh, it will probably go still much farther, as no part of it is lost by being trod down.

The saving of clover seed is attended by considerable labor and difficulty. Clover will not perfect its seeds, if saved for that purpose early in the year; therefore it is necessary to take off the first growth either by feeding or with the scythe, and to depend for the seed on those heads that are produced in the autumn.

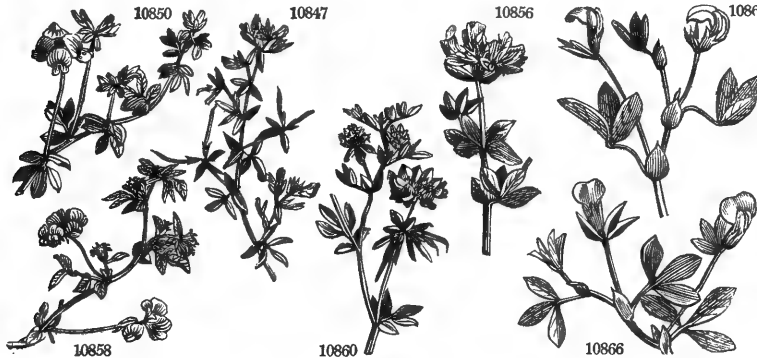
The produce in seed may generally be from three to four or five bushels per acre, when perfectly clean, weighing from two to three hundred weight. But there is great uncertainty in the produce of clover-seed, from the lateness of the season at which it becomes ripe; and the fertility of the soil is considerably impaired by such a crop. Yet the high value of the seed is a great inducement to the saving of it, in favorable situations.

T. incarnatum is sometimes sown as a border flower.

1601. *Lotus. Lotus*, in Greek. There were three sorts of *Lotus* distinguished by the ancients; viz. their tree lotus, which was our *Zizyphus lotus*; the marsh lotus, which was our *Nymphaea lotus*; and the herbaceous lotus, which appears to have been the present genus.

The pods of *L. edulis* are still eaten in Candia, by the poorer inhabitants. *Lotus rectus* has by some been

|  |                 |   |   |     |       |       |      |                |         |   |     |                       |
|--|-----------------|---|---|-----|-------|-------|------|----------------|---------|---|-----|-----------------------|
| 10843 glaucus <i>W.</i>  | glaucous        | ☞ | □ | pr  | 1     | jn.au | Y    | Madeira        | 1777.   | C | s.l |                       |
| 10844 anthyllodes <i>F.</i>  | Anthyllis-like  | ☞ | □ | pr  | 3     | jn.au | Y    | C. G. H.       | 1812.   | S | s.l | Vent.malm.t.92        |
| 10845 angustissimus <i>W.</i>  | narrow-podded   | ☞ | □ | pr  | 1     | jl.au | Y    | France         | 1683.   | S | s.l | Bauh. hist. 2. f.2    |
| 10846 gracilis <i>W. &amp; K.</i>  | slender         | ☞ | □ | pr  | 1     | jl.au | Y    | Hungary        |         |   |     |                       |
| 10847 diffusus <i>W.</i>   | slender-podded  | ☞ | □ | pr  | 1 1/2 | my.jn | Y    | England rocks. |         | S | s.l | Eng. bot. 925         |
| 10848 coimbrensis <i>W.</i>  | Portugal        | ☞ | □ | pr  | 1/2   | jn.jl | W    | Portugal       | 1800.   | S | s.l |                       |
| 10849 arabicus <i>W.</i>   | red-flowered    | ☞ | □ | pr  | 3     | jl.s  | Pk   | Arabia         | 1773.   | S | s.l | Jac. vind. 2.t:155    |
| 10850 australis <i>H. K.</i>   | New Holland     | ☞ | □ | el  | 2     | my.s  | Pk   | N. S. W.       | 1803.   | S | ap  | Bot. mag. 1365        |
| 10851 Dioscoridis <i>W.</i>  | Dioscorides's   | ☞ | □ | pr  | 1     | jn.jl | Y    | Crete          | 1658.   | S | s.l | Alped. 1.t.59.f.1     |
| 10852 ornithopodioides <i>W.</i>   | claw-podded     | ☞ | □ | pr  | 3     | jn.au | Y    | Sicily         | 1683.   | S | s.l | Cav. ic. 2. t. 163    |
| 10853 jacobæus <i>W.</i>   | dark-flowered   | ☞ | □ | or  | 2     | ja.d  | D.Br | C. Verd. Is.   | 1714.   | C | r.m | Bot. mag. 79          |
|  | <i>glabrus</i>  |   |   |     |       |       |      |                |         |   |     |                       |
| 10854 creticus <i>W.</i>   | yellow-flowered | ☞ | □ | pr  | 1 1/2 | jn.s  | Y    | Levant         | 1680.   | C | p.l | Al. ic. 2. t. 156     |
| 10855 tenuis <i>W. &amp; K.</i>  | silver-leaved   | ☞ | □ | pr  | 1     | jn.au | Y    | Hungary        | 1816.   | D | p.l | Waldst. & Kit.t.      |
| 10856 hirsutus <i>W.</i>   | slender         | ☞ | □ | pr  | 2     | jn.au | W    | S. Europe      | 1683.   | C | p.l | Bot. mag. 396         |
| 10857 réctus <i>W.</i>   | upright         | ☞ | □ | pr  | 3     | jn.au | F    | S. Europe      | 1640.   | D | co  | Mor. s.2.t.18.f.13    |
| 10858 odoratus <i>H. K.</i>  | sweet-scented   | ☞ | □ | ft  | 1 1/2 | jn.au | Y    | Barbary        | 1804.   | D | s.l | Bot. mag. 1233        |
| 10859 pedunculatus <i>W.</i>   | long-peduncled  | ☞ | □ | pr  | 1     | jn.au | Y    | Spain          | 1814.   | D | s.l | Cav. ic. 2. t. 164    |
| 10860 maior <i>E. B.</i>   | greater         | ☞ | □ | ag  | 1 1/2 | jn.au | Y    | Britain        | w.sh.g. | D | s.l | Eng. bot. 2091        |
| 10861 corniculatus <i>E. B.</i>  | common          | ☞ | □ | ag  | 1 1/2 | jn.au | Y    | Britain        | pas.    | D | co  | Eng. bot. 2090        |
| 10862 cytioides <i>W.</i>  | downy           | ☞ | □ | pr  | 1     | jl.au | Y    | S. Europe      | 1752.   | D | co  | Alped. 1.t.201.f.1    |
| 10863 parviflorus <i>Desf.</i>   | small-flowered  | ☞ | □ | un  | 1     | jl.au | Y    | Barbary        | 1810.   | S | co  | Desf. atl. t. 81      |
| 10864 Gebélie <i>Vent.</i>   | Aleppo          | ☞ | □ | ed  | 1     | my.jn | Pk   | Aleppo         | ...     | D | co  | Vent. cels. t. 57     |
| 1602. TETRAGONOLOBUS, <i>Roth.</i> TETRAGONOLOBUS. <i>Leguminosæ. Sp. 4.</i> |                 |   |   |     |       |       |      |                |         |   |     |                       |
| 10865 maritimus <i>Roth.</i>   | sea             | ☞ | □ | or  | 1     | my.o  | Y    | Europe         | 1683.   | D | co  | Fl. dan. 800          |
| 10866 siliquosus <i>Roth.</i>  | square-podded   | ☞ | □ | or  | 1     | jl.au | Y    | S. Europe      | 1683.   | D | co  | Jac. aust. 4.t.361    |
| 10867 édulis <i>Link.</i>  | Winged-Pea      | ☞ | □ | clt | 1     | jl.au | D.R  | Sicily         | 1796.   | S | co  | Bot. mag. 151         |
| Lotus tetragonolobus <i>W.</i>   |                 |   |   |     |       |       |      |                |         |   |     |                       |
| 10868 conjugatus <i>Link.</i>  | twin-podded     | ☞ | □ | or  | 1     | jl.au | Y    | Montpel.       | 1754.   | S | s.l |                       |
| 1603. TRIGONEL/LA. <i>W.</i> FENUGREEK. Leguminosæ. <i>Sp. 19-32.</i>        |                 |   |   |     |       |       |      |                |         |   |     |                       |
| 10869 ruthénica <i>W.</i>  | small           | ☞ | □ | un  | 1 1/2 | jn.jl | Y    | Siberia        | 1741.   | S | p.l | Gmel. sib. 4. t. 8    |
| 10870 platycarpus <i>W.</i>  | round-leaved    | ☞ | □ | un  | 1     | jn.s  | W    | Siberia        | 1741.   | S | co  | Gmel. sib. 4. t. 9    |
| 10871 hybrida <i>P. S.</i>   | hybrid          | ☞ | □ | un  | 1     | jn.s  | W    | France         | 1806.   | S | s.l |                       |
| 10872 polycérata <i>W.</i>   | broad-leaved    | ☞ | □ | un  | 1     | jl.s  | Y    | S. Europe      | 1640.   | S | s.l |                       |
| 10873 hamosa <i>W.</i>   | Egyptian        | ☞ | □ | un  | 3/4   | jl.au | Y    | Egypt          | 1640.   | S | s.l | Alp. ægypt.t.124      |
| 10874 spinosa <i>W.</i>  | thorny          | ☞ | □ | un  | 3/4   | jl.au | Y    | Candia         | 1710.   | S | s.l | Lam. ill. t. 61.f.2   |
| 10875 corniculata <i>W.</i>  | horse-shoe      | ☞ | □ | un  | 1     | jn.jl | Y    | S. Europe      | 1597.   | S | s.l | Mor. s.2.t.16.f.11    |
| 10876 monspeliaca <i>W.</i>  | Montpelier      | ☞ | □ | un  | 1     | jn.jl | Y    | Montpel.       | 1710.   | S | s.l | Pl.rar.hu.2.t.142     |
| 10877 pinnatifida <i>W.</i>  | cut-leaved      | ☞ | □ | un  | 1/2   | jn.au | Y    | Spain          | 1801.   | S | s.l | Cav. ic. 1. t. 38     |
| 10878 Fen-num-græcum <i>W.</i>   | common          | ☞ | □ | ec  | 2     | jn.au | Y    | Montpel.       | 1597.   | S | co  | Sch. s. ha. 2. t. 211 |
| 10879 esculenta <i>W. en.</i>  | esculent        | ☞ | □ | clt | 1 1/2 | jn.au | Y    | E. Indies      | 1815.   | S | s.l |                       |
| 10880 indica <i>W.</i>   | Indian          | ☞ | □ | un  | 1     | jn.au | Y    | E. Indies      | 1793.   | S | s.l | Plu.alm.t.200.f.7     |
| 10881 striata <i>L.</i>  | striated        | ☞ | □ | un  | 1     | jn.au | Y    | Abyssinia      | 1800.   | S | co  |                       |
| 10882 cancellata <i>Desf.</i>  | cancellate      | ☞ | □ | un  | 3/4   | jn.jl | Y    | .....          | 1823.   | S | co  |                       |
| 10883 tenuis <i>Bieb.</i>  | slender         | ☞ | □ | un  | 3/4   | jn.jl | Y    | Tifriz         | 1824.   | S | co  |                       |
| 10884 flexuosa <i>Bieb.</i>  | flexuose        | ☞ | □ | un  | 3/4   | jn.jl | Y    | Tifriz         | 1820.   | S | co  |                       |
| 10885 calliceras <i>Bieb.</i>  | neat-podded     | ☞ | □ | un  | 3/4   | jn.jl | Y    | Tifriz         | 1823.   | S | co  |                       |
| 10886 elongata <i>Link.</i>  | long            | ☞ | □ | un  | 3/4   | jn.jl | Y    | .....          | 1823.   | S | co  |                       |
| 10887 gladiata <i>Bieb.</i>  | sword-podded    | ☞ | □ | un  | 3/4   | ap.my | W    | Tauria         | 1825.   | S | co  |                       |
| <i>T. prostrata</i> Dec.   |                 |   |   |     |       |       |      |                |         |   |     |                       |
| 1604. DORYCNIUM. <i>W.</i> DORYCNIUM. Leguminosæ. <i>Sp. 2-3.</i>            |                 |   |   |     |       |       |      |                |         |   |     |                       |
| 10888 monspeliense <i>W.</i>   | shrubby         | ☞ | □ | or  | 3     | jl.s  | W    | S. Europe      | 1640.   | S | p.l | Par. thea.360.f       |
| 10889 herbaceum <i>W.</i>  | herbaceous      | ☞ | □ | or  | 2     | jn.s  | W    | S. Europe      | 1802.   | S | co  | Vil. dauph.3.t.4      |



History, Use, Propagation, Culture,

supposed the Cytisus of Virgil, but, as other contend, without sufficient foundation. Lotus jacobæus is a valuable greenhouse plant, as flowering all the year. L. major and corniculatus are very suitable to sow with white clover and cow-grass, in laying down lands to permanent pasture. Dr. Henderson has written a good deal in their favor; Miller is against them; but Sinclair, in his work on the British Grasses, found it a valuable ingredient in meadows, especially where the soil was rather moist. (See *Ency. of Agr.* p. iii. b. 6.) *Gebélie* is the Arabic name (*Gébélis*) of the species to which it has been applied.

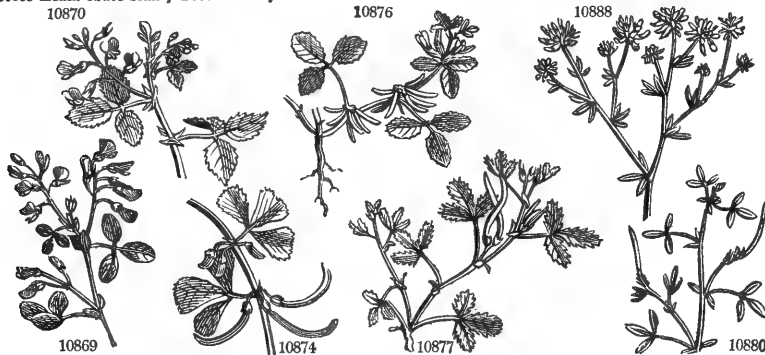
1602. *Tetragonolobus*. From *τετραγώνος*, four, *γωνίας*, an angle, and *κόβης*, a bean, in allusion to the four wings of the pods. *Tetragonolobus edulis* is now a popular border annual, on account of its curious pods; but it was formerly an esculent legume, these pods being used like those of the kidney bean, by the poor of Sicily and Spain.

1603. *Trigonella*: From *τρίων*, three, and *γωνία*, an angle. The standard of the flower is flat, and the keel very small and narrow, which gives the flower a triangular appearance. *T. fenugrum-græcum*, a plant cultivated by the Romans, is still occasionally employed in the agriculture of the south of Europe. The seeds have a strong

- 10843 Pods subnate cylindr. smooth, Leaf. subcuneif. fleshy hoary, Stip. leaf-shaped  
 10844 Heads few-fl., Leaf. and bractes 3-leaved subspatulate  
 10845 Pods subnate lin. straight erect, Stem erect, Pedun. alternate  
 10846 Pods subternate round subulate straight, Cal. cil. Leaf. obl. Stem erect  
 10847 Pedunc. about 1-fl. Stem much branched decumb. Pods round straight very slender  
 10848 Pedunc. about 1-fl. Stem branched procumb. Leaf. obovate smooth, Pods lin. compressed  
 10849 Pods cylindr. awned, Pedunc. 3-fl. Bractes 1-leaved  
 10850 Heads few-fl. with bractes, Leaf. and stipules obovate cuneate equal, Pods cylindr. smooth  
 10851 Pods round torulose, Pedunc. 3-fl. Bractes 3-leaved  
 10852 Pods usually in threes arcuate compressed, Stems diffuse  
 10853 Pods usually in threes, Stem herbaceous erect, Leaf. linear  
  
 10854 Pods usually in threes, Stem half-shrubby, Leaves silky shining  
 10855 Pods about 4 rounded awned, Stem branched, Leaf. lin. lanc. smooth  
 10856 Heads roundish, Stem erect hairy, Pods ovate  
 10857 Heads roundish, Stem erect smooth, Pods straight smooth  
 10858 Hairy, Heads halved, Bractes 1-leaved, Pods straight torulose mucronate  
 10859 Heads depressed on long stalks, Leaf. obl. lanc. acuminate, Stipules ovate  
 10860 Heads depressed many-fl. Pods spreading cylindr. Claws of carina linear  
 10861 Heads depressed, Stems decumb. Legumes cylindr. spreading  
 10862 Heads halved, Stem diffuse much branched, Leaves downy  
 10863 Heads halved, Pods obl. compressed, Cal. as long as cor. Bractes 1-leaved  
 10864 Pods straight cylindr. mucronate, Stems decumb. smooth, Pedunc. few-fl.  
  
 10865 Pods solitary, Leaves smooth, Bractes lanceolate  
 10866 Pods solitary, Leaves procumb. Leaves downy beneath  
 10867 Pods solitary, Bractes ovate, Intermediate leaflets somewhat toothed  
  
 10868 Pods in pairs, Bractes oblong ovate  
  
 10869 Pods stalked heaped obl. lin. straight, Leaf. obl. truncate mucronate  
 10870 Pods stalked heaped pendulous oval compressed, Leaflets roundish  
 10871 Pods stalked compressed ovate veiny, Leaf. cuneiform nearly entire smooth  
 10872 Pods sessile heaped erect straightish long linear, Pedunc. not awned  
 10873 Pods stalked racemose hooked round, Pedunc. spiny longer than leaflet  
 10874 Pods stalked heaped declinate subfalcate compressed, Pedunc. spiny short  
 10875 Pods stalked heaped declinate subfalcate, Pedunc. long somewhat spiny  
 10876 Pods sessile heaped arcuate divaricating inclined short, Pedunc. mucronate unarmed  
 10877 Pods sessile about 3 linear nearly erect, Leaves truncate cuneate pinnatifid toothed  
 10878 Pods sessile straight nearly erect a little falcate acuminate  
 10879 Racemes stalked, Common pedunc. longer than leaf, Pods linear falcate heaped pendulous  
 10880 Pods sessile subsolitary subfalcate, Leaflets entire  
 10881 Pods stalked longer than leaf, Leaves streaked  
 10882 Pods stalked umbelled erect incurved, Leaf. cuneate serrate, Stem much branched  
 10883 Pods about 4 arcuate erect, Pedunc. unarmed: when in flower as long as leaf, Leaf. cuneate  
 10884 Pods about 6 arcuate erect wavy torulose, Pedunc. unarmed: when in fl. longer than leaf, Leaf. cuneate  
 10885 Pods stalked heaped declinate falcate furrowed, Pedunc. awned longer than leaf  
 10886 Pedunc. very short spiny, Pods short curved upwards  
 10887 Pods sessile nearly erect falcate acuminate downy, Stem spreading

10888 Leaf. linear lanc. acute, Teeth of calyx ovate

10889 Leaf. obate blunt, Teeth of calyx ovate

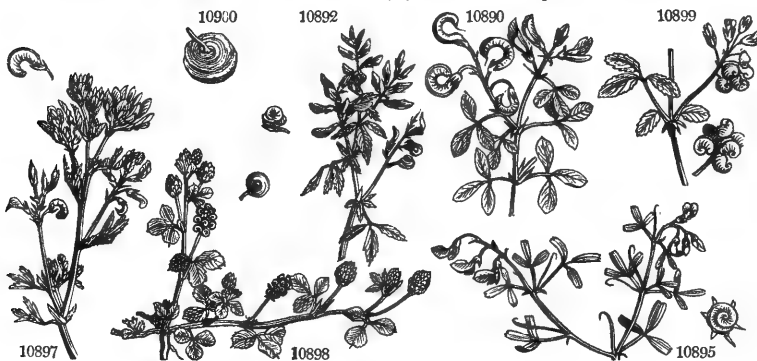


and Miscellaneous Particulars.

disagreeable smell, and an unctuous farinaceous taste, accompanied with a slight bitterishness. An ounce renders a pint of water thick and slimy. To rectified spirit, they give out the whole of their distinguishing smell and taste, and afterwards to water a strong flavorless mucilage. These seeds are never given internally, their principal use being in cataplasms and fomentations, for softening, maturing, and dispersing tumours; and in emollient glysters. They were also an ingredient in the *oleum e mucilaginosus*; but this has no longer a place in the pharmacopœia. (*Woodville* and *Lewis*.) They are used by grooms and farriers for horses. Fenugreek has not been cultivated in any quantity for use in England, because it is an uncertain crop, occasioned by the inconstancy of our weather.

1604. *Dorycnium*. The Greek name of an herb, supposed to be the *Convolvulus Dorycnium* of the moderns. The plant now called by the name has no resemblance to that of the ancients. *D. hirsutum* is a beautiful half-hardy shrub, well deserving cultivation.

| 1605. MEDICA'GO. W. MEDICK. |                 | Leguminosæ. Sp. 40—76. |         |      |                       |                      |
|-----------------------------|-----------------|------------------------|---------|------|-----------------------|----------------------|
| 10890 arborea W.            | Moon-Trefoil    | or                     | 8 my.n  | Y    | Italy 1596. C s.1     | Lob. ic.2 p.46.f.2   |
| 10891 cretæica W. en.       | shrubby         | cu                     | 4 jl    | Y    | Tauria 1805. C s.1    |                      |
| 10892 sativa W.             | Lucern          | △                      | 2 jn.jl | V    | England me.pa. D r.m  | Eng. bot. 1749       |
| 10893 glomerata W. en.      | clustered       | cu                     | 1 jn.jl | Y    | Italy ... D s.1       |                      |
| 10894 glutinosa Bieb.       | clammy          | cu                     | 2 jn.jl | Y    | Tauria ... S co       |                      |
| 10895 prostrata W.          | prostrate       | cu                     | 2 jn.jl | Y    | Hungary 1793. D s.1   | Jac. hor.vin.t.89    |
| 10896 brachycarpa Bieb.     | short-podded    | cu                     | 2 jn.jl | Pa.Y | Tifiz 1823. S co      |                      |
| 10897 falcata W.            | yellow          | ag                     | 2 jl    | Y    | England bor.fi. S co  | Eng. bot. 1016       |
| 10898 lupulina W.           | Nonesuch        | ag                     | 1 my.au | Y    | Britain pas. S co     | Eng. bot. 971        |
| 10899 obscura W.            | doubtful        | cu                     | 1 jl.au | Y    | ..... 1734. S co      | Ret.ob. 1.p.24.t.1   |
| 10900 orbiculæris W.        | flat-podded     | cu                     | 1 jl.au | Y    | S. Europe 1685. S co  | Moris.s.2.t.15.f.1   |
| 10901 marginata W. en.      | marginèd        | cu                     | 1 jl.au | Y    | S. Europe 1816. S co  |                      |
| 10902 elegans W.            | elegant         | cu                     | 1 jl.au | Y    | Sicily 1680. S co     | Moris.s.2.t.15.f.4   |
| 10903 scutellata W.         | Snail           | cu                     | 1 jn.au | Y    | S. Europe 1562. S co  | Moris.s.2.t.15.f.3   |
| 10904 Hélix W.              | many-fl.-Snail  | cu                     | 1 jn.au | Y    | ..... 1816. S co      |                      |
| 10905 tornata W.            | smooth-podded   | cu                     | 1 jn.au | Y    | S. Europe 1658. S co  |                      |
| 10906 turbinata W.          | Turban          | cu                     | 1 jn.au | Y    | S. Europe 1680. S co  | Moris.s.2.t.15.f.5   |
| 10907 tuberculata W.        | wart-podded     | cu                     | 1 jn.au | Y    | S. Europe 1658. S co  | Moris.s.2.t.15.f.6   |
| 10908 aculeata W.           | spiny           | cu                     | 1 jn.au | Y    | ..... 1802. S co      |                      |
| 10909 granadensis W. en.    | Spanish         | cu                     | 2 jn.au | Y    | Spain 1816. S s.1     | Jac. coll. t. 15.f.2 |
| 10910 Múrex W.              | prickly         | cu                     | 1 jn.au | Y    | ..... 1802. S s.1     |                      |
| 10911 intertexta W.         | hedgohog        | cu                     | 1 jn.au | Y    | S. Europe 1629. S co  | Moris.s.2.t.15.f.7   |
| 10912 ciliaris W.           | fringed         | cu                     | 1 jl.au | Y    | France 1686. S co     |                      |
| 10913 carstinis W.          | creeping-rooted | △                      | 1 jn.jl | Y    | Carinthia 1769. D co  | Eng. bot. 909        |
| 10914 maculata W.           | spotted         | cu                     | 1 my.jn | Y    | England gra.pa. S s.1 | Eng. bot. 1616       |
| 10915 coronata W.           | crowned         | cu                     | 1 jn.jl | Y    | S. Europe 1680. S s.1 | Mor.s.2.t. 15.f.16   |
| 10916 apiculata W.          | tufted          | cu                     | 1 jn.jl | Y    | S. Europe 1800. S s.1 |                      |
| 10917 tentaculata W.        | bur-podded      | cu                     | 1 jn.jl | Y    | S. Europe ... S co    | Gert. sem. t.155     |



History, Use, Propagation, Culture,

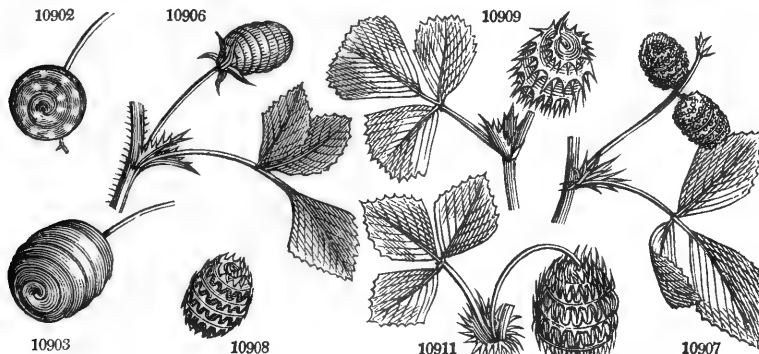
1605. *Medicago*. A native of the country of the *Medes*, whence this plant was brought to Greece during the expedition of Darius. *M. arborea*, the *Cytisus* of the ancients, flowers great part of the year, and when sheltered is seldom destitute of flowers. In the open air it begins to flower in April, and continues till December. Those flowers which appear early in summer, will have the seeds ripe in August, or the beginning of September, and the others will ripen in succession. It grows in great plenty in Abruzzo, and many parts of the kingdom of Naples, where the goats feed upon it; and with their milk abundance of cheese is made there. It also abounds in several of the islands in the Archipelago, where the Turks use the wood to make handles for their sabres; and the caloyers, or Greek monks, form their beads of it. In old shrubs, the heart is of a dark color, and hard like ebony.

According to Miller, this shrub bids the fairest of any to be the *Cytisus* of Virgil, Columella, and the other ancient writers on husbandry; and being celebrated by them as an excellent fodder, has been recommended for cultivation here. But however useful it may be in Candia, Rhodes, Sicily, Abruzzo, and other dry warm countries, yet it will never thrive in England, (where we have also many plants of this leguminous tribe far more succulent than this,) so as to be of any real advantage; for in severe frost it is very subject to be destroyed, or at least so much damaged, as not to recover its former verdure before the middle or end of May; (and even after a mild winter, it will generally appear injured by our cold spring winds, even at that season; so that it cannot be of any use here for early spring fodder.) Besides, the shoots will not bear cutting above once in a summer, and then will not be of any considerable length: and the stems growing very woody, the cutting of it will be very troublesome. Upon the whole, therefore, it is not worth the trial; though in hot, dry, rocky countries, where few other plants will thrive, it may be cultivated to great advantage. But, however unfit *Tree Medick* may be for use as fodder in England, yet for the beauty of its hoary leaves, abiding all the year, together with its long continuance in flower, it deserves a place in every good garden and plantation, with shrubs of the same growth. (*Dict. in loco, and Martyn's Virg.*)

*M. sativa*, *Foin de Bourgogne*, Fr., *Alfalfa*, Span., and *Lucerne*, Eng., (from the Languedoc patois *Lauserda*), is a deep rooting perennial plant, sending up numerous small and tall clover-like shoots, with blue or violet spikes of flowers. It is highly extolled by the Roman writers; it is also of unknown antiquity in old Spain, Italy, and the south of France; is much grown in Persia and Peru, and mown in both countries all the year round. It is mentioned by Hartlib, Blythe, and other early writers, and was tried by Lisle; but it excited little attention till after the publication of Harte's Essays, in 1757. But though it has been so much extolled, it has yet found no great reception in this country. If any good reason can be given for this, it is, that lucern is a less hardy plant than red clover, requires three or four years before it comes to its full growth, and is for these and other reasons ill adapted to enter into general rotations. When the climate and soil suit, perhaps, a field of it may be advantageously sown, adjoining the homestall, to afford early cutting or food for young or sick animals, for which it is said to be well adapted; but though it will produce good crops for eight or ten years, yet from the time the farmer must wait till this crop attains its perfection, and from the care requisite to keep it from grass and weeds, we do not think it is ever likely to come into general culture.

There are no varieties of the lucern deserving the notice of a cultivator. What is called the yellow lucern, or Swiss lucern, is the *Medicago falcata*, a much more hardy and coarser plant, common in several parts of England, but not cultivated any where excepting in some poor soils in Switzerland.

- 10890 Pods lunate entire at edge, Stem arborescent  
 10891 Pedunc. many-fl. racemose, Pods reniform 1-seeded, Leaf. rhomboid roundish mucronate  
 10892 Pedunc. racemed, Legume smooth spirally twisted, Stipules entire, Leaf. long toothed  
 10893 Pedunc. racemed, Pods twisted-falcate downy, Leaf. lin. truncate toothletted at end  
 10894 Pedunc. racemose, Pods twisted falcate and cal. viscid villous. Leaf. obovate toothed at end  
 10895 Pedunc. racemose, Pods smooth cochleate twisted, Stipules toothed at base, Leaf. lin. toothed at end  
 10896 Heads axill. sessile, Pods half orbicular acute lined 1-seeded  
 10897 Pedunc. racemose, Pods twisted falcate downy, Leaf. obl. toothed at end  
 10898 Spikes oval, Legumes reniform 1-seeded, Stipules entire, Leaf. obovate  
 10899 Pods racemose reniform 2-seeded, Stip. toothed, Leaf. rhomboid ovate  
 10900 Pedunc. 2-fl. Pods unarmed cochleate orbicular flattish, Stip. setaceous multifid, Leaf. obov. toothed  
 10901 Pedunc. 2-fl. Pods unarmed cochleate orbicular very flat at each end, Folds loose  
 10902 Pedunc. 2-fl. Pods unarmed cochleate orbicular flat transversely rugose at edge, Stip. toothed  
 10903 Pedunc. 2-fl. Pods unarmed cochleate orbicular convex at base: flat above with concentric spiral folds  
 10904 Pedunc. many-fl. Pods unarmed cochleate orbicular flat with distant folds  
 10905 Pedunc. many-fl. Pods unarmed cochleate cylindr. flat at each end with distant folds  
 10906 Pedunc. 2-fl. Pods unarmed cochleate cylindr. convex at each end with imbricated folds  
 10907 Pedunc. 2-fl. Pods unarmed cochleate cylindr. flattish at each end with tubercled folds  
 10908 Pedunc. about 2-fl. Pods cochleate cylindr. flattish at each end, Folds imbricated at edge  
 10909 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end, Prickles subulate appressed  
 10910 Pedunc. about 2-fl. Pods cochleate cylindr. convex at each end aculeate, Aculei straight  
 10911 Pedunc. about 2-fl. Pods cochleate oval with downy pubescent setaceous appressed reflexed prickles  
 10912 Pedunc. about 2-fl. Pods cochleate oval with straight subulate downy prickles  
 10913 Pedunc. many-fl. Pods cochleate compressed at each end with subulate straight prickles  
 10914 Pedunc. about 2-fl. Pods cochleate compressed at each end with subulate arcuate prickles  
 10915 Pedunc. many-fl. Pods cochleate cylindr. flat at each end pubesc. with close-pressed subul. prickles  
 10916 Pedunc. many-fl. Pods cochleate flat at each end with 3 netted folds muricate at edge  
 10917 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end with smooth lanc. distich. close-pressed prickles



and Miscellaneous Particulars.

The soil for lucern must be dry, friable, inclining to sand, and with a subsoil not inferior to the surface; unless the soil be good and deep, it is in vain to attempt to cultivate lucern.

The preparation of the soil consists in deep ploughing and minute pulverisation; and, in our opinion, the shortest way to effect this, is to trench it over by the spade to two or three feet in depth, burying a good coat of manure in the middle, or at least one foot from the surface. This is the practice in Guernsey, where lucern is highly prized.

The climate for lucern, as we have already hinted, must be warm and dry; it has been grown in Scotland and Ireland, and might probably do well in the southern counties of the latter country, but in the former it has not been found to answer the commendations of its admirers.

The season most proper for sowing lucern, is as early as can be done in the spring months, as in this way the plants may be fully established before the season becomes too hot. If the plants be intended to be transplanted out in the garden method, it will also be the best practice to sow the seed-bed as early in the spring as the frosts will admit, in order that they may be strong, and fit to set out about the beginning of August.

The manner of sowing lucern is either broad-cast or in drills, and either with or without an accompanying crop of corn for the first year. Broad-cast, and a very thin crop of barley or other spring corn, is generally, and, in our opinion, very properly preferred.

The quantity of seed, when the broad-cast method is adopted, is said to be from fifteen to twenty pounds per acre, and from eight to twelve if drilled. The seed is paler, larger, and dearer than that of clover; it is generally imported from Holland, and great care should be had to procure it plump and perfectly new, as two years old seed does not come up freely. The same depth of covering as for clover will answer.

The after-culture of lucern, sown broad-cast, consists in harrowing, to destroy grass and other weeds; rolling, after the harrowing, to smooth the soil for the scythe, and such occasional top-dressings of manure as the state of the plants may seem to require.

The top-dressings given to lucern may be either of the saline or mixed manures. Ashes are greatly esteemed, and also gypsum and liquid manure of any kind.

The taking of lucern by mowing for soiling, or hay, or by tethering, hurdling, or pasturing, may be considered as the same as for clover. Lucern frequently attains a sufficient growth for the scythe towards the end of April, or beginning of the following month; and in soils that are favorable for its culture, will be in a state of readiness for a second cutting in the course of a month or six weeks longer, being capable of undergoing the same operation at nearly similar distances of time during the whole of the summer season.

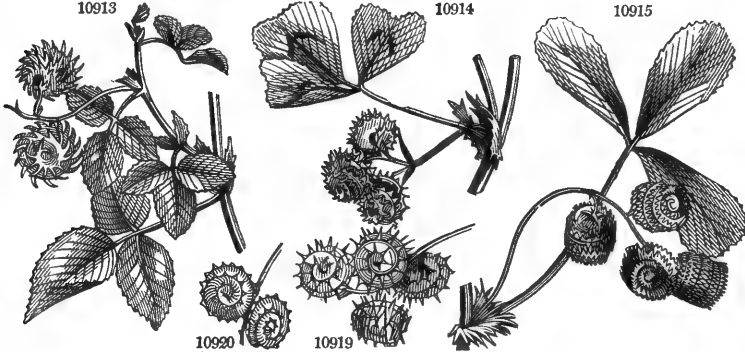
The application of lucern is also the same as of clover. The principal and most advantageous practice, in the application of lucern, is that of soiling horses, neat cattle and hogs; but as a dry fodder, it is also capable of affording much assistance, and as an early food for ewes and lambs, may be of great value in particular cases. All agree in extolling it as food for cows, whether in a green or dried state.

The produce of lucern, cut three times in a season, has been stated at from three to five and even eight tons per acre. In soiling, one acre is sufficient for three or four cows during the soiling season, and a quarter of an acre, if the soil be good, for all sorts of large stock, for the same period, or half an acre on a moderate soil.

The nutritive product of lucern, according to Sir H. Davy, is 2.3-tenths per cent, and is to that of the



|                                 |               |     |    |     |       |   |                     |       |   |     |                    |
|---------------------------------|---------------|-----|----|-----|-------|---|---------------------|-------|---|-----|--------------------|
| 10918 denticulata <i>W.</i>     | toothed       | * O | cu | 1   | jn.jl | Y | S. Europe           | 1800. | S | a.l |                    |
| 10919 muricata <i>W.</i>        | prickly       | * O | cu | 1   | my.jn | Y | England sea co.     |       | S | co  | Mor. s.2.t.15.f.11 |
| 10920 Gerardi <i>W.</i>         | Gerarde's     | * O | cu | 1   | jn.au | Y | Hungary             | 1816. | S | co  | Mor.s.2.t.15.f.18  |
| 10921 marina <i>W.</i>          | sea           | * Δ | cu | 1   | jn.au | Y | S. Europe           | 1596. | D | a.l | Cav. ic. 2. t. 130 |
| 10922 Terebellum <i>W.</i>      | short-spined  | * O | cu | 1   | jn.au | Y | S. Europe           | 1798. | S | a.l |                    |
| 10923 tribuloides <i>W.</i>     | Caltrops-like | * O | cu | 1   | jn.au | Y | S. Europe           | 1730. | S | a.l |                    |
| 10924 rigidula <i>W.</i>        | thorny-podded | * X | cu | 1   | jn.au | Y | S. Europe           | 1730. | S | a.l |                    |
| 10925 minima <i>W.</i>          | least         | * O | cu | 1   | my.jn | Y | England ch.so.      |       | S | co  | Fl. dan. 211       |
| 10926 nigra <i>W.</i>           | black         | * O | cu | 1   | jl.au | Y | S. Europe           | 1789. | S | a.l | Mor.s.2.t.15.f.19  |
| 10927 graeca <i>W. en.</i>      | villous       | * O | cu | 1/2 | jl.au | Y | Greece              | 1804. | S | a.l |                    |
| 10928 laciniata <i>W.</i>       | cut-leaved    | * O | cu | 1/2 | jl.au | Y | S. Europe           | 1683. | S | a.l | Breyn. cent. t.34  |
| 10929 uncinata <i>W.</i>        | hooked        | * X | cu | 1   | jl.au | Y | S. Europe           | ...   | S | co  |                    |
| 1606. HYMENOCARPUS. <i>W.</i>   | HYMENOCARPUS. |     |    |     |       |   | Leguminosae. Sp. 3. |       |   |     |                    |
| 10930 radiatus <i>W.</i>        | ray-podded    | * O | pr | 1/2 | jn.jl | Y | Italy               | 1629. | S | a.l | Lob. ic.2.p.38.f.2 |
| 10931 circinatus <i>W.</i>      | kidney-podded | * X | pr | 1/2 | jl.au | Y | Italy               | 1640. | S | co  | Ger.sem.2.t.155    |
| 10932 nummularius <i>W. en.</i> | money-leaved  | * X | pr | 1/2 | jl.au | Y | Italy               | 1640. | S | co  |                    |



History, Use, Propagation, Culture,

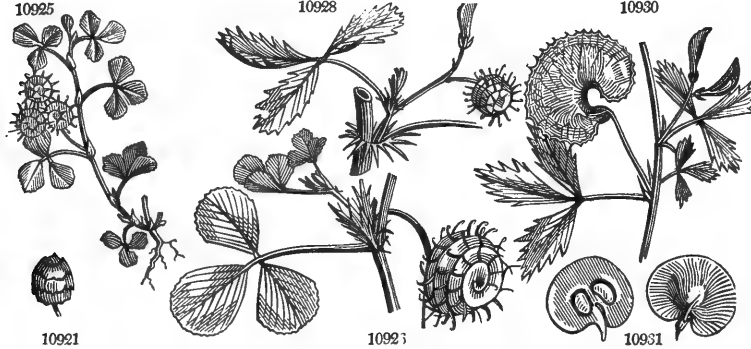
clovers and saintfoin as 23 to 39. This result does not very well agree with the superior nutritive powers attributed to lucern; and is one proof, among many, how little the analysis of the chemist agrees with the experience of the farmer.

To save seed, the lucern may be treated precisely as the red clover, and it is much easier threshed, the grains being contained in small pods, which easily separate under the flail, or a threshing machine, or clover mill.

M. lupulina, Hop-trefoil, sometimes called Shamrock, and in Norfolk Black Nonesuch, is cultivated occa-

- 10918 Pedunc. many-fl. Pods cochleate flat at each end, Folds 2 reticulated with prickles of their edges diverging  
 10919 Pedunc. many-fl. Pods cochleate flat at each end smooth, Folds 5 with short subulate prickles  
 10920 Pedunc. about 2-fl. Pods cochleate flat at each end villous, Folds 5 with subulate hooked prickles  
 10921 Pedunc. many-fl. Pods cochleate roundish muricate, Leaf. downy obovate entire  
 10922 Pedunc. many-fl. Pods cochleate cylindr. flat at each end, Folds 5 with short subulate reflexed prickles  
 10923 Pedunc. 2-fl. Pods cochleate cylindr. flat at each end with conical distichous reflexed prickles  
 10924 Pedunc. many-fl. Pods cochleate cylindr. Prickles conical straight spreading  
 10925 Pedunc. many-fl. Pods cochleate hairy, Prickles subulate straight hooked  
 10926 Pedunc. 2-fl. Pods cochleate cylindr. with close folds, Prickles subulate straight hooked  
 10927 Pedunc. many-fl. Pods cochleate somewhat hairy, Prickles subulate straight hooked  
 10928 Pedunc. 2-fl. Pods cochleate cylindr. with subulate straight hooked prickles, Leaf. lin. truncate  
 10929 Pedunc. many-fl. Pods cochleate villous flat at each end with 5 folds, Prickles subulate straight hooked

- 10930 Pods toothed at edge, Leaves ternate  
 10931 Pods toothed at edge, Leaves pinnate  
 10932 Pods entire at edge, Leaves pinnate



and Miscellaneous Particulars.

sionally along with the perennial clovers, and sometimes confounded with the common yellow clover, which is an annual and much smaller plant. Its treatment is the same as that of white clover; but its herbage is little relished by cattle, and both it and the yellow clover are going fast out of repute.


M. scutellata and intertexta are sown as border flowers for the curiosity of their pods.

1606. *Hymenocarpus*. From *ἕμειν*, a membrane, and *καρπος*, fruit, in allusion to the membranous texture of the pods. Little inconspicuous plants resembling *Trifolium*.



CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

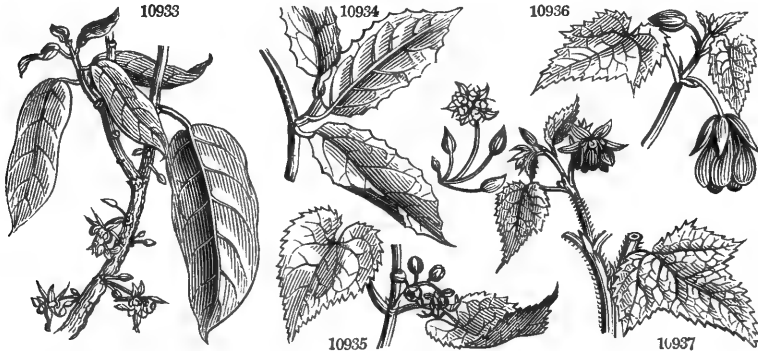
ONE of the smallest of the Linnean classes, characterized by the cohesion of the filaments in several parcels. It almost wholly consists of plants remarkable either for their beauty or importance otherwise. From the *Theobroma* the nutritious substance which forms the basis of Chocolate is procured. *Melaleuca* and its allies are among the most elegant of New Holland plants. The genus *Symplocos* contains a plant useful as a dye. To *Citrus* belong the Orange, Lemon, Lime, and all their delicious varieties; and the *Loasa*, with which the class is here concluded, consists of some of the most ornamental and curious of our garden annuals. By some botanists this class is distributed among others, especially *Icosandria* and *Polyandria*.

Order 1. DECANDRIA.  Stamens 10 or 12.

1607. *Theobroma*. Cal. 5-leaved. Petals 5, forcinate. Nectary urceolate, with 5 horns. Filaments 5, each with 2 anthers. Style filiform. Stigma 5-parted. Caps. 5-celled, without valvæ. Seeds in a buttery pulp.  
 1608. *Bubroma*. Cal. 3-leaved. Petals 5, 2-horned. Nect. campanulate, 5-rid. Filam. 5, attached to the outside of nectary; each with 3 anthers. Style simple. Capsule woody, warted, valvæless, bored with 12 rows of holes.

DECANDRIA.

- |   |  |
|---|--|
| 1607. THEOBROMA. W. CHOCOLATE NUT.                                    | <i>Byttneriaceæ.</i> Sp. 2—5.                  |
| 10933 Cacao W. smooth-leaved ♀ <input type="checkbox"/> clt 16        | ... Br S. Amer. 1739. C r.m Bot. cab. 545      |
| 10934 guianensis W. woolly-leaved ♀ <input type="checkbox"/> or 16    | ... Br Guiana. 1803. C r.m Aub. gui. 2.t. 275  |
| *1608. BUBROMA. W. BASTARD CEDAR.                                     | <i>Byttneriaceæ.</i> Sp. 1—3.                  |
| §10935 Guazuma W. Elm-leaved ♀ <input type="checkbox"/> tm 40         | aus. Y Jamaica 1739. C p.l Trew. ehret. t. 76  |
| 1609. ABROMA. W. ABROMA.  | <i>Byttneriaceæ.</i> Sp. 2—3.                  |
| 10936 augusta H. K. smooth-stalked ♀ <input type="checkbox"/> or 10   | au Pu E. Indies 1770. C l.p Jac. vind. 3. t. 1 |
| 10937 fastuosa H. K. prickly-stalked ♀ <input type="checkbox"/> or 10 | jn.o Pu N. S. W. 1800. C l.p Par. lond. 102    |



History, Use, Propagation, Culture,

1607. *Theobroma*. From *Θεος*, God, and *βρομα*, food, in allusion to the excellent nature of its produce. The Mexicans call the beverage obtained from it *Chocolatl*. (*Nieremb.*) *T. Cacao* is a tree which grows in a very handsome form to the height of twelve or sixteen feet; the trunk is upright, and about as high as a man before the head spreads out; the wood is light and of a white color; the bark brownish. Leaves lanceolate-oblong, bright green, quite entire; flowers small, reddish, inodorous. Fruits smooth, yellow, red, or of both colors, about three inches in diameter: rind fleshy, near half an inch in thickness, flesh-colored within: pulp whitish, the consistence of butter, separating from the rind in a state of ripeness, and adhering to it only by filaments, which penetrate it and reach to the seeds. Hence it is known when the seeds are ripe, by the rattling of the capsule when it is shaken. The pulp has a sweet and not unpleasant taste, with a slight acidity; it is sucked and eaten raw by the natives. The seeds are about twenty-five in number: when fresh they are of a flesh-color: gathered before they are ripe, they preserve them in sugar, and thus they are very grateful to the palate: they quickly lose their power of vegetation, if taken out of the capsule; but kept in it, they preserve that power for a long time. The tree bears leaves, flowers, and fruit all the year through; but the usual seasons for gathering the fruit are June and December. In two years from the seed it is above three feet high, and spreads its branches, not more than five of which are suffered to remain: before its third year is complete it shows for fruit. A tree yields from two to three pounds of seeds annually. These seeds are remarkably nourishing, and agreeable to most people; which occasions them to be commonly kept in most houses in America, as a necessary part of the provisions of the family: they are generally ground or pounded very fine, a little arnatto added, and made into paste: they are much charged with oil, but mix well with milk or water, and are formed into rolls of one pound each.

This simple preparation of chocolate is the most natural and the best. It is in daily use amongst most

1609. *Abroma*. Cal. 5-part. Petals 5, with saccate dilated claws Cup of stamens 10-fid; with 5 segments, each bearing 3 anthers; the other 5 petaloid. Styles 5. Caps. 5-celled, 5-winged, many-seeded.

Order 2. POLYANDRIA.  Stamens indefinite.

1610. *Melaleuca*. Parcels of stamens 5, opposite the petals, long; anthers incumbent. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx which is grown to the branch.  
 1611. *Tristania*. Parcels of stamens 5, opposite the petals, and scarcely longer than they are; anthers incumbent. Caps. 3-celled, many-seeded, united with the turbinate stalked tube of the calyx.  
 1612. *Calothamnus*. Parcels of stamens 4-5, opposite the petals (some either connate or sterile). Anthers inserted by the base, entire. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.  
 1613. *Beaufortia*. Parcels of stamens 5, opposite the petals. Anthers inserted by the base, bifid at the end, with deciduous lobes. Caps. 3-celled, 1-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.  
 1614. *Symplocos*. Cal. 5-fid, superior. Petals 5-8; cohering at the base in a tube. Stamens united to the corolla in 4 rows. Drupe dry, 5-celled.  
 1615. *Citrus*. Cal. 5-fid. Petals 5, oblong. Anthers 20; the filaments variously divided. Berry 9-celled.  
 1616. *Xanthochymus*. Cal. 5-leaved. Petals 5. Nectaries 5. Stamens united in 5 parcels. Apple 1-5-seeded.  
 1617. *Hypericum*. Cal. 5-parted. Petals 5. Filaments many in 3 or 5 parcels. Capsule superior.  
 1618. *Ascyrum*. Cal. 4-leaved. Petals 4. Caps. 1-celled, 2-3-valved.  
 1619. *Loasa*. Cal. 5-leaved. Petals 5. Nectary 5-leaved. Caps.  $\frac{1}{2}$ -inferior, 1-celled,  $\frac{1}{3}$ -3-valved, many-seeded.

DECANDRIA.

10933 Leaves entire smooth

10934 Leaves acuminate repand-toothed downy beneath

10935 Leaves cordate ovate acute with unequal serratures

10936 Leaves 7-angled : floral ov. lanc. acuminate somewhat toothed, Pedunc. axill. Branches unarmed

10937 Adult lvs. with simple and stellate hair beneath, Wings of caps. subtruncate at end, Branches muricated



and Miscellaneous Particulars.

families in Jamaica, where the tree is largely cultivated, and affords a nutritious food for children, as well as adults. But as chocolate made abroad cannot by law be imported into this country, consequently all chocolate consumed in Britain ought to be made here. It is composed principally of the kernel of the cocoa, as above mentioned; but the art is in very few hands: and we believe that a small portion of soap is added to most British chocolate, in order to cause it to froth when it is dissolved in hot water.

Cocoa is a simple preparation made in Britain, from the cocoa-nut, or from the shells of it, or from a mixture of both. It is considered much easier of digestion than chocolate, and very nourishing.

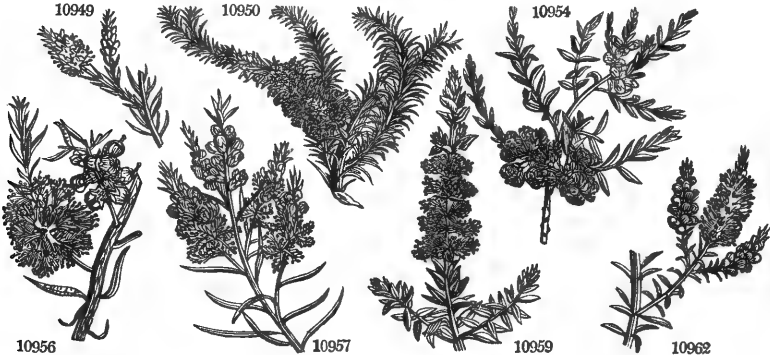
In our stoves Theobromas thrive in light rich soil, and cuttings root in sand under a hand-glass.

1608. *Bubroma*. In contradistinction to Theobroma; from *βουρ*, an ox, and *βρωμα*, food, as if producing a substance fit only to be eaten by cattle. *Orme d'Amerique*, Fr. A wide spreading tree, not unlike the Elm, with oblong heart-shaped leaves, which sleep hanging quite down, whilst the petioles remain entirely stiff and straight. It grows in the lowlands of Jamaica, forming a very agreeable shade for the cattle, and supplying them with food in dry weather, when all the herbage is burned up or exhausted. The seeds are very mucilaginous, but otherwise agreeable to the palate. The wood is light, and so easily wrought, that it is generally used by coachmakers in all the side pieces. (*Broune*.) It is also frequently cut into staves for casks. A decoction of the inner bark is very glutinous, and very like that of the elm. In our stoves it thrives well in a loamy soil, and cuttings root freely in sand under a hand-glass.

1609. *Abroma*. Still named with reference to the two preceding genera, from *α*, privative, and *βρωμα*, food; as if unfit for either gods or oxen. This, Sweet observes, "is a hardy stove genus, and easily managed; the species flower freely at various seasons, and will grow in the common garden soil: but a mixture of good loam with a little peat is an excellent compost for them. They propagate freely by seeds and cuttings." (*Bot. Cult.* 10.)

POLYANDRIA.

|   |                      |                   |       |  |
|---|----------------------|-------------------|-------|--|
| †1610. MELALEUCA. <i>H. K. MELALEUCA.</i>   | <i>Myrtaceae.</i>    | <i>Sp. 25—30.</i> |       |  |
| 10938 <i>Leucadendron W.</i>                | Cajeputi Tree        | ♂                 | or 15 | ... W E. Indies 1796. C s.l.p. Rum.amb.2. t.16       |
| 10939 <i>viridiflora W.</i>                 | green-flowered       | ♂                 | or 10 | ... G N. S. W. 1798. C s.l.p. Cav. ic. 4. t. 333     |
| 10940 <i>paludosa Br.</i>                   | long-leaved red      | ♂                 | or 6  | jl.s R N. Holl. 1803. C s.l.p.                       |
| 10941 <i>globifera Br.</i>                  | globe-fruited        | ♂                 | or 4  | ... N. Holl. 1803. C s.l.p.                          |
| 10942 <i>diosmifolia Br.</i>                | Diosma-leaved        | ♂                 | or 4  | jn.jl G N. Holl. 1794. C s.l.p. Bot. rep. 476        |
| 10943 <i>stypheleoides Br.</i>              | Styphelia-leaved     | ♂                 | or 4  | my.jn ... N. S. W. 1793. C s.l.p.                    |
| 10944 <i>genitifolia Br.</i>                | Broom-leaved         | ♂                 | or 4  | ... N. S. W. 1793. C s.l.p.                          |
| 10945 <i>striata Br.</i>                    | striated             | ♂                 | or 4  | ... Pu N. Holl. 1803. C s.l.p. La.no.ho.2.t.165      |
| 10946 <i>thymoides Br.</i>                  | yellow spear-ly      | ♂                 | or 3  | ... Pu N. Holl. 1803. C s.l.p. Lab. nov. 2. t.167    |
| 10947 <i>scuamae Br.</i>                    | scaly branched       | ♂                 | or 4  | jn.jl Pu V. Di. L. 1805. C s.l.p. Bot. reg. 477      |
| 10948 <i>nodosa Br.</i>                     | Whin-leaved          | ♂                 | or 2  | jn.jl Pu N. S. W. 1790. L s.l.p. Ex. bot. 1. t. 35   |
| 10949 <i>ericifolia Br.</i>                 | Heath-leaved         | ♂                 | or 3  | jl.s G N. S. W. 1788. L s.l.p. Ex. bot. 1. t. 34     |
| 10950 <i>armillaris Br.</i>                 | pale-flowered        | ♂                 | or 2  | jn.jl G. N. S. W. 1788. L s.l.p. Bot. rep. 175       |
| 10951 <i>uncinata Br.</i>                   | hook-leaved          | ♂                 | or 3  | jn.s Pu N. Holl. 1803. C s.l.p.                      |
| 10952 <i>scabra Br.</i>                     | rough-leaved         | ♂                 | or 3  | l.s Pu N. Holl. 1803. C s.l.p.                       |
| 10953 <i>pulchella Br.</i>                  | neat                 | ♂                 | or 2  | jn.s Pu N. Holl. 1803. C s.l.p. Bot. cab. 200        |
| 10954 <i>thymifolia Br.</i>                 | Thyme-leaved         | ♂                 | or 2  | jn.s Pu N. S. W. 1792. C s.l.p. Bot. mag. 1868       |
| 10955 <i>decussata Br.</i>                  | decussate            | ♂                 | or 4  | jl.s Pu N. Holl. 1803. C s.l.p. Bot. mag. 2268       |
| 10956 <i>fulgens Br.</i>                    | splendid             | ♂                 | or 6  | jl.s S N. Holl. 1803. C s.l.p. Bot. reg. 103         |
| 10957 <i>linariifolia Br.</i>               | Toad-Flax-ldv.       | ♂                 | or 3  | jn.au Pu N. S. W. 1793. C s.l.p. Exot. bot. 1. t. 56 |
| 10958 <i>hypericifolia Br.</i>              | Hypericum-lv.        | ♂                 | or 3  | jn.au S N. S. W. 1792. C s.l.p. Bot. rep. 200        |
| 10959 <i>squarrosa Br.</i>                  | Myrtle-leaved        | ♂                 | or 2  | ... W N. S. W. 1794. C s.l.p. Bot. mag. 1935         |
| 10960 <i>calycina Br.</i>                   | permanent-cup        | ♂                 | or 3  | jn.au Pu N. Holl. 1803. C s.l.p.                     |
| 10961 <i>densa Br.</i>                      | whorl-leaved         | ♂                 | or 2  | ... Pu N. Holl. 1803. C s.l.p.                       |
| 10962 <i>incana Br.</i>                     | hoary                | ♂                 | or 3  | jn.au Y N. Holl. 1817. C s.l.p. Bot. reg. 410        |
| 1611. TRISTANIA. <i>Br. TRISTANIA.</i>      | <i>Myrtaceae.</i>    | <i>Sp. 3.</i>     |       |  |
| 10963 <i>nercifolia Br.</i>                 | Oleander-leav.       | ♂                 | or 6  | jn.s Y N. S. W. 1804. C s.p. Bot. mag. 1058          |
| 10964 <i>laurina Br.</i>                    | Laurel-leaved        | ♂                 | or 6  | ... Y N. S. W. 1798. C s.p.                          |
| 10965 <i>conferta Br.</i>                   | Pittosporum-lv.      | ♂                 | or 6  | jl.s Y N. S. W. 1805. C s.p.                         |
| 1612. CALOTHAMNUS. <i>Lab. CALOTHAMNUS.</i> | <i>Myrtaceae.</i>    | <i>Sp. 3.</i>     |       |  |
| 10966 <i>quadrifida Br.</i>                 | four-cleft           | ♂                 | or 3  | jl.s S N. Holl. 1803. C s.p. Bot. mag. 1506          |
| 10967 <i>villosa Br.</i>                    | hairy                | ♂                 | or 3  | jl.s S N. Holl. 1803. C s.p.                         |
| 10968 <i>gracilis Br.</i>                   | slender-leaved       | ♂                 | or 3  | jl.s S N. Holl. 1803. C s.p.                         |
| †1613. BEAUFORTIA. <i>Br. BEAUFORTIA.</i>   | <i>Myrtaceae.</i>    | <i>Sp. 2.</i>     |       |  |
| 10969 <i>decussata Br.</i>                  | splendid             | ♂                 | or 3  | my.jl S N. Holl. 1803. C s.p. Bot. reg. 18           |
| 10970 <i>sparsa Br.</i>                     | alternate-leav.      | ♂                 | or 3  | ... R N. Holl. 1803. C s.p.                          |
| 1614. SYM/PLOCOS. <i>L. SYM/PLOCOS.</i>     | <i>Symplocaceae.</i> | <i>Sp. 2—6.</i>   |       |  |
| 10971 <i>tinctoria W.</i>                   | Laurel-leaved        | ♂                 | or    | ... Y Carolina 1780. L p.1 Cat. car. 1. t. 54        |
| 10972 <i>sinica Ker.</i>                    | Chinese              | ♂                 | or 3  | my W China 1822. C p.1 Bot. reg. 710                 |
| 1615. CITRUS. <i>W. ORANGE-TREE.</i>        | <i>Aurantiaceae.</i> | <i>Sp. 8—15.</i>  |       |  |
| 10973 <i>Limónum Risso</i>                  | Lemon                | ♂                 | or 15 | my.jl W Asia 1648. B r.m. Ga.fr. 2. t. 121. f. 2     |
| 10974 <i>Limétta Risso</i>                  | Lime                 | ♂                 | or 8  | my.jl W Asia 1648. B r.m. Blackw. t. 362             |
| 10975 <i>Aurantium Risso</i>                | sweet                | ♂                 | or 15 | my.jl W Asia 1595. B r.m. Lam.ill. t. 639. f. 2      |
| 10976 <i>vulgáris Risso</i>                 | Seville              | ♂                 | or 15 | my.jl W Asia ... B r.m.                              |
| <i>§ myrtifolia Hort.</i>                   | myrtle-leaved        | ♂                 | or 3  | my.jl W Asia ... B r.m. Bot. reg. 346                |



History, Use, Propagation, Culture.

1610. *Melaleuca*. From *μela*, black, and *λευκος*, white: because the original tree has black wood and white branches. A beautiful Australasian genus, which grows and flowers freely in equal parts of sandy loam and peat, with common greenhouse treatment. "Some cultivators," Sweet observes, "grow them entirely in peat, in which they will grow very well for a time; but they will not be strong and healthy, nor flower so well as in a mixture. Ripened cuttings, not too old, will root freely in sand under a bell-glass." (*Bot. Cult.* 223.)

The bark of *Melaleuca Leucadendron* is used by the Chinese as oakum, for making good the spaces between the timbers of their vessels. They also use it in the roofing their houses. From the same tree is obtained the Cajeputi oil, remarkable for its green color, its peppermint flavor, and turpentine smell. It is rarely to be procured in Europe in an unadulterated state. When pure it is one of the best preservatives of preparations of natural history, and is used externally with much success as a cure for rheumatic affections and pains in the joints.

1611. *Tristania*. From *τρίς*, three, and *στάναι*, to stand; in allusion to the ternate disposition of the flowers and leaves. The species may be treated like *Melaleuca*, and are pretty little evergreen shrubs.

1612. *Calothamnus*. From *καλος*, beautiful, and *θάμνος*, a rod, in allusion to the splendid appearance of the branches covered with scarlet blossoms. The species are beautiful plants, and not difficult of culture or propagation in sand, and the air kept still and moderately moist by covering with a hand-glass.

## POLYANDRIA.

- 10938 Leaves alternate lanc. acuminate oblique 5-nerved, Branches and petioles smooth  
 10939 Leaves alternate ellipt. lanc. coriaceous 5-nerved, Branches and petioles downy  
 10939 Leaves linear-lanc. long equal-sided straight 3-nerved : lateral nerves close to the scabrous edge  
 10941 Leaves obl. 5-nerved equal-sided narrower at base, Heads spherical, Capsules connate  
 10942 Leaves oval or oblong obsolete 1-nerved stalked flat close and branches quite smooth, Spikes obl. smooth  
 10943 Leaves ov. acuminate with a pungent point striated with many nerves sess. smooth, Spikes downy  
 10944 Leaves lin. lanc. obsolete 1-3-nerved, Spikes lax leafy smooth, Parcels of anthers polyandrous  
 10945 Leaves lanc. lin. acute dotted obsolete striated rigid subsess. Tube of calyx woolly [3-nerved  
 10946 Lvs. lanc. occasionally obl. 3-nerved stalked and branches smooth, Heads glob. or oval, Segm. of cal. acute  
 10947 Leaves ov. lanc. acuminate 3-nerved : young lvs. and branches villous, Heads globose downy  
 10948 Leaves subulate lin. mucro. rigid 1-nerved flat, Heads globose, Segm. of cal. membranous smooth  
 10949 Leaves lin.-subul. nerveless pointless spreading and subrecurved, Spikes oval smooth  
 10950 Leaves lin.-subul. mucro recurved at end, Spikes cylindr. very smooth  
 10951 Leaves angular filiform mucro. erect ; hooked back at end, Branches virgate, Heads oval  
 10952 Leaves roundish mucro. rough clustered, Heads round, Parcels of stamens 4-6-androus  
 10953 Leaves scattered and somewhat opp. oval blunt obsolete 3-nerved, Flowers subsolitary smooth  
 10954 Leaves opp. lanc. nerveless, Spikes few-fl. Parcels of stamens polyandrous  
 10955 Leaves opp. decussate oval-lanc. 3-nerved, Spikes oval quite smooth, Parcels of stamens polyandrous  
 10956 Leaves opp. lanc. lin. acute 1-nerved, Spikes oval quite smooth, Parcels of stamens multifid  
 10957 Leaves opp. lanc. lin. acute 3-nerved, Spikes obl. smooth, Parcels of stamens longitudinally pinnated  
 10958 Leaves opp. ellipt. obl. 3-nerved : lateral nerves obsol. and close to the recurved edge, Spikes quite smooth  
 10959 Leaves opp. ovate acute 5-7-nerved stalked, Spikes obl. and oval, Bractes leafy  
 10960 Leaves opp. ovate-lanc. 3-5-nerved subsess. Clusters few-fl. Segm. of cal. acute nerveless  
 10961 Leaves ternate obovate 3-nerved smooth, Spikes oblong or oval  
 10962 Leaves tern. lin. lanc. hoary on both sides, as are the branches, Spikes oval or oblong

- 10963 Leaves opp. lanc. Parcels of stamens 3-5-androus  
 10964 Leaves altern. cun. lanc. Branches and calyxes downy, Caps. half superior  
 10965 Leaves lanc. ellipt. acute alternate : terminal clustered, Segm. of calyx acute leafy

- 10966 Flowers 4-fid, Parcels of stamens distinct equal 12-15-androus, Old leaves and fruit smooth  
 10967 Flowers 5-fid, Parcels of stamens distinct equal polyandrous, Old leaves and fruit villous  
 10968 Flowers 5-fid, Parcels of stamens distinct equal 3-androus, Leaves very long and fruit smooth

- 10969 Leaves opp. decussate ovate or oval many-nerved  
 10970 Leaves scattered oval many-nerved

- 10971 Flowers clustered sessile, Leaves glaucous  
 10972 Leaves ellipt. lanc. downy on each side corrugate veiny, Sepals acuminate

- 10973 Peti. somew. winged, Lvs. obl. acute toothed, Fl. 35-androus, Fruit obl. with a thin rind and very acid pulp  
 10974 Petioles naked, Lvs. ov. rounded serrated, Fl. 30-androus, Fruit globose with a nipple and sweet pulp  
 10975 Petioles nearly naked, Lvs. ov. obl. and acute, Fl. 20-androus, Fruit globose with a thin skin and sweet pulp  
 10976 Peti. winged, Lvs. ellipt. acute crenulat. Fl. 20-androus, Fruit glob. with a thin rough skin and bitter pulp



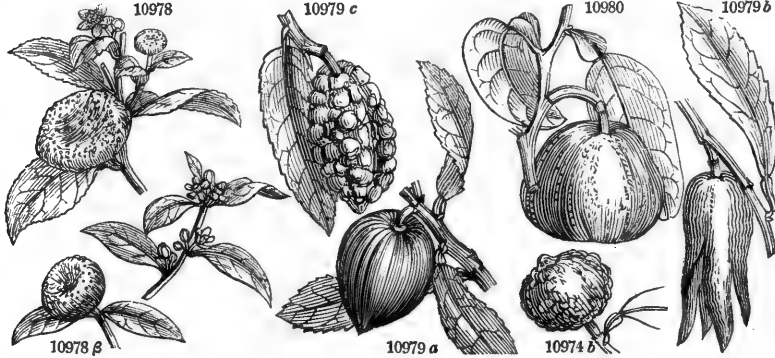
## and Miscellaneous Particulars.

1613. *Beaufortia*. So called in honor of Mary, Duchess of Beaufort, who died January 7, 1714, in the 85th year of her age. She had a fine collection of plants at Badmington, in Gloucestershire, during the life-time of her husband, Henry, first duke of Beaufort. Splendid plants, free-growers, and abundant flowerers, with common greenhouse treatment, in two-thirds peat, and one-third loam. Cuttings, Sweet found to answer best when "taken from nearly ripened wood, planted in sand, and covered with a bell-glass."

1614. *Symplocos*. From *συμπλοκη*, connection ; union. The petals are naturally five, but united at the base so as to seem but one. A tree with oblong fragrant shining leaves, and sweet-smelling flowers, succeeded by subsessile drupes. A decoction of the leaves is used in North America for dying linen and silk of a bright yellow color.

1615. *Citrus*. The meaning of this word has escaped the ingenuity of etymologists. An ancient genus, combining in its species many excellencies, handsome evergreen shining tree-like forms, most odoriferous flowers, and brilliant, fragrant, delicious fruits. It is one of the most striking of fruit-bearing trees, and must have attracted the notice of aboriginal man long before other fruits of less brilliancy, but of more nutriment or flavor. The golden apples of the heathens, and forbidden fruit of the Jews, are supposed to allude to this family, though it is remarkable that we have no authentic records of any species of *Citrus* having been known ; certainly none were cultivated by the Romans. The citron was introduced into Europe from Media, under the name of *malus medica*, and was first cultivated in Italy by Palladius, in the second century. The orange

|                       |            |   |    |    |       |   |       |       |                         |
|-----------------------|------------|---|----|----|-------|---|-------|-------|-------------------------|
| 10977 buxifolia P. S. | Box-leaved | ■ | fr | 3  | my.jl | W | China | ...   | B r.m                   |
| 10978 nobilis H. K.   | Mandarin   | ■ | fr | 15 | my.jl | W | China | 1905. | B r.m Bot. rep. 603     |
| β minor               | smaller    | ■ | fr | 15 | my.jl | W | China | 1805. | B r.m Bot. reg. 211     |
| 10979 medica Risso    | Citron     | ■ | fr | 8  | my.jl | W | Asia  | ...   | B r.m Ferr. hesp. t. 39 |
| 10980 Decumana W.     | Shaddock   | ■ | fr | 15 | my.jl | W | India | 1724. | B r.m Ru.am.2.t.24.f.2  |



History, Use, Propagation, Culture,

is supposed to have been introduced into Italy in the fourteenth century, above a thousand years after the citron. In England, these trees have been cultivated since 1629. Parkinson, writing at that time, says, "the orange hath abiden with some extraordinary looking and tending, when neither citron nor lemon trees could be preserved any length of time." The orange trees he alludes to were those of Beddington, in Surrey, introduced from Italy by a knight of the noble family of the Carews (*Gib. on's* edit. of *Camb. Brit.*), and the first that were brought into England; they were planted in the open ground and placed under a moveable cover during the winter months. It has been said that these trees were raised by Sir Francis Carew, from seeds brought to England by Sir Walter Raleigh: but as such trees would not have readily borne fruit, Professor Martyn thinks it much more likely that they were plants brought from Italy. Bradley says, they always bore fruit in great plenty and perfection; that they grew on the outside of a wall, not nailed against it, but at full liberty to spread; they were fourteen feet high, the girth of the stem twenty-nine inches, and the spreading of the branches one way nine feet, and twelve feet another. These trees, Evelyn informs us, were neglected in his time, during the minority of their owner, and finally entirely killed by the great frost in 1739-40; they were planted before 1595.

During the latter end of the seventeenth and beginning of the eighteenth centuries, the orange tree was a very fashionable article of growth in conservatories, when there were but few exotics of other sorts kept there. The plants were procured from Genoa, with stems generally from four to six feet in height; they were planted in large boxes, and were set out during summer to decorate the walks near the house, in the manner still practised at Versailles and the Thuilleries. About the middle of the eighteenth century, when a taste for botany and forcing exotic fruits became general, that for superb orange trees began to decline; many of these large trees have decayed through neglect; and those which are now to be found in the greater number of greenhouses, are generally dwarf plants bearing few fruit, and those of small size. In some places, however, are still to be found large and flourishing trees. Those at Smorgony, in Glamorganshire, are the largest in Britain; they are planted in the floor of an immense conservatory, and bear abundantly. It is said that the plants were procured from a wreck on the coast in that quarter, in the time of Henry VII.

At Nuneham, near Oxford, are some fine old trees, planted under a moveable case, sheltered by a north wall. In summer the case is removed, and the ground turfed over, so that the whole resembles a native orange grove. At Wormleybury, Hertfordshire, and Shipley Hall, in Derbyshire, are very fine large orange and lemon trees grown in borders and in boxes. (*Hort. Trans.* vol. ii. 295, and iv. 306.)

At the Wilderness, Kent, are three trees in boxes, not surpassed by any trees so grown in Europe.

At Woodhall, near Hamilton, trees of all the species of Citrus are trained against the back walls of forcing houses, in the manner of peaches, and produce large crops of fruit.

In the south of Devonshire, and particularly at Saltcombe, one of the warmest spots in England, may be seen, in a few gardens, orange trees that have withstood the winter in the open air upwards of a hundred years. The fruit is as large and fine as any from Portugal. Trees raised from seed, and inoculated on the spot, are found to bear the cold better than trees imported.

The common character of the Citrus family is that of low evergreen trees, with ovate or oval-lanceolate, entire or serrated leaves. On the ungrafted trees are often axillary spines. The flowers appear in peduncles, axillary or terminating, and one or many-flowered. The fruits are large berries, round or oblong, and generally of a yellow color. The species seem best distinguished by the petiole, which in the orange and shaddock is winged; in the citron, lemon, and lime, naked. The form of the fruit, although not quite constant, may also serve for a distinction. In the orange and shaddock it is spherical, or rather an oblate spheroid, with a red or orange-colored rind; in the lime, spherical, with a pale rind; in the lemon, oblong, rough, with a nipple-like protuberance at the end; in the citron, oblong, with a very thick rind. The flowers of the citron and lemon have ten stamens, and those of the orange more. It is very difficult to determine what is a variety, and what is a species in this genus; many of the sorts in cultivation are by buds.

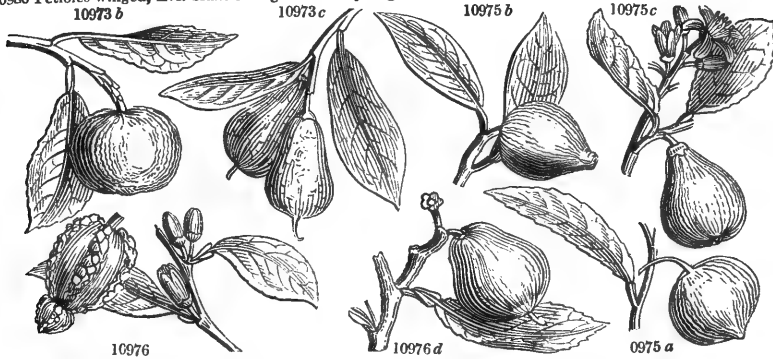
Dr. Sickler, who spent several years in Italy, and paid great attention to the kinds and culture of the orange, published in 1815, *Der Vollkommen Orangerie-Gartner* (The complete Orange Gardener), in which he describes above seventy sorts of Citrus.

Gallezio (*Traité du Genre Citrus*, &c. Savonna, 1818.) has given a synopsis of the forty principal sorts cultivated in Italy.

The most splendid work on oranges which has yet appeared is the *Histoire Naturelle des Orangers*, by Risso, of Nice, and Poiteau, of Versailles. (Paris, fol. 1818.) Here 169 sorts are described, and 105 of them figured, and their French and Italian culture given at great length. They are arranged as sweet oranges, of which they describe 42 sorts; bitter and sour oranges, 32 sorts; bergamots, 5 sorts; limes, 8 sorts; shaddocks, 6 sorts; lumes, 12 sorts; lemons, 46 sorts; citrons, 17 sorts.

All the species of Citrus endure the open air at Nice, Genoa, and Naples; but at Florence and Milan, and often at Rome, they require protection during the winter, and are generally placed in conservatories and sheds. The largest conservatory in Italy is that of Prince Antonio Borghese, at Rome, which contains seventy select sorts of *agrumi*. The largest trees are at Sorenta, Terracina, Gaeta, and Naples; but the most regular and garden-like culture of the orange, is in the orange-orchards at Nervi, Monaco, and other places in the neighbourhood of Genoa. At Nervi are also the orange nurseries which may be said to supply all Europe with trees; they are, in general, wretchedly cultivated, and the stocks inoculated in the most unscientific manner; but the fine climate, strong clayey soil, and abundant manurings, supply in a great degree the nicer practices

- 10977 Petioles lin. very short, Lvs. ovate retuse, Flowers racemose  
 10978 Petioles sublinear straight, Branches ascending unarmed, Fruit depressed, Skin separated from flesh  
 10979 Petioles naked, Lvs. obl. acute, Fl. 40-androus, Fruit obl. rugose with acid pulp  
 10980 Petioles winged, Lvs. blunt emarg. Fruit very large with a thick skin



and Miscellaneous Particulars.

of gardening. There the names of varieties vary as much as those of gooseberries do in England; but from upwards of 180 names, not above 40 distinct sorts can be procured. Good plants of the Maltese and other varieties of orange may be procured from Malta; and some sorts also from Lisbon. From the nurseries at Paris about thirty sorts may be obtained, much smaller plants than those from the other places named, but more scientifically grafted or inoculated. The catalogues of London nurserymen enumerate about thirty varieties of oranges, twelve of lemons, and several varieties of the other species; the plants are partly Genoese, partly French, and partly propagated here.

The *C. aurantium*, the common orange; *orange*, Fr., *pomcranzse*, Ger., and *arancio*, Ital., is a middle-sized evergreen tree, with a greenish-brown bark; and, in its wild state, with prickly branches. The fruit is nearly round, from two to three inches in diameter, and of a gold color. It is now cultivated in most countries of Europe; in the open air in Italy and Spain; and in conservatories or greenhouses in Britain and the north of Europe.

The two principal varieties are the sweet or China orange, the *orange douce* of the French, and *porto-gallo* or *poma de sino* of the Italians; and the bitter or Seville, the *bigarade* of the French, and *arancio volgare* of the Italians. The Maltese orange, distinguished by its red pulp, is also a noted and much-esteemed sort. The box-leaved, willow-leaved, and some others, are cultivated more as curious varieties than for their fruit.  
*C. Medica*, the citron, *citron*, Fr., *citronier*, Ger., and *cedrate*, Ital., in its wild state grows to the height of about eight feet, erect and prickly, with long, reclining branches. The leaves are ovate, oblong, alternate, serrate, smooth, pale green. The fruit or berry is half a foot in length, ovate, with a protuberance at the lip. There are two rinds, the outer thin, with innumerable miliary glands, full of a most fragrant oil; the inner thick, white, and fungous.

In China they have a variety of the *C. Medica*, of very considerable size, quite solid, with scarcely any pulp or cells, and divided at the end into five or more long round lobes, on which account it is called *Phat thu*, or finger-orange. The fruit is laid upon fine porcelain vessels in the sitting-rooms of the Chinese, for the sake of its agreeable perfume.

Dr. Sackler enumerates only about a dozen citrons and citronates as grown in Italy. The French nurseries have nearly twenty names in their lists. In England six are cultivated for sale.  
*C. Limonum*, the lemon; *limon*, Fr., *limonier*, Ger., and *limone*, Ital., has the fruit less knobbed at the extremities, is rather longer and more irregular, and the skin is thinner than in the citron; the wood is more knotty, and the bark rougher.

Dr. Sackler enumerates twenty-eight varieties as grown in Italy. The French, according to Ville Hervé have eleven sorts; in the London nurseries are cultivated twelve.

*C. Limetta*, the lime, by some esteemed a variety of the *C. Medica*, *lime*, Fr., Ital., and Ger., grows to the height of about eight feet, with a crooked trunk, and many diffused branches, with prickles. The leaves are ovate lanceolate, almost quite entire. Berry an inch and a half in diameter, almost globular, with a protuberance at the top; the surface regular, shining, greenish-yellow, with a very odorless rind, enclosing a very acid juice.

The French have two sorts of lime; and, according to Dr. Sackler, the Italians have four varieties; five kinds are grown in the London nurseries.

*C. decumana*, the shaddock, *orange pampelmouse*, Fr., *arancio massimo*, Ital., is above the middle size, with spreading prickly branches. The leaves are ovate, subacute, seldom obtuse; the petioles are cordate, winged; the wings as broad as the leaves. The berry spheroidal, frequently retuse at each end, of an even surface, and greenish-yellow color; pulp red or white; juice sweet or acid; rind white, thick, fungous, and bitter. Thunberg says, the fruit in Japan grows to the size of a child's head, and Dr. Sackler states its weight as fourteen pounds, and its diameter as from seven to eight inches. It is a native of China and Japan, and was brought to the West Indies by Captain Shaddock, from whom it has derived its name.

The Italians, according to Dr. Sackler, have one, and the French, according to the *Nouveau Cours*, &c., four sorts. Four are grown in the English nurseries.

All the sorts may be propagated by seeds, cuttings, layers, and grafting, or inoculation.

The object of raising plants from seed is either to obtain new varieties or stocks for grafting. To attempt raising new varieties in Britain will in general be found a tedious process, as the trees do not even in Italy show fruit for six or eight years or more; and there is now in the botanic garden at Toulon, a large handsome tree, of twenty-five years' growth, which in 1819 had not blossomed. Shaddock stocks are the strongest, and next to these the citron. Budding and grafting are performed at the usual season; but these operations may be performed at any time when the sap is in motion.

Henderson, of Woodhall, a most superior cultivator of the *Citrus* tribe, considers cuttings as the quickest mode of getting plants, and has practised it for thirty-seven years past; his directions are as follows: "Take the strongest young shoots, and also a quantity of the two years old shoots; these may be cut into lengths from nine inches to eighteen inches. Take the leaves off the lower part of each cutting to the extent of about five inches, allowing the leaves above that to remain untouched: then cut right across, under an eye; and make a small incision in an angular direction on the bottom of the cutting. When the cuttings are thus prepared, take a pot, and fill it with sand; size the cuttings, so that the short ones may be all together, and those that are taller in a different pot. Then, with a small dibble, plant them about five inches deep in the sand, and give them a good watering overhead, to settle the sand about them. Let them stand a day or two

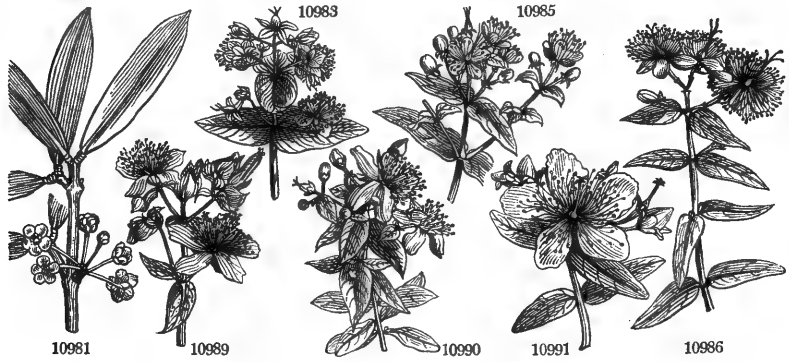


|        |                                |                |   |    |                    |                 |     |           |                     |                    |                     |
|--------|--------------------------------|----------------|---|----|--------------------|-----------------|-----|-----------|---------------------|--------------------|---------------------|
| 1616   | XANTHOCHY'MUS. Ros.            | XANTHOCHY'MUS. |   |    | <i>Guttiferae.</i> | <i>Sp. 2-4.</i> |     |           |                     |                    |                     |
| 10981  | pictorius H. K.                | painter's      | ♂ | l  | fr                 | 90              | ... | Y         | E. Indies 1796.     | S r.m              | Roxb.cor.2.t.196    |
| 10982  | ovalifolius Rosb.              | oval-leaved    | ♂ | l  | fr                 | 12              | ... | Y         | E. Indies 1824.     | S r.m              |                     |
| *1617. | HYPERICUM. W. St. John's Wort. |                |   |    |                    |                 |     |           | <i>Hypericinea.</i> | <i>Sp. 63-133.</i> |                     |
| 10983  | elatum H. K.                   | tall           | ♂ | or | 5                  | jl.au           | Y   | N. Amer.  | 1762.               | L s.l              | Dend. brit. 85      |
| 10984  | frondosum Mich.                | green          | ♂ | or | 5                  | jl.au           | Y   | N. Amer.  | 1806.               | C s.l              |                     |
| 10985  | ame'num Psh.                   | elegant        | ♂ | or | 4                  | jl.au           | Y   | Carolina  | 1812.               | L s.l              | Dil.el.t.151.f.182  |
| 10986  | hircinum L.                    | stinking       | ♂ | or | 3                  | jl.s            | Y   | S. Europe | 1640.               | L s.l              | Dend. brit. 86      |
| 10987  | foliosum H. K.                 | shining        | ♂ | or | 3                  | au              | Y   | Azores    | 1778.               | C p.l              |                     |
| 10988  | floribundum H. K.              | many-flowered  | ♂ | or | 3                  | au              | Y   | Madeira   | 1779.               | C p.l              | Com.hort.2.t.68     |
| 10989  | olympicum L.                   | Olympian       | ♂ | or | 4                  | jl.s            | Y   | Levant    | 1706.               | S s.l              | Bot. mag. 1867      |
| 10990  | canariense L.                  | Canary         | ♂ | or | 2                  | jl.s            | Y   | Canaries  | 1699.               | C p.l              | Bot. cab. 953       |
| 10991  | monogynum L.                   | Chinese        | ♂ | or | 3                  | mr.s            | Y   | China     | 1753.               | C p.l              | Bot. mag. 334       |
| 10992  | cordifolium Chois.             | heart-leaved   | ♂ | or | 2                  | ...             | Y   | Nepal     | 1825.               | C co               |                     |
| 10993  | pyramidatum H. K.              | pyramidal      | ♂ | or | 1                  | jl.au           | Y   | Canada    | 1759.               | D p.l              | Vent. malm. 118     |
| 10994  | Ascfron L.                     | Siberian       | ♂ | or | 1                  | jn.s            | Y   | Siberia   | 1774.               | Sk co              | Gmel. sib. 4. t. 69 |
| 10995  | ascyroides W.                  | large-capsuled | ♂ | or | 1                  | jn.jl           | Y   | N. Amer.  | 1812.               | Sk co              |                     |
| 10996  | pátulum Thunb.                 | spreading      | ♂ | or | 1                  | jn.jl           | Y   | Nepal     | 1823.               | C co               | Bot. mag. 2375      |
|        | H. árahum E. M.                |                |   |    |                    |                 |     |           |                     |                    |                     |
| 10997  | Kalmianum Lam.                 | Kalmia-leaved  | ♂ | or | 2                  | jn.jl           | Y   | N. Amer.  | 1759.               | C s.l              |                     |
| 10998  | calycinum L.                   | large-flowered | ♂ | or | 1                  | jn.s            | Y   | Ireland   | ...                 | Sk co              | Eng. bot. 2017      |
| 10999  | baleáricum L.                  | warted         | ♂ | or | 1                  | mr.s            | Y   | Majorca   | 1714.               | C r.m              | Bot. mag. 137       |
| 11000  | Androsæ'mum L.                 | Tutsan         | ♂ | or | 2                  | jl.s            | Y   | Britain   | woods.              | Sk co              | Eng. bot. 1925      |

11001 cochinchinense Lour. red-flowered ♂ l pr 3 jl.au R China 1821. C co

11002 paludosum Chois. marsh ♂ Δ pr 2 jl.au Y N. Amer. 1821. D co  
 11003 virginicum L. Virginian ♂ Δ or 1 1/2 jl.s Y N. Amer. 1800. D p.l  
*Elodea campanulata* Ph.

|       |                      |                 |   |    |   |           |   |          |         |       |                   |
|-------|----------------------|-----------------|---|----|---|-----------|---|----------|---------|-------|-------------------|
| 11004 | angulosum Mich.      | toothed-flower. | ♂ | or | 2 | jn.jl     | Y | N. Amer. | 1812.   | D p.l | Plu.alm.t.245.f.6 |
| 11005 | punctatum Lam.       | dotted          | ♂ | or | 1 | 1/2 jn.jl | Y | N. Amer. | 1823.   | D co  |                   |
| 11006 | dolabriforme Vent.   | hatchet-leaved  | ♂ | or | 2 | jn.jl     | Y | N. Amer. | 1821.   | D co  | Vent. cels. t. 45 |
| 11007 | procumbens Mich.     | procumbent      | ♂ | or | 2 | aus.      | Y | N. Amer. | 1822.   | D co  |                   |
| 11008 | rosmarinifolium Lam. | Rosemary-iv.    | ♂ | or | 2 | jn.au     | Y | Carolina | 1812.   | L s.l |                   |
| 11009 | virgatum Lam.        | twiggly         | ♂ | or | 1 | 1/2 jn.au | Y | N. Amer. | 1820.   | D co  |                   |
| 11010 | myrtifolium Lam.     | myrtle-leaved   | ♂ | or | 1 | jl.au     | Y | N. Amer. | 1818.   | D co  |                   |
| 11011 | prolificum L.        | prolific        | ♂ | or | 4 | jn.au     | Y | N. Amer. | 1758.   | S s.l | Dend. brit. 88    |
| 11012 | glaucum Mich.        | glaucous        | ♂ | or | 1 | 1/2 jl.au | Y | N. Amer. | 1812.   | C p.l |                   |
| 11013 | laevigatum H. K.     | smooth          | ♂ | or | 1 | 1/2 jl.s  | Y | N. Amer. | 1772.   | D p.l |                   |
| 11014 | nudiflorum Mich.     | naked-panicled  | ♂ | or | 1 | 1/2 so    | Y | N. Amer. | 1811.   | C p.l |                   |
| 11015 | quadrangulum L.      | square-stalked  | ♂ | or | 1 | 1/2 jl.au | Y | Britain  | m. me.  | C p.l | Eng. bot. 370     |
|       | β ádium W.           | imperforate     | ♂ | or | 3 | jl.au     | Y | Britain  | m. thi. | C p.l | Eng. bot. 296     |
|       | γ maculatum All.     | spotted         | ♂ | or | 2 | jl.au     | Y | N. Amer. | 1789.   | C p.l |                   |
|       | δ undulatum W. en.   | wave-leaved     | ♂ | or | 1 | 1/2 jl.au | Y | Barbary  | 1802.   | D p.l |                   |
| 11016 | attenuatum Chois.    | narrow-leaved   | ♂ | or | 1 | 1/2 jl.au | Y | Dahuria  | 1822.   | D p.l |                   |
| 11017 | japonicum Thunb.     | Japanese        | ♂ | or | 1 | 1/2 jl.au | Y | Nepal    | 1823.   | D p.l |                   |



History, Use, Propagation, Culture,

in a shady place, and if a frame be ready with bottom heat, plunge the pots to the brim. Shade them well with a double mat, which may remain till they have struck root; when rooted, take the sand and cuttings out of the pot, and plant them into single pots, in the proper compost. Plunge the pots with the young plants again into a frame, and shade them for four or five weeks, or till they are taken with the pots; when they may be gradually exposed to the light. From various experiments, I found that pieces of two year old wood struck quite well; and in place, therefore, of putting in cuttings six or eight inches long, I have taken off cuttings from ten inches to two feet long, and struck them with equal success. Although I at first began to put in cuttings only in the month of August, I now put them in at any time of the year, except when the plants are making young wood. By giving them a gentle bottom heat, and covering them with a hand-glass, they will generally strike root in seven weeks or two months. The citron is most easily struck, and is the freest grower; therefore, frequently strike pieces eighteen inches long, and as soon as they are put into single pots, and taken, with the pots, they are grafted with other sorts, which grow freely. I am not particular as to the time either of striking cuttings or of grafting." (*Caled. Hort. Mem.* iii. 308.)

At Genoa and Florence, citrus trees are grown in a strong yellow clay, which is richly manured; and this soil is considered by the first Italian gardeners as best suited to their natures.

The French gardeners, in preparing a compost for the orange-tree, endeavour to compensate for quantity by quality; because the pots or boxes in which the plants are placed ought always to be as small as possible, relatively to the size of the tree. The following is the composition recommended: to a fresh loam, which contains a third of clay, a third of sand, and a third of vegetable matter, and which has lain a long time in a heap, add an equal bulk of half-rotten cow-dung. The following year turn it over twice. The succeeding year mix it

10981 Leaves oblong

10982 Leaves smaller oval blunt

§ 1. *Sepals united at base and unequal. Stamens 00. Styles 3-5. ASCYREIA.*

10983 Young stem winged, Lvs. ov. obl. acute dilated at base somew. emarg. revolute at edge, Fl. corymbose

10984 Branches double-edged, Lvs. ov. elongated blunt at end narrow at base, Fl. large subsolitary

10985 Branches double-edged, Lvs. obl. ellipt. bluntnish at end narrowed at base with a crisp revolute edge

10986 Branches winged, Lvs. emarg. at base dilated sess. acute at end ovate lanc. glandular at edge

10987 Branches winged, Lvs. sess. open ovate obl. somewhat acute slightly perforated

10988 Stem round, Lvs. sess. lanc. not dotted numerous, Peduncles dilated at end

10989 Stem round, Lvs. ellipt. ovate bluntnish with pellucid dots, Calyx ovate acute

10990 Stem obsolete quadrangular, Branches compressed, Lvs. ov.-lanc. acute, Cal. blunt ovate

10991 Stem round, Lvs. ellipt. blunt a little dotted with black, Styles united

10992 Stem round shrubby, Lvs. ov. amplexicaul. cordate not dotted clustered, Flowers few

10993 Stem winged, Lvs. amplexicaul. obl. lanc. acute revolute at edge, Pedunc. short thick

10994 Stem square herbaceous simple erect, Leaves amplexicaul. lanc. acute with pellucid dots

10995 Stem winged at base square at end herbaceous simple, Lvs. obl. lanc. acute

10996 Stem round suffruticose purple, Lvs. ovate lanc. acute narrowed at base revolute at edge with pellucid dots

10997 Branches square, Lvs. lin. lanc. Flowers in terminal corymbs

10998 Styles 5, Fl. solitary, Segm. of the cal. unequal obovate obtuse, Lvs. obl. Stem shrubby branched square

10999 Stem square warted, Lvs. ovate blunt amplexicaul. warted

11000 Styles 3, Caps. pulpy, Stem shrubby compressed, Cal. leaflets unequal, Leaves ovate sessile

§ 2. *Sepals 5, equal, entire. Stamens deeply triadelphous; parcels pencilled at end. Styles 3. TRIDESMOS.*

11001 Flowers trigynous, Leaves subpetiolate very dense, Pedunc. about 5-fl. axillary

§ 3. *Sepals 5, equal, entire. Styles 3. Filaments definite in number, 9-15-18, deeply united. ELODEA.*

11002 Stem herbaceous round, Leaves oblong blunt narrowed into a stalk with pellucid dots

11003 Stem round half-shrubby, Leaves oblong blunt amplexicaul. with pellucid dots

§ 4. *Sepals 5, equal, sometimes entire, or with glandular teeth, Stamens 00. Styles usually 3. PERFORARIA.*

\* *Sepals entire.*

11004 Stem herbaceous square erect, Leaves distant long ovate amplexicaul. sinuated at edge acute not dotted

11005 Stem round black dotted, Leaves ovate-lanc. somewhat acute amplexicaul. dotted with black

11006 Stem erect purple, Leaves lin. lanc. reflexed with pellucid dots, Flowers corymbose

11007 Stem procumbent square herbaceous, Leaves linear-lanceolate blunt revolute at edge with pellucid dots

11008 Stem round straight, Leaves amplexicaul. blunt ovate revolute at edge, Styles united

11009 Stem straight square, Leaves ovate-lanceol. slightly amplexicaul. dotted with black revolute at edge

11010 Stem round, Leaves ovate cordate amplexicaul. or cuneate lanc. revolute at edge

11011 Stem round, Branches angular, Lvs. linear lanc. revolute at edge with pellucid dots, Styles often united

11012 Stem round, Leaves cordate amplexicaul. blunt revolute at edge glaucous with pellucid dots

11013 Flowers trigynous, Styles united, Lvs. ovate subamplex. Sepals ov. acute, Middle flower of panicle sessile

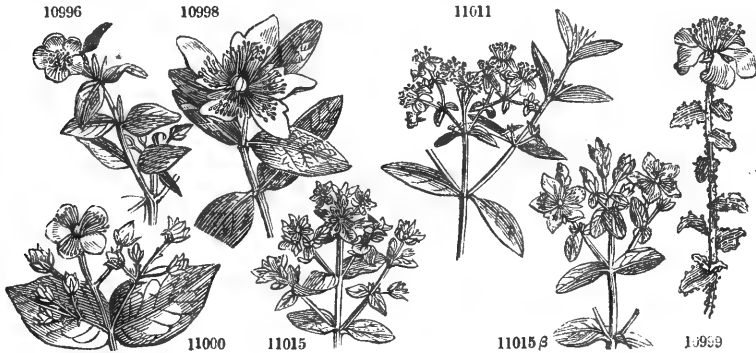
11014 Stem square and winged, Leaves ovate obl. blunt needle-dotted not pellucid, Panicle naked

11015 Styles 3, Stem herbaceous 4-angular somewhat branched, Leaves ovate with pellucid dots, Cal. lvs. lanc.

β Stem obsolete quadrangular, Leaves elliptical ovate obtuse destitute of pellucid dots, Cal. lvs. elliptical

11016 Stem round dotted with black, Leaves ovate obl. blunt amplexicaul. dotted with black

11017 Stem weak square smooth, Leaves ovate subcordate blunt revolute at edge scarcely dotted beneath



and Miscellaneous Particulars.

with nearly one-half its bulk of decomposed horse dung. Turn it over twice or three times, and the winter before using add a twelfth-part of sheep dung, a twentieth of pigeon dung, and a twentieth of dried ordure.

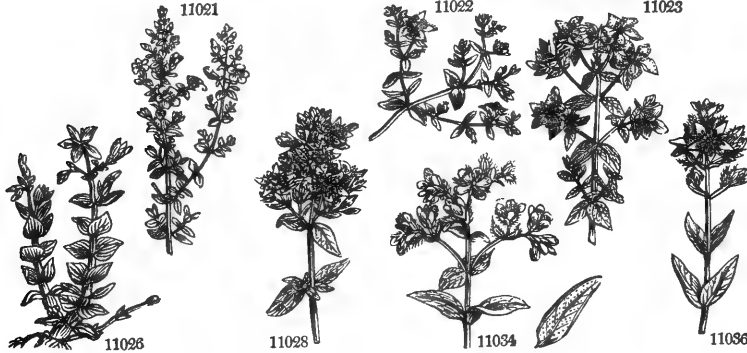
Henderson, already mentioned, takes one part of light-brown mould from a piece of ground that has not been cropped nor manured for many years; one part of peat earth, such as is used for growing heaths; two parts of river sand, or pit sand, if it be free from mineral substances; and one part of rotted hot-bed dung, with one part of rotted leaves of trees, and mixes them all well together, so as to form a compost-soil of uniform quality. (*Calcd. Hort. Mem. iii. 302.*)

Though orange-trees will grow exceedingly well in large pots and boxes, yet to have them produce the finest crop of fruit they should be planted in the ground like peach-trees, and trained like them, or as standard cherries in a conservatory. The latter has by far the best effect, especially when the stems of the trees are seven or eight feet high, and the head forms a handsome cone; but the largest fruit is produced when the trees are planted against the back-wall trellis of a narrow house, and treated like peach-trees. Henderson grows his largest fruit in this manner, and we have seen them fully as large as any we ever saw at Genoa or Naples.

1616. *Xanthochymus*. From *ξανθοχυμος*, yellow, and *χυμος*, any thing which exudes: in allusion to the color of the juice which flows from the ripe fruit when wounded, and which, being inspissated, yields a material for water-color painting which is as good as Gamboge. Handsome plants, of the usual culture in light loam, and propagated by cuttings in sand under a hand-glass.

1617. *Hypericum*. A name of unknown meaning. The species are chiefly under-shrubs, generally with dotted leaves, and almost, without exception, yellow flowers. The hardy species are useful for the fronts of

|        |  |                 |   |    |   |       |   |                     |           |   |     |                          |
|--------|--|-----------------|---|----|---|-------|---|---------------------|-----------|---|-----|--------------------------|
| 11018  | <i>crispum L.</i>                          | curl-leaved     | △ | or | 1 | jl.au | Y | Greece              | 1688.     | C | p.l | Bocc. mus. t. 12         |
| 11019  | <i>setosum H. K.</i>                       | unbranched      | △ | or | 1 | jl.au | Y | Carolina            | 1759.     | D | p.l |                          |
| 11030  | <i>heterophyllum Vent.</i>                 | various-leaved  | ■ | or | 2 | jl.au | Y | Persia              | 1812.     | D | lp  | Vent. cels. t. 68        |
| 11031  | <i>egyptiacum L.</i>                       | Egyptian        | ■ | or | 2 | jn.jl | Y | Egypt               | 1787.     | C | p.l | Bot. reg. 196            |
| 11022  | <i>humifosum L.</i>                        | trailing        | △ | or | 1 | jl.au | Y | Britain pas.        |           | D | co  | Eng. bot. 1226           |
| 11023  | <i>perforatum L.</i>                       | perfoliate      | △ | or | 1 | jl.au | Y | Britain bu.pl.      |           | D | p.l | Eng. bot. 295            |
| 11024  | <i>canadense L.</i>                        | Canadian        | △ | or | 1 | jl.s  | Y | N. Amer.            | 1770.     | D | p.l | Bot. cab. 953            |
| 11025  | <i>fasciculatum W.</i>                     | clustered       | ■ | or | 1 | jl    | Y | N. Amer.            | 1806.     | C | s.l |                          |
| 11026  | <i>Elódes L.</i>                           | marsh           | △ | or | 1 | jl.au | Y | Britain             | sp.bo.    | D | p.l | Eng. bot. 109            |
| 11027  | <i>tomentosum L.</i>                       | woolly          | △ | or | 1 | jl.s  | Y | S. Europe           | 1648.     | C | r.m |                          |
| 11028  | <i>hirsutum L.</i>                         | hairy           | △ | or | 2 | jn.jl | Y | Britain             | ch.ba.    | D | p.l | Eng. bot. 1156           |
| 11029  | <i>nummularium L.</i>                      | money-leaved    | △ | pr | 1 | jn.jl | Y | S. Europe           | 1823.     | D | co  | Lam. ill. t. 643         |
| 11030  | <i>elegans Steph.</i>                      | elegant         | △ | pr | 1 | jn.jl | Y | Siberia             | 1822.     | D | co  | Spreng. fl. hal. t. 9    |
| 11031  | <i>glandulosum H. K.</i>                   | glandular       | ■ | or | 2 | my.au | Y | Madeira             | 1777.     | C | p.l |                          |
| 11032  | <i>reflexum L.</i>                         | hanging-leaved  | ■ | or | 1 | jn.s  | Y | Teneriffe           | 1778.     | C | p.l |                          |
| 11033  | <i>púchrum L.</i>                          | small upright   | △ | or | 1 | jl    | Y | Britain             | woods.    | D | p.l | Eng. bot. 1227           |
| 11034  | <i>barbatum L.</i>                         | bearded         | △ | or | 2 | jn.o  | Y | Scotland            | sc.thi.   | D | co  | Eng. bot. 1386           |
| 11035  | <i>dentatum Lois.</i>                      | toothed         | △ | pr | 2 | jn.o  | Y | Mediterr.           | 1830.     | D | co  | Lois. fl. gall. t. 17    |
| 11036  | <i>montanum L.</i>                         | mountain        | △ | or | 1 | jl.au | Y | Britain             | m.w.o.    | D | p.l | Eng. bot. 371            |
| 11037  | <i>fimbriatum Lam.</i>                     | fringed         | △ | pr | 2 | jl.au | Y | Pyrenees            | 1821.     | D | p.l | Vill. delph. t. 44       |
|        | <i>β alpinum W. &amp; K.</i>               | alpine          | △ | pr | 2 | jl.au | Y | Hungary             | 1822.     | D | p.l | Wal. & Kit. t. 265       |
| 11038  | <i>serpyllifolium Lam.</i>                 | Thyme-leaved    | △ | or | 2 | jl.au | Y | Levant              | 1688.     | C | r.m | M.h. 2. s. 5. t. 6. f. 2 |
| 11039  | <i>ciliatum Lam.</i>                       | fringe-flowered | △ | or | 2 | jl    | Y | Levant              | 1739.     | D | lp  | Bocc. mus. t. 127        |
| 11040  | <i>tripinerve Vent.</i>                    | three-nerved    | △ | pr | 1 | jl    | Y | N. Amer.            | 1821.     | D | co  | Vent. cels. t. 58        |
| 11041  | <i>hyssopifolium Vill.</i>                 | Hyssop-leaved   | △ | pr | 1 | jl.au | Y | S. Europe           | 1823.     | D | co  | Vill. delph. t. 44       |
| 11042  | <i>empetrifolium W.</i>                    | fine-leaved     | ■ | pr | 1 | jl.au | Y | S. Europe           | 1820.     | C | p.l | Dend. brit. 141          |
| 11043  | <i>Córis L.</i>                            | Heath-leaved    | ■ | pr | 1 | my.s  | Y | Levant              | 1640.     | C | p.l | Bot. mag. 178            |
| 11044  | <i>ericoides L.</i>                        | Heath-like      | ■ | pr | 1 | jn.jl | Y | Spain               | 1821.     | C | p.l | Cav. ic. t. 122          |
| 11045  | <i>aspalathoides W.</i>                    | Aspalathus-like | ■ | or | 1 | jn.au | Y | Carolina            | 1811.     | C | s.l |                          |
| 1618.  | ASCYRUM. W.                                | ASCYRUM.        |   |    |   |       |   | <i>Hypericineæ.</i> | Sp. 5-6.  |   |     |                          |
| 11046  | <i>púmulum Ph.</i>                         | dwarf           | △ | pr | 1 | jn.au | Y | Georgia             | 1806.     | C | lp  |                          |
| 11047  | <i>Crux A'ndrés Ph. St. Andrews' Cross</i> |                 | △ | pr | 2 | jl    | Y | N. Amer.            | 1759.     | C | lp  | Pluk. alm. 419. 5        |
| 11048  | <i>hypericoides Ph.</i>                    | Hypericum-like  | ■ | pr | 1 | jl.s  | Y | N. Amer.            | 1759.     | C | lp  |                          |
| 11049  | <i>stans W.</i>                            | large-flowered  | ■ | pr | 1 | jl.s  | Y | N. Amer.            | 1806.     | C | lp  | Vent. malm. 90           |
| 11050  | <i>amplexicaule Ph.</i>                    | stem-clasping   | ■ | pr | 2 | jl.s  | Y | N. Amer.            | 1823.     | C | co  |                          |
| 11619. | LOA'SA. L.                                 | LOASA.          |   |    |   |       |   | <i>Loaseæ.</i>      | Sp. 4-10. |   |     |                          |
| 11051  | <i>Placei Lindl.</i>                       | Place's         | ○ | or | 4 | jn.s  | Y | Chile               | 1822.     | S | co  | Bot. reg. 785            |
| 11052  | <i>nitida Lam.</i>                         | shining         | ○ | or | 2 | jn.s  | Y | Chile               | 1822.     | S | co  | Bot. reg. 667            |
| 11053  | <i>volúbilis Juss.</i>                     | twining         | ∩ | el | 1 | mr.s  | Y | Chile               | 1824.     | S | s.l | Jus.an.m. t. 5. f. 2     |
| 11054  | <i>grandiflora Lam.</i>                    | large-flowered  | ∩ | or | 2 | ...   | Y | Caraccas            | 1825.     | S | co  | Jus.an.m. t. 4. f. 2     |



History, Use, Propagation, Culture,

shrubberies. *H. calycinum* soon spreads over a considerable surface, and being evergreen, and growing under the shade, it is well adapted for covering bare spots under trees, and at the base of walls where few plants will thrive.

*H. Androsæmum*; from *ærgo*, a man, and *æiua*, blood, because the fresh capsules, bruised between the fingers, give out a blood-colored juice, is called Tutsan from *Toute-saine*, Fr., from its bruised capsules being formerly applied to fresh wounds.

*H. perforatum* was formerly used in external wounds and hemorrhages as a balsamic, and was reputed to have other medical properties. The semi-transparent dots on the leaves are the receptacles of an essential oil. The flowers tinge spirits and oils of a fine purple color; and the dried plant, boiled with alum, dyes wool of a yellow color. The common people in France and Germany gather it with great ceremony on St. John's day, and

- 11018 Stem round much branched, Lvs. sess. lanc. undul. wavy at base with pellucid dots, Cal. very small blunt  
 11019 Flowers 2-3-gynous terminal, Cal. lanc. entire, Leaves lanc. oblong and erect, Stem simple downy  
 11020 Stem round, Lvs. lin. lanc. with pelluc. dots : low. closely imbric. very short blunt, Cal. acute rather unequal  
 11021 Stem round, Leaves very small ovate close not dotted, Flowers few subsessile, Cal. acute lanceolate  
 11022 Styles 3, Flowers terminal subcymose, Stems comp. prostrate, Leaves oblong obtuse glabrous  
 11023 Styles 3, Stem compressed, Leaves elliptico-oblong obtuse with pellucid dots, Cal. leaves lanceolate  
 11024 Stem herbaceous upright 4-winged, Lvs. lin. somewhat blunt with fine pellucid dots and black dots beneath  
 11025 Stem round diffuse, Leaves lanceol. linear narrow at base revolute at edge, Calyx somewhat unequal

**\*\* Sepals toothed, or toothed glandular.**

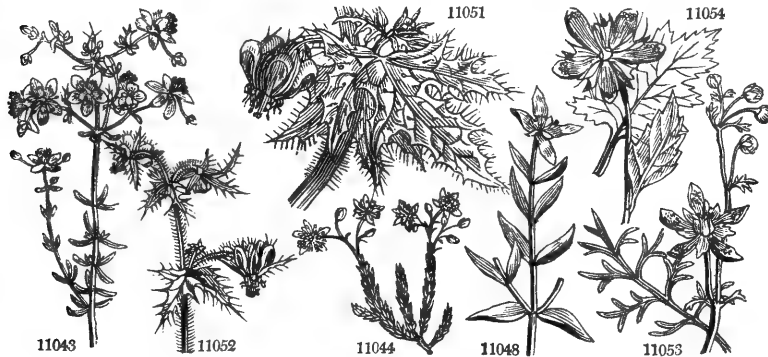
- 11026 Styles 3, Cal. with (reddish) glandular serratures glabrous, Lvs. roundish pubesc. Stem rounded creeping  
 11027 Stem downy round ascend. Lvs. ovate blunt somewhat amplexicaul. with black dots at edge, Cal. acuminata  
 11028 Styles 3, Cal. with (black) glandular serratures, Stem erect rounded pubesc. Lvs. ov. slightly downy beneath  
 11029 Stem round ascending, Leaves orbicular stalked, Calyx ovate blunt  
 11030 Stem straight slightly wing. Lvs. ov.-lanc. subamplex. blunt. with pellucid dots, Anthers dotted with black  
 11031 Stem round straight branched, Lvs. ellipt. lanc. acute glandular at edge with pellucid dots, Cal. lanc. acute  
 11032 Stem round a little villous at end, Leaves amplexicaul. lanceol. acute generally reflexed, Panic. lax few-fl.  
 11033 Styles 3, Cal. with (black) glandul. serratures, Stem erect, Lvs. cord. glab. amplexicaul. (dots beneath  
 11034 Sty. 3, Corymbs term. Cal. fring. with long peduncul. glands, Stem erect round. Lvs. ov. with (black) scattered  
 11035 Stem round ascending, Leaves amplexicaul. oblong bluntish with pellucid dots : upper sometimes glabrous  
 11036 Styles 3, Fla. paniculate-corymb. Cal. with glandul. serratures, Stem erect round. smooth, Lvs. ov. glabrous  
 11037 Stem round purplish simple, Lvs. amplexicaul. ovate dotted with black at the edge, Cal. ov. acute ciliated  
 11038 Stem round, Leaves ovate blunt with a small petiole revolute at edge, Calyx ovate blunt [with black  
 11039 Stem round slightly winged, Lvs. amplexicaul. subcord. ovate obl. blunt with pellucid dots, Anthers dotted  
 11040 Stem with 2 angles decumbent at base, Lvs. linear-lanc. spreading blunt revolute at edge, Cal. ovate acute  
 11041 Stem round ascending, Lvs. obl. lanc. bluntish narrowed at each end with pellucid dots, Cal. somewhat blunt  
 11042 Stem round, Branches somewhat winged, Leaves in threes linear revolute at edge, Calyx very small blunt  
 11043 Stem round ascending, Leaves whorled linear revolute at edge, Calyx linear somewhat blunt  
 11044 Stem round tortuous minute, Leaves round acute clustered dotted glaucous very small

§ 5. *Sepals 5, entire, equal, like the leaves. Stamens 00. Styles 3-5. BRATHYS.*

- 11045 Stem round compressed at end, Leaves dense not dotted channelled revolute at edge, Cal. equal straight

- 11046 Stem small simple quadrangular, Leaves oval blunt fascicled, Pedicels 6 lines long reflexed  
 11047 Stem round, Branches erect, Lvs. ovate linear blunt generally fascicled in the axillæ, Inner sepals orbicular  
 11048 Stem round, Leaves oblong linear blunt with 2 glands at base, Inner sepals somewhat orbicular  
 11049 Stem winged straight, Leaves ovate ellipt. blunt glaucous, Inner sepals cordate orbicular  
 11050 Stem dichotomous panicled, Leaves ovate cordate crisp, Corymb naked, Styles 3

- 11051 Sepals scarcely toothed reflexed as long as petals, in fruit reflexed and longer than the obovate capsule  
 11052 Sepals toothed shorter than petals, in fruit erect and shorter than the pear-shaped capsule  
 11053 Stem twining, Leaves bipinnatifid with narrow obtuse segments  
 11054 Hispid, Leaves opposite and alternate cordate ovate lobed, Petals flattish, Flower very large



*and Miscellaneous Particulars.*

hang it in their windows as a charm against storms, thunder, and evil spirits ; mistaking the meaning of some medical writers, who have fancifully given this plant the name of *Fuga Demonum*, from a supposition that it was good in maniacal and hypochondriacal disorders. In Scotland it was formerly carried about as a charm against witchcraft and enchantment.

*H. humifusum* is one of the prettiest little plants of the genus, well adapted for growing in pots.

1618. *Ascyrum*. From *as*, privative, and *scyrus*, roughness ; that is to say, a smooth plant, *Linna.* Curious little plants, of the same culture as the *Hypericum*.

1619. *Loasa*. A name applied to these plants by Adanson, but of unknown meaning. Stinging, mostly annual plants ; some of the species are handsome hardy annuals, remarkable for the beauty of their highly curious flowers. *L. volubilis* will not succeed in the open air.



CLASS XIX. — SYNGENESIA. STAMENS 5. ANTHERS united by their edges.

THIS is one of the most extensive and best defined of all the Linnæan classes. Its essential character depends, as its name indicates, (*syn*, together, and *genesis*, generation,) upon the adhesion of the anthers or male organs of the flower into a single tube. It comprehends the whole of the Corymbiferae, Cichoraceae, and Cinarocephalæ of Jussieu; and, with the exception of Acicarpeae, nothing else. The genera constituting the order Monogamia of Linnæus are excluded by Linnæan botanists of the present day.

In addition to the cohesion of the anthers, upon which this class immediately depends, it is further characterized by the flowers, commonly called florets, being clustered together in heads, and inserted upon a common receptacle, which is surrounded by an involucre, commonly, but very improperly, termed calyx. The few genera, such as Kuhnia, Euxenia, Acicarpha, &c., in which a union of anthers either does not exist at all, or in a very incomplete degree, are therefore retained in Syngenesia, because of their congruity in the structure of their inflorescence.

The real nature of the various constituent parts of syngenesious inflorescence being, from its complicated nature, very puzzling to the unlearned, and, as it would seem, to some professors also, it may be useful to explain briefly the analogy the various parts bear to the organs of other plants, and the terms employed in describing them.

The *Head* or *Capitulum* is a cluster of flowers of the nature of an umbel, inserted upon a common rachis, which, by contraction or incomplete development, assumes the form of a conical or flat body, out of which the flowers proceed, and which is called a receptacle. This is surrounded by the involucre. M. Cassini calls the head *Calathide*.

The *Involucre* is the most external part of the head. It consists of a more or less considerable number of scales or leaves, placed in a single row, either distinctly from each other, or united at their edges, in which case the involucre is called one-leaved; or placed in many rows, becoming gradually shorter as they are external, in which case they are called imbricated. If the external scales surround the internal at the base in a regular manner, then the involucre is said to be calyculate. The involucre was called *common calyx* by Linnæus, and has been more recently denominated a perianthium. M. Cassini names it *Pericinium*.

The *Receptacle* (Cinanthium of Cassini) is a cellular fungous surface surrounded by the involucre, and bearing the florets. It is either columnar, conical, flat, or depressed; and naked, or covered with appendages called hairs or bristles, according to their nature or paleæ, when they are dilated and have a glutinous appearance. If naked, and merely scarred by the insertions of the florets, it is called dotted or punctulate; when the scars are more considerable and deeper, the receptacle is said to be scrobiculate; if the insertions are so deep as to appear to be divided by membranous partitions, it is cellular, or favose, or alveolate; if furnished with hairs, it is villose; if with paleæ, it is paleaceous or chaffy.

The *Paleæ* are of the same nature as bractæe, and exist in various degrees of development. Occasionally they are as large as the scales of the involucre, which they in that case closely resemble.

The flower, usually termed *Floret*, consists of two parts, the ovarium and the corolla, each with its appendages.

The *Ovarium* is always one-celled, but it occasionally has two additional obsolete cells, as in Arctotis. It is either naked, or covered with hairs in various degrees, occasionally becoming enveloped in fine wool, and it is surmounted by an organ named the pappus.

The *Pappus* has generally been esteemed a superior calyx, and it is the opinion of M. Cassini that it is analogous to the scales of the receptacle, and the leaves of the involucre.

The *Corolla* is placed on the top of the ovarium. It is either funnel-shaped, with a limb divided into four or five equal lobes, in which case the florets are denominated *tubular*; or it is split on one side, and spread open into the form of a strap, when the florets are called *ligulate*; or it is divided into two portions, of which one is unequal to the other; this form is called bilabiate or two-lipped. Bilabiate corollas may be either ligulate or flosculosal, according to the species to which they belong. Occasionally the corolla appears to be absent.

The *Stamens* are attached to the orifice of the tube of the corolla, just below the limb. Their *filaments* are usually, but not always, distinct; their *anthers* are adherent by their edges, and furnished with a little membranous appendage at the tip, and sometimes with two spur-like processes at their base.

The *Style* is filiform, and either split at the summit into two linear spreading stigmas, or consists of a single piece from the base to the summit. The form and surface of the stigma, and the upper part of the style are subject to a great diversity of appearances, which are of the utmost importance in determining the affinities of the genera.

The *Florets* are either hermaphrodite, unisexual, or neuter. Upon these differences of sex the orders of Linnæus are founded.

In *Syngenesia æqualis* the florets are all hermaphrodites.

In *Syngenesia superflua*, those of the disk or centre are hermaphrodite, of the circumference or ray female, (and *superfluous*.)

In *Syngenesia frustranea*, those of the disk are hermaphrodite, of the ray neuter, (and *useless*.)

In *Syngenesia necessaria*, those of the disk are male, of the ray female, (and *necessary*.)

*Syngenesia segregata* is only characterized by the heads themselves being clustered and surrounded by a common involucre.

The genera of Syngenesia have always attracted much attention from systematic botanists, who have met with very unequal success in characterizing them. The older botanists comprised them all under a few general heads or names. Tournefort, with his usual happiness, pointed out a large proportion of the most natural genera. Vaillant established a considerable number. Linnæus, profiting by the labours of his predecessors, rejecting some genera, and dividing others, increased their number, and adapted them to his sexual system, in nearly the same order in which they exist at the present day. Jussieu, by applying to the genera the principles of his natural method, reduced them to an arrangement much superior in point both of facility and of natural affinity to that of his northern rival. But however meritorious the labours of these great systematists may have been, much remained to be effected, even among their own plants, by those who followed them. The indefatigable Gærtner, who worked upon the only satisfactory or philosophical principle, that of strict analysis, soon discovered that the combinations of Linnæus and Jussieu were often too vague and ill defined to accord with his notions of accurate subdivision. Hence many other genera arose. But since his days, the extent of Syngenesia has, like all other parts of botanical science, increased exceedingly, and has arrived in our days at a state little short of absolute confusion. Injudicious or superficial botanists, impressed with the fear of innovation, and with a pious reverence even for the errors of those who went before them, have from time to time crowded the genera of Jussieu and Linnæus with the most incongruous species, and so have rendered many of those which were originally pure and simple, heterogeneous masses of species. Much has been done by our learned countryman, Mr. Robert Brown, to reduce to order this class of individuals, and, as far as his published observations have extended, with the happiest success. In France, an ingenious and accurate observer, Mr. Henry Cassini, has undertaken a revision of the whole class, upon principles peculiar to himself; and it must be allowed, that what he has executed has given ample room for regret that he has not published more. Unfortunately, his observations are scattered over the face of many books, and are in no case in such a state of arrangement as to be extensively useful. It is hoped that a period will soon arrive when he, or at least some

of his countrymen, will place in one view the result of his labours, so as to enable the world to judge with more accuracy, both of their extent, and of their real importance in defining the limits of the genera and their orders. The style and stigma, which had been previously almost overlooked, have furnished M. Cassini with what appear to be beautiful distinguishing marks of his orders; and it is upon these organs that much of the peculiarity of his arrangement depends. In the mean while, till it can be ascertained what the ultimate division of Compositæ is likely to be, it has been considered more prudent in this work to indicate none of the divisions of either M. Cassini, or of his fellow-labourers in France or elsewhere.

In a popular point of view, Syngenesia may be considered interesting in a high degree. It abounds in plants of ornament, all of which are, without exception, of easy cultivation. It is not necessary to particularize the merits of the brilliant varieties of the Dahlia, or of the Chinese Chrysanthemum, which are the chiefest ornaments of every autumnal garden; nor to point out the beauty of the various tribes of Aster, Helianthus, Coreopsis, Xeranthemum, or Gnaphalium. These and an hundred others must be familiar to every lover of gardening. It is, however, worth remarking, that nearly all syngenesious plants are autumn flowers. In the tropics, many become trees of considerable dimensions; in temperate climates, they are mostly herbaceous or low bushes.

With regard to the qualities of syngenesious plants, considered economically or medicinally, it may be stated, that, whatever they may be, they consist in a bitter principle, and an oily secretion. But these vary in particular tribes. In some the bitter is combined with a resinous principle, by which its powers are increased in different degrees. In those plants in which the resin is found in small quantities only, and mixed with a bitter or astringent mucilage, tonic, stomachic, and febrifugal properties seem to be acquired, as in the camomile, the golden rod, the feverfew, and the Eupatorium perfoliatum; and the stimulant powers of these plants appear to increase in proportion as the resin is abundant. Some kinds are anthelmintic, as the wormwood and tansy; others are emmenagogue, as the feverfew, the yarrow, and various kinds of wormwoods. Certain species possess sudorific qualities, as the Eupatorium, the yarrow, the wormwood, and the marigold; others, again, are powerful diuretics, as Liatris; while stimulating powers exist in considerable activity in others, as in the Sneezewort and Arnica. The Splanthus, Anthemis, Pyrethrum, and some others, excite salivation. The Eupatorium Ayapana of Brazil, and the Guaco of Peru, which is another species of Eupatorium, are most powerful alexiterics. According to the analysis of M. Braconnot, the wormwood owes its bitterness to an extremely bitter animalized matter, which forms a little less than one fifth of its weight; the same chemist also states that plant to contain a volatile oil, and an acid, apparently new, which is found in combination with potash. Before the perfect development of the leaves, the bitter principle is so much diluted with insipid mucilage, that the young shoots of some of the thistle tribe, the Cardoon for example, are used for culinary purposes; and it is probable, that it is owing to the small proportion which the bitter bears to the whole mass, that the receptacle of the artichoke, of the Onopordum, and of the cotton thistle, is found fit for food. The corollas of the Cardoon, and of many thistles, have the power of curdling milk. The juice of the lettuce and other cichoraceous plants is milky, bitter, astringent, and narcotic. In a wild state, the narcotic principle is so abundant, that the inspissated juice of *Lactuca virosa* has been used as a substitute for opium, and with much success. But under the effect of cultivation, the mucilage is so much more abundant than any other substance, that the same species often form well-known articles of wholesome and agreeable food. And, indeed, under any circumstances, wild or domesticated, the young shoots, when the narcotic principle is scarcely developed, are frequently eaten with safety; it is for the same reason, namely, the incomplete formation of the bitter principle, and the superabundance of mucilage, on account of the absence of light, that the blanched leaves of cardoons and chicory, and the white roots of the Scorzonera and the Salsify, are capable of being eaten without inconvenience. The seeds of all syngenesious plants abound in oil, which is expressed from those of the *Madia* of Chili, the *Verbena sativa*, and the common sunflower. Owing to the difficulty of procuring this oil in a pure state, its virtues are not ascertained with much accuracy. They are generally believed to be slightly purgative and diaphoretic.

Order 1.  ÆQUALIS.

*Flowers of the disk and ray all hermaphrodite.*

1620. *Geropogon*. Receptacle setose-paleaceous. Invol. many-leaved, simple, or with bracteola. Pericarpis of disk with branched pappus, of the ray with five awns.
1621. *Tragopogon*. Involucre simple, of many leaves. Receptacle naked. Pappus feathery, stipitate. Pericarpis longitudinally striated.
1622. *Troximon*. Invol. oblong, conical, simple, or imbricated with unequal scales. Recept. naked, dotted. Pappus sessile, hairy.
1623. *Arnoglosson*. Recept. naked. Pappus feathery, stipitate. Involucre 1-leaved, 8-parted, turbinate.
1624. *Podospermum*. Recept. warted. Pericarpis cylindrical on a long stalk. Leaves finely cut. Otherwise as *Scorzonera*.
1625. *Scorzonera*. Recept. naked. Pappus feathery, somewhat stalked. Invol. imbricated, with scales scarios at edge.
1626. *Picridium*. Invol. ventricose at base, imbricated with broadish scales, membranous at edge. Pappus sessile, villous, simple. Pericarpis 4-cornered, warted across.
1627. *Sonchus*. Involucre imbricated, swelling at the base. Receptacle naked. Pappus simple, sessile.
1628. *Lactuca*. Involucre imbricated, cylindrical, its scales with a membranous margin. Receptacle naked. Pappus simple, stipitate.
1629. *Chondrilla*. Receptacle naked. Invol. with bracteola. Pappus simple, stalked. Florets in many rows. Pericarpis muricated.
1630. *Prenanthes*. Involucre with scales at the base. Receptacle naked. Pappus simple, sessile. Florets few.
1631. *Leontodon*. Involucre with scales that are frequently lax and flaccid. Receptacle naked. Pappus simple, stipitate.
1632. *Apargia*. Involucre imbricated with scales at the base. Receptacle naked, dotted. Pappus feathery, sessile, unequal.
1633. *Thrinchia*. Recept. foveose. Pappus of the ray membranous, multifid, of the disk stalked, feathery. Invol. with 8 angles and 8 leaves.
1634. *Picris*. Cal. double, the inner equal, the outer lax. Receptacle naked. Pappus feathery. Pericarpis transversely striated.
1635. *Hieracium*. Involucre ovate, imbricated. Receptacle nearly naked, dotted. Pappus simple, sessile.
1636. *Lagoseris* has the characters of *Crepis*, but the pappus is stalked.
1637. *Borkhausia*. Invol. oblong in two rows, the outer much shorter than the inner. Recept. alveolate. Pappus of the centre stalked, of the circumference sessile or subsessile.
1638. *Crepis*. Involucre surrounded with deciduous scales, and at length swelling into protuberances. Receptacle roughish. Pappus sessile.
1639. *Helminthia*. Recept. naked. Invol. double: outer 8-leaved, equal; inner 5-leaved, as long as outer. Pericarpis striated across. Pappus stalked, feathery.
1640. *Myoseris*. Recept. paleaceous. Paleæ capillary. Invol. calcylated. Pappus hairy, sessile.
1641. *Tolpis*. Recept. foveose. Invol. with bracteola, which are subulate, and as long as invol. Pappus of the ray toothed, of the disk with 2 or 4 awns.
1642. *Andryala*. Recept. villous. Invol. many-parted, nearly equal, rounded. Pappus simple, sessile.

1643. *Rothia*. Recept. villous, chaffy at edge. Invol. many-leaved, equal. Pappus hairy, of the disk sessile, of the ray none.
1644. *Krigia*. Recept. naked. Pappus membranous, 5-leaved, with 5 bristles between. Invol. many-leaved, simple.
1645. *Hyoeris*. Recept. naked. Invol. with bracteolæ. Pappus double: exterior capillary; interior paleaceous, awned.
1646. *Hedypnois*. Recept. naked. Invol. with bracteolæ. Pappus of disk double: outer obsolete, of many bristles; inner paleaceous, 5-leaved; of the ray a membranous toothletted margin.
1647. *Robertia*. Invol. many-leaved, equal. Recept. scaly. Pappus feathery, the hairs being slightly membranous at base.
1648. *Seriola*. Recept. paleaceous. Invol. simple. Pappus somewhat hairy.
1649. *Soldovilla*. Invol. imbricated, in fruit ventricose at base, with scales conniving at end. Recept. paleaceous; paleæ very short, setose. Pappus O.
1650. *Hypochaeris*. Involucre oblong, imbricated. Receptacle chaffy. Pappus feathery, stipitate, or sessile.
1651. *Lapsana*. Involucre with scales at the base. Receptacle naked (its inner leaves equal, channelled, Sm.) Pericarpis destitute of pappus (deciduous).
1652. *Zacintha*. Recept. naked. Pericarpis of the ray incurved, of the disk straight. Pappus very short, somewhat feathery. Invol. with bracteolæ, which are membranous.
1653. *Rhagadiolus*. Recept. naked. Pericarpis arcuate, spreading. Pappus O. Invol. with bracteolæ.
1654. *Moscaria*. Invol. 6-leaved, equal. Recept. flat, paleaceous. External pericarpis with a short feathery pappus; central with none.
1655. *Catananche*. Recept. paleaceous. Invol. imbricated, scarious. Pappus paleaceous, 5-leaved; paleæ awned.
1656. *Triptilion*. Invol. imbricated, the exterior scales somewhat squarrose. Florets bilabiate: the upper lip 3-toothed; lower entire revolute. Recept. villous. Pappus with 3 feathers.
1657. *Cichorium*. Involucre surrounded with scales or smaller leaflets. Receptacle naked or slightly hairy. Pappus sessile, scaly, shorter than the pericarp.
1658. *Baccharis*. Invol. imbricated, scarious. Florets, one in the middle large tubular; the others 4-toothed, with a revolute bristle inserted in the mouth of the tube. Recept. pilose. Pappus feathery.
1659. *Scolymus*. Receptacle paleaceous. Invol. imbricated, spiny. Pappus O.
1660. *Arctium*. Involucre globose, each of its scales with an incurved hook at the extremity. Receptacle chaffy. Pappus simple.
1661. *Serratula*. Involucre cylindrical, imbricated with scales that are not spinous. Receptacle chaffy. Pappus roughish or feathery, rigid, persistent.
1662. *Saussurea*. Involucre imbricated, not spiny, outer scales acute, inner obtuse, membranous. Pappus feathery, in two rows, the exterior being shortest, the inner somewhat united at base.
1663. *Carduus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, roughish.
1664. *Silybum*. Invol. ventricose, imbricated: outer leaves with appendages at end; inner cochleate. Recept. chaffy. Pappus linear, chaffy, deciduous.
1665. *Cnicus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, feathery.
1666. *Onopordum*. Involucre swelling, its scales spreading, and spinous. Receptacle cellular. Pappus deciduous, rough.
1667. *Beuardia*. Invol. imbricated with linear unarmed scales. Recept. somewhat favose, naked. Pappus hairy, generally twisted spirally, persistent.
1668. *Cynara*. Recept. setose. Invol. dilated, imbricated; scales fleshy, emarginate, with a point. Pappus sessile, feathery.
1669. *Carlina*. Involucre swelling: the exterior scales with numerous spines; the inner ones colored, scarious.
1670. *Arctylis*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets of ray 5-toothed.
1671. *Acarna*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets fuscous.
1672. *Stokesia*. Recept. naked. Pappus with 4 bristles. Invol. leafy, somewhat imbricated. Heads radiated florets of ray funnel-shaped, irregular.
1673. *Stobæa*. Invol. imbricated, with toothed spiny scales. Florets fuscous. Recept. hispid, favose. Pappus paleaceous.
1674. *Onobroma*. Invol. ventricose: outer scales large, herbaceous, spiny, acuminate; inner coriaceous, unarmed. Recept. paleaceous. Pappus setaceous, rigid, unequal.
1675. *Carthamus*. Recept. paleaceous, setose. Invol. ovate, imbricated; scales ovate, leafy at end. Pappus paleaceous, hairy, or none.
1676. *Cardopatum*. Invol. 6-8-fl. many-leaved, imbricated, the outer scales branched, spiny. Recept. paleaceous, with long fasciated paleæ. Pericarpis villous.
1677. *Stachytia*. Recept. with very short paleæ. Pappus feathery. Anthers awned at base. Invol. hemispherical, imbricated.
1678. *Palafoxia*. Invol. oblong, somewhat imbricated, 8 or many-leaved, many-flowered. Cor. fuscous, longer than calyx, with a 5-fid limb. Pappus chaffy. Receptacle naked. Fruit marginal, wrapped up in the involucre.
1679. *Pteronia*. Recept. paleaceous; paleæ many-parted. Pappus somewhat feathery. Invol. imbricated with keeled scales.
1680. *Vernonia*. Recept. naked. Invol. ovate, imbricated. Pappus double: outer paleaceous; inner capillary.
1681. *Ammobium*. Invol. imbricated, colored, radiant. Anthers with 2 bristles at the base. Chaffs of receptacle distinct. Pappus a toothed edge.
1682. *Liatris*. Recept. naked. Invol. oblong, imbricated. Pappus feathery.
1683. *Mikania*. Recept. naked. Invol. 4-6-leaved, equal, 4 or 6-flowered. Pappus hairy.
1684. *Sparganophorus*. Invol. subglobose, imbricated with unequal scales, recurved, spreading at end. Recept. naked. Pericarpis crowned with a somewhat cartilaginous cup.
1685. *Eupatorium*. Involucre imbricated, oblong. Florets few. Receptacle naked. Pappus rough.
1686. *Dumerilia*. Invol. many-parted, equal. Receptacle paleaceous. Florets bilabiate. Anthers spurred at base. Pappus feathery, sessile.
1687. *Ageratum*. Recept. naked. Pappus with 5 somewhat-awned paleæ. Invol. oblong in a double row. Corollas 4-5-fid.
1688. *Cælestina*. Invol. cylind. many-leaved, imbricated. Recept. convex, naked. Florets all tubular. Stigmas very long, spreading. Pericarpis truncate, 5-cornered. Pappus a membranous rim.
1689. *Stevia*. Recept. naked. Pappus paleaceous. Invol. cylindrical in a single row.
1690. *Cephalophora*. Recept. naked, hemispherical. Pappus paleaceous, many-leaved. Invol. many-leaved, reflexed.
1691. *Amphirepis*. Invol. hemispherical, imbricated. Recept. flat, naked. Florets all tubular. Pericarpis cylindrical, naked. Pappus hairy, deciduous.
1692. *Hymenopappus*. Invol. many-leaved, spreading; scales ovate, colored. Recept. naked. Pappus many-leaved, paleaceous.
1693. *Melananthera*. Recept. paleaceous, convex. Invol. many-leaved, in a double row. Pappus of from 2 to 18 rough bristles. Pericarpis turbinate, angular.

1694. *Marshallia*. Recept. paleaceous. Pappus of 5 membranous acuminate paleæ. Invol. imbricated; scales somewhat lanceolate, incumbent.
1695. *Spilanthes*. Recept. paleaceous, conical. Pappus with 2 awns, one smaller than the other. Invol. nearly equal.
1696. *Salmea*. Recept. conical, paleaceous. Pappus with 2 awns. Pericarps depressed. Invol. imbricated.
1697. *Bidens*. Involucre of many leaves, with many foliaceous bracteas at the base. Receptacle plane, chaffy. Cor. sometimes radiant. Pericarps crowned with from 2-5 persistent awns, which are rough, with minute deflexed bristles.
1698. *Platypteris*. Invol. many-leaved, imbricated, squarrose. Recept. convex, paleaceous. Pericarps compressed, winged, with 2 awns at top.
1699. *Lagascea*. Invol. 1-leaved, tubular, 1-flowered, divided at end. Floret tubular, hermaphrodite. Pericarps linear, cuneate, compressed. Pappus a small fringed crown.
1700. *Lavenia*. Recept. naked. Pappus with 3 awns, glandular at end. Invol. ovate, somewhat imbricated.
1701. *Cacalia*. Recept. naked. Pappus pilose. Invol. cylindrical, oblong, at the base only with bracteola.
1702. *Kleinia*. Recept. naked. Pappus hairy. Invol. simple, equal, 5-leaved.
1703. *Ethulia*. Recept. naked. Pappus a very narrow rim. Invol. equal, in a double row.
1704. *Pigueria*. Recept. naked. Invol. equal, 4-leaved, 4-flowered, Pappus none. Pericarps pentagonal.
1705. *Chrysocoma*. Recept. naked. Pappus simple. Invol. hemispherical, imbricated. Style scarcely longer than florets.
1706. *Tarchoanthus*. Recept. villous. Pericarps enveloped in hair. Invol. 1-leaved, half 7-fid, turbinate.
1707. *Calea*. Recept. paleaceous. Pappus hairy. Invol. imbricated.
1708. *Isocarpha*. Recept. paleaceous conical, the outer paleæ forming the involucre. Pappus O. Anthers not spurred at base. Stigmas with a long appendage.
1709. *Petrobium*. Recept. paleaceous, flattish. Invol. many-leaved, in 2 rows: outer row shortest. Pericarps angular. Pappus awned.
1710. *Neuvolana*. Recept. paleaceous, flattish. Pappus capillary, toothletted, persistent. Invol. imbricated, leafy. Anthers awnless at the base.
1711. *Humea*. Recept. minute, glandular. Pappus none. Invol. loosely imbricated, membranous. Florets about 3, tubular. Anthers awned.
1712. *Cesulia*. Recept. paleaceous: paleæ enveloping the pericarps. Pappus O. Invol. 3-leaved.
1713. *Isodia*. Recept. paleaceous. Pappus O. Invol. imbricated: inner scales radiant colored.
1714. *Santolina*. Recept. paleaceous. Pappus O. Invol. imbricated, hemispherical.
1715. *Otanthus*. Invol. hemispherical imbricated. Florets with 2 appendages at base. Recept. convex, paleaceous. Pappus O.
1716. *Caleacte*. The same as *Calea*, but it has a radius of ligular female florets.
1717. *Athanasia*. Recept. paleaceous. Pappus paleaceous, very short. Invol. imbricated.
1718. *Balsamita*. Recept. naked. Pappus O. Invol. imbricated.
1719. *Pentzia*. Recept. naked. Pappus a membranous torn rim. Invol. imbricated, hemispherical.



## SUPERFLUA.

## § Florets of the disk hermaphrodite: of the ray female.

1720. *Tanacetum*. Invol. hemispherical, imbricated. Recept. naked. Florets of the ray trifid, obsolete sometimes wanting. Pericarps crowned with a membranous margin or pappus.
1721. *Artemisia*. Invol. ovate or rounded, imbricated. Recept. naked (or downy, *Sm.*). Florets of the ray subulate. Pericarps crowned with a membranaceous pappus.
1722. *Gnaphalium*. Recept. naked. Pappus hairy or feathery. Invol. imbricated: marginal scales round, scarios, colored.
1723. *Leontopodium*. Heads sessile in the leaves. Invol. woolly. Florets 5-fid. Pappus pencilled or hairy. Otherwise Guaphalium.
1724. *Evax*. Heads surrounded by bracteæ. Invol. ovate, imbricated, with appressed acuminate scales. Florets of disk 4-toothed: of the ray not toothed. Recept. subulate, paleaceous. Pericarps of the female flowers without pappus.
1725. *Antennaria*. Recept. scrobiculate. Pappus capillary. Invol. imbricated, scarios, colored. Anthers spurred at base. Florets dioecious.
1726. *Metalsia*. Invol. cylindrical, radiant colored. Pappus deciduous, capillary, clavate. Florets few, hermaphrodite. Otherwise as *Gnaphalium*.
1727. *Astelma*. Recept. naked. Pappus feathery, sessile: rays connate at base. Invol. imbricated: with scarios scales, the interior of which are connivent.
1728. *Athrisia*. Heads radiant. Invol. obl. imbricated, awned, squarrose. Florets bilabiate. Pappus feathery. Recept. alveolate.
1729. *Xeranthemum*. Recept. paleaceous. Pappus paleaceous-setaceous. Invol. imbricated, radiated: with a colored ray.
1730. *Ellichrysum*. Recept. naked. Pappus hairy or feathery. Invol. imbricated, radiated: ray colored.
1731. *Carpesium*. Recept. naked. Pappus O. Invol. imbricated, with the outer scales reflexed.
1732. *Baccharis*. Recept. naked. Pappus pilose. Invol. imbricated, cylindrical. Female florets mixed with the hermaphrodite ones.
1733. *Molina*. Invol. campanulate, imbricated. Pappus feathery. Recept. convex, naked, dotted. Florets dioecious.
1734. *Congra*. Invol. roundish, imbricated. Recept. naked. Florets of the ray 3 cleft. Pappus rough.
1735. *Madia*. Recept. naked. Pappus O. Invol. double: outer 8-10-leaved, equal, longer than the inner, which is many-leaved.
1736. *Erigeron*. Invol. imbricated. Recept. naked. Florets of the ray numerous, very narrow, mostly of a different color from the disk. Pappus simple.
1737. *Tussilago*. Invol. simple, equal, submembranaceous, swelling. Recept. naked. Pappus simple.
1738. *Senecio*. Invol. subcylindrical, equal, scaly below; the scales withered at the tip. Recept. naked. Pappus simple.
1739. *Aster*. Invol. imbricated, its lowermost scales spreading (except in *A. trifolium*). Recept. naked. Florets of the ray more than 10. Pappus simple.
1740. *Solidago*. Invol. imbricated, its scales connivent. Recept. naked. Florets of the ray (of the same colour as the disk) about 5. Pappus rough.
1741. *Cineraria*. Recept. naked. Pappus simple. Invol. simple, many-leaved, equal.
1742. *Calotis*. Recept. naked. Pericarps crowned with two opposite paleæ and 1-3-barbed awns. Invol. nearly equal, many-leaved, in a single or double row.
1743. *Kaukasia*. Invol. simple: leaflets keeled. Recept. naked, convex. Pappus of the ray a minute fringed rim; of the disk stiff and feathery.
1744. *Senecio*. Invol. imbricated. Recept. naked. Florets of the ray very numerous, linear. Anthers with 2 bristles at the base. Pappus simply composed of hairs.
1745. *Pulicaria*. Invol. roundish, imbricated: scales linear, acuminate. Recept. naked. Pappus compound: outer a membranous cup; inner setaceous. Pericarps uniform.
1746. *Grindelia*. Recept. naked. Pappus setaceous, deciduous. Invol. imbricated, hemispherical.



1747. *Podolepis*. Recept. naked. Pappus hairy. Invol. imbricated, scarious, hemispherical: scales unguiculate.
1748. *Chaetanthera*. Invol. many-leaved, ciliated. Florets of ray linear, 3-toothed, with a fine bifid spiral segment at the divisions. Anthers spurred at base. Recept. naked, flat. Pappus hairy.
1749. *Arnica*. Recept. naked. Pappus simple. Invol. with equal leaves. Florets of ray generally with 5 filaments without anthers.
1750. *Gerberia*. Florets bilabiate, those of the ray ligulate. Invol. imbricated, coriaceous. Recept. flat, naked. Pappus with long bearded palea.
1751. *Doronicum*. Scales of the invol. in 2 equal rows, longer than the disk. Recept. naked. Pericarp of the disk crowned with a simple pappus, those of the ray without a pappus.
1752. *Pedicularis*. Recept. naked. Pappus hairy. Florets 2-lipped.
1753. *Tetragonatheca*. Recept. paleaceous. Pappus O. Invol. 1-leaved, 4-cornered, 4-parted.
1754. *Ximenesia*. Recept. paleaceous. Pappus O. Pericarp of ray naked, emarginate; of the disk winged. Invol. many-leaved, nearly equal.
1755. *Helcintium*. Recept. naked, of the ray paleaceous. Pappus 5-awned. Invol. 1-leaved, many-parted. Florets of ray half-trifid.
1756. *Bellis*. Invol. hemispherical, its scales equal. Recept. naked, conical.
1757. *Bellium*. Recept. naked. Pericarp conical, with a paleaceous 8-leaved crown and awned pappus. Leaves of invol. equal.
1758. *Dahlia*. Recept. paleaceous. Pappus O. Invol. double: outer many-leaved; inner 1-leaved, 8-parted.
1759. *Bæbra*. Invol. double: outer many-leaved; inner 8-leaved. Recept. naked. Pappus hairy.
1760. *Tagetes*. Recept. naked. Pappus with 5 erect awns. Invol. simple, 1-leaved, 5-toothed, tubular. Florets of ray 5, persistent.
1761. *Heterospermum*. Recept. naked. Outer grains compressed with a membranous edge; inner oblong with two awns. Invol. double: outer 4-parted; inner many-leaved.
1762. *Schkuhria*. Recept. naked. Pappus paleaceous. Invol. 5-leaved. Florets of ray solitary.
1763. *Pectis*. Recept. naked. Pappus with 3 or 5 awns. Invol. 5-leaved. Florets of ray 5.
1764. *Longchampsia*. Differs from *Pectis* and *Leysera*, in having a double pappus, the exterior of which is edget, the inner feathery.
1765. *Leysera*. Recept. somewhat paleaceous. Pappus paleaceous: of the disk feathery. Invol. scarious.
1766. *Selloa*. Invol. imbricated, ovate. Recept. naked. Pappus O. Female florets inconspicuous, mixed among the leaves of the involucrum.
1767. *Relbania*. Recept. paleaceous. Pappus membranous, cylindrical, short. Invol. imbricated, scarious. Rays numerous.
1768. *Zinnia*. Recept. paleaceous. Pappus with 2 erect awns. Invol. ovate, cylindrical, imbricated. Florets of ray 5, persistent, entire.
1769. *Chrysanthemum*. Invol. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pappus none.
1770. *Pyrethrum*. Recept. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pericarp crowned with a membranous margin.
1771. *Matricaria*. Invol. hemispherical or almost plane, imbricated with scales whose borders are membranous. Recept. naked, almost cylindrical. Pappus none.
1772. *Boltonia*. Recept. fovee, hemispherical. Pappus toothed, awned, somewhat 2-horned. Rays numerous. Invol. imbricated.
1773. *Lidbeckia*. Recept. naked. Pappus O. Pericarp angular, with the lowest joint of style persistent. Rays numerous. Invol. many-parted.
1774. *Cenia*. Invol. in fruit turbinate, multifid. Florets of ray very numerous, short. Recept. naked. Pericarp compressed.
1775. *Cotula*. Recept. nearly naked. Pappus margined. Florets of disk 4-fid, of the ray scarcely any.
1776. *Granga*. Invol. imbricated, spreading. Marginal florets 3-toothed. Recept. hemispherical. Pericarp with a toothed edge at top.
1777. *Anacyclus*. Recept. paleaceous. Pappus emarginate. Pericarp with membranous edges.
1778. *Anthemis*. Invol. hemispherical, its scales nearly equal, their margins scarious. Recept. convex, chaffy. Pericarp crowned with a membranous border or pappus.
1779. *Centrospermum*. Invol. hemispherical, of many imbricated, round, scarious scales. Recept. naked. Pappus spiny. Outer pericarp cymbiform, smooth.
1780. *Sanvitalia*. Recept. paleaceous. Pericarp of ray with 3 awns: of the side naked, warted; of the disk winged. Invol. imbricated, flat.
1781. *Achillea*. Invol. ovate, imbricated, unequal. Recept. plane, chaffy. Florets of the ray 5-10, roundish, obcordate. Pericarp naked.
1782. *Tridax*. Invol. cylindrical, imbricated, with ovate oblong scales. Florets of ray 3-parted. Recept. paleaceous. Pappus hairy, simple.
1783. *Amelus*. Recept. paleaceous. Pappus simple. Invol. imbricated. Florets of ray undivided.
1784. *Starken*. Recept. hirsute. Pappus sessile, hairy. Invol. imbricated.
1785. *Columellia*. Invol. cylindrical, imbricated. Florets of ray undivided. Recept. naked, fovee. Pappus a toothed edge.
1786. *Eclipta*. Recept. paleaceous. Pappus O. Florets of disk 4-fid.
1787. *Meyera*. Invol. 4-leaved, the 2 inner smallest. Recept. small, paleaceous, 2 paleæ enveloping the pericarp, keeled. Pappus O.
1788. *Chrysanthellum*. Invol. cylindrical, about as long as florets, scaly at base. Recept. paleaceous. Florets numerous, linear, 2-toothed, short, of the centre few, and generally abortive. Pericarp naked, roundish, furrowed, with an entire edge.
1789. *Siegesbeckia*. Recept. paleaceous. Pappus O. Outer invol. 5-leaved, inner spreading. Ray halved.
1790. *Verbesina*. Recept. paleaceous. Pappus awned. Invol. in one row. Florets of the ray about 5.
1791. *Synedrella*. Invol. generally of 2 leaves. Florets fuscous. Recept. obsolete, paleaceous: paleæ glutinaceous; the outer ovate. Pericarp oval, flat, edged; the central dissimilar, near, oblong, with 2 or 3 awns.
1792. *Galinsoga*. Recept. paleaceous. Pappus many-leaved, paleaceous. Invol. imbricated.
1793. *Acnella*. Invol. simple, with a few somewhat leafy divisions. Recept. oblong, paleaceous. Heads radiant. Pericarp 4-cornered, truncate at end, naked.
1794. *Zaluzania*. Invol. with distinct, somewhat ovate, equal segments. Head radiant. Recept. conical, paleaceous; paleæ membranous, trifid, involving the pericarp, which are 4-cornered and naked.
1795. *Pascalia*. Recept. paleaceous. Pericarp drupaceous. Pappus a toothed rim. Invol. imbricated.
1796. *Heliosis*. Invol. imbricated, with ovate lined squamæ. Cor. of ray linear, large. Recept. paleaceous, conical, with lanceolate paleæ. Pericarp 4-cornered. Pappus O.
1797. *Bupthalmum*. Recept. paleaceous. Pappus an obsolete rim. Sides of pericarp, especially of the ray, edged.

Order 3.  FRUSTRANEA.

Florets of the disk fertile: of the ray sterile.

1798. *Helianthus*. Recept. paleaceous, flat. Pappus 2-leaved. Invol. imbricated, subsparrose.
1799. *Gymnoloma*. Invol. hemispherical, loosely imbricated. Recept. convex, paleaceous. Central florets sterile; marginal radiant. Pappus O.

1800. *Rudbeckia*. Recept. paleaceous, conical. Pappus with a 4-toothed rim. Invol. with a double row of scales.
1801. *Galaridia*. Recept. paleaceous, hemispherical. Pappus paleaceous, many-leaved. Invol. imbricated, many-leaved, flat. Rays 3-parted.
1802. *Tithonia*. Invol. many-leaved, cylindrical. Rays 3-toothed. Recept. paleaceous, convex. Pappus paleaceous, 5-leaved.
1803. *Cosmea*. Recept. paleaceous. Pericarps 4-cornered. Pappus with 2 or 3 awns. Invol. double, each 1-leaved, 8-parted.
1804. *Coreopsis*. Recept. paleaceous. Pericarps compressed, emarginate. Pappus with 2 horns. Invol. double, each many-leaved.
1805. *Simsia*. Invol. subcylindrical, nearly equal, with linear lanceolate incumbent scales. Recept. paleaceous. Pericarps flatish, somewhat edged, each edge awned.
1806. *Osmites*. Recept. paleaceous. Pappus obsolete. Florets of ray ligulate. Invol. imbricated scarious.
1807. *Encelia*. Recept. paleaceous. Pappus O. Pericarps vertical, flat, with a ciliated edge. Invol. imbricated.
1808. *Sclerocarpus*. Recept. paleaceous. Pappus O. Invol. double, each 3-leaved.
1809. *Cultumia*. Recept. favose. Pericarps smooth. Pappus O. Invol. 1-leaved, covered with imbricated leaflets.
1810. *Berckheya*. Recept. favose. Pericarps villous. Pappus paleaceous (sometimes bristly-paleaceous, ciliated). Invol. 1-leaved, covered with imbricated leaflets.
1811. *Didelta*. Recept. favose, inclosing the pericarps. Pappus many-parted, setaceous, paleaceous, toothed. Invol. 1-leaved, covered with leaflets, the exterior very large.
1812. *Gorteria*. Recept. scrobiculate. Pappus a ciliated edge. Invol. 1-leaved, covered with imbricated leaflets, of the fruit indurated, connivent, deciduous.
1813. *Guzmania*. Recept. naked, or alveolate. Pericarps very villous. Pappus hairy-paleaceous. Invol. 1-leaved, the tube naked, or covered with imbricated leaflets.
1814. *Cryptostemma*. Recept. favose. Pappus paleaceous, covered by the entangled wool of the pericarp. Invol. imbricated.
1815. *Arctotheca*. Recept. favose. Pappus O. Invol. imbricated.
1816. *Spheogyme*. Recept. with distinct paleæ. Pappus paleaceous, simple. Stigmas with a dilated truncated end. Invol. imbricated, the inner scales or all with a dilated scarious end.
1817. *Zoogea*. Recept. setose. Pappus setaceous. Rays ligulate. Invol. imbricated.
1818. *Leuzea*. Invol. imbricated, spherical, not spiny. Recept. bristly. Pappus feathery, in many rows. Florets all hermaphrodite.
1819. *Centaurea*. Invol. scaly. Recept. bristly. Corollas of the ray infundibuliform, irregular, longer than those of the disk. Pappus simple.
1820. *Galaactites*. Invol. imbricated, with somewhat squarrose spiny scales. Recept. favose. Pappus feathery, deciduous.
1821. *Wedelia*. Invol. 5-leaved, with broad leafy segments. Recept. paleaceous. Florets of the centre generally abortive, of the ray many, oval, 2-3-fid. Stigmas setaceous. Pappus stipitate, membranous, tooth-letted.

## Order 4.



## NECESSARIA.

*Florets of the ray female fertile : of the disk male.*

1822. *Milleria*. Recept. naked. Pappus O. Invol. of 3 valves. Ray halved.
1823. *Baltimora*. Recept. paleaceous. Pappus O. Invol. cylindrical, many-leaved. Ray 5-flowered.
1824. *Silphium*. Recept. paleaceous. Pappus with a 2 horned edge. Invol. squarrose.
1825. *Trixis*. Invol. imbricated. Cor. of ray 3-fid. Recept. paleaceous. Pappus O. Pericarps villous at end.
1826. *Polymnia*. Recept. paleaceous. Pappus O. Invol. double : outer 4 or 5-leaved ; inner 10-leaved, with common leaflets.
1827. *Chrysogonum*. Invol. 5-leaved. Recept. paleaceous. Pappus 1-leaved, 3-toothed. Pericarps with a little 4-leaved calyx.
1828. *Melampodium*. Recept. paleaceous, conical. Pappus 1-leaved, vulviform. Invol. 5-leaved.
1829. *Chapalia*. Recept. naked. Pappus capillary. Florets of the ray in a double row, deformed ; of the disk bilabiate.
1830. *Catandula*. Recept. naked. Pappus O. Invo. many-leaved, equal. Pericarps of the disk membranous.
1831. *Arctotis*. Recept. setose-alveolate. Pericarps half 2-celled, or 2-furrowed at the back. Pappus paleaceous. Invol. imbricated, with scales scarious at end.
1832. *Osteospermum*. Recept. naked. Pappus O. Invol. many-leaved. Pericarps globose, colored, bony.
1833. *Othonna*. Recept. naked. Pappus hairy. Invol. 1-leaved, many-cut.
1834. *Hippia*. Recept. naked. Pappus O. Pericarps with very broad edges, naked. Invol. hemispherical, somewhat imbricated. Florets of ray 10, obsoletely trifid.
1835. *Soliva*. Invol. 7-leaved, leaflets with imbricated edges, the 3 outer largest. Ray none. Recept. very small, somewhat villous. Pericarps compressed, surrounded by a membrane, crowned by 2 prickles and the style.
1836. *Psiadia*. Recept. naked. Pappus hairy, sessile. Invol. imbricated, ovate. Florets of ray short.
1837. *Erioccephalus*. Recept. paleaceous. Pappus O. Invol. double : inner 1-leaved ; outer 5-leaved.
1838. *Filago*. Recept. paleaceous. Pappus O. Invol. imbricated. Female florets mixed among the scales of involucre.
1839. *Micropus*. Recept. paleaceous. Pappus O. Invol. calyculate. Rays none. Female florets enwrapped in the scales of involucre.
1840. *Parthenium*. Recept. paleaceous, flat. Pericarps obovate, nearly naked. Invol. 5-leaved.
1841. *Iva*. Recept. pilose. Pericarps naked, blunt. Invol. 3-leaved. Florets of ray 5. Styles 2, long.
1842. *Acicarpa*. Invol. 5-parted. Cor. all tubular. Recept. paleaceous, the palea being united with the pericarps after flowering. Pappus O. Stamens half-separate.

## Order 5.



## SEGREGATA.

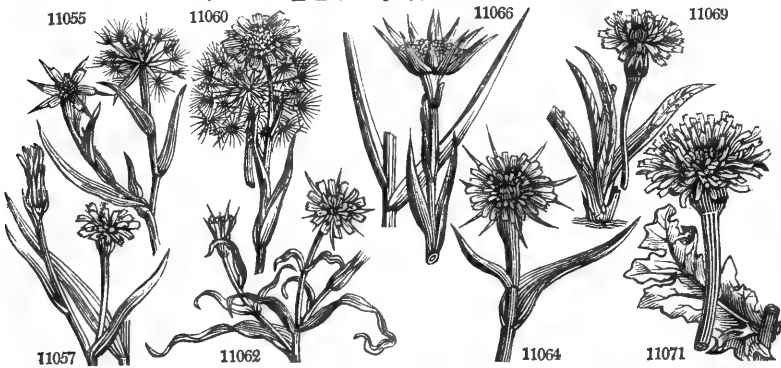
*Each floret having its own peculiar involucre.*

1843. *Elephantopus*. Invol. 4-flowered. Florets ligulate, hermaphrodite. Recept. naked. Pappus setaceous.
1844. *Edera*. Invol. many-flowered. Tubular florets hermaphrodite, and one or more female and ligulate. Recept. paleaceous. Pappus with many paleæ.
1845. *Flaveria*. Partial invol. 2-5-leaved, 2-5-flowered. Common invol. imbricated with unequal scales. Florets tubular, 1 often ligulate. Pappus O. Recept. naked.
1846. *Stæbe*. Invol. 1-flowered. Floret tubular, hermaphrodite. Recept. naked. Pappus feathery.
1847. *Nauenbergia*. Partial invol. 2-leaved, 1-flowered ; common invol. leafy. Pappus O. Receptacle setose.

1848. *Cassinia*. Invol. 2-flowered, 4-leaved. Florets hermaphrodite. Pappus paleaceous, pencilled. Recept. naked.  
 1849. *Sphaeranthus*. Invol. 8-flowered. Florets tubular, hermaphrodite, and obsoletely female. Recept. scaly. Pappus O.  
 1850. *Echinops*. Invol. 1-flowered. Florets tubular, hermaphrodite. Recept. setose. Pappus obsolete.  
 1851. *Rolandra*. Florets fasciated in a head, with scales between. Invol. 2-valved, 1-flowered. Florets hermaphrodite. Pappus O.

*ÆQUALIS.*

|  |                   |                   |       |     |           |             |                                  |
|--|-------------------|-------------------|-------|-----|-----------|-------------|----------------------------------|
| 1620. GEROPO'GON. <i>W.</i> OLD MAN'S BEARD.     | <i>Compositæ.</i> | <i>Sp. 3-6.</i>   |       |     |           |             |                                  |
| 11055 giäber <i>W.</i> smooth                    | ○ or              | 1½                | jl.au | Pk  | Italy     | 1704.       | S co Bot. mag. 479               |
| 11056 hirsütus <i>W.</i> hirsute                 | ○ or              | 1½                | jl.au | R   | Italy     | 1759.       | S co Col. eph. 1. t. 231         |
| 11057 calyculätus <i>W.</i> perennial            | △ or              | 2                 | jl.au | Pk  | Italy     | 1774.       | S co Jac. vind. 2. t. 106        |
| 1621. TRAGOPO'GON. <i>W.</i> GOAT'S BEARD.       | <i>Compositæ.</i> | <i>Sp. 11-17.</i> |       |     |           |             |                                  |
| 11058 cänus <i>W. &amp; K.</i> hoary             | ○ or              | 1                 | jl.au | Pu  | Hungary   | 1824.       | S co                             |
| 11059 angustifölius <i>L.</i> narrow-leaved      | ○ or              | ½                 | jl.au | Pu  | Italy     | 1823.       | S co                             |
| 11060 pratënsis <i>W.</i> yellow                 | ○ or              | 2                 | my.jn | Y   | Britain   | past.       | S r.m Eng. bot. 434              |
| 11061 mutäbilis <i>Jac.</i> changeable           | ○ or              | 3                 | my.jn | Pa  | Siberia   | 1816.       | S co Jac. ic. 1. t. 157          |
| 11062 undulätus <i>W.</i> wave-leaved            | ○ or              | 2                 | my.jn | W.Y | Crimea    | 1790.       | S co Jac. ic. 1. t. 128          |
| 11063 orientälis <i>W.</i> oriental              | ○ or              | 3                 | jn.jl | Y   | Levant    | 1787.       | S co                             |
| 11064 mäjör <i>W.</i> great                      | ○ or              | 6                 | my.jn | Y   | Austria   | 1788.       | S co Jac. aust. 1. t. 29         |
| 11065 floccösus <i>W. &amp; K.</i> woolly        | ○ or              | 3                 | my.jn | Y   | Hungary   | 1816.       | S co Pl. rar. hu. 2. t. 112      |
| 11066 porrifölius <i>W.</i> Salsafy              | ○ cul             | 4                 | my.jn | Pu  | England   | m.me. S r.m | Eng. bot. 638                    |
| 11067 crocifölius <i>W.</i> Crocus-leaved        | ○ or              | 1                 | jn.jl | Pu  | Italy     | 1739.       | S co Col. eph. 1. t. 230         |
| 11068 villösus <i>W.</i> hairy                   | ○ or              | 4                 | my.jn | P.Y | Spain     | 1794.       | S co                             |
| 1622. TROX'IMON. <i>Gærtn.</i> TROXIMON.         | <i>Compositæ.</i> | <i>Sp. 2-3.</i>   |       |     |           |             |                                  |
| 11069 glaucum <i>Ph.</i> glaucous-leaved         | △ or              | 1                 | my.jn | Y   | Missouri  | 1811.       | D co Bot. mag. 1667              |
| 11070 virginicum <i>Ph.</i> Virginian            | △ or              | 1                 | jl.au | Y   | N. Amer.  | 1799.       | D co                             |
| 1623. ARNOPO'GON. <i>W.</i> SHEEP'S BEARD.       | <i>Compositæ.</i> | <i>Sp. 3-6.</i>   |       |     |           |             |                                  |
| 11071 Dalechämpii <i>W.</i> great-flowered       | △ pr              | 2                 | jn.o  | L.Y | S. Europe | 1739.       | D co Bot. mag. 1623              |
| 11072 nicroides <i>W.</i> prickly-cupped         | ○ pr              | 1                 | jl.au | Y   | S. Europe | 1683.       | S co Lam. ill. t. 646.           |
| 11073 äsper <i>W.</i> rough                      | ○ pr              | 1½                | jl.au | Y   | Montpel.  | 1774.       | S co                             |
| 1624. PODOSPERMUM. <i>Dec.</i> PODOSPERMUM.      | <i>Compositæ.</i> | <i>Sp. 3-6.</i>   |       |     |           |             |                                  |
| 11074 calcitrapifölium <i>Dec.</i> Centaury-lvd. | △ pr              | 1                 | jn.jl | Y   | Levant    | 1820.       | D co Buxb. cent. 2. t. 22        |
| 11075 laciniätum <i>Dec.</i> cut-leaved          | ○ pr              | 2                 | jn.jl | Y   | S. Europe | 1640.       | S a.l Jac. aust. 4. t. 356       |
| 11076 octanguläre <i>Dec.</i> octagon            | ○ pr              | 1                 | jn.jl | Y   | S. Europe | 1818.       | S co                             |
| 1625. SCORZONE'RA. <i>W.</i> VIPER'S GRASS.      | <i>Compositæ.</i> | <i>Sp. 19-33.</i> |       |     |           |             |                                  |
| 11077 tuberösa <i>W.</i> tuberous                | *△ pr             | ½                 | jn    | Y   | Volga     | 1825.       | D co Pal. it. app. t. Y. f. 3    |
| 11078 tomentösa <i>W.</i> white                  | *△ pr             | 1                 | jn.jl | Y   | Armenia   | 1789.       | D co                             |
| 11079 hämilis <i>Jac.</i> dwarf                  | *△ pr             | 1                 | au    | Y   | Europe    | 1597.       | D co Jac. aust. 1. t. 36         |
| 11080 hispänica <i>W.</i> garden                 | *△ cul            | 3                 | jn.s  | Y   | Spain     | 1576.       | D co Lam. ill. t. 647. f. 5      |
| 11081 glastifölia <i>W.</i> Wood-leaved          | *△ pr             | 2                 | jn.s  | Y   | Germany   | 1816.       | D co                             |
| 11082 caricifölia <i>W.</i> Carex-leaved         | *△ pr             | 1½                | jn.s  | Y   | Siberia   | 1805.       | D co P. it. 3. ap. t. J. i. f. 1 |
| 11083 purpürea <i>W.</i> purple-flowered         | *△ pr             | 2                 | my.jn | Pu  | Austria   | 1759.       | D co Jac. aust. 1. t. 35         |
| 11084 rösea <i>W.</i> Rose-colored               | *△ pr             | 1½                | jl    | Pk  | Hungary   | 1807.       | D co Pl. rar. hu. 2. t. 121      |
| 11085 graminfölia <i>W.</i> Grass-leaved         | *△ pr             | 2                 | jn.au | L.Y | Portugal  | 1759.       | D co Jac. obs. 4. t. 100         |
| 11086 angustifölia <i>W.</i> narrow-leaved       | *△ pr             | ½                 | jn.au | Y   | S. Europe | 1759.       | D co Pl. rar. hu. 2. t. 132      |
| 11087 eriospërma <i>W.</i> woolly-seeded         | *△ pr             | 1                 | jn.au | Y   | Siberia   | 1805.       | D co                             |
| 11088 taraxäcifölia <i>W.</i> Dandelion-lvd.     | *△ pr             | ½                 | jn.au | Y   | Bohemia   | 1801.       | D s.l Jac. ic. 1. t. 160         |
| 11089 taurica <i>Bieb.</i> Taurian               | *△ pr             | 1                 | jn.au | Y   | Tauria    | 1820.       | D co                             |
| 11090 parviflöra <i>Jacq.</i> small-flowered     | *△ pr             | 2                 | jl.au | Y   | Austria   | 1819.       | D co Jac. aust. t. 305           |
| 11091 lanätä <i>Bieb.</i> woolly                 | *△ pr             | 1                 | jl.au | Y   | Iberia    | 1824.       | D co Mor. se. 7. t. 6. f. 17     |
| 11092 ensifölia <i>Bieb.</i> sword-leaved        | *△ pr             | 1                 | my.jn | Y   | Caucasus  | 1825.       | D co                             |
| 11093 hirsütä <i>L.</i> hairy                    | *△ pr             | ½                 | my.jn | Y   | S. Europe | 1818.       | D co A. l. ved. 31. 3            |



*History, Use, Propagation, Culture,*

1620. *Geropogon*. So named from γειρον, an old man, and πωγων, a beard; in allusion to the long silky beard of the seeds.

1621. *Tragopogon*. From τραγος, a goat, and πωγων, a beard; a name applied in the same way as *Geropogon*. *T. porrifolius*, or *Salsafy*, has a long tapering fleshy white root, which is used like carrots or parsneps, and cultivated in gardens for that purpose. The flavor of the root is mild and sweetish; dressed like asparagus, there is some resemblance in taste. It is occasionally grown in British gardens, and a good deal in those of France and Germany. It is raised and treated in all respects similar to the carrot. *T. pratensis* answers equally well for culture as this species, and was formerly preferred to it.

1852. *Brotera*. Partial invol. 1-flowered, many-leaved, common 6-8-flowered, imbricated, many-leaved. Florets tubular, uniform. Recept. naked. Pericarp covered by the adhering involucre.  
 1853. *Gundelia*. Invol. O. Hollows of the recept. 5-flowered. Florets tubular, male and hermaphrodite. Recept. paleaceous. Pappus O.  
 1854. *Euxenia*. Invol. 1-leaved, 10-cleft, reflexed, two of the segments larger than the rest. Anthers distinct. Pappus none. Recept. chaffy.

EQUALIS.

- 11055 Leaves smooth  
 11056 Leaves hairy  
 11057 Involucrum with scales at the base
- 11058 Invol. 8-leaved as long as ray, and peduncles downy, Leaves linear straight  
 11059 Involucre 8-leaved longer than rays of corolla, Leaves entire straight smooth  
 11060 Invol. about as long as the cor. Leaves undivided glabrous acuminate channelled, Peduncles cylindrical  
 11061 Invol. 8-leaved as long as rays of cor. Leaves entire straight lanc. acuminate  
 11062 Invol. as long as rays of cor. Leaves entire sub-linear; those of the stem very wavy  
 11063 Invol. shorter than ray of cor. Leaves entire somewhat wavy  
 11064 Invol. longer than ray of cor. Lvs. entire straight, Pedunc. thickened upwards, Florets rounded at end  
 11065 Woolly with down, Invol. shorter than ray of cor. Lvs. linear channelled: cauline revolute  
 11066 Invol. much longer than the cor. Leaves undivided straight, Peduncle thickened upwards  
 11067 Invol. 5-leaved longer than ray of cor. Leaves entire, Radical and peduncles villous at base  
 11068 Invol. half as long again as ray of cor. Stem and leaves villous
- 11069 Scape 1-fl. Leaves of invol. imbricated cuspidate, Leaves linear entire glaucous on each side  
 11070 Smooth glaucous, Stem erect 2-3-fid somewhat naked, Leaves smooth: radical sublyrate
- 11071 Invol. downy unarmed, Leaves runcinate toothed  
 11072 Invol. hispid aculeate, Leaves runcinate toothletted: cauline dilated at base  
 11073 Invol. hispid aculeate, Leaves entire: cauline obl. attenuated at base
- 11074 Lower leaves lyrate with obl. mucronate segments: upper pinnatifid  
 11075 Lower leaves pinnatifid: upper linear, Invol. smooth: lower scales spreading mucronate  
 11076 Lower leaves decursively pinnatifid lanc.: upper linear-lanceolate, Invol. before opening 8 angular
- 11077 Stem 1-flowered leafy, Leaves linear downy beneath, Root tuberous  
 11078 Leaves ovate nerved downy entire sessile  
 11079 Stem somewhat naked about 1-flowered, and scales of invol. woolly, Leaves obl. lanc. nerved flat  
 11080 Stem branched, Leaves amplexicaul. lanc. entire subserrulate at base  
 11081 Stem about 1-fl. leafy, Leaves lin. lanc. acuminate smooth nerved flat  
 11082 Stem about 1-fl. leafy ascending, Leaves lanc. ensif. smooth nerved flat, Ray longer than invol.  
 11083 Leaves lin. subul. channelled triquetrous, Stem branched  
 11084 Leaves lanc. lin. flat: cauline keeled linear, Stem 1-flowered  
 11085 Leaves lin. ensif. acum. rigid nerved keeled, Invol. villous leafy at base, Stem somewhat branched  
 11086 Leaves subulate entire, Pedunc. thickened, Stem villous at base  
 11087 Leaves lin. acun. keeled woolly at base, Stem branched, Invol. woolly, Fruit downy  
 11088 Leaves runcinate blunt smooth, Scape leafless branched, Peduncles thickened  
 11089 Stem leafy many-fl., and invol. downy, Lower leaves lanc. acuminate entire downy: upper lin. subulate  
 11090 Stem branched leafy at base, Leaves lanc. ensif. smooth nerved flat, Ray shorter than cal.  
 11091 Stem 1-fl. leafy at base, Leaves lin. lanc. wavy silky with down all over  
 11092 Stem leafy many-flowered erect, Leaves nerved filiform acuminate, Invol. and seeds woolly  
 11093 Leaves linear and 1-flowered, Stem hairy



and Miscellaneous Particulars.

1622. *Troximon*. So named by Gärtner, from *τροξιμος*, eatable: but, as Sir James Smth observes, without much propriety.  
 1623. *Arnopogon*. So named from *αγς αγνος*, a lamb, and *πωγων*, a beard: see Geropogon. This is the same genus as has been called by Scopoli and Willdenow, *Urospermum*.  
 1624. *Podospermum*. From *πυς ποδος*, a foot, and *σπερμα*, seed, on account of the long stalk of the fruit. Small herbaceous plants with the flowers of *Scorzonera*.  
 1625. *Scorzonera*. From *scorizon*, the Catalonian name of the viper. The plants are esteemed in Spain as a certain remedy for the bite of a viper; but it is believed that the slender tortuous form of the roots has

|                                   |                |   |     |    |       |     |                  |       |    |                   |
|-----------------------------------|----------------|---|-----|----|-------|-----|------------------|-------|----|-------------------|
| 11094 muricáta Dec.               | muricated      | Δ | pr  | 1  | jn.au | Y   | S. Europe        | 1820. | D  | co                |
| 11095 aspérrima W.                | roughest       | Δ | pr  | 1  | jn.au | Y   | Galatia          | 1821. | D  | co                |
| 1626. PICRIDÍUM. P. S. PICRIDÍUM. |                |   |     |    |       |     |                  |       |    |                   |
| 11096 vulgáre P. S.               | various-leaved | ○ | cul | 1½ | jn.au | Y   | France           | 1773. | S  | co                |
| <i>Sónchus picrióides</i> W.      |                |   |     |    |       |     |                  |       |    |                   |
| 11097 tingítanum P. S.            | Tangier        | ○ | or  | 1½ | jn.s  | Y   | Barbary          | 1713. | S  | co                |
| 11098 álbidum P. S.               | pale-flowered  | Δ | or  | 1  | jl.o  | W.Y | France           | 1781. | D  | co                |
| <i>Crépis álbida</i> W.           |                |   |     |    |       |     |                  |       |    |                   |
| *1627. SON'CHUS. W.               | SOW THISTLE.   |   |     |    |       |     |                  |       |    |                   |
| <i>Compositæ. Sp. 25—40.</i>      |                |   |     |    |       |     |                  |       |    |                   |
| 11099 marítimus W.                | sea            | Δ | pr  | 2  | jl.s  | Y   | S. Europe        | 1748. | D  | co                |
| 11100 fruticósus W.               | shrubby        | Δ | or  | 3  | ap.jl | Y   | Madeira          | 1777. | S  | p.l               |
| 11101 pinnátus W.                 | wing-leaved    | Δ | or  | 3  | ...   | Y   | Madeira          | 1777. | C  | co                |
| 11102 lævigátus W.en.             | smooth         | Δ | or  | 3  | ...   | Y   | Madeira          | 1816. | C  | co                |
| 11103 lyrátus W.en.               | lyre-leaved    | Δ | or  | 3  | ...   | Y   | Madeira          | 1816. | C  | co                |
| 11104 radicátus W.                | long-rooted    | Δ | or  | 3  | jl    | Y   | Canaries         | 1780. | C  | co                |
| 11105 palústris W.                | tall marsh     | Δ | pr  | 6  | jl.au | Y   | England riv.ba.  | D     | co | Eng. bot. 935     |
| 11106 arvénis W.                  | corn           | Δ | w   | 1½ | jl.au | Y   | Britain corn fi. | D     | co | Eng. bot. 674     |
| 11107 oleráceus W.                | common         | ○ | w   | 2  | jn.au | Y   | Britain fields.  | S     | co | Eng. bot. 843     |
| 11108 tenérrimus W.               | clammy         | ○ | un  | 2  | jl.au | Y   | S. Europe        | 1691. | S  | co                |
| §11099 Plumíeri W.                | Plumier's      | Δ | or  | 6  | jl.au | Y   | France           | 1794. | D  | co                |
| §11110 alpínus W.                 | blue-flowered  | Δ | or  | 4  | jl.au | B   | Scotland al.pas. | D     | co | Eng. bot. 2425    |
| §11111 lapponícus W.              | Lapland        | Δ | or  | 6  | jl.au | B   | Lapland          | 1804. | S  | co                |
| §11112 floridánus W.              | small-flowered | Δ | or  | 6  | jl    | B   | N. Amer.         | 1713. | S  | co                |
| 11113 caucásicus Fischer          | Caucasia       | Δ | or  | 3  | aus.  | Y   | Caucasus         | 1818. | D  | co                |
| 11114 acuminátus W.               | acuminate      | Δ | or  | 2  | aus.  | Y   | N. Amer.         | 1812. | D  | co                |
| 11115 pállidus W.                 | Canadian       | Δ | or  | 2  | jl.s  | Y   | Canada           | 1704. | D  | co                |
| §11116 sibíricus W.               | Siberian       | Δ | or  | 2  | jl.s  | L.B | Siberia          | 1759. | D  | co                |
| §11117 tatáricus W.               | Tartarian      | Δ | or  | 4  | jn.jl | B   | Siberia          | 1784. | D  | co                |
| 11118 divaricátus Horn.           | divaricating   | Δ | or  | 3  | jl.au | Y   | .....            | 1823. | D  | co                |
| 11119 uliginósus Bieb.            | swamp          | Δ | or  | 4  | jn.jl | Y   | Caucasus         | 1821. | S  | co                |
| 11120 læcerus W.                  | torn           | ○ | or  | 1½ | jn.jl | Y   | .....            | 1820. | S  | co                |
| 11121 chondrilloídes Desf.        | spreading      | Δ | or  | 1½ | jn.jl | Y   | Spain            | 1729. | S  | s.l               |
| 11122 macrorhýllus L.             | large-leaved   | Δ | or  | 4  | jl.au | B   | N. Amer.         | 1823. | D  | co                |
| 11123 leucophéus W.               | shining        | Δ | or  | 6  | jl.au | Pu  | N. Amer.         | 1821. | S  | co                |
| 1628. LACTUCA. W.                 | LETTUCE.       |   |     |    |       |     |                  |       |    |                   |
| <i>Compositæ. Sp. 19—26.</i>      |                |   |     |    |       |     |                  |       |    |                   |
| 11124 satíva W.                   | garden         | ○ | cul | 4  | jn.jl | Y.w | .....            | 1562. | S  | co                |
| 11125 crispá W.                   | curled         | ○ | cul | 3  | jn.jl | Y   | .....            | 1570. | S  | co                |
| 11126 palmáta W.                  | palmete        | ○ | cul | 3  | jn.jl | Y   | .....            | 1683. | S  | co                |
| 11127 intybácea W.                | Endive-leaved  | ○ | cul | 3  | jn.au | Y   | S. Amer.         | 1781. | S  | co                |
| 11128 quercína W.                 | Oak-leaved     | ○ | cul | 3  | my.jl | Y   | Sweden           | 1686. | S  | co                |
| 11129 stricta W.                  | upright        | Δ | un  | 3  | jn.jl | Y   | Hungary          | 1805. | S  | co                |
| 11130 elongáta W.                 | elongated      | Δ | un  | 3  | jn.jl | Y   | Pensylva.        | 1805. | S  | co                |
| 11131 Scariola W.                 | prickly        | Δ | un  | 3  | jl.au | Y   | England rubble.  | S     | co | Eng. bot. 268     |
| 11132 viróea W.                   | strong-scented | ○ | m   | 3  | jl.s  | Y   | Britain ch.ba.   | S     | co | Eng. bot. 1937    |
| 11133 angustána W.                | entire-leaved  | ○ | un  | 2  | jl.au | Y   | Italy            | 1791. | S  | co                |
| 11134 sagittáta W.                | arrow-leaved   | Δ | un  | 2  | jl.au | Y   | Hungary          | 1805. | S  | co                |
| 11135 saligna W.                  | least          | Δ | un  | ½  | jl.au | Y   | England ch.ba.   | S     | co | Pl.rar.hung.t.t.1 |
| 11136 índica W.                   | Indian         | ○ | un  | 1½ | jl.au | Y   | E. Indies        | 1784. | S  | co                |
| 11137 altíssima Bieb.             | tallest        | Δ | un  | 6  | jl.au | Y   | Caucasus         | 1823. | S  | co                |



History, Use, Propagation, Culture,

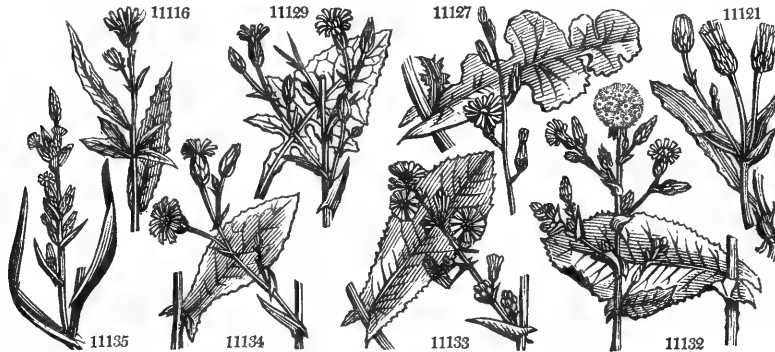
given rise to this belief, rather than any quality inherent in the plant : for it is a rule to which there are few exceptions, that all plants used as food by man, possess very inactive qualities. If their action was powerful, they would be unfit for food.

*Scorzonera hispanica* is esteemed diuretic, stimulant, and sudorific. A drink is made from it for variola; and a distilled water is also prepared from it. It is also an esculent of occasional culture. The root is carrot-shaped, about the thickness of one's finger, tapering gradually to a fine point, and thus bearing some resemblance to the body of a viper. The outer rind being scraped off, the root is steeped in water, in order to abstract a part of its bitter flavor. It is then boiled or stewed in the manner of carrots or parsneps. The roots are fit for use in August, and continue good till the following spring. Its culture is the same as that of carrot or salsafy.

1626. *Picridium*. A diminutive of *Picris*, which see. *Picridium sativum*, *Picridium cultivé*, Fr., is sown in the spring as a small salad, and, if not allowed to become too old before it is cut, is an excellent vegetable, with a pleasant delicate flavor, wholly devoid of the bitterness of endive, and of the insipidity of very young lettuces. *P. tingitanum* is a favorite border annual.

1627. *Sonchus*. *Sonchus*, in Greek, said to be altered from *sonchos*, hollow, or soft, in allusion to the soft feeble stem of the plants. *Sonchus oleraceus*, *Sow-thistle*, Eng., *Hasenkohl*, Ger., seems to have nearly the same properties as the Dandelion and Succory, but it is little regarded as a medicine. It is a favorite food with hares and rabbits; and is said to be eaten by goats, sheep and swine, but not to be relished by horses. The young tender leaves are in some countries boiled and eaten as greens: and it is even affirmed, that the tender

- 11094 Lower leaves linear : upper pinnatifid, Lobes remote linear  
 11095 Leaves runcinate hispid, Stem about 2-f. somewhat leafy hispid
- 11096 Cauline leaves amplexicaul. obl. nearly entire : radical sublyrate runcinate, Scales of invol. appressed
- 11097 Leaves amplexicaul. obl. pinnatifid toothed, Invol. squarrose  
 11098 Leaves scabrous, Scales of invol. membranous at edge ciliated
- 11099 Pedunc. subsol. term. naked, Leaves lanc. amplexicaul. undivided finely toothed backwards  
 11100 Pedunc. branched somewhat scaly, Leaves lanc. runcinate, Stem shrubby  
 11101 Pedunc. naked, Invol. smooth, Leaves pinn. Pinnæ lin.-lanc. somewhat toothed  
 11102 Pedunc. naked, Invol. turbin. smooth : lower scales reflexed at end, Leaves pinnatifid  
 11103 Pedunc. naked, Inv. turbin. smooth : low. scales reflexed at end, Lvs. lyrate pinnatif. Corymb divaricating  
 11104 Pedunc. naked and invol. smooth, Stem nearly naked, Radic. lvs. lyrate smooth on each side, Lobes triang.  
 11105 Pedunc. and invol. hispid somewhat umbelled, Leaves runcinate sagittate at base [ovate  
 11106 Peduncles and invol. hispid sub-umbellate, Leaves runcinate dentato-ciliate cord. at the base  
 11107 Peduncles sub-tomentose umbellate, Involucre glabrous, Lvs. runcinate dentato-ciliate amplexic. at base  
 11108 Pedunc. downy umbell. Invol. hairy, Leaves bipinnatifid cordate sagittate at base  
 11109 Pedunc. naked, Flowers paniced, Lvs. runcinate  
 11110 Peduncles and involucre hispid racemose, Leaves sublyrate, Terminal lobe deltoid very large  
 11111 Pedunc. squarrose, Fl. racemose, Leaves runcinate acuminate smooth glaucous beneath  
 11112 Pedunc. sub-squarrose, Fl. paniced, Leaves lyrate-runcinate toothletted stalked  
 11113 Leaves sessile : lower cordate toothed ; upper hispid entire, Peduncles scaly  
 11114 Pedunc. sub-squarrose, Fl. paniced, Radic. leaves sub-runcinate : cauline ovate acuminate stalked  
 11115 Raceme comp. terminal, Leaves lanc. ensiform amplexicaul. toothed  
 11116 Pedunc. squarrose, Fl. corymb. Leaves lanc. sessile : lower runcinate toothed ; upper entire  
 11117 Pedunc. naked, Fl. in corymbose panicles, Leaves lanc. runcinate narrowed at base  
 11118 Leaves pinnatifid with little white spiny teeth, Calyx slender  
 11119 Pedunc. and invol. smooth a little downy, Leaves sub-runcinate spiny-toothed amplexicaul.  
 11120 Pedunc. somewhat downy umbellate, Invol. smooth, Leaves pinnatif. toothed auricled cordate at base  
 11121 Radic. leaves unequaly pinnatifid : cauline linear lanc. toothed, Pedunc. long l-flowered  
 11122 Peduncles hirsute naked, Fl. paniced, Leaves lyrate cordate at base hairy beneath  
 11123 Pedunc. scaly, Fl. racemose, Leaves runcinate acuminate, Stem paniced virgate
- 11124 Leaves rounded : cauline cordate, Stem corymbose  
 11125 Leaves sinuate-crenate toothed wavy curled : radical with a hairy keel, Florets 5-parted  
 11126 Lower leaves tripartite pinnatifid with obl. blunt segm. : upper cordate  
 11127 Leaves runcinate tooth-ciliated blunt amplexicaul. sagittate : radical obovate, Stem paniced  
 11128 Leaves smooth beneath : lower runcinate toothletted at base dilated and sagittate ; upper lanc. sagittate  
 11129 Leaves smooth beneath : radical runcinate lyrate toothed ; upper runcinate pinnatifid  
 11130 Leaves smooth beneath : lower runcinate entire amplexicaul. : upper lanceolate sessile  
 11131 Leaves vertical prickly at keel acute at end sagittate at base runcinate pinnatifid  
 11132 Leaves oblong toothed horizontal, their keel prickly, their apex obtuse  
 11133 Leaves smooth beneath obl. lanc. ciliate-toothed sagittate at base  
 11134 Leaves smooth beneath : lower oblong narrowed at base toothletted ; upper lanceolate entire  
 11135 Leaves with a prickly keel : radical lanc. pinnatifid ; cauline linear entire sagittate  
 11136 Leaves lacinate ensiform sessile unequaly toothed  
 11137 Leaves toothletted smooth : lower situated ; upper lanceolate sagittate acuminate, Pan. much branched



and Miscellaneous Particulars.

shoots of the smooth variety, boiled in the manner of spinach, are superior to any greens not in common use.

Nearly the same thing may be affirmed of *S. arvensis*, *palustris*, and other species.

*Sonchus oleraceus* is used as a cure for the bite of the rattle-snake, in the same way as *Prenanthes serpentina*. It is called by the American settlers *Gall of the Earth*.

*S. tenerrimus* is eaten by the common people in Italy as a salad.

1628. *Lactuca*. From *lac*, milk, on account of the milky sap, which flows copiously when the plants are cut. Besides *Lactuca sativa*, the French cultivate as small salad both *L. quercina*, *palmata*, and *intybea*, which are all excellently adapted for such a purpose. *L. sativa* is well known as furnishing among its numerous varieties the best vegetable of the salad kind grown in the open garden. Whoever has the command of lettuce, onions, and cucumbers, may well dispense with most other acetarious plants. It is questioned by some, whether the greater number of what are set down as species in this genus, are any thing more than variations of one type ; and, at all events, it is thought *L. virosa*, a poisonous plant, is the parent of our cultivated sorts ; which would not be more remarkable than the fact that the indigenous celery is one of our strongest poisons.

All the species of *Lactuca* abound in a milky juice, which is found to partake, in a considerable degree, of the qualities of opium. The production of this juice is lessened by culture, and especially by blanching. It is most abundant in plants in a wild state, and in both wild and cultivated lettuce during inflorescence. Of late years, this juice has been collected by incisions and scraping off the thickened juice, as in the collecting the opium of the poppy (See p. 461.), and an opium has been produced little inferior to that of the East. It is called

|                                 |                  |   |   |    |   |       |      |           |       |   |    |                    |
|---------------------------------|------------------|---|---|----|---|-------|------|-----------|-------|---|----|--------------------|
| 11138 <i>viminea</i> Link.      | rushy-twigg'd    | ♂ | ○ | un | 1 | jl.au | Y    | Austria   | 1789. | S | co | Jac. aust. 1. t. 9 |
| 11139 <i>seguisilla</i> Balbis. | Italian          | ♂ | ○ | pr | 1 | jl.au | Pu   | Piedmont  | 1822. | S | co |                    |
| 11140 <i>sonchifolia</i> W.     | Sow-thistle-lvd. | ♂ | △ | un | 2 | jl.au | Pa.B | Candia    | 1822. | D | co |                    |
| 11141 <i>tenerrima</i> W.       | purple-flowered  | ♂ | △ | un | 1 | jl.au | Pu   | S. Europe | 1815. | D | co |                    |
| 11142 <i>perennis</i> W.        | perennial        | ♂ | △ | un | 2 | jn.au | L.B  | Germany   | 1596. | D | co | Bot. mag. 2130     |

|                             |              |   |   |            |          |     |   |        |       |   |    |                      |
|-----------------------------|--------------|---|---|------------|----------|-----|---|--------|-------|---|----|----------------------|
| 1629. CHONDRILLA. W.        | GUM-SUCCORY. |   |   | Compositæ. | Sp. 2—5. |     |   |        |       |   |    |                      |
| 11143 <i>júncea</i> W.      | common       | ♂ | △ | un         | 1        | s.o | Y | France | 1633. | D | co | Jac. aust. 5. t. 427 |
| 11144 <i>graminea</i> Bieb. | grass-leaved | ♂ | △ | un         | 1        | s.o | Y | Volga  | 1824. | D | co |                      |

|                              |                 |   |   |            |           |       |      |           |         |   |     |                      |
|------------------------------|-----------------|---|---|------------|-----------|-------|------|-----------|---------|---|-----|----------------------|
| *1630. PRENANTHES. W.        | PRENANTHES.     |   |   | Compositæ. | Sp. 9—13. |       |      |           |         |   |     |                      |
| 11145 <i>purpurea</i> W.     | purple-flowered | ♂ | △ | or         | 4         | jl.s  | Pu   | Germany   | 1658.   | D | co  | Jac. aust. 4. t. 317 |
| 11146 <i>álba</i> W.         | white-flowered  | ♂ | △ | or         | 2         | jl.au | W    | N. Amer.  | 1762.   | D | p.l | Bot. mag. 1079       |
| 11147 <i>altissima</i> W.    | tall            | ♂ | △ | or         | 6         | jl.au | L.Y  | N. Amer.  | 1696.   | D | p.l | Plu.alm.t.317.f.2    |
| 11148 <i>cordáta</i> Ph.     | heart-leaved    | ♂ | △ | or         | 4         | jl.au | Pa.Y | N. Amer.  | 1816.   | D | co  |                      |
| 11149 <i>spinósa</i> W.      | prickly         | ♂ | △ | un         | 3         | mr.my | Y    | Barbary   | 1640.   | D | co  | Park.the.804.f.7     |
| 11150 <i>murális</i> W.      | wall            | ♂ | △ | w          | 2         | jl    | Y    | Britain   | woods.  | D | co  | Eng. bot. 457        |
| 11151 <i>pinnáta</i> L.      | pinnate         | ♂ | △ | un         | 3         | jn.jl | Y    | Teneriffe | 1820.   | S | co  |                      |
| 11152 <i>arbórea</i> Bross.  | arborescent     | ♂ | △ | un         | 3         | jn.jl | Y    | Teneriffe | 1824.   | S | co  |                      |
| 11153 <i>hieracifolia</i> W. | small-flowered  | ♂ | ○ | un         | 1         | jn.s  | Y    | Scotland  | sc.roc. | S | co  | Eng. bot. 2325       |

|                                  |                |   |   |            |          |       |   |            |        |   |    |                   |
|----------------------------------|----------------|---|---|------------|----------|-------|---|------------|--------|---|----|-------------------|
| 1631. LEON'TODON. W.             | DANDELION.     |   |   | Compositæ. | Sp. 6—9. |       |   |            |        |   |    |                   |
| 11154 <i>Taráxacum</i> W.        | common         | ♂ | △ | w          | 1        | ap.jl | Y | Britain    | me.pa. | D | co | Eng. bot. 510     |
| 11155 <i>serótinus</i> W.        | late-flowering | ♂ | △ | un         | 1        | jl.s  | Y | Hungary    | 1816.  | D | co | Pl.rar.hu.2.t.114 |
| 11156 <i>palústris</i> E. E.     | marsh          | ♂ | △ | w          | 1        | jn.jl | Y | Britain    | moi.p. | D | co | Eng. bot. 553     |
| 11157 <i>obovátus</i> W.         | obovate-leaved | ♂ | △ | un         | 1        | jl    | Y | Spain      | 1805.  | D | co |                   |
| 11158 <i>glaucescens</i> Bieb.   | glaucous       | ♂ | △ | un         | 1        | jl    | Y | Volga      | 1823.  | D | co |                   |
| 11159 <i>bessarabicus</i> Fisch. | Bessarabian    | ♂ | △ | un         | 1        | jl    | Y | Bessarabia | 1821.  | D | co |                   |

|                              |                |   |   |            |         |       |    |           |          |   |    |                      |
|------------------------------|----------------|---|---|------------|---------|-------|----|-----------|----------|---|----|----------------------|
| *1632. APARGIA. W.           | APARGIA.       |   |   | Compositæ. | Sp. 14. |       |    |           |          |   |    |                      |
| 11160 <i>aurantiaca</i> W.   | Orange-colored | ♂ | △ | pr         | 1       | my.jn | Or | Hungary   | 1816.    | D | co |                      |
| 11161 <i>alpina</i> W.       | Alpine         | ♂ | △ | un         | 1       | my.jn | Y  | Austria   | 1816.    | D | co | Bot. cab. 539        |
| 11162 <i>hastilis</i> W.     | shining-leaved | ♂ | △ | un         | 1       | jl.au | Y  | S. Europe | 1796.    | D | co | Jac. aust. 2. t. 164 |
| 11163 <i>dúbia</i> W.        | tooth-leaved   | ♂ | △ | un         | 1       | au    | Y  | Germany   | ...      | D | co |                      |
| 11164 <i>tuberósa</i> W.     | knotty-rooted  | ♂ | △ | un         | 1       | my.jl | Y  | France    | 1683.    | D | co | Lob. ic. 232. f. 1   |
| 11165 <i>incána</i> W.       | hoary          | ♂ | △ | un         | 1       | my.jn | Y  | S. Europe | 1784.    | D | co | Jac. aust. 3. t. 287 |
| 11166 <i>Taráxaci</i> W.     | Dandelion-lvd. | ♂ | △ | w          | 1       | au    | Y  | Britain   | sc.alps. | D | co | Eng. bot. 1109       |
| 11167 <i>autumnális</i> W.   | autumnal       | ♂ | △ | w          | 1       | au    | Y  | Britain   | me.pa.   | D | co | Eng. bot. 830        |
| 11168 <i>crispa</i> W.       | curled         | ♂ | △ | un         | 1       | jl.au | Y  | France    | 1803.    | D | co | Vil. dauph. 3. t. 25 |
| 11169 <i>hispida</i> W.      | rough          | ♂ | △ | w          | 1       | jl.s  | Y  | Britain   | ch.pas.  | D | co | Eng. bot. 554        |
| 11170 <i>áspera</i> W.       | hairy          | ♂ | △ | un         | 1       | jn.jl | Y  | Hungary   | 1805.    | D | co | Pl.rar.hu.2.t.110    |
| 11171 <i>crócea</i> W.       | deep-yellow    | ♂ | △ | un         | 1       | jn.jl | Or | Hungary   | 1823.    | D | co |                      |
| 11172 <i>caucásica</i> Bieb. | Caucasian      | ♂ | △ | un         | 1       | jn.jl | Y  | Caucasus  | 1820.    | D | co |                      |
| 11173 <i>Villársi</i> W.     | Dauphiny       | ♂ | △ | un         | 1       | jn.jl | Y  | Dauphiny  | 1821.    | D | co | Vil. delph. 3. t. 25 |



History, Use, Propagation, Culture.

Lactucarium, and was first brought into notice by Dr. Duncan of Edinburgh, who finds it can be administered with effect in cases where poppy opium is inadmissible. Details of the process of collecting and preparing the article, will be found in the Caledonian Horticultural Memoirs. (Vol. i. 160-259. li. 314, and iv. 153.)

The culture of lettuce as a salad plant is familiar to every one who has a garden. It is sown monthly, or oftener, throughout the year, in order to have a successional supply, and thinned out or transplanted to increase the size and succulency. The latter quality is greatly increased by watering in summer; and blanching, another desirable property, is promoted by tying up the leaves when the plant has attained about two-thirds of its usual size. Snails and slugs are very fond of this plant, and should either be watched and hand-picked, or the ground well watered with lime water, which effectually destroys them. The lettuce, unlike the cabbage and spinage, is a vegetable which can be grown to as great perfection in a warm as in a temperate climate, provided it be grown on rich soil, and abundantly supplied with water. Hence the lettuces of Paris, Rome, and Calcutta, are as large and tender as those of London and Amsterdam.

This genus is the type of the tribe *Lactuceæ* of M. Cassini. It differs essentially from all other tribes of Compositæ, in having a divided or ligulate corolla only, and from nearly all other tribes in its style, which can be compared to that of *Vernoniæ* only. The radiant head of flowers is a character common both to *Lactuceæ* and *Nassauviæ*. The greater part of *Lactuceæ* are found in Europe, a smaller number in Asia and Africa, very few in America, and in the southern hemisphere none at all.

1629. *Chondrilla*. Derived from *χονδρος*, a lump. Dioscorides says, it bears on its stems little lumps of gummy matter. But Theophrastus speaks of the grumous or tubercled roots of his *Chondrilla*. The plant now so called is an inconspicuous perennial plant, of no recorded use.

1630. *Prenanthes*. From *πρηνες*, drooping, and *ανθος*, a flower. The heads of flowers of all the species are

- 11138 Leaves decurrent : lower pinnatifid toothed outwards ; upper linear, Stem branched  
 11139 Lower leaves lanc. runcinate toothed narrowed at base and sessile ; upper linear sagittate  
 11140 Leaves runcinate pinnatifid unequally toothed : floral lanceolate, Flowers racemose  
 11141 Radic. leaves pinnatif. toothed : cauline linear entire sagittate, Branches 1-flowered  
 11142 Leaves all pinnatifid : segments linear toothed upwards, Fl. in corymbose panicles
- 11143 Radic. leaves runcinate : cauline linear entire  
 11144 Radic. leaves runcinate : cauline undivided filiform, Stem and invol. smooth
- 11145 Invol. 5-fl. Leaves obl. lanc. amplexicaul. cordate denticulate glaucous beneath  
 11146 Invol. many-fl. Leaves angular hastate toothed, Flowers nodding racemose paniced  
 11147 Invol. 5-fl. Leaves 3-lobed stalked angular toothletted rough at edge, Racemes axillary, Fl. nodding  
 11148 Stem paniced upwards, Leaves stalked cordate toothed ciliated, Panicle lax racemose  
 11149 Leaves linear tooth-sinuated sessile, Stem shrubby much branched, Branches spiny  
 11150 Florets 5, Leaves lyrate-pinnatifid and toothed, the terminal lobe with about 5 angles  
 11151 Leaves pinnated, Leaf. linear filiform, Panicle corymbose stalked, Stem shrubby  
 11152 Leaves pinnatifid pinnate with linear segments  
 11153 Leaves pubesc. toothed, those on the stem subsagittate, Stem paniced corymb. Invol. pyramidal glabrous
- 11154 Outer scales of the involucre reflexed, Leaves runcinate glabrous toothed  
 11155 Outer invol. spreading, Leaves runcinate scabrous, Segments round toothletted  
 11156 Outer scales of the involucre erect appressed, Leaves sinuato-dentate nearly glabrous
- 11157 Outer invol. spreading, Scales ovate, Scape 1-fl. Leaves obov. bluntish toothed  
 11158 Outer invol. spreading, Scales ovate-lanceol. Lvs. runcinate pinnatifid glabrous with lin. falc. distant lobes  
 11159 Leaves pinnatifid to the nerve smooth, Leaves of invol. smooth reflexed

- 11160 Scape 1-fl. naked thickened and hairy upwards, Invol. hispid, Leaves lanc. obl. somewhat toothed  
 11161 Scape 1-fl. squarrose thickened and somewhat hairy upwards, Invol. hispid, Leaves lanc. obl. smoothish  
 11162 Scape 1-fl. naked and invol. smooth, Leaves lanc. runcinate-toothed smooth  
 11163 Scape 1-fl. nearly naked upward and invol. hairy, Leaves lanc. toothed at base with a few forked hairs  
 11164 Scape 1-fl. naked smooth. Scales of invol. acute hairy, Lvs. obov. runcin. hairy scabrous, Root tuberous  
 11165 Scape 1-fl. nearly naked and calyx pubesc. Lvs. lanceol. acute somewhat toothed hoary, Hairs multifid  
 11166 Scape single-flow. thickened upwards, Leaves glab. runcinato-dentate, Involucre very hairy  
 11167 Scape branched scaly upwards, Lvs. lanc. toothed or pinnatif. sub-glab. Pedunc. swelling beneath invol.  
 11168 Scape naked 1-fl. and invol. hairy, Lvs. runcinate pinnatifid hairy, Segm. recurved tooth. Hairs 3-forked  
 11169 Scape single-flowered, Leaves dentate scabrous, Florets hairy at their orifice glandular at the tip  
 11170 Stem leafy somewhat branched hairy, Invol. smooth, Leaves lanc. runcinate hairy, Hairs forked  
 11171 Scape 1-fl. scaly thickened upwards and hairy, Invol. hispid, Leaves runcinate smooth  
 11172 Scape naked 1-fl. glabrous, Invol. hairy, Leaves runcinate toothed scab. somewhat hairy, Hairs prostrate  
 11173 Scape naked 1-fl. and invol. smoothish, Leaves pinnatifid-toothed hispid, Hairs simple subulate



and Miscellaneous Particulars.

nodding. *Prenanthes serpentaria* grows to the height of two feet, bearing pale purple flowers. It is known by the inhabitants of Virginia and Carolina under the name of the Lion's Foot, and is in high esteem as a cure for the bite of the rattle-snake. The juice of the plant boiled in milk is taken inwardly, and steeped leaves, frequently changed, are applied to the wound. It must not be confounded with *Prenanthes rubicunda*, called False Lion's Foot, which is a less powerful plant.

*Prenanthes virgata* has a very fine effect in large plantations.

1631. *Leontodon*. So named from *λεων*, a lion, and *odus*, a tooth ; in reference to the deep tooth-like divisions of the leaves. The English name *Dandelion*, is a corruption of the French translation of this word, *Dent de lion* ; in German *Pfaffenröhlein* and *Dotterblume*. It has been recommended as a winter salad, blanched like Endive ; but it possesses too much bitter principle to render it fit for table under any management. *Dent de lion*, Fr., from its cut leaves, and *Piss-en-lit*, in French, and most other European languages, from its diuretic qualities. The tender leaves in spring, used in compound salads, are equal to those of Endive or Succory. The roots, which are fusiform, and abound in a milky juice, are eaten raw as a salad by the French, and boiled by the Germans, like Salsify and Scorzonera. Dried and ground into powder, they afford a substitute for coffee, in all respects equal to that of Chicory roots. It is a difficult weed to extirpate, because every inch of root will form buds and fibres, and thus constitute a new plant. Swine are fond of it, and goats will eat it ; but sheep and cows dislike it, and by horses it is refused.

1632. *Apargia*. *Araxysia* is the Greek name of a plant now unknown. It has been employed by Dalechamp and Scopoli for a species of Hieracium. At the present day it is given to a genus of weedy plants, with the appearance of *Leontodon*.



| 1633. THRIN'CIA. W. THRIN'CIA.   |                    | Composite. |    | Sp. 3-6.    |       |   |
|----------------------------------|--------------------|------------|----|-------------|-------|---|
| 11174 hirta W.                   | simple-haired      | △          | un | 1 1/2       | jl.au | Y Britain gra.pa. D co Eng. bot. 555        |
| 11175 hispida W.                 | hispid             | ○          | un | 1           | jn.au | Y S. Europe 1815. S co                      |
| 11176 marocœna P. S.             | Morocco            | ○          | un | 1           | jn.au | Y Morocco 1799. S co                        |
| <i>Hyoseris hispida</i> W.       |                    |            |    |             |       |   |
| 1634. PICRIS. W. OX-TONGUE.      |                    | Composite. |    | Sp. 4-7.    |       |   |
| 11177 hieracioides W.            | Hawkweed-like      | ○          | un | 1 1/2       | jl.au | Y England bor.fi. S co Eng. bot. 196        |
| 11178 asplenifolides W.          | Spleenwort-ld.     | △          | un | 1 1/2       | jl.au | Y Barbary 1805. D co L'Her.stirp. t.82      |
| 11179 hispida H. K.              | hispid             | △          | un | 1           | jl.au | Y Levant 1789. D co                         |
| 11180 sprengeriana P. S.         | branched           | ○          | pr | 1           | jn.jl | Y Portugal 1783. S co Moris.s.7.t.5.f.15    |
| *1635. HIERA'CIIUM. W. HAWKWEED. |                    | Composite. |    | Sp. 75-117. |       |   |
| 11181 rupëstre All.              | rock               | △          | pr | 1/2         | jn.jl | Y Switzerl. 1820. D co All.auct.1.t.1.f.1   |
| 11182 alpinum L.                 | Alpine             | △          | pr | 1/2         | jl.au | Y Britain al.roc. D co Eng. bot. 1110       |
| 11183 alpëstre Jacq.             | mountain           | △          | pr | 1/2         | jl.au | Y Switzerl. 1822. D co Jacq.austr.t.191     |
| 11184 Pilosëlla L.               | Mouse-ear          | △          | pr | 1/2         | my.jl | Y Britain dry.pa. D co Eng. bot. 1093       |
| 11185 bulbosum W.                | bulbous            | △          | pr | 1/2         | my.jl | Y Barbary ... D co                          |
| 11186 aëreum W.                  | golden             | △          | or | 1/2         | my.jl | D.Y Italy 1769. D p.l Jac. aust.3. t.297    |
| 11187 dúbium L.                  | branching          | △          | pr | 1/2         | jl.au | Y Britain hills. D co Eng. bot. 2332        |
| 11188 auricula L.                | umbelled Mouse-ear | △          | pr | 1 1/2       | jl.au | Y England moun. D co Eng. bot. 2368         |
| 11189 fallax W. en.              | hairy spear-ld.    | △          | pr | 1           | jl.au | Y ..... 1816. D co                          |
| 11190 florentinum All.           | Florentine         | △          | pr | 2           | jl.au | Y Germany 1736. D co Eng. bot. 1110         |
| 11191 cymosum L.                 | small-flowered     | △          | pr | 1           | my.jn | Y Europe 1789. D co Col.ecph.1. t.249       |
| 11192 angustifolium Hoppe.       | narrow-leaved      | △          | pr | 1/2         | my.jn | Y Switzerl. 1823. D co                      |
| 11193 stäticifolium All.         | Thrift-leaved      | △          | pr | 1 1/2       | jn.jl | Y Europe 1804. D co Vil.dauph.3.t.27        |
| 11194 flagelläre W. en.          | creeping           | △          | pr | 1           | my.jl | Y ..... 1816. D co                          |
| 11195 bifur'cum Bieb.            | forked             | △          | pr | 1 1/2       | jn    | Y Tauria 1820. D co                         |
| 11196 bifidum W.                 | bifid              | △          | pr | 1 1/2       | jn    | Y Hungary ... D co                          |
| 11197 Gmelini W.                 | Gmelin's           | △          | pr | 1 1/2       | jn.jl | Y Siberia 1798. D co Gme.sib.2.t.8.f.2      |
| 11198 pramorsum L.               | bitten             | △          | pr | 1           | jn.jl | Pa.Y Switzerl. 1818. D co Gm.sib.2.t.13.f.2 |
| 11199 incarnatum Jacq.           | flesh-colored      | △          | pr | 1 1/2       | jn.jl | Pk Carniola 1815. D co Jac. ic. t. 578      |
| 11200 aurantiacum L.             | orange             | △          | or | 1 1/2       | jn.jl | O Scotland sc.wo. D p.l Eng. bot. 1469      |
| 11201 Lawsoni Vill.              | Lawson's           | △          | pr | 1 1/2       | jn.jl | Y Britain n.of.e. D co Eng. bot. 2083       |
| 11202 venosum W.                 | veined             | △          | pr | 1 1/2       | jn.jl | Y N. Amer. 1780. D co                       |
| 11203 Gronövii W.                | Gronovius's        | △          | pr | 1           | jn.jl | Y N. Amer. 1798. D co Pluk.alm.420.2        |
| 11204 paniculatum W.             | paniced            | △          | pr | 1 1/2       | jn.jl | Y Canada '1800. D co                        |
| 11205 glaucum All.               | glaucous           | △          | pr | 1 1/2       | jn.jl | Y S. Europe 1807. D co All. ped. 28. 3      |
| 11206 saxatile Jacq.             | rock               | △          | pr | 1           | jl.au | Y Austria 1801. D co Jac. ic. 1. t. 163     |
| 11207 prenanthoides Vill.        | large-leaved       | △          | pr | 2           | jl.au | Y Switzerl. 1820. D co                      |
| 11208 chondrilloides Vill.       | Gum-succory        | △          | pr | 1 1/2       | jn.jl | Y Austria 1640. D co Jac. aust.5. t.429     |
| 11209 cydonifolium Vill.         | Quince-leaved      | △          | pr | 2           | jl.au | Y France 1816. D co                         |
| 11210 mollè Jacq.                | soft-leaved        | △          | pr | 1           | jl.au | Y Scotland sc.wo. D co Eng. bot. 2210       |
| 11211 cerinthoides L.            | Honeywort-iv.      | △          | pr | 1 1/2       | jl.s  | Y Scotland sc.roc. D co Eng. bot. 2378      |
| 11212 amplexicaule L.            | heart-leaved       | △          | pr | 1 1/2       | jl.au | Y Pyrenees 1739. D co All. ped. t.15. f.1   |
| 11213 pyrenæicum L.              | Pyrenean           | △          | pr | 1           | jl.au | Y Pyrenees 1783. D co                       |
| 11213 pilosum W. -               | piose              | △          | pr | 1           | jl.au | Y Pyrenees 1723. D co Her.parad. t.184      |
| 11213 austriacum Jacq.           | Austrian           | △          | pr | 1           | jl.au | Y Pyrenees 1723. D co Jac. aust.5. t.441    |
| 11213 sibiricum W.               | Siberian           | △          | pr | 2           | jl.au | Y Siberia 1755. D co Gmel. sib. 2. t.10     |
| 11215 grandiflorum All.          | great-flowered     | △          | pr | 2           | jl.au | Y Switzerl. 1791. D co Pl. rar. hu.1.t.99   |
| 11216 intybacum Jacq.            | Endive-leaved      | △          | pr | 2           | jl.au | Pa.Y Europe 1794. D co Jac. aust.5. t.ap.43 |
| 11217 Halleri Vill.              | Haller's           | △          | pr | 1 1/2       | jl.au | Y Europe 1802. D co Vil.dauph.3.t.26        |
| 11218 maculatum E. B.            | stained-leaved     | △          | pr | 1 1/2       | jl.au | Y Britain al.roc. D co Eng. bot. 2121       |
| 11219 pulmonarium E. B.          | Lungwort           | △          | pr | 1 1/2       | jl.au | Y Scotland sc.roc. D co Eng. bot. 2307      |
| 11220 porrifolium W.             | Leek-leaved        | △          | pr | 1           | jl.au | Y Austria 1640. D co Jac. aust.3. t.886     |
| 11221 montanum W.                | mountain           | △          | pr | 1           | jn.jl | Y S. Europe 1775. D co Jac. aust.2. t.190   |
| 11222 eriophyllum Link.          | villous            | △          | pr | 1 1/2       | jn.au | Y ..... D co Eng. bot. 2031                 |
| 11223 sylvaticum W.              | wood               | △          | pr | 1 1/2       | au    | Y Britain rocks. D co Eng. bot. 2379        |
| 11224 villosum L.                | shaggy Alpine      | △          | pr | 1           | jl.au | Y Scotland al.roc. D co                     |
| 11225 piloccephalum Link.        | hairy-headed       | △          | pr | 1           | jl.au | Y Europe 1820. D co                         |
| 11226 trichoccephalum W.en.      | shaggy             | △          | pr | 1           | jl.au | Y ..... 1823. D co                          |
| 11227 flexuosum W.               | bending-stalk'd    | △          | pr | 1 1/2       | jl.au | Y Hungary 1804. D co                        |



History, Use, Propagation, Culture,

1633. *Thrinicia*. From *Squacos*, a feather; in allusion to the feathery pappus of the seeds. Small uninteresting weeds of no value or beauty.  
 1634. *Picris*. From *squacos*, bitter; a name given by the Greeks to some plant resembling Lettuce, on account of its bitterness. None of the species are remarkable for their qualities.

- 11174 Scape single-fl. Leaves dentate scab. Involucre nearly glab. Outer pericarps with a scaly pappus  
 11175 Scape 1-fl. pilose, Invol. hoary naked, Leaves lanc. blunt toothed, Hairs forked  
 11176 Scape 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

- 11177 Stem erect scabrous, Leaves amplexicaul. lanc. toothed, Fl. corymbose, Outer invol. lax  
 11178 Stem ascending scabrous, Leaves obl. lanc. blunt sinuate pinnatifid, Pedunc. thickened  
 11179 Leaves obl. lanc. nearly entire sessile, and invol. hispid, Hairs glochidate  
 11180 Stem branched spreading leafy, Leaves amplexicaul. obl. repand hispid

§ 1. *Scape one-flowered, naked.*

- 11181 Scape 1-leaved, Invol. hairy, Leaves lanc. runcinate toothed subpubescent, Teeth recurved  
 11182 Scape somewhat naked villous, Invol. very villous, Leaves lanc. entire acute villous  
 11183 Scape 1-leaved downy upwards, Invol. cylindr. downy, Leaves lanc. toothletted  
 11184 Leaves entire ovate downy beneath, Stolones creeping  
 11185 Scape naked thickened upwards hairy, Invol. smooth, Leaves lanc. obl. somewhat toothed smooth  
 11186 Scape nearly naked, Invol. hispid, Leaves lanc. spatulate runcinate-toothed smoothish

§ 2. *Scape many-flowered, naked.*

- 11187 Scape about 4-fl. naked, Leaves obl. blunt entire, Stolones creeping  
 11188 Scape 1-leaved with about 6 fl. Fl. umb. Leaves lanc. acute entire, Stolones creeping  
 11189 Scape leafy pilose at base, Fl. corymbose, Peduncles downy, Leaves lanc. acute nearly entire pilose  
 11190 Scape leafy smoothish, Fl. in corymbose panicles, Pedunc. spreading, Invol. hairy  
 11191 Scape leafy hispid, Fl. in corymbose panicles, Pedunc. clustered, Invol. hispid  
 11192 Scape about 3-fl. 1-leaved hairy, Leaves lin. lanc. acute pilose  
 11193 Scape somewhat naked branched about 3-fl. Pedunc. squarrose, Leaves lin. lanc. toothletted smooth  
 11194 Scape about 2-fl. Peduncles long, Leaves spatulate lanc. entire pilose, Stolones creeping  
 11195 Scape forked about 2-fl. and leafy at base, Leaves lanc. acute entire, Stolones O  
 11196 Resembles *H. murorum*, but the stem is naked  
 11197 Scape naked corymbose, Leaves lyrate runcinate hairy  
 11198 Leaves ovate somewhat toothed, Scape naked racemose, Upper flowers opening first  
 11199 Scape naked scabrous at base, Fl. in racemose corymbs, Leaves oblong blunt toothletted hairy  
 11200 Scape leafy hispid, Fl. corymbose, Pedunc. clustered, Leaves obl. acutish pilose-hispid  
 11201 Scape somewhat naked branched, Invol. with glandular hairs, Leaves oblong acute entire woolly  
 11202 Scape naked branched, Invol. smooth, Leaves obovate acute entire ciliated, Veins colored  
 11203 Scape leafy in corymbose panicles, Invol. pubescent, Radic. leaves entire obovate blunt ciliated

§ 3. *Stem leafy.*

A. *Leaves entire.*

- 11204 Stem erect, Leaves alternate lanc. naked toothed, Panicle capillary  
 11205 Stem erect branched, Leaves lanc. sessile somewhat toothed glaucous narrowed at each end  
 11206 Stem erect branched, Leaves lin. lanc. nearly entire narrowed at each end ciliated at base  
 11207 Stem erect simple, Leaves lanc. cordate amplexicaul. toothletted downy, Fl. racemose corymbose  
 11208 Stem erect few-fl. Cauline leaves lanc. acum. runcinate: radical obl. lanc. undivided  
 11209 Stem erect pilose panicle, Leaves ovate oblong subcordate sessile remotely toothed entire at end  
 11210 Stem erect hairy, Fl. subcorymbose, Cauline leaves oblong lanceolate stem-clasping: radical toothed  
 11211 Stem erect villous, Lvs. pilose somewhat toothed: radic. obov.; caul. obl. half-amplexicaul. Inv. hirsute  
 11212 Stem erect branched, Lvs. ovate cord. amplexicaul. toothed towards the base, Pedunc. and invol. hirsute  
 11213 Stem erect simple furrowed smoothish, Rad. lvs. obl. deeply toothed at base; caul. hastate sagit. Inv. lax

- 11214 Stem erect panicle furrowed downy, Leaves rugose: upper lanceol. Invol. lax hispid  
 11215 Stem ascending simple furrowed viscid, Leaves lanc. with recurved teeth, Involucre hispid  
 11216 Stem erect branched hispid, Leaves lanc. toothed sessile narrowed at each end, Invol. lax hispid  
 11217 Stem erect about 2-fl. Leaves pilose toothed: radical oblong; cauline lanc. sessile, Invol. villous  
 11218 Stem cymose fistulous many-leaved, Leaves ovate-lanceolate toothed forwards  
 11219 Stem cymose solid few-leaved, Leaves lanceolate broadly toothed forwards  
 11220 Stem erect branched leafy, Leaves linear entire  
 11221 Stem erect simple leafy 1-fl. Leaves ovate-lanc. toothletted sessile  
 11222 Radic. leaves oblong and lanceolate bluntnish narrowed at base toothletted woolly, Invol. hoary  
 11223 Stem leafy erect simple, Leaves oblong villous somewhat toothed, Fl. panicle  
 11224 Stem erect somewhat branched and lvs. villous: radic. obl. lanc. toothed; caul. ovate cord. amplexicaul.  
 11225 Differs from *H. villosum* in having the involucre covered with dense short brown hairs  
 11226 Radical lvs. lanc. narrowed into stalk: caul. sub-amplex. toothed backwards acute smooth, Inv. villous  
 11227 Stem erect smooth below, Leaves sub-villous lanc. acute: radical toothletted, Invol. villous



and Miscellaneous Particulars.

1635. *Hieracium*. It was believed formerly, that birds of prey made use of the juice of this kind of plant to strengthen their vision; whence it was called *Hieracium*, from *hawk*, a hawk; the French word *Epervière*, the English *Hawk-weed*, and the German *Habichtskraut*, all bear witness to the universal belief in this very strange opinion. An extensive genus of plants, many of which, especially *H. aurantiacum*, are objects

|        |                              |                         |   |    |    |       |                   |                   |        |   |    |
|--------|------------------------------|-------------------------|---|----|----|-------|-------------------|-------------------|--------|---|----|
| 11228  | <i>prostratum W. en. s.</i>  | prostrate               | Δ | pr | ½  | au    | Y                 | S. Europe         | 1822.  | D | co |
| 11229  | <i>Kalmii W.</i>             | Kalm's                  | Δ | pr | 1½ | au    | Y                 | Pensylva.         | 1794.  | D | co |
| 11230  | <i>speciosissimum W.</i>     | shewy                   | Δ | pr | 1½ | au    | Y                 | S. Europe         | 1821.  | D | co |
| 11231  | <i>denticulatum E. B.</i>    | small-toothed           | Δ | pr | 1  | jl.au | Y                 | Scotland          | sc.w.  | D | co |
| 11232  | <i>Milleri Link.</i>         | Miller's                | Δ | pr | 1  | jl.au | Y                 | .....             | 1820.  | D | co |
| 11233  | <i>echinoides W.</i>         | Viper's-bugloss         | Δ | pr | ¾  | jl.au | Y                 | Hungary           | 1802.  | D | co |
| 11234  | <i>verruculatum Link.</i>    | warted                  | Δ | pr | 1  | jl.au | Y                 | .....             | 1821.  | D | co |
| 11235  | <i>undulatum H. K.</i>       | wave-leaved             | Δ | pr | 1½ | jl.au | Y                 | Spain             | 1778.  | D | co |
| 11236  | <i>dentatum Link.</i>        | rough-bordered          | Δ | pr | 3  | jns   | Y                 | Scotland          | sc.w.  | D | co |
|        | <i>prenanthoides Sm.</i>     |                         |   |    |    |       |                   |                   |        |   |    |
| 11237  | <i>latifolium Link.</i>      | broad-leaved            | Δ | pr | 2  | jl.au | Y                 | Croatia           | 1820.  | D | co |
| 11238  | <i>foliosum W. &amp; K.</i>  | leafy                   | Δ | el | 2  | jl.au | Y                 | Hungary           | 1805.  | D | co |
| 11239  | <i>sabadum W.</i>            | Savoy                   | Δ | el | 3  | jl.au | Y                 | Britain           | groves | D | co |
| 11240  | <i>laevigatum W.</i>         | smooth                  | Δ | el | 2  | aus   | Y                 | .....             | 1804.  | D | co |
| 11241  | <i>canescens Link.</i>       | hoary                   | Δ | el | 2  | aus   | Y                 | .....             | 1822.  | D | co |
| 11242  | <i>umbellatum L.</i>         | narrow-leaved           | Δ | el | 3  | jl.s  | Y                 | Britain           | woods. | D | co |
| 11243  | <i>bracteolatum Link.</i>    | bracteolate             | Δ | el | 1½ | jl.s  | Y                 | Europe            | 1823.  | D | co |
| 11244  | <i>longifolium Hornem.</i>   | long-leaved             | Δ | el | 1½ | jl.s  | Y                 | .....             | 1821.  | D | co |
| §11245 | <i>fruticosum W.</i>         | shrubby                 | Δ | el | 2  | jn.jl | Y                 | Madeira           | 1785.  | C | co |
| 11246  | <i>humile W.</i>             | small                   | Δ | pr | ¼  | jl.au | Y                 | Germany           | 1804.  | D | co |
| 11247  | <i>nigræscens W.</i>         | dark-colored            | Δ | pr | ¼  | jl.au | Y                 | .....             | 1801.  | D | co |
| 11248  | <i>prunellifolium Gouan.</i> | Self-heal-leav.         | Δ | pr | ¼  | jl.au | Y                 | Switzerl.         | 1820.  | D | co |
| 11249  | <i>murorum L.</i>            | wall                    | Δ | w  | 1½ | jl    | Y                 | Britain           | rocks. | D | co |
| §11250 | <i>paludosum L.</i>          | Succory-leaved          | Δ | pr | 1½ | jl.au | Y                 | Britain           | moun.  | D | co |
| 11251  | <i>lapsanoides W.</i>        | Lapsana-like            | Δ | pr | 1½ | jl.au | Y                 | Pyrenæes          | 1812.  | D | co |
| 11252  | <i>ramosum W. &amp; K.</i>   | branching               | Δ | pr | 2  | au    | Y                 | Hungary           | 1805.  | D | co |
| §11253 | <i>lyratum W.</i>            | Lyre-leaved             | Δ | pr | 2  | jl.au | Y                 | Siberia           | 1777.  | D | co |
| 11254  | <i>glutinatum W.</i>         | clammy                  | Δ | pr | 1½ | jl.au | Y                 | S. Europe         | 1796.  | S | co |
| 11255  | <i>fasciculatum Psh.</i>     | bundled                 | Δ | pr | 5  | jl.au | Y                 | Canada            | ...    | D | co |
| 1636.  | <b>LAGO'SERIS Link.</b>      | <b>LAGO'SERIS.</b>      |   |    |    |       | <i>Compositæ.</i> | <i>Sp. 6—10.</i>  |        |   |    |
| 11256  | <i>burasifolia Link.</i>     | Shepherd's-purse-iv.    | Δ | un | 2  | jl.au | Y                 | Sicily            | 1823.  | S | co |
|        | <i>Crepis bursifolia L.</i>  |                         |   |    |    |       |                   |                   |        |   |    |
| 11257  | <i>versicolor Fischer.</i>   | changeable              | Δ | un | 2  | jl.au | Y                 | Dauria            | 1820.  | D | co |
| 11258  | <i>leontodontoides Link.</i> | Dandelion-like          | Δ | un | 1  | jl.au | Y                 | Italy             | 1804.  | S | co |
| 11259  | <i>raphanifolia Link.</i>    | Radish-leaved           | Δ | un | 2  | jn.jl | Y                 | .....             | 1816.  | D | co |
| 11260  | <i>taurinensis Link.</i>     | Turin                   | Δ | un | 2  | jn.jl | Y                 | Italy             | 1822.  | S | co |
| 11261  | <i>intybaea Link.</i>        | Endive-leaved           | Δ | un | 2  | jn.jl | Y                 | Portugal          | 1816.  | S | co |
| 1637.  | <b>BORKHAU'SIA.</b>          | <b>Dec. BORKHAUSIA.</b> |   |    |    |       | <i>Compositæ.</i> | <i>Sp. 7—9.</i>   |        |   |    |
| 11262  | <i>nicaensis Link.</i>       | Nice                    | ○ | pr | 1½ | jn.jl | Y                 | Nice              | 1823.  | S | co |
| 11263  | <i>alpina Link.</i>          | Alpine                  | ○ | pr | 1  | jl    | Y                 | Italy             | 1739.  | S | co |
| 11264  | <i>rubra Link.</i>           | purple                  | ○ | pr | 1½ | jn.jl | Pu                | Italy             | 1632.  | S | co |
| 11265  | <i>foetida Link.</i>         | fetid                   | ○ | un | 1½ | jn.jl | Y                 | S. Europe         | 1824.  | S | co |
| 11266  | <i>gravæolens Link.</i>      | stinking                | ○ | un | 1½ | jn.jl | Y                 | .....             | 1825.  | S | co |
| 11267  | <i>aspera Link.</i>          | rough                   | ○ | un | 1½ | jl.au | Pa.Y              | Sicily            | 1797.  | S | co |
| 11268  | <i>hispidia Link.</i>        | hispid                  | ○ | un | 2  | jl.au | Y                 | S. Europe         | 1798.  | S | co |
| *1638. | <b>CREP'IS. W.</b>           | <b>CREPIS.</b>          |   |    |    |       | <i>Compositæ.</i> | <i>Sp. 13—23.</i> |        |   |    |
| 11269  | <i>nemausensis</i>           | Palestine               | ○ | un |    | jn.jl | Y                 | S. Europe         | 1794.  | S | co |
| 11270  | <i>Sprengeriána W.</i>       | Sprenger's              | ○ | un | 1½ | jn.jl | Y                 | Italy             | 1823.  | S | co |
| 11271  | <i>rigida W.</i>             | rigid                   | Δ | un | 4  | my.jl | Y                 | Hugnary           | 1805.  | D | co |
| 11272  | <i>rigens W.</i>             | stiff-leaved            | Δ | un | 1  | jl.au | Y                 | Azores            | 1778.  | D | co |
| 11273  | <i>hieracioides W.</i>       | Hawkweed-like           | Δ | un | 1½ | jl.au | Y                 | Hungary           | 1816.  | D | co |
| 11274  | <i>lectorum P. S.</i>        | smooth                  | ○ | un | 1½ | jns   | Y                 | Britain           | past.  | S | co |
| 11275  | <i>cinæres. P. S.</i>        | red-stalked             | Δ | un | 2  | jns   | Y.R               | Europe            | .....  | S | co |
| 11276  | <i>agræstis W.</i>           | field                   | ○ | un | 1½ | jl.au | Y                 | Hungary           | 1801.  | S | co |
| 11277  | <i>biennis W.</i>            | biennial                | Δ | un | 4  | jn.au | Y                 | England           | ch.pa. | S | co |
| 11278  | <i>virens W.</i>             | green                   | ○ | un | ¼  | jn.jl | Y                 | Switzerl.         | 1796.  | S | co |
| 11279  | <i>Diocægridis W.</i>        | Diocorides's            | ○ | un | 1  | jn.jl | Y                 | France            | 1722.  | S | co |
| 11280  | <i>coronopifolia W.</i>      | fleshy-leaved           | ○ | un | 1  | aus.  | Y                 | Madeira           | 1777.  | S | co |
| §11281 | <i>filiformis W.</i>         | line-leaved             | Δ | un | 1½ | jn.jl | Y                 | Madeira           | 1777.  | S | co |



History, Use, Propagation, Culture,

deserving cultivation; others are of little interest; but all most difficult to distinguish or characterize. The species appear to intermix with the same facility as roses and willows.

*Hieracium venosum*, a very pretty plant, is called in America, *Pooi Robin's Plantain*, and is believed to possess considerable medical powers.

1636. *Lagoseris*. From *λαγος*, a hare, and *σειει*, a lettuce. Obscure weed-like plants.

- 11298 Near *H. villosum*, but the leaves are broader  
 11299 Stem erect many-fl. Leaves lanc. toothed, Peduncles downy  
 11290 Stem at base and lvs. here and there covered with hairs, Fla. smaller and inv. less vill. than in *H. villosum*  
 11291 Stem erect many-fl. Leaves sessile ellipt. lanc. toothletted smoothish glaucous beneath  
 11292 Radic. lvs. obl. narrowed at base acute : caul. sub-amplexic. lanc. Pedunc. glandular. Inv. glandul. hairy  
 11293 Stem erect strigose hispid, Leaves lanceolate nearly entire strigose hispid, Flowers corymbose  
 11294 Stem pilose warted glandular upwards, Leaves sub-amplexical. oblong acute with long hairs beneath  
 11295 Stem erect branched hoary, Leaves obov. obl. hoary toothed towards the base, Hairs feathery  
 11296 Stem erect many-fl. Leaves amplexical. somewhat rough toothed at edge, Pedunc. downy

- 11297 Stem densely leafy, Leaves amplexical. 3 inches long  $1\frac{1}{2}$  inch wide toothed hairy  
 11298 Stem erect simple, Leaves ovate cordate amplexical. toothletted ciliated, Fl. panicled, Invol. smooth  
 11299 Stem erect simple, Lvs. ovate-obl. smoothish acute sess. sub-amplexic. toothed towards base, Fla. corymbose  
 11240 Stem erect branched, Leaves obl. lanc. smooth stalked deeply toothed in the middle, Fl. panicled  
 11241 Leaves narrowed at base sessile with long points toothed, Invol. downy hoary  
 11242 Stem erect simple, Leaves linear somewhat toothed, Fl. in corymbose umbels  
 11243 Leaves broader than in the last and less toothed, Stem few-flowered  
 11244 Leaves mostly radical with long points toothletted hairy, Invol. hairy with long white and black hairs  
 11245 Stem branched shrubby, Leaves oblong toothed stalked, Peduncles sub-corymbose, Invol. downy

*B. Leaves sublyrate, lyrate, pinnatifid.*

- 11246 Stem erect few-fl. Peduncles and invol. pilose, Leaves oblong sub-pinnatifid at base  
 11247 Stem naked few-fl. Pedunc. and invol. glandular downy blackish, Leaves oblong stalked toothed at base  
 11248 Stem procumb. branch. at base few-fl. Ped. and invol. downy, Lvs. ovate unequal at base toothletted stalked  
 11249 Stem erect leafy pilose simple, Fl. panicled, Leaves ovate deeply toothed at base  
 11250 Stem simple, Leaves smooth obl. narrowed at base runcinate toothed : caul. amplexical. Invol. hispid  
 11251 Stem simple, Cauline leaves lyrate runcinate amplexical. hairy, Fl. panicled, Invol. hispid  
 11252 Stem erect panicled, Leaves ovate stalked deeply toothed at base, Flowers panicled  
 11253 Stem simple, Leaves smooth : radical runcinate lyrate ; cauline lanceolate, Invol. and pedunc. hispid  
 11254 Leaves lanc. runcinate roughish, Flowers in umbels  
 11255 Stem erect leafy simple smooth, Leaves sessile obl. acute finely toothed, Pedicels of panic. in bundles

- 11256 Leaves pinnatifid crenate, Scape naked few-flowered

- 11257 Leaves long lanceolate acute repand smooth, Fl. cylindrical, Outer invol. very small  
 11258 Leaves runcin. toothed smooth, Scape naked many-fl. ascending, Invol. downy : outer scales appressed  
 11259 Radic. leaves and lower cauline pinnated lyrate, Flowers corymbose, Invol. and pedunc. glandular  
 11260 Leaves scabrous : radic. lyrate runcinate ; cauline lanc. amplexical. toothed at base, Invol. downy  
 11261 Lower lvs. runcin. pinnatifid : upper entire, Branches naked, Invol. downy with leaflets bristly at the back

- 11262 Leaves runcin. pinnatifid pilose scabrous, Stem panicled, Leaves of invol. keeled channelled downy  
 11263 Leaves ovate cordate-sagittate amplexic. toothed, Peduncles long l-f. Invol. hispid : outer membranous  
 11264 Radic. leaves runcinate-lyrate : cauline amplexical. lanceol. ; lower pinnatifid, Invol. hispid  
 11265 Leaves runcinate pinnatifid scabrous sessile : upper lanceol. deeply cut at base, Invol. ovate angular  
 11266 Leaves amplexical. pinnatifid hairy, Leaves of invol. downy hoary flat  
 11267 Leaves amplexical. : lower obl. toothed ; upper cut-toothed, Stem setose hispid, Inv. muricated in fruit  
 11268 Setose hispid, Leaves runcinate auricled at base : upper lanc. sagitt. hastate, Invol. very hispid

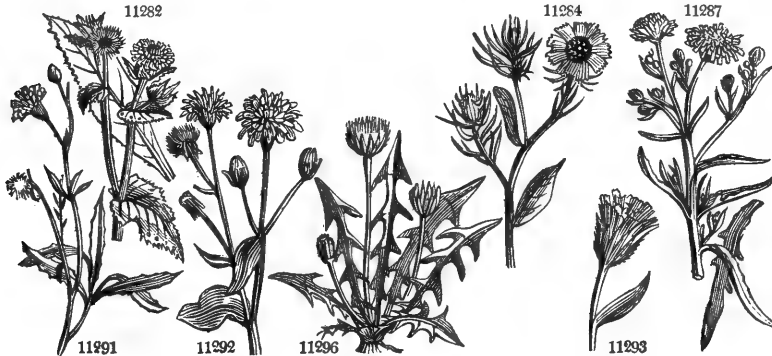
- 11269 Leaves runcin. lyrate bluntly toothed, Scape naked many-fl. hispid, Lvs. of invol. membranous at edge  
 11270 Hispid-scabrous, Leaves oblong amplexical. remotely toothed, Stem divaricating branched  
 11271 Leaves rigid scabrous toothed : radic. obovate ; caul. sagittate amplexical. Fl. in racemose panicles  
 11272 Leaves hispid ovate obl. finely and deeply biserrate, Scape naked corymbose  
 11273 Leaves smooth toothed : radical ovate-spatulate ; cauline oblong sessile, Corymb terminal  
 11274 Lvs. glab. runcin. : the upper ones linear-sagitt. amplexic. Stem glab. Panic subcorymb. Inv. pubescent  
 11275 Leaves lanc. : lower entire toothed smooth ; cauline lanceolate amplexic. Stem furrowed branched  
 11276 Radic. leaves lanc. runcinate : cauline lanc. toothed at base sagittate, Panicles corymbose  
 11277 Leaves hispid runcinate pinnatifid : upper sessile lanc. toothed prickly upon the keel  
 11278 Leaves smooth : lower remotely toothed ; upper nearly entire subsagittate, Invol. downy  
 11279 Radic. leaves lyrate runcinate : cauline hastate lanceolate, Branches divaricating, Invol. downy  
 11280 Leaves pinnatifid : segments linear ; radical toothed ; cauline entire, Stem panicled, Invol. downy  
 11281 Leaves linear-filiform entire smooth, Pappus sessile



1637. *Borkhausia*. Named after Moritz Borkhausen, a German botanist, author of some useful works, especially upon the useful plants of Germany, published in one volume octavo, in 1790. Small annual plants, formerly referred to *Crepis*.

1638. *Crepis*. A name made use of by Pliny, to designate a plant of which he gives no description. The plants of this genus are common weeds of the hedges of Europe.

|  |                  |      |    |                   |                  |           |           |               |                          |
|--|------------------|------|----|-------------------|------------------|-----------|-----------|---------------|--------------------------|
| 1639. HELMINTHIA. J. HELMINTHIA.           |                  |      |    | <i>Compositæ.</i> | <i>Sp. 1.</i>    |           |           |               |                          |
| 11282 echioides <i>W.</i>                  | bristly          | ○ or | 3  | jn.jl             | Y                | Britain   | bor.fl    | S             | co Eng. bot. 972         |
| 1640. MYOSERIS. <i>Link.</i> MYOSERIS.     |                  |      |    | <i>Compositæ.</i> | <i>Sp. 1.</i>    |           |           |               |                          |
| 11283 purpurea <i>Link.</i>                | purple           | ↘ Δ  | or | 1½                | my.jn            | Fu        | Tauria    | 1824.         | D co                     |
| 1641. TOLPIS. <i>W.</i>                    | TOLPIS.          |      |    | <i>Compositæ.</i> | <i>Sp. 3.</i>    |           |           |               |                          |
| 11284 barbata <i>W.</i>                    | purple-eyed      | ○ pr | 2  | jn.jl             | Y.Pu             | France    | 1620.     | S             | co Bot. mag. 35          |
| 11285 umbellata <i>Balbis.</i>             | umbelled         | ○ pr | 2  | jn.jl             | Y.Pu             | Genoa     | 1820.     | S             | co                       |
| 11286 altissima <i>Pers.</i>               | tall             | ○ pr | 4  | jn.jl             | Y                | Piedmont  | 1823.     | S             | co Balb. diss. 4. t. 1   |
| 1642. ANDRYALA. <i>W.</i> ANDRYALA.        |                  |      |    | <i>Compositæ.</i> | <i>Sp. 6—10.</i> |           |           |               |                          |
| 11287 cheiranthifolia <i>W.</i>            | various-leaved   | ↘ Δ  | pr | ½                 | my.o             | Y         | Madeira   | 1777.         | D co L'Her.st.35.t.18    |
| 11288 pinnatifida <i>W.</i>                | wing-leaved      | ↘ Δ  | pr | ½                 | jl.au            | Y         | Madeira   | 1778.         | S co                     |
| 11289 crithmifolia <i>W.</i>               | Sampshire-leav.  | ↘ Δ  | pr | ½                 | jn.au            | Y         | Madeira   | 1778.         | S co                     |
| 11290 nigricans <i>W.</i>                  | dark-flowered    | ○ pr | 1  | jn.au             | Y                | Barbary   | 1804.     | S             | co                       |
| 11291 ragusina <i>W.</i>                   | downy            | ↘ Δ  | pr | ½                 | jn.au            | Y         | Archipel. | 1753.         | D co Mil.ic.1.t.146.f.2  |
| 11292 lanata <i>W.</i>                     | woolly           | ↘ Δ  | or | ½                 | my.jn            | Y         | S. Europe | 1732.         | D a.p Mil.ic.1.t.146.f.1 |
| 1643. ROTHIA. <i>W.</i>                    | ROTHIA.          |      |    | <i>Compositæ.</i> | <i>Sp. 3—6.</i>  |           |           |               |                          |
| 11293 andryaloides <i>W.</i>               | Andryala-like    | ○ un | 1  | au                | Y                | Spain     | 1810.     | S             | co Gær.sem.2.t.174       |
| 11294 cheiranthifolia <i>W.</i>            | Stock-leaved     | ○ un | 1½ | jl.au             | Y                | S. Europe | 1768.     | S             | co                       |
| 11295 runciata <i>W.</i>                   | hoary            | ↘ Δ  | un | 1                 | jl.au            | Y         | S. Europe | 1711.         | S co                     |
| 1644. KRIGIA. <i>W.</i>                    | KRIGIA.          |      |    | <i>Compositæ.</i> | <i>Sp. 1.</i>    |           |           |               |                          |
| 11296 virginica <i>W.</i>                  | Virginian        | ○ pr | ¾  | my.jl             | Y                | N. Amer.  | 1811.     | S             | co Jour.his.n.1.t.12     |
| 1645. HYOSERIS. <i>W.</i>                  | SWINE'S-SUCCORY. |      |    | <i>Compositæ.</i> | <i>Sp. 5—11.</i> |           |           |               |                          |
| 11297 radiata <i>W.</i>                    | starry           | ↘ Δ  | un | ½                 | jn.jl            | Y         | S. Europe | 1640.         | D co Plu. alm. t.37.f.2  |
| 11298 lucida <i>W.</i>                     | shining          | ↘ Δ  | un | ½                 | jn.au            | Y         | Levant    | 1770.         | D co Schm. ic. t.39.41   |
| 11299 scabra <i>W.</i>                     | rugged           | ○ un | 1  | jl.au             | Y                | Sicily    | 1789.     | S             | co Boc.m.146.t.106       |
| 11300 arenaria <i>W.</i>                   | sand             | ○ un | 1  | jl.au             | Y                | Morocco   | 1800.     | S             | co                       |
| 11301 hispida <i>W.</i>                    | hispid           | ↘ Δ  | un | ½                 | jl.au            | Y         | Barbary   | 1821.         | S co                     |
| 1646. HEDYPNOIS. <i>W.</i> HEDYPNOIS.      |                  |      |    | <i>Compositæ.</i> | <i>Sp. 7—16.</i> |           |           |               |                          |
| 11302 monspeliensis <i>W.</i>              | branching        | ○ un | 1  | jn.jl             | Y                | S. Europe | 1683.     | S             | co                       |
| 11303 rhagadioloides <i>W.</i>             | Nipplewort       | ○ un | 1½ | jl.au             | Y                | S. Europe | 1773.     | S             | co Cav. ic. 1. t. 43     |
| 11304 crética <i>W.</i>                    | Cretan           | ○ un | 1  | jn.jl             | Y                | Candia    | 1731.     | S             | co                       |
| 11305 coronopifolia <i>Tenore.</i>         | Buckshorn-leav'd | ○ un | ¾  | jn.jl             | Y                | Italy     | 1823.     | S             | co                       |
| 11306 tubæformis <i>Tenore.</i>            | tube-stalked     | ○ un | ¾  | jn.jl             | Y                | Naples    | 1824.     | S             | co                       |
| 11307 mauritânica <i>W.</i>                | Moorish          | ○ un | ¾  | jn.jl             | Y                | Barbary   | ...       | S             | co                       |
| 11308 pèndula <i>W.</i>                    | pendulous        | ○ un | 1½ | jn.jl             | Y                | .....     | ...       | S             | co                       |
| 1647. ROBERTIA. <i>Rich.</i> ROBERTIA.     |                  |      |    | <i>Compositæ.</i> | <i>Sp. 1.</i>    |           |           |               |                          |
| 11309 taraxacoïdes <i>Dec.</i>             | Dandelion-lvd.   | ↘ Δ  | un | ½                 | jn.jl            | Y         | Corsica   | 1824.         | S co                     |
| *1648. SERIOLA. <i>W.</i>                  | SERIOLA.         |      |    | <i>Compositæ.</i> | <i>Sp. 4—7.</i>  |           |           |               |                          |
| §11310 levigata <i>W.</i>                  | smooth           | ○ un | ¾  | jl.au             | Y                | Candia    | 1772.     | S             | co Desf. atl. t. 216     |
| 11311 etnensis <i>W.</i>                   | rough            | ○ un | ¾  | jl.au             | Y                | Italy     | 1763.     | S             | co Jac. obs. 4. t. 79    |
| 11312 crens <i>W.</i>                      | stinging         | ○ un | ¾  | jl.au             | Y                | S. Europe | 1773.     | S             | co Schmid. ic. t. 32     |
| §11313 Alliata <i>Biv.</i>                 | Alliata's        | ↘ Δ  | un | ¾                 | jl.au            | Y         | Ætna      | 1825.         | D co Bivon.cent.2. t.7   |
| 1649. SOLDEVIL/LA. <i>Lag.</i> SOLDEVILLA. |                  |      |    | <i>Compositæ.</i> | <i>Sp. 1.</i>    |           |           |               |                          |
| 11314 setosa <i>Lag.</i>                   | bristly          | ↘ Δ  | cu | ¾                 | my.jn            | Spain     | 1822.     | D             | co                       |
| *1650. HYPOCHÆRIS. <i>W.</i> CAT'S-EAR.    |                  |      |    | <i>Compositæ.</i> | <i>Sp. 7—16.</i> |           |           |               |                          |
| §11315 helvética <i>W.</i>                 | one-flowered     | ↘ Δ  | un | ½                 | jn.jl            | Y         | Switzerl. | 1779.         | D s.l Jac. ic. 1. t. 165 |
| §11316 maculata <i>W.</i>                  | spotted          | ↘ Δ  | un | 1                 | jn.jl            | Y         | England   | ch.hil. D s.l | Eng. bot. 225            |



History, Use, Propagation, Culture,

1639. *Helminthia*. An abridgment of *Helminthotheca*, a name employed for this genus by Vaillant. It is derived from ἕλμινς, a worm, and θηκη, a case: in allusion to the corrugated seeds, which may be fancied to resemble bundles of little worms. The genus was united by Linnæus with *Picris*, but has been again separated by modern botanists.

1640. *Myoseris*. So named from μῦς μῦος, a mouse, and σείσις, lettuce; a name invented for the purpose of maintaining a resemblance in nomenclature with *Hyoseris*, *Lagoseris*, and other similar plants.

1641. *Tolpis*. A name invented by Adanson, and supposed to have no meaning. Handsome annual flowers.

1642. *Andryala*. A name, the meaning of which has not been discovered. Rather pretty plants, natives of the south of Europe and north of Africa.

1643. *Rothia*. Named by Schreber, in honor of Dr. A. G. Roth, author of a *Flora Germanica*, in 1788, *Catalecta Botanica*, in 1797, and other works. It has been united with *Andryala* by Richard.

1644. *Krigia*. Named after Dr. Krieg, a German botanist, who accompanied Mr. Vernon to America in search of plants. See *Vernonia*. A pretty little North American plant, with grassy leaves and bright yellow neat flowers.

11282 Involucrum large prickly, Leaves repand

11283 Leaves runcinate pinnatifid : lobes oblong acute toothed spreading, Scape naked many-fl. smooth

11284 Leaves obl. toothed, Pedunc. 1-flowered

11285 Leaves lanc. oblong : lower sinuate-toothed, Pedunc. proliferous

11286 Leaves obl. linear scabrous toothed, Stem branched divaricating, Lower scales of invol. downy

11287 Leaves gland. downy : lower runcinate toothed ; upper ovate lanc. entire, Stem and pedunc. glandular

11288 Leaves downy pinnatifid, Invol. downy pilose, Hairs rigid

11289 Leaves pinnated linear downy

11290 Leaves pinnatifid lyrate, Flowers corymbose aggregate, Pedunc. and invol. hispid

11291 Leaves downy oblong : lower toothed, Stem branched, Branches 1-flowered

11292 Leaves ovate woolly : lower somewhat toothed, Corymb terminal, Pedunc. about 2-flowered

11293 Stem branched at base diffuse, Leaves downy ovate lanceolate amplexicaul. nearly entire

11294 Stem erect corymbose, Leaves somewhat downy linear sinuate-toothed sessile : upper entire

11295 Stem erect corymbose, Leaves downy sessile : lower obl. runcinate, Pedunc. gland. villous

11296 The only species

11297 Scapes 1-fl. naked, Leaves smooth lyrate runcinate toothed : term. lobe trifid

11298 Scapes 1-fl. naked, Leaves smooth lyrate runcinate somewhat fleshy : segm. angular imbricated.

11299 Scapes 1-fl. naked thickened at end, Leaves lyrate pinnatifid toothed ciliated roughish

11300 Stem branched leafy diffuse, Leaves amplexicaul. oblong toothed scabrous ciliated at edge

11301 Scapes 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

11302 Stem diffuse branched, Leaves obl. toothed narrowed at base sessile, Scales of invol. in fruit smooth

11303 Stem diffuse branched, Lvs. obl. toothed narr. at base sess. Scales of invol. in fruit hairy

11304 Stem diffuse branched, Lvs. obl. toothed subcordate amplexicaul. Scales of invol. in fruit smooth

11305 Related to the last, but the leaves are deeply toothed with 3-forked hairs

11306 Leaves somewhat toothed, Hairs simple, Pedunc. very thick

11307 Stem erect branched, Lvs. obl. somew. toothed subcordate amplex. Scales of invol. in fruit alternately setose

11308 Stem erect panicled, Lvs. obl. hispid deeply toothed, Scales of invol. in fruit smooth muricated at the end

11309 The only species

11310 Smooth, Leaves obovate toothed

11311 Hispid, Leaves obovate somewhat toothed

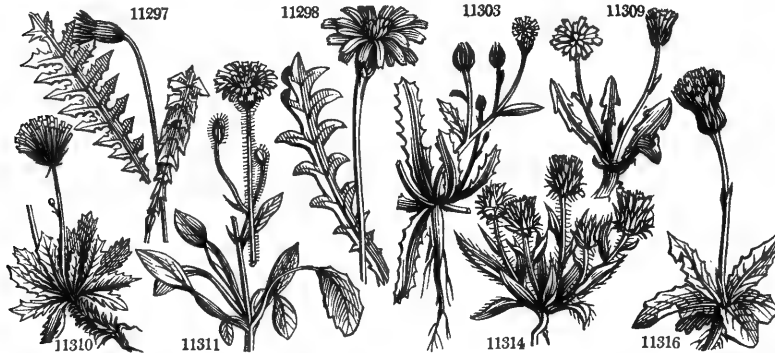
11312 Stinging, Stem branched, Leaves toothed

11313 Radical leaves spatulate toothed pilose, Stem ascending smooth, Pappus stalked

11314 Hairy with very short stellate hairs and bristles, Lvs. lanc. entire, Pedunc. term. thickened upwards 1-fl.

11315 Stem simple leafy 1-fl. Leaves lanc. toothed

11316 Stem almost leafless solitary, Leaves ovate-oblong undivided toothed (spotted above)



and Miscellaneous Particulars.

1645. *Hyozeris*. From *υς υος*, a hog, and *σεις*, the Greek name of the Lettuce, or of a plant resembling it : hogs-lettuce, in allusion to the abominably fetid smell of the plant.

1646. *Hedynnois*. Under this name, a kind of wild endive, the medicinal qualities of which he much extols, is described by Pliny. Dalechamp, his commentator, derives the word from *ἡδύς*, sweet, and *πνεύμα*, to breathe, on account of a pleasant flavor communicated to other vegetables in cookery. But the modern genus, which consists of uninteresting weeds, has not been discovered to possess this quality.

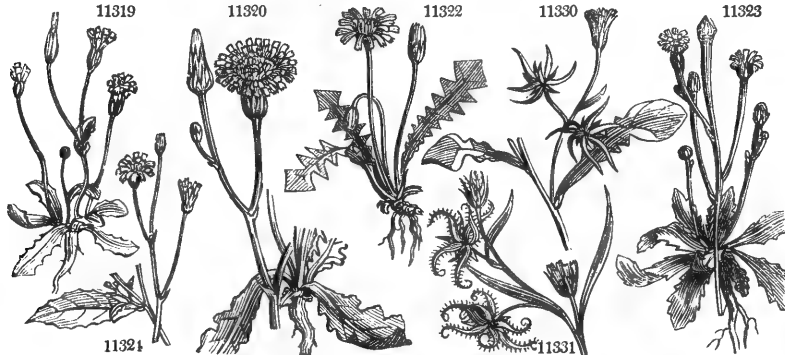
1647. *Robertia*. Named by the authors of the Flore Française, after M. Robert, a Corsican botanist. A small weedy plant resembling Dandelion.

1648. *Seriola*. A diminutive of *σεις*, chicory. Small chicoraceous weeds of the south of Europe. *S. Alliate* is not, as its name would lead one to suspect, named from any smell of garlic which it possesses, but in honor of Prince Joseph Alliate, a Sicilian nobleman, and patron of Bivona Bernardi.

1649. *Soldevilla*. So named by Lagasca, apparently in honor of some botanist. A little Spanish weed with terminal solitary flowers.

1650. *Hypochæris*. From *υρα*, for, and *χαις*, a pig ; *Porcelle*, Fr., for the same reason, viz., that pigs eat the roots with avidity. All the species are uninteresting weeds.

|                                   |                               |       |           |       |                   |            |        |                          |
|-----------------------------------|-------------------------------|-------|-----------|-------|-------------------|------------|--------|--------------------------|
| 11317 <i>minima</i> W.            | loast                         | ○ un  | ¼ jl.au   | Y     | Barbary           | 1797.      | S co   |                          |
| 11318 <i>hispidia</i> W. en.      | bristly                       | △ un  | ¼ jl.au   | Y     | S. Europe         | 1804.      | D co   | W. hor. be. 1. t. 46     |
| 11319 <i>glabra</i> W.            | smooth                        | △ un  | ¼ jl.au   | Y     | Britain           | sa. hea.   | S co   | Eng. bot. 575            |
| 11320 <i>radicata</i> W.          | long-rooted                   | △ un  | 1 ½ jn.s  | Y     | Britain           | me. pa. D. | s. l   | Eng. bot. 831            |
| 11321 <i>Balbisii</i> W.          | Balbis's                      | △ un  | 1 jn.s    | Y     | Italy             | 1824.      | D co   |                          |
| 1651. <i>LAPSA'NA</i> W.          | <i>NIPPLEWORT.</i>            |       |           |       | <i>Compositæ.</i> |            |        | Sp. 6-10.                |
| 11322 <i>foetida</i> W.           | stinking                      | △ un  | ¼ jl.au   | Y     | Italy             | 1722.      | D co   | Pl. rar. hu. 1. t. 49    |
|                                   | <i>Hyöseris foetida</i> P. S. |       |           |       |                   |            |        |                          |
| 11823 <i>pusilla</i> W.           | least                         | ○ w   | ¼ my.jn   | Y     | Britain           | gra. fi.   | S co   | Eng. bot. 95             |
|                                   | <i>Hyöseris minima</i> E. B.  |       |           |       |                   |            |        |                          |
| 11324 <i>communis</i> W.          | common                        | ○ w   | 1 ½ jn.jl | Y     | Britain           | clt. gr.   | S co   | Eng. bot. 844            |
| 11325 <i>crispata</i> W.          | curled                        | ○ un  | 1 ½ jl.au | Y     | .....             | 1799.      | S co   |                          |
| 11326 <i>intermedia</i> Bieb.     | intermediate                  | ○ un  | 1 ½ my.jn | Y     | Tauria            | 1823.      | S co   |                          |
| 11327 <i>lyrata</i> W. en.        | lyrate                        | △ un  | 1 ½ jl.au | Y     | Caspi. Sea        | 1816.      | D co   |                          |
| 1652. <i>ZACIN'THA</i> W.         | <i>ZACINTHA.</i>              |       |           |       | <i>Compositæ.</i> |            |        | Sp. 1.                   |
| 11328 <i>verrucösa</i> W.         | warted                        | ○ un  | ¾ jn.jl   | Y. BR | S. Europe         | 1633.      | S co   | Ga. se. 2. t. 157. 17    |
| 1653. <i>RHAGADI'OLUS</i> W.      | <i>RHAGADIOLUS.</i>           |       |           |       | <i>Compositæ.</i> |            |        | Sp. 3-5.                 |
| 11329 <i>stellatus</i> W.         | starry                        | ○ un  | 1 jn.jl   | Y     | S. Europe         | 1633.      | S co   |                          |
| 11330 <i>ædulis</i> W.            | heart-leaved                  | ○ un  | 1 jn.jl   | Y     | Levant            | 1633.      | S co   | Sch. han. 3. t. 225      |
| 11331 <i>Kœlpinia</i> W.          | small                         | ○ un  | ¾ jl      | Y     | Davuria           | 1788.      | S co   | Fall. it. 3. t. Ll. f. 2 |
| 1654. <i>MOSCA'RIA</i> Fl. per.   | <i>MOSCHARIA.</i>             |       |           |       | <i>Compositæ.</i> |            |        | Sp. 1.                   |
| 11332 <i>pinnatifida</i> Lag.     | pinnatifid                    | ○ pr  | ¼ jl.au   | ...   | Chili             | 1823.      | S co   |                          |
| 1655. <i>CATANAN'CHE</i> W.       | <i>CATANANCHE.</i>            |       |           |       | <i>Compositæ.</i> |            |        | Sp. 2-3.                 |
| 11333 <i>cærulea</i> W.           | blue                          | △ or  | 3 jlo     | B     | S. Europe         | 1596.      | D co   | Bot. mag. 293            |
| 11334 <i>lutea</i> W.             | yellow                        | ○ or  | ¾ jn.jl   | Y     | Candia            | 1640.      | S co   | Alp. exot. t. 286        |
| 1656. <i>TRIPTI'LION</i> Fl. per. | <i>TRIPTILION.</i>            |       |           |       | <i>Compositæ.</i> |            |        | Sp. 1-4.                 |
| 11335 <i>cordifolium</i> Lag.     | cordate                       | ○ pr  | ¼ my.au   | W     | Chili             | 1824.      | S co   | Bot. reg. 853            |
| 1657. <i>CICHO'RIMUM</i> W.       | <i>SÜCCORY.</i>               |       |           |       | <i>Compositæ.</i> |            |        | Sp. 5-7.                 |
| 11336 <i>l'ntybus</i> W.          | wild                          | △ ag  | 2 jn.au   | B     | Britain           | gra. so.   | D co   | Eng. bot. 539            |
| 11337 <i>pùmilion</i> W.          | dwarf                         | ○ un  | ¾ jl.au   | B     | .....             | 1799.      | S co   | Jac. obs. 4. t. 80       |
| 11338 <i>Endivia</i> W.           | Endive                        | △ cul | 2 jl.au   | B     | E. Europe         | 1549.      | S r.m  |                          |
| 11339 <i>divaricatum</i> W.       | branching                     | ○ un  | 2 jl.au   | B     | Barbary           | 1798.      | S co   |                          |
| 11340 <i>spinösus</i> W.          | prickly                       | △ un  | 2 jl.au   | B     | Candia            | 1632.      | S co   | Bauh. prodr. t. 62       |
| 1658. <i>BACA'ZIA</i> Fl. per.    | <i>BACAZIA.</i>               |       |           |       | <i>Compositæ.</i> |            |        | Sp. 1.                   |
| 11341 <i>spinösa</i> Fl. per.     | prickly                       | △ or  | 4 my.jl   | ...   | Peru              | 1825.      | C p. l |                          |
| 1659. <i>SCO'LYMUS</i> W.         | <i>GOLDEN THISTLE.</i>        |       |           |       | <i>Compositæ.</i> |            |        | Sp. 3-4.                 |
| 11342 <i>grandiflorus</i> Desf.   | large-flowered                | △ or  | 3 my.jn   | Y     | Barbary           | 1820.      | S co   | Desf. atl. t. 218        |
| 11343 <i>maculatus</i> W.         | annual                        | △ or  | 3 jl.au   | Y     | S. Europe         | 1633.      | S co   | Lam. ill. t. 659         |
| 11344 <i>hispanicus</i> W.        | perennial                     | △ or  | 3 jls     | Y     | S. Europe         | 1638.      | D co   |                          |



History, Use, Propagation, Culture,

1651. *Lapsana*. From λαπαζω, to purge. The *Lapsana*, says Pliny, gently relaxes the body. *L. communis* is called *nipple-wort*, in English, and *herbe aux mamelles*, Fr., having been formerly applied to the breasts of women to allay the irritation occasioned by nursing.

1652. *Zacintha*. A plant growing in the island of *Zacintha* or Zante. It was formerly included in *Lapsana*, under the name of *L. Zacintha*.

1653. *Rhagadiolus*. From ραγας, a slit; each division of the calyx being hollowed out in the middle so as to resemble a furrow, or little gutter.

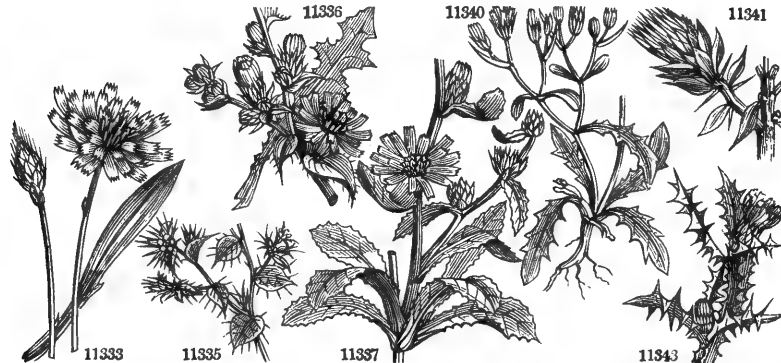
1654. *Moscharia*. This plant gives out an agreeable smell of *musk*. An annual plant, with stem-clasping pinnatifid deeply cut leaves, found in sandy waste places in Chili, where it is commonly called *Almizello*.

1655. *Catananche*. Vaillant explains the meaning of this word, by deriving it from the two Greek words, κατα, and αναγκη, necessity: that is to say, a plant which compels admiration. What is certainly known of its origin is, that it was employed by Dioscorides to designate a plant used by the women of Thessaly, in philtres and love potions. The modern genus, which contains two or three species of ornamental border annuals, can have no reference to that of the ancients, one kind of which is believed to have been *Ornithopus compressus*, and another *Astragalus pugniformis*. John Bauhin calls *Lathyrus Nissolia* by the name of *Catananche leguminosa*.

1656. *Triptilion*. A genus instituted by the authors of the *Flora Peruviana*, and named from τρεις, three, and πτελον, a feather, on account of the three divisions of the pappus. The species mentioned above is a very pretty little annual, or rather biennial plant, flowering during all the winter months in any place whence frost is excluded, but it requires not to be kept too dry. There is a fine species in Chili, with bright blue flowers, but it has not been yet introduced. The inhabitants of South America employ the flowers of the different species as overlying flowers, for which their dryness renders them very well adapted.

1657. *Cichorium*. In Greek κικωρον. De Theis's remarks are upon this subject excellent. Bodeus, he observes, Linnæus, and others, have derived this name from κω, to come, and κωρον, the field; that is to say,

- 11317 Leaves toothed roughish, Invol. hispid, Pappus of disk stipitate plumose : of the ray sessile setose  
 11318 Hispid, Calyxes hairy, Stem branched, Lvs. lanc. toothed  
 11319 Nearly glab. Invol. obl. imbricated, Stem branched somewhat leafy, Radical leaves dentato-sinuate  
 11320 Stem branched leafless glab. Pedunc. with small scales, Lvs. runcinate obtuse scab.  
 11321 Different from the last in having a smooth involucreum
- 11322 Stemless, Scape 1-fl. Leaves runcinate pinnatifid, Terminal lobe rhomboid
- 11323 Scape branched very thick and fistulose upwards, Leaves obovate oblong toothed
- 11324 Invol. of the fruit angular, Stem panicled, Pedunc. slender, Lvs. ovate petiolate angulato-dentate  
 11325 Caulicent branched, Leaves ovate stalked doubly toothed  
 11326 Caulicent branched, Lvs. angulato-toothed : lower lyrate-pinnatifid, Pedunc. and invol. smooth  
 11327 Caulicent panicled, Stem downy below, Radical leaves lyrate toothed : upper lanc. entire
- 11328 Rad. leaves lyrate acute, Cauline sagittate amplexicaul. toothed
- 11329 Fruit smooth spreading, Cauline leaves lanc. undivided  
 11330 Fruit smooth spreading, Leaves lyrate  
 11331 Fruit prickly spreading, Leaves linear lanc. entire
- 11332 Leaves amplexicaul. pinnatifid : segments deeply jagged
- 11333 Lower scales of invol. ovate mucronate, Leaves villous linear sub-bipinnatifid at base  
 11334 Lower scales of invol. lanc. Leaves lanc. toothed 3-nerved
- 11335 Leaves cordate spiny
- 11336 Flowers sess. axill. in pairs, Leaves runcinate  
 11337 Flowers axillary twin sessile, Leaves obovate toothed  
 11338 Pedunc. axill. twin : one long 1-fl. ; the other very short about 4-fl. Flowers capitate  
 11339 Pedunc. axill. twin : one long 1-fl. ; the other very short about 2-fl. Stem dichotomous, Rad. lvs. runcinate  
 11340 Flowers axill. solitary, Stem dichotomous, Branches naked spiny, Lvs. lanc. runcinate toothed
- 11341 Leaves obovate mucronate cartilaginous, Flowers solitary
- 11342 Fl. solitary lateral sessile, Lvs. decurrent, Stem subsimple villous erect  
 11343 Fl. solitary, Lvs. roughish smooth, Stem winged toothed  
 11344 Fl. subaggregate, Lvs. scabrous with the middle rib below hairy interruptedly decurrent



and Miscellaneous Particulars.

it is a plant found wild in fields, — which grows every where : but this etymology is overstrained. It is much more natural to suppose that the Egyptians, who used this plant in great quantities, would have communicated to the Greeks, along with the manner of using it, the name by which it was known in Egypt, which appears from Forskahl to be *chikouryeh*. Pliny remarked, that the Egyptians made their chicory of much consequence, and it is very well known that, at the present day, chicory or similar plants constitute half the food of the common people in Egypt. In like manner, there can be little doubt that the specific terms *Endivia* and *Intybus*, are both derived from the Arabic name *hendibeh*.

The leaves of *Cichorium Intybus* are employed by the French under the name of *Barbe du Capucine*, as a kind of winter salad ; for which purpose the leaves are blanched like *Endive*. The most common method of cultivating the plant, is to sow the seed in drills in the end of July, and to keep the plants about six inches apart, and quite free from weeds. In the winter the roots are taken out of the ground and packed up in a warm cellar among earth, in layers, like bottles in a wine cellar, the crowns only of the roots being exposed. In a few days, young leaves are produced in great abundance, from the situation in which they are cultivated quite blanched, and, if not grown too rapidly, with an agreeable taste. There is also a variety of *C. Intybus*, called *Chichoree à café*, which is cultivated extensively in France for the sake of its roots, which are taken up in the winter season, cut into squares, dried artificially, and afterwards, being roasted, are ground along with their coffee, for which they serve as an adulteration. There are those, however, who assert, that it is to this admixture of Succory root that the superior flavor of the French to the English coffee is to be attributed.

1658. *Bacaxia*. Named by the authors of *Flora Peruviana*, in honor of George Bacas, professor of botany at Carthagena.

1659. *Scotymus*. The Greek name of a spiny plant, which appears to have been the modern artichoke. The word itself is derived from *σκαλος*, a spine. *S. hispanicus* has simple fusiform roots, soft and sweet like *Scorzoneria*, and equally good to eat. The leaves and stalk also abound with a milky juice, and the people of Salamanca eat it in the same manner as Cardoons. The flowers are used for adulterating saffron.



|   |                   |   |     |    |                   |                    |           |           |    |     |                         |
|---|-------------------|---|-----|----|-------------------|--------------------|-----------|-----------|----|-----|-------------------------|
| 1660. <i>ARC'TIUM</i> . <i>W.</i>         | BURDOCK.          |   |     |    | <i>Compositæ.</i> | <i>Sp. 3—4.</i>    |           |           |    |     |                         |
| 11345 <i>Lappa</i> <i>W.</i>              | smooth-headed     | ○ | w   | 3  | jl.au             | Pu                 | Britain   | wa. gr.   | S  | co  | Eng. bot. 1928          |
| 11346 <i>Bardána</i> <i>W.</i>            | woolly-headed     | ○ | w   | 3  | jl.au             | Pu                 | Britain   | wa. gr.   | S  | co  | Eng. bot. 1878          |
| 11347 minus <i>Bieb.</i>                  | small             | ○ | w   | 2  | jl.au             | Pu                 | Europe    | ...       | S  | co  | Schk. bot. 3. t. 227    |
| 1661. <i>SERRA'TULA</i> . <i>W.</i>       | SAW-WORT.         |   |     |    | <i>Compositæ.</i> | <i>Sp. 16—40.</i>  |           |           |    |     |                         |
| 11348 <i>tinctória</i> <i>W.</i>          | common            | △ | clt | 3  | jl.o              | Pu                 | Britain   | woods.    | D  | co  | Eng. bot. 38            |
| 11349 <i>coronáta</i> <i>W.</i>           | Siberian          | △ | pr  | 5  | jl.au             | Pu                 | Siberia   | 1739.     | D  | co  | Gmel. sib. 2. t. 20     |
| 11350 <i>quinquefólia</i> <i>W.</i>       | five-leaved       | △ | pr  | 2  | jl.au             | Pu                 | Persia    | 1804.     | D  | p.l | Bot. mag. 1871          |
| 11351 <i>pygmæa</i> <i>W.</i>             | Pigmy             | △ | pr  | 1  | jl.au             | Pu                 | Austria   | 1816.     | D  | co  | Jac. aust. t. 440       |
| 11352 <i>angustifólia</i> <i>W.</i>       | narrow-leaved     | △ | pr  | 1½ | jl.au             | Pu                 | Siberia   | 1816.     | D  | co  | Gmel. sib. 2. t. 33     |
| 11353 <i>salicifólia</i> <i>W.</i>        | Willow-leaved     | △ | pr  | 2  | jl.au             | Pu                 | Siberia   | 1796.     | D  | co  | Gmel. sib. 2. t. 37     |
| 11354 <i>centauroides</i> <i>W.</i>       | Centaury-like     | △ | pr  | 1  | jl.au             | Pu                 | Siberia   | 1804.     | D  | co  | G. sib. 2. n. 38. t. 17 |
| 11355 <i>simplex</i> <i>B. M.</i>         | simple            | △ | pr  | 1  | jl.au             | Pu                 | Nepal     | 1821.     | D  | co  | Bot. mag. 2482          |
| 11356 <i>argúta</i> <i>Fisch.</i>         | fine-toothed      | △ | pr  | 3  | jl.o              | Pu                 | Hungary   | 1824.     | D  | co  |                         |
| 11357 <i>radiáta</i> <i>Bieb.</i>         | rayed             | ○ | pr  | 1½ | jl                | Pu                 | Hungary   | 1800.     | S  | co  | Pl. rar. hu. 1. t. 11   |
| 11358 <i>xeran'themoides</i> <i>Bieb.</i> | smth.-headed      | △ | pr  | 1½ | jl                | Pu                 | Caucasus  | 1825.     | D  | co  | Gmel. sib. t. 47. f. 1  |
| 11359 <i>heterophýlla</i> <i>Desf.</i>    | various-leaved    | △ | pr  | 2  | jl.au             | Pu                 | Dauphiny  | 1824.     | D  | co  | Vill. delp. 3. t. 19    |
| 11360 <i>stæchadifólia</i> <i>Bieb.</i>   | woolly-headed     | △ | pr  | 1½ | jl.au             | Pu                 | Tauria    | 1820.     | D  | co  |                         |
| 11361 <i>Picris</i> <i>Bieb.</i>          | scarios           | △ | pr  | 1  | jl.au             | Pu                 | Caucasus  | 1822.     | D  | co  |                         |
| 11362 <i>áspera</i> <i>Link.</i>          | rough             | ○ | pr  | 1½ | aus.              | Pu                 | Nepal     | 1821.     | S  | co  |                         |
| 11363 <i>aláta</i> <i>W.</i>              | winged            | △ | pr  | 2  | jl.au             | Pu                 | .....     | ...       | D  | co  |                         |
| 1662. <i>SAUSSU'REA</i> . <i>Dec.</i>     | <i>SAUSSUREA.</i> |   |     |    | <i>Compositæ.</i> | <i>Sp. 3—6.</i>    |           |           |    |     |                         |
| 11364 <i>elongáta</i> <i>Dec.</i>         | long              | △ | pr  | 2  | jl.au             | Pu                 | Caucasus  | 1820.     | D  | co  |                         |
| 11365 <i>alpina</i> <i>Dec.</i>           | Alpine            | △ | pr  | 1  | jl.au             | Pu                 | Britain   | at roc.   | D  | p.l | Eng. bot. 599           |
| 11366 <i>discolor</i> <i>Dec.</i>         | discolored        | △ | pr  | 1  | jl.au             | Pu                 | Switzerl. | 1818.     | D  | co  | Hall. helv. t. 6        |
| 1663. <i>CARDUUS</i> . <i>W.</i>          | THISTLE.          |   |     |    | <i>Compositæ.</i> | <i>Sp. 26—100.</i> |           |           |    |     |                         |
| 11367 <i>leucógraphus</i> <i>W.</i>       | white-spotted     | ○ | or  | 2  | jn. jl            | Pu                 | Italy     | 1752.     | S  | co  | Jac. vind. 3. t. 23     |
| 11368 <i>crassifólius</i> <i>W. en.</i>   | thick-leaved      | ○ | or  | 2  | jl                | Pu                 | .....     | 1805.     | D  | co  | Eng. bot. 1112          |
| 11369 <i>arábicus</i> <i>W.</i>           | Arabian           | ○ | or  | 1½ | jl.au             | Pu                 | Arabia    | 1789.     | S  | co  | Jac. ic. 1. t. 166      |
| 11370 <i>nátans</i> <i>W.</i>             | musk              | ○ | or  | 2  | jl.au             | Pu                 | Britain   | gra. fl.  | S  | co  | Gouan. ill. t. 23       |
| 11371 <i>carlinoides</i> <i>W.</i>        | Pyrenean          | ○ | or  | 1  | jl.au             | Pu                 | Pyrenees  | 1784.     | S  | co  | Jac. ho. vin. t. 192    |
| 11372 <i>argentáus</i> <i>W.</i>          | silvery           | ○ | or  | 1  | jl.au             | Pu                 | Egypt     | 1789.     | S  | co  |                         |
| 11373 <i>onopordoides</i> <i>Bieb.</i>    | Onopordum-like    | △ | or  | 1½ | jl.au             | Pu                 | Iberia    | 1818.     | D  | co  |                         |
| 11374 <i>carlinéfólius</i> <i>W.</i>      | Carline-leaved    | ○ | or  | 2  | jl.au             | Pu                 | Pyrenees  | 1804.     | S  | co  |                         |
| 11375 <i>acanthoides</i> <i>W.</i>        | wolsted           | ○ | or  | 2  | jn.au             | Pu                 | Britain   | wa. gr. S | co |     | Eng. bot. 973           |
| 11376 <i>tenuiflórus</i> <i>W.</i>        | slender-flowered  | ○ | w   | 2  | jn.au             | Pu                 | Britain   | banks. S  | co |     | Eng. bot. 412           |
| 11377 <i>crispus</i> <i>W.</i>            | curled            | ○ | w   | 2  | jl.au             | Pu                 | Europe    | 1804.     | S  | co  | Flor. dan. t. 621       |
| 11378 <i>hamulósus</i> <i>W.</i>          | spiny-hooked      | ○ | w   | 5  | jn. jl            | Pu                 | Hungary   | 1802.     | S  | co  |                         |
| 11379 <i>cáncidans</i> <i>W.</i>          | hoary             | ○ | w   | 3  | jl.au             | Pu                 | Hungary   | 1805.     | S  | co  | Pl. rar. hu. 1. t. 83   |
| 11380 <i>Personáta</i> <i>W.</i>          | cut-leaved        | ○ | w   | 4  | jl.au             | Pu                 | Austria   | 1776.     | S  | co  | Jac. aust. 4. t. 348    |
| 11381 <i>polyánthemus</i> <i>W.</i>       | many-flowered     | ○ | w   | 2  | jn. jl            | Pk                 | Rome      | 1739.     | D  | co  | Trium. obs. t. 103      |
| 11382 <i>orientális</i> <i>W. en.</i>     | oriental          | △ | or  | 2  | jl                | Pu                 | Iberia    | 1804.     | D  | co  |                         |
| 11383 <i>paniculátus</i> <i>W.</i>        | paniced           | △ | or  | 2  | jn. jl            | Pu                 | S. Europe | 1781.     | D  | co  |                         |
| 11384 <i>pyncocéphalus</i> <i>W.</i>      | Italian           | △ | or  | 1½ | jl.s              | Pu                 | S. Europe | 1739.     | S  | co  | Jac. vind. 1. t. 44     |
| 11385 <i>cyanoides</i> <i>W.</i>          | blue-bottle-lvd.  | △ | or  | 2  | jl.au             | R                  | Siberia   | 1778.     | D  | co  | Gmel. sib. 2. t. 15     |
| 11386 <i>arctioides</i> <i>W.</i>         | pinnated          | △ | or  | 2  | jl.au             | Pu                 | Carniola  | 1804.     | D  | co  | Scop. carn. t. 53       |
| 11387 <i>alpestris</i> <i>W.</i>          | Alpine            | △ | or  | 1½ | jl.au             | Pu                 | Croatia   | 1805.     | D  | co  |                         |
| 11388 <i>deionátus</i> <i>W.</i>          | various-leaved    | △ | or  | 6  | jl.au             | R                  | Austria   | 1570.     | D  | co  | Jac. aust. 1. t. 89     |
| 11389 <i>parviflórus</i> <i>W.</i>        | small-flowered    | △ | or  | 2  | jn. jl            | Pu                 | S. Europe | 1781.     | D  | co  |                         |
| 11390 <i>nitídus</i> <i>W.</i>            | glossy            | △ | or  | 2  | jl                | Pu                 | Hungary   | 1806.     | D  | co  | Pl. rar. hu. 1. t. 2    |
| 11391 <i>cerinthoides</i> <i>W.</i>       | Honeywort-lvd.    | △ | or  | 2  | jl.au             | Pu                 | S. Europe | 1739.     | D  | co  | Cav. ic. 3. t. 226      |



History, Use, Propagation, Culture.

1660. *Arctium*. From *αρκτος*, a bear, (*arth*, Celtic); on account of the rough bristly fruit, which may be compared to the coarse hair of a bear. *Lappa* is derived from *lapp*, a hand, in Celtic, because it lays hold of every thing near it. The burdock is too familiar to every schoolboy to need illustration. It is equally common in Europe and Japan, by road sides and on ditch banks. Few quadrupeds, except the ass, will eat the plant; but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their rind before the flowers appear, may be eaten, either boiled or raw, with oil and vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of Sarsaparilla. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salt, as good as the best potash.

1661. *Serratula*. A diminutive of *serra*, a saw; the leaves being edged with cutting teeth. Plants with the habit and qualities of thistles. *Serratula tinctoria* dyes cloth of a yellow colour.

1662. *Saussurea*. Named in honor of the celebrated Swiss philosopher Horace Benedict de Saussure, who, among his other acquirements, possessed a considerable knowledge in botany. He died in 1793, in the fifty-ninth year of his age.

1663. *Carduus*. This word appears to be derived from *ard*, a point, in Celtic, in allusion to the numerous

- 11345 Leaves cordate petiolate  
 11346 Cauline leaves cordate stalked entire, Invol. cobwebbed downy  
 11347 Invol. woolly: inner scales subulate somew. colored scarcely longer than outer, Racemes axill. panicled
- 11348 Leaves sharply serrate glab. pinnatifid: the terminal lobe the largest, Flowers in a small clust. umbel  
 11349 Leaves serrated unequally pinnate of about 5-pairs, Pinnæ confluent, Pedunc. 1-fl. Fl. rayed  
 11350 Lvs. serrated unequally pinn. of about 2-pairs, Pinnæ confluent, Pedunc. 1-fl. Inner scales of invol. long  
 11351 Lvs. lin. lanc. hirsute revolute at edge, Stem 1-fl. vil. Scales of invol. ov.-lanc. appressed [colored  
 11352 Leaves lin. entire hirsute, Fl. terminal corymbose  
 11353 Leaves lin. entire downy beneath revolute at edge, Corymb fastigiate  
 11354 Leaves pinnatifid oblique acute, smooth unarmed, Scales of invol. mucronate: inner scarious  
 11355 Leaves pinnatifid: lobes distant, Stem nearly simple 1-flowered, Invol. globosc squarrose  
 11356 Like *S. tinctoria*, but the lower leaves are oval and entire  
 11357 Leaves pectinate-pinnatifid naked: segm. lin. unarmed; terminal ovate, Scales of invol. ov. mucronate  
 11358 Invol. unarmed somewhat awned radiate, Leaves pinnatifid  
 11359 Leaves ov. pinnatifid toothed unarmed hoary beneath: upper sess. Stem 1-fl. Scales of invol. ov. unarmed  
 11360 Leaves lin. entire downy beneath, Corymb nearly simple, Invol. obl. ovate downy  
 11361 Invol. ovate: scales roundish scarious at edge, Leaves lanc. lower somewhat toothed at base  
 11362 Stem somewhat downy, Lvs. obl. acute narrowed at base serrated, Fl. subsessile, Invol. unarmed  
 11363 Lvs. downy beneath somewhat toothed: radical cord. stalked, Cauline lanc. decurrent, Invol. squarrose
- 11364 Invol. corymb. somewhat downy, Leaves fleshy smooth: radical lyrate hastate, Cauline hastate  
 11365 Leaves villous beneath toothed: radic. ovate-lanc. Flowers terminal somewhat umbelled  
 11366 Lvs. downy beneath toothed: radic. ovate-subcordate; cauline ovate-lanc. Fl. terminal somew. umbelled
- 11367 Leaves decurrent toothed spiny, Pedunc. naked very long 1-fl. Invol. spiny inclining  
 11368 Lvs. half decurrent obl. spiny-toothed somewhat fleshy smooth glauc. beneath, Pedunc. very long 1-fl.  
 11369 Leaves obl. decurrent sinuate spiny with white veins villous beneath, Fl. sessile clustered, Invol. cylind.  
 11370 Leaves decurrent spinous, Fl. drooping, Scales of the invol. lanc. cotony: outer ones spreading  
 11371 Leaves decurrent pinnatifid downy: segments palmate spiny, Flowers clustered  
 11372 Leaves decurrent runcinate spiny, Pedunc. somewhat downy 1-fl. Invol. ovate mucronate unarmed  
 11373 Leaves decurrent sinuate spiny smooth, Pedunc. short subcorymbose downy  
 11374 Leaves decurrent spiny glabrous, Pedunc. erect 1-fl. unarmed  
 11375 Lvs. decur. sinuated spinous, Invol. globosc nearly sess.: its scales lin. slightly recurved [lanc. erect  
 11376 Lvs. decurrent sinuated spinous somew. cottony beneath; Invol. nearly cylind. clustered sess. their scales  
 11377 Lvs. decurrent obl. sinuated spiny at edge downy beneath, Fl. stalked clustered terminal  
 11378 Lvs. decurrent lanc. pinnatifid toothed spiny vill. beneath, Pedunc. 1-fl. downy, Scales of invol. sub. spiny  
 11379 Leaves half decurrent lanc. pinnatifid spiny downy beneath, Pedunc. scaly downy  
 11380 Caul. lvs. half decurrent obl. undivided spiny toothed subvillous beneath: radic. pinnatifid at base  
 11381 Leaves decurrent sinuated ciliated naked beneath, Fl. stalked heaped  
 11382 Leaves half decurrent pinnatifid toothed spiny white with down beneath, Fl. subsessile term. clustered  
 11383 Leaves half decurrent toothed sinuate spiny smooth, Flowers panicled  
 11384 Leaves decurrent pinnatifid sinuated downy spiny, Pedunc. naked downy, Invol. deciduous  
 11385 Lvs. downy beneath: upper finely decurrent lin. Stem 1-fl. Scales of invol. lanc. mucron. downy  
 11386 Lvs. decurrent deeply pinnatifid: segments toothed upwards spiny with setaceous cilia: at end  
 11387 Leaves half decurrent pinnatifid acuminata: segm. 2-lobed ciliated spiny, Pedunc. downy  
 11388 Leaves half decurrent pinnatifid-serrate somew. spiny ciliated naked: radic. undivided, Pedunc. very long  
 11389 Leaves adnate at base lanc. naked eroded ciliate-spiny unarmed [woolly  
 11390 Leaves unarmed: radic. ovate toothed somewhat cut at base; cauline sessile pinnatifid linear  
 11391 Leaves naked: radical obl. entire; cauline lanc. somewhat toothed, Scales of invol. ovate mucronate



## and Miscellaneous Particulars.

points with which it is beset. *C. marianus*, the milk-thistle, derived its name from the Virgin Mary, some of whose milk is said to have fallen upon the leaves of the plant, and changed them to white. An extensive genus of rather handsome weeds. *C. Personata* is said to have been so called, because its ample leaves were formerly used as a mask (*persona*). Some of the gigantic species make handsome ornaments for the shrubbery, but the greatest number are nuisances to the husbandman; some on account of their deep vivacious roots, which cannot be eradicated without extreme difficulty; but the greater number because of their bulky herbage, and the extensive dissemination of their seeds by the wind.

The footstalks of the leaves of most or all of the species of this and the allied genera might be eaten in the manner of Cardoons, if similarly blanched. The dried flowers of *C. arabicus* and nutans might curdle milk. The seeds of all the species of *Serratula*, *Cnicus*, *Onopordum*, and similar genera, are greedily eaten by small birds, especially the finches.

The *Carduineæ* of *M. Cassini* differ from *Carlineæ* of the same author, in the filaments being hairy or papillose, from *Centauriæ* in the structure of ovarium and of pappus, and from *Echinopseæ*, to which they bear a general resemblance, by many very important characters. The species inhabit Europe, Asia, and Africa; there are scarcely any in America, and none in the southern hemisphere.

|   |                               |   |    |    |                    |                    |                    |           |                      |                        |
|---|-------------------------------|---|----|----|--------------------|--------------------|--------------------|-----------|----------------------|------------------------|
| 1664. <i>Silybum</i> <i>Gertn.</i> <i>Silybum</i> . |                               |   |    |    | <i>Compositae.</i> | <i>Sp. 2-5.</i>    |                    |           |                      |                        |
| 11392 <i>mariannum Gertn.</i>                       | milk                          | ○ | w  | 5  | jl                 | Pu                 | Britain            | banks.    | S co                 | Eng. bot. 976          |
| 11393 <i>cérnaum Gertn.</i>                         | nodding                       | ○ | or | 4  | jn, jl             | Y                  | Siberia            | 1755.     | D co                 | Gmel. sib. 2. t. 19    |
| * 1665. <i>Cnicus</i> <i>W.</i>                     | Hoarse Thistle.               |   |    |    |                    | <i>Compositae.</i> | <i>Sp. 50-114.</i> |           |                      |                        |
| 11394 <i>palustris W.</i>                           | marsh                         | ○ | w  | 3  | jl, au             | Pu                 | Britain            | m. pas.   | S co                 | Eng. bot. 974          |
| 11395 <i>cánu W.</i>                                | hoary                         | ○ | or | 4  | jl, au             | Pu                 | Austria            | 1633.     | D co                 | Jac. aust. 1. t. 42. 3 |
| 11396 <i>Acárna W.</i>                              | winged                        | ○ | or | 2  | jl, s              | Pu                 | Spain              | 1693.     | S co                 | Cav. ic. 1. t. 53      |
| 11397 <i>monsperulánu W.</i>                        | Montpelier                    | ○ | or | 2  | ju, jl             | Pu                 | Montpel.           | 1596.     | D co                 | Act. ic. 1. t. 50      |
| 11398 <i>lanceolátus W.</i>                         | common                        | ○ | w  | 3  | jn, s              | Pu                 | Britain            | banks.    | S co                 | Eng. bot. 107          |
| 11399 <i>férox W.</i>                               | prickly                       | ○ | or | 3  | jl, au             | Pu                 | S. Europe          | 1683.     | S co                 | All. ped. 1. t. 50     |
| 11400 <i>líátus W.</i>                              | fringed                       | ○ | or | 3  | au                 | Pu                 | Siberia            | 1787.     | D co                 | Mur. co. got. 6. t. 5  |
| 11401 <i>eríophorus W.</i>                          | woolly-headed                 | ○ | or | 2  | jl, au             | Pu                 | Britain            | ch. pa.   | S co                 | Eng. bot. 386          |
| 11402 <i>discolor W.</i>                            | two-colored                   | ○ | or | 2  | jl, au             | Pu                 | N. Amer.           | 1803.     | S co                 |                        |
| 11403 <i>altíssimus W.</i>                          | giant                         | ○ | or | 6  | au, s              | Pu                 | N. Amer.           | 1796.     | D co                 | Dil. elt. t. 69. f. 80 |
| 11404 <i>praténsis W.</i>                           | meadow                        | ○ | w  | 3  | jn                 | Pu                 | Britain            | m. pas.   | D co                 | Eng. bot. 177          |
| 11405 <i>heterophýllus W.</i>                       | melancholy                    | ○ | or | 2  | jl, au             | Pu                 | Britain            | m. al. p. | D co                 | Eng. bot. 675          |
| 11406 <i>helenioides W.</i>                         | Elecampane-iv.                | ○ | or | 4  | jl, au             | Pu                 | Siberia            | 1804.     | D co                 | All. ped. t. 13        |
| 11407 <i>seratuloides W.</i>                        | Saw-wort-like                 | ○ | or | 3  | jn, o              | Pu                 | Siberia            | 1752.     | D co                 | Jac. aust. 2. t. 127   |
| 11408 <i>elátior Link.</i>                          | tall                          | ○ | or | 6  | jn, o              | Pu                 | .....              | 1893.     | D co                 |                        |
| 11409 <i>uliginósus Bieb.</i>                       | swamp                         | ○ | or | 3  | jn, jl             | Pu                 | Caucasus           | 1820.     | D co                 |                        |
| 11410 <i>pannónicus W.</i>                          | Hungarian                     | ○ | or | 3  | jl, s              | Pa. pu             | Austria            | 1816.     | D co                 |                        |
| 11411 <i>strictus Tenore.</i>                       | upright                       | ○ | or | 2  | jl, s              | Pu                 | Naples             | 1819.     | D co                 |                        |
| 11412 <i>desertórum Fisch.</i>                      | desert                        | ○ | or | 3  | jl, s              | Pu                 | Siberia            | 1824.     | D co                 |                        |
| 11413 <i>serrulátus Bieb.</i>                       | serrulate                     | ○ | or | 3  | jl, au             | Pu                 | Tauria             | 1820.     | D co                 |                        |
| 11414 <i>lanifórus Bieb.</i>                        | woolly-flowered               | ○ | or | 2  | jl, au             | Pu                 | Tauria             | 1819.     | D co                 |                        |
| 11415 <i>arachnoídeus Bieb.</i>                     | cobwebbed                     | ○ | or | 2  | jl, au             | Pu                 | Tauria             | 1818.     | D co                 |                        |
| 11416 <i>strigósus Bieb.</i>                        | strigose                      | ○ | or | 2  | au, s              | Pu                 | Caucasus           | 1825.     | D co                 |                        |
| 11417 <i>hóridus Bieb.</i>                          | horrid                        | ○ | or | 1½ | au, s              | Pu                 | Iberia             | 1823.     | S co                 |                        |
| 11418 <i>scleránthus Bieb.</i>                      | hard-headed                   | ○ | or | 2  | jl, au             | Pu                 | Caucasus           | 1820.     | S co                 |                        |
| 11419 <i>echinánu W.</i>                            | echinate                      | ○ | or | 1  | jl, au             | Pu                 | Britain            | 1817.     | D co                 |                        |
| 11420 <i>inermis W.</i>                             | unarmed                       | ○ | or | 3  | jl, au             | Pu                 | .....              | 1824.     | D co                 |                        |
| 11421 <i>ambigúus Pers.</i>                         | doubtful                      | ○ | or | 2  | jl, au             | Pu                 | M. Cenis           | 1820.     | D co                 |                        |
| 11422 <i>oryzánu W.</i>                             | lofty                         | ○ | or | 6  | jn, o              | Pu                 | .....              | 1823.     | D co                 |                        |
| 11423 <i>setósus Bieb.</i>                          | setose                        | ○ | or | 1½ | jn, jl             | Pu                 | Silesia            | 1892.     | S co                 |                        |
| 11424 <i>carthamoides W.</i>                        | Carthamus-like                | ○ | or | 2  | jl, au             | Pu                 | Siberia            | 1818.     | D co                 |                        |
| 11425 <i>arvénsis Ph.</i>                           | corn or way                   | ○ | w  | 2  | jl                 | Pu                 | Britain            | ro. sid.  | D co                 | Eng. bot. 975          |
|   | <i>Serrátula arvénsis W.</i>  |   |    |    |                    |                    |                    |           |                      |                        |
|   | <i>Carduus arvénsis E. B.</i> |   |    |    |                    |                    |                    |           |                      |                        |
| 11426 <i>rivuláris W.</i>                           | river                         | ○ | or | 3  | jl, au             | Pu                 | Hungary            | 1804.     | S co                 | Jac. aust. 1. t. 91    |
| 11427 <i>paucifórus W.</i>                          | few-flowered                  | ○ | or | 2  | jl, au             | Pu                 | Hungary            | 1816.     | D co                 | Pl. rar. hu. 2. t. 161 |
| 11428 <i>tatáricus W.</i>                           | Tartarian                     | ○ | or | 1½ | jl, au             | W                  | Siberia            | 1775.     | D co                 | Jac. aust. 1. t. 90    |
| 11429 <i>rigens W.</i>                              | upright Alpine                | ○ | or | 1½ | jl, au             | Pu                 | Switzerl.          | 1775.     | D co                 | Act. helv. 4. t. 161   |
| 11430 <i>carniolicus W.</i>                         | Carniolian                    | ○ | or | 2  | jl, au             | Pa. Y              | Carniola           | 1792.     | D co                 | Sc. ca. n. 1005. t. 52 |
| 11431 <i>oleráceus W.</i>                           | pale-flowered                 | ○ | or | 3  | jl, au             | Pa. Y              | Europe             | 1570.     | D co                 | Fl. dan. 860           |
| 11432 <i>munitus W. en.</i>                         | armed                         | ○ | or | 3  | jl, au             | Pu                 | Caucasus           | 1816.     | D co                 |                        |
| 11433 <i>obvalátus Bieb.</i>                        | bracteate                     | ○ | or | 3  | jl, au             | Pu                 | Caucasus           | 1816.     | D co                 |                        |
| 11434 <i>Eristhales W.</i>                          | clammy                        | ○ | or | 3  | jn, au             | Pu                 | France             | 1752.     | D co                 | Jac. aust. 4. t. 310   |
| 11435 <i>ochroleúsus W.</i>                         | pale-yellow                   | ○ | or | 2  | jl                 | Pa. Y              | Switzerl.          | 1801.     | D co                 |                        |
| 11436 <i>tuberósus W.</i>                           | tuberous                      | ○ | or | 3  | au, o              | Pu                 | England woods.     | D co      | Lob. ic. t. 10. f. 2 |                        |
| 11437 <i>acáulis W.</i>                             | dwarf                         | ○ | pr | 1  | jl, au             | Pu                 | Britain            | gra. pa.  | D co                 | Eng. bot. 161          |
| 11438 <i>Casabóna W.</i>                            | Fish-bone                     | ○ | or | 2  | jn, au             | Pu                 | S. Europe          | 1714.     | S pl                 | Schmd. ic. t. 51. 52   |
| 11439 <i>áfer W.</i>                                | Barbary                       | ○ | or | 2  | jn, jl             | Pu                 | Sarby              | 1800.     | S co                 | Bot. mag. 2287         |



*History, Use, Propagation, Culture,*

1664. *Silybum*. A name under which Greek writers describe a plant not well known at present. Sprengel refers it to *S. marianum*. This plant was formerly cultivated, and the young leaves used in spring as a salad, or boiled as pot greens; the young stalks, peeled and soaked in water, to extract a part of their bitterness, were also eaten, and were said to be excellent. In the spring of the second year, the root is prepared like salsify or skirret; and the receptacle of the flower is pulpy, and eats like that of the artichoke. In Apulia the whole plant is much used as fodder for cattle.

1665. *Cnicus*. This is a name under which Dioscorides describes a prickly rough plant; derived from *κνίξ*, to prick. It is now referred to a tribe of plants having such characters in an eminent degree. *Acarna* and *Eristhales* are both names by which the ancients distinguished plants, either the very same as those now so called, or very similar to them. The tender stalks of *C. palustris*, as of most of the species, being peeled, are eatable either raw or boiled. *C. arvensis* is well known as one of the most troublesome weeds in arable land. It is never found, however, in very sandy, gravelly, or peaty soils; but generally in such as are loamy and dry. An instance is given in the Farmer's Magazine, of the descending roots of this plant having been dug out of a quarry nineteen feet long; nor is it less remarkable for its horizontal roots. Mr. Curtis planted about two inches of a root in his garden in April, and by November following it had thrown out under ground stolons on every side, some of them eight feet long; some of these stolons had thrown up leaves five feet

- 11392 Lvs. amplexicaul. waved spinous : radic. ones pinnati. Scales of invol. subfoliac. recurved spinous at margin  
 11393 Leaves downy beneath ovate toothed : radical cord. Petioles winged toothed, Invol. subsolitary cernuous
- 11394 Lvs. decurrent scabr. pinnatif. spinous. Invol. ovate clustered their scales ovate-lanc. mucro. appressed  
 11395 Lvs. half decurrent somew. hoary lanc. ciliate spiny, Pedunc. naked downy solit. Scales of invol. appressed  
 11396 Leaves decurrent lanc. hoary toothed spiny, Fl. aggregate involucrete, Invol. with pinnated spines  
 11397 Lvs. decurrent lanc. smooth subrepand uneq. ciliated, Pedunc. naked downy alternate [lanc. spreading  
 11398 Lvs. decurr. hispid pinnatif their segm. generally 2-lobed spreading spinous, Invol. ov. toment. their scales  
 11399 Lvs. subdecurr. pinnatif. : segm. 2-lobed spreading spiny vill. beneath, Invol. hemispher. sessile  
 11400 Lvs. amplexicaul. hispid pinnatif. : segm. 2-lobed spreading spiny downy beneath, Invol. ovate  
 11401 Leaves sess. pinnatif. every other segm. pointing upwards spin. scabr. Involucres spherical woolly  
 11402 Leaves sess. pinnatif. hairy downy beneath : segm. 2-lobed spreading spiny, Invol. globose with cobweb down  
 11403 Leaves sess. obl. lanc. scabrous downy beneath toothed ciliated : radic. pinnatifid, Invol. bracteate ovate  
 11404 Leaves sess. lanc. waved at the edge and unequally spin. pubesc. cottony beneath, Flowers mostly solitary  
 11405 Lvs. amplexic. lanc. ciliato-dentate undivided or laciniated white and downy beneath, Fl. mostly solitary  
 11406 Lvs. subcordate amplexicaul. lanc. ciliated downy beneath : lower somewhat cut, Fl. clustered  
 11407 Lvs. lanc. sessile ciliated strigose beneath : radical sinuated, Scales of invol. recurved at end  
 11408 Lvs. pinnatifid with strong spines somewhat downy beneath, Fl. sess. aggregate, Lvs. of invol. spiny  
 11409 Lvs. half decurr. obl. sinuate toothed spiny hoary beneath, Heads close together with appressed scales  
 11410 Leaves half decurrent lanc. entire ciliated, Pedunc. very long 1-f. woolly  
 11411 Very like *C. arvensis*, but the leaves are decurrent  
 11412 Stem somew. downy, Lower lvs. sinuate-toothed with strong spines rough above finely downy beneath  
 11413 Lvs. amplexic. hispid pinnatifid : segm. 2-lobed spreading spiny downy beneath, Heads ov. glabrous spiny  
 11414 Lvs. amplexic. hispid pinnatif. : segm. 2-lobed spread. spiny downy beneath, Heads ov. cobwebbed with down  
 11415 Lvs. amplexic. hispid pinnatif. : segm. 2-lobed spread. spiny beneath naked subvillosus, Heads ov. cobwebbed  
 11416 Lvs. amplexic. hispid pinnatifid : segm. 2-lobed spreading spiny naked beneath, Heads ov. glabrous  
 11417 Lvs. amplexicaul. hispid pinnatifid prickly : segm. angular lobed spiny, Heads nodding cobwebbed  
 11418 Stem branched many-f. Heads terminal solitary spiny at base, Lvs. amplexicaul. sinuate toothed spiny  
 11419 Leaves sess. pinnatifid hispid woolly beneath : segm. 2-lobed spreading spiny, Invol. ovate woolly  
 11420 Leaves sess. lanc. cut-toothed : radical. pinnatifid, Scales of invol. ovate lanc. membranous at edge  
 11421 Leaves ciliate spiny downy beneath : lower stalked obl. acum. subsinuate; upper pinnatifid auricled  
 11422 Like the last, but the leaves of involucrem are reflexed  
 11423 Leaves obl. smooth serrulate with bristly ciliae blunt mucro. Stem corymbose  
 11424 Leaves unarmed sess. obl. toothed : radical undivided and pinnatifid, Invol. scarious villous  
 11425 Leaves sess. pinnati. spin. Stem panicled, Invol. ovate, Scales appressed mucronated

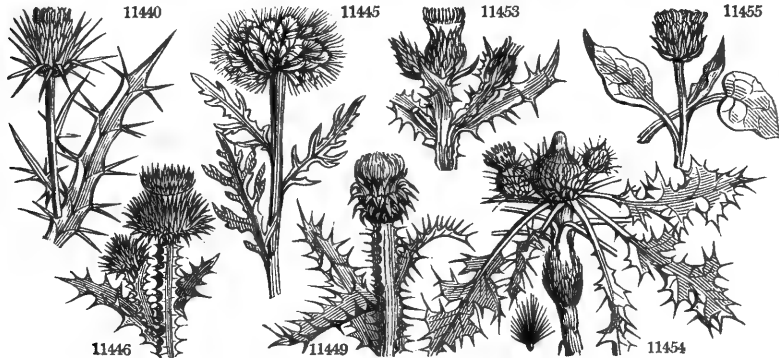
- 11426 Leaves toothed ciliated naked : cauline amplexicaul. : lower and radical pinnatifid, Fl. clustered capitate  
 11427 Leaves amplexicaul. ovate sublyrate ciliate serrate scabrous : radic. lyrate, Fl. clustered  
 11428 Leaves amplexicaul. obl. lanc. toothed ciliate-spinous, Pedunc. 1-f. Invol. bracteate  
 11429 Leaves sess. pinnatifid : segm. cut serrate spiny at edge, Invol. bracteate : scales ovate appressed  
 11430 Leaves cordate amplexicaul. ovate obl. toothed ciliated : radical obl. blunt ciliated sinuate  
 11431 Leaves amplexicaul. cord. pinnatif. ciliate serr. Fl. terminal subracemose bracteate, Bracts colored ovate  
 11432 Leaves amplexicaul. obl. pinnatif. toothed spiny hispid above downy beneath, Tern. fl. sess. axill. stalked  
 11433 Leaves amplexicaul. pinnatif. toothed spiny glabrous, Fl. term. aggreg. sess. surrounded by colored bracts  
 11434 Leaves amplexicaul. pinnatifid ciliated, Pedunc. cernuous, Invol. glutinous : scales lanc. spreading  
 11435 Leaves amplexic. pinnati. downwards ciliated : pinnæ lanc. 3-nerved; upper confluent, Pedunc. cernuous  
 11436 Leaves amplexicaul. pinnatifid ciliate-spinous : segm. 2-lobed toothed upwards at the base  
 11437 Stemless, Invol. glabrous  
 11438 Leaves sess. lanc. entire downy beneath with triple spines at the edge, Fl. axill. sessile  
 11439 Leaves sess. lanc. downy beneath subrepand : lobes emarg. with 2 spines, Fl. stalked subcorvombos



## and Miscellaneous Particulars.

from the original root. The whole together, when dug up and washed, weighed four pounds. In the spring following, it again made its appearance, on or about where the small piece was originally planted. There were between fifty and sixty young plants, which must have sprung from fragments of the roots that had eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may readily be conceived how difficult it is to eradicate this weed from arable land; a naked fallow, with frequent and deep ploughing, will not accomplish it, unless the season is more than usually dry. Laying land down to grass, keeping it in that state seven or eight years, and during the whole time pulling up every shoot as soon as it appears, is found fully more effectual than a naked fallow. But the plant is so common by road sides, and seeds so abundantly, that it is hardly possible to effect its extermination. In common field lands, and others indifferently cultivated, it often forms the larger half of the produce, and formerly used to be pulled when beginning to come into flower, and given as food to horses and cows. Those who pull this weed require to be furnished with strong gloves or thistle pickers. (*Encyc. of Agr.* § 2394.) Some English botanists seem doubtful if horses and cows will eat it; but those who know any thing of the history of agriculture in Scotland will recollect, that before the introduction of naked fallows and turnips, it formed the *supper* of housed cattle, during five or six weeks of every summer. The ashes of the plant yield a very pure vegetable alkali. *C. canus* has fleshy white roots like the skirret, and may be dressed and eaten

|        |                         |                                 |   |     |    |       |       |            |           |   |    |                          |
|--------|-------------------------|---------------------------------|---|-----|----|-------|-------|------------|-----------|---|----|--------------------------|
| 11440  | <i>diacanthus</i> Lab.  | two-spined                      | ☞ | or  | 3  | jn.jl | Pu    | Syria      | 1800.     | S | co | Labic. pley. 2. t. 3     |
| 11441  | <i>stellatus</i> W.     | starry                          | ○ | or  | 2  | jn.jl | Pu    | Italy      | 1635.     | S | co | Trumf. obs. t. 96        |
| 11442  | <i>syriacus</i> W.      | Syrian                          | ○ | or  | 1½ | jl.au | W     | Levant     | 1771.     | S | co | Camer. hort. t. 10       |
| 11443  | <i>spinosissimus</i> W. | feathery-head.                  | ☞ | or  | 3  | jn.au | Pa. Y | Switzerl.  | 1759.     | D | co | Bot. mag. 1366           |
| 11444  | <i>centauroides</i> W.  | Artichoke-lvd.                  | △ | or  | 3  | jl.au | Pu    | Pyrenes    | 1640.     | D | co | Moris. s. 7. t. 25. f. 2 |
| 11445  | <i>uniflorus</i> W.     | one-flowered                    | △ | or  | 2  | jl.au | Vi    | Siberia    | 1796.     | D | co | Gmel. sib. 2. t. 38      |
| 1666.  | ONOPORDUM. W.           | COTTON THISTLE.                 |   |     |    |       |       | Compositæ. | Sp. 9—14. |   |    |                          |
| 11446  | <i>Acanthium</i> W.     | woolly                          | ○ | or  | 6  | jl.au | Pu    | Britania   | gra. ba.  | S | co | Eng. bot. 977            |
| 11447  | <i>tauricus</i> W.      | Taurian                         | ○ | or  | 12 | jl.au | Pu    | Tauria     | 1800.     | S | co |                          |
| 11448  | <i>macracanthum</i> W.  | long-spined                     | ☞ | or  | 10 | jl.au | Pu    | Barbary    | 1798.     | S | co | Schou. maroc. t. 5       |
| 11449  | <i>illyricum</i> W.     | Illyrian                        | ○ | or  | 6  | jl.au | Pu    | S. Europe  | 1648.     | S | co | Caj. vind. 2. t. 148     |
| 11450  | <i>deltoidum</i> W.     | Siberian                        | △ | or  | 12 | au    | Pu    | Siberia    | 1784.     | D | co |                          |
| 11451  | <i>græcum</i> W.        | Grecian                         | ○ | or  | 10 | jn.jl | Pu    | Levant     | 1799.     | D | co | Gouan. ill. t. 25        |
| 11452  | <i>cynaroides</i> Stev. | artichoke                       | ○ | or  | 10 | jn    | W     | Caucasus   | 1823.     | S | co |                          |
| 11453  | <i>arabicum</i> W.      | Arabian                         | ○ | or  | 8  | jl    | Pu    | S. Europe  | 1686.     | S | co | Jac. vind. 2. t. 149     |
| 11454  | <i>acañon</i> W.        | dwarf                           | ○ | or  | ½  | jl.au | W     | .....      | 1739.     | S | co | Jac. ic. 1. t. 167       |
| 1667.  | BERAR'DIA. Vill.        | BERARDIA.                       |   |     |    |       |       | Compositæ. | Sp. 1.    |   |    |                          |
| 11455  | <i>subcaulis</i> P. S.  | round-leaved                    | ☞ | pr  | 1½ | jl.au | Pu    | Italy      | 1791.     | D | co | Vil. dauph. 3. t. 22     |
|        |                         | <i>Arctium lanuginosum</i> Dec. |   |     |    |       |       |            |           |   |    |                          |
| *1668. | CYNARA. W.              | ARTICHOKE.                      |   |     |    |       |       | Compositæ. | Sp. 7—10. |   |    |                          |
| 11456  | <i>Scòlymus</i> W.      | garden                          | △ | cul | 8  | aus.  | Pu    | S. Europe  | 1548.     | D | co | Blackw. t. 548           |
| 11457  | <i>hórrida</i> W.       | Madeira                         | △ | cul | 6  | aus.  | Pu    | Madeira    | 1778.     | D | co |                          |
| 11458  | <i>Cardunculus</i> W.   | Cardoon                         | △ | cul | 5  | aus.  | Pu    | Candia     | 1658.     | D | co | Tabern. ic. 1075         |
| 11459  | <i>hómilis</i> W.       | dwarf                           | △ | un  | 1½ | jl.au | B     | Spain      | 1613.     | D | co | Plu. alm. t. 81. f. 2    |
| §11460 | <i>acañlis</i> W.       | stemless                        | △ | un  | 1  | jl    | Pu    | Barbary    | 1799.     | D | co | Desf. atl. 2. t. 223     |
| 11461  | <i>glomeráta</i> Th.    | Cape                            | ☞ | un  | 2  | jl.au | Pu    | C. G. H.   | 1816.     | D | co |                          |
| 11462  | <i>pygmæa</i> W.        | pigmy                           | ☞ | un  | 1  | jl.au | Pu    | Spain      | 1820.     | D | co |                          |
| 1669.  | CARLINA. W.             | CARLINE THISTLE.                |   |     |    |       |       | Compositæ. | Sp. 9—18. |   |    |                          |
| 11463  | <i>acanthifolia</i> W.  | Acanthus-lvd.                   | △ | or  | 2  | jn    | W     | Carniola   | 1818.     | D | co | All. ped. t. 51          |
| 11464  | <i>acañlis</i> W.       | dwarf                           | △ | or  | ½  | jn    | W     | Italy      | 1640.     | D | co | Knor. the. 2. t. c. 1    |
| 11465  | <i>simplex</i> P. S.    | single-flowered                 | △ | or  | 1½ | jn.jl | W     | Hungary    | 1816.     | D | co | Pl rar. hu. 2. t. 152    |
| 11466  | <i>aggregáta</i> W.     | clustered                       | ☞ | or  | 2  | jn.s  | W     | Hungary    | 1804.     | D | co |                          |
| 11467  | <i>lanáta</i> W.        | woolly                          | ☞ | or  | 3  | jn.jl | Pu    | S. Europe  | 1833.     | S | co | Garid. aix. t. 21        |
| 11468  | <i>corymbósa</i> W.     | corymbed                        | △ | or  | 3  | jl.au | Y     | S. Europe  | 1640.     | D | co | Col. cep. 1. t. 27. f. 1 |
| 11469  | <i>vulgáris</i> W.      | common                          | ☞ | or  | 1½ | jn.s  | Pu    | Britain    | dry pa.   | S | co | Eng. bot. 1144           |
| 11470  | <i>racemósa</i> W.      | racemed                         | ☞ | or  | 3  | jn.au | Y     | Spain      | 1653.     | S | co | Desf. atl. t. 224        |
| 11471  | <i>pyrenáica</i> W.     | Pyrenean                        | ☞ | or  | 2  | jn    | Pu    | Pyrenes    | 1788.     | D | co |                          |



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in the same manner. *C. lanceolatus* is one of the most common and noxious weeds of the genus, chiefly on account of its great bulk, its numerous downy seeds, and the facility with which they are distributed by the wind; its dried flowers curdle milk. *C. helenioides*, used to be called the melancholy thistle, and was used by quacks as a cure for madness. *C. Casaubonæ* is so named after Casaubona, herbarist to the Grand Duke of Tuscany, who sent the seed to John Bauhin. *C. syriacus* is spotted with white, as are a number of Egyptian plants. *C. oleraceus*, according to Schreber, is not eaten by cattle; but the Russians are said to boil the leaves in the spring, and eat them as coleworts. The tender stalks of *C. cernuus* are so used in Siberia.

1666. *Onopordum*. A name employed by Pliny for a plant which he describes too imperfectly to be recognized now. The virtues which he ascribes to it, and whence the name has been derived (*ovos* and *περδω*), certainly have no existence in the modern genus, which consists of noble thistle-like plants, that, if allowed plenty of room, form very magnificent specimens of annual vegetation. *O. acanthium* (from its leaves being like those of the *Acanthus*) was formerly used like the artichoke and Cardoon. The seeds of this plant, unlike those of other thistles, are strongly defended by the calyx, and are not subject to be blown about by winds. The whole plant is white, tomentose, and one of the most magnificent of the family.

1667. *Berardia*. So named by Villars, after M. Berard, a botanist of Grenoble.  
 1668. *Cynara*. Said to be derived from *κυνος*, a dog, on account of the stiff hard spines of the involucreum, which resemble the teeth of a dog. The English word *Artichoke* is said to be derived from the Celtic *art*, a spine, and *chauls*, a cabbage; but it must be confessed that the word is very like the Arabic name of the plant, *Carciáf* or *Kharchiáf*. *C. scòlymus* is a well known garden esculent. In some parts of France and Italy it is eaten raw in its wild state by the common people. According to Gerarde, it was introduced into this country from Italy, but is become, "by reason of the great moisture which our country is subject unto," greater and better than those of Italy; a circumstance not to be doubted, and applicable to many other plants of culture; for it is a fact, that art can in many cases surpass nature; always, however, working upon nature's principles. The artichoke is one of those plants the most patient of drought, and in this unusually dry and hot season (1825) was almost the only vegetable procurable in the neighbourhood of Paris, during three or four weeks in July and August. Once in the seventeenth century, and again about 1739, most of the artichokes in England were destroyed by frost, but replaced from France. There are three varieties in cultivation, the conical, French, or oval; the globe, which has a large dusky purplish head; and the dwarf globe, a prolific variety, which is smaller. The parts used are the lower part of the leaves of the calyx; and the fleshy receptacles of the flower, freed from the bristles and seed down, vulgarly called the choke; and some-

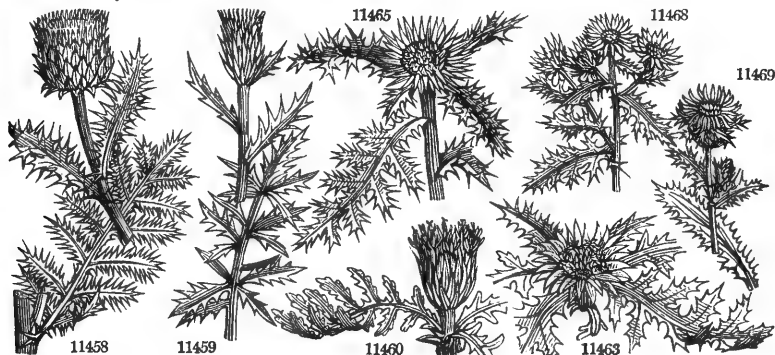
11440 Leaves narr. pinnatifid downy beneath with strong spines, Fl. large solitary, Lvs. of invol. spiny recurved  
 11441 Leaves sess. lanc. entire unarmed downy beneath, Spines axill. branched at base, Fl. axill. sessile  
 11442 Leaves amplexicaul. obl. toothed spiny with white veins, Fl. subsess. bracteate, Scales of invol. appressed  
 11443 Leaves amplexicaul. pinnatifid toothed spiny pubescent, Stem simple, Fl. terminal clustered  
 11444 Leaves pinnatifid, Invol. scariosus : scales acuminate  
 11445 Leaves pinnatifid, Invol. scariosus villous

11446 Scales of invol. spreading subulate, Lvs. ov.-obl. sinuated and spin. decurrent woolly on both sides  
 11447 Scales of invol. much spreading, Lvs. decurrent smooth on each side sinuated toothed spiny  
 11448 Scales of invol. much spreading as long as invol. Lvs. decurr. downy sinuated toothed spiny ; radic. pinnate  
 11449 Lower scales reflexed : upper much spreading, Lvs. decurrent downy sinuated toothed spiny  
 11450 Invol. squarrose with covebbed down, Leaves stalked ovate angular downy beneath  
 11451 Scales of invol. ovate-lanc. mucronate spreading, Lvs. decurrent downy subsinuate toothed spiny  
 11452 Stem and leaves tomentose : radical pinnatifid ; cauline obl. adnate decurrent toothed spiny  
 11453 Scales of invol. ovate mucronate appressed, Lvs. decurrent somewhat downy sinuate toothed spiny  
 11454 Stempl. Invol. glob. subsess. Scales of invol. lanc. spiny spreading, Lvs. stalked pinnatif. toothed spiny downy

11455 Stemless, Invol. obl. subsess. Scales of invol. obl. lanc. downy unarmed, Lvs. stalked roundish ovate

11456 Leaves somewhat spiny pinnate and undivided, Scales of invol. ovate  
 11457 Leaves pinnatifid downy beneath spiny, Spines of the base of leaves and pinnae connate at base  
 11458 Leaves spiny : all pinnatifid, Scales of invol. ovate  
 11459 Leaves spiny pinnatifid downy beneath, Scales of invol. subulate  
 11460 Stemless, Leaves unarmed downy beneath pinnatifid : segm. cut-toothed, Scales of invol. lanc.  
 11461 Stemless, Leaves pinnatifid spiny  
 11462 Stemless, Leaves pinnatifid smoothish : segm. toothed spiny, Inner scales of invol. scariosus at end

11463 Stemless, Leaves pinnatifid downy beneath : segm. toothed angular spiny  
 11464 Stem simple 1-fl. Lvs. pinnatifid naked : segm. cut-toothed spiny  
 11465 Stem simple 1-fl. longer than flower, Leaves deeply pinnatifid squarrose  
 11466 Stem simple 1-fl. numerous aggregate, Leaves pinnatifid smooth : segm. pinnatifid spreading spiny  
 11467 Stem subdiffid, Middle flower sessile, Lvs. hoary lanc. toothed spiny  
 11468 Stem many-fl. corymbose smoothish, Lvs. lanc. pinnatifid toothed smooth  
 11469 Stem many-fl. corymb. pubesc. Leaves lanc. unequally spin. and sinuated downy beneath  
 11470 Stem somewhat divided, Fl. axill. sess. Leaves lanc. toothed downy spiny pubescent  
 11471 Stem many-fl. Leaves decurrent



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times the tender central leafstalk in a blanched state like the Cardoon. Medicinally, the plant is reputed to be aperient, stomachic, and somewhat heating. It is said to dye a good yellow, and the flowers curdle milk.

The plant is propagated by suckers in March and April, and requires a light rich soil, well dunged, and pulverised to a good depth. The leaves being large, the plants are placed in rows at four feet distance, and two feet apart in the row. They will produce some heads the first season, a full crop the next, and, if well manured, will last for five or six years. The plants require to be covered a foot thick with litter during winter, which is removed, and the ground dressed in March and April. The heads will appear in the beginning of June.

When the artichoke is to be cultivated as Cardoon, the plants are to be cut over by the surface about mid-summer ; in September they will have produced leaves about two feet high ; they are then bound close with a wreath of hay or straw, and earth drawn round them. The blanching will be perfected in a month or six weeks.

Bauhin thought the Cardoon a hybrid from the common artichoke, to which it bears a great resemblance. The tender stalks of the inner leaves, rendered white and crisp by earthing up, are used for stewing, and for soups and salads during winter, like celery. It requires the same soil as the artichoke, to be planted at three or four feet apart in May, or sown where it is to remain in March. In September the leaves may be tied together and earthed up, and in October and November they will be blanched from one to three feet in length.

With the florets of *Cynara Cardunculus*, which the Portuguese call *Cardo do coalho*, milk was formerly coagulated by the people of Portugal, as it is by rennet in England.

1639. *Carlina*. Olivier de Serres says, this plant was named after the famous Charlemagne, whose army was cured of the plague by means of this plant. Linnæus ascribes the name to the Emperor Charles V., whose army was relieved from the plague in Barbary in the same way. *C. acaulis* has black woody roots an inch thick, the upper part of which, with the receptacle of the flower, when tender, may be eaten, but the root of the adult plant becomes acrimonious, and is recommended as an alexipharmic. It contains an acrid resinous principle, by which it stimulates the solids, dissolves the humours, and promotes perspiration. *C. vulgaris* is found all over Europe in dry barren soils. The flowers expand in dry, and close in moist weather, retaining this property a long time.

Upon this and a few other genera *M. Cassini* has founded a tribe, which he denominates *Carlinae*, which although possessing no very precise characters of difference, is, he believes, distinct from both his *Centauriæ* and *Carduineæ*, from which it may always be distinguished by the perfect smoothness of the filaments. The species of *Carlinae* are found in every part of the world.

|  |                  |      |   |             |           |           |       |       |                    |
|--|------------------|------|---|-------------|-----------|-----------|-------|-------|--------------------|
| 1670. ATRACTYLIS. <i>W.</i> ATRACTYLIS.    | dwarf            | Δ un | 1 | Compositae. | Sp. 1—4.  |           |       |       |                    |
| 11472 húmílis <i>W.</i>                    |                  |      |   | jn.jl       | W         | Spain     | 1759. | D co  | Cav. ic. 1. t. 54  |
| 1671. ACARNA. <i>W.</i>                    | ACARNA.          |      |   | Compositae. | Sp. 2—6.  |           |       |       |                    |
| 11473 gummífera <i>W.</i>                  | gummy-rooted     | Δ un | 2 | jn.au       | Pu        | S. Europe | 1640. | D co  | Cav. ic. 3. t. 228 |
| 11474 cancelláta <i>W.</i>                 | netted           | ○ un | 2 | jn.jl       | B         | S. Europe | 1640. | S co  | Lam.ill. t.662.f.1 |
| 1672. STOKESIA. <i>W.</i>                  | STOKESIA.        |      |   | Compositae. | Sp. 1.    |           |       |       |                    |
| 11475 cýanea <i>W.</i>                     | blue-flowered    | Δ pr | 2 | au          | B         | Carolina  | 1766. | D co  | L'He.ser.27.       |
| 1673. STOBÆA. <i>Th.</i>                   | STOBÆA.          |      |   | Compositae. | Sp. 1—11. |           |       |       |                    |
| 11476 pínnáta <i>Th.</i>                   | Carthamus-like   | □ or | 2 | ja.d        | Y         | C. G. H.  | 1812. | C co  | Bot. mag. 1783     |
| *1674. ONOBROMA. <i>Gertn.</i> ONOBROMA.   | blue-flowered    | Δ or | 1 | Compositae. | Sp. 2.    |           |       |       |                    |
| 11477 cæróleum <i>Gertn.</i>               |                  |      |   | jn.jl       | B         | Spain     | 1640. | D co  | Bot. mag. 2293     |
| <i>Carthamus cœruleus W.</i>               |                  |      |   |             |           |           |       |       |                    |
| §11478 salicífolíum <i>Línk.</i>           | Willow-leaved    | □ or | 3 | au          | W         | Madeira   | 1784. | C sp  |                    |
| *1675. CARTHAMUS. <i>W.</i> CARTHAMUS.     |                  |      |   | Compositae. | Sp. 7—30. |           |       |       |                    |
| 11479 fíntóríus <i>W.</i>                  | official         | ○ or | 3 | jn.jl       | O         | Egypt     | 1551. | S al  | Bot. reg. 170      |
| §11480 lanátus <i>W.</i>                   | woolly           | ○ or | 3 | jl.au       | Y         | S. Europe | 1596. | S co  | Bot. mag. 2142     |
| §11481 créticus <i>W.</i>                  | Cretan           | ○ or | 2 | jn.jl       | W         | Candia    | 1731. | S co  |                    |
| 11482 tíngítanus <i>W.</i>                 | Tangier          | Δ or | 2 | jn.jl       | B         | Barbary   | 1759. | D co  | Cav. ic. 2. t. 128 |
| §11483 míssimus <i>W.</i>                  | small            | Δ or | 2 | jn.jl       | B         | France    | 1776. | D co  |                    |
| §11484 Carduncellus <i>W.</i>              | mountain         | Δ or | 2 | my.jn       | B         | France    | 1734. | D co  |                    |
| §11485 arboréscens <i>W.</i>               | tree             | □ or | 6 | jl.au       | Y         | Spain     | 1731. | C sp  | Bot. mag. 3302     |
| 1676. CARDOPATUM. <i>Pers.</i> CARDOPATUM. |                  |      |   | Compositae. | Sp. 1.    |           |       |       |                    |
| 11486 corymbósum <i>Pers.</i>              | corymböse        | Δ un | 3 | jl.au       | B         | Levant    | 1821. | D co  | M.h. s.7.t.33.f.17 |
| 1677. STEHELINA. <i>W.</i> STEHELINA.      |                  |      |   | Compositae. | Sp. 3—13. |           |       |       |                    |
| 11487 dúbia <i>W.</i>                      | Rosemary-lvd.    | ft   | 3 | jn.jl       | Pu        | S. Europe | 1640. | C p.1 | Lam.ill. t.666.f.4 |
| 11488 arboréscens <i>W.</i>                | Storax-leaved    | □ pr | 6 | jl.s        |           | Candia    | 1739. | C p.1 | Schreb.t.ec.1. t.1 |
| 11489 chamæpéuce <i>W.</i>                 | Pine-leaved      | □ pr | 2 | jl.n        |           | Candia    | 1640. | C p.1 | Plu.alm. t.94.f.3  |
| 1678. PALAFOXIA. <i>Lag.</i> PALAFOXIA.    |                  |      |   | Compositae. | Sp. 1.    |           |       |       |                    |
| 11490 lineáris <i>Lag.</i>                 | linear-leaved    | Δ pr | 2 | jn.jl       | W         | Mexico    | 1821. | S co  | Bot. mag. 2132     |
| 1679. PTERONIA. <i>W.</i> PTERONIA.        |                  |      |   | Compositae. | Sp. 5—33. |           |       |       |                    |
| 11491 camphoráta <i>W.</i>                 | aromatic         | □ or | 3 | jn.jl       | Y         | C. G. H.  | 1774. | C p.1 | Pl.man. t.345.f.2  |
| 11492 stricta <i>W.</i>                    | cluster-flower'd | □ or | 3 | ap.jn       | Y         | C. G. H.  | 1774. | C p.1 |                    |
| 11493 flexicádis <i>W.</i>                 | bending-stalk'd  | □ or | 3 | jn.au       | Y         | C. G. H.  | 1812. | C co  |                    |
| 11494 oppositifólia <i>W.</i>              | opposite-leaved  | □ or | 2 | jn.au       | Y         | C. G. H.  | 1774. | C p.1 | Bre.prod.t.17.f.3  |
| 11495 scariósa <i>W.</i>                   | Window-calyx.    | □ or | 2 | jn.au       | Y         | C. G. H.  | 1815. | C co  |                    |
| *1680. VERNONIA. <i>W.</i> VERNONIA.       |                  |      |   | Compositae. | Sp. 9—18. |           |       |       |                    |
| 11496 noveboracénsis <i>W.</i>             | long-leaved      | Δ or | 6 | s.n         | Pu        | N. Amer.  | 1710. | D co  | Dil.el.t.263.f.342 |
| 11497 præáta <i>W.</i>                     | tall             | Δ or | 8 | s.n         | Pu        | N. Amer.  | 1732. | D co  | Dil.el.t.264.f.343 |
| 11498 angustifólia <i>Ph.</i>              | narrow-leaved    | Δ or | 4 | s.n         | Pu        | N. Amer.  | 1817. | D co  |                    |
| 11499 glaucá W.                            | glaucous-leav'd  | Δ or | 4 | s.n         | Pu        | N. Amer.  | 1710. | D co  | Dil.el.t.262.f.341 |
| 11500 serícea <i>Rich.</i>                 | silky            | □ or | 5 | d           | Pa.pu     | Brazils   | 1823. | C co  | Bot. reg. 522      |
| 11501 flexuósa <i>B. M.</i>                | flexuose         | Δ or | 1 | s           | Pu        | Brazil    | 1823. | S co  | Bot mag. 2477      |



History, Use, Propagation, Culture.

1670. *Atractylis*. Vaillant (*Mem. Acad. Sc.* 1718.) derives this from *ατρακτος*, a distaff, because the light stems were very fit to make spindles.

1671. *Acarna*. A name under which Theophrastus describes a plant resembling a thistle. Willdenow applied it to the present genus, which consists of thistle-like plants.

1672. *Stokesia*. Named in honor of Jonathan Stokes, M.D., well known as the coadjutor of Dr. Withering in his botanical arrangement of British plants. A perennial plant, with large handsome blue flowers.

1673. *Stobæa*. Named after Dr. Stobæus, of Lund, one of Linnæus's earliest patrons, and said to have been a practical naturalist.

1674. *Onobroma*. From *ονος*, an ass, and *βρομη*, food, in allusion to the worthlessness of its herbage. Thistle-like plants of little value.

1675. *Carthamus*. From its Arabic name *qortom*, a word which signifies to paint, on account of the fine color yielded by the flowers. Tournefort, with little reason, derives it from the Greek *καρμη*, to purge. The flowers of *Carthamus tinctorius* are used by the Chinese to give some of the fine rose, scarlet, purple, and violet colors to their silks. For this purpose, the flowers are thrown into an infusion of some alkali, and left to macerate; the colors are afterwards drawn out by the addition of lemon juice in various proportions, or of any other vegetable acid.

It is cultivated at present in many parts of Europe, and in the Levant, whence great quantities are annually imported into England for dyeing and painting. In Spain it is grown in gardens, as Marygold, as in England, to color soups, olives, and other dishes. The Jews in Poland are remarkably fond of it, and mix it with their bread, and most of their viands. According to Houghton, it was formerly cultivated in Gloucestershire, both for the flowers and seed. The common people took it for saffron, and used it in their puddings, cakes, and

11472 Stem and leaves smooth

11473 Stemless, Leaves pinnatifid, Outer leaves of invol. tricuspidate

11474 Stem branched, Leaves lanc. ciliate toothed downy, Outer leaves of invol. setaceous pinnatifid conniving  
[larger than flower]

11475 The only species

11476 Leaves downy pinnatifid : pinnæ linear terminated by a spine

11477 Stem about 1-fl. Leaves ovate lanc. spiny-toothed

11478 Stem shrubby, Leaves sessile lanceolate downy beneath spiny-toothed, Branches 1-flowered

11479 Stem quite smooth, Leaves ovate entire spiny toothed, Fruit naked

11480 Stem woolly, Lower leaves pinnatifid toothed : upper amplexicaul pinnatifid toothed spiny

11481 Stem smoothish, Invol. somewhat woolly, Lower leaves lyrate : upper half-amplexicaul.

11482 Radic. leaves pinnated : cauline pinnatifid, Stem 1-flowered

11483 Leaves unarmed : radical toothed ; cauline pinnate

11484 Cauline leaves linear pinnated as long as plant

11485 Leaves ensiform sinuate toothed

11486 Spiny much branched with small blue flowers

11487 Leaves sessile linear toothletted downy beneath, Inner scales of invol. lanc. long

11488 Leaves stalked ellipt. blunt entire silky with down beneath

11489 Leaves lin. clustered very long revolute at edge hoary beneath, Branches downy

11490 The only species

11491 Leaves scattered and fascicled filiform ciliated, Leaves of invol. ciliated, Hairs of recept. clustered

11492 Lvs. scattered and fascicled filiform subciliate at base, Lvs. of invol. entire, Holes of recept. multipartite

11493 Leaves connate linear filiform glabrous, Scales of invol. ovate, Stem wavy, Fl. terminal in threes stalked

11494 Leaves ovate powdery downy, Scales of invol. ovate entire

11495 Leaves ovate smooth, Scales of invol. ovate mucronate membranous

11496 Leaves lanc. scabr. serrulate, Corymb fastigiate, Scales of invol. filiform at end

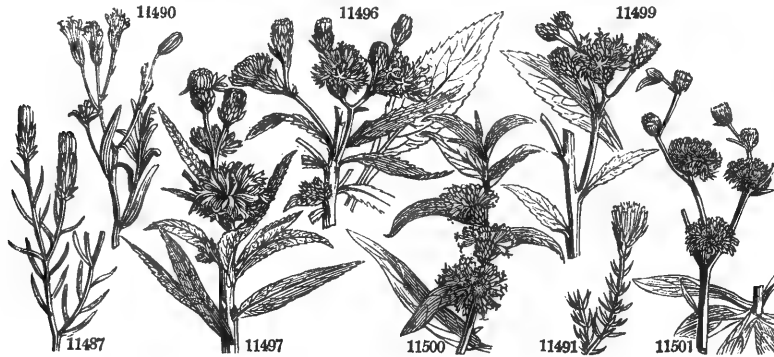
11497 Leaves ovate-lanc. serrate downy beneath, Corymb fastigiate, Scales of invol. ovate acuminatæ

11498 Stem simple, Lvs. many long and narrow lin. nearly entire, Corymb somewhat umbell. Scales of inv. stiff well pulverised ; it is sown in rows about eighteen inches distance, and afterwards thinned to three or four inches apart in the row : in September the plants begin to flower, and the field is then gone over once a week, for six or seven weeks, to gather the expanded florets, which are dried in a kiln in the same manner as true saffron. Turkeys and geese are said to feed greedily on the seed, and in a short time become very fat.

11499 Leaves oblong acuminate serrate, Corymb fastigiate, Scales of invol. ovate acute

11500 Leaves linear-lanc. silky beneath downy on each side nearly entire, Flowers alternate 1-sided sessile

11501 Stem straight dichotomous upwards : branches flexuose, Heads in the forks of the branches sessile



and Miscellaneous Particulars.

bread ; but by putting in too great a quantity they found it communicate a purgative quality, and gave up its use. It is still, however, used in this way by some pastrycooks. In Germany it is cultivated on light land well pulverised ; it is sown in rows about eighteen inches distance, and afterwards thinned to three or four inches apart in the row : in September the plants begin to flower, and the field is then gone over once a week, for six or seven weeks, to gather the expanded florets, which are dried in a kiln in the same manner as true saffron. Turkeys and geese are said to feed greedily on the seed, and in a short time become very fat.

*C. lanatus* is used by the women of the south of France and Spain for distaffs, and hence it had the name of distaff thistle. The root of *C. carduncellus* is eaten in Africa.

1676. *Cardopatum*. A name of unknown meaning. A spiny branched plant with little blue flowers, formerly referred to *Carthamus*.

1677. *Stæhelina*. One Benoit Stæhelin, a Swiss botanist, published, in 1730, an academical dissertation upon the *Filicula saxatilis corniculata* and the *Equisetum*. These are pretty half-shrubby thread-leaved plants, mostly deserving cultivation.

1678. *Palafoxia*. Named after Lagasca, after the Spanish General Palafox, of whose merits as a botanist we are uninformed. A small perennial plant with the habit of *Stevia*.

1679. *Pteronia*. From *pteron*, a wing ; altered by Linnaeus from the *Pterophorus* of Vaillant, a word which seems to allude to the feathery scales of the receptacle. A genus of humble rigid shrubs.

1680. *Vernonia*. Named after Mr. William Vernon, fellow of St. Peter's College, Cambridge, who travelled in North America in search of plants, and left behind him an Herbarium, which came into the hands of Sir Hans Sloane, and contributed to enrich the third volume of Ray's *Historia Plantarum*. Vernoniae constitutes the twentieth of M. Cassini's subdivisions of *Compositæ*. They are distinguished from *Lactuceæ* by



|                              |                                     |   |    |    |            |             |            |         |   |     |                         |
|------------------------------|-------------------------------------|---|----|----|------------|-------------|------------|---------|---|-----|-------------------------|
| 11502 panduriflca Jacq.      | fiddle-leaved                       | △ | or | 4  | s.n        | Pu          | .....      | 1825    | D | co  |                         |
| 11503 arboræscens Cass.      | tree                                | △ | or | 5  | n.d        | Pu          | Jamaica    | 1778.   | C | co  | Pl.sp.10.t.130.f.2      |
| 11504 anthehmintica W.       | purple                              | △ | or | 1½ | aus.       | Pu          | E. Indies  | 1730.   | S | co  | Rhee.mal.2.t.24         |
| 1681. AMMOBIUM. R. Br.       | AMMOBIUM.                           |   |    | 2  | Compositæ. | Sp. 1.      |            |         |   |     |                         |
| 11505 alatum R. Br.          | winged                              | △ | pr | 2  | m.r.s      | W           | N. Holl.   | 1822.   | S | co  | Bot. mag. 2459          |
| 1682. LIATRIS. W.            | LIATRIS.                            |   |    |    | Compositæ. | Sp. 11—18.  |            |         |   |     |                         |
| 11506 squarrosa W.           | rough-cupped                        | △ | el | 3  | jl au      | Pu          | N. Amer.   | 1732.   | D | p.l | Sweet fl. gard. 44      |
| 11507 scariosa W.            | scarious-cupped                     | △ | el | 4  | s.o        | Pu          | N. Amer.   | 1739.   | D | p.l | Bot. mag. 1709          |
| 11508 sphaeroides Ph.        | globular-cup'd                      | △ | el | 3  | au.o       | Pu          | N. Amer.   | 1817.   | D | co  | Sweet fl. gard. 87      |
| 11509 elegans W.             | hairy-cupped                        | △ | el | 4  | s.o        | Pu          | N. Amer.   | 1787.   | D | p.l | Bot. reg. 267           |
| 11510 pilosa W.              | hairy-leaved                        | △ | el | 1½ | s.o        | Pu          | N. Amer.   | 1783.   | D | p.l | Bot. reg. 595           |
| 11511 cylindracea Ph.        | cylindrical-cup                     | △ | el | 4  | au.o       | Pk          | N. Amer.   | 1811.   | D | co  |                         |
| 11512 heterophylla Ph.       | various-leaved                      | △ | el | 3  | jl.au      | Pu          | N. Amer.   | 1790.   | D | p.l |                         |
| 11513 pycnostachya Ph.       | pubescent-lvd.                      | △ | el | 3  | au.o       | Pu          | N. Amer.   | 1732.   | D | co  | Dill. elt. t. 72. f. 83 |
| 11514 spicata W.             | long-spiked                         | △ | el | 6  | au.o       | Pu          | N. Amer.   | 1732.   | D | p.l | Bot. rep. 401           |
| 11515 odoratissima W.        | sweet-scented                       | △ | el | 3  | au.o       | Pu          | Carolina   | 1786.   | R | s.p | Bot. rep. 633           |
| 11516 pumila Hort.           | dwarf                               | △ | el | 1  | au.o       | Pu          | N. Amer.   | ....    | R | s.p | Bot. cab. 147           |
| 1683. MIKANIA. W.            | MIKANIA.                            |   |    |    | Compositæ. | Sp. 3—21.   |            |         |   |     |                         |
| 11517 Houstoni W.            | Houston's                           | △ | or | 8  | jl.au      | Pk          | Jamaica    | 1733.   | C | co  |                         |
| 11518 hastata W.             | halbert-leaved                      | △ | or | 8  | ...        | Pk          | Jamaica    | ....    | C | co  | Bro. jam. t. 54. f. 3   |
| 11519 scandens W.            | climbing                            | △ | or | 10 | aus.       | Pa.B        | N. Amer.   | 1714.   | D | co  | Jac. ic. t. 1. 169      |
| 1684. SPARGANOPHORUS. Gærtn. | SPARGANOPHORUS.                     |   |    |    | Compositæ. | Sp. 2.      |            |         |   |     |                         |
| 11520 Vaillantii Gærtn.      | Vaillant's                          | △ | un | 1½ | au         | Y           | India      | 1823.   | S | co  | Gærtn. t. 165. f. 4     |
| 11521 Strœtchium Swz.        | Swartz's                            | △ | un | 2  | au         | Y           | Jamaica    | ...     | S | co  | Bro. jam. t. 54. f. 2   |
| 1685. EUPATORIUM. W.         | EUPATORIUM.                         |   |    |    | Compositæ. | Sp. 30—107. |            |         |   |     |                         |
| 11522 Dalea W.               | shrubby                             | △ | or | 6  | au         | Pk          | Jamaica    | 1773.   | C | co  | Jac.schœ.2.t.146        |
| 11523 fœniculaceum Ph.       | Fennel-leaved                       | △ | or | 4  | jns.       | Pa.Y        | N. Amer.   | 1807.   | D | co  |                         |
| 11524 hyssopifolium W.       | Hyssop-leaved                       | △ | or | 1  | aus.       | W           | N. Amer.   | 1699.   | D | co  | Dil.elt.t.115.f.140     |
| 11525 sessilifolium W.       | sessile-leaved                      | △ | or | 1  | s.o        | W           | N. Amer.   | 1777.   | D | co  |                         |
| 11526 teucrifolium W.        | Teucrium-lvd.                       | △ | or | 2  | au.n       | W           | N. Amer.   | 1816.   | D | co  | W. hort. ber. 32        |
| 11527 rotundifolium W.       | round-leaved                        | △ | or | 1  | jl.au      | W           | N. Amer.   | 1699.   | D | co  | Plu.alm. t. 88. f. 4    |
| 11528 altissimum W.          | tall                                | △ | or | 5  | s.o        | W           | N. Amer.   | 1699.   | D | co  | Jac.vind.2.t.164        |
| 11529 trifoliatum W.         | three-leaved                        | △ | or | 6  | au.o       | Pu          | N. Amer.   | 1768.   | D | co  |                         |
| 11530 cannabinum W.          | Hemp Agrimony                       | △ | or | 4  | jl.o       | Pk          | Britain    | wat.pl. | D | co  | Eng. bot. 428           |
| 11531 syriacum W.            | Syrian                              | △ | or | 4  | jl.s       | Pu          | Syria      | 1807.   | D | co  | Jac. ic. 1. t. 170      |
| 11532 purpureum W.           | purple-stalked                      | △ | or | 5  | s.o        | Pk          | N. Amer.   | 1640.   | D | co  | Corn. canad. t. 72      |
| 11533 maculatum Ph.          | spotted-stalked                     | △ | or | 3  | aus.       | Pu          | N. Amer.   | 1856.   | D | co  | Herm.par. t. 158        |
| 11534 punctatum Ph.          | dotted                              | △ | or | 4  | aus.       | Pu          | N. Amer.   | 1815.   | D | co  |                         |
| 11535 verticillatum W.       | whorl-leaved                        | △ | or | 5  | aus.       | Pu          | N. Amer.   | 1811.   | D | co  |                         |
| 11536 perforatum W.          | Feverwort                           | △ | or | 2  | au.o       | W           | N. Amer.   | 1699.   | D | co  | Plu. alm. t. 87. f. 6   |
| 11537 celestinum W.          | blue-flowered                       | △ | or | 2  | jl.n       | L.B         | N. Amer.   | 1732.   | D | co  | Dil.elt.t.114.f.139     |
| 11538 urticæfolium W.        | Nettle-leaved                       | △ | or | 1½ | jl.au      | Pk          | S. Amer.   | 1803.   | D | co  | Smith. ined. t. 68      |
| 11539 aromaticum W.          | aromatic                            | △ | or | 4  | jl.au      | W           | N. Amer.   | 1739.   | D | co  | Plu. alm. t. 88. f. 3   |
| 11540 ageratoïdes W.         | Ageratum-like                       | △ | or | 4  | au.o       | W           | N. Amer.   | 1640.   | D | p.l | Corn. canad. t. 21      |
| 11541 odoratum W.            | sweet-scented                       | △ | ft | 3  | au.o       | Pk          | Jamaica    | 1752.   | C | co  | Plu.alm. t. 177. f. 3   |
| 11542 ivæfolium W.           | Iva-leaved                          | △ | or | 3  | jn.jl      | Pk          | Jamaica    | 1794.   | D | co  |                         |
| 11543 salvigifolium R. M.    | Sage-leaved                         | △ | or | 4  | aus.       | Pk          | N. Amer.   | 1814.   | D | co  | Bot. mag. 2010          |
| 11544 lamifolium Link.       | Nettle-leaved                       | △ | or | 3  | aus.       | Pk          | .....      | 1783.   | D | co  |                         |
| 11545 ceanothifolium W.      | Ceanothus-lvd.                      | △ | or | 4  | aus.       | W           | .....      | 1824.   | D | co  |                         |
| 11546 ireninoïdes Kth.       | snowy                               | △ | or | 2  | au.o       | W           | N. Grenad. | 1820.   | C | co  | Kun. nov. g. t. 340     |
| 11547 paniculatum Mill.      | paniced                             | △ | or | 6  | au.o       | Pk          | .....      | 1818.   | D | co  |                         |
|                              | <i>Eriopappus paniculatus</i> Hort. |   |    |    |            |             |            |         |   |     |                         |



History, Use, Propagation, Culture,

their corolla, which is not ligulate, and from every other tribe by their style, which is absolutely the same as that of Lactuceæ. The greater part of Vernoniæ are found in America; a few in Asia and Africa, but none in Europe.

1681. *Ammobium*. From *αμμος*, sand, and *βιω*, to live, in allusion to the places where it grows. A pretty half-hardy New Holland herbaceous plant, with dry white involucre scales, like a *Gnaphalium*.

1682. *Liatris*. A word of unknown meaning. A genus of charming North American herbaceous plants. They should be taken out of the borders in the autumn, and preserved in pots till the succeeding spring. Of *Liatris odoratissima*, the leaves when dry give out a very pleasant smell resembling *Vanilla*, and which lasts for years. It is called the Carolina *Vanilla* plant.

*Liatris squarrosa* is a very handsome species, with large heads of most beautiful flowers of a rich purple. It and *L. scariosa* are known in North America under the name of rattlesnake's master. In case of being bitten by this reptile, the bruised bulbs of the plants are applied to the wound, while, at the same time, a decoction in milk is taken inwardly.

- 11502 Leaves oval blunt serrate-crenate : lower with a winged amplexicaul. stalk, Fl. subcorymbœ  
 11503 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bractes reflexed  
 11504 Leaves ovate-lanc. narrowed at each end serrated roughish pubescent beneath, Fl. term. about 3  
 11505 Leaves oblong wavy decurrent  
 11506 Stem simple pubescent, Leaves very long linear nerved roughish at edge, Racemes few-fl. leafy  
 11507 Stem simple pubescent, Lvs. lanc. narrowed at each end smooth rough at edge, Inv. squarrose at bottom  
 11508 Stem simple pubescent, Leaves smooth : lower stalked broad-lanc. Invol. subglobose with scariosus scales  
 11509 Stem simp. vill. Lvs. lin. subfalc. dot. rough, Spike somew. leafy, Panic. short, Inner scales ligul. colored  
 11510 Stem simple pubesc. Lvs. lin. pilose ciliated, Invol. racemose lax, Scales lin. obl. blunthish [ mucronate  
 11511 Slender all over hairy, Lvs. grassy, Spike few-fl. Inv. subseas. cylindr. few-fl. Scales round, at end abruptly  
 11512 Stem simple smooth, Leaves lanc. smooth : upper lin. lanc. very small, Invol. spiked subsquarrose  
 11513 Stem simple hirsute, Lvs. straight narrow-lin. downy, Spike long, Fl. closely cluster. Inv. appress. squarrose  
 11514 Stem simple tall, Lvs. lin. smooth ciliated at base nerved and dotted, Spike very long, Fl. sessile [at end  
 11515 Quite smooth, Stem simple, Rad. leaves obl. : cauline amplexicaul. Panicle corymbœ lax spreading  
 11516 Dwarf, Leaves linear, Stem simple, Flowers spiked  
 11517 Stem climbing, Leaves ovate entire, Flowers spiked  
 11518 Stem climbing, Leaves subcordate hastate toothed, Flowers in spikes  
 11519 Stem climbing smooth, Lvs. cord. repand toothed acuminate with spreading unequal lobes, Fl. corymbœ  
 11520 Flowers sessile lateral  
 11521 Flowers axillary sessile, Corollas all triffid  
 11522 Leaves lanc. veiny obsoletely serrate smooth, Invol. 4-fl. Stem shrubby  
 11523 Stem paniced, Leaves smooth : lower pinnated ; upper fascicled, all filiform  
 11524 Leaves opp. subverticill. linear entire pubescent 3-nerved dotted : radical somewhat toothed  
 11525 Leaves sessile amplexicaul. distinct ovate-lanc. rounded at base serrated smooth, Stem smoothish  
 11526 Leaves sessile distinct ovate scabrous : upper coarsely serrated at base ; uppermost entire  
 11527 Leaves sessile distinct roundish cordate bluntly serrate veiny  
 11528 Leaves subsessile lanceolate 3-nerved narrowed at each end downy : lower serrated in middle  
 11529 Leaves stalked 3 or 4-nate ovate narrowed at each end serrated roughish  
 11530 Leaves opposite subpetiolate tri-quinque-partite : their segments lanceol. deeply serrate  
 11531 Leaves petiolate ternate and simple downy beneath unequally serrate, Stem smooth  
 11532 Leaves stalked 4 or 5-nate ovate lanceolate serrate rugose veiny roughish, Stem hollow  
 11533 Leaves stalked 4 or 5-nate ovate lanceolate unequally serrate downy beneath, Stem solid furrowed  
 11534 Leaves stalked 4 or 5-nate ovate acuminate serrated scabrous on each side, Stem solid round  
 11535 Leaves stalked 3 or 4-nate ovate-lanceol. cuneate at base unequally serrate smoothish, Stem solid smooth  
 11536 Leaves connate perfoliate downy  
 11537 Leaves stalked cordate ovate bluntish 3-nerved bluntly serrate, Fl. corymbœ  
 11538 Hispid, Leaves stalked cordate cut serrate, Panic. terminal, Invol. many-fl. subulate pungent  
 11539 Leaves stalked ovate acute 3-nerved bluntly serrate glabrous, Stem paniced upwards, Fl. corymbœ  
 11540 Leaves stalked ovate acuminate 3-nerved unequally coarsely serrated smooth, Corymb many-fl. spreading  
 11541 Leaves stalked triangular ovate serrated entire at end downy beneath, Corymb spreading term. sessile  
 11542 Leaves narrow lanceol. 3-nerved subserrated, Invol. squarrose many-flowered  
 11543 Leaves amplexicaul. lanc. acuminate rugose serrated, Flowers paniced clustered  
 11544 Leaves stalked ovate acuminate unequally and bluntly crenated pubescent, Panicle contracted  
 11545 Leaves stalked ovate acuminate toothed 3-nerved glabrous  
 11546 Stem twining villous, Lvs. deltoid ovate acute 3-nerved soft beneath, Panicle term. trichotomous diffuse  
 11547 Like E. lamifolium, but the flowers smaller and paniced



and Miscellaneous Particulars.

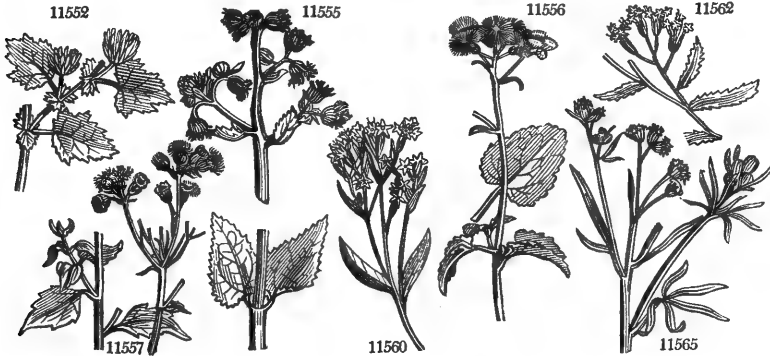
1683. *Mikania*. Named by Willdenow, after Professor Mikan, of Prague. Climbing tropical plants, one of which, *M. Guaca*, is employed in South American medicine as a powerful febrifuge.

1684. *Sperganophorus*. From *σπέρμα*, a file, and *φορος*, to bear, because the seed is crowned with a membranous band or border.

1685. *Eupatorium*. This plant, says Pliny, derives its name from Eupator King of Pontus, who first used it in medicine. *Aya-pana* is the vernacular name of the species so called among the natives of the banks of the river Amazon. The tribe of Eupatorieæ is distinguished from Vernoniæ by its style. They are chiefly found in America, very few inhabit Asia, scarcely any Africa, and not one has been found in Europe.

The *Eupatorium perfoliatum* has some reputation as a medicinal plant. A dissertation upon the subject of its merits was published a few years since by an American physician, from which it appears, that the virtues of the plant reside chiefly in the leaves, and that the most efficient mode of exhibiting it is by means of a simple decoction. The medical powers of *Eupatorium* are, as its sensible properties would seem to indicate, those of a tonic stimulant. Given in moderate quantities, either in substance, or in cold infusion or decoction, it promotes digestion, strengthens the viscera, and restores tone to the system. Like other vegetable bitters,

|                                 |                      |   |     |    |       |       |            |       |   |     |
|---------------------------------|----------------------|---|-----|----|-------|-------|------------|-------|---|-----|
| 11548 pubescens <i>W.</i>       | downy                | Δ | or  | 4  | jl.au | W     | N. Amer.   | 1819. | D | co  |
| 11549 mólle <i>Suz.</i>         | soft                 | Δ | or  | 4  | jl.au | W     | Jamaica    | 1823. | D | co  |
| 11550 deltoideum <i>Jacq.</i>   | deltoid              | Δ | or  | 3  | jl.au | Pu    | .....      | 1822. | D | co  |
| 11551 scândens <i>Link.</i>     | climbing             | Δ | or  | 6  | aus.  | Y     | .....      | 1821. | D | co  |
| 1686. DUMERILIA. <i>Lag.</i>    | DUMERILIA.           |   |     |    |       |       | Sp. 1.     |       |   |     |
| 11552 paniculáta <i>Lag.</i>    | panicled             | ■ | or  | 3  | au    | Pu    | Colombia   | 1825. | C | co  |
| 1687. AGERATUM. <i>W.</i>       | AGERATUM.            |   |     |    |       |       | Sp. 4—8.   |       |   |     |
| 11553 conyzoides <i>W.</i>      | hairy                | ○ | or  | 1  | jl.au | L.B   | America.   | 1714. | S | p1  |
| 11554 latifólium <i>W.</i>      | broad-leaved         | ○ | or  | 13 | jl.au | W     | Peru       | 1800. | S | co  |
| 11555 strictum <i>B. M.</i>     | upright              | ○ | or  | 2  | jn.jl | W     | Nepal      | 1821. | S | co  |
| 11556 mexicánum <i>B. M.</i>    | Mexican              | ○ | or  | 13 | jn.jl | B     | Mexico     | 1822. | S | co  |
| 1688. CÆLESTINA. <i>Cass.</i>   | CÆLESTINA.           |   |     |    |       |       | Sp. 1—2.   |       |   |     |
| 11557 ageratoides <i>Cass.</i>  | blue-flowered        | ■ | or  | 1  | jl.o  | B     | .....      | ..... | C | co  |
| †1689. STEVIA. <i>W.</i>        | STEVIA.              |   |     |    |       |       | Sp. 10—14. |       |   |     |
| 11558 purpúrea <i>W. en.</i>    | purple               | Δ | pr  | 13 | aus.  | Pu    | Mexico     | 1812. | D | co  |
| 11559 Eupatória <i>W.</i>       | entire-leaved        | Δ | pr  | 2  | jl.s  | Pk    | Mexico     | 1798. | S | p1  |
| 11560 hyssopifólia <i>B. M.</i> | Hyssop-leaved        | Δ | pr  | 13 | aus.  | Pk    | Mexico     | ..... | D | co  |
| 11561 salicifólia <i>W.</i>     | Willow-leaved        | Δ | pr  | 13 | aus.  | Pk    | Mexico     | 1803. | S | p1  |
| 11562 serráta <i>W.</i>         | saw-leaved           | Δ | pr  | 13 | jl.s  | F     | Mexico     | 1792. | D | s.p |
| 11563 vavifólia <i>W. en.</i>   | Iva-leaved           | Δ | pr  | 2  | jl.s  | W     | Mexico     | 1816. | D | s.p |
| 11564 ováta <i>W. en.</i>       | oval-leaved          | Δ | pr  | 2  | aus.  | W     | Mexico     | 1816. | D | s.p |
| 11565 pecláta <i>W.</i>         | multifid             | ○ | pr  | 13 | jl.s  | W     | Mexico     | 1803. | S | s.p |
| 11566 lanceoláta <i>Lag.</i>    | lanceolate           | Δ | pr  | 1  | jl.s  | Pu    | Mexico     | 1822. | D | co  |
| 11567 pubescens <i>Lag.</i>     | pubescent            | Δ | pr  | 13 | jl.s  | Pu    | Mexico     | 1823. | D | co  |
| 1690. CEPHALOPHORA. <i>W.</i>   | CEPHALOPHORA.        |   |     |    |       |       | Sp. 1.     |       |   |     |
| 11568 gláucia <i>W.</i>         | glaucous             | Δ | pr  | 2  | jl.au | Y     | Chili      | 1798. | D | co  |
| 1691. AMPHEREPHIS. <i>Kth.</i>  | AMPHEREPHIS.         |   |     |    |       |       | Sp. 1—3.   |       |   |     |
| 11569 intermedia <i>Link.</i>   | intermediate         | ○ | pr  | 13 | jl.au | Pu    | Brazil     | 1821. | S | co  |
| †1692. HYMENOPAPPUS. <i>J.</i>  | HYMENOPAPPUS.        |   |     |    |       |       | Sp. 1—2.   |       |   |     |
| 11570 tenuifólius <i>Ph.</i>    | slender-leaved       | Δ | pr  | 2  | jn.au | W     | Louisiana  | 1811. | S | co  |
| 1693. MELANANTHERA. <i>Mi.</i>  | MELANANTHERA.        |   |     |    |       |       | Sp. 2—5.   |       |   |     |
| 11571 hastáta <i>Ph.</i>        | snowy                | Δ | pr  | 2  | jn.jl | W     | N. Amer.   | 1732. | D | co  |
| <i>Bidens nivea</i> <i>W.</i>   | <i>fiddle-leaved</i> | Δ | pr  | 2  | jn.jl | W     | N. Amer.   | 1732. | D | co  |
| <i>β panduráta</i>              | <i>rough-leaved</i>  | Δ | pr  | 3  | jl.au | Y     | S. Amer.   | 1799. | S | co  |
| 11572 deltoidea <i>Mich.</i>    |                      | Δ | pr  | 3  | jl.au | Y     | S. Amer.   | 1799. | S | co  |
| <i>Calea aspera</i> <i>W.</i>   |                      |   |     |    |       |       |            |       |   |     |
| 1694. MARSHALLIA. <i>Ph.</i>    | MARSHALLIA.          |   |     |    |       |       | Sp. 2—3.   |       |   |     |
| 11573 lanceoláta <i>Ph.</i>     | spear-leaved         | Δ | pr  | 13 | jn.jl | Pu    | Carolina   | 1812. | D | co  |
| 11574 latifólia <i>Ph.</i>      | broad-leaved         | Δ | pr  | 13 | jn.jl | Pa.pu | Carolina   | 1806. | D | co  |
| 1695. SPILANTHES. <i>W.</i>     | SPILANTHES.          |   |     |    |       |       | Sp. 3—14.  |       |   |     |
| 11575 Pseudo-Acinélla <i>W.</i> | spear-leaved         | ○ | un  | 1  | jl    | Y     | Ceylon     | 1768. | S | s1  |
| 11576 álba <i>W.</i>            | white-flowered       | ○ | un  | 13 | jn.jl | W     | Peru       | 1783. | S | co  |
| 11577 olerácea <i>W.</i>        | esculent             | ○ | cul | 1  | jl.s  | Y     | E. Indies  | 1770. | S | co  |
| 1696. SALMÆA. <i>Dec.</i>       | SALMÆA.              |   |     |    |       |       | Sp. 2—3.   |       |   |     |
| 11578 scândens <i>Dec.</i>      | scandent             | ■ | pr  | 6  | jn.jl | W     | Vera Cruz  | 1820. | D | co  |
| 11579 hirsúta <i>Dec.</i>       | hirsute              | ■ | pr  | 6  | au    | W     | Jamaica    | 1823. | S | co  |



History, Use, Propagation, Culture,

if given in large quantities, especially in warm infusion or decoction, it proves emetic, sudorific, and aperient. Even in cold infusion, it tends to bring on diaphoresis. The plant is also stated to be an excellent remedy for the cure of intermittent fevers. When employed as a tonic, this plant may be taken in doses of twenty or thirty grains, or a teacup full may be used of the infusion rendered moderately bitter. When intended to act as an emetic, a strong decoction may be made from an ounce of the plant in a quart of water boiled to a pint. (*Bigelow.*)

1686. *Dumerilia*. Named after M. A. M. Constant Duméril, author of an Elementary Treatise upon Natural History, published in one volume octavo, at Paris, in 1804. Small half-shrubby South American plants, with firm hairy leaves.

1687. *Ageratum*. A name employed by Dioscorides, and probably applied by him to some plants similar to what we call properly "everlastings;" it is derived from *α*, privative, and *γενεος*, old age, because it never grows old; that is to say, always preserves its color.

1688. *Cælestina*. From *cælestis*, blue, in allusion to the color of the flowers.

1689. *Stevia*. Dedicated by Cavanilles to the memory of Peter James Esteve, a Spanish physician of the sixteenth century. He left behind him a dictionary of the plants natives of the kingdom of Valencia.

1690. *Cephalophora*. From *κεφαλη*, a head, and *φορεω*, to bear, its flowers being united in little heads.

1691. *Ampherephitis*. From *αμφερεφθη*, which signifies well covered, on account of the double involucre of the genus.

11548 Lvs. sessile distinct ovate scabrous veiny: lower doubly serrate; upper subserrate, Stem panicled downy  
 11549 Leaves stalked cordate acute subserrate villous beneath, Invol. 8-15-fl. Stem shrubby  
 11550 Leaves stalked hastate triangular 3-nerved unequally serrate downy beneath, Panic. corymbose  
 11551 Stem twining, Leaves reniform ovate acuminate serrate-toothed, Panicle axillary

11552 Leaves roundish 7-lobed: lobes crenate, Panicle corymbose terminal

11553 Leaves ovate subcordate, Stem hairy, Paleæ of pappus awned toothletted  
 11554 Leaves ovate cuneate at base, Stem pilose, Paleæ of pappus lanceolate acute  
 11555 Stem erect simple scabrous, Leaves cordate rugose unequally serrated  
 11556 Hispid, Leaves cordate ovate crenate rugose, Corymb compound, Paleæ of pappus lanceolate awned

11557 Leaves stalked ovate acute rounded at base serrated pilose above hairy beneath

11558 Leaves lanc. channelled narrowed into the footstalk 3-nerved, Corymb fastigate  
 11559 Leaves lanc. 3-nerved entire, Corymb fastigate, Pappus paleaceous and awned  
 11560 Leaves oblong ovate entire, Corymb spreading, Pappus awned as long as corolla  
 11561 Leaves lanc. narrowed at each end serrated in the middle, Corymb spreading, Pappus with 2 awns  
 11562 Leaves lin. lanc. serrated at end, Corymb fastigate, Pappus paleaceous and awned  
 11563 Leaves lanc. narrowed into the footstalk 3-nerved finely serrated at end, Corymb fastigate  
 11564 Leaves ovate 3-nerved serrated cuneate and entire at the base, Pappus chaffy and awned  
 11565 Leaves stalked digitate pedate entire, Pappus paleaceous. (*Florestina*, Cass.)  
 11566 Leaves sessile narrowed at base rough with minute hairs, Pappus with 3 awns  
 11567 Leaves 10 lines long 4 lines broad finely downy beneath, Flowers purple

11568 The only species

11569 Leaves of invol. foliaceous: inner ovate obl. rounded; outer awned

11570 Hoary, Leaves sub-bipinnatifid, Flowers in compound corymbs

11571 Leaves 3-nerved ovate acuminate scabrous unequally toothed

11572 Flowers solitary stalked winged, Leaves oblong triple-nerved unequally serrate: scabrous

11573 Leaves long-lanc. Leaves of invol. blunt, Paleæ spatulate  
 11574 Leaves lanc. oval acuminate 3-nerved, Paleæ narrow linear

11575 Leaves lanceolate serrate, Stem erect  
 11576 Leaves ovate repand: lower alternate, Stem branched ascending, Invol. many-leaved  
 11577 Leaves ovate subcordate serrated, Stem branched diffuse

11578 Leaves opp. ovate-acumin. serrate, Pedunc. panicled, Heads ovate  
 11579 Leaves opp. ovate-lanceolate entire downy, Pedunc. opp. diverging many-flowered



and Miscellaneous Particulars.

1692. *Hymenopappus*. From *ὕμην*, a membrane, and *πᾶππος*, pappus, in allusion to the membranous pappus of its seeds.

1693. *Melananthera*. From *μαλας*, black, and *anthera*. A plant with black anthers, a very unusual character in this tribe of plants, the anthers of which are usually either white or yellow, according to the color of the corolla.

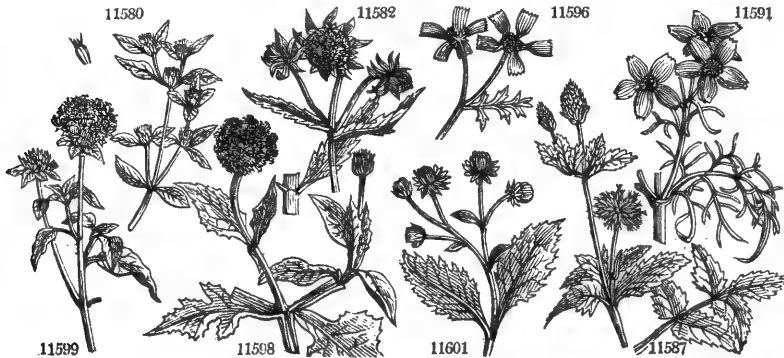
1694. *Marshallia*. Named after Henry Marshall, an Englishman, author of a sort of history of the trees and shrubs of North America, published in 1778.

1695. *Spilanthes*. From *σπίλος*, a spot, and *ανθος*, a flower, in allusion to the heads of flowers of the original species, which are yellow with a brown disk. Jacquin says he so called it, because the flowers are spotted with black points. *S. salivaria* is used by the natives of South America to relieve the tooth-ache by the salivation which it produces copiously. The flower-heads of *S. oleracea* are an excellent ingredient in salads, on account of their agreeable and lasting piquancy.

The leaves of *Spilanthes tinctoria* of Loureiro, which is said to be very similar to the *Abcedaria* figured by Rumphius, vol. ii. t. 65., give out when bruised a beautiful blue color, quite equal to indigo.

1696. *Salmea*. This name was originally given by Cavanilles to a genus related to *Aloe*, and was named after Prince Charles of Salm-Salm, a great promoter of botanical science. It was transferred to the genus which now bears the name by Professor Decandolle, in the appendix to his *Hortus Monspelienis*.

| 1697. BIDENS. <i>W.</i>          |   | BIDENS. | Compositae. | Sp. 18—25. |                 |                                   |
|----------------------------------|---|---------|-------------|------------|-----------------|-----------------------------------|
| 11580 nodiflora <i>W.</i>        | sessile-flowered                        | ☐ un    | 1 jl.au     | Y          | E. Indies       | 1732. S co                        |
| 11581 tripartita <i>W.</i>       | trifid                                  | ○ un    | 2 jl.s      | Y          | Britain wat.pl. | S co                              |
| 11582 cernua <i>W.</i>           | nodding                                 | ○ un    | 2 jl.s      | Y          | Britain dit.    | S co                              |
| 11583 heterophylla <i>W.</i>     | various-leaved                          | ☐ Δ un  | 2 au.s      | Y          | Mexico 1803.    | D s.l                             |
| 11584 frondosa <i>W.</i>         | smooth-stalked                          | ○ un    | 1 1/2 jl.au | Y          | N. Amer. 1710.  | S co                              |
| 11585 leucantha <i>W.</i>        | white-flowered                          | ○ un    | 1 1/2 jl.au | W          | S. Amer. ...    | S co                              |
| 11586 chinensis <i>W.</i>        | Chinese                                 | ○ un    | 2 jn.jl     | W          | China 1801.     | S co                              |
| 11587 pilosa <i>W.</i>           | hairy                                   | ○ un    | 1 1/2 jl    | Y          | N. Amer. 1732.  | S co                              |
| 11588 sambucifolia <i>W.</i>     | Elder-leaved                            | ☐ Δ un  | 3 jl.au     | Sc         | S. Amer. 1801.  | D co                              |
| 11589 bipinnata <i>W.</i>        | Hemlock-leav.                           | ○ un    | 2 jl.au     | Y          | N. Amer. 1687.  | S co                              |
| 11590 bullata <i>W.</i>          | rough-leaved                            | ○ un    | 2 jl.au     | Y          | N. Amer. 1759.  | S co                              |
| 11591 procera <i>B. Reg.</i>     | tall                                    | ☐ Δ un  | 6 n         | Y          | Mexico 1822.    | S co                              |
| 11592 luxurians <i>W.</i>        | luxuriant                               | ☐ Δ un  | 3 jl.au     | Y          | Mexico ...      | D co                              |
| 11593 foliosa <i>W.</i>          | leafy                                   | ○ un    | 3 jn.jl     | Y          | .....           | 1818. S co                        |
| 11594 connata <i>W.</i>          | connate                                 | ○ un    | 2 jn.jl     | Y          | N. Amer. 1817.  | S co                              |
| 11595 parviflora <i>W.</i>       | small-flowered                          | ○ un    | 1 jn.jl     | Y          | Baical 1823.    | S co                              |
| 11596 odorata <i>Cav.</i>        | sweet-scented                           | ○ ft    | 3 jn.jl     | W          | Mexico 1825.    | S co                              |
| 11597 reflexa <i>Link.</i>       | reflexed                                | ☐ Δ un  | 2 jn.jl     | Y          | Mexico 1824.    | D co                              |
| 1698. PLATYPTERIS. <i>Kunth.</i> | PLATYPTERIS.                            |         | Compositae. | Sp. 1.     |                 |                                   |
| 11598 crocata <i>Kth.</i>        | saffron-colored                         | ☐ Δ or  | 2 ja.mr     | Or         | S. Amer. 1812.  | D co                              |
|                                  | <i>Spilanthes crocatus</i> B. M.        |         |             |            |                 | Bot. mag. 1627                    |
| *1699. LAGASCA. <i>Cav.</i>      | LAGASCA.                                |         | Compositae. | Sp. 2.     |                 |                                   |
| 11599 mollis <i>Cav.</i>         | soft                                    | ☐ or    | 2 jn.s      | R          | S. Amer. 1815.  | S co                              |
| 11600 rubra <i>Kth.</i>          | red                                     | ☐ or    | 2 jl        | R          | Mexico 1823.    | C co                              |
|                                  |   |         |             |            |                 | Bot. mag. 1804<br>Hum.no.g. t.311 |
| 1700. LAVENIA. <i>W.</i>         | LAVENIA.                                |         | Compositae. | Sp. 1—2.   |                 |                                   |
| 11601 erecta <i>W.</i>           | upright                                 | ☐ un    | 2 jl.s      | Y          | E. Indies 1739. | S co                              |
|                                  |   |         |             |            |                 | Burm. zeyl. t. 42                 |
| *1701. CACALIA. <i>W.</i>        | CACALIA.                                |         | Compositae. | Sp. 26—60. |                 |                                   |
| 11602 papillaris <i>W.</i>       | rough-stalked                           | ☐ cu    | 2 ...       | Y          | C. G. H. 1727.  | C s.p                             |
| 11603 Antephorbium <i>W.</i>     | oval-leaved                             | ☐ cu    | 3 f.mr      | Y          | C. G. H. 1596.  | C s.p                             |
| 11604 Klefinia <i>W.</i>         | Oleander-leav.                          | ☐ cu    | 3 so        | Y          | Canaries 1732.  | C s.p                             |
| 11605 Ficoides <i>W.</i>         | flat-leaved                             | ☐ cu    | 6 jn.n      | Y          | C. G. H. 1710.  | C s.p                             |
| 11606 carnosa <i>W.</i>          | narrow-leaved                           | ☐ cu    | 1 1/2 jn    | Y          | C. G. H. 1757.  | C s.p                             |
| 11607 repens <i>W.</i>           | glaucous-leaved                         | ☐ cu    | 1 jn.o      | Y          | C. G. H. 1759.  | C s.p                             |
| 11608 Haworthii <i>Sweet</i>     | woolly-leaved                           | ☐ cu    | 2 ...       | Y          | C. G. H. 1795.  | C co                              |
|                                  | <i>tomentosa</i> M. n. not of Thunberg. |         |             |            |                 | Plant. grass. 42                  |
| 11609 articulata <i>W.</i>       | jointed                                 | ☐ cu    | 1 1/2 s.n   | Y          | C. G. H. 1775.  | C s.p                             |
| 11610 tomentosa <i>Th.</i>       | tomentose                               | ☐ cu    | 2 ...       | Y          | C. G. H. 1795.  | C s.p                             |
| 11611 appendiculata <i>W.</i>    | appendaged                              | ☐ cu    | 2 ...       | Y          | Teneriffe 1815. | C co                              |
| 11612 bicolor <i>W.</i>          | two-colored                             | ☐ or    | 2 my.s      | Pu         | E. Indies 1804. | C co                              |
| 11613 ovalis <i>B. reg.</i>      | oval-leaved                             | ☐ or    | 3 my.s      | Y          | E. Indies ...   | C s.p                             |
| 11614 sonchifolia <i>W.</i>      | Sow-thistle-lvd.                        | ☐ or    | 1 1/2 jl    | Pu         | E. Indies 1768. | S co                              |
| 11615 salicina <i>Lab.</i>       | Willow-leaved                           | ☐ or    | 6 jn.jl     | Y          | N. Holl. 1820.  | C co                              |
| 11616 coccinea <i>H. K.</i>      | scarlet-flowered                        | ☐ or    | 1 1/2 jn.jl | O          | .....           | 1799. S co                        |
| 11617 sarracenia <i>W.</i>       | crisp-rooted                            | ☐ Δ or  | 4 au.o      | W          | France 1772.    | D s.p                             |
| 11618 hastata <i>W.</i>          | spear-leaved                            | ☐ Δ or  | 1 au.o      | W          | Siberia 1780.   | D co                              |
| 11619 rhombifolia <i>W.</i>      | rhomb-leaved                            | ☐ Δ or  | 3 au.o      | Y          | Siberia 1816.   | D co                              |
| 11620 suaveolens <i>W.</i>       | sweet-scented                           | ☐ Δ or  | 6 au.o      | W          | N. Amer. 1752.  | D co                              |
| 11621 atriplicifolia <i>W.</i>   | Orache-leaved                           | ☐ Δ or  | 4 au        | L.Pu       | N. Amer. 1693.  | D co                              |
| 11622 reniformis <i>W.</i>       | Kidney-leaved                           | ☐ Δ or  | 1 1/2 jl.au | W          | N. Amer. 1801.  | D co                              |
| 11623 alpina <i>W.</i>           | Alpine                                  | ☐ Δ or  | 2 jl.au     | Pu         | Austria 1739.   | D co                              |
| 11624 albifrons <i>W.</i>        | white-leaved                            | ☐ Δ or  | 2 jl.au     | W          | Austria 1739.   | D co                              |
| 11625 scandens <i>W.</i>         | climbing                                | ☐ Δ or  | 6 ap        | Pk         | C. G. H. 1774.  | D co                              |
| 11626 pinnata <i>W. en.</i>      | wing-leaved                             | ☐ Δ or  | 2 jl.au     | Pk         | Iberia 1816.    | D co                              |
| 11627 sagittata <i>W.</i>        | sagittate                               | ☐ or    | 3 jl.au     | O.Pu       | Java 1823.      | S co                              |



History, Use, Propagation, Culture,

1697. *Bidens*. So called because its seeds are surmounted with two teeth. Very worthless inconspicuous weeds.

1698. *Platypteris*. So called from *πλατυς*, broad, and *πτειρον*, a wing, in allusion to the margin of the seeds. A small stove herbaceous plant of little merit.

1699. *Lagasca*. Named in honor of Don Mariano La Gasca, professor of botany at Madrid, an amiable man and excellent botanist. He is, at the time of writing this, residing in England, whither he has fled from the dangers of persecution in his own country.

1700. *Lavenia*. A name of unknown meaning, originating with Sherard. Small useless annuals, natives of the East and West Indies.

1701. *Cacalia*. A name applied by Dioscorides to a mountain plant with large whitish leaves. By some it is believed to have been what is now called *Cacalia alpina*. To Sprengel it appears to be the *Bupierum*

- 11580 Flowers discoid stalked, Outer invol. 3 times as long as flower, Lvs. ovate with 1 or 2 teeth on each side  
 11581 Leaves tripartite, Leaflets lanceolate deeply serrated, Bristles of the pericarp 2-3  
 11582 Fls. droop. Bractæas lanc. ent. (longer than inv.) Lvs. lanc. serrat. undivid. Bristles of pericarp about 4 erect  
 11583 Flower radiant erect, Outer invol. longer than inner, Cauline leaves lanc. serrated : radical subternate  
 11584 Fls. discoid, Outer invol. 6 times as long as flower, Leaflets ciliated at base, Lower lvs. pinn. : upper ternate  
 11585 Fls. radiant, Outer inv. the length of inner, Lower leaves pinnate : upper ternate, Leaflets ovate serrated  
 11586 Fls. radiant, Outer inv. length of inner, Low. lvs. pinn. : upper tern. Leaf. ov. subcord. serr. uneq. at base  
 11587 Fls. discoid, Outer inv. length of inner, Low. lvs. pinn. : upper tern. Tern. leaf. twice as large as the rest  
 11588 Flowers radiant, Outer invol. longer than inner, Leaves decussively pinnated serrated  
 11589 Flowers subradiant, Outer invol. length of inner, Leaves bipinnate : leaflets lanc. pinnatifid  
 11590 Fls. discoid, Outer inv. longer than flower, Lvs. scabr. toothed : low. roundish ov. : upp. tern. Stem hairy  
 11591 Leaves bi-tripinnate : pinnæ linear acute channelled entire, Outer leaves of invol. blunt downy  
 11592 Flowers radiant erect, Outer involucre longer than inner, Leaves lanc. stalked equally serrate  
 11593 Leaves lanc. acute serrated subciliated, Outer involucre leafy  
 11594 Flowers discoid, Outer invol. 3 times as long as flower, Cauline leaves ternate : lateral connate  
 11595 Flowers discoid, Outer invol. longer than inner, Leaves ternate : leaflets 3-parted cut-toothed  
 11596 Flowers radiant, Outer invol. length of inner, Leaves bipinnate, Leaflets cuneiform 3-toothed  
 11597 Leaves lyrate-pinnated : pinnæ ovate acute serrated pubescent, Flowers paniced

11598 Leaves hoary toothed, Stem with 4 wings

11599 Leaves stalked ovate acuminate subrenate softly silky

11600 Leaves on short stalks elliptical blunt obsolete toothed rigid

11601 Stem branched erect, Leaves elliptical finely serrated

11602 Stem shrubby with cylindr. truncate papillæ, Leaves lanc. flat

11603 Stem shrubby, Leaves ovate-oblong flat, Petioles with a triple line at base

11604 Stem shrubby, Leaves lanc. flat, Flowers corymbose

11605 Stem shrubby, Leaves compressed fleshy

11606 Stem shrubby, Leaves roundish fleshy incurved, Pedunc. terminal 1-fl. naked

11607 Stem shrubby, Leaves depressed fleshy

11608 Stem shrubby, Leaves depressed fleshy woolly

11609 Stem shrubby, Leaves fleshy flat ternate, Leaflets 3-lobed

11610 Stem suffruticose, Leaves ovate-lanc. toothed downy beneath

11611 Shrubby downy, Leaves cordate ovate acute angular downy beneath : stalks with leafy appendages

11612 Stem herbac. branched, Lvs. lanc. smooth toothed : of the stem amplexicaul. ; of the branches stalked

11613 Leaves thickish villous : lower oval repand-toothed stalked ; upper sublyrate amplexicaul.

11614 Stem herbaceous, Leaves amplexicaul. toothed : lower lyrate ; upper sagittate toothed

11615 Leaves obl. lanceolate connate downy beneath, Racemes axillary

11616 Radical leaves ovate spatulate : cauline entire amplexicaul. crenate edged

11617 Stem herbaceous, Leaves sessile obl. lanc. serrated : at the base cuneate entire decurrent

11618 Stem herbaceous, Leaves stalked 3-lobed hastate serrate, Flowers racemose nodding

11619 Stem herbaceous, Lvs. stalked rhomboid hastate unequally toothed, Flowers corymbose spreading erect

11620 Stem herbaceous, Leaves stalked hastate-sagittate serrated, Flowers corymbose erect

11621 Stem herbaceous, Leaves stalked : radical cordate toothed ; cauline rhomboid with 2 teeth on each side

11622 Stem herbaceous, Leaves stalked : radical cordate reniform repand toothed ; cauline oblong toothed

11623 Stem herbaceous, Leaves stalked cordate toothed, Petioles naked, Corymbs fastigiate, Invol. 5-flowered

11624 Stem herbac. Leaves stalked cordate toothed hoary beneath, Petioles auricled at base, Corymbs fastigiate

11625 Stem twining, Leaves triangular sinuate-toothed

11626 Stem herb. Rad. lvs. bipinnatifid : caul. pinn. Pinnæ toothed : upper confluent, Corymb comp. fastigiate

11627 Stem herbaceous, Leaves toothletted : lower stalked obovate ; upper obl. lanc. sagittate amplexicaul.



and Miscellaneous Particulars.

longifolium of the moderns. The species are nearly all objects of ornament. Some of them are remarkable for their fleshy awkward looking stems, others for their discolored leaves. The succulent kinds require to be grown in old rubbish, and to be treated as directed for Mesembryanthemums. The leaves of some species (*C. procumbens* and *sonchifolia*) are used as salad by the Chinese ; and those of *C. Ficoïdes* are sometimes picked by the French.

*C. Kleinia* is called cabbage tree, from the resemblance which the stalks have to those of the cabbage ; and carnation tree, from the shape of the leaves and color of the flowers.

Upon *Cacalia alpina*, &c., M. Cassini has founded his genus *Adenostyles* and tribe of *Adenostylæ* ; distinguished from *Senecioneæ*, to which *Cacalia* belongs, by the roughness of all the back of the two lobes of the style. But we do not find the division adopted by other botanists. M. Cassini himself suspects that *Adenostylæ* may be united with *Tussilagineæ*.

|                                   |                   |   |    |                   |                  |       |            |            |
|-----------------------------------|-------------------|---|----|-------------------|------------------|-------|------------|------------|
| 1702. KLEI'NIA. <i>W.</i>         | KLEINIA.          |   |    | <i>Composite.</i> | <i>Sp. 3-5.</i>  |       |            |            |
| 11628 ruderalis <i>Jacq.</i>      | dunghill          | ☐ | un | 1                 | jl.au            | W     | Jamaica    | ... S co   |
| 11629 porophyllum <i>W.</i>       | perforated        | ☐ | un | 1½                | jn.o             | W     | N. Amer.   | 1639. S co |
| 11630 suffruticosa <i>W.</i>      | suffruticose      | ☐ | un | 2                 | jn.o             | Pu    | Brazil     | 1820. C co |
| 1703. ETHU'LIA. <i>W.</i>         | ETHULIA.          |   |    | <i>Composite.</i> | <i>Sp. 3-7.</i>  |       |            |            |
| 11631 conyzoides <i>W.</i>        | panicled          | ☐ | un |                   | jl.au            | Pa.pu | India      | 1776. S co |
| 11632 divaricata <i>W.</i>        | spreading         | ☐ | un | ½                 | jl.au            | Pu    | India      | 1815. S co |
| 11633 braziliensis <i>Link.</i>   | Brazil            | ☐ | un | 2                 | jl.au            | Pu    | Brazil     | 1823. D co |
| 1704. PIQUER'IA. <i>W.</i>        | PIQUERIA.         |   |    | <i>Composite.</i> | <i>Sp. 1-3.</i>  |       |            |            |
| 11634 trinervia <i>W.</i>         | three-nerved      | ☐ | pr | 2                 | jl.au            | W     | Mexico     | 1798. D co |
| †1705. CHRYSO'COMA. <i>W.</i>     | GOLDY-LOCKS.      |   |    | <i>Composite.</i> | <i>Sp. 9-18.</i> |       |            |            |
| 11665 Comaúrea <i>W.</i>          | great-shrubby     | ☐ | or | 6                 | jn.au            | Y     | C. G. H.   | 1731. C pl |
| 11636 cœrnea <i>W.</i>            | small-shrubby     | ☐ | or | 4                 | mys.             | W     | C. G. H.   | 1712. C pl |
| 11637 ciliária <i>W.</i>          | Heath-leaved      | ☐ | or | 4                 | jo.o             | W     | C. G. H.   | 1753. C pl |
| 11638 scâbra <i>W.</i>            | rugged            | ☐ | or | 4                 | aus.             | W     | C. G. H.   | 1732. C pl |
| 11639 denticulata <i>W.</i>       | toothed           | ☐ | or | 4                 | aus.             | Y     | .....      | C co       |
| 11640 Linosýris <i>W.</i>         | German            | ☐ | or | 2                 | s.o              | Y     | Europe     | 1596. D co |
| 11641 dracunculoides <i>W.</i>    | Siberian          | ☐ | or | 2                 | s.o              | Y     | Siberia    | ... D co   |
| 11642 biflora <i>W.</i>           | two-flowered      | ☐ | or | 3                 | aus.             | B     | Siberia    | 1741. D co |
| 11643 villôsa <i>W.</i>           | hairy-leaved      | ☐ | or | 1½                | aus.             | Y     | Hungary    | 1799. D co |
| 1706. TARCHONANTHUS. <i>W.</i>    | AFRICAN FLEABANE. |   |    | <i>Composite.</i> | <i>Sp. 1-7.</i>  |       |            |            |
| 11644 camphoratus <i>W.</i>       | shrubby           | ☐ | or | 6                 | jn.o             | Pu    | C. G. H.   | 1690. C pl |
| 1707. CA'LEA. <i>W.</i>           | CALEA.            |   |    | <i>Composite.</i> | <i>Sp. 1-3.</i>  |       |            |            |
| 11645 jamaicensis <i>W.</i>       | purple-flowered   | ☐ | un | 3                 | jn.jl            | Pu    | W. Indies  | 1739. C co |
| 1708. ISOCAR'PHA. <i>R. Br.</i>   | ISOCARPHA.        |   |    | <i>Composite.</i> | <i>Sp. 1-3.</i>  |       |            |            |
| 11646 oppositifolia <i>R. Br.</i> | opposite-leaved   | ☐ | un | 3                 | jl.au            | W     | W. Indies  | 1739. S co |
| 1709. PETRO'BIMUM. <i>R. Br.</i>  | WHITE WOOD.       |   |    | <i>Composite.</i> | <i>Sp. 1.</i>    |       |            |            |
| 11647 arboreum <i>R. Br.</i>      | St. Helena        | ☐ | or | 12                | ...              | Y     | St. Helena | 1825. C co |
| 1710. NEUROLE'NA. <i>R. Br.</i>   | HALBERD-WEED.     |   |    | <i>Composite.</i> | <i>Sp. 1.</i>    |       |            |            |
| 11648 lobata <i>R. Br.</i>        | common            | ☐ | un | 2                 | jn.jl            | Y     | W. Indies  | 1733. R sp |
| 1711. HU'MEA. <i>Sm.</i>          | HUMEA.            |   |    | <i>Composite.</i> | <i>Sp. 1.</i>    |       |            |            |
| 11649 elegans <i>Sm.</i>          | rose-colored      | ☐ | or | 6                 | jn.o             | R     | N. S. W.   | 1800. S sp |
| 1712. CÆSU'LIA. <i>W.</i>         | CÆSULIA.          |   |    | <i>Composite.</i> | <i>Sp. 1-3.</i>  |       |            |            |
| 11650 axillaris <i>W.</i>         | axillary-flower.  | ☐ | un | ½                 | jl.s             | W     | E. Indies  | 1804. R pl |
| 1713. IXO'DIA. <i>H. K.</i>       | IXODIA.           |   |    | <i>Composite.</i> | <i>Sp. 1.</i>    |       |            |            |
| 11651 achillaeoides <i>H. K.</i>  | Milfoil-like      | ☐ | pr | 2                 | mr.s             | W     | N. Holl.   | 1803. C sp |
| *1714. SANTOLI'NA. <i>W.</i>      | LAVENDER-COTTON.  |   |    | <i>Composite.</i> | <i>Sp. 7-16.</i> |       |            |            |
| 11652 Chama-Cyparissus <i>W.</i>  | common            | ☐ | or | 2                 | jl               | Y     | S. Europe  | 1573. C co |
| 11653 squarrosa <i>W.</i>         | hoary             | ☐ | or | 1½                | jl.au            | Y     | S. Europe  | 1570. C co |
| 11654 viridis <i>W.</i>           | dark-green        | ☐ | or | 2                 | jl               | Y     | S. Europe  | 1727. C co |
| 11655 rosmarinifolia <i>W.</i>    | Rosemary-lvd.     | ☐ | or | 2                 | jl.s             | Y     | S. Europe  | 1633. C co |
| †11656 alpina <i>W.</i>           | Alpine            | ☐ | or | 1                 | jl.s             | Y     | Italy      | 1798. D co |
| †11657 anthemoides <i>W.</i>      | Chamomile-lv.     | ☐ | or | ½                 | jl.au            | L.Y   | Italy      | 1727. D co |
| †11658 crithmifolia <i>W.</i>     | Samphire-leav.    | ☐ | or | ½                 | jl.au            | Y     | S. Europe  | ... D co   |



History, Use, Propagation, Culture,

1702. *Kleinia*. Named after James Henry Klein, a German botanist, who published, in 1719, a dissertation upon the Juniper.

1703. *Ethulia*. A word formed by Linnaeus without any explanation of its meaning. It is not easy to understand wherefore Vaillant's more ancient name of Sparganophorus should not have been adopted.

1704. *Piqueria*. So named by Cavanilles, in honor of Andreas Piqueria, a Spanish botanist, who published a translation of Hippocrates, in 1757.

1705. *Chrysocoma*. From χρυσος, gold, and κωμα, hair, in allusion to the tufts of yellow flowers with which the stems are terminated. The specific name Comaurea is a mere translation of the generic appellation. *Linosyris*, the name of another species, is so called from *linum*, flax, and *osyris*, an ancient name for a plant with long flexible branches and flax-like leaves, which is the character of *C. linosyris*; which, when handled, sends forth a very fine aromatic smell.

1706. *Tarchonanthus*. *Tarchon* is a name given by the Arabian physicians to the *Artemisia Dracunculus*, and is the root of our English word *Tarragon*. *Ανθος* signifies flower, and the word thus compounded may be Englished *Tarragon-flower*.

1707. *Calea*. Derived from καλος, beautiful. The species are ornamental shrubs of South America, with undivided leaves, and corymbose, terminal, or axillary heads of yellowish purple flowers. Mr. Brown's history

- 11628 Leaves obl. lanc. acute at each end nearly entire  
 11629 Leaves elliptical blunt mucronate repand with pellucid dots  
 11630 Leaves linear entire with pellucid dots, Stem suffruticose
- 11631 Flowers paniced  
 11632 Leaves linear toothed decurrent, Pedunc. opposite the leaves 1-fl. Stem divaricating  
 11633 Stem winged, Leaves lanc. acute serrated downy decurrent, Flowers corymbose
- 11634 Leaves opp. ovate-lanc. serrated 3-nerved, Invol. with 4 flowers
- 11635 Leaves linear straight smooth decurrent at back  
 11636 Leaves linear recurved roughish, Flowers cernuous  
 11637 Leaves linear straight ciliated, Branches pubescent  
 11638 Leaves lanc. ovate recurved toothletted serrated, Peduncles pubescent  
 11639 Leaves oblong tapered at base toothletted wavy  
 11640 Leaves linear glabrous, Involucres lax  
 11641 Leaves linear-lanceolate 3-nerved scabrous, Flowers corymbose, Invol. lax  
 11642 Paniced, Leaves lanc. 3-nerved dotted naked  
 11643 Leaves lanc. villous, Involucres contracted
- 11644 Leaves oblong entire downy beneath
- 11645 Flowers about 3 stalked, Leaves ovate-oblong subserrate stalked
- 11646 Corymbs heaped, Peduncles very long, Leaves lanc. Stem herbaceous
- 11647 Leaves opp. undivided, Panicle terminal brachiate
- 11648 Corymbs heaped, Leaves alternate: upper ovate-lanceolate; lower toothed hastate sinuate serrate
- 11649 Panicles very large erect diffuse capillary
- 11650 Leaves lanc. narrowed at base serrated alternate
- 11651 The only species
- 11652 Pedunc. 1-fl. Leaves hoary toothed in 4 rows, Teeth blunt, Branches dowy, Invol. pubescent  
 11653 Pedunc. 1-fl. Leaves hoary toothed in 4 rows, Teeth subulate much spreading, Branches downy  
 11654 Pedunc. 1-fl. Leaves smooth toothed in 4 rows, Teeth subulate straight, Branches and invol. smooth  
 11655 Pedunc. 1-fl. Leaves linear warted at edge: upper entire  
 11656 Pedunc. 1-fl. Leaves bipinnate, Stems simple  
 11657 Pedunc. 1-fl. Leaves bipinnate, Stems much branched villous  
 11658 Like Santolina alpina, but segments of leaves are shorter and thicker



and Miscellaneous Particulars.

of this genus, in the twelfth volume of the Transactions of the Linnean Society, is a model of botanical erudition and acuteness, such as has been rarely seen in modern days.

1708. *Isocarpha*. From *ισος*, equal, and *καρφη*, chaff, in allusion to the equality of the chaff of the receptacle and the leaves of the involucre. Herbs of South America, with opposite undivided leaves, and ovate terminal heads of whitish flowers.

1709. *Petrobium*. From *πετρος*, a stone, with reference, it is presumed, to the texture of the grains. A small tree, native of St. Helena, where it is called *white wood*.

1710. *Neurolena*. From *νευρον*, a nerve, and *λαινος*, stony. An erect shrub of South America, with alternate, undivided, and lobed leaves, and terminal compound corymbs of yellow flowers.

1711. *Humea*. Named in honor of Sir Abraham Hume, Bart. of Wormleybury, in Hertfordshire, a gentleman whose whole life has been devoted to the protection and assistance of the arts and sciences, and especially of botany. A beautiful plant with immense capillary panicles of brilliant crimson flowers.

1712. *Casulia*. Meaning unknown. Little creeping weed-like plants, rooting at the joints.

1713. *Isodia*. From *ισωδης*, viscid. A greenhouse shrub, native of the south coast of New Holland; flowering most part of the year.

1714. *Santolina*. Supposed to be a diminutive of *sancta*; a holy little herb; in allusion to some reputed virtues. A genus of slightly shrubby somewhat aromatic plants, with yellow discoid flowers.



|   |   |    |    |      |       |            |            |                 |   |     |                      |
|---|---|----|----|------|-------|------------|------------|-----------------|---|-----|----------------------|
| 1715. OTANTHUS. <i>Link.</i> OTANTHUS.        | ■ | pr | 1½ | jl.s | Y     | Composite. | Sp. 1.     | England sea sh. | C | s.l | Eng. bot. 141        |
| 11659 <i>maritima Link.</i> sea               | ■ |    |    |      |       |            |            |                 |   |     |                      |
| <i>Santolina maritima L.</i>                  | ■ |    |    |      |       |            |            |                 |   |     |                      |
| 1716. CALEACTE. <i>R. Br.</i> CALEACTE.       | ■ | □  | or |      |       | Composite. | Sp. 1.     | Vera Cruz 1740. | C | co  |                      |
| 11660 <i>urticifolia R. Br.</i> nettle-leaved | ■ | □  | or |      |       | jl.au      | Y          |                 |   |     |                      |
| <i>Solidago urticifolia Mill.</i>             | ■ |    |    |      |       |            |            |                 |   |     |                      |
| *1717. ATHANASIA. <i>W.</i> ATHANASIA.        | ■ |    |    |      |       | Composite. | Sp. 11—23. |                 |   |     |                      |
| 11661 <i>capitata W.</i> hairy                | ■ | □  | or | 1½   | ja.nr | Y          | C. G. H.   | 1774.           | C | lp  | Mor. s.6. t.3. f.48  |
| 11662 <i>pubescens W.</i> villous-leaved      | ■ | □  | or | 6    | jn.au | Y          | C. G. H.   | 1763.           | C | co  | Com. hort.2. t.47    |
| 11663 <i>annua W.</i> annual                  | ■ | □  | or | 1    | jl.au | Y          | Barbary    | 1686.           | S | co  | Bot. mag. 2376       |
| 11664 <i>dentata W.</i> tooth-leaved          | ■ | □  | or | 1½   | jl.au | Y          | C. G. H.   | 1759.           | C | lp  | Comm. rar. t.41      |
| 11665 <i>trifurcata W.</i> trifid-leaved      | ■ | □  | or | 3    | jl.au | Y          | C. G. H.   | 1710.           | C | lp  | Com. hort.2. t.49    |
| 11666 <i>virgata W.</i> twiggly               | ■ | □  | or | 1    | jl.au | Y          | C. G. H.   | 1815.           | C | co  | Jac.schæ.2.t.148     |
| 11667 <i>tomentosa W.</i> Lavender-leav.      | ■ | □  | or | 2    | my.jn | Y          | C. G. H.   | 1774.           | C | lp  |                      |
| 11668 <i>filiformis W.</i> fine-leaved        | ■ | □  | or | 2    | au    | Y          | C. G. H.   | 1787.           | C | lp  |                      |
| 11669 <i>crithmifolia W.</i> Sampshire-leav.  | ■ | □  | or | 2    | jl.au | Y          | C. G. H.   | 1723.           | C | lp  | Com. hort.2. t.150   |
| 11670 <i>parviflora W.</i> small-flowered     | ■ | □  | or | 2    | ap    | Y          | C. G. H.   | 1731.           | C | lp  | Jac.schæ.2.t.449     |
| 11671 <i>pectinata W.</i> pectinated          | ■ | □  | or | 1½   | my.jn | Y          | C. G. H.   | 1774.           | C | co  |                      |
| 1718. BALSAMITA. <i>W.</i> COSTMARY.          | ■ |    |    |      |       | Composite. | Sp. 4—6.   |                 |   |     |                      |
| 11672 <i>virgata W.</i> twiggly               | ■ | △  | un | 3    | jn.jl | Y.g        | Italy      | 1791.           | D | co  | Jac. obs. 4. t. 81   |
| 11673 <i>ageratifolia W.</i> Ageratum-lvd.    | ■ | △  | un | 2    | jn.o  | Y.g        | Candia     | 1605.           | C | co  | Alp. exot. t. 326    |
| 11674 <i>vulgaris W.</i> common               | ■ | △  | or | 3    | aus.  | Y.g        | Italy      | 1568.           | D | co  | Sch. han.3. t.240    |
| 11675 <i>annua Link.</i> annual               | ■ | △  | or | 2    | jl.au | Y.g        | Spain      | 1629.           | S | co  | Mil. ic.2. t.237.f.1 |
| 1719. PENTYZIA. <i>Th.</i> PENTZIA.           | ■ |    |    |      |       | Composite. | Sp. 1.     |                 |   |     |                      |
| 11676 <i>flabelliformis W.</i> fan-leaved     | ■ | □  | or | 3    | my.au | Y          | C. G. H.   | 1774.           | C | p.l | Bot. mag. 212        |

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|  |   |   |     |    |       |            |              |         |   |     |                      |
|--|---|---|-----|----|-------|------------|--------------|---------|---|-----|----------------------|
| 1720. TANACE-TUM. <i>W.</i> TANSY.         | ■ |   |     |    |       | Composite. | Sp. 5—21.    |         |   |     |                      |
| 11677 <i>limifolium W.</i> Flax-leaved     | ■ | □ | un  | 1  | au    | Y          | C. G. H.     | 1774.   | C | p.l |                      |
| 11678 <i>suffruticosum W.</i> shrubby      | ■ | □ | un  | 2  | my.s  | Y          | C. G. H.     | 1751.   | C | p.l | Com.hor.2. t.100     |
| 11679 <i>argentum W.</i> silvery           | ■ | △ | un  | 1  | my.s  | Y          | Levant       | 1812.   | D | co  |                      |
| 11680 <i>vulgare W.</i> common             | ■ | △ | cul | 2  | jl.au | Y          | Britain      | ro.sid. | D | co  | Eng. bot. 1929       |
| <i>β crispum</i> curled                    | ■ | △ | cul | 2  | jl.au | Y          | .....        | .....   | D | co  |                      |
| 11681 <i>angulatum W.</i> angular          | ■ | △ | un  | 2  | jl.au | Y          | Levant       | 1820.   | D | co  | Willd.ach.t.2.f.3    |
| *1721. ARTEMISIA. <i>W.</i> WORMWOOD.      | ■ |   |     |    |       | Composite. | Sp. 58—87.   |         |   |     |                      |
| 11682 <i>judæica W.</i> Judean             | ■ | □ | or  | 1  | au    | Y          | Levant       | 1683.   | C | co  | Flu.alm. t.73. f.2   |
| 11683 <i>valentina W.</i> Spanish          | ■ | □ | or  | 1  | jl.au | Y.g        | Spain        | 1739.   | C | co  | Barr. ic. t. 485     |
| 11684 <i>subcanescens W.</i> hoary-leaved  | ■ | □ | or  | 2  | jl.au | Y.g        | S. Europe    | ...     | C | co  |                      |
| 11685 <i>Abrótanum W.</i> Southernwood     | ■ | □ | or  | 4  | au.o  | Y.g        | S. Europe    | 1548.   | C | co  | Blackw. t. 555       |
| 11686 <i>humilis W. em.</i> dwarf          | ■ | □ | or  | 2  | au.o  | Y.g        | Charniola    | ...     | C | co  |                      |
| 11687 <i>tenuifolia W.</i> slender-leaved  | ■ | □ | or  | 10 | s.d   | Y.g        | Cina         | 1732.   | C | co  | Dill. elt. t.33.L.37 |
| 11688 <i>arborescens W.</i> tree           | ■ | □ | or  | 10 | jn.au | Y.g        | Levant       | 1640.   | C | co  | Lob. ic. 753         |
| 11689 <i>argentea W.</i> silvery           | ■ | □ | or  | 4  | jn.jl | Y.g        | Madeira      | 1777.   | C | co  |                      |
| 11690 <i>glaciatis W.</i> silky            | ■ | □ | or  | 4  | jl.au | Y.g        | Switzerland. | 1739.   | D | co  | Jac.aus.5.t.ap.35    |
| 11691 <i>mutellina W.</i> Alpine           | ■ | □ | or  | 4  | jl.au | Y.g        | Al. of Eur.  | 1815.   | D | co  | Vil.dauph.3.t.35     |
| 11692 <i>procera W.</i> lofty              | ■ | □ | or  | 8  | jl.au | Y.g        | S. Europe    | 1820.   | C | co  |                      |
| 11693 <i>caucásica W.</i> Caucasian        | ■ | □ | or  | 4  | jn.jl | Y.g        | Caucasus     | 1804.   | D | co  |                      |
| 11694 <i>chinénsis Lour.</i> Moxa          | ■ | □ | or  | 4  | jn.jl | Y.g        | China        | 1813.   | C | co  |                      |
| 11695 <i>spicata W.</i> spiked             | ■ | □ | or  | 1  | jn.jl | Br         | Switzerland. | 1790.   | D | co  | Jac.aus.5.t.ap.34    |
| 11696 <i>pectinata W.</i> comb-leaved      | ■ | □ | or  | 1  | jn.jl | Br         | Dauria       | 1806.   | S | co  | Pal.it.3. t.Hh.f.2   |
| 11697 <i>tanacetifolia W.</i> Tansy-leaved | ■ | □ | or  | 1  | jl.au | Br         | Siberia      | 1768.   | S | co  | Al. ped.l.t.10.f.3   |
| 11698 <i>Santónica W.</i> Tartarian        | ■ | □ | or  | 1  | s.n   | W.g        | Siberia      | 1596.   | C | co  | Gmel. sib.2. t.51    |
| 11699 <i>scopária W.</i> besom             | ■ | □ | or  | 2  | jl.s  | W.g        | Hungary      | 1796.   | S | co  | Pl. rar. hu.1.t.65   |



History, Use, Propagation, Culture,

1715. *Otanthus*. From *ὄστρος*, an ear, and *ἄστρος*, a flower, in allusion to the appendages which are placed on each side of the base of the florets. An infusion of the leaves and stem is said to be employed successfully in the east in cases of stone and gravel.

1716. *Caleacte*. So called because it is the ornament of the sea coasts where it grows, and derived from *καλός*, beautiful, and *αἴθρη*, the sea shore.

1717. *Athanasia*. From *α*, privative, and *θανάτος*, death; that is to say, a plant which does not perish. But the application of the word, as far as the present genus is concerned, is far from obvious.

1718. *Balsamita*. Derived from *βαλσαμων*, balm, in allusion to its strong balsamic smell. Ugly plants of no merit whatever. *B. vulgaris* has the English name *Costmary*, from the Greek *κοστός*, an aromatic shrub, and *Mary*; the Virgin Mary's *costus*: from its being put into ale, it has our old English name of *Ale-cost*. It is more aromatic and has a pleasanter smell than tansy, to which it is nearly allied.

1719. *Pentzia*. Named by Thunberg, after his pupil Charles John Pentz. A bushy branching hoary shrub, with little yellow flowers.

11659 Pedunc. corymbose, Leaves oblong blunt crenated densely woolly

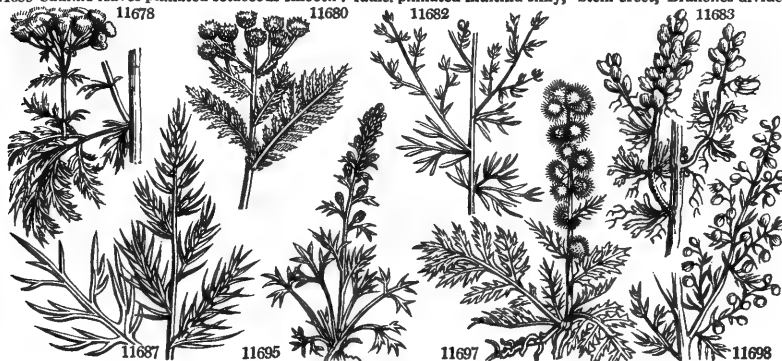
11660 The only species

- 11661 Leaves ovate villous, Heads terminal subsessile  
 11662 Leaves obov. lanc. blunt villous, Umbels terminal, Branches villous  
 11663 Corymbs simple contracted, Leaves pinnatifid toothed  
 11664 Corymbs compound, Leaves recurved : lower linear toothed ; upper ovate serrate  
 11665 Leaves cuneiform cut-trifid, Flowers in umbels  
 11666 Leaves cuneiform : lower pinnatifid cut : upper 3 or 5-toothed, Flowers in umbels  
 11667 Leaves linear tomentose, Panicle compound  
 11668 Leaves linear filiform smooth, Flowers panicled  
 11669 Leaves trifid with linear smooth segments, Flowers somewhat in umbels  
 11670 Leaves pinnated : pinnæ linear smooth, Panicle decompound  
 11671 Leaves pinnated : pinnæ linear smooth, Panicle compound  
 11672 Stem herbaceous branched at base, Branches 1-fl. Leaves sessile lanc. serrated  
 11673 Leaves obovate serrated sessile clustered, Flowers subcorymbose  
 11674 Leaves ellipt. toothed : lower stalked ; upper sessile auricled at base, Flowers corymbose  
 11675 Radical leaves bipinnate : cauline many pinnated downy ; pinnæ linear acute mucronate

11676 Corymbs simple, Leaves deltoid serrated at end

### SUPERFLUA.

- 11677 Leaves lanceolate channelled, Raceme terminal fastigiate  
 11678 Leaves pinnated : pinnæ linear toothed pubescent, Corymb fastigiate leafy at base  
 11679 Leaves pinnated silky with down, Pinnæ lanc. somewhat toothed at end, Corymb terminal  
 11680 Leaves bipinnatifid inciso-serrate  
 11681 Leaves pinnatifid : segm. lanceolate serrated, Corymb contracted, Invol. angular  
 11682 Leaves obovate blunt lobed small, Flowers panicled stalked  
 11683 Leaves hoary : lower pinnated with palmate pinnæ ; upper palmate sessile, Heads panicled simple  
 11684 Cauline leaves pinnated smoothish : floral undivided linear, Panicle virgate, Heads glob. stalked nodding  
 11685 Stem upright, Lower leaves bipinnate : upper pinnated capillary, Invol. downy hemispherical  
 11686 Caul. lvs. pinnat. very smooth : floral undivided setaceous, Involucres downy, Heads glob. stalk. nodding  
 11687 Stem upright, Leaves bipinnate capillary : floral simple, Invol. oblong  
 11688 Leaves tripinnatifid silky cinereous, Leaflets linear, Heads globose, Flowers branched simple  
 11689 Leaves bipinnatifid silky white, Leaflets lanc. linear, Heads globose, Flowers branched virgate  
 11690 Stem quite simple, Leaves all palmate multifid white, Heads terminal clustered  
 11691 Stem quite simple, Leaves all palmate multifid white, Lower heads stalked : upper sessile  
 11692 Stem branched spreading, Leaves all bipinnate capillary, Invol. smooth hemispherical  
 11693 Stem quite simple, Leaves all palmate multifid silky acute  
 11694 Leaves hoary : lower cuneiform obtuse 3-lobed ; upper linear blunt, Flowers globose stalked cernuous  
 11695 Stem quite simple, Leaves hoary : radical palmate multifid ; caul. pinnatifid ; upper linear entire blunt  
 11696 Stem quite simple, Leaves pectinate pinnatifid glabrous, Pinnæ linear filiform, Pedunc. 1-fl. axillary  
 11697 Stem quite simple, Lvs. bipinnatifid subpub. beneath : segm. lin. lanc. acum. entire, Raceme naked term.  
 11698 Cauline leaves pinnated linear smooth, Branches undivided, Spikes 1-sided reflexed  
 11699 Cauline leaves pinnated setaceous smooth : radic. pinnated multifid silky, Stem erect, Branches divided



and Miscellaneous Particulars.

1790. *Tanacetum*. An alteration of *Athanasia*, which see. *Tanaisie*, Fr., *Tansy*, Eng., *Reinfahren*, Ger. The common Tansy has a strong aromatic smell, and an extremely bitter taste. It is stimulant and carminative ; and its seeds are reckoned anthelmintic and sudorific. It is said to drive bugs away from a bed in which it is laid. A distilled water and a kind of stomachic bitter are prepared from it. The young leaves are shredded down and employed to give color and flavor to puddings ; they are also used in omelets and cakes, and those of the curled variety for garnishing.

1721. *Artemisia*. *Artemis* was one of the names of Diana, the goddess of chastity. The plant is said to have been named after this goddess, on account of the purposes to which it was applied in bringing on precocious puberty. Pliny, however, informs us, that in his time, there was an opinion that the plant was named after Artemisia, the Queen of Mausolus, King of Caria.

*A. Abrotanum*, *Santonica*, *maritima*, and *Absinthium*, are included in the *Materia Medica*, but, according to Dr. Thomson, the latter species is the only one deserving to be retained. It is tonic, antispasmodic, and anthelmintic ; and when externally applied, is discutient and antiseptic. It has been used with advantage in inter-

|       |                           |                 |       |         |      |             |         |      |                     |
|-------|---------------------------|-----------------|-------|---------|------|-------------|---------|------|---------------------|
| 11700 | <i>campestris W.</i>      | field           | △ w   | 1 au    | Br   | England     | san.fl. | D co | Eng. bot. 338       |
| 11701 | <i>afra Jacq.</i>         | African         | △ or  | 2 au    | W.g  | C. G. H.    | ...     | C co |                     |
| 11702 | <i>pauciflora W.</i>      | few-flowered    | △ or  | 1 au    | Y    | Siberia     | 1800.   | D co | G.sib.2.t.52.f.1,2  |
| 11703 | <i>palustris W.</i>       | marsh           | △ or  | 2 jl.au | Y    | Siberia     | 1804.   | S co | Gmel.sib.2.t.55     |
| 11704 | <i>neglecta W.en.</i>     | neglected       | △ or  | 2 jl.au | G.v  | Siberia     | 1815.   | D co |                     |
| 11705 | <i>crithmifolia W.</i>    | Samphire-leaf.  | or    | 1 au.o  | Br   | Portugal    | 1739.   | C co |                     |
| 11706 | <i>saxatilis W.</i>       | rock            | △ or  | 2 jn.au | W    | Hungary     | 1816.   | D co |                     |
| 11707 | <i>glauca W.</i>          | glaucous        | △ or  | 1 jn.au | G    | Siberia     | 1806.   | D co |                     |
| 11708 | <i>monogyna W.</i>        | one-styled      | △ or  | 2 jn.au | Y    | Hungary     | 1816.   | D co | Pl.rar.hu.1.t.70    |
| 11709 | <i>laciniata W.</i>       | torn            | △ or  | 2 jl.au | G    | Siberia     | ...     | D co | Gmel.sib.2.t.57     |
| 11710 | <i>palmata W.</i>         | palmtated       | △ or  | 1 jn.jl | G.y  | S. Europe   | 1739.   | C co |                     |
| 11711 | <i>nivea W.en.</i>        | snowy           | △ or  | 2 jn.jl | G.y  | Siberia     | 1815.   | D co |                     |
| 11712 | <i>maritima W.</i>        | drooping-flow.  | △ or  | 1 au.s  | Br   | Britain     | sea sh. | D co | Eng. bot. 1706      |
| 11713 | <i>galica W.</i>          | upright-flower. | △ or  | 2 au.s  | Br   | Britan.mus. | ...     | D co | Eng. bot. 1001      |
| 11714 | <i>fragrans W.</i>        | Lavender-leaf.  | △ or  | 1 jn.jl | L.Y  | Armenia     | 1739.   | D co |                     |
| 11715 | <i>albida W.</i>          | whitened        | △ or  | 3 jn.jl | L.Y  | .....       | ...     | D co |                     |
| 11716 | <i>austriaca W.</i>       | Austrian        | △ or  | 1 au.o  | Br   | Austria     | 1597.   | D co | Jac.aust.1.t.100    |
| 11717 | <i>vallesiaca W.</i>      | downy           | △ or  | 1 jl.au | L.Y  | Italy       | 1739.   | D co |                     |
| 11718 | <i>salina W.</i>          | salt            | △ or  | 1 jl.au | W.g  | Hungary     | 1823.   | D co |                     |
| 11719 | <i>rupēstris W.</i>       | nodding-flower. | △ or  | 1 au    | Br   | Siberia     | 1748.   | D co | Flor. dan. t. 801   |
| 11720 | <i>sericea W.</i>         | silky-leaved    | △ or  | 1 jn.jl | W    | Siberia     | 1796.   | D co | Gmel.sib.t.64.f.1   |
| 11721 | <i>repens W.</i>          | creeping        | △ or  | 1 jn.jl | Br   | Siberia     | 1805.   | D co |                     |
| 11722 | <i>nūtans W.</i>          | nodding         | △ or  | 3 jn.jl | Br.g | Tartary     | ...     | D co |                     |
| 11723 | <i>saxatilis W.</i>       | rock            | △ or  | 3 jn.jl | Br.g | Hungary     | ...     | D co |                     |
| 11724 | <i>pōntica W.</i>         | Roman           | △ or  | 3 s     | Y    | Austria     | 1570.   | D co | Jac. aust. 1. t. 99 |
| 11725 | <i>chamaemelifolia W.</i> | Chamomile-lv.   | △ or  | 1 jl.au | P.Br | S. Europe   | 1739.   | D co | Vil.dauph.3.t.35    |
| 11726 | <i>annua W.</i>           | annual          | △ or  | 4 jl.au | W.g  | Siberia     | 1741.   | S co | Am.ru.t.196.f.23    |
| 11727 | <i>camphorata W.</i>      | Camphorated     | △ or  | 5 jl.au | W.g  | Italy       | 1825.   | C co |                     |
| 11728 | <i>taurica W.</i>         | Taurian         | △ or  | 1 jl.au | W.g  | Tauria      | 1818.   | D co |                     |
| 11729 | <i>biennis Ph.</i>        | biennial        | △ or  | 2 jl.au | Y.g  | Missouri    | 1804.   | S co | Bot. mag. 2472      |
| 11730 | <i>Absinthium W.</i>      | common          | △ or  | 1 jl.s  | Y    | Britain     | rubbe.  | D co | Eng. bot. 1230      |
| 11731 | <i>Sieversiana W.</i>     | Sievers's       | △ or  | 2 jl.au | Br.g | Siberia     | 1800.   | S co |                     |
| 11732 | <i>fasciculata Bieb.</i>  | fasciated       | △ or  | 2 jl.au | Y.Pu | Iberia      | 1823.   | D co |                     |
| 11733 | <i>vulgaris W.</i>        | Mugwort         | △ w   | 3 au.s  | Pu   | Britain     | rubbe.  | D co | Eng. bot. 978       |
| 11734 | <i>indica W.</i>          | Indian          | △ or  | 3 s.o   | Y.g  | E. Indies   | 1796.   | D co | Rhe.mal.10.t.45     |
| 11735 | <i>integrifolia W.</i>    | entire-leaved   | △ or  | 2 jl.au | Y.g  | Siberia     | 1759.   | D co | G.sib.2.t.68.f.1,2  |
| 11736 | <i>japonica W.</i>        | Japanese        | △ or  | 3 o.n   | W    | Japan       | 1804.   | D co |                     |
| 11737 | <i>cærulescens W.</i>     | bluish          | △ or  | 1 au.o  | Y    | England     | sea sh. | C co | Eng. bot. 2426      |
| 11738 | <i>inodora W.en.</i>      | inodorous       | △ or  | 2 jl.au | Y.g  | Siberia     | 1548.   | D co | G.ä.2.t.59.60.f.1   |
| 11739 | <i>Dracunculus W.</i>     | Tarragon        | △ cul | 2 jl.au | W.g  | S. Europe   | 1548.   | D co |                     |

|        |                           |                     |          |             |                    |                    |       |       |                      |
|--------|---------------------------|---------------------|----------|-------------|--------------------|--------------------|-------|-------|----------------------|
| *1732. | <b>GNAPHALIUM. W.</b>     | <b>EVERLASTING.</b> |          |             | <i>Compositae.</i> | <i>Sp. 38—106.</i> |       |       |                      |
| 11740  | <i>crispum W.</i>         | curled              | n.    el | 6 ...       | Pk                 | C. G. H.           | 1809. | C s.p |                      |
| 11741  | <i>arboresum W.</i>       | tree                | n.    el | 6 f.au      | W                  | C. G. H.           | 1770. | C s.p |                      |
| 11742  | <i>grandiflorum W.</i>    | great-flowered      | n.    el | 3 jn.au     | W                  | C. G. H.           | 1731. | C s.p | Bot. rep. 489        |
| 11743  | <i>divaricatum Thunb.</i> | spreading           | n.    el | 3 jn.au     | W                  | C. G. H.           | 1820. | C s.p | Bre.prod.t.18.f.3    |
| 11744  | <i>tephrodes Link.</i>    | brown               | n.    el | 3 jn.au     | Y.w                | C. G. H.           | 1823. | C s.p |                      |
| 11745  | <i>acuminatum Link.</i>   | acuminate           | n.    el | 3 jn.au     | W                  | C. G. H.           | 1823. | C s.p |                      |
| 11746  | <i>lasiocaulon Link.</i>  | woolly-stemm.       | n.    el | 3 jn.au     | W                  | C. G. H.           | 1823. | C s.p |                      |
| 11747  | <i>congestum W.</i>       | close-headed        | n.    pr | 3 my.jn     | Pu                 | C. G. H.           | 1791. | C s.p | Bot. reg. 243        |
| 11748  | <i>pátulum W.</i>         | spreading           | n.    or | 3 jl.au     | W                  | C. G. H.           | 1771. | C s.p |                      |
| 11749  | <i>discolorum W.</i>      | two-colored         | n.    or | 3 my.au     | Br                 | C. G. H.           | 1815. | C co  | Bur. afr. t. 97 f. 4 |
| 11750  | <i>cephalotes W.</i>      | large-headed        | n.    or | 4 ja.n      | Pk                 | C. G. H.           | 1789. | C co  | Plu.phy.t.410.f.2    |
| 11751  | <i>fastigiatum W.</i>     | close-flowered      | n.    or | 3 my.au     | W                  | C. G. H.           | 1812. | C co  | Pet.gaz. 12.t.7.f.3  |
| 11752  | <i>millefolium W.</i>     | many-flowered       | n.    or | 1 jn.s      | Pa.pu              | C. G. H.           | 1802. | C s.p |                      |
| 11753  | <i>diosmifolium P. S.</i> | Diosma-leaved       | n.    or | 1 1/2 mr.au | W                  | C. G. H.           | 1812. | C co  | Vent.malm. t.74      |
| 11754  | <i>ericoides W.</i>       | Heath-leaved        | n.    or | 1 1/2 mr.au | Pk                 | C. G. H.           | 1774. | C s.p | Bot. mag. 435        |
| 11755  | <i>teretifolium W.</i>    | round-leaved        | n.    or | 1 mr.au     | Br                 | C. G. H.           | 1812. | C co  | Bur. afr. t.77.f.3   |
| 11756  | <i>Stæchas W.</i>         | comm.-shrubby       | n.    or | 2 jn.o      | Y                  | Europe             | 1629. | C co  | Barr. ic. 410        |



History, Use, Propagation, Culture,

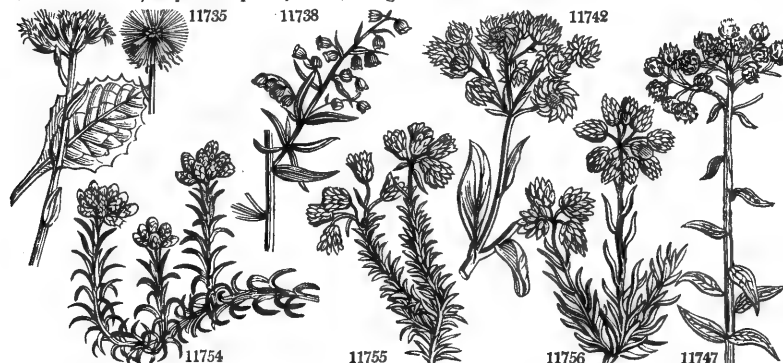
mittents, gout, scurvy, and dropsy; and although modern practitioners will scarcely rely on its efficacy in these complaints, yet it is undoubtedly of some value as a stomachic. (*London Dispens.* p. 182.) The seed of wormwood is used by the rectifiers of British spirits, and the species is a good deal cultivated on dry soil near Mitcham, in Surrey, for that purpose. A vulgaris is used in some parts of Sweden instead of hops, in order to increase the inebriating quality of malt liquor. The plant is readily eaten by cattle and sheep, and is found in our best natural pastures on dry soils. It is said to be stomachic and slightly stimulating.

The species called *Abrotanum*, *Garde-robe*, Fr., derives its name from *α*, private, and *ερος*, mortal; on account of the great virtues attributed to it as a preservative of life; *Absinthium*, from *α*, private, and *ψυθος*, pleasure, i. e. unpleasant.

*Dracunculus*, *Tarragon*, Eng., *Estragon*, Fr., *Dragon*, Ger., and *Dragoncelia*, Ital., is said to have been so called on account of its tortuous roots, which may be likened to the sinuous tail of a dragon; but it is much

- 11700 Caul. lvs. pinnated setae. smooth : radice. pinnated with 3-fid hoary segm. Stem procumb. branched virgate  
 11701 Leaves bipinnatifid downy beneath : segm. lanceolate blunt, Panic. 1-sided, Heads nodding  
 11702 Cauline leaves pinnated or trifid filiform pubescent, Stem ascending somewhat divided  
 11703 Cauline leaves pinnated smooth : pinnæ filiform remote very long, Heads globose erect sessile  
 11704 Cauline lvs. pinnated smooth : lower and radice. 3-partite multifid, Stem panic. erect, Peduncles nodding  
 11705 Cauline lvs. pinnated smooth somewhat fleshy : pinnæ simple or bifid lin. blunt, Heads obl. stalked erect  
 11706 Cauline lvs. hoary pinnated linear filiform : floral undivided filiform, Heads roundish angular nodding  
 11707 Leaves glaucous downy : lower pinnated, Pinnæ linear-lanceolate, Heads globose stalked nodding  
 11708 Leaves multipartite hoary, Racemes erect 1-sided, Heads erect about 5-f. Only one female floret or none  
 11709 Leaves pilose triply-pinnatifid, Stem simple with a leafless panicle, Heads globose nodding  
 11710 Leaves simply pinnate with some of the segments bifid subpinnate, Heads erect  
 11711 Leaves hoary-silky : lower pinnated, Stem nearly erect much branched, Heads sessile ovate  
 11712 Leaves downy pinnated : the uppermost undivided, Racemes drooping, Recept. naked, Flow. obl. sessile  
 11713 Leaves downy pinnate : the uppermost undivided, Racemes drooping, Recept. naked, Flowers obl. sessile  
 11714 Leaves hoary : radical bipinnate, Pinnæ close linear blunt : of the branches pinnated sessile  
 11715 Leaves pinnated white with down, Fascicles of flowers bracteate, Heads downy  
 11716 Leaves hoary : lower pinnated ; pinnæ linear 3-parted, Heads stalked roundish nodding  
 11717 Leaves snow-white : cauline bipinnate linear filiform ; floral simple, Heads obl. sessile erect  
 11718 Leaves hoary : radical pinnated ; pinnæ 3-parted linear-filiform, Heads obl. stalked nodding  
 11719 Leaves subpubescent : cauline pinnated ; pinnæ linear acute, Heads globose stalked nodding  
 11720 Leaves silky : cauline pinnate ; pinnæ 3-parted linear runcinate, Heads globose nodding  
 11721 Leaves silky white, Pinnæ 3-parted linear acute, Heads roundish stalked cernuous  
 11722 Cauline leaves pinnated or trifid linear, Stem erect panicled, Branchlets nodding 1-sided  
 11723 Cauline lvs. hoary pinnated linear-filiform, Stem ascending branched panicled, Invol. roundish angular  
 11724 Leaves downy beneath : cauline bipinnate, Leaflets linear, Heads roundish stalked nodding  
 11725 Leaves smooth : lower tripinnate ; upper bipinnate, Leaflets linear acute, Heads globose stalked nodding  
 11726 Leaves smooth triply pinnatifid, Stem straight, Heads roundish subsessile erect  
 11727 Cauline leaves pinnated hoary white : pinnæ trifid linear, Stem erect, Invol. hoary, Heads globose  
 11728 Leaves hoary : lower bipinnate, Pinnæ linear-filiform, Heads oblong sessile  
 11729 Leaves smooth : radice. triply pinnate ; upper undivided linear, Heads roundish subsessile erect  
 11730 Lvs. bi-tripinnatif. clothed with short silky down, Segments lanc. Heads hemispheric. droop. erect hairy  
 11731 Lvs. somewhat hoary : caul. bipinnatifid ; floral trifid or lanc. Heads globose stalked nodding, Inv. scarious  
 11732 Lvs. downy : lower decompound ; upper simple, Panicle corymbose, Heads fasciated ovate hoary  
 11733 Leaves pinnatifid : their segm. cut downy beneath, Heads somewhat racemed ovate, Recept. naked  
 11734 Leaves downy beneath : caul. pinnatifid ; floral undivided linear, Heads sessile obl. erect, Invol. smooth  
 11735 Leaves lanc. acuminate downy beneath somewhat toothed, Heads ovate subsessile erect  
 11736 Leaves smooth lanc. acute : cauline trifid at end, Heads roundish stalked nodding  
 11737 Leaves hoary lanceolate entire : radical cut ; floral oblong stalked nodding  
 11738 Lvs. smooth lanc. narrowed at each end, Heads roundish stalked erect, Scales of invol. membr. at edge  
 11739 Leaves smooth lanceolate narrowed at each end, Heads roundish stalked erect

- 11740 Leaves downy beneath scabrous above : radical stalked oblong ; cauline amplexicaul. wavy  
 11741 Leaves sessile linear smooth above revolute at edge, Heads capitate, Pedunc. long  
 11742 Leaves amplexicaul. ovate oblong 3-nerved woolly above, Corymb. stalked, Invol. cylindrical  
 11743 Leaves amplexicaul. panduriform spatulate blunt downy, Corymb and branches divaricating  
 11744 Branches downy, Lvs. linear revolute at edge smooth above downy beneath, Leaves of invol. lanc. acute  
 11745 Branches pubesc. Lvs. lanc. lin. acum. smooth above finely downy beneath, Heads corymb. cylindrical  
 11746 Tomentose, Leaves linear acute curved, Heads in capitate stalked corymbs  
 11747 Leaves lanc. sessile 3-nerved naked above woolly beneath, Corymb contracted-capitate  
 11748 Leaves amplexicaul. spatulate downy acute, Corymb. term. Branches spreading  
 11749 Leaves sessile lanc. Involucres white : lower scales brown  
 11750 Leaves lin.-lanc. mucronate revolute at edge downy beneath, Heads sessile capitate terminal  
 11751 Leaves lanc. mucronate revolute at edge downy beneath, Heads corymbose  
 11752 Leaves obl. blunt downy, Corymbs fastigate, Heads cylindrical  
 11753 Leaves lin. spreading recurved scabrous above, Corymb. dense, Invol. cinereous at base  
 11754 Leaves sessile linear, Outer involucre rough : inner flesh-colored  
 11755 Leaves clustered roundish, Corymbs branched, Involucres downy outside  
 11756 Leaves linear, Corymb compound, Branches virgate



and Miscellaneous Particulars.

more probable that the word is a corruption of *Tarchon*, the Arabic name of the plant. See *Tarchoanthus*. The leaves and points of the shoots are used as an ingredient in pickles. A simple infusion of the plant in vinegar makes a pleasant fish sauce ; it is eaten along with beef steaks, as horse-radish is with roast beef ; and is employed, both in Europe and Persia, to correct the coldness of salad herbs, and season soups and other compositions. The plant is of the easiest culture, but, like other species of the genus, dislikes a wet soil.

From the acrid leaves of *A. chinensis* the drug called *Moxa* is obtained ; a substance much in use among the Chinese as an actual cautery. For this purpose, the *Moxa* is laid upon the part affected and set on fire. The Cochinchinese, and also the Japanese, according to Kæmpfer, use *Artemisia vulgaris* for the same purpose, and it is said with great success, in removing tumours and rheumatic pains, or slight convulsions.

1722. *Gnaphalium*. A word under which Dioscorides describes a plant with soft white leaves, which served the purpose of cotton. It agrees pretty well with the modern genus, which consists of very pretty, sometimes

|                                   |                 |   |   |      |   |       |      |             |            |   |     |                        |
|-----------------------------------|-----------------|---|---|------|---|-------|------|-------------|------------|---|-----|------------------------|
| 11757 ignescens <i>W.</i>         | red-flowered    | u | □ | or   | 2 | jn.o  | R    | C. G. H.    | 1731.      | C | s p |                        |
| 11758 crassifolium <i>W.</i>      | thick-leaved    | u | □ | or   | 1 | jl.s  | Y    | C. G. H.    | 1774.      | C | s p |                        |
| 11759 maritimum <i>W.</i>         | sea             | u | □ | or   | 4 | jn.au | W.y  | C. G. H.    | 1772.      | C | co  | Bur. afr. t. 77. f.2   |
| 11760 dasyanthum <i>W. em.</i>    | hairy-flowered  | u | □ | or   | 4 | jn.au | Y    | C. G. H.    | 1812.      | C | co  |                        |
| 11761 orientale <i>W.</i>         | eastern         | u | □ | or   | 1 | ap.au | Y    | Africa      | 1629.      | C | s p | Com. hort. 2. t.55     |
| 11762 cymosum <i>W.</i>           | branching       | u | □ | or   | 1 | ap.au | Y    | Africa      | 1731.      | C | co  | Dil. el.t.107. f.128   |
| 11763 rutilans <i>W.</i>          | shining-flower. | u | □ | or   | 1 | jn.jl | R.y  | C. G. H.    | 1731.      | C | s p | Dil. el.t.107. f.127   |
| 11764 arenarium <i>W.</i>         | sand            | u | □ | or   | 1 | jl.s  | Y    | Europe      | 1739.      | D | co  | Bot. mag. 2159         |
| 11765 angustifolium <i>Pers.</i>  | narrow-leaved   | u | □ | or   | 2 | jl.s  | Y    | Naples      | ...        | D | co  | Barr. ic. 1125         |
| 11766 luteo-album <i>W.</i>       | Jersey          | u | □ | or   | 2 | jl.au | Y.w  | England     | san.pl.    | R | s l | Eng. bot. 1002         |
| 11767 albescens <i>W.</i>         | white Jamaica   | u | □ | or   | 2 | ...   | W.y  | Jamaica     | 1793.      | C | co  |                        |
| 11768 apiculatum <i>Lab.</i>      | New Holland     | u | □ | or   | 1 | ja.d  | Y    | V. Di. Isl. | 1804.      | D | co  | Bot. reg. 240          |
| 11769 odoratissimum <i>W.</i>     | sweet-scented   | u | □ | or   | 2 | ap.au | Y    | C. G. H.    | 1691.      | C | s p | Milic. l. t. 131. f.2  |
| 11770 sanguineum <i>W.</i>        | bloody          | u | □ | or   | 1 | my.jl | Cr   | Egypt       | 1763.      | D | co  | Rauw. it. 285. t.37    |
| 11771 candidissimum <i>W.</i>     | hoary           | u | □ | or   | 2 | my.jl | Pa.Y | Caspian     | 1823.      | D | co  |                        |
| 11772 caetidum <i>W.</i>          | strong-scented  | u | □ | or   | 2 | jn.s  | L.Y  | C. G. H.    | 1692.      | S | s l | Bot. mag. 1967         |
| 11778 helianthemifolium <i>W.</i> | Sun-rose.lvd.   | u | □ | or   | 1 | jl.o  | W    | C. G. H.    | 1774.      | C | co  | Jacq. nori. t. 194     |
| §11774 squarrosum <i>W.</i>       | squarrose       | u | □ | or   | 1 | jl.o  | Pu   | C. G. H.    | 1816.      | C | co  | Volck. frag. t. 3. f.4 |
| 11775 purpureum <i>W.</i>         | purple-flower'd | u | □ | or   | 1 | jn.s  | Pu   | N. Amer.    | 1732.      | S | co  | Dil. el.t.109. f.133   |
| §11776 declinatum <i>W.</i>       | creeping        | u | □ | or   | 1 | jl.s  | Br   | C. G. H.    | 1787.      | S | co  |                        |
| §11777 glomeratum <i>W.</i>       | cluster-flower. | u | □ | or   | 1 | mr.s  | Pa.Y | C. G. H.    | 1774.      | D | co  |                        |
| 1793. LEONTOPODIUM <i>R. Br.</i>  | LEON'S-FOOT.    |   |   |      |   |       |      | Compositae. | Sp. 1—2.   |   |     |                        |
| 11778 vulgare <i>R. Br.</i>       | common          | u | □ | cu   | 1 | jn.jl | Y    | Austria     | 1776.      | S | p l | Bot. mag. 1958         |
| 1724. E'VAX <i>Lam.</i>           | E'VAX.          |   |   |      |   |       |      | Compositae. | Sp. 1—3.   |   |     |                        |
| 11779 pygmaea <i>Lam.</i>         | pygmy.          |   |   | o un | 1 | jl.au | Br   | S. Europe   | 1629.      | C | co  | Cav. ic. 1. t. 36      |
| †1725. ANTENNARIA <i>R. Br.</i>   | ANTENNARIA.     |   |   |      |   |       |      | Compositae. | Sp. 3—11?  |   |     |                        |
| 11780 contorta <i>B. R.</i>       | twisted-leaved  | u | □ | pr   | 2 | jl    | W    | Nepal       | 1821.      | D | co  | Bot. reg. 605          |
| 11781 triplinervis <i>B. M.</i>   | three-nerved    | u | □ | pr   | 1 | au    | W    | Nepal       | 1823.      | D | co  | Bot. mag. 2468         |
| 11782 dioica <i>R. Br.</i>        | dicocious       | u | □ | pr   | 1 | my.jl | Pk   | Britain     | ...        | D | p l | Eng. bot. 267          |
| 11783 alpina <i>R. Br.</i>        | Alpine          | u | □ | pr   | 1 | jn.jl | Pk   | Al. of Eur. | 1775.      | D | p l | Flor. dan. t. 332      |
| 11784 plantaginea <i>R. Br.</i>   | Plantain-leav'd | u | □ | pr   | 1 | jn.jl | W    | Virginia    | 1759.      | D | p l | Flu.alm.t.348. f.9     |
| 11785 margaritacea <i>R. Br.</i>  | pearly          | u | □ | pr   | 1 | jl.s  | Y    | England     | mea.       | D | p l | Eng. bot. 2018         |
| 11786 undulata <i>R. Br.</i>      | wave-leaved     | u | □ | pr   | 1 | jn.s  | W    | Africa      | 1732.      | S | s l | Dil. el.t.108. f.130   |
| 11787 obtusifolia <i>R. Br.</i>   | blunt-leaved    | u | □ | pr   | 1 | jl.s  | W    | N. Amer.    | 1699.      | S | co  | Dil. el.t.108. f.131   |
| 1726. METALASIA <i>R. Br.</i>     | METALASIA.      |   |   |      |   |       |      | Compositae. | Sp. 1.     |   |     |                        |
| 11788 seriphoides <i>R. Br.</i>   | Seriphium-like  | u | □ | pr   | 3 | ...   | Y    | C. G. H.    | 1825.      | D | p l |                        |
| 1727. ASTEL'MA <i>R. Br.</i>      | ASTELMA.        |   |   |      |   |       |      | Compositae. | Sp. 2—7.?  |   |     |                        |
| 11789 extimium <i>R. Br.</i>      | giant           | u | □ | spl  | 3 | jl.au | Cr   | C. G. H.    | 1793.      | S | s p | Bot. reg. 532          |
| 11790 fruticans <i>R. Br.</i>     | shrubby         | u | □ | or   | 3 | jn.au | Y    | C. G. H.    | 1779.      | C | co  | Bot. reg. 726          |
| 1728. ATRIXIA <i>Ker.</i>         | ATRIKXIA.       |   |   |      |   |       |      | Compositae. | Sp. 1.     |   |     |                        |
| 11791 capensis <i>Ker.</i>        | Cape            | u | □ | or   | 3 | ap    | R    | C. G. H.    | 1821.      | C | p l | Bot. reg. 681          |
| 1729. KERANTHEMUM <i>W.</i>       | KERANTHEMUM.    |   |   |      |   |       |      | Compositae. | Sp. 3.     |   |     |                        |
| 11792 annuum <i>W.</i>            | annual          | u | □ | or   | 3 | jl.au | Pu   | S. Europe   | 1570.      | S | s l | Jac. aust. 4. t.388    |
| 11793 inapertum <i>W.</i>         | small-flowered  | u | □ | or   | 2 | jl.au | Pu   | S. Europe   | 1620.      | S | co  | Moris.a.6.t.12. f.1    |
| 11794 orientale <i>W.</i>         | oriental        | u | □ | or   | 2 | jl.au | W    | Levant      | 1713.      | S | co  |                        |
| †1730. ELICHRYSUM <i>W.</i>       | ELICHRYSUM.     |   |   |      |   |       |      | Compositae. | Sp. 22—49. |   |     |                        |
| §11795 vestitum <i>W.</i>         | upright         | u | □ | or   | 2 | jl.s  | W    | C. G. H.    | 1774.      | S | s p | Bur. afr. t. 66. f.1   |
| 11796 spirale <i>W.</i>           | spirally-leaved | u | □ | or   | 2 | jl.o  | W    | C. G. H.    | 1801.      | S | s p | Bot. rep. 262          |
| 11797 imbricatum <i>W.</i>        | imbricated      | u | □ | or   | 2 | jl.o  | W    | C. G. H.    | 1820.      | S | s p | Pet. gaz. t. 5. f.10   |
| §11798 spectabile <i>Lodd.</i>    | showy           | u | □ | or   | 3 | my.jn | Pk   | C. G. H.    | 1810.      | S | s p | Bot. cab. 59           |
| 11799 speciosissimum <i>W.</i>    | showy           | u | □ | el   | 8 | jl.s  | W    | C. G. H.    | 1691.      | S | s p | Bot. rep. 51           |
| 11800 dealbatum <i>P. S.</i>      | herbaceous      | u | □ | or   | 1 | ja.d  | W    | V. Di. Isl. | 1812.      | D | co  | La.no.ho.2.t.190       |
| 11801 fulgidum <i>W.</i>          | great-yellow    | u | □ | el   | 2 | fo    | Y    | C. G. H.    | 1774.      | S | s p | Bot. mag. 414          |



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beautiful woolly leaved shrubs or herbs, all of the description called Everlasting, on account of the permanence of the colors and form of their dry flowers.

1723. *Leontopodium*. From *leion*, a lion, and *pus*, a foot. The soft tufted silky heads have been compared to the foot of such an animal as a lion.

1724. *Evax*. A name, the meaning of which has not been explained. A little white annual weed.

1725. *Antennaria*. In allusion to the awns of the pappus, which resemble the antennae of some insect. A genus founded upon the *Gnaphalium margaritaceum* of Linnæus. It consists of herbaceous plants, natives of Europe and North America, having the male and female flowers in distinct involucre, and on different individuals.

1726. *Metalasia*. Apparently so called from *μετα λασσω*, to change or alter: but the application of the name is not evident.

- 11757 Leaves sublanc. downy sessile, Corymbs altern. round, Heads globose  
 11758 Leaves broad-lanc. somewhat stalked coriaceous downy, Corymb compound, Stem proliferous  
 11759 Much branched, Leaves lanc. acutish sessile, Inner scales of invol. yellow  
 11760 Leaves lanc. acute 3-nerved at base wavy pilose: beneath tomentose, Corymb contracted bracteate  
 11761 Leaves lin. lanc. hoary: radical blunt; cauline acute, Corymb compound, Pedunc. long  
 11762 Leaves lanc. 3-nerved smooth above, Raceme terminal, Stem branched below  
 11763 Leaves lanc. Corymb decomposed, Stem branched below  
 11764 Leaves hoary downy blunt: radical spatulate lanc.; cauline lin.-lanc. Corymb compound  
 11765 Leaves linear long narrow downy replicate at edge, Corymb compound umbellate  
 11766 Leaves half amplexicaul. linear-lanc. subrepand downy on each side: lower blunt, Corymb clustered  
 11767 White with down, Lvs. lin.-lanc. undivided below, Heads clustered conical  
 11768 Leaves subspatulate downy naked at end membranous or subulate, Flowers panicled  
 11769 Leaves decurrent blunt mucronate downy on each side flat  
 11770 Leaves decurrent lanc. downy flat with a naked point  
 11771 Leaves white silky-downy linear-lanc. acute, Corymb compound  
 11772 Leaves amplexicaul. entire acute downy beneath, Stem branched  
 11773 Leaves subamplexicaul. lanc. Corymbs compound, Scales of invol. plaited  
 11774 Leaves sessile lingulate very downy, Inner scales of invol. subulate recurved  
 11775 Leaves lin. spatulate downy beneath, Stem erect simple, Heads sessile terminal and axillary  
 11776 Leaves lin. lanc. Invol. with white lanceolate rays  
 11777 Stem herbaceous diffuse, Lower scales of invol. subulate naked, Leaves subamplexicaul.
- 11778 Head terminal enveloped in woolly bractes
- 11779 Stem branched at base, Bractes obovate
- 11780 Leaves lin. mucronulate reflexed, Corymbs few-flowered simple or proliferous, Scales of invol. blunt  
 11781 Stem erect simple, Lvs. ellipt. mucronate amplexicaul. 3-nerved [elongated obtuse colored  
 11782 Shoots procumb. Stems simp. Corymbs crowded, Rad. lvs. spatulate, Fl. dioecious, Inner scales of invol.  
 11783 Stem simple, Rad. leaves lanc.: floral terminal aggregate sessile, Inner scales of invol. long  
 11784 Runners procumb. Rad. lvs. ov. nerved, Corymb contracted, Fl. dioecious, Inner scales of invol. long blunt  
 11785 Leaves lin. lanc. acuminate alternate, Stem branched upwards, Corymb fastigiate  
 11786 Leaves decurrent lanc. acute wavy downy beneath, Stem branched  
 11787 Leaves lin. lanc. acutish: smooth above; pubescent beneath, Corymbs terminal contracted
- 11788 Leaves small fascicled lin. subulate downy above, Flowers lateral
- 11789 Leaves sessile ovate close erect downy, Corymb sessile  
 11790 Leaves amplexicaul. ovate-oblong 3-nerved acute woolly beneath on each side
- 11791 The only species
- 11792 Scales of invol. blunt scariose: the inner ones of the ray lanc. blunt spreading  
 11793 Scales of invol. acute membranous at edge: the inner ones of the ray lanc. acute conniving  
 11794 Scales of invol. roundish scariose: the inner ones of the ray ovate acuminate erect
- 11795 Leaves sess. lanc. linear woolly acute: floral with a membrane at end, Branches 1-flowered  
 11796 Leaves sess. lanc. downy keeled spirally imbricated, Branches 1-flowered  
 11797 Leaves obl.-lanc. silky imbricated, Branches 1-flowered, Peduncles squarrose  
 11798 Leaves linear subulate erect imbricated, Peduncle scaly 1-flowered  
 11799 Leaves sessile lanc. obovate acute 3-nerved woolly, Branches 1-flowered  
 11800 Leaves lanc. white beneath silky recurved-spreading, Branches 1-fl. Peduncles nearly naked  
 11801 Leaves amplexicaul. ovate lanc. downy beneath tomentose at edge, Branches 3-flowered



and Miscellaneous Particulars.

1727. *Astelma*. From  $\alpha$ , privative, and  $\sigma\tau\epsilon\lambda\mu\alpha$ , a crown, in allusion to the construction of the fruit. Beautiful Cape shrubs with everlasting flowers.

1728. *Athrixia*. So called by Mr. Ker, we presume from  $\alpha$ , without, and  $\theta\epsilon\tau\iota\kappa\iota$ , hair, in allusion to the absence of hairs upon the receptacle and the stigmas of the ray. A pretty greenhouse shrub, with narrow lanceolate leaves, and bright crimson solitary heads of flowers.

1729. *Xeranthemum*. From  $\xi\eta\epsilon\sigma$ , dry, and  $\alpha\nu\theta\omega\varsigma$ , a flower, on account of the dry nature of the leaves of the calyx, which retain their color and form for years. The species are popular annual flowers, of easy culture in light rich soil. They are valued for their properties of retaining their texture and color, when gathered and dried, in the manner of *Gnaphalium*, *Elchrysium*, and other genera of what are vulgarly called everlastings.

1730. *Elchrysium*. From  $\eta\lambda\iota\omega\varsigma$ , the sun, and  $\chi\epsilon\upsilon\sigma\sigma\alpha\varsigma$ , gold, in allusion to the brilliant yellow color of the flowers. The species are much admired for the brilliancy of their flowers even in a dried state. *E. bracteatum* is the handsomest annual species, and should be raised on a hotbed, and afterwards transplanted into a warm situation.

|                                  |                      |   |   |    |    |       |      |            |            |   |     |                      |
|----------------------------------|----------------------|---|---|----|----|-------|------|------------|------------|---|-----|----------------------|
| 11802 variegatum <i>W.</i>       | large globul.-fl.    | ∞ | ∞ | or | 2  | my.jn | Br.w | C. G. H.   | 1801.      | S | s.p | Bot. rep. 38†        |
| §11803 proliferum <i>W.</i>      | proliferous          | ∞ | ∞ | or | 2  | my.n  | Cr   | C. G. H.   | 1789.      | C | s.p | Bot. reg. 21         |
| 11804 canescens <i>W.</i>        | elegant              | ∞ | ∞ | or | 1½ | ap.au | Pu   | C. G. H.   | 1794.      | C | s.p | Bot. mag. 420        |
| 11805 argenteum <i>W.</i>        | silvery              | ∞ | ∞ | or | 2  | ap.jl | W    | C. G. H.   | 1800.      | C | co  | Bot. reg. 552        |
| 11806 retortum <i>W.</i>         | trailing             | ∞ | ∞ | or | 1  | jl.au | W    | C. G. H.   | 1732.      | C | s.p | Dil. elt. 322.f.415  |
| §11807 sesamoides <i>W.</i>      | superb               | ∞ | ∞ | or | 2  | ap.jn | Pu.w | C. G. H.   | 1739.      | C | s.p | Bot. mag. 425        |
| §11808 fasciculatum <i>W.</i>    | bundle-leaved        | ∞ | ∞ | or | 2  | mr.s  | W    | C. G. H.   | 1799.      | S | s.p | Bot. reg. 242        |
| β album                          | white-flowered       | ∞ | ∞ | or | 2  | mr.s  | W    | C. G. H.   | 1799.      | S | s.p | Bot. rep. 279        |
| γ rubrum                         | red-flowered         | ∞ | ∞ | or | 2  | mr.s  | Pu   | C. G. H.   | 1799.      | S | s.p | Bot. rep. 570        |
| 11809 rigidum <i>H. K.</i>       | rigid-leaved         | ∞ | ∞ | or | 1½ | my.jn | W    | C. G. H.   | 1801.      | C | co  | Bot. rep. 387        |
| §11810 ericoides <i>P. S.</i>    | filiform             | ∞ | ∞ | or | ½  | ap.jn | W    | C. G. H.   | 1796.      | C | co  | Lam. ill. t.693.f.2  |
| 11811 Stæhelinia <i>W.</i>       | Stæhelinia-like      | ∞ | ∞ | or | 1½ | jad   | W    | C. G. H.   | 1801.      | C | co  | Bot. rep. 423        |
| 11812 fragrans <i>B. R.</i>      | fragrant             | ∞ | ∞ | or | 1½ | jl    | Pk   | C. G. H.   | 1803.      | C | co  | Bot. rep. 561        |
| 11813 herbaceum <i>B. R.</i>     | shining-flower.      | ∞ | ∞ | or | 1½ | jl.s  | Y    | C. G. H.   | 1802.      | D | co  | Bot. rep. 487        |
| spéndens <i>B. M.</i> 1773.      |                      |   |   |    |    |       |      |            |            |   |     |                      |
| 11814 paniculatum <i>W.</i>      | corymb-flower.       | ∞ | ∞ | or | 2  | jn.s  | W    | C. G. H.   | 1800.      | S | co  | Bur. afr. t. 67.f.1  |
| 11815 bracteatum <i>W.</i>       | wave-leaved          | ∞ | ∞ | or | 4  | jl.o  | Y    | N. Holl.   | 1799.      | C | co  | Bot. rep. 375        |
| 1731. CARPESIMUM. <i>W.</i>      | CARPESIMUM.          |   |   |    |    |       |      | Composite. | Sp. 2.     |   |     |                      |
| 11816 cernuum <i>W.</i>          | drooping             | ∞ | ∞ | or | 2  | jl.au | Y    | Austria    | 1739.      | D | co  | Jac. aust. 3.t.90†   |
| 11817 abrotanoides <i>W.</i>     | Southern-like        | ∞ | ∞ | or | 2  | jl.au | Y    | China      | 1768.      | D | co  | Osb. it. t. 10       |
| *1732. BACCHARIS. <i>W.</i>      | FLOWMAN'S SPIKENARD. |   |   |    |    |       |      | Composite. | Sp. 6—43.  |   |     |                      |
| 11818 angustifolia <i>Ph.</i>    | narrow-leaved        | ∞ | ∞ | or | 2  | jl.s  | W    | N. Amer.   | 1812.      | C | co  |                      |
| 11819 iverfolia <i>W.</i>        | Peruvian             | ∞ | ∞ | or | 3  | jl.au | W    | America    | 1696.      | C | l.p | Sch. hand. 3.t.244   |
| §11820 nerifolia <i>W.</i>       | Oleander-leav.       | ∞ | ∞ | or | 2  | au.n  | W    | C. G. H.   | 1752.      | C | l.p |                      |
| 11821 halimifolia <i>W.</i>      | Groundsel Tree       | ∞ | ∞ | or | 4  | o.n   | W    | N. Amer.   | 1683.      | C | co  | Schmidt.arb.t.82     |
| 11822 adnata <i>W. en.</i>       | adnate               | ∞ | ∞ | or | 6  | au.n  | Pu   | S. Amer.   | 1823.      | C | co  |                      |
| 11823 Dioscoridia <i>W.</i>      | Dioscorids's         | ∞ | ∞ | or | 4  | au.n  | W    | Levant     | ...        | C | co  | Rauwf. it. t. 54     |
| 1733. MOLINA. <i>Fl. per.</i>    | MOLINA.              |   |   |    |    |       |      | Composite. | Sp. 1—37.  |   |     |                      |
| 11824 parviflora <i>Fl. per.</i> | small-flowered       | ∞ | ∞ | or | 6  | ...   | ...  | S. Amer.   | 1824.      | C | co  |                      |
| 1734. CONYZA. <i>W.</i>          | FLEA-BANE.           |   |   |    |    |       |      | Composite. | Sp. 34—62. |   |     |                      |
| 11825 squarrosa <i>W.</i>        | great                | ∞ | ∞ | or | 2  | jl.au | Y    | Britain    | ch.pa.     | S | co  | Eng. bot. 1195       |
| 11826 marylandica <i>Ph</i>      | Maryland             | ∞ | ∞ | or | 1  | au.o  | Pu   | N. Amer.   | ...        | S | co  | Dil. elt. t.88.f.104 |
| 11827 axillaris <i>W.</i>        | axillary             | ∞ | ∞ | or | 1½ | au.o  | Y    | .....      | 1823.      | S | co  |                      |
| 11828 camphorata <i>Ph.</i>      | Camphor-scent.       | ∞ | ∞ | or | 3  | au.o  | Pu   | N. Amer.   | 1704.      | D | co  | Dil. elt. t.89.f.105 |
| 11829 patula <i>W.</i>           | spreading            | ∞ | ∞ | or | 1½ | jl.s  | Y.Pu | China      | 1753.      | S | co  | Mill. ic. 2. t. 247  |
| 11830 balsamifera <i>W.</i>      | balsam-bearing       | ∞ | ∞ | or | 2  | jl.s  | Y.   | E. Indies  | 1822.      | S | co  | Rumf. p. 24.f.1      |
| 11831 bifrons <i>W.</i>          | oval-leaved          | ∞ | ∞ | or | 1  | au.s  | Y    | N. Amer.   | 1739.      | D | p.l | Piu.alm. t. 87. f.4  |
| 11832 fastigiata <i>W.</i>       | fastigate            | ∞ | ∞ | or | 2  | jn.jl | Pu   | Senegal    | 1820.      | S | co  |                      |
| 11833 cándida <i>W.</i>          | woolly               | ∞ | ∞ | or | 1  | jn.jl | Y    | Candia     | 1714.      | C | co  | Bar. ic. t. 217      |
| 11834 chinensis <i>W.</i>        | Chinese              | ∞ | ∞ | or | 2  | jl.au | Y.Pu | China      | 1796.      | S | co  | Ru. am. 6.t.14.f.2   |
| 11835 verbascifolia <i>W.</i>    | Mullein-leaved       | ∞ | ∞ | or | 1  | ...   | Y    | Sicily     | 1808.      | C | co  | Bocc. sic. t.31.f.2  |
| 11836 chilensis <i>Spreng.</i>   | Chili                | ∞ | ∞ | or | 3  | au.o  | Y    | Chili      | 1816.      | D | co  |                      |
| 11837 aurita <i>W.</i>           | auricled             | ∞ | ∞ | or | 1  | au.o  | W    | E. Indies  | 1818.      | S | co  |                      |
| 11838 hirsuta <i>W.</i>          | shaggy               | ∞ | ∞ | or | 2  | au.s  | Y.Pu | China      | 1767.      | S | co  |                      |
| 11839 ægyptiaca <i>W.</i>        | Egyptian             | ∞ | ∞ | or | 1½ | jl    | Y    | Egypt      | 1778.      | S | co  | Jac. vind. 3. t. 19  |
| 11840 Gouani <i>W.</i>           | Gouan's              | ∞ | ∞ | or | 1  | jl.au | Y    | Canaries   | 1772.      | S | co  | Jac. vind. 3. t. 79  |
| 11841 amœn' <i>Link.</i>         | agreeable            | ∞ | ∞ | or | 3  | jl.au | Pu   | Congo      | 1824.      | S | co  |                      |
| 11842 stula <i>W.</i>            | red-stalked          | ∞ | ∞ | or | 1  | au.s  | Y    | Sicily     | 1773.      | S | co  | Bocc. sic. t.31.f.4  |
| 11843 fœ'tida <i>W.</i>          | stinking             | ∞ | ∞ | or | 2  | au.s  | Y    | Africa     | 1724.      | D | co  | Mill. ic. 2. t. 233  |
| 11844 œr'dida <i>W.</i>          | small-flowered       | ∞ | ∞ | or | 1  | jl.s  | Br   | S. Europe  | 1570.      | C | co  | Barr. ic. t. 363     |
| 11845 saxatilis <i>W.</i>        | stone                | ∞ | ∞ | or | 1  | jl.au | Br   | S. Europe  | 1640.      | C | co  | Sch. han. 3.t.241    |
| 11846 rup'estr'is <i>W.</i>      | rock                 | ∞ | ∞ | or | 1  | ...   | Y    | Arabia     | 1790.      | C | co  | Schmid. ic. t. 36    |
| 11847 sericea <i>W.</i>          | snowy                | ∞ | ∞ | or | 1½ | ...   | Y    | Canaries   | 1779.      | S | p.l |                      |
| 11848 inuloides <i>W.</i>        | cluster-flower.      | ∞ | ∞ | or | 1  | jl.au | Pu   | Teneriffe  | 1780.      | C | co  | Jac. ic. 1. t. 171   |
| 11849 odorata <i>W.</i>          | sweet-scented        | ∞ | ∞ | or | 2  | jn.au | Pu   | India      | 1759.      | C | p.l | Plum. ic. t. 97      |
| 11850 glomerata <i>Link.</i>     | glomerate            | ∞ | ∞ | or | 1½ | jn.au | Pu   | .....      | 1825.      | S | co  |                      |
| 11851 spatulata <i>Link.</i>     | spatulate            | ∞ | ∞ | or | 3  | jn.au | B    | .....      | 1825.      | D | p.l |                      |
| 11852 arborescens <i>W.</i>      | tree                 | ∞ | ∞ | or | 6  | n.d   | B    | Jamaica    | 1733.      | C | p.l |                      |
| 11853 incisa <i>W.</i>           | ear-leaved           | ∞ | ∞ | or | 3  | jn.au | Pu   | C. G. H.   | 1774.      | S | p.l |                      |
| 11854 thapsoides <i>W.</i>       | Thapsus-leav'd       | ∞ | ∞ | or | 2  | jl.s  | Pu   | Casp. Sea  | 1806.      | C | co  |                      |
| 11855 virgata <i>W.</i>          | wing-stalked         | ∞ | ∞ | or | 2  | au.s  | Pu   | America    | 1783.      | D | co  | Slo. hi. 1.t.152.f.5 |
| 11856 geminiflora <i>Tenore</i>  | twin-flowered        | ∞ | ∞ | or | 1½ | au.s  | Br   | .....      | 1823.      | C | co  |                      |



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The woody species require a sandy peat soil, and to be struck in sand on a hotbed, but not covered with a bell-glass, as they are very apt to damp.

1731. *Carpesium*. Named from *καρπαιον*, a bit of straw; the long dry leaves of the involucre resemble straws.

1732. *Baccharis*. A name given by the Greeks to an aromatic plant dedicated to Bacchus. The species now

- 11802 Leaves oblong downy imbricated, Branches 1-headed, Heads nodding  
 11803 Diffuse proliferous, Leaves roundish ovate smooth convex closely imbricated, Heads sessile  
 11804 Leaves obl. blunt imbricated, Branches 1-f. Scales of invol. ovate  
 11805 Leaves obl. silky recurved  
 11806 Decumbent, Leaves lanc. silky somewhat recurved, Branchlets 1-flowered, Peduncles squarrose  
 11807 Leaves acerose lin. keeled smooth appressed, Branches 1-f. Flowers sessile  
 11808 Lvs. acerose lin. roundish downy above : lower spreading ; upper appressed, Branches 1-f. Pedunc. scaly

- 11809 Leaves linear lanc. channelled amplexicaul : adult smooth, Branches woolly  
 11810 Branches numerous very fine filiform, Leaves very small 3-cornered imbricated appressed  
 11811 Leaves obl. lanc. narrowed at base silky, Peduncles naked 1-flowered terminal  
 11812 Leaves wavy woolly reflexed at end, Heads small terminal few  
 11813 Leaves amplexicaul. oblong revolute at edge woolly, Flowers terminal solitary shining

- 11814 Leaves linear-lanc. silky, Corymb simple terminal  
 11815 Leaves lanc. acute at each end roughish, Peduncles 1-flowered long, Invol. bracteate

- 11816 Heads terminal solitary cernuous  
 11817 Heads axill. subsolitary

- 11818 Leaves narr. linear entire, Panicle compound many-flowered, Invol. small  
 11819 Leaves lanc. longitudinally toothed serrate  
 11820 Leaves lanc. serrated with one or two teeth forwards  
 11821 Leaves obovate emarginate crenate forwards  
 11822 Leaves lanc. serrate at end subdecurrent downy beneath  
 11823 Leaves obl. sessile toothed : teeth of the base deeper and stipule-like

- 11824 Leaves lanc. 3-nerved tooth-serrated, Corymbs terminal leafy

- 11825 Lvs. pubesc. ov.-lanc. serr. the upper ones ent. Stem herbaceous corymb. Scales of the invol. recurved leafy  
 11826 Leaves sessile broad-lanc. acute serrated, Corymbs terminal fastigate  
 11827 Leaves ovate acute at each end toothed stalked pilose, Stem erect branched, Pedunc. many-headed  
 11828 Leaves stalked ovate lanc. very acute toothletted, Corymbs term. and axillary shorter than leaf  
 11829 Leaves ellipt. serrated villous beneath, Invol. subglobose, Leaves lanc. subulate, Branches spreading  
 11830 Leaves oblong lanc. doubly toothed acute downy beneath rugose veined, Petioles toothed  
 11831 Leaves spatulate oblong amplexicaul. serrated rugose  
 11832 Leaves sess. lanc. obl. : lower obovate-obl. subserrated at end, Branches corymbose-fastigate  
 11833 Leaves ovate stalked entire obtuse downy, Pedunc. 1-f. solitary term. axillary thickened  
 11834 Leaves lanc. ovate reflexed serrated downy beneath, Flowers terminal heaped  
 11835 Leaves ov. stalked crenate blunt downy rugose veiny, Pedunc. 1-f. solitary terminal and axillary  
 11836 Leaves sublyrate : cauline entire, Stem downy paniced, Invol. campanulate  
 11837 Leaves toothed radical smoothish obovate : cauline obl. downy, Scales of invol. subulate  
 11838 Leaves oval entire hirsute beneath  
 11839 Leaves obl. spatulate tooth pilose, Heads paniced globose, Leaves of invol. subulate soft  
 11840 Lvs. lanc. serrated at end scabrous above, Heads heaped, Lvs. of invol. membranous at edge  
 11841 Stem hairy, Leaves sessile oval blunt denticulate hairy, Panicle terminal contracted  
 11842 Leaves lin. lanc. scabrous nearly entire revolute at edge, Stem paniced, Scales of invol. lax  
 11843 Leaves lin. attenuate at base mucronate, Corymbs stalked contracted terminal  
 11844 Leaves lin. nearly entire, Peduncles long 3-headed  
 11845 Leaves lin. somewhat toothed, Peduncles very long 1-headed  
 11846 Leaves spatulate somewhat toothed and stem downy, Pedunc. long 1-f.  
 11847 Leaves linear filiform and stems silky with down, Flowers paniced  
 11848 Leaves cuneiform lin. blunt crenate toothletted smooth, Stem shrubby, Anthers with two setae  
 11849 Leaves ovate stalked hoary beneath serrated, Corymb terminal compound  
 11850 Leaves broad lanc. blunt serrulate downy scabrous, Heads clustered surrounded by bracts  
 11851 Stem branched with spreading hairs, Leaves subamplexicaul. blunt coarsely serrated hairy  
 11852 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bracts reflexed  
 11853 Leaves ovate subcordate pilose viscid toothed auricled at base, Recpt. foveose  
 11854 Leaves decurrent ovate mucronate downy : lower serrated, Flowers corymbose  
 11855 Leaves decurrent lin. lanc. serrulate downy beneath, Spike long terminal interrupted  
 11856 Stem white with down, Leaves lanc. serrulate downy beneath, Heads terminal



and Miscellaneous Particulars.

called *B. Dioscorides* is supposed to have been the *Baccharis* of the Greeks. An extensive genus of shrubby plants, few of which are deserving of cultivation.

1733. *Molina*. Named after John Ignatius Molina, a Spaniard, who published, in 1782, a *Natural History of Chili*.

1734. *Conyza*. This plant was believed to have the property, when suspended in a room, of driving away



|                             |                   |   |    |   |      |             |             |           |            |    |                  |                         |
|-----------------------------|-------------------|---|----|---|------|-------------|-------------|-----------|------------|----|------------------|-------------------------|
| 11857 carolinensis W.       | Carolina          | ☐ | un | 5 | jl.o | Pu          | Carolina    | 1827.     | C          | co | Jacq. ic. t. 585 |                         |
| 11858 rugosa W.             | St. Helena        | ☐ | un | 6 | n    |             | Brazil      | 1772.     | S          | pl |                  |                         |
| †1735. MA'DIA. W.           | MADIA.            |   |    |   |      | Compositae. | Sp. 2—3.    |           |            |    |                  |                         |
| 11859 viscosa W.            | Ammy              | ○ | un | 1 | ½    | jl.au       | Y           | Chili     | 1794.      | S  | co               | Jac. schoe. 4.t. 302    |
| 11860 melliosa W.           | honeyed           | ○ | un | 1 | ½    | jl.au       | Y           | Chili     | 1825.      | S  | co               |                         |
| †1736. ERI'GERON. W.        | ERIGERON.         |   |    |   |      | Compositae. | Sp. 21—53.  |           |            |    |                  |                         |
| 11861 graveolens W.         | strong-smelling   | ○ | pr | 1 | ½    | jl.au       | Y           | S. Europe | 1633.      | S  | co               | Ger. ema. 481.f. 2      |
| 11862 compositum Ph.        | Daisy-flowered    | △ | pr | 1 | ½    | jl.au       | Y           | N. Amer.  | 1811.      | D  | co               |                         |
| 11863 carolinianum W.       | Hyssop-leaved     | △ | pr | 1 | ½    | jl.au       | Pu          | N. Amer.  | 1727.      | D  | sp               | Dil. el. t. 306. f. 394 |
| 11864 canadense W.          | Canada            | ○ | pr | 1 | ½    | au.s        | Pu          | England   | rubble.    | S  | co               | Eng. bot. 2019          |
| 11865 bonariense W.         | Buck's-horn       | ○ | pr | 1 | ½    | jl.au       | Pu          | S. Amer.  | 1732.      | S  | pl               | Dil. el. t. 257. f. 534 |
| 11866 linifolium W.         | Flax-leaved       | ○ | pr | 1 | ½    | jl.au       | Pu          | S. Amer.  | 1732.      | S  | pl               |                         |
| 11867 philadelphicum W.     | spreading         | △ | pr | 1 | ½    | jl.au       | Pu          | N. Amer.  | 1778.      | D  | co               |                         |
| 11868 nudicaule Ph.         | naked-stalked     | △ | pr | 1 | ½    | jl          | B           | N. Amer.  | 1812.      | D  | co               |                         |
| 11869 purpureum W.          | purple            | △ | pr | 1 | ½    | jl.au       | Pu          | Huds. Bay | 1776.      | D  | co               |                         |
| 11870 bellidifolium W.      | Plantain-leav.    | △ | pr | 1 | ½    | jl.au       | Pu          | N. Amer.  | 1790.      | D  | co               | Bot. mag. 2402          |
| 11871 heterophyllum W.      | various-leaved    | △ | pr | 1 | ½    | jl.s        | W           | N. Amer.  | 1640.      | S  | co               | Fl. dan. 486            |
| 11872 jamaicensis W.        | Jamaica           | ○ | pr | 1 | ½    | jl.s        | Pu          | Jamaica   | 1818.      | S  | co               | Slo. jam. t. 152. f. 3  |
| 11873 longifolium Desf.     | long-leaved       | △ | pr | 2 | ½    | jl.au       | Pu          | N. Amer.  | 1820.      | D  | co               |                         |
| 11874 caucasicum Bieb.      | large-flowered    | △ | pr | 1 | ½    | jl.au       | Pu          | Caucasus  | 1821.      | D  | co               |                         |
| 11875 asteroides Link.      | Aster-like        | △ | pr | 1 | ½    | jl.au       | W           | .....     | 1823.      | D  | co               |                         |
| 11876 Villarsii W.          | Villars's         | △ | pr | 1 | ½    | jl.au       | Pu          | Piedmont  | 1804.      | S  | co               | Bot. reg. 583           |
| 11877 acre W.               | blue              | ○ | pr | 1 | ½    | jl.au       | B           | Britain   | gra. pa.   | S  | co               | Eng. bot. 1158          |
| 11878 alpinum W.            | Alpine            | △ | pr | 1 | ½    | jl          | Pu          | Scotland  | al. rills. | D  | al               | Eng. bot. 464           |
| 11879 uniflorum W.          | dwarf             | △ | pr | 1 | ½    | au.s        | Fu          | Scotland  | highl.     | D  | co               | Eng. bot. 2416          |
| 11880 glaucum B. reg.       | shrubby           | △ | pr | 1 | ½    | ja.d        | Fu          | S. Amer.  | 1812.      | C  | co               | Bot. reg. 10            |
| 11881 delphinifolium W. en. | Larkspur-leav.    | △ | pr | 1 | ½    | jl.s        | Fu          | S. Amer.  | 1816.      | S  | co               |                         |
| *1737. TUSSILA'GO. W.       | COLT'S FOOT.      |   |    |   |      | Compositae. | Sp. 12—17.  |           |            |    |                  |                         |
| 11882 nutans W.             | drooping-flow.    | △ | un | 1 | ½    | jn. jl      | L. Pu       | W. Indies | 1793.      | S  | co               | Plum. ic. t. 41. f. 1   |
| 11883 alpina W.             | Alpine            | △ | un | 1 | ½    | mr. my      | L. Pu       | Austria   | 1710.      | D  | co               | Bot. mag. 84            |
| 11884 discolor W.           | two-colored       | △ | un | 1 | ½    | ap. my      | L. Pu       | Austria   | 1863.      | D  | co               | Jac. aust. 3. t. 247    |
| 11885 sylvestris W.         | wood              | △ | un | 1 | ½    | ap. my      | L. Pu       | Austria   | 1816.      | D  | co               | Jac. aus. 5. ap. t. 12  |
| 11886 Farfara W.            | common            | △ | w  | 1 | ½    | mr. ap      | Y           | Britain   | mol. pl.   | D  | co               | Eng. bot. 429           |
| 11887 frigida W.            | Lapland           | △ | w  | 1 | ½    | my          | Fa          | Lapland   | 1710.      | D  | co               | Fl. dan. t. 61          |
| 11888 fragrans W.           | sweet-scented     | △ | w  | 1 | ½    | ja. mr      | W           | Italy     | 1806.      | D  | co               | Bot. mag. 1388          |
| 11889 alba W.               | White Butter Bur  | △ | w  | 1 | ½    | ap          | W           | Europe    | 1683.      | D  | co               | Fl. dan. t. 524         |
| 11890 nivea W.              | downy-leaved      | △ | w  | 1 | ½    | ap          | W           | Switzerl. | 1713.      | D  | co               | Retz. obs. 2. t. 3      |
| 11891 Petastae E. B.        | Common Butter Bur | △ | w  | 1 | ½    | mr. ap      | F           | Britain   | m. me.     | D  | co               | Eng. bot. 431           |
| hybrida E. B.               | hybrid            | △ | w  | 1 | ½    | mr. ap      | F           | Britain   | m. me.     | D  | co               | Eng. bot. 430           |
| 11892 sparia W.             | lobe-leaved       | △ | w  | 1 | ½    | mr. ap      | W           | Germany   | 1790.      | D  | co               | Hort. obs. 1. t. 2      |
| 11893 palmata W.            | cut-leaved        | △ | w  | 1 | ½    | ap          | W           | Labrador  | 1778.      | D  | co               | Retz. kew. 3. t. 11     |
| †1738. SENE'CIO. W.         | GROUNDSEL.        |   |    |   |      | Compositae. | Sp. 62—171. |           |            |    |                  |                         |
| 11894 reclinatorum W.       | Grass-leaved      | △ | un | 2 | ½    | jn. au      | Pu          | C. G. H.  | 1774.      | S  | co               | Jac. ic. 1. t. 174      |
| 11895 hieracifolius W.      | Hawkweed          | ○ | un | 1 | ½    | au          | W           | N. Amer.  | 1699.      | S  | co               | Jac. parad. 226         |
| 11896 purpureum W.          | purple            | △ | un | 2 | ½    | jl.s        | Pu          | C. G. H.  | 1774.      | D  | co               | Her. ic. 3. t. 580      |
| 11897 cernuus W.            | drooping          | ○ | un | 1 | ½    | jl.au       | Vi          | E. Indies | 1780.      | S  | co               | Jac. vind. 3. t. 98     |
| 11898 erubescens W.         | blush-colored     | △ | un | 2 | ½    | jn.o        | Pk          | C. G. H.  | 1774.      | S  | lp               |                         |
| 11899 divaricatus W.        | straddling        | △ | un | 1 | ½    | jl          | Pu          | China     | 1801.      | S  | lp               |                         |
| 11900 croaticus W.          | Croatian          | △ | un | 4 | ½    | jl.au       | Y           | Hungary   | 1805.      | D  | co               | Pl. ra. hu. 2. t. 143   |
| 11901 Pseudo-China W.       | Chinese           | △ | un | 1 | ½    | jn. au      | Y           | E. Indies | 1732.      | C  | co               | Dil. el. t. 258. f. 335 |
| 11902 hematophyllum W. en.  | purple-leaved     | △ | un | 2 | ½    | ap          | Y           | .....     | 1789.      | C  | co               |                         |
| 11903 japonicus W.          | jagged-leaved     | △ | un | 1 | ½    | au          | Y           | Japan     | 1774.      | D  | co               |                         |



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gnats and fleas. From this imaginary property, its Greek name (from *κωνίς*, a gnat), its Latin name, *pulscaria*, its English name, *Flea-bane*, and its French name, *Herbe aux puces*, are all derived. *Conyza marilandica* gives out a strong smell of camphor.

1735. *Madia*. *Madia* is the name of the plant in Chili. Clammy weeds, only seen in botanical gardens.  
 1736. *Erigeron*. A name synonymous with *senecio*, which is a translation of it. Named from *εἰς*, the spring, and *γενω*, an old man; because it becomes old in the beginning of the season. The name *Senecio* having been applied to another genus, the Greek term is preserved for this, which is related to it. *E. viscosum* is used to drive away fleas and gnats, probably from its strong scent, or, as some suppose, from the clammy juice of the leaves and stalks; hence the old name of *Flea-bane*, or *Flea-wort*.

1737. *Tussilago*. From *tussis*, a cough, for curing which the flowers are frequently employed at this day. *Farfara* is the name under which the Greeks designated the White Poplar, the leaves of which are like the modern *T. Farfara*.

*T. Farfara* is a certain indication of a clayey soil, and, according to Dr. Withering, is the first plant which vegetates in marle or lime stone rubble. The clayey part of the pestiferential Maremmes of Tuscany, where scarcely any other plant will grow, is covered with common colts foot. The cotton of the leaves wrapped in a rag,

- 11857 Leaves ovate-lanc. entire hoary downy beneath, Corymb compound terminal  
 11858 Leaves decurrent ellipt. crenate downy beneath, Heads capitate
- 11859 Leaves lanc. sessile viscid, Outer involucre 10-leaved  
 11860 Leaves amplexicaul. lanc. viscid
- 11861 Leaves sublinear entire, Branches lateral many-flowered  
 11862 Nearly stemless, Rad. leaves on long stalks triply 3-parted, cauline linear undivided  
 11863 Stem paniced, Flowers subsolitary terminal, Leaves linear entire  
 11864 Stem and flowers paniced hairy, Leaves lanc. ciliated  
 11865 Lower leaves lanc. lacinate : cauline linear, Heads racemose  
 11866 Leaves scabrous : lower lanc. toothed in middle ; upper linear, Heads corymbose  
 11867 Stem many-fl. Lvs. lanc. subserrate : cauline half amplexicaul. Florets of ray capillary the length of disk  
 11868 Radical leaves oval-lanc. acute somewhat toothed, Stem nearly leafless simple long  
 11869 Stem many-fl. pilose, Leaves obl. somew. toothed amplexicaul. Florets of ray capillary longer than disk  
 11870 Rad. leaves obovate serrated : cauline lanc. entire, Stem about 2-fl. Ray longer than disk  
 11871 Rad. leaves roundish ovate deeply toothed stalked : cauline lanc. toothed subserrated in middle  
 11872 Stem few-fl. subvillosus, Leaves cuneiform lanc. Serratures 2 on each side  
 11873 Branches spiked, Scales of invol. long, Peduncles scaly, Leaves very long smooth sessile  
 11874 Leaves entire bluntly mucronate : radical oblong stalked ; cauline cordate ovate sessile  
 11875 Stem nearly naked, Rad. leaves spatulate smooth dotted : cauline linear, Heads corymbose  
 11876 Leaves lanc. 3-nerved scabrous somewhat toothed sessile, Stem paniced, Ray shorter than disk  
 11877 Pedunc. alternate (scarcely racemose) single-fl. Pappus as long as the florets of the ray, Lvs. lanc. obtuse  
 11878 Stems with usually only one fl. Pappus much shorter than the florets of the ray, Lvs. lanceolate  
 11879 Stem 1-flowered, Invol. pilose  
 11880 Leaves ciliated glaucous clammy : radical with winged stalks and few teeth ; cauline sessile entire  
 11881 Leaves pinnatifid ; segments of the cauline leaves linear entire ; of the radical lanc. somewhat toothed
- 11882 Scape 1-fl. naked, Head radiated nodding, Lvs. stalked obovate toothed sinuated at base downy beneath  
 11883 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed smooth  
 11884 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed downy beneath  
 11885 Scape about 1-fl. nearly naked, Head discoid, Lvs. smooth reniform slightly 7-lobed  
 11886 Scape single-fl. imbricated with scales, Lvs. cordate angular toothed downy beneath  
 11887 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate unequally toothed downy beneath  
 11888 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate equally toothed downy beneath  
 11889 Thyrus fastigiate, Heads discoid, Lvs. orbicular cordate doubly and finely toothed  
 11890 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed white beneath : lobes spreading  
 11891 Thyrus ovate-oblong, Lvs. cordate unequally toothed with the lobes approximate downy beneath
- 11892 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed snow-white beneath  
 11893 Thyrus fastigiate, Heads obsoletely radiant, Lvs. roundish cordate half 7-lobed downy beneath
- 11894 Heads flocculous, Cor. naked, Invol. ventricose somewhat imbricated, Lvs. filiform lin. entire smooth  
 11895 Heads flocculous, Cor. naked, Lvs. obl. amplexicaul. unequally and deeply toothed, Stem virgate  
 11896 Heads flocculous, Cor. naked, Lvs. lyrate hairy : upper lanc. toothed  
 11897 Heads flocculous, Cor. naked, Lvs. ellipt. tooth-serrated hairy, Peduncles long many-flowered  
 11898 Heads flocculous, Cor. naked, Lvs. lyrate pilose on each side viscid  
 11899 Heads flocculous, Cor. naked, Lvs. lanc. toothed scabrous, Flowering branches spreading  
 11900 Heads flocculous, Cor. naked, Lvs. obl. lanc. finely serrated smooth, Heads corymbose  
 11901 Heads flocculous, Cor. naked, Lvs. lyrate pinnatifid toothed, Scape nearly naked  
 11902 Heads flocculous, Cor. naked, Lvs. obl. pinnatifid toothed acuminate stalked caudate at base  
 11903 Heads flocculous, Cor. naked, Lvs. pinnatifid : segm. lanc. acute cut, Stipules leafy subpalmate



and Miscellaneous Particulars.

dipped in a solution of saltpetre, and dried in the sun, makes an excellent tinder. The leaves are the basis of the British herb tobacco ; they have been regarded as expectorant from the earliest ages, having been smoked through a reed in the days of Dioscorides, with the view of relieving the chest from accumulated mucus in catarrh, asthma, and phthisis. At present, though it occupies a place in the *Materia Medica*, very little reliance is placed on its powers. (*London Disp.* p. 542.)

*T. Petasites*, from the Greek *πεταστος*, a broad covering, in allusion to the leaves, which are larger than those of any British plant, and afford shelter from rain to poultry and other small animals. It is called *Butter bur*, in allusion to a former application, and *Pestilent-wort*, from its supposed efficacy in the plague. *T. hybridus* is by some considered, a variety of this species, as *T. alba* is of *T. paradoxa*. *T. fragrans* is valued in gardens as an early and fragrant flower ; like all the species, it is apt to run very much, and is therefore best kept in pots.

It is remarkable that no plant belonging to the tribe of *Tussilagineae*, has been discovered with hermaphrodite flowers. They are distinguished from other tribes by their stigma, which occupies both surfaces of the lobes of the style. They are nearly all natives of Europe.

1738. *Senecio*. For the explanation of this word, see *Erigeron*. Most of these species are annual weeds, or

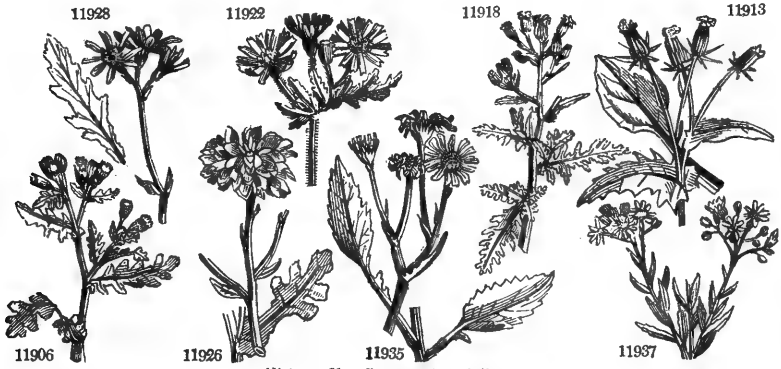
|                            |                 |      |             |      |                 |         |   |     |                     |
|----------------------------|-----------------|------|-------------|------|-----------------|---------|---|-----|---------------------|
| 11904 glomeratus Desf.     | clustered       | ○ un | 1 1/2 au    | Y    | N. Holl.        | 1816    | S | co  |                     |
| 11905 cacalioides Fisch.   | Cacalia-like    | □ pr | 1 au        | Y    | Brazil          | 1820.   | S | co  |                     |
| 11906 vulgaris W.          | common          | △ w  | 1 ja.d      | Y    | Britain         | rubble. | D | co  | Eng. bot. 747       |
| 11907 arabicus W.          | Arabian         | ○ un | 1 1/2 lau   | Y    | Egypt           | 1804.   | S | co  |                     |
| 11908 dentatus Jacq.       | toothed         | △ w  | 1 jl.au     | Y    | C. G. H.        | 1820.   | D | co  |                     |
| 11909 verbenæfolius W.     | Vervain-leaved  | ○ un | 1 in.jl     | Y    | Egypt           | 1803.   | S | co  | Jac. vind. 1. t. 3  |
| 11910 triflorus W.         | three-flowered  | □ pr | 1 1/2 jls   | Y    | Egypt           | 1776.   | S | co  |                     |
| 11911 ægyptius W.          | Egyptian        | ○ pr | 1 1/2 jl.au | Y    | Egypt           | 1771.   | S | co  |                     |
| 11912 crassifolius W.      | thick-leaved    | ○ pr | 1 1/2 jl.au | Pu   | S. Europe       | 1815.   | S | co  | Barr. ic. 261       |
| 11913 lividus W.           | livid           | ○ un | 1 jl.au     | Y    | Spain           | 1801.   | S | co  | Schk. ha. 3. t.245  |
| 11914 trilobus W.          | three-lobed     | ○ un | 1 in.au     | Y    | Spain           | 1728.   | S | co  |                     |
| 11915 cinerascens W.       | gray            | h    | 6 my.jl     | Y    | C. G. H.        | 1774.   | C | p.l | Jac.schœ.2.t.150    |
| 11916 squamosus W.         | squarrose       | h    | 3 my.jl     | Y    | C. G. H.        | 1820.   | C | p.l |                     |
| 11917 viscosus W.          | stinking        | h    | 1 in.o      | Y    | Britain         | ch. ba. | S | co  | Eng. bot. 32        |
| 11918 sylvaticus W.        | mountain        | ○ w  | 1 in.au     | Y    | Britain woods.  |         | S | co  | Eng. bot. 748       |
| 11919 nebrodensis W.       | Sicilian        | ○ un | 1 1/2 in.au | Papu | S. Europe       | 1704.   | S | co  | Barr. rar. 401      |
| 11920 glaucus W.           | sea-green       | ○ un | 1 1/2 in.au | Y    | Egypt           | 1739.   | S | co  |                     |
| 11921 hastatus W.          | halberd-leaved  | △ un | 1 1/2 my.au | Y    | C. G. H.        | 1722.   | D | lp  | Dil.el.t.153.f.184  |
| 11922 vernalis W.          | spring          | △ un | 1 ap.jn     | Y    | Hungary         | 1803.   | S | co  | Pl. rar. hu. 1.t.24 |
| 11923 artemisiæfolius Lam. | Wormwood-lv.    | △ un | 1 1/2 in.jl | Y    | France          | 1816.   | D | co  |                     |
| 11924 rupëstris W.         | rock            | △ un | 1 in.jl     | Y    | Hungary         | 1805.   | D | s.l | Pl.rar.hu.2.t.128   |
| 11925 venustus W.          | wing-leaved     | △ el | 1 1/2 jls   | Pu   | C. G. H.        | 1774.   | C | p.l | Barr. reg. 901      |
| 11926 elegans W.           | elegant         | ○ pr | 2 in.au     | Pu   | C. G. H.        | 1700.   | S | co  |                     |
|                            | β flore pleno   | h    | 2 ja.d      | Pu   | C. G. H.        | 1700.   | C | s.l | Bot. mag. 238       |
| 11927 squâlidus W.         | double-flowered | h    | 2 ja.d      | Pu   | C. G. H.        | 1700.   | C | s.l | Eng. bot. 600       |
| 11928 speciosus W.         | inlegant        | h    | 1 1/2 in.o  | Y    | England walls.  |         | S | co  | Bot. reg. 41        |
| 11929 erucifolius W.       | red-flowered    | h    | 2 jls       | Y    | Europe          | 1816.   | D | co  | Barr. rar. t. 153   |
| 11930 uniflorus W.         | Eruca-leaved    | △ un | 2 jls       | Y    | Al. of Eur.     | 1789.   | D | lp  | All. ped. t. 17.f.8 |
| 11931 incânus W.           | Alpine          | △ un | 3 jls       | Y    | Al. of Eur.     | 1759.   | D | sp  | Plu. alm. t.39.f.6  |
| 11932 abrotanifolius W.    | downy           | △ un | 3 jls       | Y    | Al. of Eur.     | 1640.   | D | co  | Jac. auct. 1. t. 79 |
| 11933 tenuifolius W.       | Southernw.-lv.  | △ un | 2 jls       | Y    | Britain woods.  |         | D | lp  | Eng. bot. 574       |
| 11934 Jacobæ'a W.          | slender-leaved  | △ un | 2 jls       | Y    | Britain drypa.  |         | D | s.l | Eng. bot. 1130      |
| 11935 aquâticus W.         | Common Ragwort  | △ un | 2 jls       | Y    | Britain mar.    |         | D | lp  | Eng. bot. 1131      |
| 11936 aureus W.            | marsh           | △ un | 3 my.jn     | Y    | Britain mar.    |         | D | lp  |                     |
| 11937 rosmarinifolius W.   | golden          | △ un | 2 jls       | Y    | N. Amer.        | 1758.   | D | lp  | Jac. ic. 3. t. 587  |
| 11938 âper W.              | Rosemary-lvd.   | □ pr | 3 jls       | Y    | C. G. H.        | ...     | C | lp  |                     |
| 11939 rigescens W.         | rough           | h    | 3 jls       | Y    | C. G. H.        | 1774.   | C | p.l | Jac. coll.5.t.6.f.1 |
| 11940 limifolius W.        | stiff-leaved    | h    | 3 jls       | Y    | C. G. H.        | 1815.   | D | lp  | Bocc. mus. t. 49    |
| 11941 paludosus W.         | Flax-leaved     | △ un | 2 jls       | Y    | Spain           | 1820.   | D | co  | Eng. bot. 650       |
| 11942 nemorensis W.        | bird's-tongue   | △ pr | 5 in.au     | Y    | England fens.   |         | D | p   | Jac. auct. 2.t.184  |
| 11943 sarracenicus W.      | branching       | △ or | 3 jls       | Y    | Austria         | 1785.   | D | co  | Eng. bot. 2211      |
| 11944 ovatus W.            | creeping-rooted | △ or | 6 jls       | Y    | Britain moi.pl. |         | D | co  |                     |
| 11945 macrophylus Bieb.    | ovate           | △ or | 3 jls       | Y    | Germany         | 1823.   | D | co  |                     |
| 11946 solidaginoides W.    | large-leaved    | △ or | 4 jls       | Y    | Caucasus        | 1818.   | D | co  |                     |
| 11947 umbrôus W. ca.       | Solidago-like   | △ or | 2 jls       | Y    | C. G. H.        | 1824.   | C | co  |                     |
| 11948 coriáceus W.         | various-leaved  | △ or | 2 jls       | Y    | Hungary         | 1815.   | D | lp  |                     |
| 11949 Dôria W.             | leathery-leaved | △ or | 4 jls       | Y    | Levant          | 1728.   | D | lp  | Dil.el.t.105.f.125  |
| 11950 Doronicum W.         | broad-leaved    | △ or | 4 jls       | Y    | Austria         | 1570.   | D | co  | Jac. auct. 2.t.185  |
| 11951 lanceus W.           | Leopard's Bane  | △ or | 1 jls       | Y    | S. Europe       | 1705.   | D | co  | Jac.aus.2.t.ap.45   |
| 11952 longifolius W.       | spear-leaved    | △ or | 3 jls       | Y    | C. G. H.        | 1774.   | C | p.l | Com. hort.2.t.71    |
| 11953 halimifolius W.      | long-leaved     | △ or | 3 au.n      | Y    | C. G. H.        | 1775.   | C | p.l | Dil.el.t.104.f.124  |
| 11954 illicifolius W.      | succulent-leav. | △ or | 3 jl        | Y    | C. G. H.        | 1723.   | C | lp  | Comm. rar. t. 42    |
| 11955 rigidus W.           | flex-leaved     | △ or | 3 in.jl     | Y    | C. G. H.        | 1731.   | C | lp  | Com.hort. 2.t.75    |
|                            | hard-leaved     | △ or | 3 jns       | Y    | C. G. H.        | 1704.   | C | lp  |                     |

†1739. ASTER. W.

|                          |                |                 |             |      |           |       |   |     |                |
|--------------------------|----------------|-----------------|-------------|------|-----------|-------|---|-----|----------------|
| 11956 reflexus W.        | STARWORT.      | reflexed-leaved | △ or        | 3 fs | Cr        |       |   |     |                |
| §11957 tomentosus W.     | tooth-leaved   | △ or            | 1 1/2 my.jl | Pk   | N. S. W.  | 1793. | C | p.l | Bot. rep. 61   |
| 11958 sericeus W.        | silky-leaved   | △ or            | 3 my.n      | B    | Missouri  | 1802. | C | s.p | Vent. cels. 33 |
| 11959 Cymbalariae W.     | Ivy-leaved     | △ or            | 2 my.n      | W    | C. G. H.  | 1786. | C | p.l | Vent. malm. 95 |
| 11960 liratus B. M.      | fluted-stemmed | △ or            | 3 my.jl     | W    | N. S. W.  | 1812. | C | lp  | Bot. mag. 1509 |
| §11961 argophyllus H. K. | Musk-scented   | △ or            | 10 my.jl    | W    | V. Di. L. | 1804. | C | s.p | Bot. mag. 1563 |

Composite. Sp. 109—169.

|       |                 |      |             |    |           |       |   |     |                |
|-------|-----------------|------|-------------|----|-----------|-------|---|-----|----------------|
| 11913 | reflexed-leaved | △ or | 3 fs        | Cr | C. G. H.  | 1759. | C | p.l | Bot. mag. 884  |
|       | tooth-leaved    | △ or | 1 1/2 my.jl | Pk | N. S. W.  | 1793. | C | p.l | Bot. rep. 61   |
|       | silky-leaved    | △ or | 3 my.n      | B  | Missouri  | 1802. | C | s.p | Vent. cels. 33 |
|       | Ivy-leaved      | △ or | 2 my.n      | W  | C. G. H.  | 1786. | C | p.l | Vent. malm. 95 |
|       | fluted-stemmed  | △ or | 3 my.jl     | W  | N. S. W.  | 1812. | C | lp  | Bot. mag. 1509 |
|       | Musk-scented    | △ or | 10 my.jl    | W  | V. Di. L. | 1804. | C | s.p | Bot. mag. 1563 |



History, Use, Propagation, Culture.

rude gigantic yellow flowered autumnal perennials; S. venustus and cinerascens, however, are elegant plants with purple flowers. Of S. elegans there is a double flowered variety, common in green houses, and readily propagated by cuttings. Senecio hieracifolius is the pest of newly cleared ground in North America, as S. vulgaris is in Europe. It is known by the name of the Fire-weed. Senecio vulgaris is esteemed emollient and resolutive. It is employed in spitting of blood, in the form of a poultice, and against the gout and hemorrhoids. It is given to horses suspected to be troubled with worms.

- 11904 Herb downy upwards, Lvs. sinuate toothed and pinnatifid, Heads clustered, Invol. cylindrical  
 11905 Herb hirsute, Lvs. broad-lanc. sinuate-toothed and toothletted: teeth callous at end, Heads paniced  
 11906 Leaves semiamplexicaul pinnatifid toothed, Heads in clustered corymbs destitute of a ray  
 11907 Heads fuscous, Cor. naked, Leaves subpinnate stalked smooth, Invol. not withered  
 11908 Heads radiant, Leaves half-amplex. pinnatifid, Segments linear acute toothed distant, Peduncles long  
 11909 Heads fuscous, Cor. naked, Leaves obovate stalked cut-toothed, Pedunc. filiform 3-headed  
 11910 Heads radiate, Ray revolute, Leaves stalked obl. sinuate, Pedunc. 3-headed, Invol. conical  
 11911 Heads radiate, Ray revolute, Leaves amplexic. lin. lanc. pinnatifid, Scales of invol. sphaclate in part  
 11912 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate-linear fleshy bluntly sinuated  
 11913 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate toothed, Scales of invol. all unwithered  
 11914 Heads radiate, Ray revolute, Leaves amplexicaul. obovate 3-lobed at end serrated  
 11915 Heads radiate, Ray revolute, Leaves pinnatifid downy revolute at edge, Panicle spreading  
 11916 Leaves amplexicaul. cut toothed scabrous above downy beneath, Heads racemose  
 11917 Ray revolute, Leaves pinnatifid and viscid, Scales of the involucre lax hairy  
 11918 Ray revolute, Lvs. sess. pinnatifid lobed and toothed, Scales of invol. very short glab. Stem erect straight  
 11919 Ray revolute, Leaves lyrate sinuate blunt stalked, Stem hirsute [Corymbosae  
 11920 Ray revolute, Leaves amplexicaul. lanceolate blunt toothed entire  
 11921 Heads radiate, Petiole amplexicaul. Peduncles 3 times as long as pinnate sinuated leaves  
 11922 Heads radiate, Leaves amplexicaul. pinnatifid hirsute crisp-toothed, Stem woolly  
 11923 Cor. radiant, Leaves pinnate multifid : segm. filiform smooth, Heads corymbosae  
 11924 Cor. radiant, Lvs. amplexic. pinnatifid glabrous above : segm. angular toothed, Stem and invol. glabrous  
 11925 Cor. radiant, Stem invol. and leaves glabrous, Leaves pinnatifid : segm. linear acute toothed  
 11926 Cor. radiant, Leaves pilose viscid pinnatifid equal spreading, Rachis narrowed below  
 11927 Cor. radiant, Leaves half-amplexicaul. pinnatifid : segm. linear subdentate distant  
 11928 Cor. radiant, Stem simple nearly naked, Radical leaves stalked oblong toothed ciliated  
 11929 Cor. radiant, Leaves pinnatifid toothed somewhat hairy, Stem erect  
 11930 Cor. radiant, Leaves tomentose oblong toothed, Stem leafy 1-flowered  
 11931 Cor. rad. Lvs. toment. on each side snow-white pinnatif. : segm. lin. blunt somew. tooth. Corymb contracted  
 11932 Cor. radiant, Leaves pinnate multifid linear naked acute, Peduncles about 2-flowered  
 11933 Cor. radiant, Leaves pinnate : pinnæ lin.-subulate somewhat cut downy beneath, Stem somewhat hairy  
 11934 Ray spreading, Leaves lyrate bipinnatifid divaric. toothed glabrous, Stem erect, Pericarps hairy  
 11935 Ray spreading, Florets elliptical, Leaves lyrate serrated : lower obovate entire, Pericarps glabrous  
 11936 Cor. radiant, Rad. lvs. ovate-cordate serrated stalked : cauline pinnatifid toothed, Peduncles thickened  
 11937 Cor. radiant, Lvs. lanc. lin. nearly entire smoothish, Corymb contracted terminal stalked  
 11938 Cor. radiant, Lvs. lanc. lin. toothed rigid scabrous, Corymbs terminal and axillary stalked  
 11939 Cor. radiant, Lvs. lanc. lin. subtomentose glauc. finely toothletted or entire, Corymb contracted terminal  
 11940 Cor. radiant, Leaves linear entire, Corymb squamose, Stem herbaceous  
 11941 Cor. radiant, Lvs. half amplexicaul. lanc. finely serrate subvillous beneath, Corymb terminal spreading  
 11942 Cor. radiant, Lvs. ovate lanc. serrated ciliated at edge sessile unequal at base  
 11943 Ray spreading, Lvs. lanc. sharply serrated nearly glabrous, Corymbs of rather few flowers  
 11944 Cor. radiant, Lvs. ovate-lanc. finely serrated smooth on each side subsessile  
 11945 Cor. radiant, Outer scales of invol. subulate spreading, Lvs. subdecurrent obl. lanc. villous  
 11946 Cor. radiant, Lvs. sess. obovate toothed at end glaucous : younger silky, Corymb compound terminal  
 11947 Cor. radiant, Lvs. toothed : lower ovate decurrent in the stalk : upper cordate obl. amplexicaul.  
 11948 Cor. radiant, Scales of invol. appressed, Lvs. subdecurrent villous beneath lanc. serrated  
 11949 Cor. radiant, Outer scales of invol. spreading, Lvs. subdecurrent obl. lanc. glauc. serrate  
 11950 Cor. radiant, Stem undivided about 1-fl. Lvs. undivided serrated : radical ovate villous beneath  
 11951 Cor. radiant, Lvs. lanc. cordate at base amplexicaul. smooth finely serrated  
 11952 Cor. radiant, Lvs. lin. scattered  
 11953 Cor. radiant, Lvs. obovate fleshy somewhat toothed  
 11954 Cor. radiant, Lvs. obl. sessile toothed downy beneath : upper amplexicaul. toothed only at base  
 11955 Cor. radiant, Lvs. amplexicaul. spatulate repand eroded scabrous

§ 1. *Shrubby.*

- 11956 Leaves ovate subimbricated recurved serrate-ciliated, Heads terminal  
 11957 Leaves ovate serrate spreading downy beneath, Heads terminal about 3  
 11958 Leaves obl. lanc. sessile entire 3-nerved silky with down, Flowers terminal  
 11959 Leaves stalked roundish ovate hairy with 1 or 2 teeth on each side, Peduncles 1-headed long terminal  
 11960 Stem fluted, Leaves alternate stalked lanc. blistered repand-toothed downy beneath, Flowers paniced  
 11961 Leaves ovate lanc. toothed silky beneath, Panicles compound axillary, Rays 3

*and Miscellaneous Particulars.*

The tribe of Senecionæ is nearly related to Anthemideæ, and a portion of Inuleæ, from which the differences in the style are insufficient to distinguish them. They appear, however, to be sufficiently well characterized by their other floral organs. They are found in every part of the world, especially in the south of Africa. Humboldt has observed, that they are very numerous in the upper region of the Andes, just below the limits of eternal snow, where the sun has little influence, where hurricanes are incessant, and not a tree is able to rear its head.

1739. *Aster.* The flowers of all the species of *Aster* resemble little stars, on account of the numerous rays

|       |  |                          |    |   |     |    |       |       |             |       |   |     |  |
|-------|--|--------------------------|----|---|-----|----|-------|-------|-------------|-------|---|-----|--|
| 11962 | <i>angustifolius W.</i>                        | narrow-leaved            | ll |   | or  | 6  | my.jl | Pa.B  | C. G. H.    | 1804. | C | lp  | Jac.schoe.3.t.370                      |
| 11963 | <i>villosus Th.</i>                            | villous                  | ll |   | or  | 4  | my.jl | W     | C. G. H.    | 1812. | C | lp  |  |
| 11964 | <i>obtusatus W.</i>                            | obtuse-leaved            | ll |   | or  | 4  | my.jl | W     | C. G. H.    | 1793. | C | lp  |  |
| 11965 | <i>fruticulosus W.</i>                         | shrubby                  | ll |   | or  | 3  | mr.jl | W     | C. G. H.    | 1759. | C | pl  | Bot. mag. 2233                         |
| 11966 | <i>filifolius V.</i>                           | thread-leaved            | ll |   | or  | 3  | mr.jl | W     | C. G. H.    | 1812. | C | lp  | Vent.malm. t.82                        |
| 11967 | <i>aculeatus Lab.</i>                          | prickly-leaved           | ll |   | or  | 2  | mr.jl | W     | N. Holl.    | 1818. | C | lp  | Bot. cab. 830                          |
| 11968 | <i>exasperatus Link.</i>                       | rough                    | ll |   | or  | 3  | mr.jl | W     | C. G. H.    | 1823. | C | lp  |  |
| 11969 | <i>carolinianus W.</i>                         | tall                     | ll |   | el  | 8  | aus.  | Pu    | Carolina    | ...   | D | co  |  |
| 11970 | <i>hyssopifolius W.</i>                        | Hyssop-leaved            | ll | Δ | or  | 1½ | s.o   | W     | N. Amer.    | 1683. | D | co  | Doda. mem. t.60                        |
| 11971 | <i>solidaginoides W.</i>                       | Solidago-like            | ll | Δ | or  | 2  | aus.  | W     | N. Amer.    | 1689. | D | co  | Flu. alm. t.79.f.2                     |
| 11972 | <i>tardifolius Mich.</i>                       | late-flowering           | ll | Δ | or  | 1  | aus.  | W     | N. Amer.    | 1820. | D | co  |  |
| 11973 | <i>nemorialis H. K. ledifolius Ph.</i>         | wood                     | ll | Δ | or  | 1  | aus.  | Li    | N. Amer.    | 1778. | D | co  |  |
| 11974 | <i>rigidus Ph.</i>                             | stiff-leaved             | ll | Δ | or  | ½  | au.o  | Pu    | N. Amer.    | 1759. | D | co  | Flu. alm. t.14.f.7                     |
| 11975 | <i>linarifolius Ph.</i>                        | Toad-flax-leav.          | ll | Δ | or  | ½  | s.o   | Pa.B  | N. Amer.    | 1699. | D | co  |  |
| 11976 | <i>graminifolius Ph.</i>                       | grass-leaved             | ll | Δ | or  | 1  | s.o   | Pa.pu | Huda. Bay   | ...   | D | co  |  |
| 11977 | <i>linifolius W.</i>                           | Flax-leaved              | ll | Δ | or  | 2  | jl.au | W     | N. Amer.    | 1739. | D | co  |  |
| 11978 | <i>pilosus W.</i>                              | hairy                    | ll | Δ | or  | 2  | au.o  | Pa.B  | N. Amer.    | 1812. | D | co  |  |
| 11979 | <i>foliosus W.</i>                             | leafy                    | ll | Δ | or  | 3  | o     | Pa.B  | N. Amer.    | 1732. | D | co  | Dill. elt. t.35.f.39                   |
| 11980 | <i>subulatus Mich.</i>                         | subulate                 | ll | Δ | or  | 2  | s.o   | Pa.B  | N. Amer.    | ...   | D | co  |  |
| 11981 | <i>tenuifolius W.</i>                          | slender-leaved           | ll | Δ | or  | 3  | s.o   | W     | N. Amer.    | 1725. | D | co  | Flu. alm. t.78.f.5                     |
| 11982 | <i>dumosus W.</i>                              | bushy                    | ll | Δ | or  | 3  | s.o   | W     | N. Amer.    | 1734. | D | co  | Flu. alm. t.78.f.6                     |
| 11983 | <i>ericoides W.</i>                            | Heath-leaved             | ll | Δ | or  | 3  | s     | W     | N. Amer.    | 1758. | D | co  |  |
| 11984 | <i>multiflorus W.</i>                          | many-flowered            | ll | Δ | or  | 3  | s.o   | W     | N. Amer.    | 1732. | D | co  | Dill. elt. t.36.f.40                   |
| 11985 | <i>ciliatus Ph.</i>                            | ciliated                 | ll | Δ | or  | 3  | s.o   | W     | N. Amer.    | ...   | D | co  |  |
| 11986 | <i>canescens Ph.</i>                           | canescent                | ll | Δ | or  | 2  | s.o   | Pa.pu | N. Amer.    | 1812. | D | co  |  |
| 11987 | <i>paludosus W.</i>                            | marsh                    | ll | Δ | or  | 3  | jl.o  | B     | N. Amer.    | 1784. | D | m.s |  |
| 11988 | <i>sparisiflorus Ph.</i>                       | scattered-flow.          | ll | Δ | or  | 3  | s.n   | Pa.pu | N. Amer.    | 1798. | D | co  |  |
| 11989 | <i>coridifolius W.</i>                         | Coris-leaved             | ll | Δ | or  | 1  | au.n  | B     | N. Amer.    | ...   | D | co  |  |
| 11990 | <i>surculosus Mich.</i>                        | rooting                  | ll | Δ | or  | 1  | au.n  | B     | N. Amer.    | ...   | D | co  |  |
| 11991 | <i>squarrosus W.</i>                           | ragged                   | ll | Δ | el  | 1½ | ju.jl | B     | N. Amer.    | 1801. | D | co  |  |
| 11992 | <i>argenteus Mich.</i>                         | silver-leaved            | ll | Δ | el  | 1  | jl.s  | Pu    | N. Amer.    | 1802. | D | co  |  |
| 11993 | <i>concolor W.</i>                             | self-colored             | ll | Δ | el  | 1  | au.n  | Pu    | N. Amer.    | 1759. | D | co  |  |
| 11994 | <i>myrtifolius Link.</i>                       | myrtle-leaved            | ll | Δ | or  | 2  | aus.  | W     | .....       | 1812. | D | co  |  |
| 11995 | <i>reticulatus Ph.</i>                         | netted-leaved            | ll | Δ | or  | 3  | au.o  | W     | N. Amer.    | 1812. | D | co  |  |
| 11996 | <i>cornifolius W.</i>                          | Cornus-leaved            | ll | Δ | or  | 3  | au.o  | W     | N. Amer.    | 1811. | D | co  |  |
| 11997 | <i>humilis Ph.</i>                             | low                      | ll | Δ | el  | 1  | au.o  | W     | N. Amer.    | 1689. | D | co  | Willd. ho.ber.67                       |
| 11998 | <i>amygdalinus Ph. umbellatus W.</i>           | Almond-leaved            | ll | Δ | or  | 2  | jl.s  | W     | N. Amer.    | 1759. | D | co  |  |
| 11999 | <i>salicifolius W.</i>                         | Willow-leaved            | ll | Δ | or  | 6  | s.o   | F     | N. Amer.    | 1760. | D | co  | Rob. ic. 307                           |
| 12000 | <i>aestivus W.</i>                             | summer                   | ll | Δ | or  | 2  | jl.au | B     | N. Amer.    | 1776. | D | co  |  |
| 12001 | <i>Novae Angliae W. β rüber</i>                | New England red-flowered | ll | Δ | el  | 6  | s.o   | Ru    | N. Amer.    | 1710. | D | co  | Bot. reg. 183                          |
| 12002 | <i>spurius W. cyaneus Ph. rubricaulis Lam.</i> | beautiful-blue           | ll | Δ | spl | 4  | s.o   | Pu    | N. Amer.    | 1812. | D | co  | Bot. reg. 183.f.inf. Hof.ph. 1.t.B.f.1 |
| 12003 | <i>grandiflorus W.</i>                         | great-flowered           | ll | Δ | or  | 2  | o.n   | Pu    | N. Amer.    | 1790. | D | co  | Bot. reg. 273                          |
| 12004 | <i>phlogifolius W.</i>                         | Phlox-leaved             | ll | Δ | or  | 1½ | jl.o  | Vi    | N. Amer.    | 1797. | D | co  |  |
| 12005 | <i>patens W.</i>                               | spreading-hairy          | ll | Δ | or  | 1½ | s.n   | Pu    | N. Amer.    | 1773. | D | co  |  |
| 12006 | <i>alpinus W.</i>                              | Alpine                   | ll | Δ | or  | ½  | my.au | Pu    | Al. of Eur. | 1658. | D | pl  | Bot. mag. 199                          |
| 12007 | <i>pulchellus W.</i>                           | pretty                   | ll | Δ | or  | 3  | my.au | Pu    | Armenia     | ...   | D | co  |  |
| 12008 | <i>punctatus W.</i>                            | dotted                   | ll | Δ | or  | 3  | aus.  | Vi    | Hungary     | 1815. | D | co  | Pl.rar.hu.2.t.109                      |
| 12009 | <i>acris W.</i>                                | acid                     | ll | Δ | or  | 2  | aus.  | B     | S. Europe   | 1731. | D | co  | Flu. al. t. 271.f.3                    |
| 12010 | <i>canus W.</i>                                | hoary-leaved             | ll | Δ | or  | 2  | aus.  | Pu    | Hungary     | 1816. | D | co  | Pl. rar. hu. 1. t. 30                  |
| 12011 | <i>pannonicus W.</i>                           | Hungarian                | ll | Δ | or  | 2  | jl.au | Vi    | Hungary     | 1815. | D | co  | Jac. vind. 1. t. 8                     |
| 12012 | <i>Amellus W.</i>                              | Italian                  | ll | Δ | or  | 2  | aus.  | Pu    | Italy       | 1596. | D | co  | Bot. reg. 340                          |
| 12013 | <i>salignus W.</i>                             | Sallow-leaved            | ll | Δ | or  | 3  | aus.  | W     | Germany     | 1815. | D | co  |  |
| 12014 | <i>longifolius P. S.</i>                       | long-leaved              | ll | Δ | or  | 3  | o     | W     | N. Amer.    | 1798. | D | co  | Mor.s.7.t.92.f.25                      |
| 12015 | <i>amplexicaulis W.</i>                        | stem-clasping            | ll | Δ | or  | 3  | s.n   | B     | N. Amer.    | ...   | D | co  |  |
| 12016 | <i>prenanthoides W.</i>                        | Prenanthes-like          | ll | Δ | or  | 3  | s.n   | B     | N. Amer.    | 1821. | D | co  |  |
| 12017 | <i>adulterinus W. ex.</i>                      | bastard                  | ll | Δ | or  | 3  | au.o  | Vi    | N. Amer.    | ...   | D | co  |  |
| 12018 | <i>laevigatus W.</i>                           | smooth-stemm.            | ll | Δ | pr  | 3  | s.n   | F     | N. Amer.    | 1794. | D | co  |  |



History, Use, Propagation, Culture,

of their circumference. A very numerous genus of plants, commonly called in England, Christmas Daisies, in allusion to the late period of the year at which they blossom. They are not very ornamental, and yet their flowers are acceptable at a season when few others are to be seen in open air. The species are extremely

- 11962 Leaves linear acute not dotted somewhat hoary, Pedunc. term. solitary 1-fl. long
- 11963 Leaves linear filiform obtuse hairy, Invol. imbricated
- 11964 Leaves linear fleshy smooth dotted blunt, Pedunc. 1-headed, Invol. imbricated shorter than disk
- 11965 Leaves linear blunt glabrous dotted, Pedunc. 1-headed long, Invol. imbricated as long as disk
- 11966 Leaves linear filiform fasciated smooth dotted, Ligules entire
- 11967 Leaves linear scattered revolute at edge : prickly above ; downy beneath, Heads in racemose panicles
- 11968 Stem and leaves rough, Leaves dense linear reflexed, Flowering branches short racemose
- 11969 Leaves obl. narrowed at each end sess. Stem somewhat climbing, Branches downy, Scales of invol. squarrose

§ 2. *Herbaceous.*  
\* *Leaves entire.*

- 11970 Leaves lin. lanc. 3-nerved dotted acute scabr. at edge, Ray about 5-fl. Invol. imbric. twice as short as disk
- 11971 Lvs. lin. lanc. obso. 3-nerv. blunt scab. at edge, Hds. in sess. clust. Ray about 5-fl. Inv. imbr. short. than disk
- 11972 Lvs. cuneate obov. acute nervef. scab. on each side twisted spread. Inv. cylindr. imbr. with 2 bractes at base
- 11973 Lvs. lin. lanc. narr. at base nerveless roughish revolute at edge, Inv. lax imbr. Branches filiform 1-headed

- 11974 Lvs. lin. mucro. somew. keeled rigid scabrous at edge : cauline reflexed ; of the branches much spreading
- 11975 Lvs. many lin. mucron. nerveless not dotted keeled scabrous rigid, Branches fastigate 1-headed
- 11976 Lvs. narrow lin. nerveless not dotted smooth erect, Branchlets term. nearly naked 1-headed
- 11977 Lvs. lin. nerveless dotted scabr. reflexed spreading, Branches corymb. fastigate leafy, Invol. imbr. short
- 11978 Lvs. lin. lanc. hoary, Stem branched villous, Branchlets somew. 1-sided 1-headed, Invol. obl. lax imbricated
- 11979 Lvs. lin. lanc. narrowed at each end acum. Stem downy paniced erect, Branches few-headed, Inv. imbr.
- 11980 Very smth. with small fl. Stem paniced, Branch. many-head. Lvs. lin. subulate, Invol. cylindr. Ray minute
- 11981 Lvs. lin. lanc. narrow. both ways hispid at edge, Stem smth. branched erect, Branches 1-headed, Inv. imbr.
- 11982 Lvs. lin. glabrous : those of the branches very short, Branches paniced, Invol. cylindr. closely imbricated
- 11983 Lvs. lin. glab. : those of the branches subul. close together ; of the stem long. Invol. subsquarr. Leaf. acute
- 11984 Lvs. lin. glab. Stem much branched diffuse downy, Branchlets 1-sided, Inv. imbr. : scales obl. squarr. acute
- 11985 Lvs. ciliat. : caul. lin. lanc. nerv. : those of the br. very short lanc. 3-nerv. Stem branch. downy, Br. panic.
- 11986 Hoary, Lvs. lin. Panic. corymb. much branched leafy, Invol. imbr. very acute longer than disk [at base
- 11987 Lvs. remote lin. amplexicaul. erect very smth. scabr. at edge, Pedunc. almost naked, Inv. squarr. with 2 lvs.
- 11988 Very smth. Lvs. subul. lin. somew. fleshy subreflex. Stem slender much branch. Branchl. setaceous 1-head.
- 11989 Lvs. very numerous lin. blunt reflexed hispid at edge, Stem branch. diffuse smooth, Branches 1-headed
- 11990 Dwarf with creeping roots, Stems weak simple, Lvs. long lanc. smoothish, Invol. with lin. obl. blunt scales
- 11991 Lvs. very numerous ovate-acum. reflexed hispid at hedge, Stem branched hairy, Branches 1-headed
- 11992 Lvs. obl. lanc. silky sess. Stem slender decumbent loosely branched, Branchlets and branchlets 1-headed
- 11993 Lvs. obl. lanc. hoary on each side, Stem simple erect downy, Raceme terminal
- 11994 Cauline leaves amplexicaul. scabrous : of the branches small, Invol. imbricated : scales length of disk
- 11995 Hoary all over, Lvs. lanc. obl. acute at each end sess. revolute at end netted and 3-nerved beneath
- 11996 Smooth, Lvs. obl. ovate acuminate shortly stalked scabrous at edge, Panicles few-headed, Stem smth
- 11997 Lvs. subrhomboid oval-lanc. acuminate at each end somew. stalked glabr. hispid at edge, Corymb diverging
- 11998 Lvs. lanc. narrowed at base acuminate scabrous at edge, Stem simple corymb. at end, Invol. loosely imbr.

- 11999 Lvs. lin. lanc. nearly entire smth. Stem smth. paniced at end, Invol. lanc. imbr. Scales acute spread, at end
- 12000 Lvs. lanc. somew. amplexicaul. narrowed at end scabrous at edge, Stem erect hispid, Branchlets pilose
- 12001 Lvs. lin. lanc. pilose amplexicaul. auricled at base, Stem simple pilose straight, Heads sess. term. clustered

- 12002 Lvs. lin. lanc. amplexicaul. polished, Stem virgate panicl. Branches racemose, Inner scales of invol. colored

- 12003 Lvs. lin. rigid acute subamplexicaul. : those of the branches reflexed hispid at edge, Scales of invol. squarr.
- 12004 Lvs. lanc. cordate amplexicaul. downy beneath, Stem quite simple downy, Pan. term. lax few-headed
- 12005 Lvs. obl. lanc. ciliate cordate amplexicaul. scabrous on each side hairy, Stem branched hairy
- 12006 Stem 1-fl. Rad. lvs. lanc. spatulate : cauline lanc. Scales of invol. nearly equal lanc. blunthish
- 12007 Stem 1-fl. Rad. lvs. spatulate : cauline lin.-lanc. Scales of invol. nearly equal linear acuminate
- 12008 Lvs. lin. remote 3-nerved acuminate dotted scabrous at edge, Branches corymb. fastigate, Ray 10-fl.
- 12009 Lvs. lin. lanc. glabrous not dotted 3-nerved, Invol. imbricated twice as short as disk
- 12010 Lvs. lin. lanc. 3-nerved hoary on each side, Invol. twice as short as disk imbricated
- 12011 Lvs. lin. lanc. hispid at edge, Stem simple corymbose, Scales of invol. lanc. blunt equal
- 12012 Lvs. obl. lanc. scabrous, Invol. imbr. subsquarrose : lvs. blunt ; inner membranous colored at edge
- 12013 Lvs. lin. lanc. sessile scabrous at edge, Stem paniced smooth, Invol. lax imbricated
- 12014 Lvs. lin. lanc. rarely toothed long smooth, Heads terminal, Invol. squarrose

\*\* *Leaves lanceolate and ovate : lower serrate.*

- 12015 Lvs. ov.-obl. acute amplexicaul. cordate serrated smooth, Stem paniced smooth, Branches 1-2-headed
- 12016 Lvs. amplexicaul. spatulate lanc. acuminate serrated in middle cordate at base, Branches pilose
- 12017 Lvs. amplexic. lanc. : lower subserr. smooth ; of the branches lin. squarr. Invol. squarr. shorter than disk
- 12018 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Branches many-headed



and Miscellaneous Particulars.

difficult to distinguish : the most ornamental are *A. puniceus*, *Novæ Angliæ pulchellus*, and *macrophyllus* *A. chinensis* is a well known border annual ; of which there are varieties of different colors, and semi-double, and double. It is raised on a hotbed, and transplanted into the open ground in April or May.

|         |                             |                    |   |    |    |       |                   |                   |         |   |    |                    |
|---------|-----------------------------|--------------------|---|----|----|-------|-------------------|-------------------|---------|---|----|--------------------|
| 12019   | <i>versicolor W.</i>        | various-colored    | Δ | el | 3  | au.s  | W,pu              | N. Amer.          | 1750.   | D | co |                    |
| 12020   | <i>mutabilis W.</i>         | changeable         | Δ | or | 2  | s.o   | Pu                | N. Amer.          | 1710.   | D | co | Hern. lugd. t.67   |
| 12021   | <i>laevis W.</i>            | smooth             | Δ | or | 2  | s.o   | B                 | N. Amer.          | 1758.   | D | co |                    |
| 12022   | <i>concinus W. en.</i>      | neat               | Δ | pr | 1½ | s.o   | Pu                | N. Amer.          | 1800.   | D | co |                    |
| 12023   | <i>punicus W.</i>           | red-stalked        | Δ | or | 8  | jl.o  | B                 | N. Amer.          | 1710.   | D | co | Hern. lug. t.651   |
| 12024   | <i>hispidus W.</i>          | rough-stalked      | Δ | or | 1  | s.o   | W                 | China             | 1804.   | D | co | lc. Kempt. t. 29   |
| 12025   | <i>floribundus W.</i>       | abundant-flow.     | Δ | or | 4  | s.o   | Pu                | N. Amer.          | ...     | D | co |                    |
| 12026   | <i>Novi-Belgii W.</i>       | New-York           | Δ | or | 4  | s.o   | P.B               | N. Amer.          | 1710.   | D | co | Hern. lugd. t.69   |
| 12027   | <i>bellidiflorus W. en.</i> | Daisy-flowered     | Δ | or | 3  | s.o   | Pa.R              | N. Amer.          | ...     | D | co |                    |
| 12028   | <i>spectabilis W.</i>       | showy              | Δ | el | 2  | au.s  | B                 | N. Amer.          | 1777.   | D | co |                    |
| 12029   | <i>serotinus W.</i>         | late-flowering     | Δ | or | 3  | sn    | B                 | N. Amer.          | ...     | D | co |                    |
| 12030   | <i>lardiiflorus W.</i>      | spear-leaved       | Δ | or | 2  | jl.s  | P.B               | N. Amer.          | 1775.   | D | co |                    |
| 12031   | <i>bianchus Ph.</i>         | charming           | Δ | or | 2  | on    | Pa,pu             | N. Amer.          | 1800.   | D | co | Bot. cab. 959      |
| §12032  | <i>chinensis W.</i>         | Chinese            | Δ | or | 2  | jl.s  | D,Fu              | China             | 1731.   | S | co | Dillett. t.34.f.38 |
| 12033   | <i>acuminatus Ph.</i>       | acuminated         | Δ | or | 1½ | au.o  | W                 | N. Amer.          | 1806.   | D | co |                    |
| 12034   | <i>conyzoides W.</i>        | Cniza-like         | Δ | or | 1  | au.s  | W                 | N. Amer.          | 1778.   | D | co |                    |
| 12035   | <i>Rádula W.</i>            | rasp-leaved        | Δ | or | 2  | sn    | W                 | N. Amer.          | 1785.   | D | co |                    |
| 12036   | <i>strictus Ph.</i>         | upright-dwarf      | Δ | pr | ¼  | sn    | Vi                | N. Amer.          | 1806.   | D | co |                    |
| 12037   | <i>Tradescanti W.</i>       | Michaelmas Daisy   | Δ | or | 3  | jl.s  | W                 | N. Amer.          | 1633.   | D | co | Mor. s.7.t.21.f.12 |
| 12038   | <i>recurvatus W.</i>        | recurved           | Δ | or | 3  | au.s  | Pa.B              | N. Amer.          | 1800.   | D | co |                    |
| 12039   | <i>eminens Ph.</i>          | eminent            | Δ | or | 2  | sn    | Li                | N. Amer.          | ...     | D | co |                    |
| 12040   | <i>laxus Ph.</i>            | loose-stalked      | Δ | or | 2  | sn    | W                 | N. Amer.          | ...     | D | co |                    |
| 12041   | <i>simplex W. en.</i>       | single-stalked     | Δ | or | 3  | au.o  | W,pu              | N. Amer.          | ...     | D | co |                    |
| 12042   | <i>polyphyllus W. en.</i>   | many-leaved        | Δ | or | 3  | au.o  | W                 | N. Amer.          | ...     | D | co |                    |
| 12043   | <i>juncus W.</i>            | slender-stalked    | Δ | or | 4  | s.o   | F                 | N. Amer.          | 1758.   | D | co |                    |
| 12044   | <i>lanceolatus W.</i>       | lanceolate         | Δ | or | 4  | au.n  | W,pu              | N. Amer.          | 1811.   | D | co |                    |
| 12045   | <i>dracunculoides W.</i>    | Tarragon-like      | Δ | or | 3  | sn    | W                 | N. Amer.          | 1811.   | D | co |                    |
| 12046   | <i>fragilis W.</i>          | brittle            | Δ | or | 2  | s     | W                 | N. Amer.          | 1800.   | D | co |                    |
| 12047   | <i>miser W.</i>             | meagre-flower.     | Δ | un | 3  | s.o   | W                 | N. Amer.          | 1759.   | D | co |                    |
| 12048   | <i>divergens W.</i>         | spreading-downy    | Δ | un | 3  | s.o   | W                 | N. Amer.          | 1758.   | D | co |                    |
| 12049   | <i>diffusus W.</i>          | diffuse            | Δ | or | 2  | s.o   | W                 | N. Amer.          | 1777.   | D | co |                    |
| 12050   | <i>pendulus W.</i>          | pendulous          | Δ | or | 2  | s.o   | W                 | N. Amer.          | 1758.   | D | co |                    |
| 12051   | <i>caucasicus W.</i>        | Caucasian          | Δ | or | 1  | jl.au | Pu                | Caucasus          | 1804.   | D | co |                    |
| 12052   | <i>altaius W. en.</i>       | dwarf              | Δ | or | ¾  | my.au | B                 | Siberia           | 1804.   | D | co |                    |
| 12053   | <i>tenellus W.</i>          | slender            | Δ | or | ¾  | apo   | B                 | C. G. H.          | 1769.   | C | pl | Bot. mag. 33       |
| 12054   | <i>Tripólium W.</i>         | sea                | Δ | or | 2  | au.s  | B                 | Britain           | sea sh. | D | co | Eng. bot. 87       |
| 12055   | <i>sibiricus W.</i>         | Siberian           | Δ | or | 2  | jl.o  | B                 | Siberia           | 1768.   | D | co | Gm.sib.2.t.80.f.1  |
| 12056   | <i>elegans W.</i>           | elegant            | Δ | or | 2  | au.o  | B                 | .....             | 1790.   | D | co |                    |
| 12057   | <i>pállens W. en.</i>       | pale-flowered      | Δ | or | 3  | s.o   | Vi                | N. Amer.          | ...     | D | co |                    |
| 12058   | <i>praecox W. en.</i>       | early-flowering    | Δ | or | 2  | jl.au | Vi                | N. Amer.          | 1800.   | D | co |                    |
| 12059   | <i>undulatus W.</i>         | wave-leaved        | Δ | or | 3  | au.o  | P.B               | N. Amer.          | 1699.   | D | co | Hern. parad. 95    |
| 12060   | <i>paniculatus W.</i>       | panicled           | Δ | or | 4  | s.o   | B                 | N. Amer.          | 1640.   | D | co | Corn.canad. t.65   |
| 12061   | <i>cordifolius W.</i>       | heart-leaved       | Δ | or | 2  | jl.au | P.B               | N. Amer.          | 1759.   | D | co |                    |
| §12062  | <i>corymbosus W.</i>        | corymbed           | Δ | or | 2  | s     | W                 | N. Amer.          | 1765.   | D | co |                    |
| 12063   | <i>macrophyllus W.</i>      | large-leaved       | Δ | or | 2  | jl.s  | W                 | N. Amer.          | 1759.   | D | co |                    |
| 12064   | <i>heterophyllus W. en.</i> | various-leaved     | Δ | or | 3  | jl.s  | Pa,pu             | N. Amer.          | 1811.   | D | co |                    |
| 12065   | <i>alwartensis Lodd.</i>    | fine rayed         | Δ | el | 1  | my    | R                 | Caucasus          | 1807.   | D | co | Bot. mag. 2321     |
| †*1740. | <b>SOLIDA</b> 'GO. W.       | <b>GOLDEN ROD.</b> |   |    |    |       | <i>Composite.</i> | <i>Sp. 48—61.</i> |         |   |    |                    |
| 12066   | <i>canadensis W.</i>        | Canadian           | Δ | pr | 2  | jl.s  | Y                 | N. Amer.          | 1648.   | D | co | Sch.hand.3.f.246   |
| 12067   | <i>frágrans W. en.</i>      | fragrant           | Δ | pr | 3  | jl.s  | Y                 | N. Amer.          | ...     | D | co |                    |
| 12068   | <i>prócera W.</i>           | great              | Δ | pr | 6  | s.o   | Y                 | N. Amer.          | 1758.   | D | co |                    |
| 12069   | <i>serotina W.</i>          | upright-smooth     | Δ | pr | 4  | jl.au | Y                 | N. Amer.          | 1758.   | D | co |                    |
| 12070   | <i>gigantéa W.</i>          | gigantic           | Δ | pr | 6  | au.s  | Y                 | N. Amer.          | 1758.   | D | co |                    |
| 12071   | <i>ciliáris W.</i>          | ciliated           | Δ | pr | 3  | au.s  | Y                 | N. Amer.          | 1811.   | D | co |                    |
| 12072   | <i>refléxa W.</i>           | hanging-leaved     | Δ | pr | 3  | au.s  | Y                 | N. Amer.          | 1758.   | D | co |                    |
| 12073   | <i>lateriflóra W.</i>       | lateral-flowered   | Δ | pr | 3  | au.s  | Y                 | N. Amer.          | 1758.   | D | co |                    |



History, Use, Propagation, Culture,

Asteræ are chiefly characterized by their style, which, in its most complete state, is alone sufficient to distinguish them from every other tribe. They are found in every part of the world, but especially in North America and Africa.

1740. *Solidago*. From *solidari*, to unite, on account of the vulnerary qualities of the plants. The species are all autumnal coarse-looking herbaceous plants with yellow flowers; in the shrubbery they make a pretty

- 12019 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Scales of invol. shorter than disk  
 12020 Lvs. subamplexic. : upper lanc. acum. entire; lower lanc. narrowed at base serrated, Branchlets virgate  
 12021 Lvs. subamplexicaul. remote obl. entire lucid : radic. subserrated, Invol. imbr. with cuneiform leaflets  
 12022 Lvs. subamplexicaul. lanc. lower subserrate smooth, Stem simple paniced at end, Invol. closely imbricated  
 12023 Lvs. amplexicaul. lanc. serrate roughish, Branches paniced, Invol. lax longer than disk  
 12024 Lvs. obl. lanc. scabrous ciliated : lower ovate, Stem hispid, Branches 1-headed, Scales of invol. obl. imbr.  
 12025 Lvs. subamplexicaul. lanc. : lower serrate, Stem smooth, Branches corymbose  
 12026 Lvs. subamplexicaul. lanc. glabrous scabrous at edge : lower subserrated, Branches divided  
 12027 Lvs. amplexicaul. narr. lanc. scabr. above lower subserr. Stem much branched, Invol. with spread, scales  
 12028 Lvs. lanc. roughish somewhat amplexicaul. : lower serrate in the middle, Scales of invol. lax leafy  
 12029 Lvs. obl. lanc. acuminate sessile smooth scabrous at edge : lower serrated, Branches corymbose smooth  
 12030 Lvs. sessile serrated smooth spatulate lanc. narrowed at base and bent down towards each side  
 12031 Lvs. subamplexic. obl. lanc. acuminate serrated smooth, Stem pyramidal, Racemes scarcely longer than lvs.  
 12032 Lvs. ov. coarsely toothed stalked : cauline sessile cuneate at base, Stem hispid, Branches with single heads  
 12033 Lvs. broad lanc. narrow. at base entire with a very long point, Stem simp. flexuose angul. Panic. corymb.  
 12034 Lvs. obl. 3-nerved narrowed at base acute : upper sess. nearly entire; lower stalked serrated, Stem corymb.  
 12035 Lvs. lanc. serrate acuminate rugose very rough, Stem erect angular simple  
 12036 Lvs. sess. narrow lanc. serrated scabrous, Stem 1 or few-headed  
 12037 Lvs. lanc. sess. serr. smooth, Branches virgate, Invol. imbricated, Stem round smooth  
 12038 Lvs. sess. narrow lanc. : lower serrated in middle, Stem branched smooth recurved, Invol. lax imbricated  
 12039 Lvs. lin. lanc. acum. scabrous at edge : lower subserrated, Stem paniced, Branches 1-headed  
 12040 Lvs. lin. lanc. acum. scabrous at edge : lower subserrated; cauline reflexed, Stem lax paniced  
 12041 Lvs. lanc. acum. scabrous at edge : cauline serrated at end; those of the branches entire, Stem paniced  
 12042 Lvs. lin. entire : radic. obl. subserrated, Stem much branched downy, Invol. loosely imbricated  
 12043 Lvs. lanc. lin. sessile smooth : lower subserrate, Stem paniced smooth, Invol. imbricated  
 12044 Lvs. lin. lanc. sessile entire smooth : lower lanc. subserrate, Stem branched diffuse smoothish  
 12045 Lvs. lin. acuminate entire : lower lin. lanc. subserrate, Branches corymbose, Invol. imbricated  
 12046 Lvs. lin. acuminate entire : radical obl. serr. Branches in corymbose panicles, Invol. imbricated  
 12047 Lvs. sess. lanc. serrated smooth, Obl. imbricated : leaflets acute, Stem rather villous  
 12048 Lvs. ellipt.-lanc. serrated smooth : cauline lan.-lanc. long, Branches spreading, Invol. imbr. Stem pubesc.  
 12049 Lvs. ellipt.-lanc. serrated smooth even-sized, Branches spreading, Invol. imbricated, Stem pubescent  
 12050 Lvs. ellipt.-lanc. serr. smooth : those of the branches distant, Branches much spreading pendulous  
 12051 Stem l.f. Lvs. ovate sessile scabrous, Scales of invol. nearly equal linear  
 12052 Lvs. lin. lanc. entire blunt mucronate 3-nerved at base resin, Stem simple corymbose downy  
 12053 Lvs. filiform acuminate ciliate, Invol. hemispherical, Leaflets equal  
 12054 Stem glabr. corymb. Lvs. lin.-lanc. fleshy obscurely 3-nerv. Scales of invol. lanc. membran. obt. imbricated  
 12055 Leaves lanc. subamplexicaul. serrate pilose scabrous, Invol. lax : leaf. lanc. acuminate foliaceo-hispid  
 12056 Leaves scabr. : caul. obl. lanc. acute; radical obl. stalked, Scales of invol. obl. cuneate blunt subsquarrose  
 12057 Leaves sessile obl. lanc. serrate : floral ciliated, Stem branched glabrous, Invol. closely imbricated  
 12058 Lvs. obl. lanc. serrat. narrow. at base, Stem hairy, Inv. imbric. nearly equal, Outer scales somewhat spreading

\*\*\* Leaves cordate and ovate, serrate.

- 12059 Leaves obl. cordate amplexicaul. entire, Petioles winged, Stem paniced hispid, Branchlets 1-sided  
 12060 Leaves ovate-lanc. subserrated stalked smooth, Petioles naked, Stem much branched smooth, Invol. lax  
 12061 Lvs. cordate pilose beneath finely serrated stalked, Stem paniced smoothish, Panicle spreading  
 12062 Leaves ov. finely serrated acum. smoothish : lower cord. stalked, Branches hairy, Scales of invol. blunt  
 12063 Leaves ovate stalked serrated scabrous : upper ovate cordate sessile, Stem branched diffuse, Scales acute  
 12064 Leaves smooth : cauline ovate subcord. acuminate deeply serrated entire at end, Stem paniced smooth  
 12065 Leaves ovate narrowed at base entire about 5-nerved, Invol. lax squarrose, Ray very fine

§ 1. Racemes 1-sided, Leaves 3-nerved.

[exceeding disk

- 12066 Stem downy, Lvs. lanc. serrat. triple-ribb. rough, Clusters copious panice. unilateral recurv. Radius hardly  
 12067 Leaves obl. 3-nerved subserrated, Racemes 1-sided, Ligula: middling, Stem smooth, Peduncles downy  
 12068 Stem villous erect, Lvs. lanc. serrated triple-ribbed rough villous beneath, Clusters spiked erect drooping  
 before flowering, Radius short  
 12069 Stem erect round very smooth, Leaves lin.-lanceol. smooth triple-ribbed serrated rough-edged, Clusters  
 paniced unilateral, Stalks downy  
 12070 Stem erect smooth, Lvs. lanc. smooth serrated rough edged obscurely triple-ribbed, Clusters paniced  
 unilateral, Stalks hairy, Radius short  
 12071 Stem erect smooth, Leaves lanc. somewhat triple-ribbed smooth rough-edged slightly serrated, Clusters  
 paniced unilateral, Stalks smooth, Bract. fringed, Radius short  
 12072 Stem erect vill. Lvs. lanc. somew. serrat. triple-ribbed rough reflexed, Clusters paniced slightly unilateral  
 12073 Stem erect rather hairy, Lvs. lanc. obscurely triple-ribbed smooth rough-edged : the lower ones slightly  
 serrated, Clusters paniced unilateral somewhat recurved



and Miscellaneous Particulars.

appearance among other coarse things, but there is not one of them which is worth a place in a choice collection of ornamental plants. The leaves of the *Solidago odora* have a delightfully fragrant odor, partaking of that of anise and Sassafras, but different from either. When subjected to distillation, a volatile oil, possessing the taste and aroma of the plant in a high degree, collects in the receiver. This oil apparently has its residence in the transparent cells which constitute the dotting of the leaves. The effects of the *S. odora* are



|                                   |                 |        |          |    |                       |       |                    |
|-----------------------------------|-----------------|--------|----------|----|-----------------------|-------|--------------------|
| 12074 <i>áspera</i> W.            | rough-leaved    | ♂ Δ pr | 3 s      | Y  | N. Amer. 1732.        | D co  | Dil.el.t.305.f.392 |
| 12075 <i>altissima</i> Ph.        | tall            | ♂ Δ pr | 8 au.s   | Y  | N. Amer. 1686.        | D co  | Mart.cent. 14      |
| 12076 <i>rugósa</i> Ph.           | wrinkle-leaved  | ♂ Δ pr | 3 au.s   | Y  | N. Amer. 1732.        | D co  | Dil.el.t.308.f.396 |
| 12077 <i>villósa</i> Ph.          | villous         | ♂ Δ pr | 2 au.s   | Y  | N. Amer. 1732.        | D co  |                    |
| 12078 <i>scábra</i> W.            | scabrous        | ♂ Δ pr | 3 au.s   | Y  | N. Amer. 1811.        | D co  |                    |
| 12079 <i>memorális</i> W.         | woolly-stalked  | ♂ Δ pr | 1½ s     | Y  | N. Amer. 1769.        | D co  |                    |
| 12080 <i>pátula</i> W.            | spreading       | ♂ Δ pr | 2 s.o    | Y  | N. Amer. 1805.        | D co  |                    |
| 12081 <i>ulmifólia</i> W.         | Elm-leaved      | ♂ Δ pr | 2 au.o   | Y  | N. Amer. 1805.        | D co  |                    |
| 12082 <i>argúta</i> W.            | sharp-notched   | ♂ Δ pr | 4 jl.au  | Y  | N. Amer. 1758.        | D co  |                    |
| 12083 <i>júncea</i> W.            | Rush-stalked    | ♂ Δ pr | 2 au.s   | Y  | N. Amer. 1769.        | D co  |                    |
| 12084 <i>ellíptica</i> W.         | oval-leaved     | ♂ Δ pr | 3 au.s   | Y  | N. Amer. 1759.        | D co  |                    |
| 12085 <i>recurváta</i> W. en.     | recurved        | ♂ Δ pr | 2 s.n    | Y  | N. Amer. ...          | D co  |                    |
| 12086 <i>sempervirens</i> W.      | evergreen       | ♂ Δ pr | 5 s.o    | Y  | N. Amer. 1699.        | D co  | Cor.canad. t.169   |
| 12087 <i>odóra</i> W.             | sweet-smelling  | ♂ Δ pr | 3 jl.au  | Y  | N. Amer. 1699.        | D co  | Pluk.al. t.116.f.6 |
| 12088 <i>pauciflósculósa</i> Ph.  | slender-flower. | ♂ Δ pr | 2 au.o   | Y  | N. Amer. 1811.        | D co  |                    |
| 12089 <i>bícolor</i> W.           | two-colored     | ♂ Δ pr | 2 au.s   | Y  | N. Amer. 1759.        | D co  | Pluk.al. t.114.f.8 |
| 12090 <i>petioláris</i> W.        | late-flowered   | ♂ Δ pr | 4 o.d    | Y  | N. Amer. 1758.        | D co  |                    |
| 12091 <i>stricta</i> W.           | Willow-leaved   | ♂ Δ pr | 3 s      | Y  | N. Amer. 1758.        | D co  |                    |
| 12092 <i>lanceoláta</i> Ph.       | Grass-leaved    | ♂ Δ pr | 5 o      | Y  | N. Amer. 1758.        | D co  | Bot. mag. 2546     |
| 12093 <i>tenuifólia</i> Ph.       | slender-leaved  | ♂ Δ pr | 2 s.o    | Y  | N. Amer. 1758.        | D co  |                    |
| 12094 <i>cæ'sia</i> W.            | Maryland        | ♂ Δ pr | 2 s.o    | Y  | N. Amer. 1732.        | D co  | Dil.el.t.307.f.395 |
| 12095 <i>livida</i> W. en.        | livid           | ♂ Δ pr | 2 s.o    | Y  | N. Amer. ...          | D co  |                    |
| 12096 <i>hirta</i> W. en.         | hairy           | ♂ Δ pr | 2 s.o    | Y  | N. Amer. ...          | D co  |                    |
| 12097 <i>lithospermifólia</i> Ph. | Gromwell-lvd.   | ♂ Δ pr | 2 au.o   | Y  | N. Amer. 1811.        | D co  |                    |
| 12098 <i>laevigáta</i> W.         | fleshy-leaved   | ♂ Δ pr | 6 o.n    | Y  | N. Amer. 1699.        | D co  |                    |
| 12099 <i>mexicána</i> W.          | Mexican         | ♂ Δ pr | 6 jl.o   | Y  | N. Amer. 1683.        | D co  | Dodar.ac.4.t.219   |
| 12100 <i>vimínea</i> W.           | twiggy          | ♂ Δ pr | 3 s      | Y  | N. Amer. 1759.        | D co  |                    |
| 12101 <i>erécta</i> Ph.           | upright         | ♂ Δ pr | 3 au.o   | Y  | N. Amer. ...          | D co  |                    |
| 12102 <i>macrophýlla</i> Ph.      | large-leaved    | ♂ Δ pr | 3 au.o   | Y  | N. Amer. ...          | D co  |                    |
| 12103 <i>flexicaúlis</i> W.       | crook-stalked   | ♂ Δ pr | 2 s      | Y  | N. Amer. 1725.        | D co  | Herm.parad.244     |
| 12104 <i>latifólia</i>            | broad-leaved    | ♂ Δ pr | 1½ s     | Y  | N. Amer. 1725.        | D co  | Pluk.al. t.235.f.4 |
| 12105 <i>ambigua</i> W.           | angular-stalked | ♂ Δ pr | 2 jl.au  | Y  | ..... 1759.           | D co  |                    |
| 12106 <i>axilláris</i> Ph.        | axillary        | ♂ Δ pr | 2 au.o   | Y  | N. Amer. 1811.        | D co  |                    |
| 12107 <i>Virgárea</i> W.          | common          | ♂ Δ pr | 2 jl.s   | Y  | Britain woods.        | D co  | Eng. bot. 301      |
| 12108 <i>cámbria</i> W.           | Welsh           | ♂ Δ pr | ½ jl.au  | Y  | Wales ...             | D co  | Dil.el.t.306.f.393 |
| 12109 <i>multiradiáta</i> W.      | Labrador        | ♂ Δ pr | ½ jl.au  | Y  | Labrador 1776.        | D co  |                    |
| 12110 <i>minúta</i> W.            | least           | ♂ Δ pr | ½ jl.au  | Y  | Pyrenees 1772.        | D co  | Bot. cab. 189      |
| 12111 <i>hómilis</i> Ph.          | dwarf           | ♂ Δ pr | 1 jl.au  | Y  | N. Amer. 1811.        | D co  |                    |
| 12112 <i>eláta</i> Ph.            | tall-hairy      | ♂ Δ pr | 6 au.o   | Y  | N. Amer. 1811.        | D co  |                    |
| 12113 <i>rigida</i> W.            | hard-leaved     | ♂ Δ pr | 3 s      | Y  | N. Amer. 1710.        | D co  | Herm.parad.243     |
| *1741. CINERA'RIA. W. CINERARIA.  |                 |        |          |    | Composite. Sp. 31—72. |       |                    |
| 12114 <i>geifólia</i> W.          | Kidney-leaved   | ♂ □ or | 2 ap.au  | Y  | C. G. H. 1710.        | C p.l | Com.hort.2. t.73   |
| 12115 <i>caescens</i> Wendl.      | hoary           | ♂ □ or | 2 ap.au  | Y  | C. G. H. 1790.        | C p.l | Dil.el.t.306.f.390 |
| 12116 <i>aurita</i> W.            | purple-flower'd | ♂ □ or | 1½ in.jl | Pu | Madeira 1777.         | C lp  | Bot. mag. 1786     |



History, Use, Propagation, Culture,

aromatic, pleasant to the taste, gently stimulant, diaphoretic, and carminative. An essence made by dissolving the essential oil in proof spirit, is used in the eastern states as a remedy in complaints arising from flatulence, and as a vehicle for unpleasant medicines of various kinds. It has been employed successfully to allay vomit-

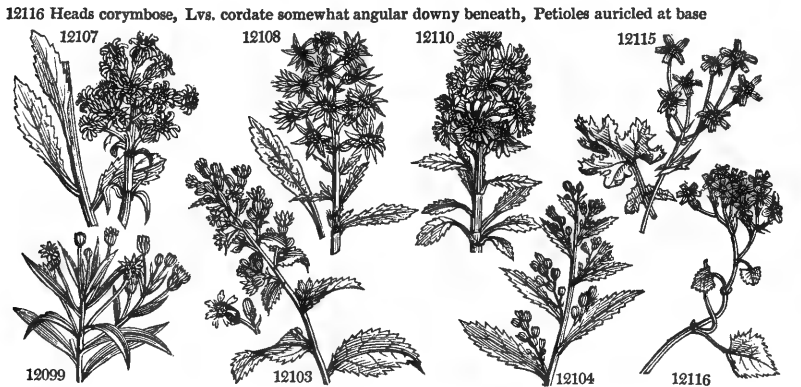
§ 2. *Racemes 1-sided. Leaves not 3-nerved.*

- 12074 Stem erect round hairy, Lvs. ov. rather ellipt. very rough rugged serrated without lateral ribs, Clusters panicled unilateral  
 12075 Stem erect hairy, Lvs. lanc. the lower ones deeply serrated very rough rugose, Panicles unilateral  
 12076 Stem erect hairy, Lvs. ovate-lanc. the lower ones closely serrated rugged very rough, Clusters panicled compound widely spreading unilateral  
 12077 Stem erect vill. Lvs. lanc. rather soft serrated without lateral ribs, Clusters panicled unilateral  
 12078 Stem erect hairy, Lvs. oblong pointed smooth above rugged and rough beneath, Clusters unilateral  
 12079 Stem erect downy, Stem lvs. lanc. hisp. ent. : radic. ones somew. wedge-shap. serrat. Clust. panic. unilateral  
 12080 Stem erect smooth angular, Lvs. ellipt. serrated smooth : the radic. ones obl-spatulate, Clusters panicled unilateral spreading, Pedunc. downy  
 12081 Stem erect striated smooth, Lvs. ellipt. pointed deeply serrated vill. beneath : radical ones obovate, Clusters panicled unilateral, Pedunc. villous, Rays short  
 12082 Stem erect smooth, Lvs. smooth sharply and unequally serr. : those of the stem ellipt. ; radical ones ovate-obl. Clusters panicled unilateral, Rays elongate  
 12083 Stem erect smooth, Lvs. lanc. smooth rough-edged : the lower ones serrated, Clusters panicled unilateral  
 12084 Stem erect smooth, Lvs. ellipt. smooth serrated, Clusters panicled unilateral, Rays of a middling length  
 12085 Stem erect downy, Lvs. lanc. serrated rough edged, Clusters elongated unilateral recurved panicled  
 12086 Stem erect smth. Lvs. lin.-lanc. rather fleshy smth. entire rough-edg. Clust. panic. unilateral, Ped. roughish  
 12087 Stem erect striated downy, Lvs. lin.-lanc. entire smooth rough-edged, Clust. panic. unilateral nearly simple

§ 3. *Racemes erect.*

- 12088 Smooth somewhat shrubby, Lvs. lanc. obtuse without ribs, Panicle compound many-fl. tuft of flowers erect, Invol. narr.-oblong with 5 flor. in the disk and 1 in the radius  
 12089 Stem hairy, Lvs. ellipt. hairy : the lower ones serr. ; those on the fl.-branches entire numerous and small, Clusters erect, Scales of invol. obtuse  
 12090 Stem erect villous, Lvs. ellipt. roughish stalked, Clusters erect, Rays twice the length of the invol.  
 12091 Stem erect smth. Stem-lvs. lanc. entire smth. rough-edg. : radic. ones serrat. Clust. panic. erect, Ped. smth.  
 12092 Stem smooth. furrowed much branched, Lvs. almost lin. ent. roughish nearly erect with 3 or 5 rough ribs, Rays not longer than the disk  
 12093 Stem rough angular branch. corymb. Lvs. spread. lin. very narr. slightly 3-ribb. rough with axilla tufts of smaller ones, Rays scarcely exceeding the disk  
 12094 Stem nearly erect very smooth and even, Lvs. lanc. smooth with roughish edges and ribs, Clusters erect, Rays rather longer than the disk  
 12095 Stem smooth panic. Lvs. lanc. serrat. smth. rough-edged, Branches racemose at the extremity, Rays elong.  
 12096 Stem panic. hairy, Lvs. lanc. rough on both sides : those of the stem serrat. ; of the branches ent. Clusters erect, Rays elongated  
 12097 Stem branch. downy, Lvs. lanc. rough on both sides tapering 3-ribb. entire, Clusters erect, Rays elongated  
 12098 Stem erect smth. Lvs. lanc. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly hairy, Radius twice the length of invol.  
 12099 Stem oblique smooth, Lvs. lanc. somew. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly smooth, Rays longer than invol.  
 12100 Stem erect slightly downy, Lvs. lin. lanc. smooth rough-edged tapering at the base : the lower ones somew. serrated, Clusters erect, Rays elongated  
 12101 Stem rather vill. Lvs. lanc. veiny smooth entire somewhat stalked  
 12102 Lower lvs. ov. pointed taper. unequally and sharply serr. smooth : those of the stem lanc. tapering at each end serr. nearly sess. Clusters axill. stalked leafy the length of the leaves  
 12103 Stem zig-zag roundish smooth, Lvs. lanc. pointed serrated smooth nearly sess. Clust. axill. erect  
 12104 Stem somew. zig-zag angular smooth, Lvs. ovate pointed strongly serrated smooth : tapering into a winged footstalk, Clusters axillary erect  
 12105 Stem slightly zig-zag smooth angul. branch. Lvs. ov.-lanc. pointed densely serrated rather hairy beneath tapering into a wing. footstalk : upper ones ent. Clust. axill. erect the upper ones much long. than the lvs.  
 12106 Stem smooth round erect, Lvs. lanc. serr. glabrous, Racemes axill. subglobose erect, Rays long  
 12107 Cauline leaves lanc. : the lower ones ellipt. Racemes panicled erect crowded  
 12108 Stem quite simple downy, Lvs. cuneiform lanc. downy, Racemes erect, Rays long  
 12109 Stem a little villous, Lvs. sessile lanc. smooth ciliated : lower serrated at end, Rays long numerous  
 12110 Stem quite simple pilose, Lvs. lanc. acute serrated smooth, Raceme term. simple erect, Rays long  
 12111 Stem simple erect smooth, Lvs. lanc. serrated smooth tapering and elongated at the base, Clusters erect  
 12112 Stem hairy round, Lvs. lanc. rather hairy beneath, Clusters erect, Rays elongated  
 12113 Lvs. ov.-obl. rough like the corymbose stem with minute rigid hairs : the lowermost serrat. ; upper entire, [Clusters compact, Rays twice the length of the obtuse calyx

- 12114 Pedunc. branched, Lvs. reniform narrowed somewhat lobed downy, Petioles auricled at end  
 12115 Pedunc. branched, Lvs. cordate 5-lobed toothed woolly, Petioles with appendages, Ray 3-flowered



and *Miscellaneous Particulars.*

ing, and to relieve spasmodic pains in the chest of a milder kind. The leaves are also used in some parts of the United States as an agreeable substitute for tea. (*Bigelow.*)  
 1744. *Cineraria*. From *cineres*, ashes, in reference to the soft white down which clothes the lower, and

|         |   |                 |   |   |    |   |       |      |                   |            |     |    |                            |
|---------|---|-----------------|---|---|----|---|-------|------|-------------------|------------|-----|----|----------------------------|
| 12117   | <i>lactea</i> W. en.                                  | milk-colored    | u | l | or | 3 | jn.jl | W    | .....             | 1816.      | C   | lp |                            |
| 12118   | <i>crueata</i> W.                                     | purple-leaved   | u | l | or | 2 | fmy   | Pu   | Canaries          | 1777.      | R   | pl | Bot. mag. 406              |
| 12119   | <i>hybrida</i> W. en.                                 | hybrid          | u | l | or | 2 | fmy   | Pu   | .....             | ...        | C   | pl |                            |
| 12120   | <i>populifolia</i> H. K.                              | Poplar-leaved   | u | l | or | 2 | jn.s  | R    | Canaries          | 1780.      | C   | pl | Vent. malm. 100            |
| 12121   | <i>lobata</i> W.                                      | lobed           | u | l | or | 3 | jn.au | Y    | C. G. H.          | 1774.      | C   | pl |                            |
| 12122   | <i>malvafolia</i> W.                                  | Mallow-leaved   | u | l | or | 2 | au    | Y    | Azores            | 1777.      | R   | pl |                            |
| 12123   | <i>Petaites</i> B. M.                                 | Butter-bur-lvd. | u | l | or | 3 | f.d   | Y    | Mexico            | 1812.      | C   | pl | Bot. mag. 1536             |
| 12124   | <i>discolor</i> W.                                    | white-leaved    | u | l | or | 4 | jl.au | Y    | Jamaica           | 1804.      | C   | lp |                            |
| 12125   | <i>elatiör</i> <i>Bouché</i>                          | tall            | u | l | or | 5 | jl.au | W    | .....             | ...        | D   | lp |                            |
| 12126   | <i>parviflora</i> <i>Bieb.</i>                        | small-flowered  | u | l | or | 2 | jl.au | Y    | Caucasus          | 1820.      | D   | lp |                            |
| 12127   | <i>americana</i> W.                                   | American        | u | l | or | 6 | ...   | Y    | Grenada           | 1825.      | C   | pl |                            |
| 12128   | <i>bicolor</i> L.                                     | two-colored     | u | l | or | 2 | jl.au | Y    | .....             | ...        | C   | co |                            |
| 12129   | <i>speciosa</i> <i>Schrad.</i>                        | shewy           | u | l | or | 6 | jl.au | Y    | Siberia           | 1815.      | D   | co | Bot. reg. 812              |
| 12130   | <i>sibirica</i> W.                                    | Siberian        | u | l | or | 4 | jn.au | Y    | Siberia           | 1784.      | C   | co | Bot. mag. 1869             |
| 12131   | <i>gigantea</i> H. K.                                 | gigantic        | u | l | or | 4 | jl.au | Y    | Cape Horn         | 1801.      | D   | co | Exot. bot. 2. t.65         |
| 12132   | <i>glauca</i> W.                                      | glaucous-leav'd | u | l | or | 6 | jn.jl | Y    | Siberia           | 1790.      | D   | co | Gmel. sib. 2. t.74         |
| 12133   | <i>palustris</i> W.                                   | marsh           | u | l | or | 3 | jn.jl | Y    | England           | mar. D.    | m.s |    | Eng. bot. 151              |
| 12134   | <i>campéstris</i> W.<br><i>integrifolia</i> E. B.     | mountain        | u | l | or | 1 | my.jn | Y    | England           | ch.pa.     | D   | co | Eng. bot. 152              |
| 12135   | <i>longifolia</i> W.                                  | long-leaved     | u | l | or | 2 | jn.au | Y    | Austria-          | 1792.      | D   | co | Jac. aust. 2. t.181        |
| 12136   | <i>cordifolia</i> W.                                  | heart-leaved    | u | l | or | 2 | jl.au | Y    | Austria           | 1789.      | D   | co | Jac. aust. 2. t.176        |
| 12137   | <i>alpina</i> W.                                      | Alpine          | u | l | or | 2 | jn.au | Y    | Austria           | 1683.      | D   | co | Jac. aust. 2. t.177        |
| 12138   | <i>maritima</i> W.                                    | Sea Ragwort     | u | l | or | 2 | jl.s  | Y    | S. Europe         | 1633.      | C   | lp | Lob. ic. t.227. f.2        |
| 12139   | <i>canadensis</i> W.                                  | Canadian        | u | l | or | 2 | jn.au | Y    | Canada            | 1739.      | D   | co |                            |
| 12140   | <i>linifolia</i> W.                                   | Flax-leaved     | u | l | or | 2 | jn.au | Y    | C. G. H.          | ....       | C   | lp | Jac. schœ. 3. t.308        |
| 12141   | <i>humifusa</i> W.                                    | trailing        | u | l | or | 4 | jl.au | Y    | C. G. H.          | 1704.      | R   | pl |                            |
| 12142   | <i>viscosa</i> W.                                     | clammy          | u | l | or | 2 | jn.au | Y    | C. G. H.          | 1774.      | C   | pl | Ja. frag. 12. t.7. f.2     |
| 12143   | <i>lanata</i> W.                                      | woolly          | u | l | or | 3 | my.s  | Pu   | Canaries          | 1780.      | C   | pl | Bot. mag. 53               |
| 12144   | <i>amelloides</i> W.                                  | blue-flowered   | u | l | or | 1 | f.s   | B    | C. G. H.          | 1753.      | S   | pl | Bot. mag. 249              |
| 1742.   | <i>CALOPTIS</i> R. Br.                                | CALOPTIS.       |   |   |    |   |       |      | <i>Composite.</i> | Sp. 1—2.   |     |    |                            |
| 12145   | <i>cuneifolia</i> R. Br.                              | wedge-leaved    | u | l | or | 1 | my.jn | B    | N. Holl.          | 1819.      | D   | co | Bot. reg. 504              |
| 1743.   | <i>KAULFUSSIA</i> Nees.                               | KAULFUSSIA.     |   |   |    |   |       |      | <i>Composite.</i> | Sp. 1.     |     |    |                            |
| 12146   | <i>amelloides</i> Nees.                               | Cape Aster-like | u | l | or | 1 | jl.au | B    | C. G. H.          | 1819.      | D   | co | Bot. reg. 490              |
| * 1744. | <i>INULA</i> W.                                       | INULA.          |   |   |    |   |       |      | <i>Composite.</i> | Sp. 25—37. |     |    |                            |
| 12147   | <i>Helénium</i> W.                                    | Elecampane      | u | l | or | 4 | jl.au | Y    | Britain           | m. me.     | D   | co | Eng. bot. 1546             |
| 12148   | <i>O'caulis</i> <i>Christi</i> W.                     | hoary           | u | l | or | 1 | jl.s  | Y    | Austria           | 1759.      | D   | co | Jac. aust. 3. t.223        |
| 12149   | <i>britannica</i> W.                                  | creeping-rooted | u | l | or | 2 | jl.s  | Y    | Germany           | 1759.      | D   | co | Fl. dan. t. 413            |
| 12150   | <i>undulata</i> W.                                    | wave-leaved     | u | l | or | 1 | jl.o  | Y    | Egypt             | 1739.      | S   | co |                            |
| 12151   | <i>indica</i> W.                                      | Indian          | u | l | or | 1 | jl.o  | Y    | E. Indies         | 1739.      | S   | co | Bur. zeyl. t.55. f.2       |
| 12152   | <i>squarrosa</i> W.                                   | net-leaved      | u | l | or | 1 | jl.s  | I. Y | Italy             | 1789.      | D   | co | Plu. alm. t.16. f.1        |
| 12153   | <i>viscosa</i> W.                                     | clammy          | u | l | or | 1 | jl.au | Y    | S. Europe         | 1596.      | C   | pl | Jac. vind. 2. t.165        |
| 12154   | <i>tuberosa</i> P. S.<br><i>Erigeron tuberosum</i> W. | tuberous-rooted | u | l | or | 1 | jl.au | Y    | S. Europe         | 1640.      | D   | co | Mor. s. 7. t.19. f.20      |
| 12155   | <i>salicina</i> W.                                    | Willow-leaved   | u | l | or | 2 | aus   | Y    | N. Europe         | 1648.      | D   | co | Fl. dan. t. 786            |
| 12156   | <i>glandulosa</i> W.                                  | glandular       | u | l | or | 2 | jl.au | Y    | Georgia           | 1804.      | D   | co | Bot. mag. 1907             |
| 12157   | <i>Bubónium</i> W.                                    | Austrian        | u | l | or | 1 | jl.s  | Y    | Austria           | 1801.      | D   | co | Jac. aus. 5. apt. 19       |
| 12158   | <i>hirta</i> W.                                       | hairy           | u | l | or | 1 | jn.s  | Y    | Austria           | 1759.      | D   | co | Jac. aust. 4. t.338        |
| 12159   | <i>suaveolens</i> W.                                  | woolly-leaved   | u | l | or | 1 | jn.au | Y    | S. Europe         | 1798.      | D   | co | Jac. vind. 3. t. 51        |
| 12160   | <i>Vaillantii</i> W.                                  | Vaillant's      | u | l | or | 2 | jn.au | Y    | France            | 1739.      | D   | co |                            |
| 12161   | <i>möllis</i> <i>Bernhardi</i>                        | soft            | u | l | or | 2 | jn.au | Y    | .....             | ...        | D   | co |                            |
| 12162   | <i>odorata</i> W.                                     | fragrant        | u | l | or | 1 | jn.au | Y    | S. Europe         | 1821.      | D   | co | M. h. 3. a. 7. t. 21. f. 6 |
| 12163   | <i>mariana</i> W.                                     | American        | u | l | or | 1 | jl.au | Y    | N. Amer.          | 1742.      | D   | co | Mill. ic. 1. t. 57. f. 1   |
| 12164   | <i>germanica</i> W.                                   | German          | u | l | or | 4 | jn.jl | Y    | Germany           | 1759.      | D   | co | Jac. aust. 2. t. 134       |
| 12165   | <i>ensifolia</i> W.                                   | sword-leaved    | u | l | or | 4 | jl.s  | Y    | Austria           | 1793.      | D   | co | Jac. aust. 2. t. 162       |
| 12166   | <i>crithmifolia</i> W.                                | Samphire-leav.  | u | l | or | 2 | aus   | Y    | England           | salm. D.   | D   | co | Eng. bot. 63               |
| 12167   | <i>provincialis</i> W.                                | oval-leaved     | u | l | or | 1 | jl.au | Y    | France            | 1778.      | D   | co |                            |
| 12168   | <i>montana</i> W.                                     | mountain        | u | l | or | 1 | jl.au | Y    | S. Europe         | 1759.      | D   | co | Garid. atx. t. 10          |



History, Use, Propagation, Culture,

often the upper surface of the leaves. *C. discolor*, *populifolia*, &c. are popular half-shrubby plants, well calculated for bearing the confined air of a sitting room. Most of the hardy herbaceous species are fine ornamental plants of easy culture. *C. lanata* and *amelloides* flower the greater part of the year; the former species is considered the handsomest of the genus; its petals exteriorly are of a most vivid purple; interiorly they are white.

1342. *Calotis*. The name has been derived from *καλος*, beautiful, and *στος*, an ear, in allusion to the two membranous ear-shaped pales of the pappus. A pretty little New Holland herbaceous plant.

1743. *Kaulfussia*. Named after Dr. George Frederick Kaulfuss, professor of botany at Halle, a distinguished living Cryptogamic botanist. A small plant with bright blue flowers.

1744. *Inula*. The derivation of this word is uncertain. The Latins applied it to a plant which was eaten as

- 12117 *Lvs. cordate angular downy beneath, Corymbs terminal paniced, Scales of invol. recurved at end*  
 12118 *Heads corymbose, Lvs. cordate angular toothed purple beneath, Petioles winged auricled at base*  
 12119 *Pedunc. about 1-headed, Branches corymb. Lvs. cord. angular toothed downy beneath, Petioles winged*  
 12120 *Heads corymbose, Lvs. cordate subangular downy beneath, Petioles with many appendages at end*  
 12121 *Heads subcorymbose, Lvs. roundish many-lobed smooth, Petioles auricled at base, Invol. calyculate*  
 12122 *Heads cymose, Lvs. cordate angular downy beneath, Petioles simple*  
 12123 *Leaves large round lobed downy and green on each side*  
 12124 *Heads corymbose, Leaves oblong lanc. acuminate toothletted smooth white beneath*  
 12125 *Lvs. cord. subangular smooth above downy beneath, Petioles with an appendage at top, Heads corymb.*  
 12126 *Stem simple, Heads paniced, Lvs. smooth tooth. : lower deltoid stalked : upper obl. lanc. amplexicaul.*  
 12127 *Panicles axillary, Lvs. alternate stalked broad lanc. serrated smooth above hoary beneath* [above  
 12128 *Heads corymb. Invol. hoary pubesc. Lvs. obl. pinnatif. at base : segm. somew. toothed shining and smooth*  
 12129 *Raceme simple, Lvs. reniform toothletted, Petiole inflat. Stem simple leafy, Bractes in the midd. of stalk*  
 12130 *Raceme simple, Lvs. cordate blunt toothletted smooth, Stem simple 1-leaved*  
 12131 *Heads corymb. Lvs. cauline ov. acute finely serrated downy beneath : petioles winged at base ; radic. cord.*  
 12132 *Raceme simple, Lvs. spatulate cordate entire smooth, Stem simple*  
 12133 *Heads corymbose, Lvs. broad lanc. tooth-sinuated, Stem villous*  
 12134 *Heads umbellate, Stem simple, Lvs. downy : radical ovate subrenulate ; cauline lanc. entire*  
 12135 *Heads in corymbose umbels, Stem simple, Lvs. somewhat toothed : radic. spatulate ; caul. obl. lanc.*  
 12136 *Panicle few-headed, Stem simple, Lvs. all stalked cordate doubly toothed, Petioles toothed at base*  
 12137 *Heads corymbose, Lvs. pinnated : term. pinnæ large cordate cut-toothed ; lateral cuneate toothed at end*  
 12138 *Heads paniced, Invol. downy, Lvs. pinnatifid : segments blunt about 3-lobed downy beneath*  
 12139 *Heads paniced, Lvs. pinnatifid subvillous : segments sinuated, Stem herbaceous*  
 12140 *Pedunc. 1-headed axillary, Lvs. linear subulate glabrous, Stem shrubby*  
 12141 *Pedunc. 1-headed, Lvs. reniform somewhat angular, Petioles auricled at end or naked*  
 12142 *Pedunc. 1-headed, Lvs. pinnatifid lobed acute viscid fleshy*  
 12143 *Pedunc. 1-headed, Lvs. cordate roundish with 7 angles woolly beneath*  
 12144 *Pedunc. 1-headed, Lvs. opposite ovate naked*

12145 *Leaves cuneate cut-toothed at end*

12146 *The only species*

- 12147 *Lvs. amplexic. somewhat toothed ovate rugged downy beneath, Scales of the involucre downy*  
 12148 *Leaves amplexic. oblong entire hirsute, Stem pilose corymbose*  
 12149 *Leaves amplexic. lanc. serrated at base pilose beneath, Stem corymbose villous*  
 12150 *Leaves amplexic. cordate lanceolate wavy*  
 12151 *Leaves amplexic. cordate lanc. quite smooth serrated, Stem corymbose smooth, Pedunc. 1-headed filiform*  
 12152 *Leaves oval rigid sessile serrulate scabrous netted, Scales of invol. ovate reflexed*  
 12153 *Leaves sessile reflexed at base lanc. serrated, Stem downy clammy, Peduncles axillary leafy*  
 12154 *Leaves sessile lanc.-lin. Stem pilose branched, Branches spreading 1-headed, Root tuberos*  
 12155 *Leaves lanc. recurved serrate scabrous, Branches angular, Lower heads tallest*  
 12156 *Lvs. sess. obl. obsolete serrated : serratures glandular, Stem hairy 1-headed, Scales of invol. lanc. villous*  
 12157 *Lvs. sess. obl. with cartilaginous teeth scabrous rigid, Stem corymbose, Scales of invol. blunt squarrose*  
 12158 *Lvs. sessile lanc. bluntly serrated rigid pilose, Stem villous 1-headed, Scales of invol. lanceolate*  
 12159 *Leaves ellipt. narrowed at base stalked pilose : lower toothed, Stem many-flowered*  
 12160 *Leaves sessile oblong lanc. serrated downy beneath, Heads stalked about 4 in terminal umbels*  
 12161 *Leaves lanc. acute serrulate hairy, Lvs. of invol. lanc. hairy outer reflexed*  
 12162 *Leaves amplexicaul. toothed very hairy : radical ovate ; cauline lanceolate*  
 12163 *Leaves sessile oblong lanc. attenuated at base obtuse entire mucronate with a gland, Pedunc. fl. if viscid*  
 12164 *Leaves sessile obl. acute entire scabrous, Stem branched at top, Heads corymbose*  
 12165 *Leaves sessile lin. acuminate nerved smooth scattered, Stem about 1-headed*  
 12166 *Leaves linear fleshy generally 3-pointed*  
 12167 *Leaves suberrate downy beneath : radical stalked ovate, Stem erect 1-flowered*  
 12168 *Leaves lanc. hirsute entire, Stem 1-headed, Invol. short imbricated*



and Miscellaneous Particulars.

a preserve with sugar. Inuleæ in many respects resemble Anthemideæ, Senecioneæ, and Nassauviæ, especially in their style ; but they are perfectly well characterized by the peculiarities of their ovarium, pappus, stamens, and corolla. They are also related to Carlineæ. They are found in every part of the world, and especially in southern Africa ; almost all the Compositæ of the southern latitudes being referable to them.

I. Helenium, called Elecampane, from the officinal name *Enula campana*, is one of the largest of British herbaceous plants. It was formerly esteemed a tonic, and is still retained in the *Materia Medica*, though little used. Bruised and macerated in wine, with balls of ashes and whortle berries, it dyes a blue color. The young branches of *I. Crithmifolia* are frequently sold in the London markets for samphire, to which they bear some resemblance in appearance, but none in virtues.

|        |                              |                 |   |    |       |         |    |            |           |   |    |                        |
|--------|------------------------------|-----------------|---|----|-------|---------|----|------------|-----------|---|----|------------------------|
| 12169  | bifrons <i>W.</i>            | Italian         | Δ | or | 1 1/2 | jn.au   | Y  | S. Europe  | 1713.     | D | co | Herm. par. t. 127      |
| 12170  | satureioides <i>W.</i>       | Savory-leaved   | Δ | or | 1     | jn. ... | Y  | Vera Cruz  | 1733.     | C | lp | Rel. Hous. 3. t. 19    |
| 12171  | foetida <i>W.</i>            | stinking        | ○ | or | 2     | jn.au   | Y  | Malta      | 1688.     | S | co | Boc. sic. 26. t. 13    |
| 1745.  | PULICARIA. <i>Gærtn.</i>     | PULICARIA.      |   |    |       |         |    | Composite. | Sp. 3.    |   |    |                        |
| 12172  | vulgáris <i>Gærtn.</i>       | Small Fleawort  | ○ | w  | 1     | aus.    | Y  | England    | moi.h.    | S | co | Eng. bot. 1196         |
| 12173  | arábica <i>Link.</i>         | Arabian         | Δ | pr | 1 1/2 | aus.    | Y  | Arabia     | 1823.     | C | lp | Pluk.al. t. 149. f. 4  |
| 12174  | dysenterica <i>Link.</i>     | meadow          | Δ | un | 2     | aus.    | Y  | England    | wat.pl.   | D | co | Eng. bot. 1115         |
| †1746. | GRINDELIA. <i>W. en.</i>     | GRINDELIA.      |   |    |       |         |    | Composite. | Sp. 5-7.  |   |    |                        |
| 12175  | glutinosa <i>H. K.</i>       | glutinous       | Δ | or | 2     | ja.d    | Y  | Mexico     | 1803.     | C | lp | Bot. reg. 187          |
| 12176  | inuloidea <i>W. en.</i>      | Inula-like      | Δ | or | 1 1/2 | jn.s    | Y  | Mexico     | 1815.     | C | lp | Bot. reg. 248          |
| 12177  | squarrosa <i>Ph.</i>         | Snake's-headed  | Δ | or | 2     | jl.s    | Y  | Missouri   | 1811.     | D | lp | Bot. mag. 1706         |
| 12178  | angustifolia <i>Kunth.</i>   | narrow-leaved   | Δ | or | 1     | jl.s    | Y  | Mexico     | 1822.     | D | lp | Bot. reg. 781          |
| 12179  | ciliata <i>Nutt.</i>         | ciliated        | Δ | or | 1 1/2 | jl.s    | Y  | N. Amer.   | 1821.     | D | lp | Hook. ex. fl. 45       |
| †1747. | PODOLEPIS. <i>H. K.</i>      | PODOLEPIS.      |   |    |       |         |    | Composite. | Sp. 2.    |   |    |                        |
| 12180  | rugata <i>H. K.</i>          | wrinkle-scaled  | Δ | or | 1     | jl.au   | W  | N. Holl.   | 1803.     | C | sp | Lab.no.h. 2. t. 208    |
| 12181  | acuminata <i>H. K.</i>       | sharp-scaled    | Δ | or | 1     | my.au   | W  | N. S. W.   | 1803.     | C | sp | Bot. mag. 956          |
| 1748.  | CHÆTANTHÆRA. <i>Fl. per.</i> | CHÆTANTHÆRA.    |   |    |       |         |    | Composite. | Sp. 1-2.  |   |    |                        |
| 12182  | ciliata <i>Fl. per.</i>      | ciliated        | Δ | or | 2     | jl.au   |    | Chili      | 1822.     | D | co |                        |
| *1749. | ARNICA. <i>W.</i>            | ARNICA.         |   |    |       |         |    | Composite. | Sp. 5-34. |   |    |                        |
| 12183  | montana <i>W.</i>            | mountain        | Δ | or | 1     | jl.au   | Y  | Europe     | 1731.     | D | p1 | Bot. mag. 1749         |
| 12184  | scorpioides <i>W.</i>        | alternate-leav. | Δ | or | 1 1/2 | jl.au   | Y  | Austria    | 1710.     | D | p1 | Bot. cab. 913          |
| 12185  | Doronicum <i>W.</i>          | Alpine          | Δ | or | 1 1/2 | jl.au   | Y  | Austria    | 1816.     | D | lp | Jac. aust. t. 1. p. 92 |
| †12186 | Bellidiástrum <i>W.</i>      | Daisy-leaved    | Δ | or | 1     | jn.au   | W  | Austria    | 1570.     | D | p1 | Bot. mag. 1196         |
| 12187  | glaciális <i>W.</i>          | ice             | Δ | or | 1     | jn.au   | Y  | Switzerl.  | 1823.     | D | p1 | Jacq. ic. t. 586       |
| 1750.  | GERBERIA. <i>Burm.</i>       | GERBERIA.       |   |    |       |         |    | Composite. | Sp. 1-2.  |   |    |                        |
| 12188  | crenata <i>Lindl.</i>        | crenated        | Δ | or | 1 1/2 | jl.au   | Pu | C. G. H.   | 1822.     | D | p1 | Bot. reg. 855          |
| †1751. | DORONICUM. <i>W.</i>         | LEOPARD'S-BANE. |   |    |       |         |    | Composite. | Sp. 6-11. |   |    |                        |
| 12189  | Pardaliánches <i>W.</i>      | great           | Δ | or | 3     | my      | Y  | Britain    | m.p.as.   | D | co | Eng. bot. 630          |
| 12190  | scorpioides <i>W.</i>        | mountain        | Δ | or | 3     | ap.jn   | Y  | Germany    | ...       | D | co |                        |
| 12191  | austriacum <i>W.</i>         | Austrian        | Δ | or | 3     | ap.jn   | Y  | Austria    | 1816.     | D | co | Jac. aust. t. 130      |
| 12192  | altáicum <i>W.</i>           | Siberian        | Δ | or | 1     | jn.au   | W  | Siberia    | 1733.     | D | s1 | P.ac.p.1779. t.16      |
| 12193  | orientále <i>W. en.</i>      | oriental        | Δ | or | 1     | jn.au   | Y  | Caucasus   | 1815.     | D | lp |                        |
| 12194  | plantagineum <i>W.</i>       | Plantain-leav'd | Δ | or | 2     | my      | Y  | S. Europe  | 1570.     | D | co |                        |
| †1752. | PERDYCIUM. <i>H. K.</i>      | PERDYCIUM.      |   |    |       |         |    | Composite. | Sp. 1-12. |   |    |                        |
| 12195  | Anándria <i>H. K.</i>        | Siberian        | Δ | un | 1/2   | mr      |    | Siberia    | 1759.     | D | co | Gm.sib. 2. t. 68. f. 1 |
| 1753.  | TETRAGONOTHECA. <i>W.</i>    | TETRAGONOTHECA. |   |    |       |         |    | Composite. | Sp. 1.    |   |    |                        |
| 12196  | helianthoides <i>W.</i>      | Sunflower-like  | Δ | or | 4     | au.o    | Y  | Virginia   | 1726.     | D | p1 | Sch. han. 3. t. 263    |
| †1754. | XIMENESIA. <i>W.</i>         | XIMENESIA.      |   |    |       |         |    | Composite. | Sp. 1.    |   |    |                        |
| 12197  | encelioides <i>W.</i>        | Mexican         | Δ | or | 3     | jn.n    | Y  | Mexico     | 1795.     | S | lp | Cav. ic. 2. t. 178     |
| †1755. | HELENIUM. <i>W.</i>          | HELENIUM.       |   |    |       |         |    | Composite. | Sp. 4-8.  |   |    |                        |
| 12198  | autumnále <i>W.</i>          | smooth          | Δ | or | 3     | au.o    | Y  | N. Amer.   | 1729.     | D | p1 | Sch. han. 3. t. 250    |
| 12199  | pubescens <i>W.</i>          | downy           | Δ | or | 3     | aus.    | Y  | N. Amer.   | 1776.     | D | p1 |                        |
| 12200  | quadridentátum <i>W.</i>     | wing-stalked    | Δ | or | 3     | my.o    | Y  | Louisiana  | 1730.     | D | lp | Bot. reg. 598          |
| 12201  | quadripartitum <i>Link.</i>  | four-parted     | Δ | or | 3     | my.o    | Y  | .....      | 1823.     | D | lp |                        |



History, Use, Propagation, Culture.

1745. *Pulicaria*. So named in allusion to its property of driving away fleas, *pulices*. See Conyza. *P. dysenterica* has its specific name from having cured certain Russian soldiers of the bloody flux. It is called by our old authors middle flea-bane, and was supposed by its smoke in burning to chase away fleas and other insects. Forskahl says, it is named in Arabic *Rara ejub*, or *Job's tears*, from a notion that Job used a decoction of this herb to cure his ulcers. Of course it was formerly recommended to cure the itch. *P. vulgaris* is also said to drive away fleas and gnats.

1746. *Grindelia*. A handsome genus of herbaceous plants, with neat foliage, and pretty yellow flowers. They are sometimes called *Donia*.

1747. *Podolepis*. From *πυς*, a foot, and *λεπίς*, a scale. The stalks of the flowers are covered with scales.

1748. *Chaetanthera*. From *χαιτα*, hair, and *ανθηρα*, an anther, the anther being furnished with a hairy tuft.

1749. *Arnica*. This is said to be a corruption of *ptarmica*, derived from *πταρω*, to sneeze. The *Arnica montana* is a powerful sternutatory; in the Vosges it is even called *tabac* on that account. The whole plant has important medicinal properties; it is fortifying, diuretic, emmenagogue, vulnerary, antiseptic, resolutive, and sternutatory. The root powdered is employed in diarrhœa, dysentery, and quartan fevers; it is also applied outwardly to bad ulcers, and in cases of gangrene. The flour is used in asthma, rheumatic pain,

- 12169 Leaves ovate-oblong decurrent toothed entire at end, Flowers corymbose clustered  
 12170 Leaves sessile opp. linear lanc. entire dotted beneath, Pedunc. long 1-headed  
 12171 Leaves lanceolate linear entire, Corymbs branched, Rays of flowers very short

- 12172 Leaves amplexicaul. oblong wavy villous, Stem erect paniced, Pedunc. 1-fl. opposite the leaves  
 12173 Leaves oblong sessile, Pedunc. filiform, Invol. cylindrical  
 12174 Leaves oblongo-cordate amplexic. rugged downy, Stem woolly paniced, Scales of involucre setaceous

- 12175 Leaves ovate-obl. serrated, Involucre viscid  
 12176 Leaves sessile obl. lanceolate acute serrated at end not viscid  
 12177 Leaves obl. amplexicaul. serrated, Scales of involucre filiform at end revolute squarrose  
 12178 Stems simple, Lower leaves spatulate: upper linear-oblong serrated 1-nerved  
 12179 Leaves oblong blunt half-amplexicaul. ciliate serrated, Leaves of invol. linear flat bristle-pointed

- 12180 Scales of invol. rugose blunt, Stem quite simple  
 12181 Scales of invol. equal ovate acuminate, Stem nearly simple

12182 Leaves lanceolate ciliated

- 12183 Leaves ovate entire: cauline twin opposite  
 12184 Leaves toothed, Teeth acuminate: radical stalked elliptical roundish; cauline alternate oblong  
 12185 Leaves remotely toothed hirsute: radical stalked obl. narrowed at base; caul. alternate obl. lanceolate  
 12186 Scape 1-headed naked, Leaves stalked obovate repand  
 12187 Leaves somewhat toothed and hairy: radical stalked obl. rounded at base; caul. altern. obl. lanceolate

12188 Leaves obovate crenate smooth, Scape 1-headed

- 12189 Leaves cordate repando-dentate: radical ones petiolate; cauline ones amplexicaul.  
 12190 Leaves remotely toothletted: upper oblong amplexicaul.; lower ovate stalked, Petioles winged auricled  
 12191 Leaves toothletted: upper lanc. amplexicaul.; lower spatulate ovate; radical cordate stalked  
 12192 Leaves toothed obov. amplexic.: radical obov. spatulate narrowed into the stalk, Stem simple 1-headed  
 12193 Smooth, Radical leaves cordate deeply toothed; cauline oblong amplexicaul. Stem about 1-headed  
 12194 Downy, Lower leaves stalked ovate with winged petioles: upper amplexicaul.; all toothed

12195 Leaves stalked or ovate toothed subsinuate at base downy beneath: the old ones quite smooth

12196 The only species

12197 The only species

- 12198 Leaves serrated quite smooth  
 12199 Leaves serrated downy  
 12200 Lower leaves pinnatifid: upper entire smooth, Florets of disk 4-toothed  
 12201 Leaves lanceolate decurrent, Ray of corolla 4-parted



and Miscellaneous Particulars.

bruises, gutta serena, and paralysis of the bladder. The root is given in doses of six to twelve grains; the flowers of from three to four grains. Dr. Thomson observes, that in the hands of British practitioners it has not merited the eulogium of the French and German. (*Lond. Disp.* p. 169.)

1750. *Gerberia*. T. Gerber, a German naturalist, is only known as a traveller in Russia. A very pretty little greenhouse plant with neat purple flowers.

1751. *Doronicum*. Derived from the Arabic name *Doronigi*. *Pardalianches* is from *παρδαλις*, a tiger, and *αρχις*, to strangle; on account of the use said formerly to have been made of the plant for the purpose of destroying wild animals.

1752. *Ferdicium*. A name given by Pliny to a plant of which the partridge, *perdris*, is very fond. The plant is not now recognized.

1753. *Tetragonotheca*. From *τετρα*, four, *γωνια*, an angle, and *θραξιν*, a capsule, in allusion to the four angles of the grains.

1754. *Ximenesia*. Named by the Abbé Cavanilles, after Joseph Ximenez, a Spanish apothecary, who is said to have attended to plants.

1755. *Helenium*. Named after the celebrated Helen, who is said to have availed herself of the cosmetic properties of the plant named after her. That is believed to be the modern *Inula Helenium*; the ancient name being unoccupied, it has been applied to this American genus, which resembles the other.

|                                    |                  |   |    |     |                   |          |                   |           |       |                          |
|------------------------------------|------------------|---|----|-----|-------------------|----------|-------------------|-----------|-------|--------------------------|
| †1756. BEL/LIS. <i>W.</i>          | DAISY.           |   |    |     | <i>Composita.</i> | Sp. 3-4. |                   |           |       |                          |
| 12202 <i>perennis W.</i>           | common           | Δ | pr | ½   | mr.au             | W        | Britain           | past.     | D co  | Eng. bot. 424            |
| β <i>hortensis</i>                 | large-double     | Δ | pr | ½   | mr.au             | R        | .....             | .....     | D co  | Bot. mag. 228            |
| γ <i>astulosa</i>                  | double-quilled   | Δ | pr | ½   | mr.au             | R        | .....             | .....     | D co  | .....                    |
| δ <i>prolifera</i>                 | Hen & Chicken    | Δ | pr | ½   | mr.au             | St       | .....             | .....     | D co  | .....                    |
| 12203 <i>sylvestris W.</i>         | large Portugal   | Δ | pr | ¾   | my.jl             | W        | Portugal          | 1797.     | D co  | Bot. mag. 2511           |
| 12204 <i>annua W.</i>              | annual           | ○ | pr | ½   | mr.jl             | W        | S. Europe         | 1759.     | S co  | Bot. mag. 2174           |
| 1757. BEL/LIUM. <i>W.</i>          | BELLIUM.         |   |    |     |                   |          | <i>Composita.</i> | Sp. 2.    |       |                          |
| 12205 <i>bellidioides W.</i>       | small            | ○ | pr | ½   | jn.s              | W        | Italy             | 1796.     | S s.p | Lam. ill. t. 684         |
| 12206 <i>minutum W.</i>            | dwarf            | Δ | cu | lin | jn.o              | W        | Levant            | 1772.     | D co  | Sc.ac.up.1.t.5.f.2       |
| †1758. DAH/LIA. <i>Cav.</i>        | DAHLIA.          |   |    |     |                   |          | <i>Composita.</i> | Sp. 2-3.  |       |                          |
| 12207 <i>superflua H. K.</i>       | fertile-rayed    | Δ | or | 6   | jl.n              | Pu       | Mexico            | 1789.     | R h.l | Cav. ic. 1. t. 80        |
| 12208 <i>frustranea H. K.</i>      | barren-rayed     | Δ | or | 6   | s.n               | Sc       | Mexico            | 1802.     | R h.l | Cav. ic. 2. t. 226       |
| β <i>coccinea</i>                  | scarlet          | Δ | or | 6   | s.n               | Sc       | Mexico            | 1802.     | R h.l | Bot. mag. 762            |
| γ <i>aurantia</i>                  | Orange-colored   | Δ | or | 6   | s.n               | Or       | Mexico            | 1802.     | R h.l | .....                    |
| δ <i>lutea</i>                     | yellow           | Δ | or | 6   | s.n               | Y        | Mexico            | 1802.     | R h.l | .....                    |
| †1759. BEBE/RA. <i>W.</i>          | BEBERA.          |   |    |     |                   |          | <i>Composita.</i> | Sp. 1.    |       |                          |
| 12209 <i>chrysanthemoides W.</i>   | Chrysanth.-like  | ○ | pr | 1½  | o                 | Y        | Carolina          | 1821.     | S l.p | .....                    |
| †1760. TAGE/TES. <i>W.</i>         | TAGETES.         |   |    |     |                   |          | <i>Composita.</i> | Sp. 8-12. |       |                          |
| 12210 <i>lucida W.</i>             | sweet-scented    | Δ | or | 1   | jl.n              | Y        | S. Amer.          | 1798.     | D p.l | Bot. mag. 740            |
| 12211 <i>pátula W.</i>             | French Marygold  | ○ | or | 2   | jl.o              | Y.o      | Mexico            | 1573.     | S co  | Bot. mag. 150            |
| 12212 <i>erecta W.</i>             | African Marygold | ○ | or | 3   | jn.s              | Y        | Mexico            | 1596.     | S co  | Lam. ill. t. 684         |
| 12213 <i>minuta W.</i>             | small-flowered   | ○ | or | 2   | au.o              | Pa.Y     | Chili             | 1728.     | S co  | Dil. et. 280. f. 362     |
| 12214 <i>tenuifolia W.</i>         | fine-leaved      | ○ | or | 3   | jl.o              | Y        | Peru              | 1797.     | S co  | Bot. mag. 2045           |
| 12215 <i>clandestina Lag.</i>      | concealed        | ○ | or | 3   | jl.o              | Y        | Mexico            | 1823.     | S co  | .....                    |
| 12216 <i>micrantha Cav.</i>        | small-flowered   | ○ | or | 3   | jl.o              | Y        | Mexico            | 1822.     | S co  | .....                    |
| 12217 <i>glandulosa Schrank.</i>   | glandular        | ○ | or | 3   | jl.o              | Y        | S. Amer.          | 1819.     | S co  | .....                    |
| 1761. HETEROSPER/MUM. <i>W.</i>    | HETEROSPERMUM.   |   |    |     |                   |          | <i>Composita.</i> | Sp. 1-3.  |       |                          |
| 12218 <i>pinnatum W.</i>           | wing-leaved      | ○ | un | 2   | aus               | Y        | New Spain         | 1799.     | S co  | Cav. ic. 3. t. 267       |
| 1762. SCHKU/HRIA. <i>W.</i>        | SCHKUHRIA.       |   |    |     |                   |          | <i>Composita.</i> | Sp. 1.    |       |                          |
| 12219 <i>abrotanoides W.</i>       | Wormwood-ld.     | ○ | un | 2   | jl.s              | Y        | Mexico            | 1798.     | S co  | Sch. ha. 3. t. 250. b.   |
| 1763. PEC/TIS. <i>W.</i>           | PECTIS.          |   |    |     |                   |          | <i>Composita.</i> | Sp. 2-7.  |       |                          |
| 12220 <i>ciliaris W.</i>           | ciliated         | □ | un | 1   | jl                | Y        | Hispania.         | 1793.     | S co  | Plum. ic. 151. f. 2      |
| 12221 <i>linifolia W.</i>          | Flax-leaved      | □ | un | 1   | jl.au             | Y        | Jamaica           | 1732.     | S co  | Sl. jam. 1. t. 149. f. 3 |
| 1764. LONGCHAMP/SIA. <i>Willd.</i> | LONGCHAMPSIA.    |   |    |     |                   |          | <i>Composita.</i> | Sp. 1.    |       |                          |
| 12222 <i>capillifolia Willd.</i>   | hair-leaved      | ○ | pr | ½   | jn.jl             | W        | Barbary           | 1822.     | S co  | .....                    |



#### History, Use, Propagation, Culture,

1756. *Bellis*. So called from *bellus*, pretty. Every one knows the daisy.

1757. *Bellium*. See *Bellis*, from which this genus differs chiefly in the pappus of the grains.

1758. *Dahlia*. Named after Andrew Dahl, a Swedish botanist, and pupil of Linnaeus. Continental botanists call the genus *Georgina*. This genus grows in Mexico, in sandy meadows, and till the peace of 1814 was more cultivated in France than in England: at present it is one of the most fashionable hardy plants. Though its leaves are coarse, resembling those of the common dwarf elder, yet the flowers are showy, and continue in beauty till late in autumn. The plants grow freely in any soil or situation; but the poorer the ground is, the smaller the size of the plant, and the earlier and more abundant the flowers. The single-flowered varieties of *D. superflua* are almost without end; the double varieties of both species are much less numerous. Any number of the former may be raised from seeds, which ripen in abundance, and if sown in February on artificial heat, and transplanted in the end of April, they will flower in the July or August following. The double varieties are increased by dividing the roots, or by grafting, or by cuttings; they may also be sometimes raised from seeds. A very general way in which both kinds are propagated is by cuttings. They may be either taken from the root-shoots in spring, or the tops of the young shoots early in summer; the lower end of each cutting should be cut smoothly off in the middle of a joint, and all the leaves left on, excepting those that would be buried in planting the cutting. If planted in sandy soil, on a gentle bottom heat, and covered with a hand-glass, they will soon strike root, and produce both flowers and tubers the same autumn. The double sorts are grafted on tubers of the single varieties much in the manner of whip-grafting, but without a tongue. There must be no buds on the tuber; cut off a slice from the upper part of it, in a sloping direction, and make, at the bottom of the part so cut, a ledge, whereon to rest the graft; next, cut the scion sloping to fit, it should contain two joints, and be cut so that one of these may be at the bottom of it to rest on the ledge; from that joint the scion will occasionally put forth roots; from the other the future stem will be formed. Having tied the graft, clay it as in common grafting; then put the root in fine mould, burying half the graft, and place the pot in a gentle moist heat under a glass. If this be done in March, the plant may be shifted into a larger pot in April, and planted out in the end of May.

As the *Dahlia* is a bulky plant, it requires either to be grown in a very large pot, or in from three quarters to a yard and a half of surface. They look well in rows, or occurring singly in a shrubbery.

The treatment of the *Dahlia* bears a considerable resemblance to that of the potato and the marvel of Peru; as soon as the frost has blackened the tops of these three plants, their roots require to be taken up, and

12202 Scape naked single-headed, Leaves obovate crenate

12203 Scape naked single-headed, Leaves obovate crenate 3-nerved

12204 Stem somewhat leafy

12205 Stolones creeping, Scapes 1-headed, Leaves spatulate

12206 Stem leafy capillary

12207 Rachis of lvs. winged, Leaf. ovate acumin. serrated shining and smooth beneath, Outer invol. reflexed

12208 Rachis of lvs. naked, Leaflets ovate acuminate serrated roughish beneath, Outer invol. spreading

12209 Leaves pinnated: leaflets linear pinnatifid-toothed

12210 Leaves simple lanceolate finely serrated ciliate at base

12211 Leaves pinnated: leaf. lanc. ciliate-serrated, Pedunc. 1-headed thickened, Inv. smooth, Stem spreading

12212 Leaves pinnated: leaflets lanc. ciliate-serrated, Pedunc. 1-headed ventricose, Invol. angular, Stem erect

12213 Leaves pinnated: leaf. lanc. serrated; term. subdecurrent, Pedunc. many-fl. scaly, Flowers dense

12214 Leaves pinnated: leaflets linear serrated; lower serratures long, Stem panicled, Invol. clavate

12215 Leaves pinnated: leaflets filiform, Ray not longer than involucrem

12216 Leaves pinnated: leaflets filiform subulate entire, Stem branched diffuse, Pedunc. 1-headed solitary

12217 Leaves pinnated: lower segments lanceolate; upper linear, Serratures with intermediate glands

12218 Stem smooth, Leaves pinnated, Leaflets linear subulate entire

12219 Leaves altern. pinnate linear setaceous

12220 Leaves linear amplexicaul. ciliated at base attenuated at end

12221 Leaves linear sessile acute ciliated at base

12222 Stem filiform branched, Leaves woolly subulate filiform, Peduncles naked axillary 1-headed



and Miscellaneous Particulars.

kept in a dry place, where the frost cannot get at them till spring. About April they may be divided, and planted in the open air where they are to flower; or, what is more common planted in large pots, and forwarded in heat till the middle of May, when they may be turned out of the pots where they are finally to remain. In this case they will flower a month or six weeks earlier than by the other method, and will, in general, continue flowering till they are destroyed by frost. Some care is requisite to preserve the roots sufficiently moist and plump to maintain the living principle, and yet not to rot, shrivel, or freeze them. The safest mode is to plant them in pots or boxes of dry earth, and place them in a shed or cellar, or under an ample covering of litter thatched over.

1759. *Boebera*. Boeber is said by Willdenow to have been a learned Russian botanist.

1760. *Tagetes*. Named after Tages, a Tuscan divinity, the son of Genius, and the grandson of Jupiter. *T. patula* is a tender annual, deservedly popular, from the brilliancy and variegation of its flowers: it is cultivated in Japan, China, and many parts of India, but does not appear to be indigenous of those countries. The varieties of *T. erecta* differ chiefly in the shades of the same color, but there are also double and quilled flowers. Both species are raised from seeds, upon a moderate hot-bed, in the beginning of April, and when they are three inches high, transplanted to where they are finally to remain. The varieties are very apt to degenerate, and can only be reproduced by the most careful selection and separation.

This genus serves for the basis of M. Cassini's *Tagetineæ*, which do not appear to be at all distinct from *Heliantheæ*, from which they differ principally in the form of their ovarium. M. Cassini's principal motive for distinguishing them as a separate race, seems to have been his wish to reduce his tribe of *Heliantheæ*, which he finds too extensive. Nearly all the species are found in America.

1761. *Heterospermum*. From *ἕτερος*, various, and *σπέρμα*, seed; on account of the variable shape of the grains.

1762. *Schkuhrka*. Named in honour of Christian Schkuhr, an acute German botanist, who has published some of the most accurate and useful, if not splendid, botanical works which the world has seen. It is to be regretted that their rarity makes them more generally unknown than they deserve to be.

1763. *Pectis*. From *pecten*, a comb, to which the teeth of the pappus may be compared.

1764. *Longchampsia*. So named after Doctor J. L. A. Loiseleur Deslongchamps, a French botanist, author of a useful *Flora Gallica*, in two small duodecimo volumes, published at Paris, the first in 1806, the second in 1807.



|                             |                  |   |   |     |             |          |      |             |            |   |     |                        |
|-----------------------------|------------------|---|---|-----|-------------|----------|------|-------------|------------|---|-----|------------------------|
| 1765. LEYSERA W.            | LEYSERA.         |   |   |     | Compositae. | Sp. 2-8. |      |             |            |   |     |                        |
| 12223 gnaphalodes W.        | woolly           | ■ | □ | pr  | 2           | jl.s     | Or   | C. G. H.    | 1774       | S | p.l | Jac. ic. 3. t. 588     |
| 12224 squarrosa W.          | squarrose        | ■ | □ | pr  | 2           | jl.s     | Or   | C. G. H.    | 1815.      | C | lp  | Fluk. alt. 302. f. 3   |
| 1766. SELLOA Spreng.        | SELLOA.          |   |   |     |             |          |      | Compositae. | Sp. 1.     |   |     |                        |
| 12225 glutinosa Spreng.     | clammy           | £ | □ | un  | 3           | f        | Y    | Brazil      | 1819.      | D | co  | Bot. reg. 462          |
| 1767. RELHANIA W.           | RELHANIA.        |   |   |     |             |          |      | Compositae. | Sp. 3-19.  |   |     |                        |
| 12226 squarrosa W.          | cross-leaved     | ■ | □ | pr  | 1½          | my.jn    | Y    | C. G. H.    | 1774.      | C | p.l |                        |
| 12227 pungens W.            | pungent          | ■ | □ | pr  | 1½          | s        | Y    | C. G. H.    | 1820.      | C | p.l | Bot. reg. 587          |
| 12228 lateriflora W.        | side-flowering   | ■ | □ | pr  | ½           | s        | Y    | C. G. H.    | 1823.      | C | p.l |                        |
| 1768. ZINNIA W.             | ZINNIA.          |   |   |     |             |          |      | Compositae. | Sp. 6-8.   |   |     |                        |
| 12229 pauciflora W.         | yellow-flowered  | ○ | ○ | or  | 2           | jl.au    | Y    | Feru        | 1753.      | S | r.m | Mill. ic. 1. t. 64     |
| 12230 multiflora W.         | red-flowered     | ○ | ○ | or  | 2           | jn.o     | R    | N. Amer.    | 1770.      | S | r.m | Bot. mag. 149          |
| 12231 verticillata W.       | whorl-leaved     | ○ | ○ | or  | 2           | jl.au    | R    | Mexico      | 1789.      | S | r.m | Bot. rep. 189          |
| 12232 elegans W.            | purple-flowered  | ○ | ○ | or  | 2           | jn.s     | Pu   | Mexico      | 1796.      | S | r.m | Bot. mag. 52           |
| 12233 tenuiflora W.         | slender-flowered | ○ | ○ | or  | 2           | jl.au    | Sc   | Mexico      | 1799.      | S | co  | Bot. mag. 555          |
| 12234 hybrida B. M.         | hybrid           | ○ | ○ | or  | 2           | jn.jl    | Sc   | S. Amer.    | 1818.      | S | co  | Bot. mag. 2123         |
| 1769. CHRYSANTHEMUM W.      | CHRYSANTHEMUM.   |   |   |     |             |          |      | Compositae. | Sp. 23-43. |   |     |                        |
| 12235 pinnatifidum W.       | cut-leaved       | ■ | □ | pr  | 3           | my.au    | Y    | Madeira     | 1777.      | C | p.l |                        |
| 12236 atratum W.            | fleshy-leaved    | £ | □ | pr  | 1           | jl.au    | W    | Austria     | 1731.      | D | co  |                        |
| 12237 heterophyllum W.      | various-leaved   | £ | △ | pr  | 1           | jl.au    | W    | Switzerl.   | 1806.      | D | co  |                        |
| 12238 Leucanthemum W.       | Ox-eye Daisy     | £ | △ | pr  | 2           | jn.jl    | W    | Britain     | past.      | D | co  | Eng. bot. 601          |
| 12239 montanum W.           | mountain         | £ | △ | pr  | 2           | jn.jl    | W    | France      | 1759.      | D | co  | Jac. obs. 4. t. 91     |
| 12240 ceratophylloides All. | Buckshorn        | £ | △ | pr  | ½           | jn.jl    | W    | Piedmont    | 1803.      | D | co  | Al.ped. i. t. 37. f. 1 |
| 12241 graminifolium W.      | Grass-leaved     | £ | △ | pr  | 1           | my.jl    | W    | Montpel.    | 1739.      | D | co  | Jac. obs. 4. t. 92     |
| 12242 monspeliense W.       | Montpelier       | £ | △ | pr  | 1           | jn.s     | W    | Montpel.    | 1739.      | D | co  | Jac. obs. 4. t. 93     |
| 12243 Achillæa W.           | Milfoil-leaved   | £ | △ | pr  | 1           | jn.au    | W    | Italy       | 1775.      | D | co  | Mic. gen. 34. t. 29    |
| 12244 argenteum W.          | silver-leaved    | £ | △ | pr  | 1           | jl.au    | W    | Levant      | 1731.      | D | co  |                        |
| 12245 arcticum W.           | northern         | £ | △ | pr  | ½           | jn.au    | W.pu | Kamtsch.    | 1801.      | D | co  | W. hort. ber. 33       |
| 12246 carinatum W.          | three-colored    | ○ | ○ | pr  | 2           | jl.o     | W.pu | Barbary     | 1798.      | S | co  | Bot. mag. 508          |
| 12247 pumilum W. en.        | small            | ○ | ○ | pr  | ½           | jl.o     | W    | .....       | 1808.      | S | co  |                        |
| 12248 sylvestrum W. en.     | field            | £ | △ | pr  | 2           | jn.jl    | W    | .....       | 1804.      | D | co  |                        |
| 12249 segetum W.            | corn             | ○ | ○ | w   | 1½          | jn.au    | Y    | Britain     | corn fi.   | S | co  | Eng. bot. 540          |
| 12250 Myconis W.            | tongue-leaved    | ○ | ○ | pr  | 1           | jl.au    | Y    | Italy       | 1775.      | S | co  | Jac. obs. 4. t. 94     |
| 12251 italicum W.           | Italian          | ■ | □ | pr  | 2           | jn.jl    | Pa.Y | Italy       | 1796.      | D | co  |                        |
| 12252 coronarium W.         | garden           | ○ | ○ | or  | 4           | jl.s     | Y    | Sicily      | 1629.      | S | co  | Lam. ill. t. 678. f. 6 |
| 12253 indicum L.            | Indian           | ■ | ■ | un  | 2           | s.n      | Y    | China       | ....       | C | r.m |                        |
| 12254 sinense Sab.          | Chinese          | ■ | ■ | spl | 3           | o.n      | Y    | China       | 1764.      | C | r.m |                        |

Garden Varieties.

- |                                   |  |
|-----------------------------------|--|
| 1 Purple Bot. mag. 327            | 12 Spanish Brown                                     |
| 2 Changeable White Bot. mag. 2042 | 13 Quilled flamed Yellow Hort. trans. 4. t. 14       |
| 3 Quilled White Bot. reg. 4       | 14 Quilled Pink Bot. reg. 616                        |
| 4 Superb White Bot. reg. 455      | 15 Early Crimson Hort. trans. 5. t. 3                |
| 5 Tassel White                    | 16 Large quilled Orange Hort. trans. 5. t. 3         |
| 6 Quilled Yellow                  | 17 Expanded light Purple                             |
| 7 Sulphur Yellow                  | 18 Quilled light Purple                              |
| 8 Golden Yellow Bot. reg. 4*      | 19 Curled Lilac Sweet's fl. Garden, t. 7             |
| 9 Large Lilac                     | 20 Superb clustered Yellow Sweet's fl. Garden, t. 14 |
| 10 Rose or Pink                   | 21 Semidouble quilled Pink Hort. trans. 5. t. 17*    |
| 11 Buff or Orange                 | 22 Semidouble quilled White                          |



History, Use, Propagation, Culture,

1765. *Leysera*. So called in honor of Frederick William Leyser, a German, and author of a *Flora Halensis* in 1783.

1766. *Selloa*. Named after Mr. Sello, a German botanist, employed by the Prussian government in collecting materials for a natural history of Brazil. An uninteresting stove perennial plant, remarkable for having florets mixed among the leaves of the involucre.

1767. *Relhania*. In honor of the Rev. Richard Relhan, an English botanist, and author of a *Flora Cantabrigiensis*. The genus was named by L'Heritier. Plants of no beauty and easy culture.

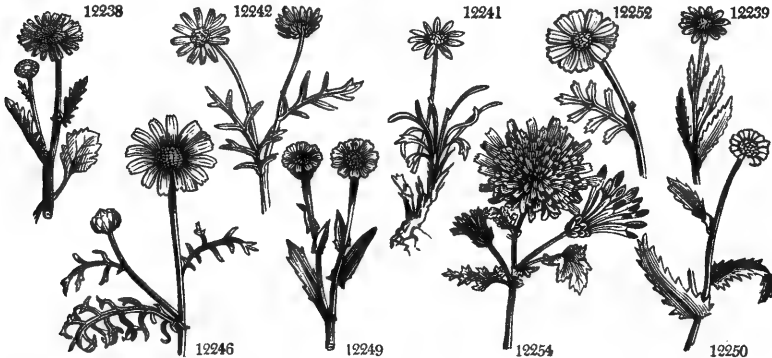
1768. *Zinnia*. John Godfrey Zinn, a German, published, in 1757, a Catalogue of the Plants in the Garden of Gottingen, &c. Handsome border annuals, with persistent flowers, of the same culture as *Tagetes*.

1769. *Chrysanthemum*. From *χρως*, gold, and *ανθος*, a flower; because many of the kinds bear flowers of a yellow color. *Chrysanthemum*, Fr., *Goldblume*, Ger., and *Crisantero*, Ital. C. sinense is one of the handsomest of autumnal flowers, and of the easiest possible culture in any soil. It is a popular flower in China, whence all our numerous varieties have very recently been obtained, and chiefly through the exertions of the Horticultural Society. These are certainly a very great addition to the beauties of the flower garden in a dry autumn, and to the green-house or conservatory in the wet and foggy months of November and December, when scarcely any thing else is in flower. The plants are propagated by divisions, by suckers, and by cuttings;

- 12223 Leaves linear subulate ciliate rough, Scales of invol. lanceolate  
 12224 Leaves filiform downy, Scales of invol. membranous reflexed
- 12225 The only species
- 12226 Leaves oblong acuminate nerveless recurved at end  
 12227 Leaves linear somewhat pungent striated beneath, Heads sessile  
 12228 Leaves linear villous, Pedunc. lateral shorter than leaf
- 12229 Heads sessile, Leaves opp. cordate-lanceolate amplexicaul. sessile  
 12230 Heads stalked, Leaves opp. ovate-lanceolate somewhat stalked  
 12231 Heads stalked, Leaves whorled ovate-lanceolate stalked, Ray double  
 12232 Heads stalked, Leaves opp. cordate ovate sessile amplexicaul. Stem hairy, Pales serrated  
 12233 Heads stalked, Leaves opp. cordate lanceolate stalked, Ray linear-lanceolate reflexed  
 12234 Leaves cordate sessile rough at edge, Grains of disk with 2 awns : of the ray awnless
- 12235 Leaves smooth attenuated at base pinnatifid : segments cut  
 12236 Leaves all cuneiform oblong finely serrated, Stem simple 1-headed erect  
 12237 Leaves sessile : lower linear lanceolate serrated ; upper spatulate  
 12238 Leaves amplexic. obl. obt. cut pinnatifid at base ; radical ones obovate petiolate, Stem erect branched  
 12239 Lower leaves stalked spatulate serrate : upper lin. lanc. serrated, Stem 1-headed  
 12240 Leaves pinnated : pinnæ linear acute, Stem erect 1-headed  
 12241 Leaves linear nearly entire, Stem quite simple  
 12242 Lower leaves palmated : leaflets linear pinnatifid  
 12243 Leaves bipinnate : pinnæ oblong serrated, Heads corymbose  
 12244 Leaves bipinnate hoary : leaflets acute entire, Stem 1-headed simple  
 12245 Radical leaves 3-parted cut-toothed : cauline cuneiform 3-parted blunt  
 12246 Leaves bipinnated fleshy smooth, Scales of invol. keeled  
 12247 Leaves bipinnated linear subulate smooth, Stem erect somewhat branched  
 12248 Very near *C. leucanthemum*, but the lower leaves are more spatulate  
 12249 Leaves amplexic. glaucous inciso-serrate above toothed at the base  
 12250 Leaves lingulate blunt serrated, Scales of involucre equal  
 12251 Leaves bipinnate serrated, Rays length of disk, Stem procumbent  
 12252 Leaves bipinnatifid acute broadest externally, Stem branched  
 12253 Leaves flaccid stalked pinnatifid finely toothed : upper entire, Ray a little longer than flower  
 12254 Leaves coriaceous stalked sinuate-pinnatifid toothed glaucous, Ray very long

Garden Varieties.

- |   |                                   |
|---|-----------------------------------|
| 23 Semidouble quilled Orange <i>Hort. trans.</i> 5. t. 17** | 34 Brown Purple                   |
| 24 Late pale Purple   | 35 Late quilled Yellow            |
| 25 Quilled Salmon Color <i>Hort. trans.</i> 5. t. 17*       | 36 Double Yellow Indian           |
| 26 Small Yellow <i>Hort. trans.</i> 5. t. 17**              | 37 Parkes's small Yellow          |
| 27 Paper White  | 38 Tasselled Lilac                |
| 28 Pale Buff  | 39 Tasselled Yellow               |
| 29 Early Blush  | 40 Semidouble quilled pale Orange |
| 30 Blush Ranunculus-flowered                                | 41 Golden Lotus-flowered          |
| 31 Changeable pale Buff                                     | 42 Two colored incurved           |
| 32 Two colored Red  | 43 Yellow Waratah                 |
| 33 Starry Purple  | 44 Double White Indian            |



and Miscellaneous Particulars.

as they are very apt, in every case, to throw up suckers, the latter mode is decidedly the best. The cuttings may be taken from the side branches at any season from April to September; taken off before the end of May, they will flower the succeeding autumn; those taken off afterwards will not flower till next year. Chrysanthemums are so very prolific in suckers, that they soon become unsightly plants, and produce small and degenerate blossoms, unless frequently renewed from cuttings. The Chinese are said to do this every year; they take off the cuttings in May, strike them as we do, and then put each plant in a very small pot, in which it flowers the succeeding autumn. The plants are thus kept in a dwarf state, and clothed with green foliage from the ground to the flower. In order that the blossoms may be strong, they leave only one or two flower-buds on the summit of each plant, and they remove all suckers and side shoots till the blossom is over. This mode is now generally adopted with us; but sometimes the plants are retained a second, or even a third year, in which case care is requisite to leave no more stems, and to have no more suckers growing at one time than the roots can support in a vigorous state. As under this management the stems attain a great height, they require to be supported by a rod, and adjusted so as to form a symmetrical figure by a nice application of black threads, or small copper wires.

Sometimes the Chrysanthemum is grown in beds or borders, in which case the plants should be taken up every year, and their superfluous suckers removed; or, which is better, they should be totally renewed by cuttings.

|                                  |                  |        |       |       |    |            |         |   |    |                          |
|----------------------------------|------------------|--------|-------|-------|----|------------|---------|---|----|--------------------------|
| 12255 paludosum Desf.            | marsh            | ○ pr   | 1 1/2 | jn.jl | W  | Barbary    | 1810.   | S | co |                          |
| 12256 rotundifolium W. & K.      | round-leaved     | △ pr   | 1 1/2 | jn.jl | W  | Hungary    | 1817.   | D | co | Desf. atl. 2. t. 238     |
| 12257 anomalum Lag.              | anomalous        | △ pr   | 1     | jn.jl | W  | Spain      | 1816.   | D | co |                          |
| 1770. PYRETHRUM. W. FEVERFEW.    |                  |        |       |       |    |            |         |   |    |                          |
| 12258 feniculaceum W. en.        | Fennel-leaved    | ■   or | 3     | ja.d  | W  | Teneriffe  | 1815.   | C | co | Bot. rep. 272            |
| 12259 crithmifolium W. en.       | Sampshire-leav.  | ■   or | 3     | ja.d  | W  | Teneriffe  | 1815.   | C | co |                          |
| 12260 anethifolium W. en.        | Dill-leaved      | ■   or | 3     | ja.d  | W  | Teneriffe  | 1815.   | C | co |                          |
| 12261 latifolium W. en.          | broad-leaved     | ■   or | 2     | jn.jl | W  | Pyrenees   | 1820.   | D | co |                          |
| 12262 Halleri W.                 | Haller's         | ■   pr | 1     | jn.jl | W  | Switzerl.  | 1819.   | D | co | Barr. ic. 453. f. 2      |
| 12263 ceratophylloides W.        | Buckshorn-lvd.   | ■   pr | 1     | jn.jl | W  | Piedmont   | 1819.   | D | co |                          |
| 12264 frutescens W.              | shrubby          | ■   or | 3     | ja.d  | W  | Canaries   | 1699.   | C | pl |                          |
| 12265 coronopifolium W. en.      | Horn-leaved      | ■   or | 2     | ja.d  | W  | Canaries   | .....   | C | lp |                          |
| 12266 grandiflorum W. en.        | great-flowered   | ■   or | 3     | ja.d  | W  | Canaries   | 1815.   | C | lp |                          |
| 12267 pinnatifidum W.            | pinnatifid       | ■   or | 2     | my.jn | W  | .....      | 1823.   | D | co |                          |
| 12268 pulverulentum W.           | powdery          | ■   pr | 1 1/2 | jn.au | W  | Caucasus   | 1806.   | D | co |                          |
| 12269 sericeum Bieb.             | silky            | ■   pr | 1     | jn.au | W  | Iberia     | 1823.   | D | co |                          |
| 12270 parviflorum W.             | small-flowered   | ■   un | 2 1/2 | jn.au | W  | .....      | 1820.   | S | co |                          |
| 12271 speciosum W. en.           | large-flowered   | ■   or | 3     | ja.d  | W  | Canaries   | 1815.   | C | lp |                          |
| 12272 ptarmicifolium W.          | Sneezewort-lv.   | ■   pr | 1 1/2 | jl.au | W  | Caucasus   | 1803.   | D | co |                          |
| 12273 serotinum W.               | creeping-rooted. | ■   pr | 1     | s.o   | W  | N. Amer.   | 1731.   | D | co | Jac. obs. 4. t. 90       |
| 12274 uliginosum W.              | marsh            | ■   pr | 1 1/2 | jl.s  | W  | Hungary    | 1816.   | D | co |                          |
| 12275 alpinum W.                 | Alpine           | ■   pr | 1     | jl.au | W  | Switzerl.  | 1759.   | D | co |                          |
| 12276 Balsamita W.               | various-leaved   | ■   pr | 3     | jl.au | W  | Levant     | 1793.   | D | co | Jac. obs. 4. t. 99       |
| 12277 macrophyllum W.            | large-leaved     | ■   pr | 3     | jl.au | W  | Hungary    | 1803.   | D | co | Pl. rar. hu. 1. t. 94    |
| 12278 roseum W. en.              | scarlet-flower'd | ■   el | 1 1/2 | au.s  | Pk | Caucasus   | 1804.   | D | co | Bot. mag. 1080           |
| Chrysanthemum coccineum B. M.    |                  |        |       |       |    |            |         |   |    |                          |
| 12279 achilleaeifolium Bieb.     | Milfoil-leaved   | ■   pr | 2     | au.s  | Y  | Caucasus   | 1823.   | D | co | Gm. sib. t. 86. f. 2     |
| 12280 corymbosum W.              | mountain         | ■   pr | 1     | jn.au | W  | Germany    | 1806.   | D | co | Jac. aust. 4. t. 379     |
| 12281 Parthenium W.              | common           | ■   w  | 2     | jn.s  | W  | Britain    | rubd.   | D | co | Eng. bot. 1231           |
| β flore pleno double-flowered    |                  |        |       |       |    |            |         |   |    |                          |
| 12282 parthenifolium W.          | Parthenium-lv.   | ■   pr | 2     | jn.jl | W  | Caucasus   | 1804.   | D | co | Vent. cels. t. 43        |
| 12283 caucasicum W.              | Caucasian        | ■   pr | 1 1/2 | jl.au | W  | Caucasus   | 1804.   | D | co |                          |
| 12284 tenuifolium W. en.         | slender-leaved   | ■   pr | 1     | jl.au | W  | Caucasus   | 1806.   | D | co |                          |
| 12285 inodorum W.                | scintless        | ■   or | 1     | au.s  | W  | Britain    | dry fi. | S | co | Eng. bot. 676            |
| 12286 maritimum W.               | sea              | ■   pr | 1     | jn.o  | W  | Britain    | sea sh. | D | co | Eng. bot. 979            |
| 12287 millefoliatum W.           | many-leaved      | ■   pr | 2     | mys   | Y  | Siberia    | 1731.   | D | co | Mill. ic. 1. t. 9        |
| 12288 bipinnatum W.              | wing-leaved      | ■   pr | 3     | jn.jl | Y  | Siberia    | 1796.   | S | co | Gm. sib. 2. t. 55. f. 1  |
| 12289 indicum H. K.              | Indian           | ■   un | 3     | jn.s  | Y  | E. Indies  | 1810.   | C | pl | Bot. mag. 1321           |
| 1771. MATRICARIA. W. MATRICARIA. |                  |        |       |       |    |            |         |   |    |                          |
| 12290 suaveolens W.              | sweet            | ○ un   | 1 1/2 | jn.au | W  | Europe     | 1781.   | S | co |                          |
| 12291 Chamomilla W.              | Wild Chamomile   | ○ w    | 1     | my.jl | W  | Britain    | ro.sid. | S | co | Eng. bot. 1232           |
| 12292 capensis W.                | Cape             | ○   un | 1 1/2 | jl.s  | W  | C. G. H.   | 1699.   | S | co | Seb. th. 1. t. 16. f. 2  |
| 12293 pusilla W. en.             | small            | ○ un   | 1     | jl.s  | W  | .....      | ...     | S | co |                          |
| 1772. EOLTONIA. W. BOLTONIA.     |                  |        |       |       |    |            |         |   |    |                          |
| 12294 asteroides W.              | Starwort-flow.   | ■   pr | 2     | au.o  | F  | N. Amer.   | 1758.   | D | sl | Bot. mag. 2554           |
| 12295 glastifolia W.             | glaucous leav'd  | ■   pr | 1 1/2 | s     | Pk | N. Amer.   | 1758.   | D | sl | Bot. mag. 2381           |
| 1773. LIDBECKIA. W. LIDBECKIA.   |                  |        |       |       |    |            |         |   |    |                          |
| 12296 pectinata W.               | silver-leaved    | ■   pr | 2     | my.jn | Y  | C. G. H.   | 1774.   | C | lp | Ber. ca. 306. t. 5. f. 9 |
| 12297 lobata W.                  | lobed            | ■   pr | 2     | my.jn | Y  | C. G. H.   | 1800.   | C | lp | Lam. ill. t. 701. f. 3   |
| 1774. CENIA. J. TURBINATA. P. S. |                  |        |       |       |    |            |         |   |    |                          |
| 12298 turbinata P. S.            | turbinated       | ○ un   | 1     | jl.au | W  | C. G. H.   | 1713.   | S | co | Lam. ill. t. 701. f. 1   |
| 1775. COTULA. W. COTULA.         |                  |        |       |       |    |            |         |   |    |                          |
| 12299 anthemoides W.             | Anthemis-like    | ○ un   | 1     | jl.au | Y  | St. Helena | 1696.   | S | co | Dill. elt. t. 23. f. 25  |
| 12300 coronopifolia W.           | Buckshorn-lvd.   | ○ w    | 1 1/2 | jl.au | Y  | C. G. H.   | 1683.   | S | co | Lam. ill. t. 700. f. 1   |



History, Use, Propagation, Culture,

Though these plants will grow in any soil, yet when in small pots they require a rich loam, and are the better for being watered, as in China, with liquid manure. The different varieties are well described by Mr. Sabine, in the fourth and fifth volumes of the Horticultural Transactions.

1770. *Pyrethrum*. An ancient Greek name, applied to this plant from its supposed resemblance to the *pyrethron* of Dioscorides. That plant is believed to have been the Anthemis pyrethrum, or Pellitory of Spain, of the moderns, and to have received its name from the burning qualities of its root; *rug*, fire. All the plant of *Pyrethrum Parthenium* has a strong unpleasant smell, and a bitter taste. It is used externally, in the form of lotion and of poultice, and internally as an infusion for colic, hysterical affections, and weak digestion. There are some double-flowering varieties, which are very ornamental.

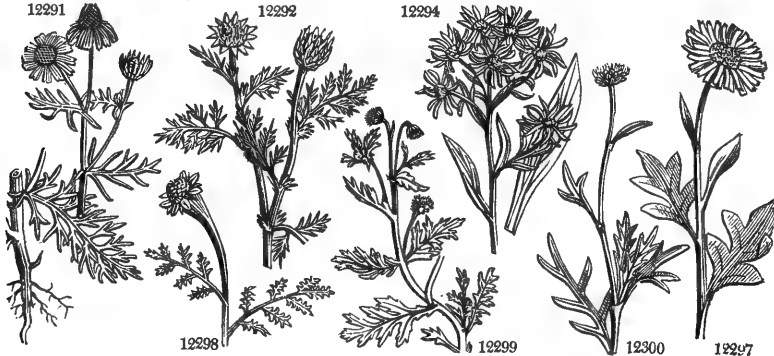
1771. *Matricaria*. So named on account of the use which is made of it in disorders of females. *Matricaire*, Fr., *Mutterkraut*, Ger., and *Matricaria*, Ital. It excites menstruation. Chamemille is an alteration of the

- 12255 Leaves all cuneiform oblong bluntly serrated, Stem branched diffuse  
 12256 Leaves stalked serrated : lower roundish ; upper ovate, Stem 1-headed  
 12257 Leaves with very narrow segments, Petioles very short connate
- 12258 Leaves pinnatifid fleshy : segments linear entire, Pedunc. long corymbose  
 12259 Leaves trifid fleshy ; segments somewhat toothed linear blunt, Pedunc. long subcorymbose  
 12260 Leaves bipinnatifid linear acute, Pedunc. 1-headed terminal  
 12261 Leaves lanceolate serrated : radical oblong, Stem 1-headed  
 12262 Cauline leaves lanceolate deeply toothed : radical pinnatifid, Stem 1-headed  
 12263 Leaves pinnatifid : segments of the lower linear lanc. entire or bifid ; upper linear entire  
 12264 Leaves fleshy pinnatifid linear toothed : upper linear trifid  
 12265 Leaves pinnatifid : segments lanc. somewhat 3-toothed fleshy, Pappus unequally toothed  
 12266 Leaves pinnatifid : segm. lanc. deeply toothed somewhat fleshy : upper lin. toothed, Pappus uneq. toothed  
 12267 Leaves downy glaucous subsessile lyrate pinnatifid unequally toothed, Heads corymbose  
 12268 Leave pinnate powdery, Leaflets pinnatifid blunt toothed, Pedunc. corymbose, Pappus toothed  
 12269 Leaves woolly bipinnate, Pinnæ and pinnules obl. imbricated, Stem 1-headed, Invol. woolly  
 12270 Leaves bipinnate : pinnæ lin.-filiform 2 or 3-parted, Stem erect branched, Pappus 2-lobed  
 12271 Leaves pinnatifid : segm. lanc. finely serrated, Grains subulate, Pappus unequally toothed  
 12272 Leaves linear serrulate, Heads corymbose  
 12273 Leaves lanc. : lower serrated at end ; upper entire, Branches corymbose  
 12274 Leaves lanc. all deeply serrated, Stem erect branched at end  
 12275 Lower leaves pinnatifid toothed : upper linear entire, Stem 1-headed  
 12276 Leaves ovate obl. serrated : radical stalked ; cauline sessile auricled at base, Heads corymbose  
 12277 Leaves hoary subsessile pinnatifid toothed blunt, Corymb terminal compound  
 12278 Leaves pinnated smooth : pinnæ once or twice pinnatifid with acute diverging segments, Invol. smooth
- 12279 Leaves bipinnate linear silky : pinnæ crossing, Pedunc. corymbose, Ray shorter than involucre  
 12280 Leaves pinnated, Pinnæ lanc. pinnatifid finely serrated : upper confluent, Pedunc. corymbose  
 12281 Lvs. petiol. flat bipinnate the segm. ovate cut, Pedunc. branch. corymb. Stem erect, Invol. hemispherical  
 [pubescent]
- 12282 Leaves pinn. : pinnæ obl. obt. pinnatifid toothed ; upper confluent, Stem virgate, Heads corymbose  
 12283 Leaves bipinnate : leaflets linear subulate, Stem 1-headed  
 12284 Rad. leaves bipinnate : pinnæ linear pinnatifid ; cauline bipinnatifid, Heads corymbose  
 12285 Leaves sess. bipinnatifid with segm. capillary, Stem branched spreading, Pappus entire  
 12286 Leaves bipinnatifid the segm. linear fleshy awnless, Stem diffuse branched, Pappus lobed  
 12287 Leaves bipinnate linear blunt, Stem ascending somewhat corymbose, Ray length of invol.  
 12288 Leaves hoary bipinnate linear blunt, Stem simple, Pedunc. twin, Ray shorter than disk  
 12289 Leaves pinnatifid : pinnæ cut-toothed, Pedunc. long nearly naked 1-headed, Scales of invol. blunt

- 12290 Leaves triply pinnate, Scales of invol. acute  
 12291 Leaves glabrous bipinnatifid the segments capillary, Invol. nearly plane : its scales obtuse  
 12292 Leaves glabrous bipinnatifid : stem branched suffruticose  
 12293 Leaves pinn. somewhat fleshy, Pinnæ linear blunt, Scales of invol. blunt, Grains margined on one side
- 12294 Leaves all entire  
 12295 Lower leaves serrated
- 12296 Leaves pinnatifid glaucous beneath  
 12297 Leaves stalked 5-lobed

12298 Ray short white : red on the lower surface

- 12299 Leaves pinnate multifid dilated, Ray none  
 12300 Leaves lanc. lin. amplexicaul. pinnatifid toothed, Stem procumbent, Branches 1-headed



and Miscellaneous Particulars.

Greek *χαμαί μελον*, a dwarf-apple, which Pliny informs us was applied to the plant, on account of its smelling of apples, or rather quinces. It is remarkable, that the Spaniards call it *mancinilla*, which also means a little apple. The chamomile of medicine is another plant. See Anthemis.

M. Chamomilla is supposed to possess the same qualities with the officinal chamomile (*Anthemis nobilis*), but in an inferior degree. Most of the species, and chiefly this one, are rejected by quadrupeds.

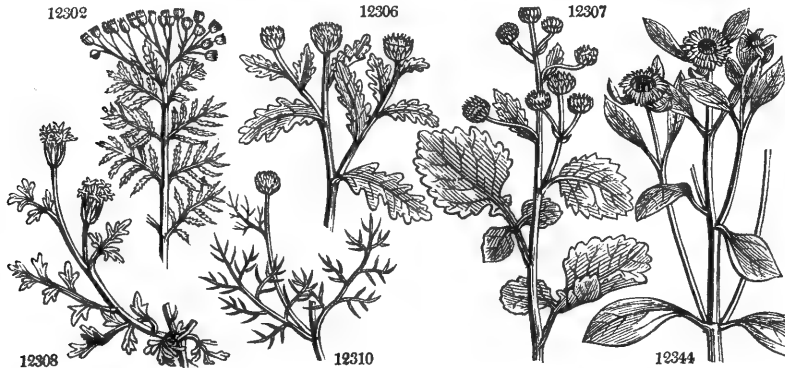
1772. *Boltonia*. Named after I. B. Bolton, an English botanist, who wrote a work upon the Ferns of Great Britain, and another upon the fungi growing about Halifax, published in 1783-9.

1773. *Lidbeckia*. E. G. Lidbeck, a German botanist, published some works upon agricultural matters.

1774. *Cenia*. From *ενως*, empty, in allusion to its inflated calyx.

1775. *Cotula*. A diminutive of *Cota*, an old name for some species of *Anthemis*, which this resembles in miniature.

|        |                              |                    |   |    |    |          |       |                  |                        |    |                       |                      |
|--------|------------------------------|--------------------|---|----|----|----------|-------|------------------|------------------------|----|-----------------------|----------------------|
| 12301  | <i>viscosa W.</i>            | clammy             | ☞ | ☒  | un | 1        | au    | W                | Vera Cruz 1739.        | D  | lp                    |                      |
| 12302  | <i>tanacetifolia W.</i>      | Tansy-leaved       | ☞ | ○  | un | 1        | jn.au | Y                | C. G. H. 1783.         | S  | co                    | Plu. ma. t.430.f.7   |
| 12303  | <i>sphaeranthus Link.</i>    | round-headed       | ☞ | ☒  | un | 2        | my.jn | Y                | Cono 1821.             | D  | co                    |                      |
| 1776.  | GRANGEA. J.                  | GRANGEA.           |   |    |    |          |       |                  | Compositae. Sp. 4-6.   |    |                       |                      |
| 12304  | <i>cuneifolia Lam.</i>       | wedge-leaved       | ○ | un | 1  | jl.s     | Y     | China 1816.      | S                      | co | Lam. ill. t.699.f.2   |                      |
| 12305  | <i>minima W.</i>             | least              | ○ | un | 1  | lin.jl.s | Y     | China 1768.      | S                      | co | Burm. in. t.58.f.3    |                      |
| 12306  | <i>maclraspatana Lam.</i>    | Madras             | ☒ | un | 1  | jl.au    | Y     | E. Indies 1780.  | S                      | co | Lam. ill. t.699.f.3   |                      |
| 12307  | <i>latifolia Desf.</i>       | two-colored        | ☒ | un | 1  | jl.au    | W.v   | E. Indies 1804.  | S                      | co | Lam. ill. t.699.f.1   |                      |
|        | <i>Cótula bicolor W.</i>     |                    |   |    |    |          |       |                  |                        |    |                       |                      |
| †1777. | ANACYCLUS. W.                | ANACYCLUS.         |   |    |    |          |       |                  | Compositae. Sp. 6-11.  |    |                       |                      |
| 12308  | <i>créticus W.</i>           | trailing           | ○ | pr | 1  | jn.au    | Y     | Candia 1759.     | S                      | co | Ann. mus. 11. t.92    |                      |
| 12309  | <i>orientalis W.</i>         | oriental           | ○ | pr | 1  | jn.au    | Y     | Levant 1731.     | S                      | co | Boe. lugd. 1. t.110   |                      |
| 12310  | <i>aureus W.</i>             | golden-flowered    | ○ | pr | 1  | jn.au    | Y     | Levant 1570.     | S                      | co | Lam. ill. t.700.f.2   |                      |
| 12311  | <i>valentinus W.</i>         | fine-leaved        | ○ | pr | 1  | jn.jl    | Y     | Spain 1656.      | S                      | co | Sch. ha. 3. t.254.b.  |                      |
| 12312  | <i>radiatus Link.</i>        | purple-stalked     | ○ | pr | 1  | jl.au    | Y     | S. Europe 1596.  | S                      | sl | Breyn. cent. t.75     |                      |
|        | <i>Anthemis valentina W.</i> |                    |   |    |    |          |       |                  |                        |    |                       |                      |
| 12313  | <i>clavatus Link.</i>        | clubbed            | ○ | pr | 1  | jl.au    | W     | Barbary 1801.    | S                      | co | Biv. cen. sic. 1. t.7 |                      |
| 1778.  | ANTHEMIS. W.                 | CHAMOMILE.         |   |    |    |          |       |                  | Compositae. Sp. 29-47. |    |                       |                      |
| 12314  | <i>rigescens W. en.</i>      | rigid              | ☞ | Δ  | pr | 2        | jl.s  | W                | Caucasus 1805.         | D  | co                    | W. hor. be. 1. t.62  |
| 12315  | <i>Cóta W.</i>               | Venetian           | ○ | pr | 1  | jl.au    | W     | Italy 1714.      | S                      | co | Plu. alm. t.17.f.5    |                      |
| 12316  | <i>altissima W.</i>          | tall               | ○ | pr | 6  | au       | W     | S. Europe 1731.  | S                      | co |                       |                      |
| 12317  | <i>maritima W.</i>           | sea                | ○ | pr | 1  | jl.au    | W     | England sea co.  | S                      | sl | Eng. bot. 2370        |                      |
| 12318  | <i>tomentosa W.</i>          | downy              | ☞ | Δ  | pr | 1        | jl.o  | W                | Levant 1795.           | D  | co                    |                      |
| 12319  | <i>pubescens W.</i>          | pubescent          | ☞ | Δ  | pr | 1        | jl.au | W                | S. Europe 1803.        | D  | co                    |                      |
| 12320  | <i>mixta W.</i>              | simple-leaved      | ☞ | Δ  | pr | 1        | jl.au | W                | France 1731.           | S  | co                    | Mic. gen. t.30.f.1   |
| 12321  | <i>saxatilis W. en.</i>      | rock               | ☞ | Δ  | pr | 1        | jl.au | W                | Hungary 1807.          | D  | co                    |                      |
| 12322  | <i>Chamomilla W. en.</i>     | various-leaved     | ☞ | Δ  | pr | 1        | jl.au | W                | S. Europe 1807.        | D  | co                    |                      |
| 12323  | <i>chta W.</i>               | cut-leaved         | ☞ | Δ  | pr | 1        | jn.o  | W                | Chio 1731.             | S  | co                    |                      |
| 12324  | <i>nobilis W.</i>            | common             | ☞ | Δ  | m  | 1        | jl.s  | W                | Britain gra.pa.        | D  | co                    | Eng. bot. 980        |
|        | <i>— flore pleno</i>         | double             |   |    |    |          |       |                  |                        |    |                       |                      |
| 12325  | <i>arvensis W.</i>           | corn               | ☞ | w  | 1  | jn.au    | W     | Britain dr. fi.  | S                      | co | Eng. bot. 602         |                      |
| 12326  | <i>austriaca W.</i>          | Austrian           | ○ | w  | 1  | my.au    | W     | Austria 1759.    | S                      | co | Bot. mag. 462         |                      |
| 12327  | <i>Cótula W.</i>             | stinking           | ○ | w  | 1  | jn.s     | W     | Britain cor. fi. | S                      | co | Eng. bot. 1772        |                      |
| 12328  | <i>fuscata W.</i>            | brown-scaled       | ○ | pr | 1  | jl.au    | W     | Portugal 1805.   | S                      | co |                       |                      |
| 12329  | <i>montana W.</i>            | mountain           | ☞ | Δ  | pr | 1        | jl.o  | Pu               | Italy 1759.            | D  | co                    | Ger. prov. t. 8      |
| 12330  | <i>Pyræthrum W.</i>          | Pellitory of Spain | ☞ | Δ  | or | 1        | jn.jl | W                | S. Europe 1570.        | D  | sp                    | Jac. schæ. 3. t. 371 |
| 12331  | <i>globosa W.</i>            | globe              | ☞ | Δ  | el | 1        | aus.  | W                | S. Europe 1570.        | D  | co                    | Eng. bot. 1472       |
| 12332  | <i>inctória W.</i>           | Ox-Eye             | ☞ | Δ  | pr | 1        | jn.n  | Y                | Britain sto. pl.       | D  | co                    |                      |
| 12333  | <i>discoidea W.</i>          | saw-leaved         | ○ | pr | 1  | jl.au    | Y     | Italy 1800.      | S                      | co |                       |                      |
| 12334  | <i>arabica W.</i>            | Arabian            | ○ | pr | 1  | jl.au    | D.Y   | Barbary 1753.    | S                      | sl | Smith epic. 9. t.10   |                      |
| 12335  | <i>apifolia B. Br.</i>       | Parsley-leaved     | ☞ | Δ  | pr | 2        | aus.  | W                | China 1819.            | D  | co                    | Bot. reg. 527        |
| 12336  | <i>punctata W.</i>           | dotted             | ☞ | Δ  | pr | 1        | aus.  | W                | Barbary 1818.          | S  | co                    | Desf. atl. t. 239    |
| 12337  | <i>ruthénica Bieb.</i>       | Russian            | ○ | pr | 1  | my.jn    | W     | Tauria 1823.     | D                      | co |                       |                      |
| 12338  | <i>fruticulosa Bieb.</i>     | shrubby            | ☞ | Δ  | pr | 1        | jn    | W                | Caucasus 1820.         | D  | co                    |                      |
| 12339  | <i>cornopifolia W.</i>       | Buckshorn-lvd.     | ☞ | Δ  | pr | 1        | jn.jl | W                | Spain 1818.            | D  | co                    |                      |
| 12340  | <i>alpina W.</i>             | alpine             | ☞ | Δ  | pr | 1        | jn.jl | W                | Austria 1824.          | D  | co                    | Jac. auct. app. t.30 |
| 12341  | <i>carpatia W.</i>           | Carpathian         | ☞ | Δ  | pr | 1        | jn.jl | W                | Carpathia 1820.        | D  | co                    |                      |
| 12342  | <i>fallax W.</i>             | doubtful           | ☞ | Δ  | pr | 1        | jl.au | W                | ..... 1825.            | S  | co                    |                      |
| 1779.  | CENTROSPERMUM. Spreng.       | CENTROSPERMUM.     |   |    |    |          |       |                  | Compositae. Sp. 1.     |    |                       |                      |
| 12343  | <i>chrysanthum Spreng.</i>   | yellow             | ○ | pr | 1  | jl.au    | Y     | Spain 1823.      | S                      | co |                       |                      |
| 1780.  | SANVITALIA. Cav.             | SANVITALIA.        |   |    |    |          |       |                  | Compositae. Sp. 1.     |    |                       |                      |
| 12344  | <i>procumbens Cav.</i>       | trailing           | ☞ | ○  | un | 1        | jl.au | Y                | Mexico 1798.           | S  | co                    | Bot. reg. 707        |



History, Use, Propagation, Culture.

1776. *Grangea*. A genus of Adanson's. The meaning of the word is unknown.  
 1777. *Anacyclus*. An abridgement of *Anastikoyelia* which was the name originally proposed by Vaillant, and which does not appear to have been altered for the better. He formed it from *an*, privative, *an* *σος*, a flower, and *κυκλος*, a circle; on account of the rows of ovaries without flowers, which are placed in a circle round the disk.  
 1778. *Anthemis*. From *ανθος*, a flower, on account of the multitude of flowers with which the plants are covered. *A. nobilis* is in considerable repute, both in the popular and scientific Materia Medica. The flowers, which are the parts used, have a strong and fragrant smell, and a bitter aromatic taste; both are extracted by water and alcohol. The active principles appear to be bitter extractive, resin, and essential oil. Medicinally, the flowers are considered tonic, carminative, and slightly anodyne: yet when a strong infusion of them is taken in a tepid state, it proves powerfully emetic. Given in substance, united with opium and astringents, if the bowels be easily affected, they have been successfully used for the cure of intermittents; and the infusion, in combination with ginger, or other aromatics, and the alkalies, is an excellent stomachic in dyspepsia, chlorosis, gout, flatulent cholc, and chronic debility of the intestinal canal. The tepid strong infusion is a ready emetic, and is often employed to promote the operation of other emetics. By coction in water, the essential oil is

- 12301 Leaves lyrate pinnated, Flowers radiant  
 12302 Leaves tripinnate : segment acute, Stem erect, Heads flosculose corymbose  
 12303 Stem hirsute, Leaves lyrate pinnatifid hairy, Heads terminal hemispherical  
 12304 Leaves cuneiform smooth 3-toothed stalked, Heads axill. sessile  
 12305 Leaves obl. cuneate repand-toothed stalked, Heads axill. sessile  
 12306 Leaves obl. sinuate toothed downy, Stem branched procumbent, Pedunc. 1-headed opp. the leaves  
 12307 Leaves obovate toothed cut at base stalked, Peduncles branched

- 12308 Leaves bipinnate, Leaflets oblong, Stem procumbent  
 12309 Leaves bipinnate, Leaflets linear subulate flat, Stem ascending, Peduncle naked terminal  
 12310 Leaves bipinnate roundish hoary with excavated dots  
 12311 Leaves decomposed linear : segm. divided roundish acute, Heads flosculose  
 12312 Leaves 3-pinnate, Pinn. linear-subulate downy, Stem branched divaricating, Pedunc. thick

12313 Leaves bipinnate linear, Pedunc. inflated, Grains winged

- 12314 Leaves bipinnatifid : segm. somewhat toothed rigid, Paleæ oblong acuminate  
 12315 Leaves bipinnatifid : segm. lin. subulate toothed, Paleæ round pungent dilated at base  
 12316 Leaves bipinnatifid : segm. lanc. somewhat toothed ; lower teeth reflexed, Paleæ lanc. cuspidate  
 12317 Leaves bipinnatifid dotted beneath : segm. lanc. entire, Grains naked, Stem herbaceous  
 12318 Snow-white, Leaves pinnate : pinnæ 3 or 5-fid, Invol. downy, Stem erect  
 12319 Leaves bipinnate : pinnæ linear, Stem erect and invol. downy, Inner scales sphacelate at end  
 12320 Leaves sessile pinnatifid : segments toothed, Stem erect branched subcorymbose  
 12321 Leaves pinnate : pinnæ linear entire subpubescent, Floral leaves simple, Branches 1-headed  
 12322 Rad. leaves bipinnatifid toothed : cauline pinnatifid somewhat toothed  
 12323 Leaves bipinnatifid stalked : segm. trifid oblong acute, Petioles sheathing, Sheaths toothed  
 12324 Lvs. bipinn. the segm. lin. subul. a little downy, Scales of recept. membranous scarcely long, than the disk [entire pappus  
 12325 Lvs. bipinnatif. their segments lin. lanc. pubesc. Recept. conical its scales lanc. Pericarps crowned with an  
 12326 Recept. conical : paleæ obl. mucronate, Grains naked, Leaves bipinnate woolly  
 12327 Leaves bipinnatif. glabrous their segm. subul. Receptacle conical its scales setaceous, Pappus O.  
 12328 Recept. subconical, Paleæ obl. blunt, Grains naked, Lvs. bipinnate linear filiform 3-parted  
 12329 Leaves pinnated downy : pinnæ linear trifid bluntish, Stem ascending, Pedunc. long naked downy  
 12330 Leaves 3-pinnate : leaflets linear, Stem decumbent, Branches axillary 1-headed  
 12331 Leaves hairy bipinnatifid : segments trifid lanc. linear, Stem nearly erect divided  
 12332 Leaves bipinnatifid serrated downy beneath, Stem erect branched subcorymbose  
 12333 Leaves bipinnate serrated smooth, Stem erect branched, Pappus membranous toothed cut on one side  
 12334 Leaves pinnated : pinnæ linear 3-parted, Stem proliferous, Heads solitary axillary sessile  
 12335 Leaves smooth pinnatifid : lobes cuneate trifid or cut, Heads solitary  
 12336 Leaves bipinnatifid dotted beneath : segments entire, Crown of grains toothed  
 12337 Leaves woolly bipinnate : pinnæ lanc. acute, Flowering branches corymbose, Recept. conical  
 12338 Leaves stalked silky bipinnate : segm. linear acute, Invol. downy, Rays ovate  
 12339 Leaves linear sessile pinnatifid : segm. entire, Stem erect branched  
 12340 Leaves sessile pinnatifid : segm. linear subulate pectinate entire, Stem downy 1-headed  
 12341 Leaves pinnated : pinnæ linear entire blunt, Stem downy 1-headed [edge  
 12342 Leaves pinnated revolute at edge : segm. lin. subul. subtrifid, Upper scales of invol. blunt with a membran.

12343 The only species, resembling a Calendula

12344 Stem procumbent, Leaves ovate entire



and Miscellaneous Particulars.

dissipated : chamomile flowers, therefore, ought never to be ordered in decoctions. Externally, they are used as fomentations in cholick, intestinal inflammation, and to phagedenic ulcers : and their infusion is also found to be a useful addition to emollient anodyne gylsters in flatulent cholick, and in irritations of the rectum producing tenesmus. (*London Disp.* p. 158.) There is a double variety generally grown for the apothecaries ; it is more ornamental than the single, but much less efficacious as a medicine.

A. cotula is said by Linnæus to be a very grateful plant to toads ; to drive away fleas, and to annoy bees. It is a very common weed on soft rich soils and dunghills, and increases by seeds with amazing rapidity. The tribe of Anthemidea, of which this genus is the example, are nearly related to Heliantheæ. In their style they resemble Inuleæ, Senecioneæ, and Nassauvieæ, but their floral organs are different. They inhabit Europe, Asia, and Africa, scarcely one has been found in America, or the southern parts of the world.

1779. *Centrospermum*. From *serotum*, a spur, and *ovigena*, a seed, in allusion to the spiny points of the pappus. A small annual plant with the aspect of Calendula.

1780. *Sanvitalia*. Named by Lamarck without any explanation. A hardy annual plant, with flowers having a yellow ray and dark purple disk, like some species of Rudbeckia.

|                                    |                        |        |              |                   |                   |         |        |                        |
|------------------------------------|------------------------|--------|--------------|-------------------|-------------------|---------|--------|------------------------|
| 1781. <i>ACHILLEA W.</i> MILFOIL.  |                        |        |              | <i>Compositæ.</i> | <i>Sp. 50—69.</i> |         |        |                        |
| 12345 <i>lingulata W.</i>          | tongue-leaved          | ∇ Δ or | 1 j.l.au     | W                 | Hungary           | 1815.   | D co   | Pl.rar.hun.1.t.2       |
| 12346 <i>Hérba-róta W.</i>         | Herbarota              | ∇ Δ or | 1 jn.jl      | W                 | France            | 1640.   | D co   | All.ped.1.t.9.f.2      |
| 12347 <i>grandiflora M. B.</i>     | great-flowered         | ∇ Δ or | 1 j.l.au     | W                 | Caucasus          | 1815.   | D co   |                        |
| 12348 <i>Ptarmica W.</i>           | Sneezewort             | ∇ Δ or | 1 j.l.n      | W                 | Britain           | mo.p.l. | D co   | Eng. bot. 757          |
| <i>β flore pleno</i>               | <i>double-flowered</i> | ∇ Δ or | 1 j.l.n      | W                 | .....             | ...     | C co   |                        |
| 12349 <i>cristata W.</i>           | slender-branch.        | ∇ Δ or | 1 j.l.au     | W                 | Italy             | 1784.   | D p.l  |                        |
| 12350 <i>Agératum W.</i>           | Sweet Maudlin          | ∇ Δ or | 2 au.o       | Y                 | S. Europe         | 1570.   | D s.p  |                        |
| 12351 <i>decolorans W. en.</i>     | pale-yellow            | ∇ Δ or | 1 jn.au      | W, Y              | .....             | 1798.   | D co   |                        |
| 12352 <i>speciosa W. en.</i>       | spear-leaved           | ∇ Δ or | 1 j.l.s      | W                 | .....             | 1804.   | D co   |                        |
| 12353 <i>alpina W.</i>             | Alpine                 | ∇ Δ or | 1 j.l.n      | W                 | Siberia           | 1731.   | D s.p  | Bo. mu. 144.t.101      |
| 12354 <i>serrata W.</i>            | saw-leaved             | ∇ Δ or | 2 au.s       | Y                 | Switzerl.         | 1686.   | D co   |                        |
| 12355 <i>Clavénna W.</i>           | silver-leaved          | ∇ Δ or | 1 jn.jl      | W                 | Austria           | 1656.   | D p.l  | Bot. mag. 1287         |
| 12356 <i>impatiens W.</i>          | impatiant              | ∇ Δ or | 2 jn.s       | W                 | Siberia           | 1759.   | D co   | Gme. si. 2.t. 83.f.1   |
| 12357 <i>pectinata W.</i>          | comb-leaved            | ∇ Δ or | 1 1/2 au.s   | Fa. Y             | Hungary           | 1801.   | D co   | Pl.rar.hun.1.t.34      |
| <i>ochroleuca Waldst.</i>          |                        |        |              |                   |                   |         |        |                        |
| 12358 <i>squarrosa W.</i>          | rough-headed           | ∇ Δ or | 1 j.l.au     | W                 | .....             | 1775.   | D p.l  |                        |
| 12359 <i>falcata W.</i>            | sickle-leaved          | ∇ Δ or | 1 jn.s       | Pa. Y             | Levant            | 1739.   | D co   | Lam. ill. t. 683.f.3   |
| 12360 <i>tenuifolia W.</i>         | slender-leaved         | ∇ Δ or | 1 jn.au      | Y                 | Levant            | 1733.   | D co   |                        |
| 12361 <i>Santolina W.</i>          | Lavend.-cotton-iv.     | ∇ Δ or | 1 jn.au      | Pa. Y             | Levant            | 1759.   | D p.l  |                        |
| 12362 <i>anthemoides W.</i>        | Chamomile-like         | ∇ Δ or | 1 jn.au      | Pa. Y             | .....             | ...     | D co   |                        |
| 12363 <i>atrata W.</i>             | black-cupped           | ∇ Δ or | 2 j.l.s      | W                 | Austria           | 1596.   | D co   | Jac. aust. 1. t. 77    |
| 12364 <i>biserrata Bieb.</i>       | biserrate              | ∇ Δ or | 1 jn.jl      | W                 | Albania           | 1820.   | D co   |                        |
| 12365 <i>coronopifolia W.</i>      | Golden-horn-iv.        | ∇ Δ or | 1 1/2 j.l.au | Pa. Y             | Levant            | 1823.   | D co   | Wil. achill. t. 1.f. 2 |
| 12366 <i>albida W. en.</i>         | whitish                | ∇ Δ or | 1 j.l.       | Pa. Y             | .....             | 1819.   | D co   |                        |
| 12367 <i>chamaemelifolia Dec.</i>  | dwarf                  | ∇ Δ or | 1 j.l.       | W                 | France            | 1825.   | D co   |                        |
| 12368 <i>Gerbéri W.</i>            | Siberian               | ∇ Δ or | 1 1/2 j.l.au | Pa. Y             | Siberia           | 1821.   | D co   | Gmel. sib. t. 83.f. 2  |
| 12369 <i>moschata W.</i>           | musk                   | ∇ Δ or | 2 jn.jl      | W                 | Italy             | 1775.   | D co   | Jac. aus. 5.t. ap. 33  |
| 12370 <i>nana W.</i>               | dwarf                  | ∇ Δ or | 1 jn.au      | W                 | Italy             | 1759.   | D co   | All. ped. 1.t. 9.f. 2  |
| 12371 <i>cretica W.</i>            | Cretan                 | ∇ Δ or | 1 j.l.s      | Pa. Y             | Candia            | 1739.   | D p.l  | Bosc. mus. t. 94       |
| 12372 <i>egyptiaca W.</i>          | Egyptian               | ∇ Δ or | 1 j.l.s      | Pa. Y             | Levant            | 1640.   | R. p.l | Tourn. it. 1. t. 87    |
| 12373 <i>macrophylla W.</i>        | large-leaved           | ∇ Δ or | 3 j.l.au     | W                 | Italy             | 1710.   | D co   | Triumf. obs. t. 23     |
| 12374 <i>agrea W.</i>              | golden-flower'd        | ∇ Δ or | 1 jn.s       | Y                 | Levant            | 1739.   | D co   |                        |
| 12375 <i>Eupatorium W.</i>         | Caspian                | ∇ Δ or | 2 j.l.au     | Y                 | Casp. Sho.        | 1803.   | D co   |                        |
| 12376 <i>compacta W.</i>           | compact                | ∇ Δ or | 1 j.l.au     | Pa. Y             | .....             | 1803.   | D co   |                        |
| 12377 <i>pubescens W.</i>          | downy                  | ∇ Δ or | 1 jn.s       | L. Y              | Levant            | 1739.   | D p.l  |                        |
| 12378 <i>crithmifolia W.</i>       | Samphire-leav.         | ∇ Δ or | 1 j.l.au     | W                 | Hungary           | 1804.   | D p.l  | Pl.rar.hun.1.t. 66     |
| 12379 <i>tanacetifolia W.</i>      | Tansy-leaved           | ∇ Δ or | 1 j.l.au     | Pk                | Switzerl.         | 1658.   | D co   | Moris. G. t. 11. f. 14 |
| 12380 <i>distans W.</i>            | branching              | ∇ Δ or | 3 j.l.au     | W                 | Italy             | 1804.   | D co   | All. ped. t. 53.f. 1   |
| 12381 <i>lanata W. en.</i>         | woolly                 | ∇ Δ or | 1 j.l.au     | W                 | .....             | 1804.   | D co   |                        |
| 12382 <i>magna W.</i>              | great                  | ∇ Δ or | 3 jn.n       | W                 | S. Europe         | 1683.   | D co   |                        |
| 12383 <i>Millefolium W.</i>        | Yarrow                 | ∇ Δ or | 2 jn.o       | W                 | Britain           | pas.    | D co   | Eng. bot. 758          |
| <i>β rubra</i>                     | <i>red-flowered</i>    | ∇ Δ or | 2 jn.o       | W                 | .....             | ...     | D co   |                        |
| 12384 <i>asplenifolia P. S.</i>    | Rose-colored           | ∇ Δ or | 1 jn.au      | Pk                | N. Amer.          | 1803.   | D s.p  | Vent. cels. t. 93      |
| 12385 <i>micrantha W.</i>          | small-flowered         | ∇ Δ or | 1 jn.o       | Y                 | Levant            | 1805.   | D p.l  |                        |
| 12386 <i>tomentosa W.</i>          | tomentose              | ∇ Δ or | 2 my.o       | Y                 | Britain           | hea.    | D co   | Eng. bot. 2532         |
| 12387 <i>ochroleuca W.</i>         | cream-colored          | ∇ Δ or | 2 j.l.s      | Pa. Y             | .....             | 1804.   | D co   |                        |
| 12388 <i>microphylla W.</i>        | small-leaved           | ∇ Δ or | 1 j.l.s      | W                 | Spain             | 1800.   | D co   | Barr. ic. 1114         |
| 12389 <i>Ligustica W.</i>          | Ligurian               | ∇ Δ or | 1/2 jn.au    | W                 | Italy             | 1791.   | D co   | All.ped.1.t. 53.f. 2   |
| 12390 <i>nobilis W.</i>            | showy                  | ∇ Δ or | 2 jn.au      | W                 | Germany           | 1640.   | D co   | Schk. han. 3. t. 255   |
| 12391 <i>myriophylla W. en.</i>    | many-leaved            | ∇ Δ or | 1 1/2 j.l.s  | W                 | .....             | 1798.   | D co   |                        |
| 12392 <i>odorata W.</i>            | sweet-scented          | ∇ Δ or | 1 jn.au      | W                 | Spain             | 1729.   | D co   | Jac. col. 1. t. 21     |
| 12393 <i>setacea W.</i>            | bristly                | ∇ Δ or | 1 jn.au      | W                 | Hungary           | 1805.   | D p.l  | Pl.rar.hun.1.t. 80     |
| 12394 <i>abrotanifolia W.</i>      | Southernw.-lv.         | ∇ Δ or | 2 jn.au      | Y                 | Levant            | 1739.   | D p.l  |                        |
| 1782. <i>TRIDAX W.</i> TRIDAX.     |                        |        |              | <i>Compositæ.</i> | <i>Sp. 1—2.</i>   |         |        |                        |
| 12395 <i>procumbens W.</i>         | long stalked           | ○ un   | 1/2 j.l.au   | Y                 | Mexico            | 1804.   | S co   |                        |
| 1783. <i>AMEL-LUS W.</i> AMEL-LUS. |                        |        |              | <i>Compositæ.</i> | <i>Sp. 3—4.</i>   |         |        |                        |
| 12396 <i>Lychnitis W.</i>          | trailing               | ∇ Δ pr | 1/2 jn.jl    | Vi                | C. G. H.          | 1768.   | C p.l  | Jac. co. su. t. 10. ff |
| 12397 <i>villosus Ph.</i>          | villous                | ∇ Δ pr | 1 au.s       | Y                 | Missouri          | 1811.   | D co   |                        |
| 12398 <i>spinulosus Ph.</i>        | spiny                  | ∇ Δ pr | 2 au.s       | Y                 | Missouri          | 1811.   | D co   |                        |



1781. *Achillea*. Named after Achilles, a disciple of Chiron, and the first physician who used it in healing wounds. *A. Ptarmica* is called sneeze-wort, because the dried powder of the leaves snuffed up the nostrils provokes sneezing. In the spring, the young tender shoots were formerly put into salads, to correct the coldness of other herbs. There is a variety with double flowers, which is very ornamental, especially in pots. *A. moschata*, the *Genipi* of the Swiss, is an excellent sudorific, aromatic, and acrid, and is a grateful food to cattle.

- 12345 Leaves obl. linear blunt doubly serrulated downy ciliated, Stem villous.  
 12346 Leaves linear narrowed at base serrated and stem smooth [at end  
 12347 Leaves lin. acute equally and finely serrulate smooth, Stem panicled, Corymbs few-headed, Paleæ bifid  
 12348 Leaves linear lanc. acuminate sharply serrated
- 12349 Leaves lin. plane acuminate toothed : teeth emarginate transversely ciliated, Stem diffuse  
 12350 Leaves obl. blunt serrated narrowed into the petiole fascicled glabrous, Corymb compound contracted  
 12351 Leaves linear acuminate equally and finely serrated smooth : serratures of the base deepest, Paleæ entire  
 12352 Leaves lanc. equally and finely serrated downy, Serratures of base deepest, Stem panicled, Paleæ entire  
 12353 Leaves linear pectinate pinnatifid glabrous : segm. subserrated, Corymb compound  
 12354 Leaves downy linear lanc. pinnatifid : segments deepest at base, Corymb compound  
 12355 Leaves downy pinnatifid smooth : segm. linear blunt : upper toothed at end, Corymb simple  
 12356 Leaves pectinate pinnatifid smooth : segm. linear acute ; lower 2-parted, Corymb simple  
 12357 Leaves pectinate pinnatifid : segm. linear subulate entire, Corymb compound contracted, Stem downy
- 12358 Leaves pinnatifid : segm. obl. cuneate unequally toothed vertically bent, Corymbs simple  
 12359 Leaves pinnated roundish pilose : pinnæ 3-parted toothed imbricated across, Corymbs simple  
 12360 Leaves pinnat. somew. downy, Pinnæ 3-part. blunt entire transversely imbr. Ray scarcely long. than invol.  
 12361 Leaves pinnated somewhat downy, Pinnæ 3-parted transverse distant : segm. 3-toothed, Stem branched  
 12362 Leaves pinnated downy : pinnæ linear entire blunt ; lowest longest, Cymes simple  
 12363 Leaves pectinate pinnate smooth : pinnæ linear acuminate usually 3-parted  
 12364 Leaves linear-lanc. acuminate unequally and finely biserrate villous beneath  
 12365 Leaves downy pinnatifid : segm. lanc. serrated, Corymb compound  
 12366 Stem downy, Leaves pinnated minutely cut acute rigid bent upwards with a downy nerve  
 12367 Leaves pinnated : pinnæ long distant very narrow linear entire, Corymb compact branched  
 12368 Cauline lvs. pinnatifid with entire segm. : radice pinnatifid with 3-fid segm. Ray scarcely larger than invol.  
 12369 Leaves pectinate pinnate smooth, Pinnæ linear bluntish entire dotted  
 12370 Leaves pinn. villous : pinnæ toothed linear ; radical bipinnate, Stem quite simple  
 12371 Leaves pinn. downy : pinnæ roundish 4-fid concave spreading, Stem branched at end  
 12372 Leaves pinn. downy : pinnæ roundish bluntly toothed, Corymb compound  
 12373 Leaves pinn. smooth : pinnæ lanc. cut-serrated ; outer confluent, Corymb compound  
 12374 Leaves bipinnate downy : pinnæ linear-lanc. toothed, Corymb simple, Peduncles long  
 12375 Leaves bipinnatifid hoary : segm. lin. lanc. serrated, Corymb compound globose, Flowers flosculus  
 12376 Leaves bipinnatifid setaceous villous : segm. lanc. entire, Corymb compound contracted, Flowers flosculus  
 12377 Leaves bipinnatifid pubescent : segm. linear lanc. unequal acute, Corymb compound  
 12378 Leaves downy : cauline bipinnatifid with linear blunt segm. ; radical bipinnate, Corymbs compound  
 12379 Leaves bipinnatifid : segm. lanc. serrated, Corymb compound spreading  
 12380 Leaves bipinnatifid : segm. lanc. cut-serrated, Rachis winged cut-serrated, Corymbs fastigate compound  
 12381 Leaves bipinnatifid villous : segm. lanc. blunt, Corymbs fastigate compound  
 12382 Leaves thrice pinnatifid : segm. lanc. acute, Corymbs compound fastigate  
 12383 Leaves bipinnate slightly hairy their segm. linear toothed acute, Stems furrowed
- 12384 Leaves pinnatifid downy beneath : segm. toothed, Stem branched fastigate smooth  
 12385 Leaves bipinnatifid downy : segm. lanc. entire, Corymb compound  
 12386 Leaves bipinnatifid woolly : the segm. crowded linear acute, Corymbs repeatedly compound  
 12387 Leaves subbipinnatifid : pinnæ of the base undivided : segm. lin. lanc. Corymb compound, Invol. cylindr.  
 12388 Leaves bipinnatifid shorter than the intervals between them : segm. lin. entire, Corymbs comp. fastigate  
 12389 Leaves bipinnatifid : segm. lin. finely serrated, Rachis winged entire, Corymb compound fastigate  
 12390 Cauline leaves bipinnatifid : segm. lin. somew. toothed, Rachis winged toothed : radical thrice pinnatifid  
 12391 Leaves bipinnate downy : pinnæ pinnatifid, Segments linear-subulate, Corymbs compound fastigate  
 12392 Leaves bipinnate pilose beneath : pinnæ linear entire, Corymb simple  
 12393 Leaves bipinnate : leaflets linear setaceous mucronate very compact pilose, Corymbs compound fastigate  
 12394 Leaves bipinnate downy : pinnulæ very fine linear entire distant, Corymbs compound fastigate

12395 The only species

- 12396 Leaves hoary linear lanc. opposite : those of the branches alternate  
 12397 Very villous, Leaves sessile oblong acuminate entire, Heads axillary on short stalks  
 12398 Hoary, Lvs. bipinnatifid cut-toothed, Segm. linear rigid mucronate, Heads lateral and terminal clustered



and Miscellaneous Particulars.

1782. *Tridax*. From *tridax*, cut into three pieces. The rays of the flower are divided in three.  
 1783. *Amellus*. A name used by Virgil for a beautiful flower growing on the banks of the river *Mella*. The plant of Virgil is supposed to have been *Aster Amellus*.



|                                     |                                     |             |            |     |               |       |                          |
|-------------------------------------|-------------------------------------|-------------|------------|-----|---------------|-------|--------------------------|
| 1784. STARKEA <i>W.</i>             | STARKEA.                            | Compositae. | Sp. 1.     |     |               |       |                          |
| 12399 umbellata <i>W.</i>           | umbel-flowered                      | ♀ ☒ un      | 1½ jn.jl   | Y   | Jamaica       | 1768. | D lp Lam. ill.t.682.f.2  |
| 1785. COLUMEL/LIA. <i>Jacq.</i>     | COLUMELLIA.                         | Compositae. | Sp. 1.     |     |               |       |                          |
| 12400 biennis <i>Jacq.</i>          | biennial                            | ♀ ☒ un      | 1 jn.jl    | Y   | C. G. H.      | 1821. | S co Jac.schœ.3.t.301    |
| 1786. ECLIP'TA. <i>W.</i>           | ECLIPTA.                            | Compositae. | Sp. 2—10.  |     |               |       |                          |
| 12401 erecta <i>W.</i>              | upright                             | ○ un        | 2 jl.s     | W   | America       | 1690. | S lp Dil.elt.t.114.f.137 |
| 12402 prostrata <i>W.</i>           | trailing                            | ♂ ☒ un      | ¼ jl.s     | W   | E. Indies     | 1732. | S lp Dil.elt.t.113.f.138 |
| 1787. MEYER'A. <i>Szw.</i>          | MEYERA.                             | Compositae. | Sp. 1.     |     |               |       |                          |
| 12403 sessilis <i>Szw.</i>          | sessile                             | ♀ ☒ un      | 1 jl.au    | Y   | W. Indies ... |       | D co Bot. rep. 429       |
| 1788. CHRYSANTHEL/LUM. <i>P. S.</i> | CHRYSANTHELLUM.                     | Compositae. | Sp. 1.     |     |               |       |                          |
| 12404 procumbens <i>P. S.</i>       | procumbent                          | ☒ un        | 1½ jn.jl   | Y   | W. Indies     | 1768. | S co Sw. ob.314.t.8.f.1  |
|                                     | <i>Verbesina nitica W.</i>          |             |            |     |               |       |                          |
| 1789. SIEGESBECK'IA. <i>W.</i>      | SIEGESBECKIA.                       | Compositae. | Sp. 2—5.   |     |               |       |                          |
| 12405 orientalis <i>W.</i>          | oriental                            | ○ pr        | 2 au.o     | Y   | India         | 1730. | S co Schk.han.3.t.256    |
| 12406 flosculosa <i>W.</i>          | small-flowered                      | ○ pr        | 2 jn.jl    | Y   | Peru          | 1784. | S co L'Her. stirp.t.16   |
| *1790. VERBESIN'A. <i>W.</i>        | VERBESINA.                          | Compositae. | Sp. 10—23. |     |               |       |                          |
| 12407 alata <i>W.</i>               | wing-stalked                        | ♀ Δ pr      | 2 my.o     | Or  | S. Amer.      | 1699. | C lp Bot. mag. 1716      |
| 12408 virginica <i>W.</i>           | white-flowered                      | ♀ Δ pr      | 2 jl.s     | W   | N. Amer.      | 1812. | D co                     |
| 12409 gigantea <i>W.</i>            | tree                                | ♀ ☒ un      | 8 ...      | Y   | W. Indies     | 1758. | C lp Jac. ic. 1. t. 175  |
| 12410 Siegesbeckia <i>W.</i>        | American                            | ♀ Δ un      | 3 o.n      | Y   | Virginia      | 1731. | D co                     |
| §12411 Coreopsis <i>Ph.</i>         | Coreopsis-like                      | ♀ Δ pr      | 5 an       | Y   | N. Amer.      | 1640. | D co Jac. vind. 2.t.110  |
|                                     | <i>Coreopsis alternifolia W.</i>    |             |            |     |               |       |                          |
| 12412 serrata <i>W.</i>             | saw-leaved                          | ♀ Δ un      | 3 jl.o     | Y   | Mexico        | 1803. | D lp Cav. ic. 3. t. 214  |
| 12413 sativa <i>H. K.</i>           | Oil-seed                            | ☒ un        | 6 au.s     | Y   | E. Indies     | 1806. | S co Bot. mag. 1017      |
| 12414 calendulacea <i>W.</i>        | Ceylon                              | ☒ un        | 2 jl.s     | Y   | Ceylon        | 1739. | S co Bur. zey. t. 22.f.1 |
| 12415 dichotoma <i>W.</i>           | forked                              | ☒ un        | 3 jn.jl    | Y   | E. Indies     | 1789. | S co M. co. go. 1779.t.4 |
| 12416 fruticosa <i>W.</i>           | shrubby                             | ♀ ☒ un      | 3 jn.au    | Y   | W. Indies     | 1759. | C co Plum. ic. t. 52     |
| 1791. SYNEDREL/LA. <i>P. S.</i>     | SYNEDRELLA.                         | Compositae. | Sp. 1—3.   |     |               |       |                          |
| 12417 nodiflora <i>P. S.</i>        | sessile-flowered                    | ☒ w         | ½ jn.jl    | Y   | W. Indies     | 1726. | S sl Ex. flora. 60       |
| 1792. GALINSO'GEA. <i>W.</i>        | GALINSOGEA.                         | Compositae. | Sp. 2—6.   |     |               |       |                          |
| 12418 parviflora <i>W.</i>          | small-flowered                      | ○ un        | 3 my.s     | D.Y | S. Amer.      | 1796. | S co Cav. ic. 3. t. 281  |
| 12419 trilobata <i>W.</i>           | three-lobed                         | ○ un        | 3 aun      | O   | Peru          | 1797. | S co Bot. mag. 1895      |
| 1793. ACMEL/LA. <i>P. S.</i>        | ACMELLA.                            | Compositae. | Sp. 2—7.   |     |               |       |                          |
| 12420 mauritiana <i>P. S.</i>       | Balm-leaved                         | ☒ un        | 1½ jl.au   | Y   | Mauritius     | 1768. | S sl Rump. am.6.t.65     |
|                                     | <i>Spilanthes Acemella W.</i>       |             |            |     |               |       |                          |
| 12421 bupthalmoides <i>P. S.</i>    | oval-leaved                         | ○ un        | 1½ jl.s    | Y   | S. Amer.      | 1798. | S co Jac. schœ.2.t.151   |
| 1794. ZALUZA'NIA. <i>P. S.</i>      | ZALUZANIA.                          | Compositae. | Sp. 1—2.   |     |               |       |                          |
| 12422 triloba <i>P. S.</i>          | three-lobed                         | ♀ Δ un      | 1½ jl.s    | Y   | Mexico        | 1798. | D lp                     |
| 1795. PASCA'LIA. <i>W.</i>          | PASCALIA.                           | Compositae. | Sp. 1.     |     |               |       |                          |
| 12423 glauca <i>W.</i>              | glaucous-leaved                     | ♀ Δ pr      | 1½ jn.au   | Y   | Chili         | 1799. | D co Bot. rep. 549       |
| 1796. HELIOP'SIS. <i>P. S.</i>      | HELIOPSIS.                          | Compositae. | Sp. 1.     |     |               |       |                          |
| 12424 laevis <i>P. S.</i>           | Sunflower-ld.                       | ♂ Δ or      | 6 jl.o     | Y   | N. Amer.      | 1714. | D co L'Her. stirp. t.45  |
|                                     | <i>Buphthalmum helianthoides W.</i> |             |            |     |               |       |                          |
| *1797. BUPHTHAL/MUM. <i>W.</i>      | OX-EYE.                             | Compositae. | Sp. 9—27.  |     |               |       |                          |
| §12425 frutescens <i>W.</i>         | shrubby                             | ♀ ☒ or      | 2 jn.au    | Y   | America       | 1696. | C pl Dill.elt. t.28.f.44 |
| §12426 arborescens <i>W.</i>        | tree                                | ♀ ☒ or      | 3 my.s     | Y   | Bermudas      | 1699. | C pl Dill.elt. t.38.f.43 |



History, Use, Propagation, Culture,

1784. *Starkea*. Named by Willdenow, after the Rev. Mr. Starke, of Gros Tchirna, in Silesia, who paid much attention to the Cryptogamous plants of that country. This genus was included by Linnaeus in *Amellus*, from which Willdenow remarks that it differs in habit, and in its hairy receptacle.

1785. *Columella*. So called by Jacquin, after the celebrated Geoponic writer, Lucius Junius Moderatus Columella, a Spaniard, born forty-two years before Christ. A plant resembling *Amellus annua*. The flowers are yellow and sessile in the dichotomies of the branches. The *Columella* of Loureiro is a different thing.

1786. *Eclipta*. A translation of the Malay name *Wangi-wangi-maih*, which signifies an eclipse of the sun, to which the form and disposition of the radiated flower has been likened. Worthless weeds with white flowers.

1787. *Meyera*. Named after Gotthelb-Andrew Meyer, a German, who published, in 1694, a dissertation upon the *Sycomerus* of Scipure.

1788. *Chrysanthellum*. A diminutive of *Chrysanthemum*, which see.

1789. *Siegesbeckia*. Dr. John George Siegesbeck, a German physician, director of the garden at St. Petersburg, published in 1736, a catalogue of it under the title of *Flora of St. Petersburg*. There was also a *Botanosophia* from his pen in 1737.

- 12399 Leaves opp. 3-nerved downy beneath, Heads in umbels
- 12400 The only species
- 12401 Stem erect strigose, Leaves oblong lanc. sessile remotely serrated  
12402 Stem prostrate strigose, Leaves obl. lanc. somewhat stalked subserrate somewhat wavy scabrous
- 12403 Stem erect, Leaves amplexicaul. ovate toothed
- 12404 Leaves alternate 3-parted toothed : radical oblong serrated, Stem creeping
- 12405 Leaves stalked ov. unequally toothed subtriangular at base somewhat cut, Outer invol. longer than inner  
12406 Leaves sessile ovate toothed, Florets of disk 3-toothed triandrous
- 12407 Leaves alternate decurrent wavy blunt  
12408 Leaves alternate lanc. subserrate, Corymb compound  
12409 Leaves alternate deeply pinnatifid, Stem shrubby  
12410 Leaves opposite ovate lanc. serrated acuminate at each end decurrent  
12411 Stem winged, Lvs. lanc. acuminate somewhat stalked serrated, Heads corymbose, Cor. of ray lanceolate
- 12412 Leaves opposite ovate-lanc. serrated downy beneath  
12413 Leaves opposite cordate-lanc. amplexicaul. remotely serrated, Invol. simple 5-leaved  
12414 Leaves opposite obl. lanc. bluntnish strigose serrated at end, Pedunc. 1-headed long, Invol. simple  
12415 Leaves opposite ov. acuminate serrated 3-nerved hairy, Pedunc. winged 1-headed, Invol. simple  
12416 Leaves opposite ov. acuminate serrated 3-nerved scabrous on each side, Pedunc. 1-headed axillary
- 12417 Leaves opposite ov. serrated 3-nerved, Heads axillary subsessile, Invol. simple, Stem trichotomous
- 12418 Leaves ovate 3-nerved serrated  
12419 Leaves oblong lanceolate toothed 3-nerved : lower hastate 3-lobed
- 12420 Stem procumbent downy, Lvs. ovate entire, Pedunc. lateral, Ray shorter than disk
- 12421 Leaves ovate serrated 3-nerved downy beneath, Ray many-flowered
- 12422 Leaves ternate 3-lobed : lower opposite, Stem suffrutescent
- 12423 The only species
- 12424 Leaves opposite ovate serrated 3-nerved, Invol. leafy, Stem herbaceous
- 12425 Leaves opposite obovate hoary, Petioles with 2 teeth  
12426 Leaves opposite lanceolate narrowed at base not toothed smooth



and Miscellaneous Particulars.

1790. *Verbesina*. A name with the same meaning as *Verbena*, which see. The *V. alata* resembles *Vervain* in the appearance of its foliage.

1791. *Synedrella*. A name of unknown meaning. A little worthless weed.

1792. *Galinsoga*. Named after after Mar. Ma. Galinsoga, first physician to the queen of Spain, and intendant of the garden of Madrid. One of the species, *G. trilobata*, is sometimes cultivated as a hardy annual. But it does not possess much merit.

1793. *Acmella*. From *ακμω*, a point, on account of the pricking taste of the foliage.

1794. *Zaluzianskia*. Apparently an alteration of *Zaluzianskia*, a name applied in error to *Marsilea trifolia*, and formed in honor of an obscure Polish botanist.

1795. *Pascalia*. A genus dedicated by Ortega to Didan Pascal, doctor of medicine, and a professor at Parma.

1796. *Helioopsis*. A name with the same meaning, and a genus with the same habit, as *Helianthus*, which see.

1797. *Bupthalmum*. From *εὐς*, an ox, and *ὀφθαλμος*, an eye, in allusion to the broad open disk of the flowers. It is believed that the *Bupthalmum* of Pliny is a species of *Anthemis*.

|                              |                |   |    |       |       |   |           |       |   |     |                          |
|------------------------------|----------------|---|----|-------|-------|---|-----------|-------|---|-----|--------------------------|
| 12427 sericeum <i>W.</i>     | silky          | □ | or | 3     | my.jl | Y | Canaries  | 1779. | C | p.l | Bot. mag. 1836           |
| 12428 spinosum <i>W.</i>     | prickly        | ○ | or | 3     | jn.s  | Y | Spain     | 1570. | S | co  | Barr. ic. 551            |
| 12429 aquaticum <i>W.</i>    | sweet-scented  | ○ | or | 4     | jl.au | Y | S. Europe | 1731. | S | co  | Breyer. cent. t. 77      |
| 12430 maritimum <i>W.</i>    | sea            | △ | or | 1     | jl.s  | Y | Sicily    | 1640. | D | sl  | Bocc. mus. t. 129        |
| 12431 salicifolium <i>W.</i> | Willow-leaved  | △ | or | 1 1/2 | jn.o  | Y | Austria   | 1759. | D | co  | Jac. aust. 4. t. 370     |
| 12432 grandiflorum <i>W.</i> | great-flowered | △ | or | 1 1/2 | jn.o  | Y | Austria   | 1732. | D | p.l | Moris. s. 6. t. 7. f. 52 |
| 12433 cordifolium <i>W.</i>  | heart-leaved   | △ | or | 1     | jn.au | Y | Hungary   | 1739. | D | p.l | Pl. rar. hu. 2. t. 113   |

FRUSTRANEA.

|                                 |                   |   |    |    |       |      |                        |           |       |   |     |                           |
|---------------------------------|-------------------|---|----|----|-------|------|------------------------|-----------|-------|---|-----|---------------------------|
| 11798. HELIANTHUS. <i>W.</i>    | SUN FLOWER.       |   |    |    |       |      |                        |           |       |   |     |                           |
| 12434 annuus <i>W.</i>          | annual            | ○ | or | 6  | jn.o  | Y    | Compositae. Sp. 24-31. | S. Amer.  | 1596. | S | co  | Reanal. spec. t. 83       |
| 12435 indicus <i>W.</i>         | dwarf annual      | ○ | or | 3  | jn.o  | Y    | Pa. Y                  | Egypt     | 1785. | S | co  | Taverni. ic. 764          |
| 12436 tubaeformis <i>W.</i>     | tube-flowered     | ○ | or | 5  | jl.au | Y    |                        | Mexico    | 1799. | S | co  | Jac. schiz. 3. t. 375     |
| 12437 dentatus <i>W.</i>        | tooth-leaved      | △ | or | 6  | sn. Y | Y    |                        | Mexico    | 1798. | C | lp  | Cav. ic. 3. t. 230        |
| 12438 multiflorus <i>W.</i>     | many-flowered     | △ | or | 6  | au.o  | Y    |                        | N. Amer.  | 1597. | D | co  | Bot. mag. 227             |
|                                 | <i>β plenus</i>   | △ | or | 6  | au.o  | Y    |                        | N. Amer.  |       | D | co  |                           |
| 12439 tuberosus <i>W.</i>       | Jerusalem Artich. | △ | or | 8  | s.o   | Y    |                        | Brazil    | 1617. | R | co  | Jac. vind. 2. f. 161      |
| 12440 angustifolius <i>Ph.</i>  | narrow-leaved     | △ | or | 3  | s.o   | Y    |                        | N. Amer.  | 1789. | D | co  | Bot. mag. 2051            |
| 12441 macrophyllus <i>Ph.</i>   | large-leaved      | △ | or | 6  | au.o  | Y    |                        | N. Amer.  | 1800. | D | co  | W. hort. ber. t. 70       |
| 12442 mollis <i>W.</i>          | soft              | △ | or | 4  | jl.o  | Y    |                        | N. Amer.  | 1805. | D | co  |                           |
| 12443 decapetalus <i>W.</i>     | ten-petalled      | △ | or | 6  | au.n  | Y    |                        | N. Amer.  | 1759. | D | p.l | Rob. ic. 235              |
| 12444 prostratus <i>W.</i>      | rough             | △ | or | 2  | jl.s  | Y    |                        | N. Amer.  | 1800. | D | co  |                           |
| 12445 strumosus <i>W.</i>       | Carrot-rooted     | △ | or | 8  | jl.s  | Y    |                        | N. Amer.  | 1710. | D | p.l | Boc. sic. t. 27. f. 4     |
| 12446 altissimus <i>W.</i>      | tall              | △ | or | 8  | jl.s  | Y    |                        | N. Amer.  | 1731. | D | co  | Jac. vind. 2. t. 160      |
| 12447 giganteus <i>W.</i>       | gigantic          | △ | or | 10 | s.o   | Y    |                        | N. Amer.  | 1714. | D | co  | Moris. s. 6. t. 7. f. 66. |
| 12448 longifolius <i>Ph.</i>    | long-leaved       | △ | or | 6  | au.o  | Y    |                        | Georgia   | 1812. | D | co  |                           |
| 12449 diffusus <i>B. M.</i>     | diffuse           | △ | or | 3  | au.o  | Y    |                        | N. Amer.  | 1821. | D | co  | Bot. mag. 2020            |
| 12450 linearis <i>Cav.</i>      | linear            | △ | or | 2  | au.o  | Y    |                        | Mexico    | 1823. | D | co  | Bot. reg. 523             |
| 12451 trachelifolius <i>W.</i>  | Trachelium-lv.    | △ | or | 6  | s.o   | Y    |                        | N. Amer.  | 1825. | D | co  |                           |
| 12452 excelsus <i>W.</i>        | lofty             | △ | or | 8  | s.o   | Y    |                        | Mexico    | 1820. | D | co  | Cav. ic. t. 219           |
| 12453 missuricus <i>Link.</i>   | Missouri          | △ | or | 3  | s.o   | Y    |                        | Missouri  | 1821. | D | co  |                           |
| 12454 trilobatus <i>Link.</i>   | three-lobed       | △ | or | 3  | s.o   | Y    |                        | Mexico    | 1824. | D | co  |                           |
| 12455 divaricatus <i>Ph.</i>    | divaricate        | △ | or | 6  | au.o  | Y    |                        | N. Amer.  | 1759. | D | p.l | Mo. h. s. 6. t. 7. f. 66  |
| 12456 pubescens <i>W.</i>       | downy             | △ | or | 4  | jl.o  | Y    |                        | N. Amer.  | 1795. | D | co  | Bot. reg. 524             |
| 12457 atrorubens <i>W.</i>      | dark-purp.-eyed   | △ | or | 3  | jl.o  | Br   |                        | N. Amer.  | 1732. | D | p.l | Bot. reg. 508             |
| 1799. GYMNOLOMIA. <i>Kunth.</i> | GYMNOLOMIA.       |   |    |    |       |      |                        |           |       |   |     |                           |
| 12458 maculatum <i>Kunth.</i>   | spotted           | ▨ | pr | 3  | jn.jl | Y    | Compositae. Sp. 1.     | W. Indies | 1821. | D | p.l | Bot. reg. 662             |
| 1800. RUBECKIA. <i>W.</i>       | RUBECKIA.         |   |    |    |       |      |                        |           |       |   |     |                           |
| 12459 pinnata <i>Ph.</i>        | fragrant          | △ | or | 3  | aus.  | Y    | Compositae. Sp. 12-30. | N. Amer.  | 1803. | D | co  | Bot. mag. 2310            |
| 12460 digitata <i>W.</i>        | narr.-jagged-lv.  | △ | or | 6  | aus.  | Y    |                        | N. Amer.  | 1739. | D | p.l | Moris. s. 6. t. 6. f. 54  |
| 12461 laciniata <i>W.</i>       | broad-jagged-lv.  | △ | or | 6  | jl.s  | Y    |                        | N. Amer.  | 1640. | D | p.l | Moris. s. 6. t. 6. f. 53  |
| 12462 columnaris <i>Ph.</i>     | high-crowned      | △ | or | 3  | aus.  | Y    |                        | N. Amer.  | 1811. | D | co  | Bot. mag. 1601            |
| 12463 subtomentosa <i>Ph.</i>   | downy-lobed       | △ | or | 3  | aus.  | Y    |                        | N. Amer.  | 1802. | D | co  |                           |
| 12464 triloba <i>W.</i>         | three-lobed       | ○ | or | 4  | aus.  | Y    |                        | N. Amer.  | 1699. | S | co  | Bot. reg. 525             |
| 12465 hirta <i>W.</i>           | great-hairy       | △ | or | 2  | jn.n  | Y    |                        | N. Amer.  | 1714. | D | p.l | Sweet's fl. gar. 82       |
| 12466 fulgida <i>H. K.</i>      | small-hair        | △ | or | 3  | jl.au | Y    |                        | N. Amer.  | 1760. | D | p.l | Bot. mag. 1996            |
| 12467 levigata <i>Ph.</i>       | smooth            | △ | or | 3  | jl.au | Y    |                        | Carolina  | 1812. | C | co  |                           |
| 12468 amplexifolia <i>W.</i>    | stem-clasping     | △ | or | 3  | jl.au | Y    |                        | Louisiana | 1793. | S | co  | Jac. ic. 3. t. 592        |
| 12469 purpurea <i>Ph.</i>       | purple            | △ | or | 5  | jl.o  | D. P |                        | N. Amer.  | 1689. | D | p.l | Bot. mag. 2               |
| 12470 serotina <i>Sweet</i>     | late              | △ | or | 2  | au.   | Y    |                        | N. Amer.  | 1823. | D | co  | Sweet's fl. gar. 4        |



History, Use, Propagation, Culture,

1798. *Helianthus*. From  $\eta\lambda\iota\alpha\varsigma$ , the sun, and  $\alpha\nu\theta\epsilon\varsigma$ , a flower. Nothing can be a more complete ideal representative of the sun, than the gigantic sun-flower, with its golden rays; it is dedicated with great propriety to the sun, which it never ceases to adore while the earth is illuminated by his light. When he sinks into the west, the flowers of *Helianthus* are turned towards him; and when he rises in the east, the flowers are again ready to be cherished by the first influence of his beams.

*H. annuus* is a well known border annual, which will grow in any soil. There are varieties with double flowers, the tubular florets being changed into ligular ones, like those in the ray. The whole plant, and particularly the flower, exudes a thin pellucid odorous resin, resembling Venice turpentine. From the seeds an edible oil has been expressed, and they are also excellent food for domestic poultry. The flowers turning with the sun, is by some considered a popular error; Gerardé says he never could observe it; and Professor Martin has seen four flowers on the same stem pointing to the four cardinal points. *H. tuberosus*, *Topinambour*, Fr., *Erdapfel*, Ger., and *Girasole*, Ital., is called Jerusalem, from the corruption of the Italian word *Girasole*; and Artichoke, from the resemblance in flavor which the tubers have to the bottoms of artichokes. These tubers are in considerable esteem on the continent as a substitute for potatoes; and before the introduction of that vegetable, they were a good deal in use in this country. Their culture and treatment is the same as for that vegetable. *H. multiflorus* a showy autumnal flower.

- 12427 Leaves opposite close spatulate oblong silky, Scales of invol. setaceous hirsute  
 12428 Leaves alternate obl. lanc. amplexicaul. entire hirsute, Invol. leafy mucronate  
 12429 Invol. bluntly leafy sessile axillary, Leaves oblong blunt alternate entire, Stem dichotomous  
 12430 Invol. bluntly leafy stalked, Lvs. alternate spatulate, Stem herbaceous  
 12431 Leaves alternate obl.-lanc. subserrate 3-nerved villous, Invol. naked, Stem herbaceous  
 12432 Leaves alternate lanc. somewhat toothletted smooth, Invol. naked, Stem herbaceous  
 12433 Leaves alternate: lower stalked cordate doubly serrate: upper sess. ovate serrated, Stems herbaceous

## FRUSTRANEA.

- 12434 Leaves all cordate 3-nerved, Pedunc. thick, Heads cernuous  
 12435 Leaves all cordate 3-nerved, Pedunc. evensized, Invol. leafy  
 12436 Leaves cordate cuneate at base villous 3-nerved, Pedunc. thick fistular  
 12437 Leaves ovate acuminate narrowed at base unequally serrate scabrous, Pedunc. filiform, Rays obovate  
 12438 Leaves 3-nerved scabrous: lower cordate; upper ovate, Ray many-fl. Scales of invol. lanceolate  
 12439 Leaves 3-nerved scabrous: lower cordate-ovate; upper ovate acum. alternate, Petioles ciliated at base  
 12440 Stems slender about 1-headed, Leaves linear revolute at edge rough  
 12441 Leaves ovate acuminate 3-nerved serrated scabrous above hoary beneath, Invol. squarrose  
 12442 Leaves ovate acuminate 3-nerved closely serrated scabrous above: hoary and soft beneath  
 12443 Lvs. ov. acum. remotely serrat. 3-nerv. scabr. Scales of invol. lanc. nearly equal subciliated, Rays 10 or 12  
 12444 Lvs. lanc. acuminate scabr. serrated 3-nerved: upper entire, Scales of invol. lanc. ciliated, Stem procumb.  
 12445 Lvs. ovate acuminate serrated 3-nerved scabrous beneath, Scales of invol. lin. lanc. ciliated at base  
 12446 Lvs. altern. lanc. serr. scabr. 3-nerved narrow. at end stalked, Petioles ciliated, Scales of invol. lanc. ciliat.  
 12447 Lvs. altern. lanc. serr. scabr. obsol. 3-nerv. narrow. at each end subsess. ciliat. at base, Scales of inv. lanc. cil.  
 12448 Smooth, Stem paniced, Branches few-flowered at top, Lvs. sessile very long entire: lower serrated  
 12449 Stem hispid spreading, Leaves ovate rigid scabrous, Peduncles very long 1-flowered  
 12450 Leaves altern. or opp. sessile linear revolute at edge entire 1-nerved, Heads corymbose  
 12451 Leaves ov. lanc. acuminate serrated 3-nerved very rough on each side, Scales of invol. lin. lanc. ciliated  
 12452 Leaves altern. lanc. serrated scabrous 3-nerved narrowed at each end woolly at base, Stem vill. in 2 rows  
 12453 Leaves amplexicaul. Heads on long stalks, Disk of head dark purple  
 12454 Stem erect hairy, Lvs. stalked 3-lobed very rough, Invol. hairy, Pappus with 2 setæ  
 12455 Stem smooth much branched, Lvs. opp. sessile lanc. ovate 3-nerved, Panicle trichotomous slender few-fl.  
 12456 Leaves subsess. cordate ovate 3-nerved amplexicaul. closely serrated downy, Scales of invol. lanc. villous  
 12457 Leaves opp. spatulate crenate 3-nerved scabrous, Scales of invol. erect the length of disk  
 12458 Leaves oblong-lanceolate subserrate, Heads 1-3, Ray 8-flowered

- 12459 Lvs. all pinnat.: one or other of the lower pinnæ 2-parted; the rest undivided, Pappus ent. Stem furrowed [hispid]  
 12460 Rad. lvs. pinn.: leaflets sessile lanc. toothed somewhat cut; upper confluent, Pappus entire  
 12461 Rad. lvs. pinn.: leaflets ovate uncut at base about 3-lobed toothed, Pappus 4-toothed  
 12462 Stem upright simple few-fl. at top, Leaves pinnatifid cut: segm. linear, Invol. simple 5-leaved  
 12463 Stem branched, Branches erect many-fl. Lvs. obl. lanc. acute serrated: lower 3-lobed  
 12464 Leaves spatulate: lower 3-lobed; upper undivided  
 12465 Leaves undivided spatulate ovate 3-nerved serrated hairy, Recept. conical, Paleæ lanceolate  
 12466 Leaves obl. lanc. toothletted hispid narrowed at base subcordate, Recept. hemispherical, Paleæ lanceolate  
 12467 Quite smooth, Peduncles long 1-headed, Lvs. ovate-lanc. acuminate each way 3-nerved  
 12468 Leaves obl. lanc. cordate amplexicaul.: lower serrated, Disk cylindrical conical  
 12469 Leaves lanc. ovate alternate undivided, Rays bifid  
 12470 Stem hispid, Lower leaves broad-ovate tapered at base remotely toothed very rough, Rays 3-toothed



and Miscellaneous Particulars.

This genus has given rise to a most important and extensive tribe of plants, the Heliantheæ, which is at once the most numerous of the various tribes of Compositæ, and on account of its strict affinity with several others, the most difficult to characterize with precision. Although it is perfectly natural, yet there is scarcely a character belonging to it which is not subject to many exceptions, and to more or less important modifications. Almost all the species of Heliantheæ are natives of America, several of Asia, a few of Africa, and scarcely any of Europe. They appear to be entirely unknown in the southern parts of the world.

1799. *Gymnolomia*. From *γυμνος*, naked, and *λωμα*, an edge; in allusion to the nature of the margin of the grains.

1800. *Rudbeckia*. Named after the famous Olaus Rudbeck, professor of botany at Upsal, who died of grief in 1709, at witnessing the destruction by fire of his laborious work, called *Campi Elysi*, which was nevertheless published in 1701 and 2, by the diligence of his son. He is also celebrated for having made the discovery that the Paradise of Scripture was situated somewhere in Sweden. Handsome border annuals or perennials. *R. purpurea* is remarkable for bearing purple flowers.

|                                  |                    |        |    |        |    |            |       |   |    |                            |
|----------------------------------|--------------------|--------|----|--------|----|------------|-------|---|----|----------------------------|
| †1801. GALARDIA. <i>W.</i>       | GALARDIA.          | ☉ Δ or | 2  | jl.o   | Or | Sp. 1—2.   |       |   |    |                            |
| 12471 bicolor <i>W.</i>          | two-colored        |        |    |        |    | Carolina   | 1787. | D | co | Bot. mag. 1602             |
| 1802. TITHONIA. <i>Desf.</i>     | TITHONIA.          |        |    |        |    | Sp. 1.     |       |   |    |                            |
| 12472 tagetiflora <i>W.</i>      | Marigold-flow.     | ☐ pr   | 1  | jl.o   | Or | Vera Cruz  | 1818. | D | co | Bot. reg. 591              |
| 1803. COSMEA. <i>W.</i>          | COSMEA.            |        |    |        |    | Sp. 4—6.   |       |   |    |                            |
| 12473 lutea <i>B. M.</i>         | yellow-flowered    | ☐ pr   | 2  | on     | Y  | Mexico     | 1811. | S | co | Bot. mag. 1689             |
| 12474 sulphurea <i>W.</i>        | Southernw.-lvd.    | ○ pr   | 2  | jl.au  | Y  | Mexico     | 1799. | S | co | Jac. ic. 3. t. 595         |
| 12475 bipinnata <i>W.</i>        | purple-flowered    | ☐ Δ pr | 2  | jl.au  | Pu | Mexico     | 1799. | C | lp | Bot. mag. 1535             |
| 12476 parviflora <i>W.</i>       | white-flowered     | ○ pr   | 2  | jl.au  | W  | Mexico     | 1800. | S | co | Jac. schoe. 3. t. 574      |
| †1804. COREOPSIS. <i>W.</i>      | COREOPSIS.         |        |    |        |    | Sp. 19—32. |       |   |    |                            |
| 12477 ferulifolia <i>W.</i>      | Fennel-leaved      | ☐ Δ or | 3  | o n    | Y  | Mexico     | 1799. | D | lp | Bot. mag. 2059             |
| 12478 verticillata <i>W.</i>     | whorl-leaved       | ☐ Δ or | 3  | jl.o   | Y  | N. Amer.   | 1759. | D | pl | Bot. mag. 156              |
| 12479 tenuifolia <i>W.</i>       | slender-leaved     | ☐ Δ or | 2  | jl.au  | Y  | N. Amer.   | 1780. | D | co | Pl. man. t. 344. f. 4      |
| 12480 chrysantha <i>W.</i>       | Angelica-leav.     | ☐ Δ or | 2  | jl.s   | Y  | W. Indies  | 1752. | S | co | Plum. ic. 53. f. 1         |
| 12481 aurea <i>W.</i>            | Hemp-leaved        | ☐ Δ or | 3  | aus    | Y  | N. Amer.   | 1785. | D | pl |                            |
| §12482 tripteris <i>W.</i>       | three-leaved       | ☐ Δ or | 6  | au.o   | Y  | N. Amer.   | 1737. | D | pl | Moris. s. 7. t. 3. f. 44   |
| 12483 senifolia <i>W.</i>        | six-leaved         | ☐ Δ or | 4  | au.o   | Y  | N. Amer.   | 1812. | D | co |                            |
| 12484 alba <i>W.</i>             | climbing           | ☐ Δ or | 6  | jn. jl | W  | Jamaica    | 1699. | D | lp | Herm. para. 124            |
| 12485 incisa <i>B. reg.</i>      | jagged-leaved      | ☐ Δ or | 6  | ad     | Y  | W. Indies  | ...   | D | co | Bot. reg. 7                |
| 12486 reptans <i>W.</i>          | trailing           | ☐ Δ or | 6  | jl.s   | Y  | W. Indies  | 1792. | S | co | Smith spic. t. 22          |
| 12487 lanceolata <i>W.</i>       | lanceolate         | ☐ Δ or | 3  | jl.s   | Y  | Carolina   | 1724. | S | co | Bot. cab. 821              |
| 12488 tinctoria <i>Nutt.</i>     | Dyer's             | ☐ Δ or | 2  | my.o   | Y  | Missouri   | 1822. | S | co | Bot. reg. 846              |
| 12489 auriculata <i>W.</i>       | ear-leaved         | ☐ Δ or | 6  | au.o   | Y  | N. Amer.   | 1639. | D | pl |                            |
| 12490 latifolia <i>W.</i>        | broad-leaved       | ☐ Δ or | 3  | aus    | Y  | N. Amer.   | 1786. | D | co | Flu. alm. t. 53. f. 5      |
| 12491 arguta <i>Ph.</i>          | sharp-notched      | ☐ Δ or | 2  | aus    | Y  | Carolina   | ...   | D | co |                            |
| 12492 crassifolia <i>W.</i>      | thick-leaved       | ☐ Δ or | 3  | au.o   | Y  | Carolina   | 1786. | D | pl |                            |
| 12493 angustifolia <i>W.</i>     | narrow-leaved      | ☐ Δ or | 2  | jn.au  | Y  | N. Amer.   | 1778. | D | pl |                            |
| §12494 alata <i>W.</i>           | wing-stalked       | ☐ Δ or | 3  | jl.au  | Y  | Mexico     | 1803. | D | co | Cav. ic. 3. t. 260         |
| §12495 procera <i>W.</i>         | tall               | ☐ Δ or | 8  | so     | Y  | N. Amer.   | 1765. | D | pl |                            |
| 1805. SIMSIA. <i>Pers.</i>       | SIMSIA.            |        |    |        |    | Sp. 2—3.   |       |   |    |                            |
| 12496 ficifolia <i>Pers.</i>     | fig-leaf           | ○ un   | 3  | jl.au  | Y  | Mexico     | 1799. | S | co | Cav. ic. 1. t. 77          |
| 12497 amplexicaulis <i>Pers.</i> | stem-clasping      | ☐ un   | 4  | jl.au  | Y  | .....      | 1806. | D | pl |                            |
| 1806. OSMITES. <i>W.</i>         | OSMITES.           |        |    |        |    | Sp. 2—5.   |       |   |    |                            |
| 12498 camphorata <i>W.</i>       | Camphire-scent.    | ☐ pr   | 1½ | ap. jl | W  | C. G. H.   | 1794. | C | lp | Se. mu. 1. t. 90. f. 8     |
| 12499 dentata <i>Thunb.</i>      | toothed            | ☐ pr   | 1½ | ap. jl | W  | C. G. H.   | 1820. | C | lp |                            |
| 1807. ENCELIA. <i>Cav.</i>       | ENCELIA.           |        |    |        |    | Sp. 1—2.   |       |   |    |                            |
| 12500 canescens <i>Cav.</i>      | downy-leaved       | ☐ pr   | 1½ | jl     | Or | Peru       | 1786. | C | lp | Bot. reg. 909              |
| 1808. SCLEROCARPUS. <i>W.</i>    | SCLEROCARPUS.      |        |    |        |    | Sp. 1.     |       |   |    |                            |
| 12501 africanus <i>W.</i>        | African            | ☐ un   | 2  | jl.au  | Y  | Guinea     | 1812. | S | co | Jac. ic. 1. t. 176         |
| 1809. CULLUMIA. <i>H. K.</i>     | CULLUMIA.          |        |    |        |    | Sp. 3.     |       |   |    |                            |
| 12502 ciliaris <i>H. K.</i>      | ciliated           | ☐ or   | 2  | my. jn | Y  | C. G. H.   | 1774. | C | pl | Bur. afr. t. 54. f. 1      |
| 12503 setosa <i>H. K.</i>        | recurv. smooth-lv. | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1780. | C | lp |                            |
| 12504 squarrosa <i>H. K.</i>     | recurv. awl-lvd.   | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1786. | C | lp | Th. act. haf. 3. t. 5      |
| 1810. BERCKHEYA. <i>H. K.</i>    | BERCKHEYA.         |        |    |        |    | Sp. 8—30.  |       |   |    |                            |
| 12505 cynaroides <i>W.</i>       | Artichoke-cup.     | ☐ Δ or | 1  | jn     | Y  | C. G. H.   | 1789. | D | lp |                            |
| 12506 obovata <i>W.</i>          | smooth-shrub.      | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1794. | C | lp | H. o. n. h. 6. t. 94. f. 2 |
| 12507 incana <i>W.</i>           | hoary              | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1739. | C | lp | Jac. ic. 3. t. 591         |
| 12508 cuneata <i>W.</i>          | wedge-leaved       | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1812. | C | lp | Th. act. ha. 3. t. 10      |
| 12509 palmata <i>W.</i>          | palmated           | ☐ or   | 3  | jn.au  | Y  | C. G. H.   | 1800. | C | lp | Th. act. ha. 3. t. 13      |
| 12510 grandiflora <i>W.</i>      | large-flowered     | ☐ or   | 2  | jn.au  | Y  | C. G. H.   | 1812. | C | lp | Bot. mag. 1844             |
| 12511 uniflora <i>W.</i>         | single-flowered    | ☐ or   | 3  | jn.au  | Y  | C. G. H.   | 1815. | D | co | Th. act. haf. 3. t. 7      |
| 12512 cernua <i>H. K.</i>        | drooping-flow.     | ☐ or   | 2  | my. jl | Y  | C. G. H.   | 1774. | S | co | Meerb. ic. 1. t. 40        |
| 1811. DIDELTA. <i>W.</i>         | DIDELTA.           |        |    |        |    | Sp. 2.     |       |   |    |                            |
| 12513 carnosum <i>W.</i>         | alternate-leav'd   | ☐ un   | 3  | jn. jl | Y  | C. G. H.   | 1774. | C | lp | L'Her. stirp. t. 28        |
| 12514 spinosum <i>W.</i>         | opposite-leaved    | ☐ un   | 3  | jn. jl | Y  | C. G. H.   | 1774. | C | lp | Wen. obs. t. 4. f. 32      |



History, Use, Propagation, Culture,

1801. *Galardia*. Fougereux de Bondaroy, the nephew of Duhamel, dedicated this genus to M. Gaillard de Charentonneau, an amateur of botany.

1802. *Tithonia*. A fanciful name given to this plant by Desfontaines, because of the color of its flower, which resembles Yellow Morning, or Aurora, whose husband was Tithonus.

1803. *Cosmea*. From *cosmos*, beautiful, on account of the elegance of the foliage.

1804. *Coreopsis*. From *opsis*, a bug, and *opsis*, resemblance. Its seed is convex on one side, and concave on the other; it has a membranous margin, and it has two little horns at the end which gives it very much the appearance of some insect. *C. verticillata* is a handsome shrubby plant, continuing long in flower; the florets are used in North America, to dye cloth red. *C. tinctoria* is a very handsome border annual.

1805. *Simsia*. Named by Persoon, after Dr. John Sims, the co-editor with Mr. König, of the excellent *Annals of Botany*, and for many years the sole editor of the *Botanical Magazine*.

12471 Stem branched, Leaves lanc. Paleæ of pappus entire awned

12472 The only species

12473 Leaves pinnate and bipinnatifid, Pinnae serrated somewhat decurrent, Ray few-flowered neuter

12474 Leaves bipinnatifid : segm. lanc. Segm. of exterior invol. lanceolate

12475 Leaves bipinnate, Leaflets linear subulate, Scales of outer invol. ovate

12476 Leaves bipinnate, Leaflets filiform, Scales of outer invol. lanceolate

12477 Leaves bipinn. Pinnules lin. lanc. not broader than their rib

12478 Leaves whorled 3 or 5-pinnated : pinnae lin. 3-parted and undivided, Disk discolored

12479 Leaves whorled 3 or 5-pinnated : pinnae lin. 3-parted and undivided, Disk same color as ray

12480 Leaves ternate ovate-obl. serrated, Ray same color as disk

12481 Leaves serrated : radical 3-parted : cauline trifid or entire lanc. linear

12482 Leaves entire : radical pinnated ; cauline in threes lanc. stalked

12483 Leaves entire ternate sessile

12484 Leaves subternate cuneate serrated

12485 Villous, Leaves stalked quinate and ternate : leaflets ovate-lanc. subpinnatifid or cut serrated

12486 Leaves serrated ovate : upper ternate, Stem creeping

12487 Leaves lanceolate entire ciliated

12488 Rad. leaves pinnate or bipinnate entire, Outer leaves of involucre short, Ray discolored at base

12489 Leaves entire ovate : lower ternate

12490 Leaves ovate acuminate crenate toothed, Grains naked

12491 Leaves stalked lanc. ovate by degrees acuminate finely serrated, Corymbs dichotomous term. and axillary

12492 Leaves obovate oblong entire downy

12493 Leaves alternate lin. lanc. entire smooth, Ray oblong trifid : middle segm. largest

12494 Stem winged, Leaves alternate scabrous roundish ovate cuneate at base 3-nerved

12495 Leaves ellipt. acuminate serrated stalked veiny decurrent : lower whorled ; upper alternate

12496 Leaves 3-lobed toothed roughish, Petiole naked at base

12497 Hoary, Leaves somewhat palmate 3-lobed, Petiole leafy at base amplexicaul.

12498 Leaves lanc. obsolete serrated toothed at base smooth

12499 Leaves obovate toothed villous

12500 Cor. of ray 4-fid nearly equal to disk, Leaves hoary with down

12501 The only species

12502 Leaves ovate smooth imbricated at the edge and rib ciliate-spiny, Spine of the end reflexed

12503 Leaves alternate obl. recurved smooth ciliate-spiny, Leaves of invol. ciliated

12504 Leaves altern. lanc. subulate recurved smoothish ciliat. spiny decurr. at base, Segm. of invol. ciliate spiny

12505 Cauline leaves altern. amplexicaul. ciliate spiny : radical entire unarmed, Scales of invol. entire

12506 Leaves opp. obl. lanc. narrowed at base spiny-toothed smooth, Scales of invol. ciliate spiny

12507 Leaves altern. ovate spiny-toothed 3-nerved netted hoary villous, Scales of invol. toothed spiny villous

12508 Leaves altern. obl. cuneiform spiny-toothed villous on each side, Scales of invol. toothed spiny

12509 Leaves altern. lanc. pinnatifid downy beneath : segm. entire spiny at end, Scales of invol. 3 or 5-fid

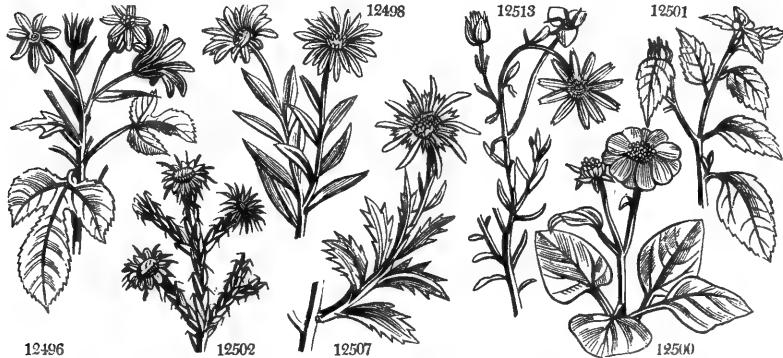
12510 Leaves opp. lanc. 3-nerved spiny-toothed downy beneath, Scales of invol. spiny-toothed [toothed

12511 Leaves altern. lanc. spiny-toothed downy beneath, Stem herbaceous 1-headed, Scales of invol. lanc. spiny-

12512 Leaves altern. lanc. amplexicaul. spiny-toothed ciliated smooth on each side, Heads cernuous

12513 Leaves altern. lanceolate oblong fleshy

12514 Leaves opp. somewhat amplexicaul. ovate



and Miscellaneous Particulars.

1806. *Osmites*. From *οσμη*, perfume. One of the species gives out a strong smell of Camphor.

1807. *Encelta*. A name of Adanson's, the meaning of which is unknown. A pretty half shrubby plant, with grey soft leaves.

1808. *Scierocarpus*. From *σκληρος*, hard, and *καρπος*, fruit, with reference to the bony covering of the grain.

1809. *Cullumia*. Named after Sir Thomas Cullum, an English baronet, and one of the earliest promoters of the principles of Linnæus in this country. He is still living, at a very advanced age.

1810. *Berckheya*. Named after John Lefranc de Berckhey, a Dutch botanist.

1811. *Didelta*. From *δις*, double, and *δελτα*, a Greek letter equivalent to the English D; because the receptacle resembles a double triangle.

|  |                 |        |   |       |                   |                     |          |   |                             |
|--|-----------------|--------|---|-------|-------------------|---------------------|----------|---|-----------------------------|
| 1812. <i>GORTERIA</i> . <i>W.</i> <i>GORTERIA</i> .        |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 1—3.     |          |   |                             |
| 12515 <i>personata</i> <i>W.</i>                           | procombent      | □ or   | ↓ | jl.au | Y                 | C. G. H.            | 1774.    | S | co Jac. col. 4. t. 21. f. 1 |
| 1813. <i>GAZANIA</i> . <i>H. K.</i> <i>GAZANIA</i> .       |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 4—9.     |          |   |                             |
| 12516 <i>rigens</i> <i>H. K.</i>                           | great-flowered  | ■ □ or | 1 | my.s  | Or                | C. G. H.            | 1755.    | C | p.l Bot. mag. 90            |
| 12517 <i>uniflora</i> <i>B. M.</i>                         | garden          | ■ □ or | 1 | jl.au | Y                 | C. G. H.            | 1816.    | C | p.l Bot. mag. 2270          |
| 12518 <i>Pavonia</i> <i>H. K.</i>                          | Peacock         | ■ □ or | 1 | jn.jl | Y                 | C. G. H.            | 1804.    | C | p.l Bot. reg. 35            |
| 12519 <i>subulata</i> <i>H. K.</i>                         | awl-leaved      | ■ □ or | 1 | jl.au | Y                 | C. G. H.            | 1792.    | D | l.p                         |
| 1814. <i>CRYPTOSTEMMA</i> . <i>CRYPTOSTEMMA</i> .          |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 3—5.     |          |   |                             |
| 12520 <i>calenduliscum</i> <i>H. K.</i>                    | Marygold-flow.  | ○ or   | 1 | jn.au | Y. Pu             | C. G. H.            | 1752.    | S | co Bot. mag. 2252           |
| 12521 <i>hypochondriacum</i> <i>H. K.</i>                  | divided-rayed   | ○ or   | 1 | jl.au | Y                 | C. G. H.            | 1731.    | S | co                          |
| 12522 <i>ruicinatum</i> <i>H. K.</i>                       | Dandelion-lyd.  | ○ or   | 1 | jl.au | Y                 | C. G. H.            | 1794.    | S | co                          |
| 1815. <i>ARCTOTHECA</i> . <i>W.</i> <i>ARCTOTHECA</i> .    |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 1.       |          |   |                             |
| 12523 <i>repens</i> <i>W.</i>                              | creeping        | △ or   | 1 | jl.au | Y                 | C. G. H.            | 1793.    | D | co Jac. schœ. 3. t. 306     |
| 1816. <i>SPHENOGYNE</i> . <i>H. K.</i> <i>SPHENOGYNE</i> . |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 7.       |          |   |                             |
| 12524 <i>anthemoides</i> <i>H. K.</i>                      | white-crowned   | ○ el   | ↓ | jl.s  | Y                 | C. G. H.            | 1774.    | S | co Bot. mag. 544            |
| 12525 <i>crithmifolia</i> <i>H. K.</i>                     | Samphire-leav.  | ■ □ or | 1 | ap.au | Y                 | C. G. H.            | 1768.    | C | l.p Bur. afr. t. 65. f. 1   |
| 12526 <i>scariosa</i> <i>H. K.</i>                         | scaly-cupped    | ■ □ or | 1 | ap.au | Y                 | C. G. H.            | 1774.    | C | l.p                         |
| 12527 <i>abrotanifolia</i> <i>H. K.</i>                    | Southernw.-lv.  | ■ □ or | 1 | my.au | Y                 | C. G. H.            | 1789.    | C | l.p                         |
| 12528 <i>dentata</i> <i>H. K.</i>                          | small-leaved    | ■ □ or | 1 | jn.jl | Y                 | C. G. H.            | 1777.    | C | l.p Burm. afr. t. 64        |
| 12529 <i>odorata</i> <i>H. K.</i>                          | smooth-seeded   | ■ □ or | 1 | ap.jn | Y                 | C. G. H.            | 1784.    | C | l.p                         |
| 12530 <i>pilifera</i> <i>Ker.</i>                          | piliferous      | ■ □ or | 1 | d     | Y                 | C. G. H.            | 1821.    | C | l.p Bot. reg. 604           |
| 1817. <i>ZŒGŒA</i> . <i>W.</i> <i>ZŒGŒA</i> .              |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 1.       |          |   |                             |
| 12531 <i>Leptaurea</i> <i>W.</i>                           | yellow-flowered | ○ un   | ↓ | jl.au | Or                | Levant              | 1779.    | S | co Jac. ic. 1. t. 177       |
| 1818. <i>LEUZEIA</i> . <i>Dec.</i> <i>LEUZEIA</i> .        |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 2—5.     |          |   |                             |
| 12532 <i>conifera</i> <i>Dec.</i>                          | cone            | ■ □ or | ↓ | jn.s  | Pu                | S. Europe           | 1683.    | D | l.p Ann. mu. 16. t. 14      |
| 12533 <i>altaica</i> <i>Link.</i>                          | Altai           | ■ □ or | ↓ | jn.s  | Pu                | Siberia             | 1822.    | D | co                          |
| *1819. <i>CENTAUREA</i> . <i>W.</i> <i>CENTAUREA</i> .     |                 |        |   |       | <i>Composite.</i> | <i>Sp.</i> 101—182. |          |   |                             |
| 12534 <i>phrygia</i> <i>W.</i>                             | feathery-calyx. | △ or   | 1 | jn.o  | Pu                | Switzerl.           | 1633.    | D | co Fl. dan. 520             |
| 12535 <i>salicifolia</i> <i>Bieb.</i>                      | Willow-leaved   | △ or   | 1 | jn.o  | Pu                | Caucasus            | 1823.    | D | co                          |
| 12536 <i>pectinata</i> <i>W.</i>                           | pectinated      | △ or   | 1 | jl.o  | Pu                | France              | 1727.    | D | co                          |
| 12537 <i>austriaca</i> <i>W.</i>                           | Austrian        | △ or   | 1 | jn.o  | Pu                | Austria             | 1815.    | D | co                          |
| §12538 <i>uniflora</i> <i>W.</i>                           | one-headed      | △ or   | 1 | jn.o  | Pu                | S. Europe           | 1819.    | D | co                          |
| 12539 <i>flosculosa</i> <i>W.</i>                          | flosculous      | △ or   | 1 | jn.o  | Pu                | Italy               | 1818.    | D | co                          |
| 12540 <i>nervosa</i> <i>W. ex.</i>                         | nerved          | △ or   | 1 | jn.s  | Pu                | S. Europe           | 1815.    | D | co                          |
| 12541 <i>trichocéphala</i> <i>W.</i>                       | downy-calyxed   | △ or   | 1 | jl.au | Pu                | Siberia             | 1805.    | D | co Gms. 2. t. 45. f. 1. 2   |
| 12542 <i>rivularis</i> <i>Brof.</i>                        | river-side      | △ or   | 2 | jl.s  | Br                | Portugal            | 1812.    | D | co                          |
| 12543 <i>hyssopifolia</i> <i>W.</i>                        | Hyssop-leaved   | □ or   | ↓ | jl.au | Pu                | Spain               | 1812.    | D | co Barr. ic. 306            |
| 12544 <i>nigra</i> <i>W.</i>                               | Black Knapweed  | ■ □ w  | 1 | my.au | Pu                | Britain             | past.    | D | co Eng. bot. 278            |
| 12545 <i>nigræscens</i> <i>W.</i>                          | dark            | ■ □ un | 1 | jn.au | Pu                | Hungary             | 1805.    | D | co                          |
| 12546 <i>Triumfetti</i> <i>W.</i>                          | Triumfetti's    | ■ □ un | 1 | jn.au | Pu                | M. Cenis            | 1820.    | D | co                          |
| 12547 <i>montana</i> <i>W.</i>                             | mountain        | ■ □ or | 1 | jn.au | B                 | Austria             | 1596.    | D | co Bot. mag. 77             |
| 12548 <i>axillaris</i> <i>W.</i>                           | axillary        | ■ □ or | 1 | jn.au | Pu                | Austria             | 1823.    | D | co                          |
| 12549 <i>Cyanus</i> <i>W.</i>                              | Blue-bottle     | ■ □ or | 3 | jn.au | B                 | Britain             | corn fl. | S | co Eng. bot. 277            |
| 12550 <i>paniculata</i> <i>W.</i>                          | panicked        | ■ □ or | 1 | jl.au | Pu                | Europe              | 1640.    | S | co Jac. aust. 4. t. 320     |
| 12551 <i>spinosa</i> <i>W.</i>                             | prickly-branch. | ■ □ or | 2 | jl.s  | Pu                | Candia              | 1640.    | C | p.l Bot. mag. 2493          |



History, Use, Propagation, Culture,

1812. *Gorteria*. Named after David Gorter, a Dutchman, professor of botany at Harderwyck, and afterwards physician to Elizabeth, Empress of Russia. He published a *Flora Belgica* in 1767, and assisted Kraechenninikoff in his *Flora Ingrica*. *G. Rigens* is a very showy plant when the flowers are fully expanded. All the species are of easy culture.

1813. *Gazania*. Supposed to have been so called from γαζα, riches, in allusion to the splendour of the flowers.

1814. *Cryptostemma*. From κρυπτος, concealed, and στεμμα, a crown; the scaly crown of the grains being involved in wool. Tender annuals, natives of the Cape of Good Hope.

1815. *Arctotheca*. See *Arctotis*, from which this has been divided.

1816. *Sphenogyne*. So called from σφην, a wedge, and γυνη, a female, in allusion to the wedge-shaped stigmas. Pretty annual flowers.

1817. *Zœgea*. Named after Dr. J. Zœge, who published a *Flora Islandica* in 1775. *Leptaurea* is an abbreviation of *Lepto-centaurea*, small centaurea.

1818. *Leuzea*. Divided by M. DeCandolle, from *Centaurea*, from which it differs in not having the outer florets barren, nor the pappus with simple hair, nor the insertion of the fruit oblique. He named it after his friend Deleuze.

12515 Leaves lanc. entire and sinuated, Stem erect, Flowers stalked

12516 Leaves lanc. spatulate and pinnatifid entire white with down beneath, Pedunc. 1-headed terminal  
 12517 Stem shrubby decumbent, Leaves spatulate-lanceolate downy beneath, Ray same color as disk  
 12518 Leaves pinnatifid hairy above downy beneath : segm. oval-lanc. Scape 1-headed, Stem decumbent  
 12519 Stem leafy decumbent 1-headed, Leaves subulate linear revolute at edge downy beneath

12520 Ligulae undivided, Leaves pinnatifid toothed downy beneath  
 12521 Ligulae 3-5-parted, Leaves lyrate downy  
 12522 Ligulae 3-5-parted, Leaves runcinate toothed downy beneath

12523 The only species

12524 Smooth, Lvs. bipinnatifid or pinnatifid linear-filiform, Lvs. of pappus white  
 12525 Smooth, Lvs. pinnatifid linear filiform, Outer leaflets of invol. subulate  
 12526 Leaves bipinnatifid or pinnatifid linear filiform smooth, Scales of invol. scarious blunt shining  
 12527 Leaves bitripinnatifid and invol. downy  
 12528 Leaves pinnatifid smoothish : segm. 2-3-toothed, Teeth piliferous, Outer scales of invol. lanceolate  
 12529 Leaves flat smooth cut pinnatifid at end, Outer lvs. of invol. scarious at end, Pappus obsolete  
 12530 Leaves fleshy linear pinnatifid and bipinnatifid, Pappus much shorter than the florets of disk

12531 The radical and lower cauline leaves pinnatifid

12532 Leaves tomentose : root ones lanceolate ; stem ones pinnatifid, Stem simple  
 12533 Flower very large

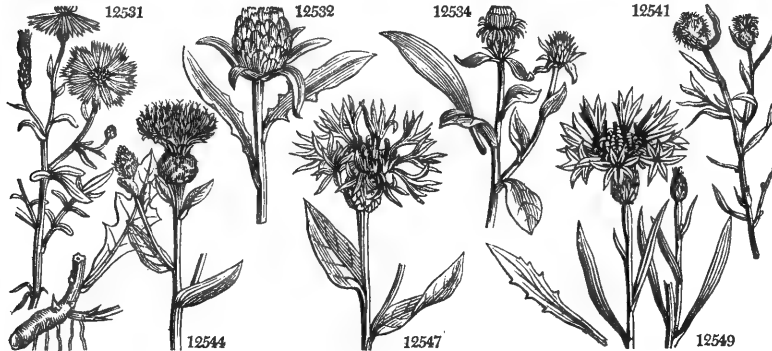
§ 1. CYANUS. *Involucrum ciliated, unarmed.*

\* *Involucrum with feathery setae.*

12534 Inv. recurved-feathery, Leaves oblong undivided scarious mucronate serrulated  
 12535 Inv. recurved-feathery top-shaped, Leaves oblong undivided scarious mucronate serrulated, Stem simple  
 12536 Inv. recurved feathery, Leaves mucronate-serrated : lower stem ones sinuate pinnatifid  
 12537 Invol. recurv. feathery, Lvs. egg-shap. undivid. scabr. gross. tooth. : upp. ones and those of branches undivid.  
 12538 Invol. recurved feathery, Leaves lanceolate sometimes toothed downy  
 12539 Invol. recurved feathery, Head without a neutral ray, Leaves hairy lanceolate remotely toothed  
 12540 Invol. recurved feathery, Leaves ovate lanceolate toothed at base nerved downy, Corollas fuscous  
 12541 Invol. recurved feathery pubescent, Leaves linear-lanceolate quite entire scarious  
 12542 Invol. erect feathery, Lower lvs. lanc. attenuat. into the petiole serrul. ; caul. ov.-obl. downy on each side  
 12543 Invol. recurved feathery pubesc. Head without a neutral ray, Lvs. lin. quite entire, Stem somew. shrubby

\*\* *Involucrum with ciliated appendages.*

12544 Scales of the invol. ovate ciliated with capillary teeth, Lower leaves angular lyrate : upper ones ovate  
 12545 Innermost invol. scales scarious, Root lvs. obsoletely pinnatif. : lower stem ones somew. tooth. at the base ; upper ones undivided quite entire  
 12546 Invol. serrated with white ciliae, Leaves decurrent deeply pinnatifid, Pinnæ generally two  
 12547 Invol. serrated, Leaves smoothish lanceolate quite entire decurrent, Stem simple  
 12548 Invol. ciliated variegated, Leaves sessile linear downy, Stem 1-headed  
 12549 Scales of the involucre serrated, Leaves linear entire ; the lowermost toothed  
 12550 Invol. ciliated egg-shaped, Scales flat close-pressed : Lower lvs. bipinnatif. : upper pinnatif. Stem paniced  
 12551 Invol. ciliated, Root lvs. undivided and pinnatifid smooth, Stem lvs. downy pinnatifid, Branches spinous



and Miscellaneous Particulars.

1819. *Centaurea*. It is said, that with this plant, the *Centaurea* Chiron cured the wound in his foot made by the arrow of Hercules. Crupina is from the Dutch verb *kruipen*, which signifies to creep ; because the dark multifid pappus resembles the legs of a creeping insect.

*Phrygia* signifies dry (*φρυγία*), in allusion to its calyx.

*Jacea* is said to have been so named from *jacere*, to lie down, on account of its prostrate habit.

*Calcitrapa*, the Latin of a caltrop, or iron ball covered with stiff spines, formerly used in warfare to impede the operations of cavalry. Its calyx is very like one of these instruments.

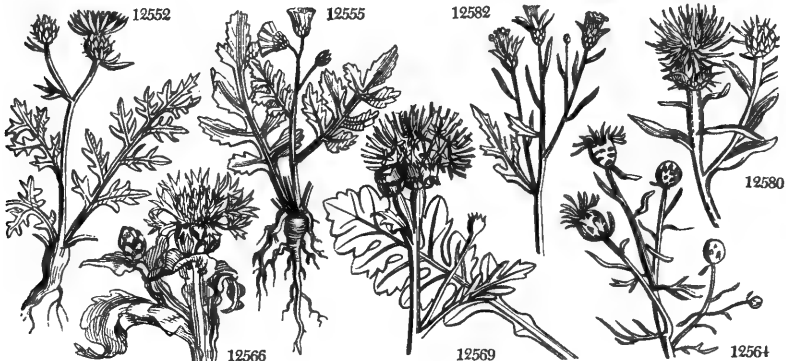
*Centaurea Crocodilium* is so named, because the spines of the calyx have been fancifully likened to the claws of a Crocodile.

*Verutum*, the name of another species, is the Latin of a short javelin used by the Roman foot-soldiers. The spines on its calyx resemble a small dart.

*C. nigra* is a harsh stubborn weed in meadows and permanent pastures, seldom touched by cattle either green or in hay, and with difficulty extirpated. *C. cyanus*, *Bluet*, Fr., *Kornblume*, Ger., and *Ciano*, Ital., is a common weed in corn fields, on gravelly soils, throughout Europe, and also a popular border annual. The expressed juice of the natural florets makes a good ink ; it also stains linen of a beautiful blue, but the color is not permanent. *C. benedicta* was so called from its being supposed to possess extraordinary medical powers ; it was



|                                 |                   |      |    |       |       |                 |          |   |     |                          |
|---------------------------------|-------------------|------|----|-------|-------|-----------------|----------|---|-----|--------------------------|
| 12552 Cinerária <i>W.</i>       | hoary-leaved      | Δ or | 3  | jl.au | Pu    | Italy           | 1710.    | D | co  | Mor. s.7. t.26.f.20      |
| 12553 cinérea <i>W.</i>         | gray              | Δ or | 2  | jn.jl | Pu    | Italy           | 1710.    | D | co  | Jac. vind. 1. t. 92      |
| 12554 dealbata <i>W.</i>        | mealy             | Δ or | 1½ | jl.au | Pu    | Caucasus        | 1804.    | D | co  |                          |
| 12555 argentea <i>W.</i>        | silver-leaved     | Δ or | 1½ | jl.au | Pa. Y | Candia          | 1739.    | C | p.l | Barr. ic. t. 218         |
| 12556 coriacea <i>W.</i>        | leathery-leaved   | Δ or | 1½ | jn.jl | Pu    | Hungary         | 1804.    | D | co  | Pl.rar.hu.2.t.195        |
| 12557 Fischéri <i>W. en.</i>    | Fischer's         | Δ or | 2  | jn.jl | Vi    | Siberia         | 1816.    | D | co  |                          |
| 12558 macrocephala <i>W.</i>    | large-headed      | Δ or | 3  | jn.au | Y     | Caucasus        | 1805.    | D | co  | Bot. mag. 1248           |
| 12559 átropurpúrea <i>W.</i>    | dark-purple       | Δ or | 3  | jn.au | Pu    | Hungary         | 1802.    | D | co  | Pl.rar.hu.2.t.116        |
| 12560 alata <i>W.</i>           | winged-stalked    | Δ or | 1½ | aus   | Y     | Tartary         | 1781.    | D | co  | Vent. cela. 80           |
| 12561 elongata <i>W.</i>        | long              | Δ or | 2  | aus   | Vi    | Barbary         | 1823.    | D | co  |                          |
| 12562 Scabiósa <i>W.</i>        | Greater Knapw.    | Δ or | 1½ | jn.au | Pu    | Britain         | corn fl. | D | co  | Eng. bot. 56             |
| 12563 intybácea <i>H. K.</i>    | Succory-leaved    | Δ or | 1½ | ils   | Pu    | S. Europe       | 1778.    | D | co  |                          |
| 12564 maculosa <i>P. S.</i>     | spotted-calyx     | Δ or | 1  | jl.au | Pu    | Siberia         | 1816.    | D | co  | Gm.s.2.t.44.f.1,2        |
| 12565 Stœbe <i>W.</i>           | wing-leaved       | Δ or | 1  | jn.jl | Y     | Austria?        | 1759.    | D | co  |                          |
| 12566 ochroleuca <i>W.</i>      | Caucasian         | Δ or | 1½ | jl.au | Pa. Y | Caucasus        | 1801.    | D | co  | Bot. mag. 1175           |
| 12567 ovina <i>W.</i>           | sheep's           | Δ or | 1  | jn.n  | Y     | Caucasus        | 1802.    | D | co  |                          |
| 12568 sempervirens <i>W.</i>    | evergreen         | Δ or | 1½ | jl.au | Y     | Spain           | 1683.    | C | p.l | Bocc. sic. t. 39. f. 3   |
| 12569 ragusina <i>W.</i>        | white-leaved      | Δ or | 2  | jn.jl | Y     | Candia          | 1710.    | C | p.l | Bocc. mag. 494           |
| 12570 tatarica <i>W.</i>        | Tartarian         | Δ or | 2  | jl.au | Y     | Tartary         | 1801.    | D | co  |                          |
| 12571 calocéphala <i>W. en.</i> | smooth-stalked    | Δ or | 3  | jn.au | Y     | Levant          | 1816.    | D | co  |                          |
| 12572 coronopifolia <i>W.</i>   | Buck's-horn       | ○ or | 3  | jn.jl | Y     | Levant          | 1739.    | S | co  |                          |
| 12573 parviflora <i>W.</i>      | small-flowered    | Δ or | 1½ | jn.jl | Vi    | Barbary         | 1823.    | D | co  |                          |
| 12574 reflexa <i>W.</i>         | crook-spined      | Δ or | 3  | jl.au | Y     | Iberia          | 1801.    | D | co  |                          |
| 12575 centauroides <i>W.</i>    | lyre-leaved       | Δ or | 3  | my.jl | Y     | S. Europe       | 1739.    | D | co  | Col. eceph. 1. t. 35     |
| 12576 collina <i>W.</i>         | hill              | Δ or | 3  | jn.jl | Y     | S. Europe       | 1596.    | D | co  |                          |
| 12577 rupéstris <i>W.</i>       | rock              | Δ or | 2  | jl.au | Y     | Italy           | 1804.    | D | co  | Co. eceph. 1. t. et f. 2 |
| 12578 pubescens <i>W.</i>       | downy             | Δ or | 1  | jl.au | Y     | .....           | 1804.    | D | co  |                          |
| 12579 Balsamita <i>W.</i>       | Syrian            | Δ or | 2  | jl.au | Y     | Syria           | 1820.    | D | co  |                          |
| 12580 aurea <i>W.</i>           | great-golden      | Δ or | 2  | ils   | Y     | S. Europe       | 1758.    | D | co  | Bot. mag. 421            |
| 12581 peregrina <i>W.</i>       | soft-leaved       | ○ or | 2  | jl.au | Y     | S. Europe       | 1749.    | S | co  |                          |
| 12582 radiata <i>W.</i>         | rayed             | Δ or | 1½ | jl.au | Pu    | Siberia         | 1804.    | D | co  | Gm. sib. 2. t. 47. f. 1  |
| 12583 sordida <i>W.</i>         | sordid            | Δ or | 1  | jl.au | Pu    | .....           | 1818.    | D | co  |                          |
| 12584 hybrida <i>W.</i>         | hybrid            | Δ or | 1½ | jl.au | Y     | Tauria          | 1822.    | D | co  |                          |
| 12585 rigida <i>W.</i>          | rigid             | Δ or | 1  | jl.au | Pu    | .....           | 1823.    | D | co  |                          |
| 12586 sonchifolia <i>W.</i>     | Sow-thistle-ld.   | Δ or | 1  | au.o  | Pu    | Mediterr.       | 1780.    | D | co  | Pluk. phyt. 39. f. 1     |
| 12587 cruenta <i>W. en.</i>     | obovate-leaved    | Δ or | 1  | jn.au | Pu    | .....           | 1816.    | D | co  |                          |
| 12588 Séridis <i>W.</i>         | purple-flowered   | Δ or | 1  | jn.au | Pu    | Spain           | 1695.    | D | co  | Plu. alm. t. 38. f. 1    |
| 12589 romána <i>W.</i>          | Roman             | ○ or | 3  | ils   | R     | Rome            | 1739.    | S | co  | Barr. rar. t. 504        |
| 12590 fárok <i>W.</i>           | hedgohog          | Δ or | 2  | ils   | Pu    | Barbary         | 1790.    | S | p.l | Desf. atl. 2. t. 942     |
| 12591 sphaerocephala <i>W.</i>  | globe-headed      | Δ or | 2  | jl.au | Pu    | S. Europe       | 1683.    | D | co  | Bot. mag. 2551           |
| 12592 Isárdi <i>W.</i>          | Jersey            | Δ or | 1  | jl.au | Pu    | Britain Jersey  | .....    | D | co  | Eng. bot. 2556           |
| 12593 napifolia <i>W.</i>       | Turnip-leaved     | ○ or | 3  | ils   | Pu    | Candia          | 1691.    | S | co  | Herm. par. t. 189        |
| 12594 áspera <i>W.</i>          | rough             | ○ or | 2  | jn.o  | Pu    | S. Europe       | 1772.    | S | co  | Boc. mus. 35. t. 26      |
| 12595 pullata <i>W.</i>         | various-colored   | Δ or | 2  | jn.au | Pu    | S. Europe       | 1759.    | D | co  | Lab. ic. t. 542. f. 2    |
| 12596 polyacantha <i>W.</i>     | many-spined       | ○ or | ½  | jl.au | Pu    | Portugal        | 1804.    | S | co  |                          |
| 12597 benedicta <i>W.</i>       | Blessed Thistle   | ○ or | 2  | jn.o  | Y     | Spain           | 1548.    | S | co  | Zorn. ic. 122            |
| 12598 solstitialis <i>W.</i>    | Barnaby's Thistle | ○ or | 2  | jl.au | Y     | England fields. | .....    | S | co  | Eng. bot. 243            |
| 12599 melitensis <i>W.</i>      | cluster-headed    | ○ or | ½  | jl.au | Y     | Malta           | 1710.    | S | co  | Bocc. sic. t. 35         |
| 12600 sulphúrea <i>W. en.</i>   | sulphur-colored   | ○ or | ½  | jl.au | Y     | .....           | 1815.    | S | co  |                          |
| 12601 scúta <i>W.</i>           | Sicilian          | ○ or | 1½ | jl.au | Y     | Sicily          | 1710.    | S | co  | Bocc. sic. t. 8. f. 1    |
| 12602 Adámi <i>W.</i>           | Adams             | ○ or | 1  | jl.au | Y     | Siberia         | 1804.    | S | co  |                          |
| 12603 straminea <i>W.</i>       | straw-colored     | ○ or | ½  | jl.au | Y     | Egypt           | 1801.    | S | co  | W. hort. ber. 26         |
| 12604 eriophora <i>W.</i>       | woolly-headed     | ○ or | ½  | jn.o  | Y     | Portugal        | 1714.    | S | co  |                          |
| 12605 Calcitrapa <i>W.</i>      | Star-thistle      | ○ or | 1  | jl.au | Pk    | England         | gr. aso. | S | co  | Eng. bot. 125            |
| 12606 calcitrapoides <i>W.</i>  | Phoenician        | ○ or | 1  | jn.jl | Pu    | Levant          | 1683.    | S | co  |                          |
| 12607 Verútum <i>W.</i>         | dwarf             | ○ or | 2  | aus   | Y     | Levant          | 1780.    | S | co  | Jac. ic. 1. t. 178       |
| 12608 ægyptiaca <i>W.</i>       | Egyptian          | Δ or | 1  | jn.s  | W     | Egypt           | 1790.    | C | p.l |                          |



History, Use, Propagation, Culture,

said not only to destroy worms and cure fevers, but also the plague, and the most putrid and stubborn ulcers and cancers. At present it is in no estimation whatever. It has by some botanists been thought advisable to separate this genus into several others; but the differences upon which the separation has been made depend upon variations in the form of the involucre,

- 12558 Invol. ciliated, Leaves downy very white all compound: lowest bipinnatifid; highest pinnate-laciniate  
 12553 Invol. ciliated, Leaves somewhat downy cinereous: lower ones pinnate-laciniate; upper ones simple  
 12554 Invol. ciliated, Lvs. downy undern. Root lvs. bipinnatifid: segm. lanceolate acute, Stem-leaves pinnatifid  
 12555 Invol. serrated, Leaves downy: root ones pinnated; upper 1-eared  
 12556 Invol. ciliat. smooth, Lvs. pinnatif. scabr. Segm. obl. lanc. acute: highest root ones sometimes cut at base  
 12557 Invol. ciliated spheacelate, Scales spreading, Leaves obl. lanc. entire villous downy: cauline decurrent  
 12558 Invol. scales roundish egg-shaped ciliated, Leaves oblong lanc. undivided very scabrous acute serrated  
 12559 Invol. scales ovate lanceolate serrate-ciliated, Leaves bipinnatifid, Segments lanceolate  
 12560 Invol. egg-shaped smooth, Scales somew. scar. at tip, Lvs greenish decurr. undivided: radical ones lyrate  
 12561 Inv. scales scar. at tip serr. Lvs. scab. at edge: root ones obl. tooth.; stem ones lanc. somew. decurr. quite ent.  
 12562 Scales of the involucre ciliated ovate pubescent, Leaves pinnatifid roughish: the segm. lanceolate acute  
 12563 Invol. ciliated nearly globular, Leaves deeply pinnatifid, Segments linear  
 12564 Invol. ciliated ovate roundish beautifully spotted, Leaves slender bipinnatifid, Stem a little paniced  
 12565 Invol. ciliated oblong, Leaves pinnatifid linear quite entire  
 12566 Invol. serrated, Leaves oblong serrated decurrent and undivided [branched divaricated  
 12567 Invol. ciliat. Scales ovate-lanc. spread. at tip, Lower lvs. bipinnatif. lanc. lin.: upper ones pinnatifid, Stem  
 12568 Invol. ciliated, Leaves lanceolate serrated: lowest tooth elongated so as to appear like a stipule  
 12569 Invol. ciliated, Leaves downy pinnatifid, Segments obtuse egg-shaped quite entire: outer ones largest  
 12570 Invol. ciliated, Leaves scabrous: underneath pinnatifid, Segments lanceolate sometimes toothed  
 12571 Invol. scariosus, Scales ovate lanceolate serrated ciliated, Leaves scabrous beneath: radical bipinnatifid

§ 2. *CALCITRAPA. Involucrum ciliated with spines.*

\* *Spines simple.*

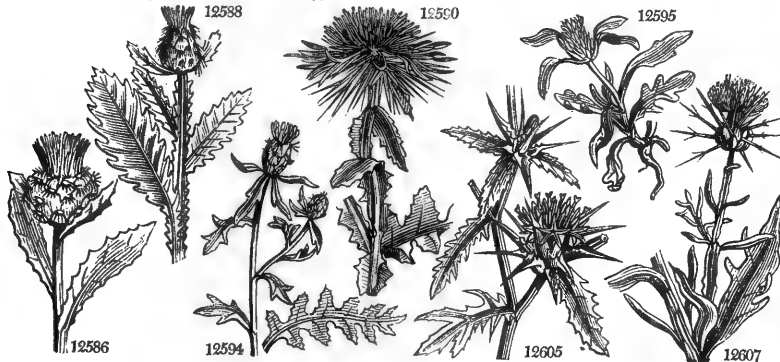
- 12572 Invol. erect feathery, Head without a neutral ray, Lower lvs. pinnatif.: upper ones lin. All quite ent. Stem [paniced  
 12573 Invol. ciliate-spinous egg-shaped, Scales reflexed at tip, Lvs. hoary: root ones lyrate; stem ones linear  
 12574 Invol. ciliate-spinous at tip, Spines of lower scales reflex. Lvs. pinnat. Pinnæ lin. obt. Root leaves bipinnat.  
 12575 Invol. ciliate-spinous, Leaves lyrate-pinnated generally entire: terminal lobe large toothed  
 12576 Invol. ciliate-spinous, Stem-leaves pinnatifid: root ones bipinnatifid, Segments lanceolate  
 12577 Invol. ciliate-spinous, Stem-leaves pinnated: root leaves bipinnated, Pinnæ linear-filiform  
 12578 Invol. ciliate-spin. at tip, Stem-lvs. pinnatif. lin. lanc.: root ones bipinnatif. Segm. lanc. terminal 1-toothed  
 12579 Invol. ciliate fringed with straight rigid white bristles, Lvs. obl. a little toothed, Head yel. without a ray  
 12580 Invol. simply spinous, Spines spreading, Florets equal, Leaves hairy: lower ones pinnatifid  
 12581 Invol. bristly spinous, Leaves lanceolate petioled toothed near the base  
 12582 Invol. scarcely spinous somewhat awned rayed, Leaves pinnatifid  
 12583 Invol. ciliated spinous, Stem-leaves pinnated quite entire: root-leaves bipinnatifid  
 12584 Invol. ciliate spinous at the tip, Leaves hoary pinnatifid quite entire: upper ones linear-lanceolate  
 12585 Invol. ciliate subsipiny, Leaves oblong downy sessile somewhat toothed; narrowed at base deeply toothed

\*\* *Spines palmate.*

- 12586 Invol. palm.-spin. Spines reflex. Lvs. obl. smooth, embracing the stem  $\frac{1}{2}$  decurr. repand tooth. Teeth prickly  
 12587 Invol. palm.-spinous, Spines reflex. Lvs. obov. somew. tooth. stalked: floral somew. decurr. mucro.-toothed  
 12588 Inv. palm.-spin. Spines reflex. Lvs. obl. hoary embrac. stem  $\frac{1}{2}$  decurr. tooth. cut at base, Teeth rather prickly  
 12589 Invol. palm. spinous, Lvs. decurr. not prickly: root ones pinnatifid; terminal lobe very large  
 12590 Inv. palm. spin. Spines reflex. larger than calyx, Lvs. hoary obl. sess. decurr. pinnatifid, Teeth not prickly  
 12591 Invol. palmate spinous, Lvs. ovate-lanc. petioled toothed  
 12592 Invol. palmate spinous solitary sess. Lvs. lanc. a little embracing the stem pinnatifid toothed  
 12593 Invol. palmate spinous, Stem lvs. lanc. toothed decurrent: root lvs. lyrate obtuse  
 12594 Invol. palmate spinous, Spines 3 or 5, Lvs. lanc. sessile toothed  
 12595 Invol. ciliated surrounded by a whorl of long lvs. Lvs. lyrate toothed obtuse  
 12596 Invol. palmate spinous, Lvs. embracing the stem runcinate pinnatifid prickly: toothed root ones lyrate  
 12597 Invol. doubly spinous woolly bracteated, Leaves half decurrent toothed spinous  
 12598 Invol. palm. spinous term. solitary, Spines straight, Lvs. lanc. decurr. not prickly: root ones lyrate  
 12599 Invol. palm. spin. term. ones clustered sess. Spines straight, Lvs. lanc. scabrous decurr. not prickly: lower stem ones a little toothed; root ones sinuated  
 12600 Invol. palm. spinous solitary subsessile, Spines straight, Lvs. lanc. scabrous toothletted decurrent  
 12601 Inv. palm. spin. Spines spread. Lvs. scabr.: stem lvs. lanc. a little embrac. stem finely tooth.; root ones lyrate  
 12602 Invol. palm. spinous solit. Spines straight: inner scales scariosus at the tip, Lvs. downy lanc. decurr.: lower ones finely toothed pinnatifid at the base  
 12603 Invol. palmate spinous terminal sess. glomerated, Leaves petioled pinnatifid cut-toothed

\*\*\* *Appendages of involucrum spiny-pinnate.*

- 12604 Invol. doubly spinous woolly, Lvs. half decurrent entire and sinuated, Stem proliferous  
 12605 Invol. doubly spinous sess. Lvs. pinnatifid toothed, Stem divaricated spreading hairy  
 12606 Invol. somewhat doubly serrated, Lvs. embracing the stem lanc. undivided serrated [entire decurr.  
 12607 Inv. palm. spin.: mid. spine very long; lat. ones short, Root-lvs. sinuate-pinnatif. Stem ones lanc. quite  
 12608 Invol. doubly spinous somewhat woolly, Lvs. sess. lanc. entire and toothed, Stem proliferous



and Miscellaneous Particulars.

unconnected with differences of organization; they are therefore not adopted here. The tribe of Centaureæ of M. Cassini is not distinguished from Carduineæ by any very important characters. The greater part of the species are natives of Europe and Asia, several of Africa, a very few of America, and none of the southern parts of the world.

|                                      |                 |      |    |       |       |                 |       |       |                     |
|--------------------------------------|-----------------|------|----|-------|-------|-----------------|-------|-------|---------------------|
| 12609 <i>salmántica W.</i>           | Ragwort-leaved  | ○ or | 3  | jl.au | Pu    | S. Europe       | 1596. | S co  | Jac. vind. 1. t. 64 |
| 12610 <i>muricáta W.</i>             | muricated       | ○ or | 1  | jl.au | Pu    | Spain           | 1621. | S co  |                     |
| 12611 <i>Crocodylium W.</i>          | bluish-flowered | ○ or | 1½ | jl.au | Pu    | Levant          | 1777. | S co  | Barr. rar. t. 503   |
| §12612 <i>Rhapóntica W.</i>          | Swiss           | △ or | 1½ | jl.au | Pu    | Switzerl.       | 1640. | D co  | Bot. mag. 1752      |
| 12613 <i>babylónica W.</i>           | Babylonian      | △ or | 7  | jn.s  | Y     | Levant          | 1710. | D co  | Alp. exot. t. 282   |
| 12614 <i>spléndens W.</i>            | shining         | △ or | 3  | jl.au | Pu    | Spain           | 1597. | S co  |                     |
| 12615 <i>dúlta H. K.</i>             | pale-flowered   | △ or | 2  | jl.au | Pa.pu | S. Europe       | 1781. | D co  |                     |
| 12616 <i>decumbens P. S.</i>         | decumbent       | △ or | 1½ | jl.s  | Pu    | France          | 1815. | D co  |                     |
| 12617 <i>Jácea W.</i>                | Brown Knapw.    | △ w  | 1½ | jl.s  | Pu    | England         | past. | D co  | Eng. bot. 1678      |
| 12618 <i>tagána W.</i>               | Portugal        | △ un | 1½ | jl.au | Pu    | Portugal        | 1640. | D co  | Brot.phy.lus. t.3   |
| 12619 <i>álba W.</i>                 | white-flowered  | △ or | 2  | jn.s  | W     | Spain           | 1597. | D co  |                     |
| 12620 <i>amára W.</i>                | bitter          | △ or | 1½ | jl.au | Pu    | Italy           | ...   | D co  | Boc. mus.31.t.17    |
| 12621 <i>nítens W.</i>               | shining         | △ or | 2  | jl.au | Pu    | Caucasus        | 1823. | S co  | Bu.cen.2.t.15.f.1   |
| 12622 <i>sibirica W.</i>             | Siberian        | △ or | 1  | jl.au | R     | Siberia         | 1782. | D co  | Gm.sib.2.t.42.f.2   |
| 12623 <i>glastifólia W.</i>          | Wood-leaved     | △ or | 4  | jn.s  | Y     | Siberia         | 1731. | D co  | Bot. mag. 62        |
| 12624 <i>orientális W.</i>           | oriental        | △ or | 1½ | jl.au | Y     | Siberia         | 1759. | D co  |                     |
| 12625 <i>Béhen W.</i>                | saw-leaved      | △ or | 1½ | jl.au | Y     | Levant          | 1797. | S co  |                     |
| 12626 <i>répens W.</i>               | creeping        | △ or | 1  | jn.au | Y     | Levant          | 1739. | D co  |                     |
| 12627 <i>moscháta W.</i>             | Sweet Sultan    | ○ or | 2  | jl.o  | Pu    | Persia          | 1629. | S s.1 | Kn. thes.2. t.c.4   |
| 12628 <i>Centaúrium W.</i>           | great           | △ or | 4  | jl.au | Y     | Italy           | 1596. | D co  |                     |
| 12629 <i>ruthénica W.</i>            | Russian         | △ or | 3  | jl.au | Pa.Y  | Russia          | 1806. | D co  | Gmel. sib. 2. t.41  |
| 12630 <i>suavéolens W.</i>           | Yellow Sultan   | ○ or | 1½ | jl.o  | Y     | Levant          | 1683. | S s.1 | Sweet fl. gard.51   |
| 12631 <i>Crupína W.</i>              | black-seeded    | ○ or | 3  | jn.jl | F     | Italy           | 1596. | S co  | Col.cephr.1. t.34   |
| 12632 <i>Líppii W.</i>               | Lippi's         | ○ or | 1  | jn.jl | Pa.pu | Egypt           | 1739. | S co  | Is.a.pa.1719. t.10  |
| 12633 <i>gláuca W.</i>               | glaucous        | △ or | 1  | jn.jl | Pa.Y  | Caucasus        | 1805. | D co  |                     |
| 12634 <i>alpína W.</i>               | Alpine          | △ or | 3  | jl.au | Y     | Italy           | 1640. | D co  | Corn.can.69. t.70   |
| 1820. GALAC'TITES. P. S. GALACTITES. |                 |      |    |       |       | Composit. Sp. 1 |       |       |                     |
| 12635 <i>tomentósa P. S.</i>         | woolly          | ○ or | 1½ | jl.au | Pu    | S. Europe       | 1738. | S co  | An. mus.16. t. 8    |

NECESSARIA.

|                                  |                               |      |    |       |      |                     |       |      |                      |
|----------------------------------|-------------------------------|------|----|-------|------|---------------------|-------|------|----------------------|
| 1821. WEDELIA. W. WEDELIA.       |                               |      |    |       |      | Composit. Sp. 3-21  |       |      |                      |
| 12636 <i>hispidá Kl.</i>         | hispid                        | △ or | 1½ | jn    | Y    | N. Spain            | 1819. | D co | Bot. reg. 543        |
| 12637 <i>radiósa Ker.</i>        | many-rayed                    | △ or | 3  | ap.n  | Y    | Brazil              | 1820. | C co | Bot. reg. 610        |
| 12638 <i>perfoliáta W.</i>       | perfoliate                    | △ un | 2  | jl.au | Y    | Mexico              | 1796. | S co | Cav. ic. 1. t. 15    |
|                                  | <i>Aloína perfoliáta Cav.</i> |      |    |       |      |                     |       |      |                      |
| 1822. MILLE'RIA. P. S. MILLERIA. |                               |      |    |       |      | Composit. Sp. 2     |       |      |                      |
| 12639 <i>quinqueflóra W.</i>     | five-flowered                 | △ un | 2  | jl.o  | Y    | Vera Cruz           | 1731. | S co | Cav. ic. 1. t. 82    |
| 12640 <i>bióflóra W.</i>         | two-flowered                  | △ un | 1  | jl.o  | Y    | Campeachy           | 1730. | S co | Mart. dec. 47. f.1   |
| 1823. BALTIMO'RA. W. BALTIMORA.  |                               |      |    |       |      | Composit. Sp. 1     |       |      |                      |
| 12641 <i>récta W.</i>            | upright                       | ○ un | 2  | jn.jl | Pa.Y | Vera Cruz           | 1699. | S co | Sch.ha.3. t.261.C    |
| †1824. SIL'PHIUM. W. SILPHIUM.   |                               |      |    |       |      | Composit. Sp. 10-15 |       |      |                      |
| 12642 <i>laciniátum W.</i>       | jagged-leaved                 | △ w  | 12 | jl.s  | Y    | N. Amer.            | 1781. | D co | Lin. fil. fas.1. t.3 |
| 12643 <i>compositum W.</i>       | scalloped-leaved              | △ w  | 6  | jl.s  | Y    | N. Amer.            | 1789. | D co |                      |
| 12644 <i>terebinthináceum W.</i> | broad-leaved                  | △ w  | 6  | au.s  | Y    | N. Amer.            | 1765. | D co | Jac. vind. 1. t. 43  |
| 12645 <i>perfoliáta W.</i>       | perfoliate                    | △ w  | 7  | jl.o  | Y    | N. Amer.            | 1766. | D co |                      |
| 12646 <i>conjunctum W. cm.</i>   | conjoined                     | △ w  | 7  | jl.o  | Y    | N. Amer.            | ...   | D co |                      |
| 12647 <i>connátum W.</i>         | round-stalked                 | △ w  | 6  | jl.o  | Y    | N. Amer.            | 1765. | D co |                      |
| 12648 <i>Asteriscus W.</i>       | hairy-stalked                 | △ w  | 5  | jl.s  | Y    | N. Amer.            | 1732. | D co | Dill.elt. t.37.f.42  |
| 12649 <i>trifoliátum W.</i>      | three-leaved                  | △ w  | 6  | jl.o  | Y    | N. Amer.            | 1755. | D co | Moris.s.6.t.3.f.68   |
| 12650 <i>ternátum W.</i>         | various-leaved                | △ w  | 4  | jl.o  | Y    | N. Amer.            | 1806. | D co |                      |
| 12651 <i>átropurpúream W.</i>    | wurple-stalked                | △ w  | 4  | jl.o  | Y    | N. Amer.            | 1812. | D co |                      |



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*C. moschata* is a handsome border annual, of which there is a white-flowered variety. *C. Centaureum*, *montana*, *splendens*, and *glastifolia*, are among the most ornamental of the perennials.

1820. *Galactites*. A plant formerly included in *Centaurea*, and named on account of the milky veins of its leaves (*γλακτα*, milk).

1821. *Wedelia*. Named after George Wolfgang Wedel, a German, born in 1625, died in 1721. He was professor at Jena, and published many learned dissertations upon the plants of the ancients. There was also a John Adolphus Wedel, professor in the same university.

§ 3. *CROCODYLIUM*. *Involucrum not ciliated, but spiny at end.*

- 12609 Invol. globul. smth. Spine very small weak a little reflex. Lvs. lanc.serrat. : root ones lyrate, Stem divaricat.  
 12610 Invol. simply spinous villous, Lower lvs. lyrate toothed : upper ones lanc. Peduncles very long  
 12611 Invol. scarios simply spinous, Lvs. pinnatifid quite entire terminal : segm. larger toothed

§ 4. *RHAPONTICUM*. *Leaves of involucrum with a round scarios appendage, which is often lacerated.*

- 12619 Invol. scales lacerated, Lvs. ovate-obl. finely toothed tomentose [ones lyrate  
 12613 Invol. conical hard, Scales ending in a patulous point, Lvs. somew. tomentose decurr. undivided : root  
 12614 Inv. egg-shap. Scales mucronat. Lower lvs. bipinnatif. lin. : upper one pinnat. Pinnæ lin. sometimes toothed  
 12615 Invol. ciliated, Scales acum. somew. thorny, Lvs. obl. pinnatif. Florets of the ray longer than those of disk  
 12616 Invol. scarios, Scales dilated cut, Lvs. linear-lanc. : radical cut  
 12617 Scales of invol. scarios torn : lower ones pinnatifid, Lvs. lin. lanc. : the lower ones broader and toothed  
 12618 Invol. scales roundish quite ent. Lvs. obl. smth. : root ones serrat. Stem ones sometimes slightly cut at base  
 12619 Invol. scales entire mucronated, Lvs. pinnate toothed : stem ones linear toothed at the base  
 12620 Stems decumbent, Lvs. lanc. quite entire  
 12621 Invol. cylindrical, Scales mucronated, Lvs. pinnated, Pinnæ lin. mucronated quite entire  
 12622 Invol. scales egg-shaped obtuse ciliated, Lvs. downy on both sides pinnatif. and undivided, Stem declining  
 12623 Leaves undivided quite entire decurrent  
 12624 Invol. scales pectinate ciliated, Lvs. deeply pinnatifid, Segm. linear lanceolate [the stem decurrent  
 12625 Invol. conical, Scales quite ent. Lvs. coriaceous reticularly veined : root ones lyrate ; stem ones embracing  
 12626 Leaves lanc. toothed somewhat petioled, Peduncles filiform leafless

§ 5. *Leaves of involucrum neither ciliated, nor spiny, nor with a scarios appendage.*

- 12627 Invol. roundish smooth, Scales egg-shaped, Lvs. lyrate toothed  
 12628 Invol. scales egg-shaped, Lvs. pinnated, Leaflets decurrent serrated  
 12629 Invol. scales egg-shap. obt. Lvs. pinnat. smooth, Leaf. cartilagin. sharply serrat. termin. one obl. egg-shaped  
 12630 Invol. round. smooth, Lower lvs. broad somew. spatul. tooth. : upp. ones lyr. at base, Head yell. sweet-scent.  
 12631 Invol. scales linear awl-shaped, Leaves pinnated serrated  
 12632 Invol. scales mucronate, Leaves somewhat decurrent lyrate toothed  
 12633 Invol. pubescent, Scales roundish obtuse, Leaves deeply pinnatifid : lowest segments toothed  
 12634 Invol. scales egg-shaped obtuse, Leaves pinnated smooth quite entire old one serrated

- 12635 Invol. bristly spinous, Leaves decurrent sinuated spinous downy underneath.

## NECESSARIA.

- 12636 Leaves lanceolate acuminate serrated with a large tooth on each side at the base  
 12637 Leaves ovate-lanceolate, Invol. urceolate squarrose, Rays imbricated  
 12638 Stem herbaceous, Leaves rhomboid narrowed at base connate

- 12639 Leaves stalked roundish-ovate narrowed at base : floral subcordate, Pedunc. terminal dichotomous  
 12640 Leaves stalked oblong ovate ciliated, Pedunc. terminal aggregate

- 12641 Stem winged, Heads pale-yellow small

- 12642 Radical and cauline leaves pinnatifid, Stem hirsute  
 12643 Cauline leaves sinuate pinnatifid : radical ternate sinuate multifid  
 12644 Leaves alternate ovate serrated scabrous : radical cordate  
 12645 Leaves opposite deltoid stalked perfoliate, Stem square smooth  
 12646 Lvs. opp. conn. unequally toothed, Stem smooth square, Four outer sc. of invol. longer than the inner  
 12647 Leaves sessile stalked, Stem round scabrous  
 12648 Leaves opposite or alternate sessile oblong hairy : lower serrate, Stem round hispid  
 12649 Stems 6-angled, Leaves ternate ovate toothed, Panicle trichotomous  
 12650 Stems round, Leaves ternate somewhat toothletted, Panicle dichotomous  
 12651 Stems round, Leaves about 4 toothletted, Panicle dichotomous



## and Miscellaneous Particulars.

1822. *Millertia*. So named by Linnæus, after Philip Miller, F. R. S., the well known author of the Gardener's Dictionary, and considered the first botanical gardener of his time. He was born in 1692, and died in 1769.

1823. *Baltimora*. This plant grows in the neighbourhood of Baltimore.

1824. *Silphium*. D'Herbelot asserts, that *silphi* or *serpi*, was a name given by the natives of Africa to the plant which produced the *laser* of the Romans, a substance held in great esteem among them for its flavor and its medicinal properties. All the species are tall herbaceous plants with bright yellow flowers, and are very proper ornaments for a shrubbery.

|  |                            |          |                    |                   |       |      |                       |
|--|----------------------------|----------|--------------------|-------------------|-------|------|-----------------------|
| 1825. <i>TRIXIS</i> . <i>Dec.</i>        | <i>TRIXIS</i> .            |          | <i>Compositae.</i> | <i>Sp. 1-5.</i>   |       |      |                       |
| 12652 <i>senecioides</i> <i>Hooker</i>   | Groundsel-like             | ○ pr     | 1½ au.s W          | Chili             | 1821. | S co | Hook. ex. fl. 101     |
| 1826. <i>POLYMNIA</i> . <i>W.</i>        | <i>POLYMNIA</i> .          |          | <i>Compositae.</i> | <i>Sp. 3-4.</i>   |       |      |                       |
| 12653 <i>canadensis</i> <i>W.</i>        | Canadian                   | ½ Δ or   | 6 jl.au L.Y        | N. Amer.          | 1768. | D co | L.am.ac.3.t.1.f.5     |
| 12654 <i>Uvedalia</i> <i>W.</i>          | broad-leaved               | ½ Δ or   | 8 au.o Y           | N. Amer.          | 1699. | D co | Cav. ic. 3. t. 227    |
| 12655 <i>abyssinica</i> <i>W.</i>        | upright                    | ½ (D) or | 4 ap.my Y          | Africa            | 1775. | S co |                       |
| 1827. <i>CHRYSOGONUM</i> . <i>L.</i>     | <i>CHRYSOGONUM</i> .       |          | <i>Compositae.</i> | <i>Sp. 1.</i>     |       |      |                       |
| 12656 <i>virginianum</i> <i>L.</i>       | Virginian                  | ½ Δ pr   | ½ my.jn Y          | N. Amer.          | ...   | D p1 | Plu.alm. t.83. f.4    |
| 1828. <i>MELAMPODIUM</i> . <i>W.</i>     | <i>MELAMPODIUM</i> .       |          | <i>Compositae.</i> | <i>Sp. 2-6.</i>   |       |      |                       |
| 12657 <i>americanum</i> <i>W.</i>        | American                   | (D) un   | 1½ au.o W          | Vera Cruz         | 1733. | S co | Rel.Hous.9. t.21      |
| 12658 <i>húmilde</i> <i>W.</i>           | dwarf                      | (D) un   | 1½ jn.o W          | Jamaica           | 1782. | S co |                       |
| †1829. <i>CHAPTALIA</i> . <i>Vent.</i>   | <i>CHAPTALIA</i> .         |          | <i>Compositae.</i> | <i>Sp. 1.</i>     |       |      |                       |
| 12659 <i>tomentosa</i> <i>Ph.</i>        | woolly                     | ½ Δ pr   | ½ my.jn W          | N. Amer.          | 1806. | D co | Bot. mag. 2257        |
| 1830. <i>CALEN'DULA</i> . <i>W.</i>      | <i>MARYGOLD</i> .          |          | <i>Compositae.</i> | <i>Sp. 19-34.</i> |       |      |                       |
| 12660 <i>arvensis</i> <i>W.</i>          | field                      | ○ or     | 2 my.s D.Y         | Europe            | 1597. | S co |                       |
| 12661 <i>scicula</i> <i>W. en.</i>       | Sicilian                   | ○ or     | 1 my.s D.Y         | Sicily            | 1816. | S co |                       |
| 12662 <i>stellata</i> <i>W.</i>          | starry                     | ○ or     | 2 jn.s O           | Barbary           | 1795. | S co | Sch.hand.3.t.265      |
| 12663 <i>officinális</i> <i>W.</i>       | common                     | ○ or     | 3 jn.s O           | S. Europe         | 1573. | S co |                       |
|  | <i>double-flowered</i>     | ○ or     | 3 jn.s O           | .....             | ..... | S co |                       |
| 12664 <i>sáncta</i> <i>W.</i>            | pale-flowered              | ○ or     | 2 my.s Y           | Levant            | 1731. | S lp |                       |
| 12665 <i>incána</i> <i>W.</i>            | hoary                      | ○ or     | 1½ jn.au Y         | Barbary           | 1795. | S lp | Desf. atl. 2. t.245   |
| 12666 <i>pluviális</i> <i>W.</i>         | Small Cape                 | ○ or     | 1 jn.au W.pu       | C. G. H.          | 1699. | S al | Mill. ic. t. 75. f. 2 |
| 12667 <i>híbida</i> <i>W.</i>            | Great Cape                 | ○ or     | 1 jn.jl W          | C. G. H.          | 1752. | S al | Sweet fl gard.39      |
| 12668 <i>nudicális</i> <i>W.</i>         | naked-stalked              | ○ or     | 1 jn.au W.pu       | C. G. H.          | 1731. | S al | Com.hort.2.t.33       |
| 12669 <i>graminifolia</i> <i>W.</i>      | Grass-leaved               | ½ Δ or   | 1 my.s W.pu        | C. G. H.          | 1731. | C p1 | Bot. reg. 289         |
| 12670 <i>Trágus</i> <i>W.</i>            | bending-stalk'd            | ½ Δ or   | 2 my.jn W.pu       | C. G. H.          | 1774. | C p1 | Bot. mag. 1981        |
|  | <i>β fúccida</i> <i>V.</i> | ½ Δ or   | 2 my.jn Or         | C. G. H.          | 1774. | C lp | Bot. reg. 28          |
| 12671 <i>viscósá</i> <i>H. K.</i>        | viscous                    | ½ Δ or   | 2 jn.s Or          | C. G. H.          | 1790. | C lp | Bot. rep. 412         |
| 12672 <i>oppositifolia</i> <i>W.</i>     | glaucous-leav'd            | ½ Δ or   | 2 au Y             | C. G. H.          | 1774. | C p1 |                       |
| 12673 <i>fruticósá</i> <i>W.</i>         | shrubby                    | ½ Δ or   | 2 jn.jl Y          | C. G. H.          | 1752. | C p1 | Mill. ic. 2. t. 283   |
| 12674 <i>chrysanthemifolia</i> <i>V.</i> | large-flowered             | ½ Δ or   | 2 mr.au Y          | C. G. H.          | 1790. | C p1 | Bot. reg. 40          |
| 12675 <i>arboréscens</i> <i>W.</i>       | rough-fruited              | ½ Δ or   | 3 d Y              | C. G. H.          | 1774. | C p1 | Jac. ic. 3. t. 596    |
| 12676 <i>suffruticósá</i> <i>W.</i>      | suffruticose               | ½ Δ or   | 1 d Y              | C. G. H.          | 1823. | C p1 |                       |
| 12677 <i>denticuláta</i> <i>W.</i>       | toothletted                | ½ Δ or   | 2 d Y              | Barbary           | 1821. | C p1 |                       |
| 12678 <i>muricáta</i> <i>W.</i>          | muricated                  | ½ Δ or   | 2 d Y              | C. G. H.          | ...   | C p1 |                       |
| 1831. <i>ARCTOTIS</i> . <i>H. K.</i>     | <i>ARCTOTIS</i> .          |          | <i>Compositae.</i> | <i>Sp. 26-40.</i> |       |      |                       |
| 12679 <i>acaúlís</i> <i>W.</i>           | dwarf                      | ½ Δ or   | ½ ap.jl Y.B        | C. G. H.          | 1759. | R p1 | Bot. reg. 122         |
| 12680 <i>tricolor</i> <i>W.</i>          | three-colored              | ½ Δ or   | 1½ my.jl W.R       | C. G. H.          | 1794. | D lp | Bot. reg. 131         |
| 12681 <i>unduláta</i> <i>W.</i>          | wave-leaved                | ½ Δ or   | 1 ap.jn Or         | C. G. H.          | 1795. | C p1 | Jac.schœ.2.t.160      |
| 12682 <i>grandiflóra</i> <i>H. K.</i>    | great-flowered             | ½ Δ or   | 1½ mr.my Pa.Y      | C. G. H.          | 1774. | S lp |                       |
| 12683 <i>glaucophylla</i> <i>W.</i>      | Sea-green-leav.            | ½ Δ or   | 1 my.au Y.Pu       | C. G. H.          | 1794. | D lp | Jac.schœ.2.t.170      |
| 12684 <i>plantáginá</i> <i>W.</i>        | Plantain-leav'd            | ½ Δ or   | 1 jn.au Or         | C. G. H.          | 1768. | C p1 |                       |
| 12685 <i>argéntea</i> <i>W.</i>          | silver-leaved              | ½ Δ or   | 1 au Or            | C. G. H.          | 1774. | D lp |                       |
| 12686 <i>róseá</i> <i>W.</i>             | Rose                       | ½ Δ or   | 1 jl.s Pk          | C. G. H.          | 1793. | C lp | Jac.schœ.2.t.162      |
| 12687 <i>decúbens</i> <i>W.</i>          | decumbent                  | ½ Δ or   | 1 jl.s Y           | C. G. H.          | 1790. | D lp | Jac.schœ.3.t.381      |
| 12688 <i>angustifolia</i> <i>W.</i>      | narrow-leaved              | ½ Δ or   | 1½ jl.s Pu         | C. G. H.          | 1739. | C lp |                       |
| 12689 <i>fúccida</i> <i>W.</i>           | bending-stalked            | ½ Δ or   | 1 my.jl W.R        | C. G. H.          | 1794. | S lp | Jac.schœ.2.t.163      |
| 12690 <i>decúrrens</i> <i>W.</i>         | decurrent                  | ½ Δ or   | 1½ jn.jl W.R       | C. G. H.          | 1794. | C lp | Jac.schœ.2.t.165      |
| 12691 <i>melanocicla</i> <i>W. en.</i>   | various-colored            | ½ Δ or   | 1 jn.jl W.pu       | C. G. H.          | 1812. | C lp |                       |
| 12692 <i>réptans</i> <i>W.</i>           | creeping                   | ½ Δ or   | ½ jl.s W.o         | C. G. H.          | 1795. | R p1 | Jac.schœ.3.t.382      |
| 12693 <i>auriculáta</i> <i>W.</i>        | ear-leaved                 | ½ Δ or   | 1 jn.au Y          | C. G. H.          | 1795. | C p1 | Jac.schœ.2.t.169      |
| 12694 <i>fastuósá</i> <i>W.</i>          | Orange-flower.             | ½ Δ spl  | 2 my.jl O.R        | C. G. H.          | 1795. | S co | Jac.schœ.2.t.166      |



History, Use, Propagation, Culture.

1825. *Trixis*. From *τριξίς*, three, on account of its triangular capsule with three cells.

1826. *Polymnia*. *Polymnia* was the name of one of the Muses. Why it has been applied to this plant is not very obvious. A coarse broad-leaved weedy plant.

1827. *Chrysogonum*. From *χρῆσος*, gold, and *γόνυ*, a knee. The bright yellow flowers are usually produced in the bends of the stems.

1828. *Melampodium*. One of the Greek names of black hellebore, with which the modern plant has no relation. The plant of the ancients was probably named from the blackness of the roots, (*μελας*, black, and *πυρ*, a foot).

1829. *Chaptalia*. Dedicated by Ventenat to the famous French chemist, M. Chaptal. A pretty little North American herbaceous plant.

1830. *Calendula*. So named because it may be found in flower during the *Calends* of each month, or, which is the same thing, during every month in the year. *C. pluvialis* has been named from its flowers closing at the approach of rain.

- 12652 Herbaceous downy, Leaves sinuate pinnatifid toothed : cauline amplexicaul.
- 12653 Leaves toothletted acuminate : lower pinnatifid ; upper 3-lobed or entire  
 12654 Leaves 3-lobed acute running down the petiole : lobes angular sinuated  
 12655 Leaves opposite sessile oblong lanceolate somewhat toothed, Invol. 5-parted, Florets all female
- 12656 Leafstalks longer than leaves
- 12657 Stem erect, Leaves somewhat linear 1-toothed on each side  
 12658 Stem erect, Leaves lyrate-toothed sessile
- 12659 Leaves ovate-oblong entire silvery beneath, Scape naked 1-headed, Head nodding
- 12660 Pericarps cymbiform mucricated incurved : outer lanceolate-subulate mucricated at back  
 12661 Pericarps cymbiform mucricated incurved : outer ovate with a membranous edge toothed crested at back  
 12662 Pericarps cymbiform incurved mucricated : outer 5 ovate-lanceolate membranous toothed at edge  
 12663 Pericarps cymbiform all incurved mucricated
- 12664 Pericarps urceolate obovate smooth, Involucre somewhat mucricated  
 12665 Pericarps cymbiform smooth : outer subulate erect somew. mucricat. Lvs. obl. spatul. downy on each side  
 12666 Leaves narrow lanceolate sinuate toothletted, Stem leafy, Peduncles filiform  
 12667 Leaves oblong lanceolate blunt toothed, Stem leafy, Peduncles thickened at end  
 12668 Leaves lanceolate sinuate toothed, Stem nearly naked  
 12669 Leaves linear nearly entire, Stem nearly naked  
 12670 Leaves linear somewhat toothletted mucricate dotted beneath, Pericarps orbicular, Stem suffruticose
- 12671 Leaves cuneate cut toothed glabrous, Invol. downy ciliated, Stem shrubby weak  
 12672 Leaves opposite linear entire somewhat fleshy smooth  
 12673 Leaves obovate somewhat toothed, Stem fruticose decumbent  
 12674 Leaves obovate sublyrate roughish, Stem suffruticose erect  
 12675 Lvs. obl. toothed scarious, Invol. in fruit cernuous, Pericarps nearly orbicular, Stem fruticose panicled  
 12676 Peric. cymbif. incurv. mucricat. : outer lanc. subulate mucricated erect, Lvs. obl. spatul. downy on each side  
 12677 Pericarps all uniform incurved cymbiform mucricated, Leaves lanceolate toothletted acute smoothish  
 12678 Leaves oblong papillose scarious : lower toothed ; upper entire, Stem shrubby
- 12679 Radiant florets fertile, Stem very short decumbent, Leaves hoary on each side ternate lyrate  
 12680 Radiant florets fertile, Leaves downy beneath ovate entire or lyrate-toothed, Scape furrowed 1-headed  
 12681 Radiant florets fertile, Leaves downy beneath wavy-toothed ovate or lyrate, Scapes 1-headed  
 12682 Leaves pinnatifid toothletted cobwebbed 3-nerved  
 12683 Radiant florets fertile, Leaves hoary pinnatifid repand somewhat toothed, Outer scales of invol. reflexed  
 12684 Radiant florets fertile, Leaves lanceolate ovate nerved toothletted amplexicaul.  
 12685 Radiant florets fertile, Leaves lanceolate linear entire downy  
 12686 Radiant florets fertile, Stem procumbent, Leaves spatulate-lanceolate repand-toothed hoary  
 12687 Radiant florets fertile, Stem procum. Leaves obl. lanc. unequally toothed hoary downy beneath 3-nerved  
 12688 Radiant florets fertile, Stem branched ascending, Leaves downy spatulate lanceolate 3-nerved pubescent  
 12689 Radiant florets fertile, Stem branched ascending, Leaves spatulate lanceolate entire 3-nerved downy  
 12690 Radiant florets fertile, Stem shrubby, Leaves hairy oblong undivided somewhat toothed  
 12691 Radiant florets fertile, Stem shrubby erect hoary, Lvs. obov. oblong vill. toothed decurr. down the petiole  
 12692 Radiant florets fertile, Stem ascend. Lvs. hairy hoary beneath : lower lyrate-toothed ; upper lanc. tooth.  
 12693 Radiant florets fertile, Stem snow white, Leaves lyrate amplexicaul. downy toothed : term. lobe rhomb.  
 12694 Radiant florets fertile, Stem erect, Leaves hairy oblong toothed, Outer scales of invol. reflexed ciliated



and Miscellaneous Particulars.

C. officinalis, *Souci du jardin*, Fr., *Goldblume*, Ger., and *Furrancio*, Ital., has been a garden plant time out of mind, and used in soups and broths, both to color them, and as comforters of the heart and spirits. It had formerly many virtues ascribed to it, but is now totally out of use in this country. According to Linnæus, the flowers are open from nine in the morning till three in the afternoon. There are double, lemon-colored, and prolific varieties. From the flowers of *Calendula officinalis* is obtained a distilled water, a kind of vinegar, and a conserve.

With this genus for his type, M. Cassini has formed a small tribe which he calls *Calenduleæ*, remarkable for a peculiar smell, very perceptible in the common pot-marygold, which is said to be confined to themselves alone. But this seems to be almost the only character by which they are distinguished from *Helianthes*. The greater part of *Calenduleæ* are found in the country of the Cape of Good Hope ; but some are found in Europe and Asia.

1831. *Arctotis*. Vaillant, who named this genus, called it *Arctothea*, from *αρκτος*, a bear, and *θηνη*, a capsule, because its fruit is shaggy like a bear. This and some neighbouring genera have given rise to M.

|  |                 |      |    |       |      |            |          |   |    |                      |
|--|-----------------|------|----|-------|------|------------|----------|---|----|----------------------|
| 12695 spinulosa W.                       | thorny-leaved   | □ or | 1½ | my.au | Or   | C. G. H.   | 1795.    | S | co | Jac.schœ.2.t.167     |
| 12696 maculata W.                        | spotted         | □ or | 1½ | my.au | W.o  | C. G. H.   | 1812.    | C | lp | Bot. reg. 130        |
| 12697 aspera B. reg.                     | broad rough-ly. | □ or | 1½ | js.   | Y    | C. G. H.   | 1710.    | C | pl | Bot. reg. 34         |
| 12698 aurœola B. reg.                    | narr. rough-ly. | □ or | 1  | js.   | Or   | C. G. H.   | 1710.    | C | pl | Bot. reg. 32         |
| 12699 bicolor W. en.                     | two-colored     | □ or | 1  | js.   | W.R  | C. G. H.   | 1812.    | C | lp |                      |
| 12700 speciosa B. M.                     | shewy           | □ or | 1½ | jn.au | Y    | C. G. H.   | 1812.    | C | pl | Bot. mag. 2182       |
| 12701 elatior W.                         | tall            | □ or | 1½ | jn.au | Y.Pu | C. G. H.   | 1820.    | C | pl | Jac.schœ.2.t.172     |
| 12702 arborœscens W.                     | Tree            | □ or | 1½ | jn.au | W.pk | C. G. H.   | 1818.    | C | pl | Jac.schœ.2.t.171     |
| 12703 cúprea W.                          | copper-colored  | □ or | 1½ | jn.au | Y.Pu | C. G. H.   | 1823.    | C | pl | Jac.schœ.2.t.176     |
| 12704 Cinerária W.                       | grey            | □ or | 1½ | jn.au | Y.o  | C. G. H.   | 1824.    | D | pl | Jac.schœ.2.t.174     |
| 1832. OSTEOSPERMUM. W. OSTEOSPERMUM.     |                 |      |    |       |      |            |          |   |    |                      |
| 12705 corymbosum W.                      | corymbose       | □ or | 3  | au    | Y    | C. G. H.   | 1822.    | C | lp |                      |
| 12706 spinosum H. K.                     | rough-leaved    | □ or | 3  | fo    | Y    | C. G. H.   | 1700.    | S | lp | Com. nort.2.t.43     |
| 12707 spinescens H. K.                   | smooth-leaved   | □ or | 3  | mr.jn | Y    | C. G. H.   | 1793.    | C | lp | Jac.schœ.3.t.377     |
| 12708 pisiferum W.                       | smooth          | □ or | 4  | mr.my | Y    | C. G. H.   | 1757.    | S | lp | Bot. cab. 470        |
| 12709 moniliferum W.                     | Poplar-leaved   | □ or | 3  | jl.au | Y    | C. G. H.   | 1714.    | S | lp | Dil. elt. t.68. f.79 |
| 12710 ilicifolium W.                     | Holly-leaved    | □ or | 4  | jl.au | Y    | C. G. H.   | 1816.    | C | lp | Bot. afr.172. t.62   |
| 12711 rigidum W.                         | rigid           | □ or | 3  | ap.jl | Y    | C. G. H.   | 1774.    | C | lp |                      |
| 12712 cœruleum W.                        | blue-flowered   | □ or | 3  | jn.s  | B    | C. G. H.   | 1774.    | C | lp | Jac. ic. 1. t. 179   |
| 12713 polygaloides W.                    | Milkwort-leav.  | □ or | 3  | jn.s  | Y    | C. G. H.   | 1759.    | C | lp | Pluk.mant.t.382      |
| 1833. OTHONNA. W. RAGWORT.               |                 |      |    |       |      |            |          |   |    |                      |
| 12714 pinnata W.                         | wing-leaved     | □ or | 3  | ap.jn | Y    | C. G. H.   | 1759.    | C | lp | Bot. mag. 768        |
| 12715 pectinata W.                       | Wormwood-ly.    | □ or | 3  | ap.jn | Y    | C. G. H.   | 1731.    | C | pl | Bot. mag. 306        |
| 12716 Athanasia W.                       | Athanasia-like  | □ or | 3  | n.d   | Y    | C. G. H.   | 1795.    | C | pl | Jac.schœ.2.t.242     |
| 12717 abrotanifolia W.                   | Southernw.-ly.  | □ or | 3  | ja.mr | Y    | C. G. H.   | 1692.    | C | pl | Bot. reg. 108        |
| 12718 retrofracta W.                     | bending-stalk'd | □ or | 2  | mr.au | Y    | C. G. H.   | 1812.    | C | lp | Jac.schœ.3.t.376     |
| 12719 coronopifolia W.                   | Buckhorn-lyd.   | □ or | 2  | js.   | Y    | C. G. H.   | 1731.    | C | pl | Com. hort.2.t.70     |
| 12720 cheirifolia W.                     | Stock-leaved    | □ or | 1½ | ap.jn | Y    | Barbary    | 1752.    | C | pl | Bot. reg. 266        |
| 12721 Tagetes W.                         | Marygold-leav.  | □ or | 1  | ap.jn | Y    | C. G. H.   | 1823.    | S | co |                      |
| 12722 flabellifolia B.C.                 | fan-leaved      | □ or | 1  | ap.jn | Y    | C. G. H.   | 1821.    | C | co | Bot. cab. 798        |
| 12723 crassifolia W.                     | thick-leaved    | □ or | 2  | so    | Y    | C. G. H.   | 1710.    | C | pl | Milic.2.t.245.f.2    |
| 12724 denticulata W.                     | tooth-leaved    | □ or | 2  | ap.jl | Y    | C. G. H.   | 1774.    | C | pl | Bot. mag. 1979       |
| 12725 heterophylla W.                    | various-leaved  | □ or | 2  | ap.jl | Y    | C. G. H.   | 1812.    | C | lp |                      |
| 12726 Lingua W.                          | tongue-leaved   | □ or | 2½ | my.s  | Y    | C. G. H.   | 1787.    | D | lp | Jac.schœ.2.t.238     |
| 12727 ilicoides W.                       | Yam-rooted      | □ or | 1½ | ap.my | Y    | C. G. H.   | 1791.    | D | lp | Jac.schœ.2.t.241     |
| 12728 bulbosa W.                         | bulbous         | □ or | 2  | my.jn | Y    | C. G. H.   | 1774.    | D | lp | Brey. cent. t.66     |
| 12729 perfoliata Jac.                    | perfoliate      | □ or | 1½ | my.jl | Y    | C. G. H.   | 1789.    | D | lp | Bot. mag. 1312       |
| 12730 parviflora W.                      | small-flowered  | □ or | 2  | jl.au | Y    | C. G. H.   | 1704.    | C | pl | Volk.norib.t.226     |
| 12731 ericoides W.                       | Heath-leaved    | □ or | 2  | jl.au | Y    | C. G. H.   | 1815.    | C | lp |                      |
| 12732 tenuissima W.                      | fine-leaved     | □ or | 1½ | ap.jl | Y    | C. G. H.   | 1759.    | C | lp | Jac.schœ.2.t.239     |
| 12733 arborœscens W.                     | tree            | □ or | 2  | jl.au | Y    | C. G. H.   | 1723.    | C | pl | Dil.el.t.103.f.123   |
| 12734 cacalioides W.                     | tuberous        | □ or | ½  | my.s  | Y    | C. G. H.   | 1774.    | D | pl |                      |
| 1834. HIPPIA. W. HIPPIA.                 |                 |      |    |       |      |            |          |   |    |                      |
| 12735 frutescens L.                      | shrubby         | □ un | ½  | f.au  | Y    | C. G. H.   | 1710.    | C | pl | Bot. mag. 1855       |
| 12736 integrifolia W.                    | annual          | □ un | ½  | jl.au | Y    | E. Indies  | 1777.    | S | lp | Huat h. t.67. f.2    |
| 1835. SOLIVA. Fl. per. SOLIVA.           |                 |      |    |       |      |            |          |   |    |                      |
| 12737 anthemifolia R. Bx. Chamomile-lyd. |                 | ○ un | ½  | jn.jl | Ap   | N. Holl.   | 1818.    | S | co | An,mus,t.61.f.1      |
| Gymnostyles anthemifolia Juss.           |                 |      |    |       |      |            |          |   |    |                      |
| 1836. PSIADIA. W. PSIADIA.               |                 |      |    |       |      |            |          |   |    |                      |
| 12738 glutinosa W.                       | glutinous       | □ un | 2  | jn.au | Y    | Composite. | Sp. 1—6. |   |    |                      |
| 1837. ERIOCEPHALUS. W. ERIOCEPHALUS.     |                 |      |    |       |      |            |          |   |    |                      |
| 12739 africanus W.                       | cluster-leaved  | □ or | 3  | ja.mr | Y    | C. G. H.   | 1732.    | C | pl | Bot. mag. 833        |
| 12740 racemosus W.                       | silver-leaved   | □ or | 3  | mr.ap | Y    | C. G. H.   | 1739.    | C | pl |                      |
| *1838. FILA'GO. L. COTTON ROSE.          |                 |      |    |       |      |            |          |   |    |                      |
| 12741 germanica W.                       | common          | ○ un | ½  | jn.au | Y.Br | Britain    | san.fi.  | S | co | Eng. bot. 948        |
| 12742 gallica L.                         | narrow-leaved   | ○ un | ½  | jn.au | Y.Br | Britain    | san.fi.  | S | co | Eng. bot. 2369       |
| 12743 pyramidata L.                      | pyramidal       | ○ un | ½  | jn.au | Br.Y | S. Europe  | 1779.    | S | co |                      |



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Cassini's tribe of Arctotideæ, which has the remarkable peculiarity of occasionally producing an ovary with three cells. In the peculiarities of their style they approach the tribes of Echinopseæ, Carduineæ, Centaureæ, and Carlineæ. They are entirely confined to the regions of the Cape of Good Hope.

1832. *Osteospermum*. From *ostion*, a bone, and *σπερμα*, seed, in allusion to the hardness of the fruit.  
 1833. *Othonna*. Dioscorides mentions this name as being applied to various things, but especially to a plant with a leaf like rocket, but perforated with little holes, whence it was called *Othonna*, from *ὄθον*, linen. The plant of the ancients can have had little affinity with that of the moderns.

1834. *Hippia*. A name applied by Cordus to the common Chickweed, because it was agreeable food for

12695 Radiant florets fertile, Stem erect, Leaves hoary viscid oblong amplexicaul. mucronate-toothed  
 12696 Radiant florets fertile, Leaves pinnatifid lyrate angular toothed downy beneath  
 12697 Radiant florets fertile, Stem erect, Leaves pinnatifid scabrous downy beneath revolute at edge  
 12698 Radiant florets fertile, Outer scales of invol. reflexed cuneate obl. with a broad short point somew. cobw.  
 12699 Radiant florets fertile, Stem erect, Leaves pinnatifid lyrate hoary downy beneath. Invol. imbricated  
 12700 Stemless, Leaves lyrate pinnatifid hoary beneath 3-nerved, Outer scales of invol. linear recurved  
 12701 Radi. flor. fertile, Stem erect, Branches downy hairy, Lvs. pinnatif. downy ben. : seg. lin. lanc. angul. downy  
 12702 Radiant florets fertile, Stem erect, Pedunc. hairy, Lvs. pinnatif. hoary downy ben. : seg. lanc. angul. toothed  
 12703 Radiant florets fertile, Stem erect, Leaves downy beneath : segm. linear subpinnatifid wavy  
 12704 Radiant florets fertile, Leaves hoary downy long-stalked pinnatifid : segm. lanceolate blunt toothed

12705 Leaves lanceolate glabrous, Heads panicled  
 12706 Leaves obovate serrate downy, Spines branched  
 12707 Leaves lanceolate pinnatifid-toothed scabrous, Spines branched  
 12708 Leaves lanceolate mucronate somewhat stalked smooth serrated, Branches toothletted angular  
 12709 Leaves obovate serrated stalked subdecurrent  
 12710 Leaves oblong toothed-angular scabrous  $\frac{1}{2}$ -amplexicaul. Branches furrowed  
 12711 Leaves toothed pinnatifid hairy, Branches unarmed  
 12712 Leaves pinnatifid smooth, Segments lanceolate unequally serrated  
 12713 Leaves lanceolate scattered decurrent smooth entire, Axillæ woolly

12714 Leaves pinnatifid : pinnæ lanceolate entire decurrent  
 12715 Leaves pectinate-pinnatifid downy : segm. linear toothed at the edge  
 12716 Leaves pinnate filiform, Invol. hemispherical many-toothed  
 12717 Leaves multifold pinnated linear, Joints of stem villous  
 12718 Leaves lanceolate 1-toothed on each side in the middle or entire, Peduncles axillary, Stem divaricating  
 12719 Lower leaves lanceolate entire : upper sinuate toothed  
 12720 Leaves lanceolate 3-nerved entire, Stem suffruticose creeping  
 12721 Leaves deeply pinnatifid glabrous : segments linear somewhat toothed, Stem herbaceous  
 12722 Leaves pinnatifid very small, Peduncles long slender axillary 1-headed, Ray longer than disk  
 12723 Leaves lanceolate entire somewhat fleshy, Stem erect  
 12724 Leaves oblong toothletted smooth narrowed at base amplexicaul. Heads panicled  
 12725 Radical leaves ovate angular toothed : cauline lanceolate entire  
 12726 Leaves entire : radical lanceolate ; cauline lanceolate subcordate  $\frac{1}{2}$ -amplexicaul. Stem erect  
 12727 Leaves entire : radical cordate ; cauline ovate-lanceol. cordate at base amplexicaul. Stem flaccid filiform  
 12728 Leaves ovate somewhat toothed, Peduncles 1-headed very long  
 12729 Root tuberosus, Leaves amplexicaul. Peduncles 1-headed  
 12730 Leaves lanceolate smooth amplexicaul. Heads panicled  
 12731 Stem dichotomous imbricated : leaflets acerose, Peduncle very long solitary in the divarications  
 12732 Leaves filiform fleshy, Stem shrubby  
 12733 Leaves oblong entire, Stem arborescent fleshy with woolly scars  
 12734 Fleshy naked smooth a span high, Leaves fascicled obovate sessile, Peduncle 1-headed

12735 Shrubby villous, Leaves pinnatifid, Heads corymbose  
 12736 Hispid erect, Leaves ovate serrated 5-nerved, Racemes terminal

12737 Leaves pinnated : leaflets linear many-times lobed acute, Pericarps cuneiform hairy

12738 The only species

12739 Leaves entire and divided, Heads corymbose  
 12740 Leaves linear silky

12741 Stem erect prolifer. at summit, Lvs. lanc. downy acute, Fls. capitate in the axils of branches and terminal  
 12742 Stem erect dichotom. Lvs. lin. acum. downy, Fls. crowded axil. and term. Clust. much shorter than leaves  
 12743 Stem erect subdichotomous, Leaves lanceolate spatulate downy, Flowers clustered axillary and terminal



and Miscellaneous Particulars.

horses, *isnos*, a horse ; and given to this plant by Linnæus for no reason whatever. Little plants resembling Tansy.

1835. *Soliva*. Named by the authors of the Flora Peruviana, after Salvator Soliva, a Spanish physician and botanist.

1836. *Psiadia*. From *ψια*, a drop of dew, in allusion to the dew-bespangled foliage of the plants.

1837. *Eriocephalus*. From *ειω*, wool, and *κεφαλη*, a head, on account of the woolly grains collected in terminal heads.

1838. *Fuago*. All the parts of these plants are covered with delicate threads or *fila*.



|       |                  |               |        |              |       |            |          |   |     |                     |
|-------|------------------|---------------|--------|--------------|-------|------------|----------|---|-----|---------------------|
| 12744 | montána Pers     | mountain      | ○ un   | ↓ jn.au      | Br. Y | S. Europe  | 1850.    | S | co  |                     |
| 12745 | miníma Pers.     | least         | ○ un   | ↓ jl.au      | Y. Br | Britain    | sa. pas. | S | co  | Eng. bot. 1157      |
| 12746 | arvensís Pers.   | corn          | ○ un   | ↓ jl.au      | Y. Br | Europe     | 1804.    | S | co  |                     |
| 12747 | Lagópús Pers.    | Hare's-foot   | ○ un   | ↓ jl.au      | Y. Br | Siberia    | 1820.    | S | co  |                     |
| 12749 | rec'ta           | upright-wood  | ☒ △ un | 1 au         | Y. Br | Britain    | sa. pas. | D | co  | Eng. bot. 124       |
| 12749 | coarctáta        | contracted    | ○ un   | 1 au         | Br    | M. Video   | 1819.    | D | co  |                     |
| 12750 | americána        | Jamaica       | ☒ △ un | 1 jl.au      | Pa. Y | Jamaica    | 1815.    | D | co  |                     |
| 12751 | supína Lk.       | dwarf         | ☒ △ un | ↓ jn.jl      | Y. Br | Scotland   | sc. alp. | D | co  | Eng. bot. 1193      |
| 12752 | pusílla Hæncke.  | pygmy         | ☒ △ un | 1 lin. jn.jl | Y. Br | Austria    | 1820.    | D | co  | Krock.siles. t.41   |
| 12753 | sphæ'rica Lk.    | spherical     | ☒ △ un | 1↓ jn.jl     | W     | N. Holl.   | 1819.    | D | co  |                     |
| 12754 | cephaloídea Lk.  | large-headed  | ○ un   | ↓ jn.jl      | Y. w  | N. Holl.   | 1823.    | S | co  |                     |
| 12755 | uliginósa        | marsh         | ○ un   | 1 au         | Y. Br | Britain    | wat. p.  | D | co  | Eng. bot. 1194      |
| 12756 | sylvática        | highland      | ☒ △ un | 1 au         | Y. Br | Britain    | al. pas. | R | s.l | Eng. bot. 913       |
| 1839. | MICROPUS. W.     | MICROPUS.     |        |              |       | Compositæ. | Sp. 2—3. |   |     |                     |
| 12757 | supínus W.       | trailing      | ○ un   | ↓ jn.s       |       | S. Europe  | 1710.    | S | lp  | Sch.hand.3.t.267    |
| 12758 | erectus W.       | upright       | ○ un   | ↓ jn.s       |       | S. Europe  | 1683.    | S | lp  | Loef. hisp.t.1. f.3 |
| 1840. | PARTHENIUM. W.   | PARTHENIUM.   |        |              |       | Compositæ. | Sp. 2    |   |     |                     |
| 12759 | Hysteróphorus W. | cut-leaved    | ○ un   | 1 jlo. W     |       | Jamaica    | 1738.    | S | lp  | Bot. mag. 2275      |
| 12760 | integrifólium W. | entire-leaved | ☒ △ un | 3 jn.o       | W     | Virginia   | 1661.    | D | pl  | W. hort. ber. 4     |
| 1841. | I'VA. W.         | I'VA.         |        |              |       | Compositæ. | Sp. 2—5. |   |     |                     |
| 12761 | ánnua W.         | annual        | ☒ □ un | 2 jl.au      | W     | S. Amer.   | 1768.    | S | lp  | Schmidel.ic. t.15   |
| 12762 | frutéscentis W.  | shrubby       | ☒ or   | 4 au         | W     | N. Amer.   | 1711.    | C | co  | Flu.alm. t.27. f.1  |
| 1842. | ACICAI'PHA Juss. | ACICARPHA.    |        |              |       | Calyceææ.  | Sp. 1—3. |   |     |                     |
| 12763 | spatuláta 'acq.  | spatulate     | ☒ △ cu | ↓ ...        |       | Brazil     | 1824.    | D | pl  |                     |

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|        |                                  |                 |        |          |   |            |           |   |     |                     |
|--------|----------------------------------|-----------------|--------|----------|---|------------|-----------|---|-----|---------------------|
| 1843.  | ELEPHANTO'PUS. W.                | ELEPHANTS FOOT. |        |          |   | Compositæ. | Sp. 3—7.  |   |     |                     |
| 12764  | scáber W.                        | rough-leaved    | ☒ △ un | 1 jn.s   |   | E. Indies  | 1695.     | C | s.p | Rhee.mal.10. t.7    |
| 12765  | caroliníanus W.                  | Carolina        | ☒ △ un | 1↓ jls   | R | America    | 1732.     | C | lp  | Dil.el.t.106. f.126 |
| 12766  | tomentósus W.                    | woolly          | ☒ △ un | 1 jl.au  | R | W. Indies  | 1733.     | D | lp  |                     |
| 1844.  | CEDE'RA. W.                      | CEDE'RA.        |        |          |   | Compositæ. | Sp. 1—3.  |   |     |                     |
| 12767  | prolífera W.                     | proliferous     | ☒ □ pr | 1↓ my.jn | Y | C. G. H.   | 1789.     | C | s.l | Bot. mag. 1637      |
| 1845.  | FLAVE'RIA. J.                    | FLAVERIA.       |        |          |   | Compositæ. | Sp. 1—2.  |   |     |                     |
| 12768  | conrayérba W. en.                | Peruvian        | ☒ □ m  | 1↓ jls   | Y | Peru       | 1794.     | S | lp  | Bot. mag. 2400      |
| 1846.  | STOE'BE W.                       | STOE'BE.        |        |          |   | Compositæ. | Sp. 2—4   |   |     |                     |
| 12769  | æthiópica W.                     | Juniper-leaved  | ☒ □ pr | 2 au     |   | C. G. H.   | 1759.     | C | pl  |                     |
| 12770  | cinérea W.                       | Heath-leaved    | ☒ □ pr | 2 jls    |   | C. G. H.   | 1784.     | C | pl  | Pl. man.t.297. f.1  |
| 1847.  | NAUMBUR'GIA. W.                  | NAUMBURGIA.     |        |          |   | Compositæ. | Sp. 1.    |   |     |                     |
| 12771  | trinerváta W.                    | three-nerved    | ○ un   | 3 jl.au  | Y | S. Amer.   | 1799.     | S | lp  | Sch.b.j.1800.2.t.5  |
|        | <i>Brotéra Contrayer'va</i> Spr. |                 |        |          |   |            |           |   |     |                     |
| *1843. | CASSY'NIA. H. K.                 | CASSINIA.       |        |          |   | Compositæ. | Sp. 3—11. |   |     |                     |
| 12772  | áurea R. Br.                     | yellow          | ☒ △ or | jl.au    |   | N. Holl.   | 1803.     | D | lp  | Bot. reg. 764       |
| 12773  | spectábilis R. Br.               | shewy           | ○ or   | 6 jl.au  | Y | N. Holl.   | 1818.     | S | co  | Bot. reg. 678       |
| 12774  | leptophýlla R. Br.               | small-leaved    | ☒ □ pr | 2 jlo    | W | N. Zeal.   | 1821.     | C | co  |                     |
| 1849.  | SPHERAN'THUS. W.                 | SPHERANTHUS.    |        |          |   | Compositæ. | Sp. 3—8.  |   |     |                     |
| 12775  | indicus W.                       | Indian          | ☒ △ un | 2 aud    | B | E. Indies  | 1699.     | C | pl  | Bur.zeyl.t.94. f.3  |
| 12776  | africánus W.                     | African         | ☒ □ un | 1 jl.au  | B | C. G. H.   | 1759.     | S | co  | Pl.man. t.108. f.7  |
| 12777  | hírtus W.                        | hairy           | ☒ △ un | 2 t.au   | B | .....      | 1823.     | C | co  | Lam.ill.t.718. f.1  |



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1839. *Micropus*. From *μικρος*, small, and *πους*, a foot; so called with reference to *Leontopodium* (which see), than which it is smaller, but which it resembles in its velvety silvery leaves.

1840. *Parthenium*. The Greek name of the *Matricaria*, which see. The indecent derivation of the word *Hysterophorus*, is sufficiently explained by Vaillant. (*Mem. Acad. Sciences, anno 1720.*)

1841. *Iva*. This name, according to Fuchsius, is a mere abbreviation of *abiga*; see *Ajuga*. It has been applied by Linnæus to these plants because their smell resembles that of the ancient *Iva*.

1842. *Acicarpha*. From *ακκις*, a point, and *καρφος*, a palea, because that appendage is spiny.

1843. *Elephantopus*. It is said that some resemblance may be found between the radical leaves of this plant and an elephant's foot (*αλεφας*, an elephant, and *πους*, a foot).

1844. *Cedera*. After George Eder, a Dane, professor of botany at Copenhagen, and the founder of the extensive *Flora Danica*.

1845. *Flaveria*. From *flavus*, yellow, because the plants are used in Chili for dyeing of that color.

- 12744 Stem erect subdichotomous, Lvs. lin. lanc. appressed downy, Flowers clustered axillary and terminal  
 12745 Stem erect branch. Branch. sprdg. Lvs. lanc. acute cottony, Fls. conic. clust. lat. term. Clust. longer than lvs.  
 12746 Stem erect panicled, Leaves oblong lanceolate woolly, Heads clustered lateral and terminal downy  
 12747 Stem erect branched, Lvs. lanc. cord. at base amplexicaul. woolly, Heads clust. lat. and terminal downy  
 12748 Leaves nearly glabrous above, Spike longer more interrupted  
 12749 Stem herbaceous quite simple, Leaves oblong spatulate downy beneath hoary, Heads clustered  
 12750 Stem erect branched, Lvs. obov. spatulate downy beneath, Heads axillary and terminal clustered spiked  
 12751 Stem decumb. branch. only from base, Flower. stems erect, Fls. solit. or racem. Lvs. lin. downy on both sides  
 12752 Stem quite simple nearly erect about 3-flowered, Leaves linear acute downy, Runners procumbent  
 12753 Stem branched erect, Leaves linear 3-nerved acute very narrow at base downy beneath  
 12754 Stem simple, Leaves linear 3-nerved acuminate silky beneath, Heads terminal clustered [than lvs.  
 12755 Stem very much branch. diffuse woolly, Lvs. lin.-lanc. downy, Fls. in term. crowded clust. which are shorter  
 12756 Stem simple nearly erect downy, Fls. axillary forming a distant leafy spike Leaves linear lanc. downy

- 12757 Leaves opposite obovate cuneate  
 12758 Leaves alternate lanceolate, Heads woolly

- 12759 Leaves bipinnatifid  
 12760 Leaves undivided oblong toothed

- 12761 Leaves lanceolate-ovate, Bracts lanceolate and petioles downy  
 12762 Leaves lanceolate dotted scabrous deeply serrated, Stem shrubby

- 12763 Leaves spatulate

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- 12764 Leaves scabrous : radical narrowed at base ; cauline lanceolate, Stem branched strigose  
 12765 Radical and cauline leaves oblong narrowed at base somewhat hairy, Stem simple hairy  
 12766 Leaves ovate downy

- 12767 Leaves lanceolate serrated reflexed

- 12768 Leaves somewhat stalked lanceolate 3-nerved mucronate-serrate

- 12769 Leaves mucronate subulate reflexed, Stem erect  
 12770 Leaves linear subulate oblique, Spike cylindrical

- 12771 The only species

- 12772 Leaves lanceolate-linear smooth glandular beneath, Corymbs decompound  
 12773 Panicle decompound, Leaves lanceolate decurrent with their under surface and the branches woolly  
 12774 Corymb nearly sessile, Leaves small linear white beneath

- 12775 Leaves lanceolate serrate decurrent glabrous, Peduncles winged, Wings of stem and peduncles serrated  
 12776 Leaves decurrent ovate serrated, Peduncles rounded  
 12777 Leaves obovate serrated hairy decurrent, Peduncles winged, Wings of stem and peduncles serrated



and Miscellaneous Particulars.

1846. *Stæbe*. The name under which Theophrastus and Pliny designate a plant of a rough and spiny habit. This is the character of the modern plant, which is very dissimilar to that of the ancients, which is believed to have been *Poterium spinosum*.

1847. *Naumburgia*. Named by Willdenow without explanation ; but we presume in honor of John Samuel Naumburg, author of a Dissertation upon *Veronica Chamædrys*, &c., published at Erfurt in 1792.

1848. *Cassinia*. Named after M. Henri Cassini, a celebrated French botanist, who has devoted much attention to the study of the very difficult tribe of plants to which this belongs, and with singular success. But his observations are scattered through so many different works, that it is almost hopeless to acquire a knowledge of their actual extent. Neat New Holland shrubs with white or yellow flowers.

1849. *Sphaeranthus*. From *σφαῖρα*, a globe, and *ανθος*, a flower, on account of the globular form of the heads of flowers.

|                                 |                |        |    |       |                    |                 |       |       |                     |
|---------------------------------|----------------|--------|----|-------|--------------------|-----------------|-------|-------|---------------------|
| 1850. ECHINOPS. <i>W.</i>       | GLOBE THISTLE. |        |    |       | <i>Compositae.</i> | <i>Sp.</i> 7-9. |       |       |                     |
| 12778 sphaerocephalus <i>W.</i> | great          | Δ or   | 5  | jl.au | L.B                | Austria         | 1506. | D co  |                     |
| 12779 spinosus <i>W.</i>        | thorny-headed  | Δ or   | 4  | jl.au | W                  | Egypt           | 1597. | D 1p  | Moris.s.7.t.35.f.4  |
| 12780 Ritó <i>W.</i>            | small          | Δ or   | 3  | jl.s  | B                  | Europe          | 1570. | D co  | Bot. mag. 932       |
| 12781 strigosus <i>W.</i>       | annual         | ○ or   | 2  | jl.s  | W                  | Spain           | 1729. | S 1p  | Bot. mag. 2109      |
| 12782 lanuginosus <i>W.</i>     | woolly         | Δ or   | 2  | jn.jl | B                  | Levant          | 1736. | D 1p  |                     |
| 12783 paniculatus <i>Jacq.</i>  | panicled       | Δ or   | 6  | jl.au | B                  | Spain           | 1815. | D 1p  | Bot. reg. 356       |
| 12784 strictus <i>B.M.</i>      | upright        | Δ or   | 3  | jl.au | Pa.B               | Europe          | 1822. | D 1p  | Bot. mag. 2457      |
| 1851. ROLANDRA. <i>W.</i>       | ROLANDRA.      |        |    |       | <i>Compositae.</i> | <i>Sp.</i> 1.   |       |       |                     |
| 12785 argentea <i>W.</i>        | silver-leaved  | ■ □ or |    | jl    | W                  | W. Indies       | 1714. | C 1p  | Slo. jam.1.t.7. f.3 |
| 1852. BROTERA. <i>W.</i>        | BROTERA.       |        |    |       | <i>Compositae.</i> | <i>Sp.</i> 1.   |       |       |                     |
| 12786 corymbosa <i>W.</i>       | umbelled       | Δ or   | 2  | jn.jl | B                  | S. Europe       | 1640. | D 1p  | Mor. s.7.t.33.f.17  |
| 1853. GUNDEYLIA. <i>W.</i>      | GUNDEYLIA.     |        |    |       | <i>Compositae.</i> | <i>Sp.</i> 1.   |       |       |                     |
| 12787 Tournefortii <i>W.</i>    | Tournefort's   | Δ un   | 1½ | jn.au | L.G                | Levant          | 1739. | D s.p | Mill. ic. t. 287    |
| †1854 EUKENIA. <i>Cham.</i>     | EUKENIA.       |        |    |       | <i>Compositae.</i> | <i>Sp.</i> 1.   |       |       |                     |
| 12788 grata <i>Cham.</i>        | pleasant       | ■ □ pr | 2  | ...   | Y                  | Chili           | 1825  | C p.1 | Hor. Phy.ber.t.6    |



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1850. *Echinops*. From *εχινος*, a hedgehog, and *opsis*, resemblance; because of the bristly round heads of flowers protected in every direction by stiff spines. The woolly leaves of *Echinops strigosus* are employed in Spain as tinder. Upon this genus M. Cassini has founded his tribe of *Echinopseae*, which it must be confessed is entirely distinct from any other, and extremely remarkable on account of its very singular aberrations from the ordinary structure of *Compositae*.

1851. *Rolandra*. After Daniel Rolander, a pupil of Linnæus, who visited Surinam. Nothing appeared from him except an account of *Doliciocarpus* in the seventeenth volume of the Transactions of the Academy of Sciences of Stockholm.

- 12778 Leaves pinnatifid downy above woolly beneath, Stem branched  
 12779 Heads scattered with long spines  
 12780 Head globose, Leaves pinnatifid smooth above  
 12781 Heads fascicled, Lateral invol. sterile, Leaves strigose on the upper side  
 12782 Stem branched woolly, Leaves subbipinnate: segments narrow smooth above, Head sessile  
 12783 Leaves rugose squarrose pinnatifid smooth above glaucous with down beneath  
 12784 Stem simple upright 1-headed, Leaves eroded pinnatifid spiny-toothed smooth above downy beneath

12785 The only species

12786 Heads corymbose numerous

12787 Leaves long and spiny

12788 The only species



and Miscellaneous Particulars.

1852. *Brotera*. Named after Felix Avelhar Brotero, a Portuguese botanist, professor at Coimbra; author of a useful *Flora Lusitanica*.

1853. *Gundelia*. Named after Andrew Gundelsheimer, a German botanist, who accompanied Tournefort in his journey into the Levant in 1709.

1854. *Euxenia*. A name unexplained by its author. Apparently derived from *εὐξενος*, hospitable, but in what sense we do not perceive.



## CLASS XX. — GYNANDRIA.

THE singular plants which constitute this class are distinguished from all others by the anomalous structure of their flowers. These do not, as is usually the case, contain a certain number of stamens surrounding a central ovarium or style, but on the contrary are furnished with a solitary fleshy undivided process, round which the sepals radiate, and which supplies the place of stamens and style. The nature of this process has been variously explained: the modern opinion is that it is formed by the accretion of the stamens and style into a single mass, and this opinion seems to be confirmed by analysis and analogy. Omitting, therefore, a notice of such theories respecting its nature as are opposed to that which is now received as the most correct, it will suffice to explain a little in detail, the opinion which is adopted in this work. The central process, called the columna or column, is understood to be formed by the filaments of three stamens surrounding a style, and by mutual accretion firmly united with it and with each other into a solid mass. Of these three stamens, it most frequently happens that the two lateral are sterile, and not furnished with even the vestige of an anther; and that their presence is not indicated by more than two irregular excrescences, as in *Orchis*, or by the same number of small appendages, as in *Satyrrium*, or by two horn-like or tooth-like processes, present in several of the genera with waxy pollen-masses: it even happens, and not infrequently, that no vestige whatever of them remains. But in *Cypripedium* both are fertile and bear perfect anthers, while the central stamen is barren and foliaceous. When the lateral stamens are, as above stated, abortive, which is the most common form of the columna, the central stamen bears at its upper extremity an anther, which is either moveable or fixed firmly in its place. The pollen which this contains, assumes three very distinct appearances in different tribes. It is either granular, dividing into many separable small pieces, as in *Orchis*; or powdery, consisting of an infinite number of granules, as in *Spiranthes*; or waxy, when it consists of a few large concrete masses, as in *Epidendrum*. The stigma is most frequently concave, and placed nearly under the anther, but in such a manner, that there is no contact between it and the pollen. In what way, therefore, fecundation can take place among truly Gynandrous plants, is one of those mysterious contrivances of nature which has not yet been explained. It is generally believed to take place by absorption in some undiscovered manner, before the flowers expand; but it is extremely difficult to understand how this can occur in many genera. The foregoing remarks apply only to the tribe of plants called Orchidoceus. The few genera attached to the latter part of the class are Gynandrous by the cohesion indeed of their stamens and style, but in a much more obvious manner.

Gynandrous plants are among the most interesting of the vegetable productions of the globe, whether we consider the vivacity of their colors, or the singularity of their organization, or the grotesque appearance of their tortuous roots, or the delicious perfume of their flowers. They are distributed in abundance over all the earth. In Europe and the temperate parts of the world, they are principally found in meadows and pastures among grass; but in tropical regions they often constitute the chief beauty of the forest, occupying the forked branches of living trees, or the prostrate trunks of fallen timber, over which, in company with ferns and parasitical Aroidæ, they climb and trail in every direction, until they adorn the one with bright hues and rich odours foreign to their nature, and render the others more beautiful in death, than in the full vigour of their existence.

## Order 1. MONANDRIA.



## Stamen 1.

§ 1. *Anther terminal, erect. Pollen granular, cohering by an elastic thread.*

1855. *Disa*. Flowers ringent: helmet with a spur or bag at the base. Inner sepals united to the column. Lip without a spur.

1856. *Satyrrium*. Flower ringent: five anterior sepals united at base. Lip behind, fornicate with two spurs or bags at the base. Anther resupinate. Stigma 2-lipped.

1857. *Platanthera*. Flower vaulted. Lip entire with a spur. Cells of the anther widely divided at their base by the broad interposed stigma. Glands of pollen masses naked. Lips of stigma absent.

1858. *Gymnadenia*. Cor. ringent. Lip spurred at the base beneath. Glands of the stalks of the pollen-mass naked, approximate.

1859. *Orchis*. Cor. ringent. Lip spurred on the underside at the base. Glands of the stalks of the pollen-mass (1-2) contained in one common little pouch.

1860. *Nigritella*. Ovary straight. Flower spreading. Lip posterior, entire, with a scrotiform spur. Glands of pollen-masses distinct, and enclosed in a single 2-celled pouch.

1861. *Habenaria*. Cor. ringent. Lip spurred on the upper side at the base beneath. Glands of the stalk of the pollen-mass naked, distinct, with the cells of the footstalks adnate or separated.

1862. *Bartholina*. Flower ringent: inner sepals united below with the lip. Lip spurred beneath at the base. Stalks of the pollen-masses long; cells united to the column: glands distinct, half covered by the exterior lobe.

1863. *Glossula*. Sepals conniving in a galea: the upper without a spur. Lip anterior, spurred, 3-parted, with an inflated spur. Pollen-masses 2, 2-parted, with 2 glands inclosed in distinct pouches.

1864. *Anacamptis*. The flower of *Orchis*, from which it differs in having the gland of the pollen-masses single, with inflexed edges, and enclosed in a pouch.

1865. *Aceras*. Flower ringent. Lip without a spur. Glands of the pollen-masses included in a common pouch.

1866. *Ophrys*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses inclosed in two distinct pouches.

1867. *Chamorchis*. Ovary reclinate at end. Flower galeate. Lip without a spur, undivided. Glands of the pollen-masses naked. Upper lip of stigma divided. Anther of *Orchis*.

1868. *Herminium*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses naked, distinct.

1869. *Serapias*. Flower ringent. Lip without a spur. Column sharp-pointed. Pollen-masses attached to a single gland inclosed in one pouch.

§ 2. *Anther parallel with stigma. Pollen powdery.*

1870. *Goodyera*. Cor. ringent, with the 2 exterior or lateral segments of the perianth placed beneath the lip, which is gibbous at the base and undivided at the extremity. Column free. Pollen angular.

1871. *Diuris*. Flower irregular. Two outer linear sepals placed beneath the trifold lip: the inner clawed and spreading. Column with the lateral lobes petaloid. Pollen farinaceous.

1872. *Ponthieva*. Flower irregular. Lip behind, with the inner sepals inserted in the column. Pollen farinaceous.

1873. *Neottia*. Flowers connivent. Lip sessile, 2-lobed, with no calli. Anther terminal, sessile. Stigma 2-lipped perversus; the front lip thickened.

1874. *Spiranthes*. Spike spiral. Ovary oblique at the end. Sepals connivent. Lip clawed, parallel with columna, with 2 calli at the base, entire. Anther terminal stalked. Stigma flat, cuspidate, membranous, finally split.

1875. *Stenorkhynchus*. Like the last; but the lip adheres to the columna by means of the margins of its lateral lobes: it has no callosities. Stigma corneous, always entire.

1876. *Listera*. Flowers connivent. Lip 2-lobed, sessile, with no calli. Anther intramarginal, half covered over by the hooded clinandrium. Stigma closed, nearly flat, with a strong transverse furrow.

§ 3. *Anther terminal, persistent. Pollen powdery.*

1877. *Arethusa*. Lip united at base with the columna, at the end hooded, in the inside crested. Sepals 5, united at base. Pollen angular.

1878. *Calopogon*. Lip at the back clawed, with a bearded inside. Sepals 5, distinct. Column separate. Pollen angular.

1879. *Pogonia*. Lip sessile, hooded, crested inside. Sepals 5, distinct, without glands. Pollen farinaceous.

1880. *Epipactis*. Lip ventricose below: the extremity either undivided or 3-lobed: the middle lobe the largest, connected as it were by a joint. Pollen farinaceous.

1881. *Caleana*. Lip unguiculate, placed at the back, with a pettate hollow lamina, having a perforation on the outside. Pollen farinaceous.

1882. *Corallorhiza*. Lip produced behind, adnate with the spur or free. Column free. Masses of pollen 4, oblique, not parallel.

§ 4. *Anther terminal, opercular deciduous. Pollen waxy.*

1883. *Rodriguezia*. Perianth. 4-leaved ringent. Lip entire, unguiculate cornute at base; callous in the middle. Pollen-masses 2, with an elastic caudicula. Stigma with 2 horns.

1884. *Gomora*. Like the last, but lip not cornute at base.

1885. *Cymbidium*. Lip not spurred, concave, jointed with the simple base of the columna. Sepals spreading, distinct. Pollen masses 2, 2-lobed behind.

1885. *Brassia*. Lip expanded, undivided. Sepals spreading, distinct. Column not winged. Pollen-masses 2, 2-lobed behind; fixed by the middle to a common process of the stigma.

1887. *Lissochilus*. Pollen-masses 2, obliquely 2-lobed. Lip saccate at base, sessile, undivided, convex at the base, united with the apterous toothless column. Inner sepals divaricating, petaloid; outer reflexed, calycine.

1888. *Geodorum*. Lip cucullate-ventricose, sometimes spurred at base, sessile, not jointed with the column. Sepals like the lip, 1-sided. Pollen-masses 2, lobed at back.

1889. *Catasetum*. Perianth, not inverted, generally globose. Lip saccate, concave, different from the sepals. Pollen-masses 2, 2-lobed behind, inserted on a large naked transverse caudicula, which finally separates with elasticity.

1890. *Trizeuxis*. Perianth 2-parted; upper segment 2-lobed; lower 3-parted, inflated. Lip parallel with columna, with a recurved dilated limb. Stigma excavated. Anther 1-celled, fleshy. Pollen-masses 2, adhering to a fusiform caudicula.

1891. *Xylobium*. Perianth. spreading. Lip behind jointed, with an unguiform process of the columna, 3-lobed, incumbent on columna. Outer lateral sepals united by their bases, with the process of columna. Pollen-masses 2, furrowed on one side, seated on a broad caudicula.

1892. *Maxillaria*. Perianth. spreading. Lip in front 3-lobed, jointed with the unguiform process of the columna. Lateral outer sepals united by their bases with the process of columna. Pollen-masses 2, bipartite, united by their bases to a common gland.

1893. *Notylia*. Perianth. 4-leaved: upper sepals spreading. Lip divaricating entire. Columna acuminate. Pollen-masses 2, entire. Anther posterior, not terminal.

1894. *Pleurothallis*. Lip jointed with the simple or slightly lengthened base of columna. The two anterior sepals united at base. Pollen-masses 2, not furrowed.

1895. *Oncidium*. Lip expanded, lobed, tubercled at base. Petals spreading, sometimes only 4. Column winged. Pollen-masses 2, 2-lobed behind, fixed by the middle to the common process of the stigma.

1896. *Cystodilium*. Sepals 5, distinct. Lip 3-lobed, connected with a joint with the unguiform process of the base of the apterous column. Pollen-masses 2, 2-lobed behind.

1897. *Caelogyne*. Perianth. resupinate, spreading. Lip 3-lobed, cucullate, jointed with columna. Column winged. Anther lateral, 2-celled. Pollen-masses 2, 2-parted. Stigma funnel-shaped, 2-lipped.

1898. *Macradenia*. Lip sessile, cucullate, concave, undivided, acuminate. Sepals distinct, spreading. Column distinct, with the lobes of its end conniving. Pollen-masses 2, unfurrowed, seated on a long filiform caudicula.

1899. *Dendrobium*. Lip without a spur, jointed with the unguiform process of the columna, to whose edges the anterior sepals adhere. Pollen-masses 4, parallel.

1900. *Anisopetalum*. Flowers erect. Sepals conniving. The two lateral exterior large, cohering at end: two inner very small subulate. Lip oblong, with 2 teeth near the base. Pollen-masses 4, without gland or caudicula.

1901. *Camaridium*. Perianth. resupinate, expanded. Sepals distinct. Lip distinct, sessile, cucullate, 3-lobed. Column round. Stigma arched. Pollen-masses 4, parallel, compressed, without a caudicula at the time of expansion.

1902. *Ornithidium*. Lip sessile, hooded, connate with the base of columna. Sepals conniving. Pollen-masses 4, oblique, furrowed at base.

1903. *Isochilus*. Lip almost of the same shape as the distinct, connivent, sepals. Pollen-masses 4, parallel.

1904. *Pholidota*. Flowers resupinate. Sepals uniform; the three outer erect, keeled at back. Lip ventricose. Column dilated at end. Anther 2-celled. Pollen masses 4, each pair having a gland.

1905. *Broughtonia*. Column distinct, or at the very base united with the unguiculate lip, which is lengthened at the base into a tube, connate with the ovarium. Pollen-masses 4, parallel, with a granular caudicula reflexed upon the masses.

1906. *Cattleya*. Sepals spreading. Lip sessile, cucullate, surrounding the half round column. Pollen-masses 4, with as many powdery reflexed caudiculae.

1907. *Epidendrum*. Column united with the claw of the lip, and forming a tube which sometimes runs down the ovarium. Pollen-masses 4, with as many powdery reflexed caudiculae.

1908. *Polystachya*. Perianth. not inverted, cuneate, closed. Pollen-masses 4, placed on a simple naked caudicula with a gland.

1909. *Cryptarrhena*. Sepals 5, distinct, spreading. Lip not spurred, with a dilated flat lamina. Column distinct, not winged. Anther enclosed in the cucullate head of the columna. Pollen-masses 4.

1910. *Ornithocephalus*. Flowers resupinate. Lip stalked. Sepals nearly equal; the two upper finally reflexed. Column short, with a very long beak. Pollen-masses 4, adhering to a very long glandular caudicula.

1911. *Bletia*. Lip sessile, cucullate; sometimes spurred at the base. Sepals 5, distinct. Column separate. Pollen-masses 8 or 4, 2-lobed.

1912. *Eria*. Perianthium woolly, conniving or expanded. Lip 3-lobed, jointed with an unguiform process of the columna to whose sides the anterior sepals are united. Pollen-masses 8, cohering at the end by means of a powdery substance.

1913. *Ocoteima*. Lip jointed with an unguiform process, to the edges of which the anterior sepals adhere. Pollen-masses 8.

1914. *Brassavola*. Lip with a simple claw, undivided. Sepals distinct, spreading. Pollen-masses 8 or more.

1915. *Sarcanthus*. Lip fleshy, entire, calcarate; the spur furnished with various appendages in the interior. Sepals spreading equally. Pollen-masses 2, seated on an elastic caudicula.
1916. *Vanda*. Lip saccate, continuous with the simple base of the apterous column, trifold, with the middle lobe fleshy. Sepals spreading, distinct. Pollen-masses 2, obliquely 2-lobed, attached to an elastic caudicula.
1917. *Aerides*. Lip spurred or saccate, inserted at the end of the unguiform process, to whose edges the anterior sepals are united. Pollen-masses 2, two-lobed behind, fixed by a common process to the middle of the stigma.
1918. *Renanthera*. Like the last, but sepals very long and spreading, and lip only a little saccate at base.
1919. *Ionopsis*. Sepals connivent, the anterior placed under the labellum. Lip spurred at base. Pollen-masses 2.
1920. *Eulophia*. Sepals 5, distinct, uniform, ascending, spreading. Lip spurred at base, with a sessile crested lamina, 3-lobed. Pollen-masses 2, two-lobed, with a posterior lobe attached to an elastic caudicula.
1921. *Angraecum*. Sepals conniving, galeate. Lip spurred 3-lobed, jointed with column. Pollen-masses 2. Stigma concave, transverse.
1922. *Aeranthes*. Lip spurred, membranous, entire, jointed with an unguiform process of the column, to which the two front sepals are adherent. Pollen-masses 2, hollow, perforated on one side, with no caudicula, and two glands.
1923. *Calanthe*. Lip spurred, lobed, united with the columna. Perianth. spreading. Pollen-masses 8.
1924. *Stelis*. Lip of the same form as the inner dwarf vaulted sepals. Three outer sepals united at base. Pollen-masses 2.
1925. *Malaxis*. Lip flat, expanded, regularly vertical. Column round. Pollen-masses 4, loose.
1926. *Prescotia*. Perianth. spreading. Two upper sepals connate at base. Lip behind, erect, fleshy, cuculate, entire, embracing the very minute column. Pollen-masses 2, twin, granular, united by the end to a gland.
1927. *Microstylis*. Lip flat, sagittate, or deeply cordate. Column very small, round. Pollen-masses 4, loose.

MONANDRIA.

|  |                      |         |              |                  |                   |          |       |                          |  |
|--|----------------------|---------|--------------|------------------|-------------------|----------|-------|--------------------------|--|
| 1855. <i>DYSA</i> . <i>Su.</i>           | <i>Disa</i> .        |         |              | <i>Orchideæ.</i> | <i>Sp. 6-37.</i>  |          |       |                          |  |
| 12789 cornuta <i>W.</i>                  | horned               | * Δ el  | 1 1/2 jn. jl | Pa. B            | C. G. H.          | 1805.    | R s p |                          |  |
| 12790 spatulata <i>W.</i>                | spoon-lipped         | * Δ cu  | 1 jn. jl     | Pa. pu           | C. G. H.          | 1805.    | R s p | Journ. sc. 4. t. 5. l. 3 |  |
| 12791 prasiniflora <i>B. Reg.</i>        | green-flowered       | * Δ cu  | 3/4 jn. jl   | G. n             | C. G. H.          | 1815.    | R s p | Bot. reg. 210            |  |
| 12792 bracteata <i>W.</i>                | small-flowered       | * Δ cu  | 3/4 jn. jl   | G. n             | C. G. H.          | 1818.    | R s p | Bot. reg. 324            |  |
| 12793 grandiflora <i>W.</i>              | large-flowered       | * Δ spl | 1 j. au      | Sc               | C. G. H.          | 1825.    | R s p | Bot. reg. 926            |  |
| 12794 graminifolia <i>Banks</i>          | blue                 | * Δ spl | 1 1/2 ...    | B                | C. G. H.          | 1825.    | R s p | Journ. sc. 6. t. 1. l. 2 |  |
| 1856. <i>SATYRIUM</i> . <i>W.</i>        | <i>SATYRIUM</i> .    |         |              | <i>Orchideæ.</i> | <i>Sp. 3-19.</i>  |          |       |                          |  |
| 12795 cucullata <i>W.</i>                | cucullate            | * Δ cu  | 3/4 jn. s    | Pa. Y            | C. G. H.          | 1787.    | R s p | Bot. reg. 416            |  |
| 12796 carneum <i>H. K.</i>               | great-flowered       | * Δ el  | 1 1/2 jn. s  | Pk               | C. G. H.          | 1787.    | R s p | Bot. mag. 1512           |  |
| 12797 coriifolium <i>W.</i>              | leathery-leaved      | * Δ or  | 1 o          | Y                | C. G. H.          | 1820.    | R s p | Bot. reg. 703            |  |
| 1857. <i>PLATANThERA</i> . <i>Rich.</i>  | <i>PLATANThERA</i> . |         |              | <i>Orchideæ.</i> | <i>Sp. 3-11.</i>  |          |       |                          |  |
| 12798 bifolia <i>Rich.</i>               | Butterfly Orchis     | * Δ pr  | 1 my. jn     | W                | Britain           | woods.   | R p l | Eng. bot. 22             |  |
| 12799 dilatata                           | dilated              | * Δ pr  | 1 1/2 au     | W                | Canada            | 1823.    | R s p | Hook. ex. fl. 95         |  |
| 12800 orbiculata                         | round-leaved         | * Δ cu  | 1 ap. my     | G                | Canada            | 1823.    | R s p | Hook. ex. fl. 145        |  |
| 1858. <i>GYMNADE'NIA</i> . <i>R. Br.</i> | <i>GYMNADE'NIA</i> . |         |              | <i>Orchideæ.</i> | <i>Sp. 3-6.</i>   |          |       |                          |  |
| 12801 conopsea <i>R. Br.</i>             | fragrant             | * Δ pr  | 1 jn. jl     | Pu               | Britain           | me. pas. | R h l | Eng. bot. 10             |  |
| 12802 viridis <i>Rich.</i>               | Frog Orchis          | * Δ pr  | 3/4 jn. jl   | G                | Britain           | me. pas. | R l p | E. g. bot. 94            |  |
| 12803 albida <i>Rich.</i>                | small-white          | * Δ pr  | 1/2 jn. jl   | W                | Britain           | sun. hi. | R l p | Eng. bot. 505            |  |
| 1859. <i>OR'CHIS</i> . <i>L.</i>         | <i>ORCHIS</i> .      |         |              | <i>Orchideæ.</i> | <i>Sp. 19-84.</i> |          |       |                          |  |
| 12804 Mório <i>W.</i>                    | meadow               | * Δ or  | 3/4 my. jn   | Pu               | Britain           | me. pas. | R l p | Eng. bot. 2059           |  |
| 12805 longicórnu <i>P. S.</i>            | flat-spurred         | * Δ or  | 1 ap. my     | Pu               | Barbary           | 1815.    | R l p | Bot. reg. 202            |  |
| 12806 máscula <i>W.</i>                  | early purple         | * Δ or  | 1 ap. my     | Pu               | Britain           | woods.   | R l p | Eng. bot. 631            |  |



History, Use, Propagation, Culture,

1855. *Disa*. A name of unknown meaning, adopted by Linnæus from Bergius. Beautiful Cape herbaceous plants, with flowers of various colors, either growing singly, or in long spikes. *Disa cornuta* produces a spike, often a foot or a foot and a half long. *D. grandiflora* has large, nearly solitary flowers, of a brilliant scarlet color. The species are cultivated without difficulty in a stove or in a greenhouse, if the roots are planted in light sandy peat, mixed with a very little loam, and not overwatered. The same treatment is suitable to the other tender tuberous or fibrous-rooted *Orchideæ*.

1856. *Satyrium*. The aphrodisiacal properties of *Orchideous* plants induced the ancients to give this name to almost all the species they knew; from *satyrus*, a satyr. The bag-like appendages of the lip have perhaps assisted in the application of the name. The species are mostly handsome plants, with yellow or pink flowers. Mr. Salisbury says, he preserved *Satyrium cucullatum* some years, by attending to planting the bulb in a pot, nearly full of broken tiles, mixed with pure sandy loam, and keeping it quite dry when not vegetating.

1928. *Liparis*. Perianth. spreading. Lip flat, expanded, entire, turned various ways. Column winged. Pollen-masses 4, with neither caudicula nor glands.

1929. *Calypso*. Lip ventricose, spurred beneath near the end. Sepals ascending, 1-sided. Column petaloid, dilated. Pollen-masses 4.

§ 5. *Pollen granular. Seeds not arillate.*

1930. *Vanilla*. Flower jointed with ovary, and deciduous. Lip united at base with column. Capsule fleshy.

Order 2. DIANDRIA.



Stamens 2.

1931. *Cypripedium*. Lip ventricose, inflated. Column terminated by a petaloid lobe dividing the anthers. Two anterior sepals usually united.

1932. *Stylidium*. Cal. 2-lipped. Cor. irregular, 5-fid; the fifth segment dissimilar. Column reclinate, with a double bend. Anthers with 2 spreading lobes. Caps. 2-celled.

1933. *Gunnera*. Cal. 2-toothed, superior. Cor. O. Style 2-parted. Drupe 1-seeded, crowned by the teeth of the calyx.

Order 3. HEXANDRIA.



Stamens 6.

1934. *Aristolochia*. Cal. O. Cor. 1-petalous, ligulate, ventricose at base. Caps. 6-celled, many-seeded, inferior.

MONANDRIA.

- 12789 Helmet blunt : spur conical deflexed, Inner sepals 2-toothed, Lip obovate velvety flat, Spike lax
- 12790 Helmet erect acute, Lip stalked dilated at end trifid, Stem few-flowered, Leaves linear
- 12791 Helmet blunt : spur obl. keeled convex at back, Lip linear acutish, Spike lax, Bracts shorter than fls.
- 12792 Helmet blunt : spur obl. Lip linear broadest at end, Spike cylindrical, Bractes erect longer than flowers
- 12793 Helmet acute erect : spur conical nodding, Lip linear blunt, Stem about 2-fl.
- 12794 Leaves filiform shorter than 3-flowered scape, Spur blunt ascending

- 12795 Radical leaves twin cordate roundish concave : cauline remote cucullate bluish
- 12796 Radical leaves twin cordate roundish : cauline sheath-like close, Spike compact, Sepals keeled outside
- 12797 Leaves ovate acuminate somew. reflexed sheathing coriaceous crenated at edge, Fls. and helmet cernuous

- 12798 Horn filiform twice as long as ovary, Lip linear entire, Rad. leaves twin oblong narrowed at base
- 12799 Lip lanceolate obtuse dilated at base, Spur the length of lip a little shorter than the ovary, Stem leafy
- 12800 Lip linear lanceolate, Three upper sepals erect conniving : lateral reflexed, Leaves 2 orbicular

- 12801 Bulbs palmate, Lip trifid entire, Spur setaceous twice as long as ovary
- 12802 Horn short double, Lip linear 3-toothed : lateral teeth acute ; middle very short
- 12803 Horn blunt 3 times shorter than ovary, Lip 3-parted : segments acute ; middle one largest

- 12804 Lip 3-lob. : lobes cren. obt. midd. one emargin. Seg. of perianth ascend. obt. Spur conic. ascend. shorter than
- 12805 Lip 3-lobed : lateral reflexed toothletted ; middle shorter than blunt, Spur long comp. truncate ascending
- 12806 Lip 3-lob. crenul. obt. : the midd. lobe cleft, Seg. of the perianth cleft ; exterior one reflex. Spur lin. ascend. compressed at the extremity rather longer than the ovary



and Miscellaneous Particulars.

1857. *Platanthera*. So named from *πλατυς*, broad, and *ανθησα*, an anther, on account of the width of that organ, which is as broad or broader than the base of the labellum. Curious wood plants with greenish flowers.

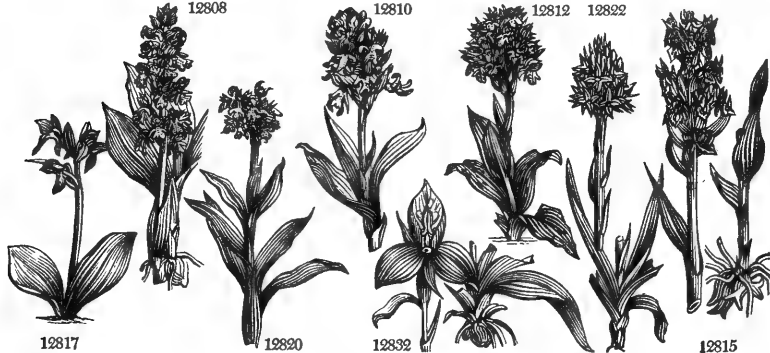
*Platanthera bifolia* is one of our indigenous plants, which may be cultivated without any difficulty, if planted in pure loam from a lime-stone bottom. It succeeds in a pot, if filled half full of broken tiles ; and when in the open ground, the border should be well drained, at least six inches in depth. No plant bears forcing better, or exhales a more delightful perfume. This species is never observed but in a lime-stone soil, and is exceedingly plentiful near Buxton.

1858. *Gymnadenia*. From *γυμνος*, naked, and *ανθησα*, a gland ; because it differs from *Orchis* in not having the glands enclosed in a pouch, but altogether uncovered. The principal species of the genus is the *Orchis conopsea* of old botanists.

1859. *Orchis*. The Greek name of the plant. In Arabic, according to Forskahl, it is called *sahhleb*, from



|   |                    |        |          |       |                   |                  |   |     |                    |
|---|--------------------|--------|----------|-------|-------------------|------------------|---|-----|--------------------|
| 12807 <i>ustulata</i> W.                  | dwarf              | * Δ or | ½ my.jn  | Pu    | England           | dr.pa.           | R | l.p | Eng. bot. 18       |
| 12808 <i>fusca</i> W.                     | brown              | * Δ or | 3 my.jn  | Br.P  | England           | ch.hil.          | R | l.p | Eng. bot. 16       |
| 12809 <i>tephrosan'thos</i> Desf.         | fine-lipped        | * Δ or | 1½ my.jn | Pa.pu | Britain           | ch.hil.          | R | l.p |                    |
| 12810 <i>militaris</i> W.                 | military           | * Δ or | 1 my.jn  | Pu    | England           | ch.so.           | R | h.l | Eng. bot. 1873     |
| 12811 <i>undulata</i> <i>Bivona</i>       | wavy-leaved        | * Δ or | 1 d      | Pa.pu | Sicily            | 1818.            | R | l.p | Bot. reg. 375      |
| 12812 <i>acuminata</i> W.                 | pointed-flower.    | * Δ or | 1 ap.my  | Pa.pu | Barbary           | 1815.            | R | l.p | Bot. mag. 1932     |
| 12813 <i>globosa</i> W.                   | round-spiked       | * Δ or | ½ jn.jl  | Pa.pu | Austria           | 1792.            | R | l.p | Jac. aust. 3.t.965 |
| 12814 <i>hircina</i> W.                   | Lizard             | * Δ or | 1½ jn.jl | Pu    | England           | ch.so.           | R | l.p | Eng. bot. 34       |
| 12815 <i>latifolia</i> W.                 | marsh              | * Δ or | 1 my.jn  | Pk    | Britain           | m.me.            | R | l.p | Eng. bot. 2308     |
| 12816 <i>maculata</i> W.                  | spotted-palmate    | * Δ or | 1½ jn.jl | F     | Britain           | woods.           | R | h.l | Eng. bot. 632      |
| 12817 <i>spectabilis</i> W.               | showy              | * Δ or | ½ jn.jl  | Pk    | N. Amer.          | 1801.            | R | l.p | Bot. cab. 78       |
| 12818 <i>papilionacea</i> W.              | papilionaceous     | * Δ or | 1½ jn.jl | Pa.pu | S. Europe         | 1788.            | R | l.p | Bot. cab. 78       |
| 12819 <i>longibracteata</i> <i>Biv.</i>   | Sicilian           | * Δ or | 1½ d     | Pu    | Sicily            | 1818.            | R | l.p | Bot. reg. 357      |
| 12820 <i>variegata</i> <i>All.</i>        | variegated         | * Δ or | ½ ap.my  | Pa.pu | S. Europe         | 1818.            | R | l.p | Bot. reg. 367      |
| 12821 <i>sulphurea</i> <i>Schrad.</i>     | sulphur-colored    | * Δ or | 1 my.jn  | Y     | Portugal          | 1820.            | R | l.p | Bot. mag. 2569     |
| 1860. <i>NIGRITEL'NA.</i> <i>Rich.</i>    | <i>NIGRITELLA.</i> |        |          |       | <i>Orchideae.</i> | <i>Sp. 1.</i>    |   |     |                    |
| 12822 <i>angustifolia</i> <i>Rich.</i>    | dark-flowered      | * Δ cu | ½ jn.jl  | Br.P  | Austria           | 1759.            | R | l.p | Flo. dan. t. 998   |
| 1861. <i>HABENARIA.</i> <i>R. Br.</i>     | <i>HABENARIA.</i>  |        |          |       | <i>Orchideae.</i> | <i>Sp. 9—17.</i> |   |     |                    |
| 12823 <i>bracteata</i> <i>R. Br.</i>      | long-bracted       | * Δ cu | 1 my.jn  | G     | N. Amer.          | 1805.            | R | l.p | Sweet fl. gar 62   |
| 12824 <i>hyperborea</i> <i>R. Br.</i>     | northern           | * Δ cu | ½ jn.jl  | G     | Iceland           | 1805.            | R | l.p |                    |
| 12825 <i>herbilia</i> <i>R. Br.</i>       | American           | * Δ cu | 1 jn.jl  | G     | N. Amer.          | 1789.            | R | p.l |                    |
| 12826 <i>fimbrata</i> <i>R. Br.</i>       | purple-fringed     | * Δ el | 1½ jn.jl | Pu    | Canada            | 1789.            | R | p.l | Bot. cab. 552      |
| 12827 <i>cristata</i> <i>R. Br.</i>       | yellow-crested     | * Δ el | 1½ s     | Y     | N. Amer.          | 1806.            | R | p.l |                    |
| 12828 <i>ciliaris</i> <i>R. Br.</i>       | yellow-fringed     | * Δ el | 1 jn.jl  | Y     | N. Amer.          | 1796.            | R | p.l | Bot. mag. 1668     |
| 12829 <i>lacera</i> <i>Mich.</i>          | torii              | * Δ pr | 1½ jn.jl | Pa.Y  | N. Amer.          | 1812.            | R | p.l | Bot. cab. 229      |
| 12830 <i>blephariglottis</i> <i>Hook.</i> | white-fringed      | * Δ pr | 1 my.jn  | W     | Canada            | 1820.            | R | s.p | Hook. ex. fl. 87   |
| 12831 <i>tridentata</i> <i>Hook.</i>      | three-toothed      | * Δ pr | 1½ my.jn | W     | Canada            | 1820.            | R | s.p | Hook. ex. fl. 81   |
| 1862. <i>BARTHOL'INA.</i> <i>R. Br.</i>   | <i>BARTHOLINA.</i> |        |          |       | <i>Orchideae.</i> | <i>Sp. 1.</i>    |   |     |                    |
| 12832 <i>pectinata</i> <i>R. Br.</i>      | pectinated         | * Δ cu | ½ o      | W     | C. G. H.          | 1787.            | R | l.p | Journ.sc.4.t.8.f.2 |
| 1863. <i>GLOSSULA.</i> <i>Lindl.</i>      | <i>GLOSSULA.</i>   |        |          |       | <i>Orchideae.</i> | <i>Sp. 1.</i>    |   |     |                    |
| 12833 <i>tentaculata</i> <i>Lindl.</i>    | feeler-flowered    | * Δ cu | ¾ d      | G     | China             | 1824.            | R | l.p | Bot. reg. 862      |
| 1864. <i>ANACAMPTIS.</i> <i>Rich.</i>     | <i>ANACAMPTIS.</i> |        |          |       | <i>Orchideae.</i> | <i>Sp. 1.</i>    |   |     |                    |
| 12884 <i>pyramidalis</i> <i>Rich.</i>     | pyramidal          | * Δ or | 1½ jn.jl | R     | Britain           | dr.pa.           | R | h.l | Eng. bot. 110      |
| 1865. <i>A'CERAS.</i> <i>R. Br.</i>       | <i>ACERAS.</i>     |        |          |       | <i>Orchideae.</i> | <i>Sp. 1—3.</i>  |   |     |                    |
| 12835 <i>anthropophora</i> <i>R. Br.</i>  | Green Man          | * Δ cu | 1 jn     | G     | England           | ch.pa.           | R | l.p | Eng. bot. 29       |
| 1866. <i>O'PHRYS.</i> <i>L.</i>           | <i>OPHRYS.</i>     |        |          |       | <i>Orchideae.</i> | <i>Sp. 6—14.</i> |   |     |                    |
| 12836 <i>apifera</i> W.                   | Bee                | * Δ el | ½ jn.jl  | Pu    | England           | ch.pa.           | R | h.l | Eng. bot. 383      |
| 12837 <i>tenthredinifera</i> W.           | Saw-fly            | * Δ el | ½ ap.my  | Y.B   | Barbary           | 1815.            | R | s.l | Bot. reg. 205      |
| 12838 <i>aranifera</i> W.                 | Spider             | * Δ el | ½ ap.my  | G     | England           | ch.so.           | R | s.l | Eng. bot. 65       |



History, Use, Propagation, Culture,

whence doubtless our word *salep* has been obtained. This is a curious and beautiful genus, but rather difficult of culture. Few of the species produce seeds, but are propagated by their bulbs or tubers, which, in most of the species, are of a peculiar structure and economy. An Orchis being taken out of the ground is found with two solid masses, ovate or fasciculated at the base of the stem, above which proceed the thick fleshy fibres which nourish the plant. One of these bulbs or tubers is destined to be the successor of the other, and is plump and vigorous, whilst the other or decaying one is always wrinkled and withered. From this withered one has proceeded the existing stem, and the plump one is an offset, from the centre of which the stem of the succeeding year is destined to proceed. By this means, the actual situation of the plant is changed about half an inch every year; and as the offset is always produced from the side opposite to the withered bulb, the plant travels always in one direction at that rate, and will in a dozen years have marched six inches from the place where it formerly stood.

In the garden, the Orchis can hardly be said to be propagated; the species are generally taken up from their native habitations with balls, and transferred to a shady border, where they remain for a year or two, but seldom increase. Those which grow in the open fields are generally found in calcareous soil, and those in bogs or woods thrive best in peat, or peat and loam mixed. The culture of this genus, however, has been very little attended to. According to Sweet, the best time to transplant the British Orchideae, is when they are in a growing state.

The Orchis affords the preparation known as Salep, imported from Turkey, and other parts of the Levant; and which has also been made in this country from *O. mascula*, and other species. The root is washed, the brown skin rubbed off, and then dried in an oven and ground into powder. This powder, as an article of diet, is accounted extremely nutritious, containing a great quantity of farinaceous matter in a small bulk. *O. mascula* is very abundant in the meadows of Gloucestershire, and Salep has been made from its bulbs, equal to that imported. (*Encyc. of Agr.* 5527.)

- 12807 Lip 3-part. : seg. lin. dotted scabr. ; midd. 2-parted, Sepals erect ac. Spur uncln. thrice as short as ovary  
 12808 Lip 3-part. dott. scabr. : later seg. obl. ; midd. larg 2-lob. cren. with a point betw. Spur straightish thrice as short as ovary, Bractes 4 times as short as ovary  
 12809 Lip 4-parted very narrow : segm. filif. ; middle longer with a tooth between, Spike conic. Bractes minute  
 12810 Lip 3-parted very narrow : seg. lin. ; midd. 2-lob. blunt with a point between, Spur straight twice as short as ovary, Bractes obsolete  
 12811 Bulbs ovate, Stem leafy, Lip 3-parted scabr. : lat. seg. very narr. : midd. very long bifid with an appendage, Leaves wavy spotted  
 12812 Lip 3-lobed dotted : middle broadest with a tooth between, Spur compressed, Outer sep. subul. Spike dense  
 12813 Lip 3-part. : midd. seg. emarg. Sep. mucron. at end, Spur twice as short as ovar. Spike dense ov. Lvs. lanc.  
 12814 Lip 2-parted : lat. seg. lin. sub. : middle long bifid thrice as long as ovary, Spur very short conical double  
 12815 Lip slightly 3-lobed : sides reflex. Three inn. segm. of perianth conniv. Spur cylind. shorter than germen, Bract. longer than the flowers  
 12816 Lip plane 3-lobed crenate : 3 inn. segm. of perianth conniv. ; lat. ones patent, Spur cylind. shorter than the germen, Bract. as long as the germen  
 12817 Lip obov. undiv. cren. ret. Sep. straight : lat. long. Spur clav. short than ovary, Bract. longer than fl. [ovary  
 12818 Lip obov. undiv. tooth. emarg. Sep. nerv. conniv. Spur subul. short. than ovar. Bract. membr. col. as long as  
 12819 Bulbs undivided, Sepals conniving, Lip trifid : middle segment projecting 2-lobed, Bractes longer than fl.  
 12820 Lip trifid dotted : segments ovate serrulate ; middle broadest emarginate, Spike ovate compact  
 12821 Scape naked, Lip slightly 3-lobed at end, Spur ascending, Bractes as long as ovary

12822 The only species

- 12823 Spur short double, Lip linear retuse 3-toothed : lateral blunt ; middle obsol. Bractes twice as long as fl.  
 12824 Spur cylindrical shorter than ovary, Lip entire linear oblong. [than flower  
 12825 Spur filif. shorter than ovary, Lip obl. blunt toothed on each side at base, Palate 1-toothed, Bractes longer  
 12826 Spur filiform longer than ovary, Lip 3-parted with cuneiform fringed segments  
 12827 Spur filiform shorter than ovary, Lip lanceolate pinnately fringed, Inner sepals toothed cut  
 12828 Spur filiform longer than ovary, Lip lanceolate pinnately fringed, Inner sepals fringed cut  
 12829 Lip long 3-parted : segm. somewhat digitate filiform, Spur length of ovary, Spike obl. Flowers alternate  
 12830 Roots fascicled, Lip lanc. ciliated the length of upper sepals, Spur very long a little shorter than ovary  
 12831 Sepals conniving, Lip nearly equal broad ovate bluntly 3-toothed, Spur filiform curved longer than ovary

12832 The only species

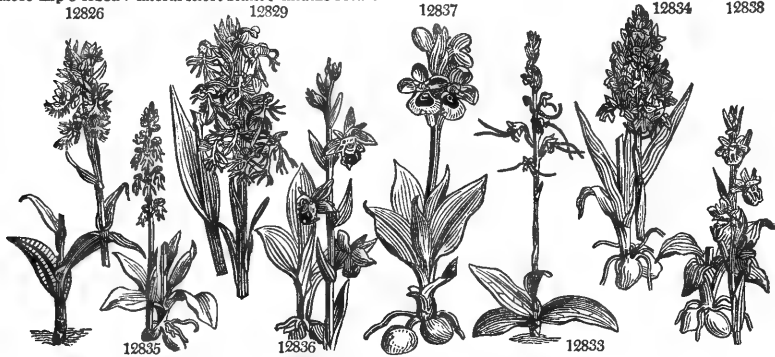
12833 The only species

[spread. Spur filif.

12834 Lip 3-cleft : lobes eq. ent. with 2 longitud. append. on upp. side near base, Seg. of perin. lanc. 2 outer ones

12835 Lip the length of ovary

- 12836 Lip 3-fid : middle lobe largest 4-trifid ; middle segm. longest subulate deflexed  
 12837 Lip 2-lobed villous obovate appendaged, Sepals spreading : three outer oblong blunt ; inner very short  
 12838 Lip 3-lobed : lateral short blunt ; middle retuse



and Miscellaneous Particulars.

*Orchis fusca* and *militaris*, according to Salisbury, succeed best in chalky soil, free from all manure whatever ; but they endure more moisture than would be supposed ; for he found them in a very wet part of the meadow below the terrace, at Mill Hill, where they had, no doubt, been planted by Mr. Peter Collinson. *Gymnadenia conopsea* affords another singular instance of this sort, which is found growing wild on the driest limestone, mixed with *Anacamptis pyramidalis*, and in bogs where one can hardly tread, mixed with *Epipactis palustris*.

1860. *Nigritella*. So named by M. Richard, from *niger*, black, in allusion to the color of the flowers.  
 1861. *Habenaria*. From *habena*, a thong or rein, on account of the long spur of the flower, which resembles something of that sort. Most of the species have white flowers, and natives of America. Some have bright yellow flowers, others purple ones.  
 1862. *Bartholina*. Named in honor of Thomas Bartholini, a Danish physician, who flourished at the end of the seventeenth century. A small Cape plant, with a beautifully fringed white flower.  
 1863. *Glossula*. So called by Mr. Lindley, from *γλωσσα*, a tongue, in reference to the tongue-like segments of the labellum. An obscure Chinese plant, with pale green minute flowers.  
 1864. *Anacamptis*. From *ανακαμπτωσα*, to bend back, in allusion, it is presumed, to the reflexed edges of the appendage of the pollen-masses. In all respects similar to *Orchis* in habit. It is the *Orchis pyramidalis* of Linnæus.  
 1865. *Aceras*. From *α*, without, and *ακρας*, a horn, in allusion to the absence of the spur from the labellum, by which character it is chiefly distinguished from *Orchis*. *Aceras anthropophora* is difficult to cultivate. It can only be propagated by seeds, which thrive best in a mixture of sand, loam, and chalk.  
 1866. *Ophrys*. From the Greek word *οφρυς*, which signifies an eye-lash, to which the delicate fringe of the inner sepals may be very well compared. *O. ipifera* is a singularly beautiful plant, not uncommon on calcareous soils, near woods, and in open meadows. It ripens seeds plentifully, as will all the species, if care be taken, as

|                            |                  |        |     |       |    |            |           |   |     |                    |
|----------------------------|------------------|--------|-----|-------|----|------------|-----------|---|-----|--------------------|
| 12839 muscifera H. K.      | Fly              | ✱ △ el | ¼   | my.jn | Pu | England    | ch.pa.    | R | h.l | Eng. bot. 64       |
| 12840 aráchnica W.         | villos           | ✱ △ el | ¼   | my.jn | Br | Europe     | ...       | R | h.l | Bot. mag. 2516     |
| 12841 lútea W.             | yellow           | ✱ △ el | ¼   | ap.my | Y  | Spain      | 1818.     | R | h.l | Hook. ex. fl. 10   |
| 1867. CHAMORCHIS. Rich.    | CHAMORCHIS.      |        |     |       |    | Orchideæ.  | Sp. 1.    |   |     |                    |
| 12842 alpina Rich.         | alpine           | ✱ △ pr | ½   | ap.my |    | Switzerl.  | 1824.     | R | sp  |                    |
| 1868. HERMINIUM. R. Br.    | HERMINIUM.       |        |     |       |    | Orchideæ.  | Sp. 1.    |   |     |                    |
| 12843 Monórchis R. Br.     | musk             | ✱ △ cu | ½   | jn.jl | G  | England    | ch.ba.    | R | l.p | Eng. bot. 71       |
| 1869. SERAPIAS. R. Br.     | SERAPIAS.        |        |     |       |    | Orchideæ.  | Sp. 2—4.  |   |     |                    |
| 12844 Lingua W.            | tongue-lipped    | ✱ △ cu | 1   | my.jn | Br | S. Europe  | 1786.     | R | l.p | Bot. cab. 655      |
| 12845 cordigera W.         | heart-lipped     | ✱ △ cu | 1   | jl.au | Br | S. Europe  | 1806.     | R | l.p | Bot. rep. 475      |
| 1870. GOODYERA. H. K.      | GOODYERA.        |        |     |       |    | Orchideæ.  | Sp. 5—9.  |   |     |                    |
| 12846 répens H. K.         | creeping         | ✱ △ pr | ¾   | jl.au | W  | Scotland   | al.wo.    | D | l.p | Eng. bot. 289      |
| 12847 putescens H. K.      | downy            | ✱ △ pr | ¾   | jl    | W  | N. Amer.   | 1802.     | D | l.p | Lind. coll. 25     |
| 12848 discolor B. reg.     | purple-leaved    | ✱ △ pr | 1   | n.d   | W  | S. Amer.   | 1815.     | D | l.p | Bot. reg. 271      |
| 12849 procera Hook.        | Nepal            | ✱ △ pr | 2   | jn.jl | W  | Nepal      | 1821.     | D | l.p | Hook. ex. fl. 39   |
| 12850 tessellata Lodd.     | tessellated      | ✱ △ pr | ¾   | jn.jl | W  | N. Amer.   | 1821.     | D | l.p | Bot. cab. 952      |
| 1871. DIURIS. Sw.          | DIURIS.          |        |     |       |    | Orchideæ.  | Sp. 1.    |   |     |                    |
| 12851 áurea Sw.            | golden-flowered  | ✱ △ el | 1 ¼ | ...   | Y  | N. S. W.   | 1810.     | R | l.p | Exot. bot. 1. t. 9 |
| 1872. PONTHEVA. R. Br.     | PONTHEVA.        |        |     |       |    | Orchideæ.  | Sp. 2.    |   |     |                    |
| 12852 glandulosa R. Br.    | glandular        | ✱ △ cu | 1   | ja.mr | G  | W. Indies  | 1800.     | D | l.p | Bot. mag. 842      |
| 12853 petiolata Lindl.     | stalked          | ✱ △ cu | 1   | au    | Br | S. Vincent | 1822.     | D | l.p | Bot. reg. 760      |
| *1873. NEOTYIA. L.         | NEOTYIA.         |        |     |       |    | Orchideæ.  | Sp. 1.    |   |     |                    |
| 12854 Nidus avis W.        | bird's-nest      | ✱ △ cu | 1   | my    | Br | Britain    | ch.wo.    | R | l.p | Eng. bot. 48       |
| 1874. SPIRANTHES. Rich.    | SPIRANTHES.      |        |     |       |    | Orchideæ.  | Sp. 6—13. |   |     |                    |
| 12855 picta Lindl.         | Lemon-scented    | ✱ △ pr | 2   | ap.jn | W  | Trinidad   | 1805.     | D | s.p | Bot. mag. 1562     |
| 12856 elata Lindl.         | tail             | ✱ △ pr | 2   | ap.jn | W  | W. Indies  | 1790.     | D | s.p | Bot. mag. 2026     |
| 12857 pudica Lindl.        | modest           | ✱ △ pr | ½   | n.d   | Pk | China      | 1819.     | D | s.p | Lindl. coll. 30    |
| 12858 bicolor Lindl.       | two-colored      | ✱ △ pr | 1   | ja.f  | W  | Trinidad   | 1823.     | D | s.p | Bot. reg. 794      |
| 12859 cernua Rich.         | nodding-flower.  | ✱ △ pr | 1   | jl    | W  | N. Amer.   | 1796.     | D | l.p | Bot. mag. 1568     |
| 12860 aestivális Rich.     | Ladies-traces    | ✱ △ pr | ¾   | au.s  | W  | Britain    | me.pa.    | D | l.p | Eng. bot. 541      |
| 1875. STENORHYNCHUS. Rich. | STENORHYNCHUS.   |        |     |       |    | Orchideæ.  | Sp. 2—7.  |   |     |                    |
| 12861 speciósus Rich.      | showy            | ✱ △ el | 1   | ap.jn | Sc | W. Indies  | 1790.     | D | s.p | Bot. mag. 1374     |
| 12862 orchíoides Rich.     | frosted-flower'd | ✱ △ el | 1 ¼ | my    | F  | Jamaica    | 1806.     | D | s.p | Bot. mag. 1036     |
| 1876. LISTERA. R. Br.      | TWAY-BLADE.      |        |     |       |    | Orchideæ.  | Sp. 2.    |   |     |                    |
| 12863 ovata H. K.          | common           | ✱ △ cu | 1   | my.jn | G  | Britain    | woods.    | R | l.p | Eng. bot. 1548     |
| 12864 cordáta H. K.        | heart-leaved     | ✱ △ cu | ½   | jn.jl | G  | Britain    | moi.h.    | R | l.p | Eng. bot. 358      |
| 1877. ARETHUSA. L.         | ARETHUSA.        |        |     |       |    | Orchideæ.  | Sp. 1—4.  |   |     |                    |
| 12865 bulbósa H. K.        | bulbous          | ✱ △ el | ¾   | my.jn | Pk | N. Amer.   | ...       | R | l.p | Bot. mag. 2204     |



History, Use, Propagation, Culture,

Sweet directs, to "rub the pollen on the stigma." The seeds must be sown as soon as ripe, and the plants transplanted to where they are finally to remain, when of a small size. Several species of this genus, and of *Orchis*, were successfully cultivated by Collinson, in his botanic garden at Mill-Hill. His method was to place them in a soil and situation as natural to them as possible, and to suffer the grass and herbage to grow round them. *O. aranifera*, with a little attention and management, will grow and flower freely in pots. Curtis found the following method successful: "take up the roots carefully when in flower; bare them no more than is necessary to remove the roots of the other plants; fill a large sized garden-pot with three parts choice loam moderately stiff, and one part chalk, mixed well together, and passed through a sieve somewhat finer than a common cinder sieve; in this mixture place your roots at about the depth of two inches, and three inches apart; water them occasionally during summer, if the weather prove dry; at the approach of winter place the pot in a frame under a glass, to keep it from wet and frost, which combined, destroy the beauty of the foliage, if not the plant itself; in the autumn, before any of the others make their appearance, this species emerges." (*Curtis, Fl. Lond.* n. 68.)

Salisbury says, that *Ophrys muscifera*, and most of its congeners, are very easily cultivated; but require the purest loam from a chalky bottom, and the border to be most effectually drained; for any permanent wet in summer makes them push too soon. On the hillocks and declivities where they grow wild, the slight showers are absorbed by the surrounding turf or long grass, and the heavy rains we usually have after midsummer-day run off quickly.

1867. *Chamorchis*. From *χαμαί*, dwarf, and *Orchis*. A pretty little alpine plant, exceedingly difficult to cultivate. Roots have been brought in damp moss from Switzerland, but they probably have perished ere now.

1868. *Herminium*. A name which is not explained by its author. It is the *Ophrys Monorchis* of old botanists.

1869. *Serapias* is the name of an Egyptian divinity, whose temples were notorious scenes of profrigacy. In this sense, with reference to the uses of the plant, as also in *Satyrion*, the word seems to have been applied by Pliny. Rare herbaceous plants of the south of Europe, but cultivated in a frame.

1870. *Goodyera*. So called after Mr. John Goodyer, an obscure British botanist. The species grow freely in sandy peat, and, unlike most of the *Orchideæ*, may be increased by dividing the roots.

- 12839 Lip 3-fid : middle lobe large 2-lobed, Anther blunt  
 12840 Stem leafy, Lip vill. 3-lobed ; midd. lobe obov. shortly 3-lobed at end, Inner sepals linear-lanc. very short  
 12841 Stem leafy, Lip downy obov. 3-lobed at end : lobes nearly equal, Inner sepals lanc. twice as short as outer

12842 Leaves linear setaceous, Scape naked

12843 The radical leaves lanceolate twin

- 12844 Lip 3-parted : middle lobe oblong lanceolate acute smoothish hanging down  
 12845 Lip 3-parted : middle lobe ovate acuminate hanging down with a hairy disk

12846 Radical leaves ovate, Lip and petals lanceolate

12847 Radical leaves ovate, Lip ovate acuminate, Sepals ovate

12848 Leaves fleshy chocolate-colored ovate without nerves

12849 Stem leafy, Leaves ovate-lanceolate stalked, Lip rounded glandular inside, Petals broad ovate

12850 A smooth variety of *G. pubescens*

12851 Leaves linear channelled shorter than scape, Middle segm. of lab. with a double keel inside

12852 Lip unguiculate acuminate, Inner sepals  $\frac{1}{2}$ -ovate

12853 Spike lax erect, Leaves stalked erect crisp smooth, Flowers discolored

12854 The only species

12855 Rad. lvs. obl. lanc. Scape with bractes, Anterior sepals decurrent placed under the  $\frac{1}{2}$ -inferior labellum

12856 Lip obovate emarginate, Scape sheathed, Bractes shorter than flower, Leaves ovate stalked flat at edge

12857 Leaves linear-lanc. Lip subsessile crenulate at end, Sepals ovarium and rachis quite smooth

12858 Lvs. linear lanceolate 2-colored, Scape villous much longer than leaves, Fl. gibbous on its outside at base

12859 Leaves lanceolate 3-nerved, Stem sheathed, Flowers recurved cernuous, Lip oblong entire acute

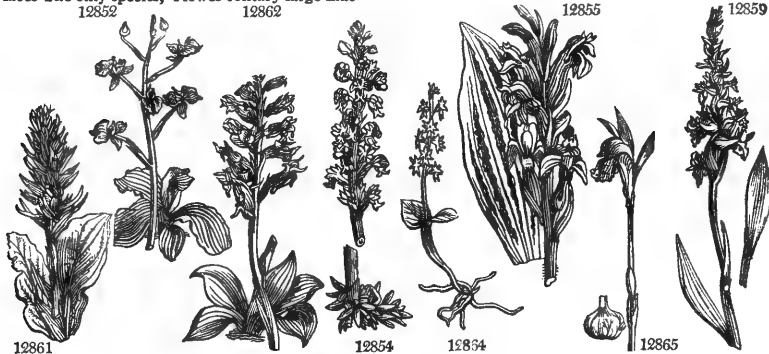
12860 Rad. leaves oblong somewhat stalked, Spike twisted with the flowers on one side, Lip ovate

12861 Lip lanc. undivided, Scape bracteate, Bractes longer than flower, Leaves oblong wavy towards the end

12862 Rad. leaves broad lanceolate, Spike erect, Lip saccate at base with the sepals, Lip acuminate

12863 Stem with only a pair of ov.-ellipt. opp. lvs. Col. of fructification having an appendage in which the anther  
 12864 Stem with only 2 cordate opposite leaves, Col. without any appendage behind, Lip with 2 teeth at the base

12865 The only species, Flower solitary large lilac



and Miscellaneous Particulars.

1871. *Diuris*. From *dis*, double, and *ura*, a tail, in allusion to the form of the sepals. Beautiful New Holland plants, which may be cultivated in the same way as *Disa*.

1872. *Ponthieva*. Named after De Ponthieu, who sent many specimens of West Indian plants to Sir J. Banks. The species may be cultivated in pots, well drained, and filled with sandy loam and peat. Water must be sparingly given when the plants are not in a growing state.

1873. *Neottia*. This word in Greek signifies bird's nest, and has been applied to the present plant on account of the interwoven fibres of its roots. No means of cultivating the only species has been yet discovered. It grows naturally in woods among decayed leaves, and is supposed to be parasitical.

1874. *Spiranthes*. From *σπῆρα*, a screw, or any thing spirally twisted; on account of the disposition of the flowers on their spike. Delicate little herbaceous plants with fibrous roots, and generally white flowers. *S. æstivalis* has the germs on the flower-stalks placed regularly one above another, somewhat resembling tresses of plaited hair; whence its name of Ladies' traces or tresses. This species grows more readily in the garden than most of its tribe.

According to Salisbury, no plant whatever is more easy to cultivate than this. At Chapel-Allerton it propagated itself every where, springing up from seeds in the neighbouring pots, whatever soil or plants happened to be in them; and they were once found germinating on a dead root of a Persian Cyclamen, in a pot, which, for want of draining, was full of Jungermannias.

1875. *Stenorrhynchus*. A splendid genus of evergreen stove herbaceous plants, with brilliant red or yellow flowers. They have been named from *σῆνος*, narrow, and *ῥυξος*, a beak, on account of the long pointed stigma. *N. orchoides* is one of the most beautiful plants of this genus, introduced by E. J. A. Woodford, Esq. in 1806, from the Island of Barbadoes, where it grows wild in the most arid places among grass. It requires, nevertheless, moderate waterings here while the leaves are green.

1876. *Listera*. Dr. Martin Lister was a celebrated English physician and naturalist, who died in 1711. The species require a shady situation and a light sandy soil, with some peat intermixed. They will grow on a bank under the drip of trees, or in small pots. They are increased by dividing the roots.

1877. *Arethusa*. A poetical name. Arethusa was a nymph of Diana, who was transformed into a fountain. The species of this genus are all found in moist places. They are very impatient of cultivation. The best way to manage them, is to plant them in loose wet peaty soil, and to keep them in a frame well exposed to the sun.

|   |                  |                  |           |        |         |                         |
|---|------------------|------------------|-----------|--------|---------|-------------------------|
| 1878. CALOPO'GON. <i>R. Br.</i> CALOPOGON.          | <i>Orchideæ.</i> | <i>Sp. 1.</i>    |           |        |         |                         |
| 12866 pulchellus <i>H. K.</i> tuberous-rooted       | 1 ½ jn.au        | Pu               | N. Amer.  | 1771.  | R 1 p   | Bot. mag. 116           |
| <i>Limodórum-tuberósum</i> B. M.                    |                  |                  |           |        |         |                         |
| 1879. POGO'NIA. <i>R. Br.</i> POGONIA.              | <i>Orchideæ.</i> | <i>Sp. 3-4.</i>  |           |        |         |                         |
| 12867 ophioglossoides <i>B. reg.</i> Adder's-tongue | 1 jn.jl          | Pk               | N. Amcr.  | 1816.  | R 1 p   | Bot. reg. 149           |
| 12868 divaricata <i>H. K.</i> Lily-leaved           | ½ jn.jl          | Pk               | N. Amer.  | 1787.  | D 1 p   | Lam. ill. t. 729. f. 83 |
| 12869 péndula <i>Lindl.</i> pendulous               | ½ au             | Pk               | N. Amer.  | 1824.  | D 1 p   | Bot. reg. 908           |
| 1880. EPIPACTIS. <i>Su.</i> EPIPACTIS.              | <i>Orchideæ.</i> | <i>Sp. 5-9.</i>  |           |        |         |                         |
| 12870 latifolia <i>W.</i> broad-leaved              | 1 ½ jl.au        | Pu               | Britain   | m.wo.  | D 1 p   | Eng. bot. 269           |
| 12871 palústris <i>W.</i> marsh                     | ½ jl.au          | Pu               | Britain   | mar.   | D 1 p   | Eng. bot. 270           |
| 12872 pállens <i>W.</i> white                       | 1 jn             | W                | Britain   | ...    | D 1 p   | Eng. bot. 271           |
| 12873 ensifolia <i>W.</i> narrow-leaved             | 1 ½ jn           | W                | Britain   | m.wo.  | D 1 p   | Eng. bot. 494           |
| 12874 rúbra <i>W.</i> purple                        | 1 ½ jn.jl        | Pu               | Britain   | m.wo.  | D 1 p   | Eng. bot. 437           |
| 1881. CALEA'NA. <i>R. Br.</i> CALEANA.              | <i>Orchideæ.</i> | <i>Sp. 1-2.</i>  |           |        |         |                         |
| 12875 májor <i>H. K.</i> smooth-lipped              | 1 ½ ...          | G                | N. S. W.  | 1810.  | D 1 p   |                         |
| *1882. CORALLORRHIZA. <i>H. K.</i> CORALLORRHIZA.   | <i>Orchideæ.</i> | <i>Sp. 1-4.</i>  |           |        |         |                         |
| 12876 innáta <i>H. K.</i> spurless                  | ½ jn.jl          | G                | Scotland  | sc.wo. | D 1 p   | Eng. bot. 1547          |
| 1883. RODRIGUE'ZIA. <i>F. per.</i> RODRIGUEZIA.     | <i>Orchideæ.</i> | <i>Sp. 1-2.</i>  |           |        |         |                         |
| 12877 secúnda <i>Kunth.</i> one-sided               | ½ o              | R                | S. Amer.  | 1818.  | D p.r.w | Hook. ex. fl. 129       |
| <i>Pleurothallis coccinea</i> Hooker                |                  |                  |           |        |         |                         |
| 1884. GOME'ZA. <i>R. Br.</i> GOMEZA.                | <i>Orchideæ.</i> | <i>Sp. 1.</i>    |           |        |         |                         |
| 12878 recúrva <i>B. M.</i> recurved                 | ½ my.jn          | Y                | Brazil    | 1814.  | D p.r.w | Bot. mag. 1748          |
| 1885. CYMBI'DIUM. <i>Suz.</i> CYMBIDIUM.            | <i>Orchideæ.</i> | <i>Sp. 7-11.</i> |           |        |         |                         |
| 12879 tripterum <i>W.</i> triangul.-fruit.          | ½ jn.jl          | W                | Jamaica   | 1790.  | D p.r.w | Smith ic. pict. 14      |
| 12880 aloifólium <i>W.</i> Aloe-leaved              | 1 my.jn          | Br               | E. Indies | 1789.  | D 1 p   | Bot. mag. 387           |
| 12881 ensifólium <i>W.</i> sword-leaved             | 2 ½ jn.o         | Br               | China     | 1780.  | D 1 p   | Bot. mag. 1751          |
| 12882 sinénsis <i>W.</i> Chinese                    | 1 ½ s.o          | Br               | China     | 1793.  | D 1 p   | Bot. mag. 888           |
| 12883 lanciifólium <i>Hook.</i> lance-leaved        | ½ my             | Y.r              | E. Indies | 1822.  | D 1 p   | Hook. ex. fl. 51        |
| 12884 depéndens <i>Lodd.</i> hanging-down           | ½ jl             | Y.g              | China     | 1822.  | D p.r.w | Bot. cab. 936           |
| 12885 xiphifólium <i>Lindl.</i> sword-leaved        | ½ my.au          | G                | China     | 1814.  | D 1 p   | Bot. reg. 529           |
| 1886. BRAS'SIA. <i>R. Br.</i> BRASSIA.              | <i>Orchideæ.</i> | <i>Sp. 2.</i>    |           |        |         |                         |
| 12886 maculáta <i>H. K.</i> spotted-flower.         | 1 jn.jl          | Y.a              | Jamaica   | 1806.  | D p.r.w | Bot. mag. 1691          |
| 12887 caudáta <i>Lindl.</i> long-tailed             | 1 jn.jl          | G.v.a            | W. Indies | 1823.  | D p.r.w | Bot. reg. 832           |
| 1887. LISSOCHI'LUS. <i>R. Br.</i> LISSOCHLUS.       | <i>Orchideæ.</i> | <i>Sp. 1.</i>    |           |        |         |                         |
| 12888 speciósus <i>R. Br.</i> showy                 | 2 my.jn          | Y                | C. G. H.  | 1818.  | D 1 p   | Lindl. coll. 31         |
| 1888. GEODO'RUM. <i>Jacks.</i> GEODORUM.            | <i>Orchideæ.</i> | <i>Sp. 3-4.</i>  |           |        |         |                         |
| 12889 purpúreum <i>H. K.</i> purple                 | 1 jn.au          | Pu               | E. Indies | 1800.  | D 1 p   | Roxb. cor. 1. t. 40     |
| 12890 citrinum <i>H. K.</i> Lemon-colored           | 1 o.d            | Y                | E. Indies | 1800.  | D 1 p   | Bot. mag. 2195          |
| 12891 dilatátum <i>H. K.</i> shovel-colored         | 1 my.au          | Pk               | E. Indies | 1800.  | D 1 p   | Bot. reg. 675           |
| †1889. CATASE'TUM. <i>Rich.</i> CATASETUM.          | <i>Orchideæ.</i> | <i>Sp. 5-7.</i>  |           |        |         |                         |
| 12892 tridentátum <i>Hook.</i> three-toothed        | 2 jl.au          | Y.Br             | Trinidad  | 1822.  | D p.r.w | Hook. ex. fl. 90        |
| 12893 Claverin'gi <i>Lindl.</i> Capt. Clavering's   | 2 jl.au          | Y.Br             | Brazil    | 1822.  | D p.r.w | Hook. ex. fl. 840       |
| 12894 floribúndum <i>Hooker</i> many-flowered       | 2 n              | Y.Br             | Trinidad  | 1824.  | D p.r.w | Hook. ex. fl. 151       |



History, Use, Propagation, Culture,

1878. *Calopogon*. From *καλος*, beautiful, and *παρων*, a beard, in allusion to the beautiful fringe of the lip. An elegant plant, which was introduced accidentally, as Mr. Curtis informs us, by the laudable exertions of his gardener, who, in the spring of 1783, examining attentively the bog earth which had been brought over with some *Dionæas*, found several tooth-like knobby roots, which, upon being planted in heat, afforded this plant: on the shelf of a stove, or on a bark pit it thrives exceedingly; and seems merely to require a longer and hotter summer than our climate affords.

1879. *Pogonia*. A name with the same derivation as the last genus. The species also require the same treatment.

1880. *Epipactis*. A name given by the Greeks to a sort of Hellebore, and used by Swartz to distinguish a tribe of plants previously called Helleborine. Pretty herbaceous hardy plants. "Some of its species thrive in the borders in the common garden soil, and most of them will do well in pots, in a mixture of loam and peat; they require but little water when in a dormant state, and are increased by dividing the roots." (*Bot. Cult.* 365.)

1881. *Calceana*. Named after Mr. George Caley, a most indefatigable and acute botanical collector, who resided several years among the natives of New South Wales, where he made a valuable collection of plants. The name has been subsequently changed by Mr. Brown to *Calceya*: which as being too similar to *Calea*, a very different plant, we cannot prefer to the original designation. The species require the common treatment of the tribe, and are increased by division of the roots.

1882. *Corallorrhiza*. From *κοραλλον*, coral, and *ρίζα*, a root, on account of its branched roots, which much resemble coral. A plant supposed to be incapable of cultivation. It is a native of boggy places in the northern parts of the world. The three American species *C. verna*, *multiflora*, and *odontorrhiza*, are said to have been introduced in 1824, but we have not heard of their having been cultivated with any success.

12866 Leaves plaited long linear lanceolate. The only species

12867 Root fibrous, Leaf of the scape and bractea elliptical lanceolate, Outer sepals oblong-ovate  
 12868 Root subpalmate, Leaf and bractea of scape linear oblong, Outer sepals lanceolate linear  
 12869 Leaves ovate squamiform amplexic. Fls. subcernuous solitary, Middle lobe of lip obl. crisp, Stem angular

12870 Lvs. ov. amplexic. Lower bractes long. than fls. Fls. drooping, Lip entire acuminate shorter than petals  
 12871 Lvs. lanc. amplexic. Bractes short. than fl. Fls. slightly drooping, Lip cren. obt. rather long. than perianth  
 12872 Leaves ovate-lanceolate sessile, Bractes longer than the flower, Lip obtuse shorter than perianth  
 12873 Lvs. lanc. much acum. substidich. Bract. very minute subul. Fls. erect, Lip obt. much short. than perianth  
 12874 Lvs. lanc. Bractes longer than ovary, Flowers erect, Lip acute with wavy elevated lines, Ovary smooth

12875 Leaf lanc. lin. flat, Scape with a single bract in the middle, Lip smooth narrowed and  $\frac{1}{4}$ -ovate at each end

12876 Spur abbreviated adnate

12877 Spikes nodding 1-sided, Leaves lanceolate complicate

12878 Spikes nodding 1-sided, Leaves lanceolate flat

12879 Stemless, Leaves growing on a bulb : radical sheathing, Scapes many-flowered, Ovary 3-winged  
 12880 Leaves radical broad-linear channelled fleshy retuse at end, Scapes many-flowered pendulous  
 12881 Leaves radical ensiform nerved, Scape round few-flowered, Lip ovate somewhat recurved spotted  
 12882 Leaves radical ensiform nerved, Scape few-flowered, Flowers 1-sided, Sepals striated : 3 outer reflexed  
 12883 Leaves radical lanceolate nerved narrowed at base, Scape round few-fl. Lip obl. recurved at end spotted  
 12884 Bulbous, Leaves plaited, Racemes divaricating pendulous radical  
 12885 Leaves thickish lin.-subulate channelled nerved crenate as long as scape, Spike few-fl. Lip not spotted

12886 Sepals lanceolate spreading not longer than ovary

12887 Sepals linear lanceolate acuminate : the lower caudate very much longer than ovary

12888 The only species. A tall plant with long rigid linear lanceolate leaves on a bulbous base

12889 Scape longer than leaves, Raceme pendulous, Flowers alternate, Lip ovate acute pointed

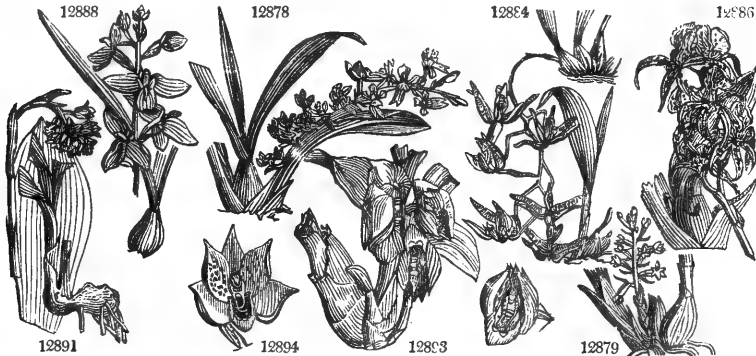
12890 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somewhat spurred at base blunt and entire at end

12891 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somew. spurred at base dilated and crenul. at end

12892 Two inner sepals spotted, Lip galeate 3-toothed

12893 Spike shorter than leaves, Leaves galeate fleshy 3-toothed at end, Sepals oblong : inner spotted

12894 Spike short. than lvs. Lip gal. blunt. 3-tooth. Two inner sep. mott. with purple, others as well as col. green



and Miscellaneous Particulars.

1883. *Rodriguezia*. Named by the authors of the Flora Peruviana, after Emanuel Rodriguez, a Spanish physician, and, as it is said, of considerable botanical merit. A beautiful herbaceous plant, growing upon decayed wood. Its flowers are placed in cernuous racemes of a lively pink color.

1884. *Gomezia*. So called by Mr. Brown, in honor of Senor Gomez, a Spanish apothecary. Mr. Lindley thinks it not distinct from the last. A bulbous epiphyte, with drooping spikes of yellow flowers.

1885. *Cymbidium*. From *κυμα*, a little boat, in allusion to the form of the labellum. All the genuine species of *Cymbidium* are terrestrial, and rarely are found growing upon trees. In cultivation the species grow in loam, chips of wood, potsherds, and other rubbish, broken small, and put in well-drained pots. They are increased by dividing at the root.

1886. *Brassia*. Named after Mr. Brass, an intelligent gardener, who collected seeds and plants in Africa for the Kew Garden. The two species now known are among the most beautiful of the various tribes of Epidendrum. *Brassia maculata* has large pale yellow flowers, elegantly spotted with brown ; *B. caudata* has similar flowers, with long tails to their lower segments.

1887. *Lissochilus*. From *λίσος*, smooth, and *χίλος*, a lip, in reference to the absence of callosity or crests from that part. An exceedingly rare and very noble plant, which grows freely in sandy loam with a little peat. The flowers grow in long spikes of a bright yellow color.

1888. *Geodorum*. From *γῆς*, the earth, and *δορον*, a gift, in reference to the beauty of the blossoms lying on the earth. Handsome plants, succeeding with the treatment of *Cymbidium*.

1889. *Catasetum*. Apparently a word of hybrid extraction, from *κατα*, and *seta*, a bristle, in allusion to the two long bristles or horns of the column, which constitute one of the most remarkable characters of the genus.

|        |                                       |                     |   |   |     |    |       |      |           |       |         |                       |
|--------|---------------------------------------|---------------------|---|---|-----|----|-------|------|-----------|-------|---------|-----------------------|
| 12895  | Hookeri Lindl.                        | Hooker's            | £ | △ | or  | 1½ | n     | Y.Br | Brazil    | 1818. | D p.r.w | Lind. coll. bot.      |
| 12896  | crístátum Lindl.                      | crested             | £ | △ | cu  | 2  | o.n   | G    | Brazil    | 1823. | D p.r.w | D p.r.w               |
| 1890.  | TRIZEUX'IS. Lindl.                    | TRIZEUXIS.          |   |   |     |    |       |      |           |       |         |                       |
| 12897  | falcáta Lindl.                        | falcate             | £ | △ | cu  | ½  | f.mr  | G    | W. Indies | 1820. | D p.r.w | Lindl. coll. 2        |
| 1891.  | XYLOBÍUM. Lindl.                      | XYLOBÍUM.           |   |   |     |    |       |      |           |       |         |                       |
| 12898  | squálens Lindl.                       | dingy-flower'd      | £ | △ | cu  | ¾  | my.jn | Y.Br | Brazil    | 1822. | D p.r.w | Bot. reg. 732         |
| †1892. | MAXILLARIA. Fl. per.                  | MAXILLARIA.         |   |   |     |    |       |      |           |       |         |                       |
| 12899  | Barringtoniæ Lindl.                   | large-flowered      | £ | △ | cu  | 1½ | jn.au | Y.G  | W. Indies | 1790. | D p.r.w | Hook. ex. fl. 119     |
| 12900  | Harrisoniæ Lindl.                     | Mrs. Harrison's     | £ | △ | spl | 1½ | s     | Y.G  | S. Amer.  | ...   | D p.r.w | Bot. reg. 397         |
| 1893.  | NOTYLIA. Lindl.                       | NOTYLIA.            |   |   |     |    |       |      |           |       |         |                       |
| 12901  | punctáta Lindl.                       | dotted              | £ | △ | cu  | ½  | aus.  | G    | Trinidad  | 1822. | D p.r.w | Bot. reg. 759         |
|        | <i>Pleurothallis punctata</i> B. reg. |                     |   |   |     |    |       |      |           |       |         |                       |
|        | <i>Gomeza tenuiflora</i> Bot. cab.    |                     |   |   |     |    |       |      |           |       |         |                       |
| 1894.  | PLEUROTHALLIS. R. Br.                 | PLEUROTHALLIS.      |   |   |     |    |       |      |           |       |         |                       |
| 12902  | racemiflora Lindl.                    | racemose            | £ | △ | cu  | 1  | ap    | G    | W. Indies | 1823. | D p.r.w | Hook. ex. fl. 123     |
| 12903  | ruscifolia H. K.                      | Butcher's-broom-iv. | £ | △ | cu  | ½  | my.jn | G    | W. Indies | 1791. | D p.r.w | Jac. am. t. 133. f.3  |
| †1895. | ONCIDIUM. Sw.                         | ONCIDIUM.           |   |   |     |    |       |      |           |       |         |                       |
| 12904  | altissimum W.                         | sharp-petaled       | £ | △ | or  | 4  | aus.  | Y    | W. Indies | 1793. | D p.r.w | Jac. amer. t. 141     |
| 12905  | carthaginense W.                      | Spread-eagle        | £ | △ | or  | 4  | my.jn | Ol   | W. Indies | 1791. | D p.r.w | Bot. mag. 777         |
| 12906  | bitólium H. K.                        | two-leaved          | £ | △ | or  | ¾  | jl    | Y    | S. Amer.  | 1811  | D p.r.w | Bot. mag. 1491        |
| 12907  | triquetrum H. K.                      | triangular-ivd.     | £ | △ | or  | ¾  | jl.au | Y    | Jamaica   | 1793. | D p.r.w |                       |
| 12908  | lúridum Lindl.                        | Mr. Griffin's       | £ | △ | or  | 2  | f.mr  | Ol   | S. Amer.  | 1822. | D p.r.w | Bot. reg. 727         |
| 12909  | barbatum Lindl.                       | bearded             | £ | △ | or  | 1½ | ap.my | Y    | S. Amer.  | 1818. | D p.r.w | Lindl. coll.          |
| 12910  | flexuosum B. M.                       | zigzag              | £ | △ | el  | 1½ | jn.jl | Y    | Brazil    | 1818. | D p.r.w | Bot. mag. 2203        |
| 12911  | pánilum Lindl.                        | dwarf               | £ | △ | pr  | ¾  | jn.jl | Ol   | Brazil    | 1824. | D p.r.w | Bot. reg. 920         |
| 12912  | Papilio Lindl.                        | Butterfly Plant     | £ | △ | gr  | 1½ | mr    | Y.Br | Trinidad  | 1823. | D p.r.w | Bot. reg. 910         |
| 1896.  | CYRTOPODIUM. R. Br.                   | CYRTOPODIUM.        |   |   |     |    |       |      |           |       |         |                       |
| 12913  | Andersonii H. K.                      | Anderson's          | £ | △ | el  | 2  | my.au | Y    | W. Indies | 1804. | D p.l   | Bot. mag. 1800        |
| 12914  | Woodfordii B. M.                      | Woodford's          | £ | △ | el  | 2  | o     | Pk   | S. Amer.  | 1814. | D p.l   | Bot. mag. 1814        |
| 1897.  | CÆLOGYNE. Lindl.                      | CÆLOGYNE.           |   |   |     |    |       |      |           |       |         |                       |
| 12915  | punctuláta Lindl.                     | dot-flowered        | £ | △ | el  | ¾  | ...   | Y    | E. Indies | 1822. | D p.r.w |                       |
| 12916  | nitida Lindl.                         | shining-leaved      | £ | △ | el  | 1  | ...   | Y    | E. Indies | 1822. | D p.r.w |                       |
| 12917  | fimbriáta Lindl.                      | fringed             | £ | △ | pr  | ¾  | jl.o  | Y.Br | China     | 1824. | D p.r.w | Bot. reg. 868         |
| 1898.  | MACRADENIA. R. Br.                    | MACRADENIA.         |   |   |     |    |       |      |           |       |         |                       |
| 12918  | lutescens R. Br.                      | yellowish           | £ | △ | cu  | ¾  | d     | Ol   | Trinidad  | 1821. | D p.r.w | Bot. reg. 612         |
| 1899.  | ANISOPTALUM. Hooker.                  | ANISOPTALUM.        |   |   |     |    |       |      |           |       |         |                       |
| 12919  | Careyanum Hooker                      | Dr. Carey's         | £ | △ | cu  | ¾  | o     | Br.P | Nepal     | 1823. | D p.r.w | Hook. ex. fl. 149     |
| †1900. | DENDROBIUM. H. K.                     | DENDROBIUM.         |   |   |     |    |       |      |           |       |         |                       |
| 12920  | speciosum R. Br.                      | showy               | £ | △ | spl | 1  | jn.au | Pu   | N. S. W.  | 1801. | D p.l   | Exot. bot. 1. t. 10   |
| 12921  | linguiforme R. Br.                    | tongue-leaved       | £ | △ | cu  | ½  | ...   | Pu   | N. S. W.  | 1810. | D p.r.w | Exot. bot. 1. t. 11   |
| 12922  | cucullátum R. Br.                     | cucullate           | £ | △ | el  | 2  | mr    | Pk   | E. Indies | 1815. | C p.l   | Bot. mag. 2242        |
| 12923  | Pierardi Rozb.                        | Pierard's           | £ | △ | el  | 2  | mr    | Pk   | E. Indies | 1815. | C p.l   | Hook. ex. fl. 9       |
| 12924  | fimbriátum Hook.                      | fringed             | £ | △ | spl | 2  | ap    | Y    | E. Indies | 1823. | C p.l   | Hook. ex. fl. 71      |
| 12925  | crumenátum W.                         | sweet-scented       | £ | △ | ft  | 2  | ap.my | W    | Sumatra   | 1823. | C p.l   | Ru. am. 6. t. 47. f.2 |



History, Use, Propagation, Culture,

Very fine epiphytes, with large bulbous roots, plaited leaves, and fine, often spotted, flowers of a greenish purple color. The bulbs contain a quantity of viscid juice, which is used, when fresh, in Brazil, for the purpose of sealing letters. The plants are there called *Cebolleta*.

1890. *Trizeuxis*. So called by Mr. Lindley without explanation. We suppose the name has been formed from τριζε, three, and ξωεις, union, in allusion to the remarkable union of three segments into one, which takes place in this genus. A very singular epiphyte, which is with difficulty kept alive in the stove by being placed in finely pulverised decayed wood.

1891. *Xylobium*. From ξυλον, wood, in allusion to the substance upon which it grows. A curious Brazilian bulbous epiphyte with plaited leaves. This is of easy cultivation.

1892. *Maxillaria*. So called by the authors of the Flora Peruviana, as they inform us, because the labellum when looked at sideways, resembles the *Maxilla* of some insects. All fine South American plants, with plaited leaves and showy flowers. They are cultivated like other epiphytes, and not with much difficulty.

1893. *Notylia*. So called, we presume, from νωτος, the back, and τυλος, a hump, in reference to a singular callosity at the back of the stigma, which Mr. Lindley, the author of the genus, considers very curious. An unostentatious epiphyte without bulbs, and with solitary leaves, out of the bosom of which grows a pendulous raceme.

1894. *Pleurothallis*. From πλευρα, a rib, and θαλλειν, to flower, in allusion to the one-sided disposition of the flowers. Singular little epiphytes with solitary leaves, no bulbs, and flowers of a green color. They grow rarely in decomposed wood.

12895 Spike length of leaves erect, Flowers globose, Sepals rounded  
 12896 Perianth. spreading, Lip opened out saccate crested

12897 The only species. Flowers very small in little heads upon a branched scape

12898 Bulbs conical truncate, Flowers close, Leaves lanceolate plaited about 3-nerved twice as long as scape

12899 Leaves about 3 oblong nerved seated on a bulb, Scape about 1-flowered sheathed  
 12900 Lvs. solitary lanc. plaited, Raceme 2-fl. Perianth. very large wavy spreading, Lobes of lip recurved crisp

12901 Spikes pendulous lax as long as the narrow oval nerved leaves

12902 Stem long 1-leaved, Scape erect longer than obl. emarginate leaf, Fls. racemose 1-sided  
 12903 Stem long 1-leaved, Leaf ovate-lanceolate, Flowers clustered in the bosom of the leaf

12904 Sepals 5 lanceolate longer than lip, Scape panicled  
 12905 Sepals 5 obovate unguiculate a little shorter than lip, Scape panicled  
 12906 Sepals 4 obov. wavy, Lip long. than sep. : midd. lobe dilated reniform  $\frac{1}{2}$ -bifid, Scape racem. Bulbs 2-leaved  
 12907 Sepals 4 acute, Middle lobe of lip roundish undivided, Scape racemose, Leaves 3-cornered  
 12908 Leaves ellipt. acute, Scape upright branched, Sepals wavy retuse spreading nearly equal, Lip reniform  
 12909 Lvs. flat obl. lanc. Sepals 5 obovate undulate blunt, Lip transverse shorter than seg. bearded in the middle  
 12910 Lip 2-lobed spotted much longer than the sepals, Bulbs ovate comp. leafy at base and end, Scape panicled  
 12911 Lvs. rigid oval oblique, Panicle thyrsoid length of lvs. Sep. obov. Lip 3-lobed crested, Wings of col. ent.  
 12912 Lvs. solitary oval dotted spread. Scape jointed 2-edged few-fl. Upper sepals lin. very long, Col. 2-horned

12913 Lip narrow clawed : lateral lobes divaricating longer than the middle which is hollowed out  
 12914 Lip ventricose : lateral lobes shorter than middle which is crested and callous

12915 Bulbs fascicled, Lvs. lanc. atten. at base, Sepals lanc. finely dotted, Midd. lobe of lip acute, Crest obsolete

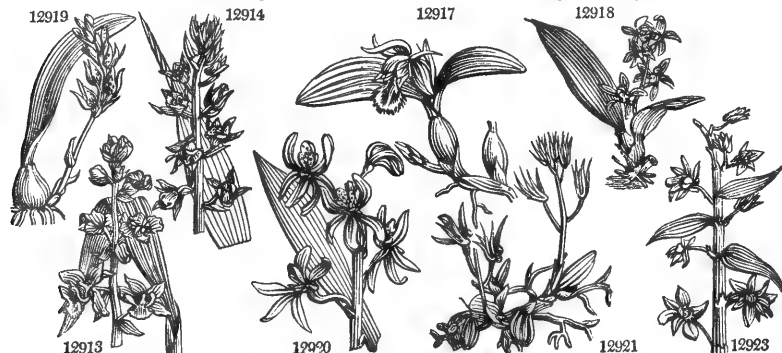
12916 Bulbs and leaves coriaceous and shining

12917 Lvs. twin obl. lanc. spreading, Fls. terminal solitary, Inner sepals filiform, Lip fringed with two crests

12918 Bulbs 1-leaved : leafy at base, Leaves oblong 3-nerved, Spike erect shorter than leaves

12919 Leaves lanceolate keeled solitary on their bulb, Spike imbricated radical very little longer than the bulb

12920 Stems erect 2-3-leav. at end, Lvs. oval obl. shorter than many-fl. terminal raceme, Sepals narrow oblong  
 12921 Stems creep. Lvs. oval blunt depressed fleshy several times shorter than raceme, Sepals long linear acute  
 12922 Stems pendul. Lvs. bifarious lanc. acum. Ped. opp. the leaves about 2-fl. Lip undivided ov. cucul. at base  
 12923 Stems pendul. Lvs. bifarious broadly lanc. Pedunc. about 2-fl. Lip undivid. tubul. oblique almost truncate  
 12924 Leaves lanc. striated, Racemes many-fl. Lip undivided obliquely campanulate fringed  
 12925 Stem branched somewhat compr. tubercous at base, Leaves ovate-lanc. Spikes erect, Fls. remote alternate



and Miscellaneous Particulars.

1895 *Oncidium*. From *ογκος*, a tumour, on account of the callosities with which the disk of the labellum is covered. Among the most beautiful of epiphytous plants, conspicuous by their long loose panicles of olive-colored or yellow flowers. *Oncidium altissimum* grows to the height of three or four feet. *O. Papilio*, the curious Butterfly-plant of Trinidad, has large yellow and red blossoms poised on slender footstalks, and dancing about in the air like some gaudy insects. All the species are cultivated without any difficulty in almost any soil, with plenty of heat and moisture.

1896. *Cyrtopodium*. From *κυρτος*, convex, and *πους*, a foot, in allusion to the labellum of the original species. These are handsome bulbous plants, growing either upon the ground or upon trees. Their flowers, which are rarely produced, are rather difficult to manage well, and are seldom seen in collections. Their flowers, which are handsome, are rarely produced.

1897 *Cælogyne*. So named by Mr. Lindley, from *καλος*, hollow, and *γυνη*, a female, on account of the form of the stigma, which is peculiar for an Epidendrum. Some of the species, natives of Nepal, which have not yet been introduced into our gardens, are most beautiful bulbous epiphytes, with shining fleshy leaves, and spikes of gorgeous flowers proceeding from a rigid imbricated scaly base.

1898. *Macradenia*. From *μακρος*, long, and *αδην*, a gland, on account of the long subulate process to which the pollen-masses are attached. A singular little epiphyte with yellowish brown flowers.

1899. *Anisopetalum*. From *α*, without, *ισος*, equal, and *πτερον*, a petal, on account of the inequality of the sepals, or petals as they commonly called. A curious Nepal plant, with bulbous roots, and little erect spikes of brownish flowers.

1900. *Denitrobium*. From *δενδρον*, a tree, with reference to the habit of the species in growing upon trees. In the woods of the East Indies they climb and twist themselves about the branches of live trees, or throw



|        |   |                  |     |     |    |       |      |           |                      |                            |
|--------|---|------------------|-----|-----|----|-------|------|-----------|----------------------|----------------------------|
| 18926  | émulum <i>R. Br.</i>                      | aspiring         | ☞ ☒ | pr  | ‡  | ...   | ...  | N. S. W.  | 1884.                | D p.r.w                    |
| 18927  | moniliforme <i>W.</i>                     | glassy           | ☞ ☒ | pr  | ‡  | ...   | ...  | Pu        | China                | 1884. D p.r.w Kœmpf. t.865 |
| 18928  | rigidum <i>R. Br.</i>                     | rigid            | ☞ ☒ | cu  | ‡  | ...   | ...  | N. Holl.  | 1824.                | D p.r.w                    |
| 1901.  | CAMARYDIUM. <i>Lindl.</i> CAMARIDIUM.     |                  |     |     |    |       |      |           | Orchideæ. Sp. 1.     |                            |
| 12929  | ochroleucum <i>Lindl.</i>                 | pale-yellow      | ☞ ☒ | pr  | 1  | jl    | W    | Trinidad  | 1823.                | C p.r.w Bot. reg. 844      |
|        | <i>Dendrobium álbum</i> Hook.             |                  |     |     |    |       |      |           |                      |                            |
| 1902.  | ORNITHIDIUM. <i>Salisb.</i> ORNITHIDIUM.  |                  |     |     |    |       |      |           | Orchideæ. Sp. 1.     |                            |
| 12930  | coccineum <i>H. K.</i>                    | scarlet-flowered | ☞ ☒ | or  | 2  | ja.d  | R    | W. Indies | 1790.                | C p.r.w Bot. mag. 1437     |
| 1903.  | ISOCHILUS. <i>R. Br.</i> ISOCHILUS.       |                  |     |     |    |       |      |           | Orchideæ. Sp. 2-5. ? |                            |
| 12931  | linearis <i>R. Br.</i>                    | linear           | ☞ ☒ | pr  | ‡  | my.jl | R    | W. Indies | 1791.                | D p.r.w Bot. reg. 745      |
| 12932  | prolíferus <i>R. Br.</i>                  | prolíferous      | ☞ ☒ | pr  | ‡  | ...   | W    | W. Indies | 1793.                | C p.r.w Bot. reg. 825      |
| 1904.  | PHOLIDOTA. <i>Lindl.</i> PHOLIDOTA.       |                  |     |     |    |       |      |           | Orchideæ. Sp. 1-2.   |                            |
| 12933  | imbricatá <i>Lindl.</i>                   | imbricated       | ☞ ☒ | or  | 1‡ | ...   | Br.w | Nepal     | 1824.                | D p.r.w Hook. ex. fl. 138  |
| 1905.  | BROUGHTONIA. <i>R. Br.</i> BROUGHTONIA.   |                  |     |     |    |       |      |           | Orchideæ. Sp. 1.     |                            |
| 12934  | sanguinea <i>R. Br.</i>                   | blood-colored    | ☞ ☒ | spl | 1‡ | jn.jl | Sc   | Jamaica   | 1793.                | D p.r.w Bot. cab. 793      |
| †1906. | CATTLEYA. <i>Lindl.</i> CATTLEYA.         |                  |     |     |    |       |      |           | Orchideæ. Sp. 3-4.   |                            |
| 12935  | labiátá <i>Lindl.</i>                     | dark-lipped      | ☞ ☒ | spl | 1  | jl.au | Vi   | S. Amer.  | 1818.                | D p.r.w Lindl. coll. 33    |
| 12936  | Loddigésii <i>Lindl.</i>                  | pale-lipped      | ☞ ☒ | el  | 1  | jl.au | Vi   | S. Amer.  | 1816.                | D p.r.w Bot. cab. 337      |
| 12937  | Forbesii <i>Lindl.</i>                    | yellow           | ☞ ☒ | or  | ‡  | jl.au | Y    | S. Amer.  | 1823.                | D p.r.w                    |
| †1907. | EPIDENDRUM. <i>L.</i> EPIDENDRUM.         |                  |     |     |    |       |      |           | Orchideæ. Sp. 14-67. |                            |
| 12938  | cocheátum <i>W.</i>                       | dark-purple      | ☞ ☒ | cu  | 1  | f.d   | Br.P | W. Indies | 1786.                | D s.p Bot. mag. 572        |
| 12939  | frágrans <i>W.</i>                        | sweet-scented    | ☞ ☒ | lt  | ‡  | o     | Y.g  | Jamaica   | 1778.                | D s.p Bot. mag. 1669       |
| 12940  | secúndum <i>W.</i>                        | side-flowering   | ☞ ☒ | or  | 2  | jn.jl | R    | W. Indies | 1793.                | C p.r.w Jac. amer. t. 137  |
| 12941  | fuscátum <i>W.</i>                        | brown            | ☞ ☒ | cu  | ‡  | jn.jl | Br   | W. Indies | 1790.                | D p.r.w Bot. reg. 67       |
|        | <i>E. anceps</i> Jacq.                    |                  |     |     |    |       |      |           |                      |                            |
| 12942  | elongátum <i>W.</i>                       | long-stalked     | ☞ ☒ | or  | 2  | my.au | R    | W. Indies | 1798.                | C p.r.w Bot. mag. 611      |
| 12943  | umbellátum <i>W.</i>                      | umbelled         | ☞ ☒ | cu  | ‡  | jn.jl | G    | Jamaica   | 1793.                | D p.r.w Bot. reg. 80       |
| 12944  | nótans <i>W.</i>                          | nodding          | ☞ ☒ | or  | 1  | jn.jl | G    | Jamaica   | 1793.                | D p.r.w Bot. reg. 17       |
| 12945  | compóseum <i>H. K.</i>                    | Florida          | ☞ ☒ | pr  | ‡  | au    | Y    | Florida   | 1775.                | D p.r.w                    |
| 12946  | ciliáre <i>W.</i>                         | fringed          | ☞ ☒ | or  | 1  | mr.au | W    | W. Indies | 1790.                | D p.r.w Bot. reg. 784      |
| 12947  | cuspidátum <i>Lodd.</i>                   | pointed          | ☞ ☒ | or  | 1  | 'n    | W.x  | W. Indies | 1808.                | D p.r.w Bot. reg. 783      |
| 12948  | diffúsum <i>W.</i>                        | diffuse          | ☞ ☒ | pr  | ‡  | o     | G    | Jamaica   | 1816.                | D p.r.w Bot. cab. 846      |
| 12949  | noctárnum <i>W.</i>                       | night            | ☞ ☒ | or  | 1  | o     | G    | Jamaica   | 1816.                | D p.r.w Bot. cab. 713      |
| 12950  | monophýllum <i>Hook.</i>                  | one-leaved       | ☞ ☒ | cu  | ‡  | d     | G    | Jamaica   | 1823.                | D p.r.w Hook. ex. fl. 109  |
| 12951  | polybul'bon <i>Sw.</i>                    | many-bulbed      | ☞ ☒ | cu  | ‡  | d     | W    | Jamaica   | 1822.                | D p.r.w Hook. ex. fl. 112  |
| 1908.  | POLYSTACHYA. <i>Hooker.</i> POLYSTACHYA.  |                  |     |     |    |       |      |           | Sp. 2-5.             |                            |
| 12952  | lutéola <i>Hook.</i>                      | smooth           | ☞ ☒ | cu  | ‡  | jl.au | Y.g  | W. Indies | 1818.                | D p.r.w Lindl. coll.       |
| 12953  | pubérulea <i>Lindl.</i>                   | downy            | ☞ ☒ | cu  | ‡  | o     | Y.g  | S. Leone  | 1822.                | D p.r.w Bot. reg. 851      |
| 1909.  | CRYPTARRHENA. <i>R. Br.</i> CRYPTARRHENA. |                  |     |     |    |       |      |           | Orchideæ. Sp. 1.     |                            |
| 12954  | lunáta <i>R. Br.</i>                      | crescant-lipped  | ☞ ☒ | de  | ‡  | my.au | Y    | W. Indies | 1815.                | D p.r.w Bot. reg. 153      |



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down their long shoots almost in the same manner as the Miseltoe in England. The flowers are generally very beautiful, and frequently highly fragrant: they vary from a deep yellow to nearly white. All the species in the gardens are cultivated without the least difficulty by being planted in any light vegetable earth. Sometimes they are put in baskets among damp moss, but they do not succeed so well under that treatment as when planted in earth.

1901. *Camarydium*. Named by Mr. Lindley, from *καμαρυς*, an arched roof. The stigma of this genus has the upper lip vaulted in a remarkable degree. An inelegant leafy caulescent bulbous epiphyte, with solitary white flowers.

1902. *Ornithidium*. From *ορνις*, a bird, in allusion to the resemblance which exists between the cuspidate upper lip of the stigma, and a bird's beak. The habit of this plant is like that of the last, but the flowers are red. They are both cultivated without difficulty in a stove, by being planted among rotten wood, or tan.

Mr. Salisbery says, *Ornithidium coccineum* is a parasite on old trees, near torrents, in the island of Martinico; its fibrous roots insinuating themselves into the crevices of their moist bark. Here it thrives exceedingly, in pots filled with the same, flowering at various seasons, but chiefly in October and November. During summer it should be placed in a shady part of the stove, and often sprinkled with water, but it requires little or none in winter, especially when plunged.

1903. *Isochilus*. From *ισος*, equal, and *χιλος*, a lip, because the lip and the other divisions of the flower are of nearly equal breadth. The species grow in baskets of moss and old tan, or planted in pots of sandy soil, and chips of wood, and other dry rubbish. They are increased by divisions at the root.

1904. *Pholidota*. A singular bulbous epiphyte, native of Nepal, remarkable for the close manner in which the flowers are covered over by the imbricated scale-like bractæ, from which circumstance (*φολις*, a scale), we

- 12926 Stems erect 2-3-leaved at end, Leaves oval obl. entire shorter than terminal many-fl. raceme  
 12927 Stem round jointed striated moniliform naked quite simple, Leaves oblong lanceolate  
 12928 Stems creeping, Leaves obl. lanceolate acute fleshy the length of the few-flowered spreading raceme

12929 The only species

12930 Flowers small and appearing in the axillæ of the long leaves, Stems branched bulb-bearing

12931 Spike terminal, Leaves distichous linear blunt emarginate, Stem simple

12932 Flowers axillary, Leaves distichous lanceolate oblong, Stem proliferous, Bulbs axillary 2-leaved

12933 Lvs. solitary on a truncated conical naked bulb: lanceolate plaited, Raceme pendulous densely imbricated

12934 Leaves twin oblong seated on a bulb, Scape divided

12935 Outer sepals linear lanceolate acute 3 times as narrow as inner, Lip undivided

12936 Sepals nearly equal obtuse, Lip 3-lobed with the middle lobe saddle-shaped

12937 Sepals lanceolate: inner narrower wavy obtuse, Middle lobe of lip cordate lunate

12938 Leaves twin oblong seated on a bulb, Scape long, Lip cordate blunt

12939 Leaf lanceolate seated on a bulb, Scape short many-flowered, Lip cordate acuminate

12940 Stem simple, Leaves oblong emarginate, Peduncle terminal very long, Spike lax 1-sided

12941 Stem simple, Leaves obl. or acuminate, Peduncle terminal long, Spike globose, Col. shorter than sepals

12942 Stem simple, Leaves oblong, Peduncle terminal long, Spike lax, Lip toothed ciliated

12943 Stem simple, Leaves obl. somewhat emarginate, Flowers clustered in the bosom of a terminal leaf

12944 Stem simple, Leaves ov. lanc. amplexicaul. Flowers spiked nodding, Lip 3-lobed: middle lobe 3-toothed

12945 Stem simple, Fls. spiked erect, Lip 3-lobed: middle lobe retuse, Inner sepals narrower, Leaves lanceol.

12946 Stem simple, Lvs. twin oblong veinless, Lip 3-parted: middle seg. subulate longest; lateral fringed

12947 Stem simple, Leaves 3, Spike remote few-fl. Lip 3-parted: middle segm. linear; lateral cut fringed

12948 Stem simple 2-edged, Leaves oblong, Panicle terminal much branched, Lip cordate acuminate

12949 Stem simple, Leaves obl. veinless, Flowers terminal, Lip 3-parted entire: intermediate segm. linear long

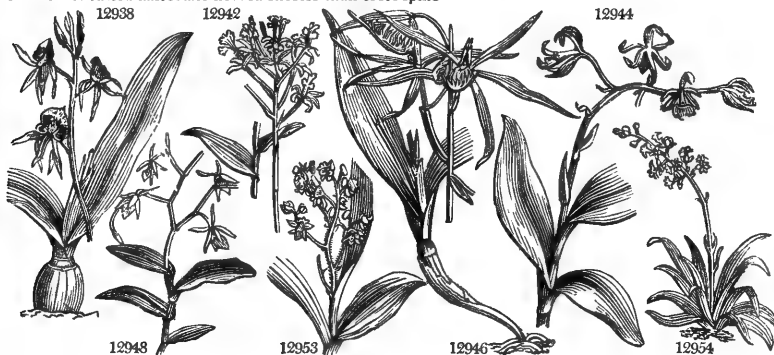
12950 Stem 1-leaved, Leaf ellipt. lanc. obt. Raceme few-fl. from the bosom of the leaf, Two inner sepals small

12951 Stem creeping bulbiferous, Bulbs 2-leaved 1-flowered, Lip cordate

12952 Spike compound: spikelets alternate erect, Flowers smooth

12953 Spike panic. thyriform, Leaves lanc. 7-nerved longer than scape, Fls. and ovaries downy, Bulbs ovate

12954 Leaves tufted lanceolate nerved shorter than erect spike



and Miscellaneous Particulars.

presume, Mr. Lindley has constructed the name. No explanation, however, of his names is ever given by this author, who seems to attach too little importance to the etymology of botany.

1905. *Broughtonia*. Named by Brown, in the Hortus Kewensis, without explanation. A handsome plant, with fine scarlet flowers. It is very rare, and cultivated with little success.

1906. *Cattleya*. Named by Mr. Lindley, after William Cattley, Esq. a munificent encourager of botany, and his early friend. A superb genus of bulbous epiphytes, with fleshy leaves growing in pairs, and large violet or yellow flowers.

1907. *Epidendrum*. From *επι*, upon, and *δενδρον*. All the species are found naturally growing upon trees, not however, as De Theis tells us, sucking their sap, by insinuating their little roots beneath the bark, but vegetating in the soil which collects upon the forks of the branches. Many of the species have singular flowers, but none of those in the gardens are remarkable for their beauty. They are generally cultivated with less difficulty than most other epiphytes. Salisbury tells us, *Epidendrum ciliare* should be planted in pots, filled with porous stones, a few decayed leaves, and knobs of bark taken fresh from the woods: but it requires very little water; and if the leaves turn yellow, it is a sign that they have either too much wet, or too much sun. With such treatment, by keeping four or five pots of it, the stove will be enlivened with their long tubular flowers, slowly succeeding one another, at most periods of the year. It is easily propagated by dividing its stems.

1908. *Polystachya*. From *πολυς*, many, and *σπικος*, a spike, on account of the compound nature of the inflorescence. Inconspicuous plants, requiring the treatment applied to similar kinds.

1909. *Cryptarrhena*. A pretty little stemless epiphyte with distichous leaves, and neat yellow flowers. It was named by Mr. Brown, from *κρυπτος*, concealed, and *αγγον*, a male, on account of the hooded apex of the column which covers up the anther. The plant is believed to be now lost to the gardens.

|                                     |                                     |                   |               |       |      |                 |                            |
|-------------------------------------|-------------------------------------|-------------------|---------------|-------|------|-----------------|----------------------------|
| 1910. <i>ORNITHOCEPHALUS</i> Hook.  | <i>ORNITHOCEPHALUS</i> .            | <i>Orchideæ</i> . | <i>Sp. 1.</i> |       |      |                 |                            |
| 12955 <i>gladiatus</i> Hook.        | sword-leaved                        | ☞ △ cu            | ‡             | ...   | G    | Trinidad 1823.  | D p.r.w Hook. ex. fl. 127  |
| 1911. <i>BLETTIA</i> . Fl. per.     | <i>BLETTIA</i> .                    |                   |               |       |      |                 |                            |
| 12956 <i>Tankervilleæ</i> H. K.     | Tankerville's                       | ☞ △ spl           | 2             | mr.ap | W.Br | China 1778.     | R p.l Bot. mag. 1924       |
| 12957 <i>verecunda</i> H. K.        | tall                                | ☞ △ el            | 3             | ja.my | Pu   | W. Indies 1733. | R p.l Bot. mag. 930        |
|                                     | <i>Limodorum altum</i> B. M.        |                   |               |       |      |                 |                            |
| 12958 <i>florida</i> H. K.          | purple                              | ☞ △ el            | 2             | jl.au | Pu   | W. Indies 1786. | R p.l Redouté lil. 83      |
| 12959 <i>hyacinthina</i> H. K.      | hyacinthine                         | ☞ △ el            | 1             | mr.jn | Pu   | China 1802.     | R p.l Bot. mag. 1492       |
| 12960 <i>capitata</i> R. Br.        | headed                              | ☞ △ el            | ...           | ju.jl | ...  | W. Indies 1795. | R p.l                      |
| 12961 <i>pallida</i> Lodd.          | pallid                              | ☞ △ el            | 2             | f     | Pk   | W. Indies 1820. | R p.l Bot. cab. 629        |
| 1912. <i>ERIA</i> . Lindl.          | <i>ERIA</i> .                       |                   |               |       |      |                 |                            |
| 12962 <i>stellata</i> Lindl.        | stellate                            | ☞ △ el            | 2             | f     | Br.Y | E. Indies? ...  | D p.r.w Bot. reg. 904      |
| 12963 <i>pubescens</i> Lindl.       | downy                               | ☞ △ el            | 1½            | mr    | Y    | E. Indies 1820. | D p.r.w Hook. ex. fl. 124  |
|                                     | <i>Dendrobium pubescens</i> Hooker. |                   |               |       |      |                 |                            |
| 1913. <i>OCTOMERIA</i> R. Br.       | <i>OCTOMERIA</i> .                  |                   |               |       |      |                 |                            |
| 12964 <i>graminifolia</i> R. Br.    | Grass-leaved                        | ☞ △ cu            | ‡             | ju.jl | W.   | Indies 1793.    | D p.r.w Plum. ic. 176. f.1 |
| 1914. <i>BRASAVOLA</i> R. Br.       | <i>BRASAVOLA</i> .                  |                   |               |       |      |                 |                            |
| 12965 <i> cucullata</i> R. Br.      | single-flowered                     | ☞ △ el            | ‡             | ju.s  | W    | W. Indies 1793. | D p.r.w Bot. mag. 543      |
| 1915. <i>SARCANTHUS</i> Lindl.      | <i>SARCANTHUS</i> .                 |                   |               |       |      |                 |                            |
| 12966 <i>paniculatus</i> Lindl.     | panicled                            | ☞ △ el            | 2½            | my.au | Y    | China ...       | C p.r.w Bot. reg. 220      |
| 12967 <i>teretifolius</i> Lindl.    | slender-leaved                      | ☞ △ cu            | 1½            | n     | Y.Pu | China 1819.     | C p.r.w Lindl. coll. 6     |
| 12968 <i>rostratus</i> Lindl.       | rostrate                            | ☞ △ pr            | 1             | n     | Y.n  | China 1819.     | C p.r.w Lindl. coll. 39    |
| 1916. <i>VAN'DA</i> R. Br.          | <i>VANDA</i> .                      |                   |               |       |      |                 |                            |
| 12969 <i>multiflora</i> Lindl.      | many-flowered                       | ☞ △ el            | 2             | jn    | Y    | China 1800.     | C p.r.w Lindl. coll. 38    |
| 12970 <i>Roxburghi</i> R. Br.       | Roxburgh's                          | ☞ △ el            | 1½            | n     | W.pu | China 1810.     | C p.r.w Bot. reg. 506      |
| 12971 <i>trichorhiza</i> Hooker     | hairy-rooted                        | ☞ △ pr            | ‡             | au    | Pu.G | E. Indies 1822. | C p.r.w Hook. ex. fl. 72   |
| 1917. <i>A'ERIDES</i> Sw.           | <i>AIR-PLANT</i> .                  |                   |               |       |      |                 |                            |
| 12972 <i>odoratum</i> H. K.         | fragrant                            | ☞ △ ft            | 1½            | ...   | Pk   | China 1800.     | C p.r.w                    |
| 12973 <i>arachnites</i> Sw.         | spider                              | ☞ △ or            | 1             | ...   | Br.P | Japan 1793.     | C p.r.w Kæmpf. 869.f.1     |
| 1918. <i>RENANTHERA</i> Lour.       | <i>RENANTHERA</i> .                 |                   |               |       |      |                 |                            |
| 12974 <i>coccinea</i> Lour.         | scarlet                             | ☞ △ spl           | 5             | ...   | Sc   | China 1816.     | C p.r.w                    |
| 1919. <i>IONOPSIS</i> Kunth.        | <i>IONOPSIS</i> .                   |                   |               |       |      |                 |                            |
| 12975 <i>utricularioides</i> Lindl. | small-flowered                      | ☞ △ pr            | ‡             | o.n   | W.pu | W. Indies 1822. | D p.r.w Hook. ex. fl. 113  |
|                                     | <i>Jántha pallidiflora</i> Hooker.  |                   |               |       |      |                 |                            |
| 1920. <i>EULOPHIA</i> R. Br.        | <i>EULOPHIA</i> .                   |                   |               |       |      |                 |                            |
| 12976 <i>gracilis</i> Lindl.        | slender                             | ☞ △ pr            | 2             | my.n  | G    | S. Leone 1822.  | R p.l Bot. reg. 742        |
| 12977 <i>guineensis</i> R. Br.      | shovel-flower'd                     | ☞ △ el            | 1             | my.n  | Pk   | S. Leone 1822.  | R p.l Bot. reg. 686        |



History, Use, Propagation, Culture,

1910. *Ornithocephalus*. A very curious little plant, only an inch or two in height, found in Trinidad growing upon rotten sticks in the woods. It bears two or three green flowers, which contain a column, the upper extremity of which is lengthened out into a fine subulate process, resembling a snipe's bill in miniature, whence the name, from *ornis*, a bird, and *cephalus*, a head. No successful method of cultivating this plant has yet been discovered.

1911. *Blettia*. Dedicated to Luis Blet, a Spanish apothecary, who has always, as we are informed by the authors of the Flora Peruviana, distinguished himself in his botanical studies. Very noble plants, growing in the earth.

*Blettia Tankervilleæ* is a common but beautiful species. The first plant which flowered in this country, was cultivated at Apperly Bridge, near Bradford, in Yorkshire, in May 1776, and had been sent there to Mrs. Hird, by her uncle, Dr. Fothergill, in a black Chinese pot full of stiff loam, in which it had been imported. Many small bulbs, with leaves like those of a snow drop, grew near the edge of the same pot in a regular circle, and these afterwards proved to be *Amaryllis Aurea*. The *Blettia Tankervilleæ* delights in warmth, fresh loam, and plenty of water, by which treatment, and attention to fecundate the stigma, it will ripen fruit abundantly.

1912. *Eria*. From *eria*, wool, on account of the wooliness of the flower of all the known species. Curious epiphytous plants, with bulbous roots, and flowers usually of a yellowish color. They differ from *Dendrobium* chiefly in the number of their pollen-masses, and in habit. *E. stellata* is a fine free-growing plant, with long broad fleshy leaves, and spikes of beautiful brown-yellow flowers nearly a foot and half in length.

1913. *Octomeria*. So called by Mr. Brown, with reference to the eight parts, *οκτω*, and *μερος*, into which the pollen is divided. A singular little plant, with filiform leaves and small nearly solitary flowers. The true limits between this genus and the last remain to be determined. The two seem to be separated by nature.

1914. *Brasavola*. Named after Antonio Musa Brasavola, an Italian botanist, born at Ferrara in 1500. Plants with long subulate fleshy leaves, and large white flowers. They are cultivated without difficulty in peat and sand, if good decomposed wood is not to be procured.

1915. *Sarcanthus*. A curious genus of plants not remarkable for their beauty. Their habit is various, but always caulescent; their flowers either yellow or yellowish, marked with various shades of purple. The name

12955 Leaves distichous obtuse compressed

12956 Lip spurred undivided; spur short, Leaves radical ovate lanceolate

12957 Lip not spurred: ribs of the disk branched; middle lobe broader than long, lateral narrower upwards

12958 Lip not spurred: ribs of the disk simple; middle lobe somewhat cuneiform, lateral broader at end

12959 Lip not spurred beardless, Pollen-masses 4, 2-lobed, Stem leafy, Flowers racemose

12960 Lip not spurred with a callus in the inside near the base, Stem leafy, Flowers capitate

12961 Leaves linear-lanceolate plaited, Sepals connivent, Scape higher than leaves

12962 Lvs. lanc. fleshy 5-nerved, Sep. ov. lanc. acum: midd. lobe of lip acum. Ovary and outer sep. ferruginous

12963 Bulb obl.-ov. Lvs. distich. lanc. smooth, Fls. loosely spik. Lip obl. 3-lobed, Three exterior sep. unit. at base

12964 Stem long 1-leaved, Leaf lanceolate, Peduncles twin 1-flowered, Root creeping

12965 Stem 1-flowered, Lip ciliated

12966 Stem paniced, Spur straight hanging down scarcely so long as ovary, Leaves bifid and unequal at end

12967 Leaves subulate, Lip spurred 2-celled, Raceme shorter than leaves

12968 Leaves lanc. flat somewhat recurved, Spike simple horizontal, Lip and anther rostrate

12969 Caulicent, Leaves remotely distichous broad linear channelled obtuse, Spikes opp. the leaves

12970 Sepals oblong obovate wavy, Leaves obliquely 3-toothed at end

12971 Lip without a spur, Sepals linear-lanceolate nearly equal, Leaves cylindrical

12972 Spur ascending conical subulate, Middle lobe of lip shorter than lateral ones, Leaves blunt

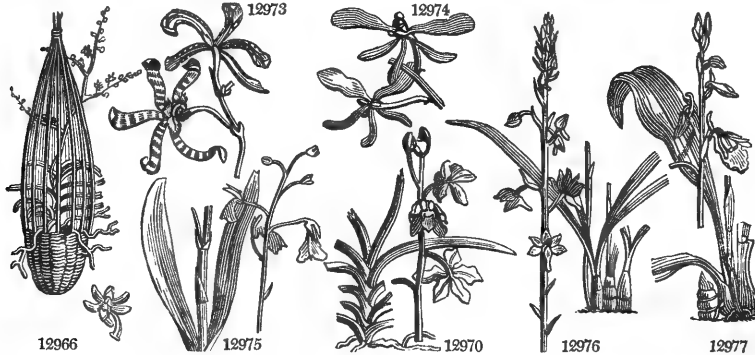
12973 Stem branched rooting, Leaves lanceolate, Sepals revolute dilated at the end, Lip bifid in front

12974 The only species

12975 Leaves lanceolate lined flat, Scape paniced, Sepals shorter than the lip

12976 Scape very slender 3 times as long as the lanceol. 3-nerved leaves, Spur clavate, Midd. lobe of lip obsolete

12977 Leaves lanceolate nerved, Spur ascending, Lip membranous complete



and *Miscellaneous Particulars.*

has been given by Mr. Lindley, from *ragé*, flesh, and *avros*, a flower, in allusion to the texture of the sepals and labelum.

1916. *Vanda*. The Hindoo name of the original species. Noble caulescent plants adhering to old decayed arms of trees or fallen wood, by means of their tendril-like fleshy tortuous roots. The flowers of all the species are large and showy. Their treatment is the same as the next.

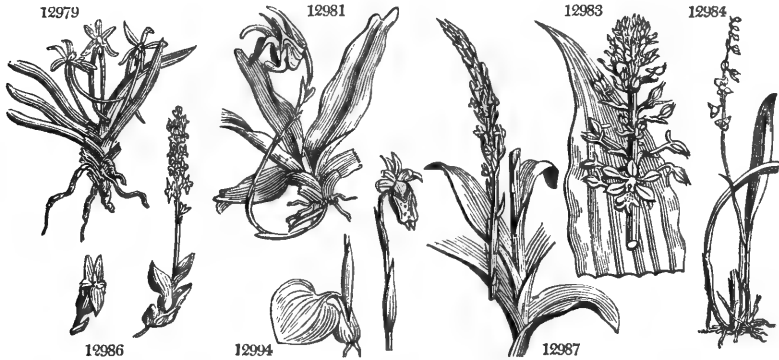
1917. *Aerides*. Derived from *aër*, the air; in allusion to the peculiar property the species possess of existing many months suspended in that element. This genus and the two last are those to which the name of Air-plant is most properly applied, very few others being capable of enduring for any considerable period such a removal from their natural places of growth. The true species of this genus are beyond all comparison the most delightful productions of the vegetable world. Their flowers are arrayed in long spikes or racemes of delicate colors and delicious fragrance. Hung up in a room in their native country, a little before flowering, they continue to unfold their blossoms in gradual succession for many weeks. In this country they are rarely seen in flower. The only genuine species, the *A. odoratum*, should be planted in rotten wood with a little peat, or a few decayed leaves, or any light black vegetable mould, and kept in the hottest and dampest place of the stove. If put in baskets among moss and kept very damp, the plants will succeed for a short time, but they soon languish, and put on a yellow appearance, the certain indication of unhealthiness.

1918. *Renanthera*. A name contrived by Loureiro, to express the kidney-form or reniform shape of the pollen-masses. This plant is not uncommon in good collections, where it has sometimes acquired the height of six or eight feet; but it has never yet produced its flowers. These appear, in the native country of the plant, in large loose panicles, and are individually of considerable size and of a rich crimson color, a little mottled with yellow.

1919. *Ionopsis*. So called by Mr. Kunth, from *ion*, a violet, and *opsis*, resemblance. *I. utricularioides* is a pretty little epiphyte, with purplish calceat leaves. It succeeds ill under any management which has hitherto been applied to it.

1920. *Eulophia*. From *εὐλοφός*, well crested, with reference to the surface of the middle lobe of the lip. The two species in the gardens are terrestrial tender stove plants, with bulbous roots, plaited leaves, and flowers, in *E. exaltata*, green and inconspicuous, in *E. guineensis*, whitish pink, and very handsome. They should be treated like *Cymbidium*.

|  |   |   |     |    |       |      |                 |                                  |
|--|---|---|-----|----|-------|------|-----------------|----------------------------------|
| †921. ANGRÆCUM. <i>Pet. Th.</i> ANGRÆCUM. <i>Orchideæ.</i> Sp. 3—41. |   |   |     |    |       |      |                 |                                  |
| 12978 maculatum Lindl. spotted                                       | ☒ | ☒ | pr  | 1  | o.n   | Pk   | Africa          | 1819. D p.r.w Lindl. coll. 15    |
| 12979 falcatum Lindl. falcate  | ☒ | ☒ | pr  | ½  | n.d   | W    | China           | 1815. D p.r.w Bot. mag. 2097     |
| 12980 luridum Lindl. lurid   | ☒ | ☒ | pr  | ½  |       | Br   | S. Leone        | 1822. D p.r.w                    |
| 1292. AERANTHES. Lindl. AERANTHES. <i>Orchideæ.</i> Sp. 2—3.         |   |   |     |    |       |      |                 |                                  |
| 12981 grandiflora Lindl. large-flowered                              | ☒ | ☒ | or  | ½  |       | G.Y  | Madagasc.       | 1823. D p.r.w Bot. reg. 817      |
| 12982 sesquipedalis Lindl. long-horned                               | ☒ | ☒ | spl | 1  |       | W    | Madagasc.       | 1823. D p.r.w P.Th.or.af.r.t.66  |
| 12923. CALANTHE. R. Br. CALANTHE. <i>Orchideæ.</i> Sp. 1—7.          |   |   |     |    |       |      |                 |                                  |
| 12983 veratrifolia R. Br. plaited-leaved                             | ☒ | ☒ | or  | 2  | jn.jl | W    | E. Indies       | 1819. R p.l Bot. reg. 720        |
| 1294. STELIS. Sw. STELIS. <i>Orchideæ.</i> Sp. 2—10.                 |   |   |     |    |       |      |                 |                                  |
| 12984 ophioglossoides W. Adder's-tong.-lv.                           | ☒ | ☒ | cu  | ½  | my.jn | G    | W. Indies       | 1791. D p.r.w Bot. cab. 442      |
| 12985 micrantha W. small-flowered                                    | ☒ | ☒ | cu  | ½  | n.d   | G    | Jamaica         | 1805. D p.r.w Hook. ex. fl. 158  |
| 1295. MALAXIS. L. MALAXIS. <i>Orchideæ.</i> Sp. 1—3.                 |   |   |     |    |       |      |                 |                                  |
| 12986 paludosa W. marsh  | ☒ | ☒ | de  | ½  | jl    | Y.G  | England tur.bo. | R p.s Eng. bot. 72               |
| 1296. PRESCOTIA. Lindl. PRESCOTIA. <i>Orchideæ.</i> Sp. 1—2.         |   |   |     |    |       |      |                 |                                  |
| 12987 plantaginea Lin. plantain-leaved                               | ☒ | ☒ | cu  | 1  |       | G    | Brazil          | 1822. R p.l Hook. ex. fl. 115    |
| 1297. MICROSTYLIS. Nutt. MICROSTYLIS. <i>Orchideæ.</i> Sp. 1—2.      |   |   |     |    |       |      |                 |                                  |
| 12988 ophioglossoides N. Snake's-tongue.-lv.                         | ☒ | ☒ | de  | ½  | jl    | Y.G  | N. Amer.        | 1824. R p.s Flu.am.t.434.f.4     |
| 1298. LIPARIS. Rich. LIPARIS. <i>Orchideæ.</i> Sp. 5—9.              |   |   |     |    |       |      |                 |                                  |
| 12989 liliifolia Rich. Lily-leaved                                   | ☒ | ☒ | pr  | ½  | jn.jl | G.Pu | N. Amer.        | 1758. R p.s Bot. mag. 2004       |
| 12990 Loeselii Rich. Loesel's  | ☒ | ☒ | cu  | ½  | jl    | Y    | England sa.ma.  | R p.s Eng. bot. 47               |
| 12991 bituberculata Lindl. long-leaved                               | ☒ | ☒ | cu  | ½  | jl    | G    | Nepal           | 1822. D p.r.w Hook. ex. fl. 116  |
| 12992 foliosa Lindl. leafy   | ☒ | ☒ | cu  | ½  | au    | G    | Isl.France      | 1823. D p.r.w Bot. reg. 882      |
| 12993 reflexa Lindl. reflexed  | ☒ | ☒ | cu  | 1  | au    | G    | N. Holl.        | 1824. D p.r.w                    |
| 1299. CALYPSO. Salisb. CALYPSO. <i>Orchideæ.</i> Sp. 1—2.            |   |   |     |    |       |      |                 |                                  |
| 12994 borealis Salisb. northern                                      | ☒ | ☒ | pr  | ½  | my.jn | Y.R  | N. Amer.        | 1805. R s.p Hook. ex. fl. 12     |
| 12930. VANILLA. Sw. VANILLA. <i>Orchideæ.</i> Sp. 2—3.               |   |   |     |    |       |      |                 |                                  |
| 12995 aromatica H. K. aromatic                                       | ☒ | ☒ | ec  | 10 | jn.au | W    | S. Amer.        | 1739. C p.l Flu. ic. 183. t. 188 |
| 12996 planifolia H. K. fragrant                                      | ☒ | ☒ | or  | 10 | ap.jn | W    | W. Indies       | 1800. C p.l Bot. cab. 733        |



History, Use, Propagation, Culture,

1291. *Angræcum*. A latinized form of the Malay appellation *angrec*, which is bestowed upon all epiphytous plants. This is a pretty genus, remarkable for the distinct spur to the lip. *A. maculatum* has handsome flat fleshy spotted leaves, and varies with flowers of a delicate pink and of a pale green color. *A. luridum* is an exceedingly rare species, with plaited leaves and conical bulbs covered with the vestiges of former leaves. *A. falcatum* is a little Japanese plant, whose flower has a spur nearly as long as the plant itself. It is easily grown among loose moss in a warm damp place, but there should always be some bits of rotten wood mixed among the moss for the tender roots to adhere to.

1292. *Aerantes*. A word with the same meaning as *Aerides*. Fine Madagascar plants. *A. sesquipedalis*, which has not yet blossomed, bears in its own country very large white flowers, with a spur a foot and half in length. The species are not caulescent as in *Aerides*, and the flowers appear singly, or two or three together, not in long racemes.

1293. *Calanthe*. From *καλος*, beautiful, and *ανθος*, a flower. The genus consists of robust terrestrial, not epiphytous, plants, with long plaited leaves, and fine white flowers, remarkable for the curious conformation of the labellum. They are easily cultivated as *Cymbidium*.

1294. *Stelis*. This was the Greek name of some parasitical plant found growing upon trees. The modern genus consists of little inconspicuous West Indian plants, with solitary leaves, and minute green flowers disposed in long filiform axillary spikes. They are not very easily managed; the best mode of cultivation is to plant them in very rotten wood with a little moss about them, and to keep them in a hot damp stove.

1295. *Malaxis*. From *μαλαξίς*, softness, in allusion to the delicate texture of the genuine species. They are natives of moist places in marshes, and are scarcely capable of successful cultivation.

1296. *Prescotia*. So called by Lindley in compliment to his friend John Prescott, Esq., an English gentleman resident at St. Petersburg, and highly distinguished for his botanical acquirements. A curious little plant, with long spikes of green flowers. It is easily cultivated in peat and sand.

1297. *Microstylis*. From *μικρος*, little, and *στυλος*, a column, on account of the minuteness of the column. Little bog plants, resembling *Malaxis* in habit and manner of growth.

1298. *Liparis*. Probably derived from *λιπαρος*, unctuous, in allusion to the surface of the leaves of the original species, *L. Loeselii*. This genus consists of plants varying somewhat in habit, but agreeing in having pale green or greenish purple flowers, in terminal spikes or racemes. Part of the species are terrestrial, requiring the treatment of *Malaxis*; the remainder are epiphytes.

1299. *Calypto*. A poetical name, from *καλυπτω*, to conceal; not merely alluding to the covering of the stigma, but preserving an analogy between this botanical beauty, so difficult of access, and the secluded goddess, whose isle was fabled to be protected miraculously from the observation of navigators.

1300. *Vanilla*. An alteration of *vanilla*, which is a diminutive of *vaina*, a Spanish word, signifying a sheath. The fruit is a long cylindrical pod, very like the sheath of a knife. *Vanilla aromatica* produces the fruit of that name, which is used in England to flavor chocolate, and in Spanish America for that purpose, for perfuming snuffs, and as a medicine. The Spaniards have three different sorts, which they distinguish in com-

- 12978 Leaves lanceolate spotted flat entire  
 12979 Leaves somewhat radical ensiform channelled falcate, Scapes few-fl. Spur filiform very long  
 12980 Stem compr. sheathing panicled, Branches quite simple spreading, Lip 3-lobed, Spur inflex. blunt emarg.
- 12981 Leaves 2-lobed and very unequal at end shorter than the weak radical sheathed scape, Spur emarginate  
 12982 Spur very long filiform, Spikes sheathed axillary
- 12983 Leaves lanc. plaited nerved, Spike dense many-flowered, Bractes small lanceolate
- 12984 Stem 1-leaved, Leaves oblong lanceolate the same length as raceme, Flowers 3-cornered  
 12985 Stem long 1-leaved, Leaf broad-lanceolate shorter than raceme, Flowers 6-cornered
- 12986 Lvs. about 4 at the base of the stem scabrous at the extremity, Scape pentagonal, Lip concave acute
- 12987 Leaves oblong caesious flat nerved, Flowers in a long dense spike
- 12988 Scape 1-leaved, Leaf amplexicaul. Lip truncate emarginate
- 12989 Lvs. twin ovate-lanc. Scape 3-cornered, Inner sepals reflexed discolored, Lip concave obov. acute at end  
 12990 Leaves twin ovate-lanceolate, Scape 3-cornered, Lip ovate at end recurved  
 12991 Somewhat bulbous, Leaves 4-ovate plaited striated wavy, Lip reflexed with two tubercles at base  
 12992 Radical leaves unequal lanceolate entire acute fleshy about the same length as raceme, Lip oblong retuse  
 12993 Leaves lanceolate ensiform keeled, Raceme many-flowered, Lip 3-toothed at end
- 12994 Lip narr. at base somew. clawed, Spur  $\frac{1}{2}$ -bifid long. than lip with acute teeth, Pedunc. longer than ovary

- 12995 Leaves ovate oblong nerved, Sepals wavy, Lip acute, Caps. cylindrical very long  
 12996 Leaves oblong lanceolate flat obsolete striated, Lip retuse



and Miscellaneous Particulars.

merce, viz. ; the *pompona*, the *ley*, and the *simarona*. When the fruit begins to turn yellow, it is gathered and fermented in small heaps, in the same manner as is practised with the cocoa or chocolate pods (*Theobroma*) ; it is then spread in the sun to dry, and when about half dried, pressed flat with the hand and rubbed over with the oil of Palma Christi, or of the cocoa ; it is then exposed to the sun to dry, the oiling repeated, and the pods covered with the leaves of the Indian reed to preserve them. The fruits which are brought to Europe are of a dark brown color, about six inches long, and scarce an inch broad ; they are wrinkled on the outside, and full of a vast number of black seeds, like grains of sand, of a pleasant smell, resembling Balsam of Peru.

The species of this genus, like many other Epidendreae, are falsely called parasitical ; but are no more so than our *Polypodium vulgare*, which is often found growing on the trunks of old trees, especially pollards, rooted in the decaying bark. The *Vanilla* shoot out roots at every joint like the Ivy, and may be either grown on a piece of a rotten trunk of a tree, or planted in a pot of rotten tan mixed with rubbish, and the stem trained against any surface which it can root into. Like all the tribe, these plants require very little water.

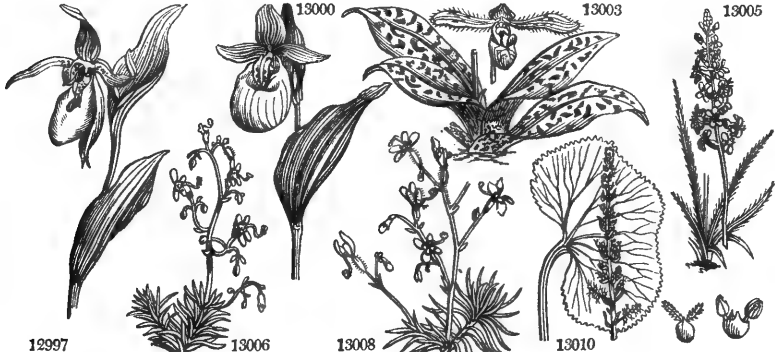
Mr. Salisbury has the following observations upon *Vanilla planifolia*. "It was discovered by Father Plumier, in the island of St. Domingo, where it grows wild, climbing to the tops of the highest trees ; and is easily preserved in our stoves, throwing out one or more roots at every leaf ; but as it seldom flowers here, I would recommend the following treatment : — plant it at one end of a low bark stove, the temperature of which must be kept constantly hot and damp, never below sixty degrees of Fahrenheit in the night, during winter. Let the earth be fat loam, taken about an inch deep from the surface, in some old wood : mix this with a few decayed leaves and small pieces of rotten sticks, either in a tub bored full of holes, and sunk at the back corner of the bark pit ; or pale off a space of two square feet for it, draining the bottom a foot in depth very effectually with hollow tiles and porous stones. Select a healthy young plant to place in this earth, and as soon as it pushes vigorously, divide the stem, by pinching off its top, into three or four principal branches, which train backwards and forwards over that end of the bark pit, at two inches and a half distance from each other, on stout rods of a rough-barked elm nailed firmly across ; the roots which issue from the bottom of the stem or branches, must be suffered to penetrate into the earth, where they will swell and nourish the plants ; but if those beyond attempt to strike downwards, wind them gently along the elm rods, to which they will soon cling by small fibres, like those of Ivy. When the principal branches have extended to fifteen or twenty feet in length, divide them again by pinching their tops, as you find it necessary, into about a dozen branches in all, which must be left to flower, guiding them first horizontally, and afterwards in every possible direction, upon smaller rods of rough-barked elm, stuck into the bark pit at various angles. From the twentieth of March to the twentieth of September, shade that end of the stove by the light foliage of a *Passiflora*, trained all over the top, but pruned so thin as to admit the rays of the sun to play on the bed underneath : I prefer this method to a mat, for many reasons. Let the earth be always damp by gentle sprinklings of water, but never very wet, except in the great heats of summer, when I should be inclined to give the plant two or three drenching showers all over from a fine-nosed watering-pot, shutting up the house at night full of steam."

DIANDRIA.

|  |  |                    |    |                  |  |
|--|--|--------------------|----|------------------|--|
| 1931. <b>CYPRIPEDIUM</b> . <i>W.</i> LADIES-SLIPPER. |  | <i>Orchideae</i> . |    | <i>Sp. 8—14.</i> |  |
| 12987  | <i>Calcéolus W.</i> common               | Δ or               | 1  | my.jl            | Y England woods. R s.p. Eng. bot. 1      |
| 12988  | <i>parviflorum W.</i> small-flowered     | Δ or               | 1  | my.jn            | Y N. Amer. 1759. R s.p. Bot. mag. 911    |
| 12989  | <i>pubescens W.</i> yellow downy         | Δ or               | 1  | my.jn            | Y N. Amer. 1790. R s.p. Bot. cab. 895    |
| 13000  | <i>spectabile W.</i> white W.            | Δ or               | 1  | my.jn            | Y N. Amer. 1731. R s.p. Bot. mag. 216    |
| 13001  | <i>humile W.</i> two-leaved              | Δ or               | 1½ | jn.jl            | W N. Amer. 1786. R s.p. Bot. mag. 192    |
| 13002  | <i>arictium H. K.</i> Ram's-head         | Δ or               | ½  | my.jn            | R.w N. Amer. 1808. R s.p. Bot. mag. 1589 |
| 13003  | <i>venustum Wall.</i> handsome           | Δ or               | ½  | jl.au            | G. Pu Nepal 1816. D s.p. Bot. reg. 788   |
| 13004  | <i>insigne Wall.</i> noble               | Δ or               | 1  | jl.au            | G. Pu Nepal 1819. D s.p. Lindl. coll. 32 |
| 1932. <b>STYLIDIUM</b> . <i>R. Br.</i> STYLIDIUM.    |  | <i>Stylideae</i> . |    | <i>Sp. 5—45.</i> |  |
| 13005  | <i>graminifolium R. Br.</i> Grass-leaved | Δ or               | 1  | ap.au            | Pk N. S. W. 1803. S s.p. Bot. reg. 90    |
| 13006  | <i>fruticosum R. Br.</i> shrubby         | Δ or               | 1½ | my.o             | Pk N. Holl. 1803. S s.p. Par. lond. 77   |
| 13007  | <i>scandens R. Br.</i> climbing          | Δ or               | 2  | jl.au            | Pk N. Holl. 1818. S s.p. Bot. mag. 2249  |
| 13008  | <i>tenuifolium R. Br.</i> fine-leaved    | Δ or               | 1  | jl.au            | Pk N. Holl. 1818. S s.p. Bot. mag. 2249  |
|  | <i>laricifolium Rich.</i>                |                    |    |                  |  |
| 13009  | <i>adnatum R. Br.</i> adnate             | □ or               | ½  | jl.au            | Pk N. Holl. 1824. S s.p. Bot. reg. 914   |
| 1933. <b>GUNNERA</b> . <i>W.</i> GUNNERA.            |  | <i>Urticeae</i> .  |    | <i>Sp. 1—2.</i>  |  |
| 13010  | <i>perpensa W.</i> Marsh-marygold-lv.    | Δ un               | 2  | jl.au            | Y C. G. H. 1688. R p.l. Bot. mag. 2376   |

HEXANDRIA.

|   |                                      |                       |    |                   |   |
|---|--------------------------------------|-----------------------|----|-------------------|---|
| †1934. <b>ARISTOLOCHIA</b> . <i>W.</i> BIRTHWORT. |                                      | <i>Aristolochia</i> . |    | <i>Sp. 21—69.</i> |   |
| 13011   | <i>trilobata W.</i> three-lobed      | □ or                  | 6  | jn.jl             | Pu S. Amer. 1775. C p.l. Jac. amer. t. 146        |
| 13012   | <i>maxima W.</i> greatest            | □ or                  | 20 | jl                | Pu New Spain 1759. C l.p. Bot. mag. 534           |
| 13013   | <i>Sipho W.</i> broad-leaved         | □ or                  | 30 | jn.jl             | Y.Br N. Amer. 1763. L s.p. Bot. mag. 1369         |
| 13014   | <i>tomentosa B. M.</i> downy-leaved  | □ or                  | 20 | jn.jl             | Pu N. Amer. 1799. L s.p. Slo. ja. t. 104. f. 1    |
| 13015   | <i>odoratissima W.</i> sweet-scented | □ or                  | 10 | jl                | Pu Jamaica 1737. C p.l. Jac. ic. 3. t. 608        |
| 13016   | <i>barbata W.</i> bearded            | □ or                  | 10 | ...               | Pu Caraccas 1796. R s.l. Rhee. mal. 8. t. 25      |
| 13017   | <i>indica W.</i> Indian              | □ or                  | 10 | jn.jl             | Pu E. Indies 1780. C s.l. Mor. s. 12. t. 17. f. 6 |
| 13018   | <i>baetica W.</i> Spanish            | □ or                  | 10 | jn.jl             | Pu Spain 1596. R l.p. Bot. mag. 1115              |
| 13019   | <i>glauca W.</i> glaucous-leav.      | □ or                  | 6  | my.jn             | Pu Barbary 1785. C p.l. Bot. mag. 1116            |
| 13020   | <i>sempervirens W.</i> evergreen     | □ or                  | 4  | my.jn             | Pu Candia 1727. C p.l. Mill. ic. t. 51. f. 2      |
| 13021   | <i>longa W.</i> long-rooted          | □ or                  | 1½ | jn.o              | Pu S. Europe 1548. R co. Jac. schœ. 3. t. 385     |
| 13022   | <i>Serpentaria W.</i> Snake-root     | □ or                  | 1  | jn.jl             | D. Pu N. Amer. 1632. R s.p.                       |
| 13023   | <i>bracteata W.</i> bracteated       | □ or                  | 3  | jl                | Pu E. Indies 1793. R s.l.                         |
| 13024   | <i>Pistolochia W.</i> small          | □ or                  | 2  | jn.jl             | Pu S. Europe 1597. R s.l.                         |
| 13025   | <i>rotunda W.</i> round-rooted       | □ or                  | 2  | mr.o              | D. Pu S. Europe 1596. R co.                       |
| 13026   | <i>pallida W.</i> pale-flowered      | □ or                  | 2  | my.au             | W. pu Italy 1640. R s.l. Mor. s. 12. t. 18. f. 2  |
| 13027   | <i>hirta W.</i> hairy                | □ or                  | 2  | my.jn             | Pu Chio 1759. R s.l. Tourn. it. 1. t. 147         |
| 13028   | <i>Clematitis W.</i> common          | □ or                  | 2  | my.au             | Y England woods. R co. Eng. bot. 398              |
| 13029   | <i>arborescens W.</i> tree           | □ or                  | 20 | jn.jl             | Y. Pu America 1737. C l.p.                        |
| 13030   | <i>labiata B. Reg.</i> speckled      | □ or                  | 20 | jl.au             | Gr Brazil 1821. C l.p. Bot. reg. 689              |
| 13031   | <i>acuminata W.</i> long-pointed     | □ or                  | 10 | ...               | Pu Mauritius 1822. C l.p.                         |



History, Use, Propagation, Culture.

1931. *Cypripedium*. From *Κυπρις*, Venus, and *σλιππιν*, a slipper, in allusion to the elegant slipper-like form of the labellum. Handsome plants "which will only thrive in a shady border in peat soil. The American species should be covered with some dry straw in very severe frosts, or if there should be too much wet; they are not easily increased, but will sometimes perfect seeds in favorable situations, particularly if pains be taken to apply the pollen to the stigma." (*Bot. Cult.* 358.)

1932. *Stylidium*. From *στυλις*, a column, in reference to the manner in which the stamen and style are united into one columnar mass. Beautiful little New Holland plants with pink flowers, remarkable for the singular elasticity of their column, which, being touched with a pin, starts with violence from the side to which it was turned when stimulated. The species grow in sandy loam and peat, and are increased by seeds, or dividing at the root; some of them by cuttings.

1933. *Gunnera*. So called after Ernest Gunner, bishop of Norway, who published a Flora of his country from 1766 to 1772. An uninteresting plant with orbicular leaves. May be planted in a pot of loam and peat, and plunged in water; it is increased by dividing at the root.

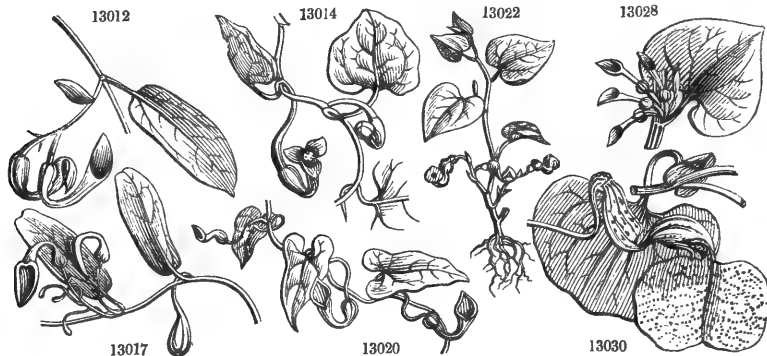
1934. *Aristolochia*. From *αριστος*, excellent, and *λοχος*, a female in child-birth; the plant was considered formerly to possess considerable powers in aiding the expulsion of the placenta, and in exciting the lochial

## DIANDRIA.

- 12997 Stem leafy, Lobe of column elliptical blunt, Lip shorter than sepals compressed  
 12998 Stem leafy, Lobe of column triangular acute, Lip shorter than sepals compressed  
 12999 Stem leafy, Lobe of column triangular oblong blunt, Lip shorter than sepals compressed  
 13000 Stem leafy, Lobe of column elliptical cordate blunt, Lip longer than blunt sepals, Spike in front  
 13001 Stem leafless 1-flowered, Leaves 2 radical oblong blunt, Scape scarcely longer than leaves  
 13002 Flowers with 5 sepals, Lip saccate spurred, Stem leafy  
 13003 Leaves distichous fleshy nerveless spotted, Scape little longer than leaves  
 13004 Leaves cartilaginous ligulate not spotted twice as short as the hairy scape  
  
 13005 Leaves linear toothletted at edge, Raceme spiked simple and scape glandular  
 13006 Leaves narrow linear decurrent smooth, Throat 4-crowned, Lip with an appendage  
 13007 Stem scandent, Leaves linear cirrhose, Throat crowned, Lip with an appendage, Column downy upwards  
 13008 Leaves setaceous linear sessile somewhat hairy, Orifice naked, Lip with an appendage  
  
 13009 Leaves linear, Spike subsessile divided: partial few-fl. Capsules adnate at base linear 1-celled  
  
 13010 Leaves reniform toothed shorter than the scape in fruit

## HEXANDRIA.

- 13011 Leaves 3-lobed, Stem twining, Corollas cylindrical broken saccate at base, Lip cordate cuspidate  
 13012 Lvs. obl. acum. 3-nerved, Stem twining, Peduncles many-flowered, Cor. incurv. Lip ovate mucronate  
 13013 Lvs. cord. acute, Stem twining, Pedunc. 1-flowered with an ovate bract. Cor. ascend.: limb twisted equal  
 13014 Stem twining, Lvs. stalked cord. downy beneath, Pedunc. sol. without bractes, Tube of cor. twisted back  
 13015 Lvs. cordate ovate, Stem twining, Pedunc. 1-fl. longer than leaf, Lip cordate lanceolate longer than cor  
 13016 Leaves cordate obl. Stem twining, Cor. straight: limb spreading, Lip spatulate bearded at end  
 13017 Leaves elliptical blunt somewhat emarginate slightly cordate, Pedunc. many-fl. Cor. erect  
 13018 Leaves roundish cordate acute, Stem twining, Peduncles about 3, Cor. incurved, Lip ovate  
 13019 Leaves cordate ovate blunt glaucous beneath, Stem twining, Cor. incurved, Lip ovate retuse  
 13020 Leaves cordate oblong acuminate, Stem prostrate flexuose somewhat climbing, Cor. erect, Lip lanc. acute  
 13021 Leaves cordate ovate retuse, Stem prostrate flexuose somewhat climbing, Cor. incurved, Lip ovate  
 13022 Leaves cordate oblong acuminate, Stem prostrate flexuose somewhat climbing, Cor. erect, Lip lanc. acute  
 13023 Leaves cordate blunt, Stem weak, Flowers solitary, Bractes cordate stalked  
 13024 Lvs. cordate ovate crenate scabrous netted beneath, Stem branched at base flexuose prostrate, Cor. erect  
 13025 Lvs. cordate ovate blunt subsess. Stem nearly erect and simple, Pedunc. sol. 1-fl. Cor. erect  
 13026 Lvs. cordate ovate blunt emarginate stalked, Stem flexuose nearly erect, Pedunc. sol. 1-fl. Cor. erect  
 13027 Lvs. cordate ovate blunt downy stalked, Stem erect hairy, Pedunc. sol. 1-fl. Cor. recurved  
 13028 Lvs. roundish cordate bluntish stalked, Stem erect, Pedunc. 1-fl. heaped, Cor. erect  
 13029 Leaves cordate lanceolate, Stem erect shrubby  
 13030 Leaves reniform roundish cordate amplexicaul. Corolla incurved at base saccate: 2-lipped in the middle  
 13031 Leaves cordate acuminate, Flowers in racemes, Capsules acutely hexangular



## and Miscellaneous Particulars.

discharge. The root of *A. serpentaria* is said to be the substance which the Egyptian snake-jugglers chew, for the purpose of stupefying the snakes by the introduction of their saliva into the reptiles' mouths. *A. clematita* (from *κλημα*, a young shoot of the vine, in allusion to its appearance) is a species which furnishes one of the roots employed in European medicine. It is stimulant, stomachic, and emmenagogue; use has been made of it for various purposes, as for paleness of the countenance, fistula, sarcoma, &c. *A. pistolochia* is also employed for the same purposes. It grows upon the dry stony places of Languedoc and Provence. It is used in cases of obstructed perspiration, and in disorders of the lungs. The roots should be chosen of a plump texture, and a yellowish color. They should be newly dried, and possess an aromatic flavor and a bitter taste.

*Aristolochia trilobata* and *odoratissima* have strong smelling roots, which are looked upon in Jamaica as powerful medicines, and used as stomachics by the slaves. The first species is called *Contrayerva* of the north side, from its growing in that part of the island; and the other *Contrayerva* of the south side, for a corresponding reason. The root of *A. serpentaria* retains a place in the *Materia Medica*. The dried root is imported into this country from North America; it has an aromatic odor, not unlike that of *Valerian*; and a sharp, warm, bitter, pungent taste, resembling in some degree that of camphor. Medicinally, it is stimulating, diaphoretic, and tonic.





## CLASS XXI. — MONOECIA.

*Male and female organs in distinct flowers, but upon the same plant.*

This class consists of a variety of plants of all kinds, natures, and affinities, combined by the character of having their flowers unisexual, but upon the same plant, in which respect Monoecia is distinguished from the next class, Dioecia. It contains nearly all the most important timber-trees of the temperate countries of the world, such as the oak, the pine, the birch, the beech, the walnut, the plane, the cypress, and many others. The bread-fruit, so important an article of food in some parts of the world, is placed in Monandria. Various palms occupy a station in other parts of the class. The dangerous Manchineel-tree, and many poisonous or medicinal plants, are also placed here. To Monoecia Polyandria belongs the famous Upas-tree of Java, to which so many fables are attached. It is described in Rumphius's *Herbarium Amboinense* (2. 37.), under the name of Ipo, and is now ascertained to be a species of *Antiaris*. From *Siphonia elastica*, a plant of Monoecia Monadelphia, and native of Brazil, one of the kinds of Caoutchouc or gum elastic of commerce is obtained. Sprengel, and others, refer most of the genera of Monoecia to other classes, considering those only to be truly referable to it, of which the male and female flowers have some differences of structure.

## Order 1. MONANDRIA.



Stamen 1.

1935. *Artocarpus*. Male. A cylindrical catkin. Cal. O. Petals 2. Filament the length of cor. Female. Cal. O. Cor. O. Ovaries numerous, collected in a globe. Style filiform. Drupe compound.

1936. *Casuarina*. Male. Catkin filiform. Calyx 2-valved. Cor. O. Female. Catkin globose. Calyx an ovate scale. Cor. O. Caps. 2-valved, 1-seeded. Seed winged at end.

1937. *Ceratocarpus*. Male. Cal. 2-parted. Cor. O. Filament long. Female. Calyx 1-leaved, 2-horned, attached to the superior ovary. Cor. O. Style 2. Seed 1, tightly enclosed in the calyx.

1938. *Zannichellia*. Barren fl. Perianth. none. Fertile fl. Perianth. single of 1 leaf. Germens 4 or more. Style 1. Stigma peltate. Capsules sessile.

## Order 2. DIANDRIA.



Stamens 2

1939. *Lemna*. Male. Cal. 1-leaved. Cor. O. Female. Calyx 1-leaved. Cor. O. Style 1. Capsule 1-celled, 2-seeded.

1940. *Anguria*. Male. Calyx 5-fid. Petals 5. Female. Cal. 5-fid. Petals 5. Fruit inferior, 2-celled, many-seeded.

## Order 3. TRIANDRIA.



Stamens 3.

1941. *Comptonia*. Male. A catkin. Calyx a scale. Petals 2. Filaments 2-forked. Female. A catkin. Calyx a scale. Petals 6. Styles 2. Nut ovate.

1942. *Hernandia*. Male. Calyx 3-parted. Petals 3. Female. Calyx truncate, entire. Petals 6. Drupe hollow, open at orifice, with a moveable kernel.

1943. *Azyris*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-leaved. Cor. O. Styles 2. Seed 1.

1944. *Tragia*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-parted. Cor. O. Style 3-fid. Caps. of 3 pieces, and 3 cells. Seed solitary.

1945. *Typha*. Flowers collected into cylindrical dense spikes or catkins. Barren fl. Perianth. O. Stam. 3. together, upon a chaffy or hairy receptacle, united below into 1 filament. Fertile fl. Perianth. O. Pericarp pedicellate, surrounded at the base with hairs resembling a pappus.

1946. *Sparganium*. Flowers in spherical dense heads. Barren fl. Perianth single, of 3 leaves. Fertile fl. single, of 3 leaves. Drupe dry, with 1 seed.

1947. *Carex*. Flowers collected into an imbricated catkin. Barren fl. Calyx of 1 scale, glumaceous. Cor. O. Fertile fl. Calyx of 1 leaf, glumaceous. Cor. of 1 leaf, urceolate, ventricose. Stigm. 2-3. Nut triquetrous, included within the persistent cor.

1948. *Cobresia*. Flowers in an imbricated catkin. Male. Calyx a solitary scale. Cor. O. Female. Cal. generally a double scale; one flat, the other involving the ovary. Cor. O. Stigmas 3. Nut somewhat three-cornered, naked.

1949. *Uncinia*. Flowers in an imbricated catkin, androgynous. Male. Cal. a solitary beardless scale. Female. Cal. bearded; beard hooked from the base of the inside of scale. Stigmas 3.

1950. *Zea*. Male in distinct spikes. Cal. a two-flowered blunt glume. Cor. a blunt glume. Female. Cal. a 2-valved glume. Cor. a 2-valved glume. Style 1, filiform, pendulous. Seeds solitary, immersed in an oblong receptacle.

1951. *Coix*. Male in remote spikes. Cal. a 2-flowered blunt glume. Cor. a blunt glume. Female. Calyx a 2-flowered glume. Cor. a blunt glume. Style 2-parted. Seed covered by the ossified calyx.

1952. *Tripsacum*. Male. Glume 2-flowered: outer male; inner neuter. Cor. a membranous glume. Female. Calyx a 1-fl. glume, surrounded by a 1-leaved involucre, perforated at the recesses. Cor. a 2-valved glume. Styles 2. Seed 1.

1953. *Heteropogon*. Spike simple, monoecious. Flowers male on one side, female on the other. Male. Cal. 2-valved. Cor. 2-valved, beardless: the inner valve setaceous. Nectary 2-lobed, turgid. Female. Cal. two-valved. Cor. 2-valved, one thickish and bearded. Beard very long and hairy.

1954. *Olyra*. Male. Calyx a 1-flowered somewhat awned glume. Cor. O. Female. Cal. a 1-fl. spreading, ovate, awned glume. Cor. a 2-valved blunt glume. Style bifid. Seed cartilaginous.

## Order 4. TETRANDRIA.



Stamens 4.

1955. *Alnus*. Flowers collected into imbricated catkins. Barren fl. Scale of the catkin 3-lobed, with three flowers. Perianth. single, 4-partite. Fertile fl. Scale of the catkin subtrifid, with 2 flowers. Perianth. O. Styles 2. Fruit compressed.

1956. *Betula*. Barren flower in a cylindrical catkin, its scales 3-fl. Perianth. O. Stam. 10-12. Fertile fl. Scale of the catkin imperfectly 3-lobed, 3-flowered. Perianth. O. Styles 2. Germens compressed, 2-celled, one abortive. Nuts compressed, with a membranaceous margin, 1-seeded.

1957. *Bursera*. Male. Calyx 3-leaved. Petals 2. Rudiment of an ovary. Female. Calyx 4-leaved. Petals 3. Styles 3. Caps. with 3 beaks and 3 cells. Seeds 2.
1958. *Cicca*. Male. Calyx 4-leaved. Cor. O. Female. Cal. 4-leaved. Cor. O. Styles 4. Capsule 4-cocous, not splitting, somewhat fleshy.
1959. *Morus*. Male. Cal. 4-parted. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 2. Calyx berried. Seed 1.
1960. *Behmeria*. Male. Cal. 4-parted. Cor. O. Nut O. Female. Cal. O. Cor. O. Style 1. Seed 1.
1961. *Pilea*. Male. Cal. 4-parted membranous. Stamens 4 elastic. Female. Calyx 3-leaved, with one sepal fleshy and gibbous. Stigma sessile fringed.
1962. *Urtica*. Barren fl. Perianth, single, of 4 leaves, containing the cup-shaped rudiment of a germen. Fertile fl. Perianth, single, of 2 leaves. Pericarp 1-seeded, shining.
1963. *Pachysandra*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 3. Caps. 3-horned, 3-celled. Seeds 2.
1964. *Diotis*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 1-leaved, 2-horned. Style 2-parted. Seed 1, villous at base, covered with the 2-horned calyx.
1965. *Empleurum*. Male. Calyx 4-fid. Cor. O. Female. Cal. 4-fid, inferior. Cor. O. Stigma cylindrical, seated on a lateral tooth of the ovary. Caps. splitting at side. Seed 1, with an arillus.
1966. *Aucuba*. Male. Cal. 4-toothed. Petals 4. Recept. with a square hole. Female. Cal. 4-toothed. Petals 4. Ovary inferior. Style 1, short. Nut ovate, 1-celled.
1967. *Littorella*. Barren fl. Calyx of 4 leaves. Cor. 4-fid. Stam. very long. Fertile fl. Calyx O. Cor. unequally 3-cleft. Style very long. Nut 1.
1968. *Serpicula*. Male. Cal. 4-toothed. Petals 4. Female. Cal. 4-parted. Pericarp a downy nut.
1969. *Maclura*. Male. A catkin. Female. Cal. O. Corolla O. Style 1, filiform, villous. Ovaries numerous, coalescing into a compound globose berry of many cells; cells 1-seeded. Seed obovate, compressed.

## Order 5. PENTANDRIA.



Stamens 5.

1970. *Exocarpus*. Male. Cal. 5-leaved. Cor. O. Stamens inserted in calyx. Female. Style simple, short. Stigma peltate. Drupe 1-seeded, placed on a fleshy receptacle.
1971. *Nephetium*. Male. Cal. 5-toothed. Cor. O. Female. Cal. 4-fid. Cor. O. Ovaries 2. Styles two to each. Drupes 2, dry, mucronate, 1-seeded.
1972. *Schinandra*. Male. Cal. 9-leaved in a triple row. Cor. O. Anthers subsessile, cohering at end. Female. Cal. of male. Cor. O. Ovaries numerous, capitate. Berries 1-seeded, inserted on a long filiform receptacle.
1973. *Franzeria*. Male. Cal. common, 1-leaved, many-toothed. Cor. 1-petalous, tubular, 5-toothed. Recept. naked. Female. Calyx many-leaved. Cor. O. Styles 4. Drupe dry, 4-celled, setose.
1974. *Xanthium*. Male. Common calyx imbricated. Cor. monopetalous, 5-fid, funnel-shaped. Female. Cal. a 2-leaved, 1-flowered involucre. Cor. O. Drupe dry, mucronate, 2-fid. Nut 2-celled.
1975. *Amaranthus*. Male. Cal. 3-5-leaved. Cor. O. Stamens 3-5. Female. Cal. of the male. Cor. O. Styles 3. Caps. 1-celled, cut round about.
1976. *Luffa*. Male. Cal. 5-parted. Cor. 5-parted, attached to calyx. Female. Cal. and cor. of male. Filaments 5, sterile. Ovary inferior. Stigma clavate. Gourd with a lid, 3-celled, furrowed.
1977. *Ambrosia*. Male. Common cal. 1-leaved. Cor. 1-petalous, 5-fid, funnel-shaped. Recept. naked. Female. Cal. 1-leaved, entire, 5-toothed beneath, 1-flowered. Cor. O. Nut formed by the indurated calyx, 1-seeded.
1978. *Securinega*. Male. Cal. 5-parted. Cor. O. Stamens 5, inserted under a rudiment of a pistillum. Female. Capsule 3-celled.

## Order 6. HEXANDRIA.



Stamens 6.

1979. *Zizania*. Male. Cal. O. Cor. a 2-valved blunt glume, mixed with the females. Female. Cal. O. Cor. a 2-valved glume, cucullate, and awned. Style 2-parted. Seed 1, enveloped in the plaited corolla.
1980. *Pharus*. Male. Cal. a 2-valved 1-fl. glume. Cor. a 2-valved glume. Female. The cal. of the male. Cor. a long involute 2-valved glume. Seed 1.
1981. *Gaetarda*. Male. Cal. cylindrical. Cor. 4-7-fid, funnel-shaped. Female. Cal. cylindrical. Cor. 4-7-fid. Ovary 1. Drupe dry.
1982. *Saguo*. Common spatula 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. O. Filam. dilated. Female. Cal. 3-leaved, with two of the leaves bifid. Cor. O. Style very short. Stigma simple. Nut tessellated-imbricated, 1-seeded.
1983. *Cocos*. Common spatula 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. 3 petals. Female. Cal. 2-leaved. Cor. 6 petals. Style O. Stigma a depression. Drupe fibrous.
1984. *Elate*. Common spatula 2-valved. Spadix branched. Male. Cal. 3-toothed. Petals 3. Anthers sessile. Female. Cal. 3-toothed. Petals 3. Stigmas 3. A drupe.
1985. *Bactris*. Common spatula 1-valved. Spadix branched. Male. Cal. 3-parted. Cor. 3-fid. Female. Cal. 3-toothed. Cor. 3-toothed. Style very short. Stigma capitate. Drupe fibrous, succulent.

## Order 7. POLYANDRIA.



Stamens more than 6.

1986. *Ceratophyllum*. Barren fl. Cal. multipartite. Cor. O. Stam. 16-20. Fertile fl. Cal. multipartite. Cor. O. Stigma nearly sessile, oblique. Nut 1-seeded.
1987. *Myriophyllum*. Barren fl. Cal. of 4 leaves. Petals 4. Stamens 8. Fertile fl. Cal. of 4 leaves. Petals 4. Stigmas 4. Sessile. Nuts 4, subglobose, 1-seeded.
1988. *Sagittaria*. Male. Cal. 3-leaved. Petals 3. Stamens about 24. Female. Cal. 3-leaved. Petals 3. Ovaries many. Seeds many, naked.
1989. *Begonia*. Male. Cal. O. Petals 4: the two opposite the largest. Stamens numerous. Female. Cal. O. Petals 4 or 6, like the male. Styles 3, bifid. Caps. inferior, 3-angular, winged, 3-celled, many-seeded.
1990. *Poterium*. Barren fl. Cal. of 4 leaves. Cor. 4-partite. Stamens 30-40. Fertile fl. Cal. of 4 leaves. Cor. 4-partite. Germens 2. Fruit 2-celled, invested with the cal.
1991. *Amirola*. Male. Calyx 5-fid: lower segm. cut down to the base. Cor. O. Stamens 8, declinate. Female as in the male. Style incurved. Caps. 3-cocous, inflated, 3-valved. Seeds globose.
1992. *Acidoton*. Male. Cal. 5-leaved. Cor. O. Stamens 35-40. Female. Cal. 6-leaved. Cor. O. Style 3-fid. Caps. 3-cocous.
1993. *Thelygonum*. Male. Cal. 2-fid. Cor. O. Stamens about 12. Female. Cal. 2-fid. Cor. O. Ovary 1. Caps. coriaceous, 1-celled, 1-seeded.
1994. *Castanea*. Barren fl. in a very long cylindrical catkin. Perianth, single, of 1-leaf, 6-cleft. Stamen 5-20. Fertile fl. 3, within a 4-lobed, thickly mucronate involucre. Perianth, single, urceolate, 5-6-lobed, having the rudiments of 12 stamens. Germen incorp. with the perianth, 6-celled, with the cells 2-seeded, 5 of them mostly abortive. Styles 6. Nut 1-2-seeded, invested with the enlarged involucre.

1995. *Ostrya*. Male, an imbricated catkin. Cal. a scale. Cor. O. Filaments branched, Female, a naked catkin. Cal. O. Cor. O. Caps. inflated, imbricated, 1-seeded at base.
1996. *Carpinus*. Barren fl. in a cylindrical catkin, its scales rounded ciliated at the base. Stamens 8-20 Fertile fl. in a lax catkin, its scales large, foliaceous, 3-lobed, 1-flowered. Invol. O. Perianth. of 1 leaf, urceolate, 6-dentate, incorporated with the 2-celled germs, of which 1 cell is abortive. Style 2. Nut ovate, striated, 1-seeded.
1997. *Fagus*. Barren fl. in a globose catkin. Perianth. single, of 1 ear, campanulate, 6-cleft. Stamens 5-12. Fertile fl. 2, within a 4-lobed prickly involucre. Perianth. single, urceolate, with 4-5 minute lobes. Germen incorporated with the perianth., 3-celled, two of them becoming abortive. Style 3. Nuts 1-seeded, invested with the enlarged involucre.
1998. *Corylus*. Barren fl. in a cylindrical catkin, its scales 3-cleft. Perianth. O. Stamens 8. Anthers 1-celled. Fertile fl. Perianth. obsolete. Germens several, surrounded by a scaly involucre. Stigmas 2. Nut 1-seeded, surrounded at the base with the enlarged united coriaceous scales of the involucre.
1999. *Juglans*. Male, an imbricated catkin. Cal. a scale. Cor. 6-parted. Filaments 4-18. Female. Cal. 4-fid, superior. Cor. 4-fid. Styles 2. Drupe coriaceous, with a furrowed nut.
2000. *Quercus*. Barren fl. in a lax catkin. Perianth. single, somewhat 5-cleft. Stamens 5-10. Fertile fl. invol. cup-shaped, scaly. Perianth. single, incorporated with the germs, 6-lobed. Germen 3-celled, 2 of them abortive. Style 1. Stigmas 3. Nut (acorn) 1-celled, 1-seeded, surrounded at the base by the enlarged cup-shaped involucre.
2001. *Liquidambar*. Male, a conical catkin, surrounded by a 4-leaved involucre. Cal. O. Cor. O. Filaments numerous. Female, a globose catkin, surrounded by a 4-leaved involucrum. Cal. 1-leaved, urceolate, 2-flowered. Cor. O. Styles 2. Capsules 2, surrounded at base by calyx, 1-celled, many-seeded.
2002. *Platanus*. Male, a globose catkin. Cal. O. Cor. scarcely any. Anthers growing about the filament. Female, a globose catkin. Cal. many-leaved. Cor. O. Styles with a recurved stigma. Seeds roundish, mucronate with the style, papoose at base.
2003. *Salisburia*. Male, a naked catkin. Cal. O. Cor. O. Anthers imbricated. Female. Cal. 4-fid. Drupe with a 3-cornered nut.
2004. *Carludovica*. Common spathe 4-leaved. Spadix cylindrical. Male. Common calyx a cubical 4-flowered receptacle: proper calyx many-toothed. Female. Cal. an edge. Styles 4, very long. Stigmas anther-like. Berry cubical, many-seeded.
2005. *Caladium*. Male. Cal. and cor. O. Anthers peltate, many-celled, disposed in a spike at the end of the spadix. Female. Cal. and cor. O. Ovaries inserted at base of spadix. Style O. Berry 1-celled, many-seeded.
2006. *Arum*. Spathe of 1 leaf, convolute at the base. Perianth. O. Spadix with germens at the base. Stem (sessile) near the middle of the spadix, which is naked above. Berry 1-celled, 1-seeded.
2007. *Caryota*. Common spathe compound. Male. Cal. 3-leaved. Petals 3. Female. Cal. 3-leaved. Cor. 3-parted. Style 1. Berry 1-celled, 2-seeded.

## Order 8. MONADELPHIA.



Stamens united into a single body.

2008. *Nipa*. Palm. Male. Cal. O. Petals 6. Filament 1, 12-fid. Female. Stigma a lateral furrow. Drupe angular, 1-seeded.
2009. *Areca*. Common spathe 2-valved. Male. Cal. 3-parted. Petals 3. Stamens 6, cohering at base. Female. Cal. 3-leaved. Petals 3. Nect. 5-toothed. Styles 3, very short. Drupe 1-seeded.
2010. *Belis*. Male. Anthers 2-celled. Female. Scales imbricated in a lupuliform cone, very short, crested, bracteate at back, trigynous. Lateral pericarps auricled, middle cuneate, deciduous with the cone.
2011. *Agathis*. Male. Anthers many-celled. Female. Scales imbricated in a round cone, naked at back, persistent monogynous. Pericarps winged, united to the inside of scale. Cotyledons 2.
2012. *Pinus*. Male. Anthers 2-celled. Female. Scales in a conical cone, bracteate at base, digynous. Pericarps attached to the inside of scale, more or less winged, deciduous. Stigmas 2-3-fid. Cotyledons 4-8.
2013. *Abies*. The same as *Larix*, excepting its habit and stigma, which is that of *Pinus*. Cotyledons 3-9.
2014. *Larix*. Male. Anthers 2-celled. Female. Scales imbricated in a round cone, bracteate at base, digynous. Pericarps attached to inside of scale, winged, deciduous. Stigma hemispherical, cupped, glandular. Cotyledons 5-9.

## MONANDRIA.

1935. ARTOCARPUS. *W. BREAD FRUIT.* *Urticae*. Sp. 2—  
 13032 incisa *W.* true ♀ □ clt 30 ... W. G. S. Sea Isl. 1793. Sk r. m Rum. amb. 1. t. 33  
 13033 integrifolia *W.* Jaca Tree ♀ □ clt 30 in W. G. E. Indies 1778. C r. m Rh. mal. 3. t. 26. 28



13032

*History, Use, Propagation, Culture,*

1935. *Artocarpus*. From *aëros*, bread, and *xæros*, fruit, in allusion to the well-known name and uses of the bread-fruit. *Rîme* or *Fruit-à-pain*, Fr., *Brodbaum*, Ger., and *Albero di pane*, Ital. *A. incisa* grows in the South Sea Islands to the size of a moderate sized oak, with alternate leaves, deeply gashed, glaucous, and two feet long. The whole tree and the fruit before it is ripe, abound in a very tenacious milky juice. The fruit is about the

2015. *Schubertia*.

2016. *Podocarpus*. Male. Cal. leaflets of the bud imbricated. Anthers many, adnate, bilocular, rostrate, fixed to the lengthened column of the filament. Female. An ovate 1-celled nut, half immersed in a firm receptacle.

2017. *Cupressus*. Male, an imbricated catkin. Cal. a scale. Cor. O. Anthers 4, sessile, without filaments. Female, a cone-like catkin. Cal. a 1-fl. scale. Cor. O. Stigma 2 concave dots. Nut angular.

2018. *Thuja*. Male, an imbricated catkin. Cal. a scale. Pet. 4. Anthers 4. Female, a cone-like catkin. Cal. a 2-fl. scale. Cor. O. Nut 1, surrounded by an edged wing.

2019. *Trichosanthes*. Male. Cal. 5-toothed. Cor. 5-parted, ciliated. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted, ciliated. Style 3-fid. Gourd oblong.

2020. *Atomorpha*. Male. Cal. 5-fid. Cor. 5-parted. Filaments 3. Female. Cal. 5-fid. Cor. 5-parted. Styles 3-fid. Gourd dropping off with elasticity.

2021. *Cucurbita*. Male. Cal. 5-toothed. Cor. 5-fid. Filaments 3. Female. Cal. 5-toothed. Cor. 5-fid. Ovary 3-fid. Seeds of gourd with a tumid edge.

2022. *Cucumis*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Ovary 3-fid. Seeds of gourd with a sharp edge.

2023. *Sicyos*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Style 3-fid. Gourd 1-seeded.

2024. *Bryonia*. Barren fl. Cal. 5, dentate. Cor. 5-cleft. Filaments 3. Anthers 5. Fertile fl. Calyx 5-dentate. Cor. 5-cleft. Style trifid. Berry inferior, globose, many-seeded.

2025. *Andrachne*. Male. Cal. 5-leaved. Petals 5. Stamens 5, inserted into the rudiment of a style. Female. Cal. 5-leaved. Cor. O. Styles 3. Caps. 3-celled. Seeds 2.

2026. *Stillingia*. Male. Cal. hemispherical, many-fl. Cor. tubular, eroded. Female. Cal. 1-flowered. inferior. Cor. superior. Style 3-fid. Caps. 3-coccus.

2027. *Phyllanthus*. Male. Cal. 6-parted. Cor. O. Filament columnar. Anthers 3. Female. Cal. 6-parted. Cor. O. Disk with 12 angles. Styles 3. Capsule 3-coccus.

2028. *Aleurites*. Male. Cal. 3-fid. Petals 5. Scales 5. Filament columnar. Anthers numerous. Female. Cal. 3-fid. Petals 5. Scales 5. Style O. Stigmas 2. Berry dicoccus.

2029. *Omphalea*. Male. Cal. 4-parted. Cor. O. Disk a fleshy ring. Filament columnar. Anthers 2-5. Female. Cal. 4-parted. Cor. O. Style very short. Stigma trifid. Caps. 3-coccus, 3-celled: cells with a solitary nut.

2030. *Hippomane*. Male. Cal. campanulate, emarginate. Cor. O. Filament columnar. Female. Cal. 3-leaved. Cor. O. Style very short. Stigma 7-fid. Drupe with a 7-celled nut.

2031. *Sapium*. Male. Cal. 2-fid. Cor. O. Filament 2-fid. Female. Cal. 3-toothed. Cor. O. Style very short. Stigma 3-fid. Caps. 3-coccus.

2032. *Croton*. Male. Cal. cylindrical, 5-toothed. Petals 5. Stamens 10-15. Female. Cal. many-leaved. Cor. O. Styles 3, bifid. Caps. 3-celled. Seed 1.

2033. *Jatropha*. Male. Cal. O, or 5-leaved. Cor. monopetalous, funnel-shaped. Stamens 10, alternately shorter. Female. Cal. O. Cor. 5-petalous, spreading. Styles 3, bifid. Caps. 3-celled. Seed 1.

2034. *Ricinus*. Male. Cal. 5-parted. Cor. O. Stamens numerous. Female. Cal. 3-parted. Cor. O. Styles 3, bifid. Capsule 3-celled. Seed 1.

2035. *Hura*. Male. An imbricated catkin. Perianth truncate, 2-leaved. Cor. O. Filament cylindrical, peltate at end, surrounded by many double anthers. Female. Cal. cylindrical. Cor. O. Style funnel-shaped. Stigma 12-fid. Caps. 12-celled. Seed 1.

2036. *Sterculia*. Male. Cal. 5-parted. Cor. O. Filament columnar, surmounted by numerous anthers. Female. Cal. 5-parted. Cor. O. Anthers sterile, surrounding the base of the stalked ovaries. Follicles 5, many-seeded.

2037. *Heritiera*. Male. Cal. 5-toothed. Cor. O. Filament columnar, surmounted below the end with anthers. Female. Cal. 5-toothed. Cor. O. Sterile anthers at base of ovaries. Drupes 5, dry, 1-seeded.

2038. *Acalypha*. Male. Cal. 3-4-leaved. Cor. O. Stamens 8-16. Female. Cal. 3-leaved. Cor. O. Styles 3. Caps. 3-coccus, 3-celled. Seed 1.

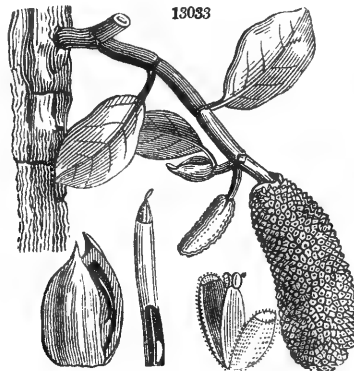
2039. *Dalechampia*. Common involucre outside, with 4 leaflets: inside with 2, trifid. Male. Umbel 10-fl.; with a 2-leaved involucre and numerous palea. Cal. 5-leaved. Cor. O. Filaments many, connate. Female. Florets 3, with a 3-leaved involucre. Cal. 11-leaved. Cor. O. Style filiform. Caps. 3-coccus.

2040. *Plukenetia*. Male. Cal. 4-parted. Cor. O. Stamens 20. Female. Cal. 4-parted. Cor. O. Style very long, with a peltate 4-lobed stigma. Caps. 4-coccus.

## MONANDRIA.

13032 Leaves pinnatifid sinuated scabrous downy beneath

13033 Leaves oblong undivided narrowed at base scabrous beneath



and Miscellaneous Particulars.

size and shape of a child's head, and the surface is reticulated, not much unlike a truffle; it is covered with a thin skin, and has a core about as big as the handle of a small knife; the eatable part lies between the skin and the core; it is as white as snow, and somewhat of the consistence of new bread. It must be roasted before it is eaten, being first divided into three or four parts; its taste is insipid, with a slight sweetness, somewhat

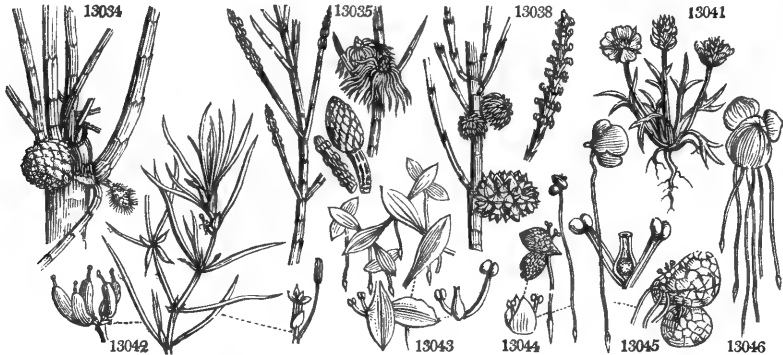
|   |               |   |       |                    |                  |                    |                 |                            |                             |                     |
|---|---------------|---|-------|--------------------|------------------|--------------------|-----------------|----------------------------|-----------------------------|---------------------|
| 1936. CASUARY'NA. <i>W.</i> CASUARINA.      |               |   |       | <i>Casuarineæ.</i> | <i>Sp.</i> 7-10. |                    |                 |                            |                             |                     |
| 13034 equisetifolia <i>W.</i>               | Horse-tail.   | ⌋ | or 15 | cn                 | Ap               | S. Sea Isl.        | 1776.           | S ap Bot. cab. 607         |                             |                     |
| 13035 stricta <i>W.</i>                     | upright       | ⌋ | or 15 | fn                 | Ap               | N. S. W.           | 1775.           | S ap Bot. rep. 346         |                             |                     |
| 13036 distyla <i>W.</i>                     | two-styled    | ⌋ | or 15 | ...                | Ap               | N. Holl.           | 1812.           | S ap Ve. des. pl. n. t. 62 |                             |                     |
| 13037 torulosa <i>W.</i>                    | Cork-barked   | ⌋ | or 15 | ...                | Ap               | N. S. W.           | 1772.           | S ap                       |                             |                     |
| 13038 quadrivalvis <i>P. S.</i>             | four-valved   | ⌋ | or 18 | ...                | Ap               | N. S. W.           | 1812.           | S ap La. no. ho. 2. t. 218 |                             |                     |
| 13039 muricata <i>Rozb.</i>                 | muricated     | ⌋ | or 15 | ...                | Ap               | E. Indies          | 1822.           | S ap                       |                             |                     |
| 13040 nodiflora <i>W.</i>                   | knot-flowered | ⌋ | or 15 | ...                | Ap               | N. Caled.          | 1823.           | S ap                       |                             |                     |
| 1937. CERATOCARPUS. <i>W.</i> CERATOCARPUS. |               |   |       |                    |                  | <i>Chenopodeæ.</i> | <i>Sp.</i> 1.   |                            |                             |                     |
| 13041 arenarius <i>W.</i>                   | sand          | ○ | un    | ‡                  | jn. jl           | G                  | Tartary         | 1757.                      | S s Bu. in. ac. pe. 1. t. 9 |                     |
| 1938. ZANNICHEL'LIA. <i>W.</i> POND WEED.   |               |   |       |                    |                  |                    | <i>Naiades.</i> | <i>Sp.</i> 1-3.            |                             |                     |
| 13042 palustris <i>W.</i>                   | marsh         | ≡ | ○     | w                  | 2                | jl                 | Ap              | Britain                    | dit.                        | S aq Eng. bot. 1844 |

DIANDRIA.

|                                     |             |   |   |     |        |        |         |                      |                  |                         |
|-------------------------------------|-------------|---|---|-----|--------|--------|---------|----------------------|------------------|-------------------------|
| 1939. LEM'NA. <i>W.</i> DUCK WEED.  |             |   |   |     |        |        |         | <i>Aroidæ.</i>       | <i>Sp.</i> 4-11. |                         |
| 13043 tristilca <i>W.</i>           | Ivy-leaved  | ○ | w | ... | my. ju | Ap     | Britain | sta. wa.             | S l p            | Eng. bot. 926           |
| 13044 minor <i>W.</i>               | lesser      | ≡ | ○ | w   | ...    | jn. jl | Ap      | Britain              | sta. wa.         | S l p Eng. bot. 1095    |
| 13045 gibba <i>W.</i>               | gibbous     | ≡ | ○ | w   | ...    | jn. jl | Ap      | Britain              | sta. wa.         | S l p Eng. bot. 1233    |
| 13046 polyrrhiza <i>W.</i>          | greater     | ≡ | ○ | w   | ...    | my. s  | Ap      | Britain              | dit.             | S l p Eng. bot. 2452    |
| †1940. ANGU'RIA. <i>W.</i> ANGURIA. |             |   |   |     |        |        |         | <i>Cucurbitaceæ.</i> | <i>Sp.</i> 1.    |                         |
| 13047 trilobata <i>W.</i>           | three-lobed | ⌋ | △ | or  | 20     | jn. jl | Pk      | Carthag.             | 1793.            | R l p Jac. amer. t. 156 |

TRIANDRIA.

|  |                |   |    |    |        |        |           |         |                    |                            |  |
|--|----------------|---|----|----|--------|--------|-----------|---------|--------------------|----------------------------|--|
| 1941. COMPTO'NIA. <i>W.</i> COMPTONIA.     |                |   |    |    |        |        |           |         | <i>Myricæ.</i>     | <i>Sp.</i> 1.              |  |
| 13048 asplenifolia <i>W.</i>               | Fern-leaved    | ≡ | or | 4  | mr. my | Br     | N. Amer.  | 1714.   | Sk s p             | Dend. brit. 166            |  |
| 1942. HERNAN'DIA. <i>W.</i> JACK IN A BOX. |                |   |    |    |        |        |           |         | <i>Laurineæ.</i>   | <i>Sp.</i> 2-3.            |  |
| 13049 sonora <i>W.</i>                     | petlate-leaved | ⌋ | □  | or | 20     | ...    | E. Indies | 1693.   | C p l              | Rum. amb. 2. t. 85         |  |
| 13050 ovigera <i>W.</i>                    | egg-fruited    | ⌋ | □  | or | 20     | ...    | E. Indies | ...     | C p l              | Rum. am. 3. t. 123         |  |
| 1943. AXY'RIS. <i>W.</i> AXYRIS.           |                |   |    |    |        |        |           |         | <i>Chenopodeæ.</i> | <i>Sp.</i> 3-5.            |  |
| 13051 amaranthoides <i>W.</i>              | simple-spiked  | ○ | un | 1‡ | jn. jl | G      | Siberia   | 1758.   | S co               | Gmel. sib. t. 2. f. 2      |  |
| 13052 hybrida <i>W.</i>                    | bastard        | ○ | un | 1‡ | jn. au | G      | Siberia   | 1780.   | S co               | Gmel. sib. t. 4. f. 1      |  |
| 13053 prostrata <i>W.</i>                  | trailing       | ✕ | ○  | un | ‡      | jl. au | G         | Siberia | 1798.              | S co Gmel. sib. t. 5. f. 2 |  |



History, Use, Propagation, Culture,

resembling that of the crumb of wheaten bread mixed with Jerusalem Artichoke. The plant was first brought to England by the unfortunate Captain Bligh. A fresh supply has been more than once received, and there are now a number of plants in the nurseries about London. The bread-fruit, according to Sweet, is generally supposed to be difficult of cultivation in this country. He considers that the plants have been, in general, treated too tenderly, and not allowed sufficient air. "They appear," he says, "to be of the same nature as the Fig, to which they are nearly allied. Large cuttings root freely in a pot of sand, plunged under a hand-glass, in a moist heat, with all their leaves entire: if the leaves are shortened, it is a great chance if they succeed." (*Bot. Cult.* 19.)

There are several varieties of the bread-fruit, as of all plants that have been long in cultivation. The principal of these varieties are without seeds; the natives of Otaheite reckon at least eight, differing in the form of the leaf and fruit. A. integrifolia is also by many considered a variety of the other; for the leaves are sometimes lobed, and the situation of the fruit varies with the age of the tree, being first borne on the branches, then on the trunk, and finally on the roots.

The bread-fruit is ripe in December, and is used boiled, or fried in Palm oil. Besides the use of the fruit, the economical purposes to which the other parts of the tree are applied are various. The wood is used in building boats and houses; a cloth is made of the inner bark; the male catkins serve for tinder; the leaves for wrapping up food, and for wiping the hands instead of towels; and the juice for making bird-lime, and a cement for filling up the cracks of vessels for holding water. According to Forster, three trees are supposed to yield sufficient nourishment for one person.

The bread-fruit tree is distributed very extensively over the East Indian continent and islands, as well as the innumerable islands of the South Seas. In 1793 it was introduced to the West Indies, and subsequently to different parts of South America. Much has been said in praise of it by Europeans, and certainly, to the inhabitants of the South Sea Islands, it may be a valuable food, as the acorn was to the inhabitants of Britain, when they were in a certain state of civilization. But whether a civilized and refined people would esteem this fruit for their own use as highly as they do for the use of the semi-barbarians of the South Seas, is a point which may reasonably be doubted.

1936. *Casuarina*. The name under which the tree is described by Rumphius, who probably called it so from the resemblance its foliage bears to the plumage of the *casoar* or *cassowary* of the same country. By the Malays it is called *filao*, and by the South Sea Islanders *club-wood*, on account of the use of it for warlike weapons. *Casuarina equisetifolia* is a large spreading and lofty tree, with leaves, or rather branchlets, hanging down in bunches from twelve to eighteen inches in length, like a long head of hair, or a horse's tail, all jointed from top to bottom. The appearance of the whole tree is very remarkable. It was introduced by the first Lord Byron.

- 13034 Branchlets flaccid round, Scales of cones unarmed villous  
 13035 Dioecious, Branchlets erect furrowed, Scales of cones unarmed smoothish  
 13036 Dioecious, Branchlets ovate round, Scales of cones unarmed ciliated  
 13037 Dioecious, Branchlets flaccid, Scales of cones villous and rough with tubercles  
 13038 Dioecious, Young branches somewhat flaccid, Scales of cones villous, Male sheaths submultifid ciliated  
 13039 Branches erect, Scales of cones mucronate pubescent, in which it chiefly differs from *C. stricta*  
 13040 Monoecious, Branchlets erect square, Scales of cones unarmed smooth

13041 Stem much branched diffuse making globose tufts

13042 Anthers 4-celled, Stigmas entire, Pericarps toothed on the back

#### DIANDRIA.

13043 Fronds thin elliptical-lanceolate caudate at one extremity, at the other serrate, Roots solitary

13044 Fronds nearly ovate compressed, Roots solitary

13045 Fronds obovate nearly plane above hemispherical beneath, Roots solitary

13046 Fronds obovate rotundate compressed, Roots numerous clustered

13047 Fruit small, Leaves 3-lobed

#### TRIANDRIA.

13048 Leaves oblong alternately sinuated

13049 Leaves peltate

13050 Leaves cordate ovate acuminate flat stalked at base

13051 Leaves ovate, Stem erect, Spikes simple

13052 Leaves ovate, Stem erect, Spikes panicled

13053 Leaves obovate, Stem somewhat divided, Flowers capitate



#### and Miscellaneous Particulars.

1397. *Ceratocarpus*. Named from *κερας*, a horn, and *καρπος*, fruit, because the seeds have two horns. Useless weeds.

1398. *Zannichellia*. So called in honor of John Jerome Zannichella, a Venetian apothecary, who died in 1729. He left behind him a few works of little consequence. A plant found abundantly in the marshes of some parts of England.

1399. *Lemna*. Said to have been so called from *λεμνα*, a scale, in allusion to the form of the plants. Theophrastus describes under the same name an aquatic plant. Annual weeds, which float on stagnant water, their flowers are very obscure, and not produced freely in northern climates. *L. trisulca* has dichotomous, filiform, divaricated stems, having a lanceolate leaf at the angle of the branches, but proliferous ones terminating the branches; where these leaves are conjoined, there shoots out a pendant radicle, with a conical papilla at its base. Linnæus observes, that the stems are flattened and proliferous, crossing each other, and thus resembling in the mode of growth the opuntia or Indian fig. The leaves of *L. minor* are very small, of a roundish ovate form, collected into heaps by twos or threes, and forming extensive green plats on stagnant waters; each leaf drops a single radicle. This plant affords nourishment not only to ducks, but to the fresh water polype, to *Phalæna Lemnata*, &c. Its quick and extensive propagation makes it troublesome in some cases, but at the same time it is considered valuable as converting hydrogen gas into air adapted to respiration. *L. polyrhiza* is distinguished by its dropping bundles of thick black fibres from the lower surface of the leaves. The plants sink in the water in the winter season, and either these or new ones appear again in the spring.

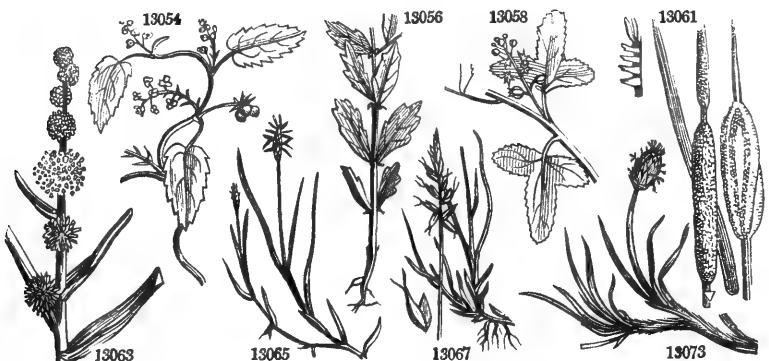
1340. *Anguria*. One of the Greek names for the Cucumber. The plant now so called is also a kind of gourd. The species grow freely on light soil, and are propagated by seeds or roots.

1341. *Comptonia*. Named in honor of Henry Compton, Lord Bishop of London, by whom the fine collection of plants attached to the episcopal palace at Fulham was formed. A handsome shrub, which thrives in peat soil, or sandy loam, and is increased by suckers or layers.

1342. *Hernandia*. So called in honor of Francisco Hernandez, a Spanish botanist, and first physician to Philip the second of Spain, by whom he was sent to Mexico for the sake of investigating the natural history of that country. Linnæus is said to have named it in allusion to the large leaves and little flowers of the plant, which may be supposed to represent the great means and small advantages which attended the expedition of Hernandez. This is an upright lofty tree, with an elegant head. The fruit is a nut, sustained and partly enveloped by a yellow persisting calyx. The nuts are very large, and as they move in the wind, produce sound enough to alarm unwary travellers. In our stoves the plants grow freely in loamy soil, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

1343. *Asyris*. A word of unknown meaning. Plants of little beauty and the easiest culture.

|                                |                 |                 |        |                         |       |    |           |         |       |                     |
|--------------------------------|-----------------|-----------------|--------|-------------------------|-------|----|-----------|---------|-------|---------------------|
| *1944. TRAGIA. W.              |                 | TRAGIA.         |        | Euphorbiaceæ. Sp. 5-9.  |       |    |           |         |       |                     |
| 13054                          | volúbilis W.    | twining         | ☉ □ un | 6                       | jn.jl | G  | W. Indies | 1739.   | S co  | Trep.l.rar.2 t.15   |
| 13055                          | involutáta W.   | involved        | ☉ □ un | 3                       | jn.jl | G  | E. Indies | 1759.   | S co  | Eng. ic. 1. t. 190  |
| 13056                          | árens W.        | stinging        | ☉ □ un | 3                       | au    | G  | Virginia  | 1699.   | S co  | Pluk.al. t.107.f.5  |
| 13057                          | Chamæléa W.     | lance-leaved    | ☉ □ un | 2                       | jn.jl | G  | E. Indies | 1793.   | D lp  | Rhee.mal.2. t.34    |
| 13058                          | cannabina W.    | Hemp-leaved     | ☉ □ un | 2                       | jn.jl | G  | E. Indies | 1699.   | C lp  | Bur.ind. t.63. f.4  |
| 1945. TYPIHA. W.               |                 | CAT'S-TAIL.     |        | Aroidæ. Sp. 3-7.        |       |    |           |         |       |                     |
| 13059                          | latifolia W.    | great           | ☉ △ ec | 6                       | jl    | Br | Britain   | dit.    | S lp  | Eng. bot. 1465      |
| 13060                          | minor W.        | dwarf           | ☉ △ ec | 2                       | jl    | Br | England   | mar.    | S lp  | Eng. bot. 1457      |
| 13061                          | angustifolia W. | lesser          | ☉ △ ec | 3                       | jn.jl | Br | Britain   | pools.  | S lp  | Eng. bot. 1456      |
| 1946. SPARGANIUM. W. BUR REED. |                 |                 |        | Aroidæ. Sp. 3-5.        |       |    |           |         |       |                     |
| 13062                          | ramosum W.      | branched        | ☉ △ un | 2                       | jl.au | Ap | Britain   | dit.    | S lp  | Eng. bot. 744       |
| 13063                          | simplèx W.      | unbranched      | ☉ △ un | 1½                      | jl.au | Ap | Britain   | sta.wa. | S lp  | Eng. bot. 745       |
| 13064                          | nátans W.       | floating        | ☉ △ un | 1                       | jl    | Ap | England   | fens.   | S lp  | Eng. bot. 272       |
| 1947. CA'REX. W.               |                 | CAREX.          |        | Cyperaceæ. Sp. 106-235. |       |    |           |         |       |                     |
| 13065                          | dioica W.       | diceous         | ☉ △ cu | ½                       | my.jn | Ap | Britain   | sp.bo.  | Sk sp | Eng. bot. 543       |
| 13066                          | Davalliána W.   | Davall's        | ☉ △ cu | ¾                       | my.jn | Ap | Britain   | mar.    | Sk sp | Eng. bot. 2123      |
| 13067 pulicáris W.             |                 | Flea            | ☉ △ cu | 1½                      | jn.jl | Ap | Britain   | mar.    | Sk co | Eng. bot. 1051      |
| 13068 pyrenáica W.             |                 | Pyrenean        | ☉ △ un | 1½                      | jn.jl | Ap | Pyrenees  | 1820.   | Sk co | S.ca.n.5. t.2D.f.15 |
| 13069 pauciflora W.            |                 | few-flowered    | ☉ △ cu | 1½                      | jn    | Ap | Britain   | bg.s.m. | Sk sp | Eng. bot. 2041      |
| 13070 cyperoides W.            |                 | Bohemian        | ☉ △ un | 2                       | jn.jl | Ap | Bohemia   | 1801.   | Sk co | Schk.car.t. A.f.5   |
| 13071 stenophýlla W.           |                 | narrow-leaved   | ☉ △ un | 2                       | jn.jl | Ap | Austria   | 1822.   | Sk co | S.ca. t. G.ii.f.32  |
| 13072 chordorhiza W.           |                 | chord-rooted    | ☉ △ un | 1                       | jn.jl | Ap | Sweden    | 1823.   | Sk co | S.ca. t. G.ii.f.31  |
| 13073 incurva W.               |                 | curved          | ☉ △ un | ¾                       | jl.au | Ap | Scotland  | san.sh. | Sk co | Eng. bot. 927       |
| 13074 fœ'tida W.               |                 | stinking        | ☉ △ un | ¾                       | jl.au | Ap | Switzerl. | 1791.   | Sk co | Sch.ca.t.Hh.f.96    |
| 13075 arenária W.              |                 | sand            | ☉ △ ec | 1                       | jn.jl | Ap | Britain   | san.sh. | Sk co | Eng. bot. 928       |
| 13076 intermédia W.            |                 | soft-brown      | ☉ △ un | 1½                      | my.jl | Ap | Britain   | mar.    | Sk co | Eng. bot. 2042      |
| 13077 schœnooides W.           |                 | rush-like       | ☉ △ un | 1                       | my.jl | Ap | Germany   | 1825.   | Sk co |                     |
| 13078 Schreberí W.             |                 | Schreber's      | ☉ △ un | 1½                      | jn.jl | Ap | Germany   | 1800.   | Sk co | Host. gra. 1. t.46  |
| 13079 brizoides W.             |                 | Briza-like      | ☉ △ un | 2                       | my.jl | Ap | Germany   | 1815.   | Sk co | Host.gra.36. t.47   |
| 13080 ovális W.                |                 | oval-spiked     | ☉ △ un | 2                       | jn.jl | Ap | Britain   | mar.    | Sk co | Eng. bot. 306       |
| 13081 lagopodioides W.         |                 | Hare's Foot     | ☉ △ un | 2                       | jn.jl | Ap | N. Amer.  | 1805.   | Sk co | Sc. c. t. Yy.f.177  |
| 13082 scopária W.              |                 | Broom           | ☉ △ un | 2½                      | jn.jl | Ap | N. Amer.  | 1812.   | Sk co | Sc.c. t. X.x.f.175  |
| 13083 nemorosa W.              |                 | wood            | ☉ △ un | 3                       | jn.jl | Ap | Germany   | 1824.   | Sk co |                     |
| 13084 vulpina W.               |                 | great-spiked    | ☉ △ un | 3                       | my.au | Ap | Britain   | mar.    | Sk co | Eng. bot. 307       |
| 13085 stipata W.               |                 | propped         | ☉ △ un | 3                       | my.au | Ap | N. Amer.  | 1825.   | Sk co | Sc.c.t.Hh.f.132     |
| 13086 divísa W.                |                 | bracteated      | ☉ △ un | 2                       | my.jl | Ap | Britain   | sal.m.  | Sk co | Eng. bot. 1096      |
| 13087 muricáta W.              |                 | greater-prickly | ☉ △ un | 2                       | my.jn | Ap | Britain   | moi.p.  | Sk co | Eng. bot. 1097      |
| 13088 norvégica W.             |                 | Norway          | ☉ △ un | 1½                      | my.jn | Ap | Norway    | 1822.   | Sk co | Schk.cart.8.f.66    |
| 13089 divúsa W.                |                 | gray            | ☉ △ un | 2                       | my    | Ap | Britain   | m.s.pl  | Sk co | Eng. bot. 629       |
| 13090 stelluláta W.            |                 | little-prickly  | ☉ △ un | ¾                       | my.jn | Ap | Britain   | mar.    | Sk co | Eng. bot. 806       |
| 13091 rósea W.                 |                 | Rose            | ☉ △ un | 2                       | my.jn | Ap | N. Amer.  | 1812.   | Sk co | Sc.ca.t.Zzz.f.179   |
| 13092 axilláris W.             |                 | axillary        | ☉ △ un | 2½                      | my.jn | Ap | England   | bogs.   | Sk co | Eng. bot. 993       |
| 13093 remóta W.                |                 | remote          | ☉ △ un | 2                       | my.jn | Ap | Britain   | groves. | Sk co | Eng. bot. 832       |



History, Use, Propagation, Culture,

1944. *Tragia*. In honor of a German botanist named Jerome Bock, born in 1498, and died in 1554; *Tragus*, which was the name he bore in science, being a Greek translation of his real name, both signifying a goat. He published a history of plants, or *Krauterbuch*, and several other works. Twining plants of no interest.

1945. *Typha*. From *τύφος*, a marsh, in which all the species naturally grow. *T. latifolia* is one of the handsomest aquatics of the reed kind; its leaves are of a bluish color, an inch in width, and three feet long; the flower is very abundant, and a light being applied to it, a flash of fire is produced. Haller says, that the roots are eaten in salads, that cattle eat the leaves, and that the downy seeds serve for stuffing pillows. The leaves are sometimes used by coopers, and introduced between the staves of their casks; they are frequently used for making mats, baskets, chair bottoms, and sometimes for thatch. Rubens, and other

- 13054 Leaves cordate ovate acuminate serrated smoothish, Petioles ciliated, Female sepals hairy entire
- 13055 Leaves hispid ovate-acuminate serrated, Female sepals pinnatifid setose hispid
- 13056 Leaves lanceolate sessile blunt somewhat toothed at end; and stem, which is erect and branched, downy
- 13057 Leaves linear lanceolate stalked blunt mucronate, Stem branched diffuse
- 13058 Leaves deeply 3-lobed toothed, Middle lobe long

- 13059 Leaves linear nearly plane, Sterile and fertile catkins close together
- 13060 Leaves linear plane twice as short as culm, Male and female catkins remote
- 13061 Leaves linear convex below, Sterile and fertile catkins a little distant from each other

- 13062 Leaves triangular at the base their sides concave, Common flower-stalk branched, Stigma linear
- 13063 Leaves triangular at the base their sides plane, Common flower-stalk simple, Stigma linear
- 13064 Lvs. floating plane, Common fl.-stalk simple, Stigma ovate very short, Head of sterile fls. mostly solitary

§ Spikes dioecious.

- 13065 Spike simple dioecious, Fruit ascending ovate shortly acuminate striated rough at the margin upwards
- 13066 Spike simple dioecious, Fruit ovate much acuminate recurvate-deflexed smoothish at the margin

§ 2. Spikes androgynous.

\* 1. Spike simple.

- 13067 Spike simple androgynous, Flowers few, Fruit distant oblongo-lanceolate acuminate reflexed, Stigmas 2
- 13068 Spike simple androgynous male at top, Stigmas 3, Fruit oblong with a short beak horizontal
- 13069 Spike simple androgynous of very few fls. Fruit distant lanceolate subulate patenti-reflexed, Stigmas

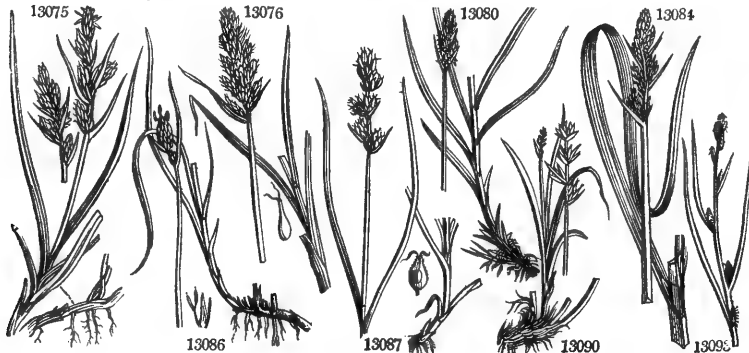
\* 2. Spikelets capitata.

- 13070 Spikes androgynous male below collected in globose involucreted heads, Stigm. 2, Fr. lanc. with 2 points
- 13071 Spikes androgynous male above collected in an oblong head, Stigm. 2, Fr. ovate comp. nerved with 2 teeth
- 13072 Spikes androgynous male above collected in an ovate form, Stigm. 2, Fr. ov. acumin. Culm branched at base
- 13073 Spikel. ster. at extrem. collected into a roundish head, Fruit broad rotund. ov. short acum. swell on both sides nearly entire at the point, Culm obt. angular, Leaves channelled
- 13074 Spikes androgynous male above collected into an oval head, Stigm. 2, Fruit ellipt. roundish acuminate bifid

\* 3. Spikelets spiked, many-flowered.

[Culm triang. Lvs. plane

- 13075 Lower spikel. fert. : upp. ones ster. all crowd. Fr. with membr. marg. Bract. membranc. : low. ones subfoli.
- 13076 Inferior and term. spikelets fertile : intermediate ones sterile, Fruit acutely margined, Culms triangular
- 13077 Spike androgynous comp. Spikelets obl. altern. clust. male above, Stigmas 2, Fr. round. ov. edged 2 toothed
- 13078 Spike androgynous comp. Spikelets ovate alternate clustered male below, Stigmas 2, Fr. ovate 2-toothed
- 13079 Spike androg. comp. somew. distich. Spikel. about 5 altern. cum. obl. lanc. male bel. Stig. 2, Fr. ov. edg. bifid
- 13080 Spikel. ster. at the base oval about 5 approxim. Fruit as long as the cal. ovato-acumin. convex on one side, concave on the other, with a membranaceous margin bifid at the point
- 13081 Spike androg. comp. Spikel. 12 altern. ellipt. blunt approxim. male below, Stigmas 2, Fr. ov. lanc. edg. bicuspid
- 13082 Spike androgynous comp. Spikel. about 5 altern. ellipt. blunt somewhat approxim. male below, Stigmas 2, Fruit ovate lanceolate edged bicuspidate
- 13083 Spike androgynous comp. Spikel. numer. collected in 3s or 5s ovate clustered male above, Stigmas 2, Fruit spreading ovate acuminate 2-toothed edged compressed
- 13084 Spikel. ster. at their extremities thrice comp. collected into a cylind. crowded spike, Fruit ovate acuminat. convexo-plane acutang.-diverg. Stem very acute triang. Leaves rather broad
- 13085 Spike androg. comp. Spikel. about 5 obl. male above clust. Stigm. 2, Fr. spread. ov. acum. with 2 points nerv.
- 13086 Spikel. ster. at their extremities crowded into a somewhat ovate head : lower ones with a leafy erect bractea at their base, Fruit roundish ovate convex on one side slightly concave on the other
- 13087 Spikel. ster. at their extremities subcomp. collected into a rather long more or less interrupted spike, Fruit convexo-plano ovato-acuminate acutangul. divergent rough at the margin upward
- 13088 Spike androg. comp. Spikel. 4 altern. obl. male below somewhat approxim. Stigmas 2, Fr. obl. acutish comp.
- 13089 Spike long somew. decompound branched at the base : lower spikelets remote, Fruit erect smooth at edge
- 13090 Spikel. ster. at base 3 or 4 dist. Fr. ov. much attenuat. convexo-plane acutangul. divaricat. rough at margins
- 13091 Spike androg. comp. Spikel. about 4 remote male above, Stigm. 2, Fr. ov. acum. 2-tooth. horiz. ciliat. at base
- 13092 Spikes subternate remote sessile, Bractes long, Fruit bifid at end
- 13093 Spikel. ster. at base dist. Fruit longer than cal. obl.-ovate acuminate convexo-plane subacutang. obtuse at the marg. the point bifid, Bract. very narr. reaching beyond the culm



and Miscellaneous Particulars.

Italian painters after him, have put it into the hand of Christ as a sceptre, when he was saluted as a king in mockery by Herod's soldiers. The plant appears to be a native of every part of the world, in ponds, ditches, and by the sides of rivers and brooks.

1946. *Sparganium*. From *σπαργάνον*, a band, in reference to the long ribbon-like leaves of the plants. *Sparganium ramosum* is the commonest species : it has a strong creeping root, and soon fills up a ditch or pond, if suffered to remain unmolested. It is common not only in Europe, but in Barbary, Siberia, and North America.

1947. *Carex*. From the Latin *carere*, to want. The upper spikes of these plants are constantly without seeds, consisting only of male flowers. This numerous family of plants grow mostly in wet swampy grounds,



|                        |                 |        |          |    |           |         |        |                       |
|------------------------|-----------------|--------|----------|----|-----------|---------|--------|-----------------------|
| 13094 elongáta W.      | elongated       | ☞ Δ un | 1 my.jn  | Ap | England   | mar.    | Sk co  | Eng. bot. 1920        |
| 13095 cúrta W.         | white           | ☞ Δ un | 1 jn     | Ap | Britain   | pools.  | Sk co  | Eng. bot. 1386        |
| 13096 fœ'nea W.        | fodder          | ☞ Δ un | 2 jn     | Ap | N. Amer.  | 1818.   | Sk co  |                       |
| 13097 lolíacea W.      | ray-grass-like  | ☞ Δ un | 2 jn     | Ap | Sweden    | 1813.   | Sk co  | Sc.ca.t.P.p.f.104     |
| 13098 stramínea W.     | slender-stalked | ☞ Δ un | 2 jn.jl  | Ap | N. Amer.  | 1803.   | Sk co  | Sc.ca.t.Xxx.f.174     |
| 13099 multiflóra W.    | many-flowered   | ☞ Δ un | 1 my.jn  | Ap | N. Amer.  | 1812.   | Sk co  | Sc.ca.t.Lil.f.144     |
| 13100 teretíscula W.   | lesser panicle  | ☞ Δ un | 2 my.jn  | Ap | Britain   | bogs.   | Sk co  | Eng. bot. 1065        |
| 13101 paradóxa W.      | paradoxical     | ☞ Δ un | 1½ my.jn | Ap | Austria   | 1823.   | Sk co  | Host. gra.1. t. 57    |
| 13102 paniculáta W.    | greater panicle | ☞ Δ un | 3 jn.jl  | Ap | England   | bogs.   | Sk co  | Eng. bot. 1064        |
| 13103 apréssa R. Br.   | close-spiked    | ☞ Δ un | 2 my.au  | Ap | N. S. W.  | 1802.   | Sk co  |                       |
| 13104 bicolor W.       | two-colored     | ☞ Δ un | 1½ my.jn | Ap | M. Cenis  | 1810.   | Sk co  | S.c.t.Aaaa.f.181      |
| 13105 atráta W.        | black           | ☞ Δ un | 1½ jn.jl | Ap | Britain   | al.me.  | Sk co  | Eng. bot. 2044        |
| 13106 thuringíaca W.   | Thuringian      | ☞ Δ un | 1½ my.jn | Ap | Germany   | 1810.   | Sk co  | S.ca.t.P.pp.f.155     |
| 13107 Buxbaúmii W.     | Buxbaum's       | ☞ Δ un | 1 my.jn  | Ap | Sweden    | 1821.   | Sk co  | S.ca.t.X.Gg.f.76      |
| 13108 glareósa W.      | sandy           | ☞ Δ un | 1 my.jn  | Ap | Norway    | 1816.   | Sk co  |                       |
| 13109 álba W.          | white           | ☞ Δ un | 1 my.jn  | Ap | Austria   | 1818.   | Sk co  | Sch.car.t.O.f.55      |
| 13110 clandestína W.   | dwarf silvery   | ☞ Δ cu | ½ ap.my  | Ap | England   | sun.ro. | Sk co  | Eng. bot. 2194        |
| 13111 digitáta W.      | fingered        | ☞ Δ un | ½ my.jn  | Ap | England   | woods.  | Sk co  | Eng. bot. 615         |
| 13112 plantáinea W.    | broad-leaved    | ☞ Δ un | ½ my.jn  | Ap | N. Amer.  | 1805.   | Sk co  | Sch. car. t. U.f. 70  |
| 13113 Fraseriána H. K. | Fraser's        | ☞ Δ or | ½ ap.jn  | Ap | N. Amer.  | 1809.   | Sk s.p | Bot. mag. 1391        |
| 13114 pilulifera W.    | round-headed    | ☞ Δ un | 1 ap.jn  | Ap | Britain   | hea.    | Sk co  | Eng. bot. 885         |
| 13115 lucórum W. en.   | grove           | ☞ Δ un | 1½ ap.jn | Ap | N. Amer.  | 1825.   | Sk co  |                       |
| 13116 collína W.       | hill            | ☞ Δ un | 1 ap.jn  | Ap | Germany   | 1824.   | Sk co  | Sch. car. t. F. f. 29 |
| 13117 ciliáta W.       | ciliated        | ☞ Δ un | 1½ ap.jn | Ap | Germany   | 1812.   | Sk co  | Sch. car. t. I. f. 42 |
| 13118 præ'cox W.       | vernal          | ☞ Δ un | 1 ap     | Ap | Britain   | dr.pa.  | Sk co  | Eng. bot. 1099        |
| 13119 tomentósa W.     | downy-fruited   | ☞ Δ un | 1 jn     | Ap | England   | mea.    | Sk co  | Eng. bot. 2046        |
| 13120 exténsa W.       | long-bracted    | ☞ Δ un | ½ jn     | Ap | Britain   | seaco.  | Sk co  | Eng. bot. 833         |
| 13121 fláva W.         | yellow          | ☞ Δ un | 1 my.jn  | Ap | Britain   | bogs.   | Sk co  | Eng. bot. 1294        |
| 13122 CEdéri E. B.     | Ceder's         | ☞ Δ un | ½ jn.jl  | Ap | England   | m.me.   | Sk co  | Eng. bot. 1773        |
| 13123 fúlva W.         | tawny           | ☞ Δ un | ½ jn.jl  | Ap | Britain   | mar.    | Sk co  | Eng. bot. 1295        |
| 13124 dístans W.       | loose           | ☞ Δ un | 1½ jn    | Ap | Britain   | mar.    | Sk co  | Eng. bot. 1234        |
| 13125 binérvis W.      | green-ribbed    | ☞ Δ un | 2 jn     | Ap | Britain   | dr.he.  | Sk co  | Eng. bot. 1235        |
| 13126 saxátilis W.     | rocket          | ☞ Δ un | ½ jn     | Ap | Greenland | 1812.   | Sk co  | S.ca.t.I.&T.f.40      |
| 13127 púlla W.         | russet          | ☞ Δ un | 1 jl     | Ap | Scotland  | sc.mo.  | Sk co  | Eng. bot. 2045        |
| 13128 ferrugínea W.    | rusty           | ☞ Δ un | 1 jl     | Ap | Austria   | 1822.   | Sk co  | Sch. car. t. M.f. 48  |
| 13129 Mielichhóferi W. | loose-spiked    | ☞ Δ un | 1 jl.au  | Ap | Scotland  | al.roc. | Sk co  | Eng. bot. 2283        |
| 13130 umbrósa W.       | shady           | ☞ Δ un | 1½ my.jn | Ap | Austria   | 1810.   | Sk co  | S.ca.t.Uuu.f.165      |
| 13131 pilósa W.        | hairy           | ☞ Δ un | 1 my.jn  | Ap | Europe    | 1820.   | Sk co  | Sch. car. t. M.f. 49  |
| 13132 granuláris W.    | grain-seeded    | ☞ Δ un | 1½ jn.jl | Ap | N. Amer.  | 1807.   | Sk co  | S.ca.t.Vvv.f.169      |
| 13133 panicea W.       | Pink-leaved     | ☞ Δ un | ½ my.jl  | Ap | Britain   | moi.p.  | Sk co  | Eng. bot. 1305        |
| 13134 conglobáta W.    | clustered       | ☞ Δ un | 1 my.jl  | Ap | Hungary   | 1812.   | Sk co  |                       |



History, Use, Propagation, Culture.

in bogs, fens, marshes, or in moist woods, where they yield a very coarse grass scarcely touched by cattle. With the exception of two or three species, they are of little use or beauty. Some unfortunately situated husbandmen have recourse to them as cattle fodder, or as thatch or fuel. In Kent, the leaves of the larger

- 13094 Spikes numerous obl. remotish naked. Fruit acuminate bifid recurved many-nerved longer than glumes  
 13095 Spikel. ster. at base about 5 rather dist. ellipt. Bractees very minute. Caps. broadly ov. acum. conv. on one side and nearly plane on the other subobtusang. with 2 teeth at the extremity  
 13096 Spike androg. comp. Spikelets about 4 male below and close together. Fruit ovate acum. edged 2-tooth.  
 13097 Spike androg. comp. Spikel. about 4 male below and close together. Stigmas 2, Fruit elliptical blunt nerved  
 13098 Spike androg. comp. Spikel. about 5 roundish male below somew. approximated, Stigm. 2, Fr. round. ovate beaked 2-toothed ciliated at edge

\* 4. Spikelets panicled.

- 13099 Spikes androg. narrow. panic. male above obl. blunt. Stig. 2, Fr. ov. acum. with 2 points, Scales ov. mucron.  
 13100 Spike supradecomposed contracted acutish, Spikelets clustered, Fruit spreading gibbous, Culm roundish  
 13101 Spikes androg. narr. panic. male above, Low, branch. remote, Stig. 2 round. ov. beak. 2-tooth. cil. ser. at base  
 13102 Spikel. ster. at extrem. thrice comp. and collect. into a panic. spike, Fr. broad. ov. acum. gib. on both sides  
 13103 Spike decomp. longish, Scales acute, Fruit ovate plano-convex nerved on each side

\* 5. Spikelets racemose.

- 13104 Spikes androg. in threes stalked terminal male below erect, Stigmas 2, Fr. obov. blunt, Scales ov. obtuse  
 13105 Fertile spikes pedunculated ovate pendulous: the terminal one with sterile flowers at the base, Fruit roundish ovate depressed with a short beak bifid at the point

‡ 3. Terminal spikes male: the others androgynous.

- 13106 Male spike solitary stalked: androg. male above about 5 ellipt. remote sessile with a leafy bract, Stigm. 3, Fruit roundish 3-cornered downy

‡ 4. Terminal spike androgynous: the others female.

- 13107 Spike androg. pedunc. obov. male below: female about 3 remote somewhat stalked, Stigm. 3. Fr. ellipt. 3-cornered blunt slightly 2-toothed  
 13108 Spike androg. pedunc. obl. male below: female 2 sessile close obl. Stigm. 2, Fr. oblong narrowed with an undivided mouth as long as ovate scale

‡ 5. Spikes of distinct sexes.

\* 1. Male solitary: female sessile and subsessile.

† 1. Scape sheathed, with membranous bractes.

- 13109 Male spike solit. stalk: fem. twin stalk. about 5-fl. Stigm. 3, Fr. obov.-glob. furrow. beak. obliq. truncate  
 13110 Bractes membran. nearly leafless sheath. Fem. spikes remote few-fl. included in sheath, Lvs. channelled  
 13111 Bractes membranous nearly leafless sheathing, Spikes linear lax erect: male shorter, Leaves flat  
 13112 Male spike sol. stalk: fem. 4 dist. stalk. Stig. 3, Fr. ellipt. 3-corner. stalk smth. short. than obov. cusps. scale  
 13113 Leaves oblong lanceolate with a white scarious margin, Heads oblong, Scape not longer than leaves

† 2. Culm leafy.

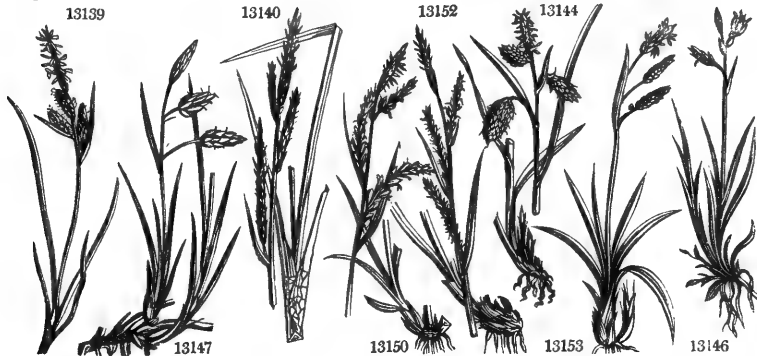
- 13114 Fertile spikes sess. roundish approxim. Scales mucron. Fr. obov.-glob. acute pubesc. Culms weak scabrous  
 13115 Female spikes 2-3 ellipt. sess. supported by a foliaceous bract, Fruit somewhat downy with a long beak  
 13116 Male spike solit.: fem. about 2 close ellipt. sess. Stig. 3, Fr. obl. with a short beak downy as long as ov. scale  
 13117 Male spike solit.: fem. about 2 close obl. sess. Stig. 3, Fr. roundish-obov. downy larg. than obl. blunt scale  
 13118 Sheaths short scarcely any equal to the flower-stalks, Fertile spikes oblong approximate, Scales elliptico-oblong, Fruit obovate subtriquetrous acute pubescent  
 13119 Sheaths very short, Female spikes subsessile cylindrical blunt, Glumes elliptical acute, Fruit downy  
 13120 Fertile spikes subsess. obl. Fr. ov. scarcely beaked striated bifid at point, Lvs. very narrow, Culm glabrous  
 13121 Bractees long foliaceous, Fert. spikes roundish oval, Fr. obov. with a long recurved beak bifid at the point  
 13122 Sheaths and peduncles very short, Female spikes roundish, Fruit spreading on each side globose, Beak straight, Culm smooth  
 13123 Bractees foliaceous, Spikes oblongo-ov. distant rotundo-ov. inflated rostrate bifid at point, Culm scabrous  
 \* 2. Male spike solitary: upper female sessile and subsessile; lower stalked.  
 13124 Fertile spikes oblong erect, Scales mucronate, Fruit ovate somewhat inflated subtriquetrous depressed with rather a short beak bifid at the point  
 13125 Sheaths long shorter than peduncle, Spikes cylindrical remote somewhat compound, Fruit 2-nerved  
 13126 Male spike solit.: female twin; lower stalked obl. Stigmas 2, Fruit ellipt. blunt as long as blunt scale  
 13127 Fertile spikes ov.: the lower one pedunculated, Scales obl. Fruit subglob. apiculate with a short bifid beak  
 13128 Male spike solitary: female 3 distant; two lower stalked, Stigmas 3, Fr. oblong compressed 3-cornered hispid at edge, Mouth membranous 2-lobed  
 13129 Fertile spikes 1-3 somewhat drooping, Fruit scarcely longer than the scale lax especially the lower ones ovate with a short beak bifid at the point  
 13130 Male spike sol. obov.: female about 3 close; 2 lower on long stalks, Stigmas 3, Fruit compress. obov. downy beaked 2-toothed at end  
 13131 Male spike sol.: female about 3 distant; two lower remote, Stig. 3, Fr. ov. beaked with a membran. mouth  
 13132 Male spike sol.: fem. 3 rem.: two lower stalked, Stigmas 3, Fr. glob. ovate nerved ventric. shortly beaked  
 13133 Fert. spikes subcylind. with dist. fis. Bract. foliaceous, Fr. subglob. somew. inflated obt. glab. entire at point  
 13134 Male spike sol.: female about 4 remote; 2 lower on a long stalk. the stalks of the others enclosed, Stigm. 3, Fr. globose shining with a short beak 2-toothed at end



and Miscellaneous Particulars.

species are used for tying the vines of hops to the poles; in Italy they are put between the staves of wine casks to make them tight, woven over Florence flasks, or in chair bottoms. The Laplander combs and dresses some species of sedge, as we do flax, and in winter stuffs his shoes and gloves with it, as a defence against the

|                         |                       |   |    |    |       |       |           |             |          |                    |                     |
|-------------------------|-----------------------|---|----|----|-------|-------|-----------|-------------|----------|--------------------|---------------------|
| 13135 rostrata W.       | beaked                | ▲ | △  | un | 1     | my.jl | Ap        | N. Amer.    | 1816.    | Sk co              | S.ca.t.Hhh.f.134    |
| 13136 nitida W.         | glossy                | ▲ | △  | un | 1     | my.jn | Ap        | Austria     | 1805.    | Sk co              | Host. gra. 1. t.71  |
| 13137 anceps W.         | two-edged             | ▲ | △  | un | 1     | jl.au | Ap        | N. Amer.    | 1805.    | Sk co              | S.ca. t.FE.f.128    |
| 13138 alpéstris W.      | Alpine                | ▲ | △  | un | 1     | my.jn | Ap        | Europe      | 1804.    | Sk co              | Sch.car. t.G.f.35   |
| 13139 caespitosa W.     | tufted bog            | ▲ | △  | un | 1½    | my.jn | Ap        | Britain     | bogs.    | Sk co              | Eng. bot. 1507      |
| 13140 stricta W.        | straight-leaved       | ▲ | △  | un | 1     | ap.my | Ap        | Britain     | mar.     | Sk co              | Eng. bot. 914       |
| 13141 péndula W.        | great-pendulous       | ▲ | △  | un | 4     | my.jn | Ap        | Britain     | woods.   | Sk co              | Eng. bot. 2315      |
| 13142 rigida W.         | rigid                 | ▲ | △  | un | 1     | jn.jl | Ap        | Britain     | moun.    | Sk co              | Eng. bot. 2047      |
| 13143 capillaris W.     | capillary             | ▲ | △  | un | 1     | jl.au | Ap        | Britain     | sc.mo.   | Sk co              | Eng. bot. 2069      |
| 13144 pallescens W.     | pale                  | ▲ | △  | un | 1     | ap.jn | Ap        | Britain     | moi.p.   | Sk co              | Eng. bot. 2185      |
| 13145 ustulata W.       | scorch. Alpine        | ▲ | △  | un | 1     | jn.jl | Ap        | Scotland    | al.riv.  | Sk co              | Eng. bot. 2404      |
| 13146 rariflora E. B.   | loose-flowered        | ▲ | △  | un | 1     | jn    | Ap        | Scotland    | sc al.   | Sk co              | Eng. bot. 2516      |
| 13147 limosa W.         | green and gold        | ▲ | △  | un | 1½    | jn    | Ap        | Britain     | sp.bo.   | Sk co              | Eng. bot. 2043      |
| 13148 Pseudo-Cyperus W. | Bastard Cyperus       | ▲ | △  | un | 3     | jn.jl | Ap        | Britain     | mar.     | Sk co              | Eng. bot. 242       |
| 13149 flexuosa W.       | bending               | ▲ | △  | un | 2     | jn.jl | Ap        | N. Amer.    | 1807.    | Sk co              | S.ca. t.Ddd.f.134   |
| 13150 sylvatica E. B.   | wood                  | ▲ | △  | un | 3     | my.jn | Ap        | Britain     | woods.   | Sk co              | Eng. bot. 995       |
| 13151 juncea W. en.     | rushy                 | ▲ | △  | un | 2     | my.jn | Ap        | N. Amer.    | 1820.    | Sk co              | Eng. bot. 2404      |
| 13152 strigosa W.       | loose pendulous       | ▲ | △  | un | 2     | ap.my | Ap        | England     | woods.   | Sk co              | Eng. bot. 994       |
| 13153 recurva W.        | glaucous              | ▲ | △  | un | 1     | my.jn | Ap        | England     | hea.     | Sk co              | Eng. bot. 1506      |
| 13154 nutans W.         | nodding               | ▲ | △  | un | 2     | jn.jl | Ap        | Austria     | 1815.    | Sk co              | Host. gra. 1. t. 83 |
| 13155 acuminata W.      | acuminated            | ▲ | △  | un | 1½    | jn.jl | Ap        | Istria      | 1818.    | Sk co              | Host. gra. 1. t.97  |
| 13156 filiformis W.     | slender-leaved        | ▲ | △  | un | 2     | jn.jl | Ap        | Britain     | bogs.    | Sk co              | Eng. bot. 904       |
| 13157 aquatilis W.      | water                 | ▲ | △  | un | 1     | jn.jl | Ap        | Lapland     | 1813.    | Sk co              | Eng. bot. 580       |
| 13158 acuta W.          | slender-spiked        | ▲ | △  | un | 2     | my.jn | Ap        | Britain     | wat.pl.  | Sk co              | Eng. bot. 580       |
| 13159 paludosa W.       | lesser common         | ▲ | △  | un | 2     | my.jn | Ap        | Britain     | wat.pl.  | Sk co              | Eng. bot. 807       |
| 13160 riparia W.        | great common          | ▲ | △  | un | 2     | ap.jn | Ap        | Britain     | riv.ba.  | Sk co              | Eng. bot. 579       |
| 13161 vesicaria W.      | short-spiked          | ▲ | △  | un | 2     | my.jn | Ap        | Britain     | mar.     | Sk co              | Eng. bot. 779       |
| 13162 ampullacea W.     | slender-beaked        | ▲ | △  | un | 2     | my.jn | Ap        | Britain     | bogs.    | Sk co              | Eng. bot. 780       |
| 13163 scabina W.        | rye-like              | ▲ | △  | un | 2     | my.jn | Ap        | Austria     | 1824.    | Sk co              | Sch.kar.t.5.f.65    |
| 13164 hordeiformis W.   | Barley-formed         | ▲ | △  | un | 2     | jn.jl | Ap        | France      | 1805.    | Sk co              | S.ca. t.Ddd.f.121   |
| 13165 hirta W.          | hairy                 | ▲ | △  | un | 2     | my.jn | Ap        | Britain     | wat.pl.  | Sk co              | Eng. bot. 685       |
| 13166 levigata W.       | smooth-stalked        | ▲ | △  | un | 3     | my.jn | Ap        | Britain     | bogs.    | Sk co              | Eng. bot. 1387      |
| 13167 crinita W.        | haired                | ▲ | △  | un | 1½    | jn.jl | Ap        | N. Amer.    | 1807.    | Sk co              | S.ca.t.Eee.f.125    |
| 13168 salina W.         | salt-marsh            | ▲ | △  | un | 1     | jn    | Ap        | Norway      | ...      | Sk co              | Eng. bot. 1387      |
| 13169 ambleocarpa W.    | short-fruited         | ▲ | △  | un | 1½    | jn.jl | Ap        | Britain     | ...      | Sk co              | Mi.g.62. t 32.f.12  |
| 13170 bullata W.        | blistered             | ▲ | △  | un | 1½    | jn    | Ap        | N. Amer.    | 1811.    | Sk co              | S.ca. t.Uuu.f.166   |
| 1948. COBRESIA. W.      | COBRESIA.             |   |    |    |       |       |           | Cyperaceae. | Sp. 1.   |                    |                     |
| 13171 caricina W.       | sedgè-like            | ▲ | △  | un | 1     | jl    | Ap        | Switzerl.   | 1820.    | Sk co              | S.ca.t.Rrr.f.161    |
| 1949. UNCYNIA. Rich.    | UNCYNIA.              |   |    |    |       |       |           | Cyperaceae. | Sp. 1-4. |                    |                     |
| 13172 phleoides Rich.   | Cat's-tail-like       | ▲ | △  | un | 1     | jl    | Ap        | S. Amer.    | 1821.    | Sk co              | Cav. ic. t.464. f.1 |
| 1950. ZE'A. W.          | INDIAN CORN.          |   |    |    |       |       |           | Gramineae.  | Sp. 2.   |                    |                     |
| 13173 Maÿa W.           | common                | ○ | ag | 2  | jn.jl | Ap    | America   | 1562.       | S r m    | Lam. ill. t. 749   |                     |
| 13174 Curagujá Mol.     | Valparaiso Cross-corn | ○ | ag | 1  | jn.jl | Ap    | Chili     | 1824.       | S r m    |                    |                     |
| 1951. CO'IX. W.         | JOH'S TEARS.          |   |    |    |       |       |           | Gramineae.  | Sp. 2-4. |                    |                     |
| 13175 Láchryma W.       | common                | △ | cu | 2  | jn.jl | Ap    | E. Indies | 1596.       | S l p    | Bot. mag. 2479     |                     |
| 13176 agréstis W.       | round-fruited         | △ | cu | 2  | jn.jl | Ap    | E. Indies | 1812.       | S l p    | Ru. am.6. t.9. f.1 |                     |



History, Use, Propagation, Culture.

extreme rigour of his climate. *C. remota* is a very elegant plant. *C. paniculata* grows in bogs in immense tufts, making a firm support for the heaviest bodies. *C. Fraseri* is the handsomest species of the genus, resembling at a short distance when in flower, one of the Liliaceae. *C. riparia* has leaves half an inch wide, and from one to three feet long; in Italy the leaves are used by the glass-makers to bind their wine flasks; by the chair-makers to bottom chairs; and by the coopers to place in the junctures in the heads of casks, in the same manner as the leaves of the Typha are used in the same country, and the stalks of *Scirpus lacustris* in England. *C. arenaria* increases rapidly in loose sand, and is sometimes planted with a view of fixing soils of this description, along with *Elymus* and *Arundo*.

1948. *Cobresia*. Named by Willdenow, after a German nobleman of the name of De Kobres, who is said to have been a great promoter of natural history. The plants resemble *Carex*.

- 13135 Male spike sol. Scales obl. with very long beaks: female cylind. 2; stalk of the lower exserted, Stigm. 3, Fr. ovate inflated 5-nerved beaked
- 13136 Male spike sol.: fem. 2 obl. close; low, stalk. Stigm. 3, Fr. ellipt. glob. shin. bifid at end larg. than ov. scale
- 13137 Male spike sol.: fem. 3-rem.; lower stalk. Stigm. 3, Fr. ov. nerv. memb. at mouth long. than mucron. scale
- 13138 Male spike sol.: fem. 3 few-fl. 2 close sessile; lower rad. on a very long stalk, Stigm. 3, Fr. obov. obl. 3-cornered with a very short beak
- 13139 Sheaths none, Bractees foliaceous auric. at base, Spikes sess. obl. or subcylind. obt. Fruit broadly elliptical
- 13140 Fertile spikes nearly sessile cylindric. filif. acumin. Fr. ovate somewhat acute plane above on each side, Culm acutely angular straight
- 13141 Fert. spikes cylind. very long droop. Fr. ov. short. acum. bif. at extremity closely imbricated, Leaves broad
- 13142 Dignous, Sheaths none, Spikes ovate: upper sessile, Leaves somewhat recurved rigid, Fruit compressed
- \* 3. *Male spike solitary, female all stalked.*
- 13143 Fert. spikes few-fl. lax drooping, Fr. as long as ovate membranac. decid. scales oblongo-ovate acuminate
- 13144 Fert. spikes pedunculated oblongo-cylind. subpendul. Bract. subfoliac. Fruit ov.-ellipt. tumid obt. glabrous
- 13145 Sheaths elongated shorter than the flower-stalk, Fruit elliptical ovate beaked (black) bifid at the point
- 13146 Fert. spikes narrow obl. very few-fl. lax pendul. Bract. substaccaceous, Scales acute longer and broader than the fruit, Fruit ovate somewhat acumin. striated
- 13147 Fert. spikes oblongo-ovate pendulous, Bractees substaccaceous, Scales acute as long as the fruit, Fruit ellipt. rotundate striated shortly mucronate
- 13148 Fertile spikes upon long footstalks cylind. pendul. Bract. very leafy, Scales setaceous, Fruit oblong very much acuminate cloven at the tips striated
- 13149 Male spike sol.: fem. about 4 remote filiform stalked cernuous, Stigm. 3, Fr. dist. altern. obl. beaked bifid
- 13150 Fert. spikes filif. rather slender slightly drooping, Fr. broadly ov. much acumin. cleft at point, Lvs. narrow
- 13151 Male spike solit.: fem. usually twin stalk. filif. Stigm. 3, Fr. lanc. hisp. scabr. 2-toothed long. than obl. scale
- 13152 Fert. spikes slend. filif. nearly erect, Fruit ov.-lanc. nerved slightly recurv. loose. imbric. Lvs. rather broad
- \* 4. *Male spikes more than one.*
- 13153 Fertile spikes subcylindrical drooping, Fruit obovato-globose obtuse rather downy entire at the point
- 13154 Male spikes twin: fem. twin obl. sess. rem. Stigm. 3, Fr. ov. nerved forked ventric. larg. than ov. lanc. scale
- 13155 Male spikes 3: fem. twin on short stalks nodd. cylind. Stigmas 3, Fr. ellipt. ventricose with a short ent. beak
- 13156 Fert. spikes short. peduncul. oblongo-cylind. their cal. subscup. Fr. ov. short. beak. bif. at point very pubes.
- 13157 Lvs. subsessile sublin. thickened, Stigmas 2, Fr. ellipt. with short beak ent. at end as long as rounded scales
- 13158 Fert. spikes long cylind. acum. slender erect when in fruit, Fr. oval swelling subacum. entire at point, Culm acutely angular scabrous
- 13159 Scal. of sterile spike obtuse, Fertile spikes cylind. obtuse, Fruit oblongo-ovate acute bifid at point striated
- 13160 Foliaceous, Scal. of sterile spike acum. Fertile spikes scarcely peduncul. broadly cylindrical acute, Fruit ovate subacum. bifid at the point
- 13161 Fert. spikes cylind. slightly droop. Scal. lanc. Fr. broadly ovate inflat. subulato-rostrate deeply bifid at point
- 13162 Fert. spikes cylind. long near erect. Scal. lanc. Fr. crowd. subglob. inflat. setaceo-rostr. slightly bif. at point
- 13163 Male spikes 2: female 3 obl. remote subsessile, Stigmas 3, Fr. obl. compr. rostr. bifid ciliate serrat. at edge
- 13164 Male spikes 2: female 3 obl. remote subsessile; lower subrad. Stigmas 3, Fr. ovate comp. 2-toothed hairy
- 13165 Bractees long foliac. Fertile spikes short cylind. distant their scal. cuspidate, Fr. ov. with long beak hairy
- 13166 Fert. spikes droop. cylind. all the scal. acum. or mucr. Fr. ov. triang. with rather long acum. beak bif. at point
- 13167 Male spikes twin: fem. 4 dist. stalk. pendul. cylind. Stigm. 2, Fr. round. ellipt. ventric. with very short beak
- 13168 Male spikes 2: fem. 2 rem. on very long stalks erect obl. Stigm. 2, Fruit ellipt. with short beaks ent. at end
- 13169 Male spikes about 4: female 2 erect stalked cylind. Stigmas 3, Fr. obov. obt. shorter than obl. blunt scale
- 13170 Male spikes 3: female 2 cylind. stalked erect, Stigm. 3, Fr. ov. glob. beaked with 2 forks, Beaks hispid

13171 Spikes 3 or 4 alternate male above

13172 Fruit oblong 3-cornered smooth at edge

13173 Leaves entire

13174 Leaves serrated

\*

13175 Culm half round at top and obtuse, Flowers naked, Fruit ovate

13176 Culm round, Flowers naked, Fruit nearly round



and Miscellaneous Particulars.

1940. *Uncinia*. So called from *οὐκνός*, a hook, in allusion to the hooked awn, which in the fruit becomes hardened. Plants with the habit of *Carex*.

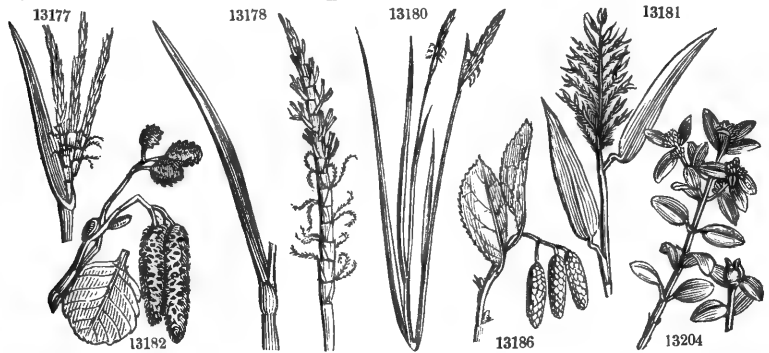
1950. *Zea*. The Greek name of corn of some kind. It is derived from *ζωω*, to live, and applied to this nutritive plant with propriety. The word *Maize* is the denomination of the vegetable among the South Americans. *Zea* Curagua is the curious Valparaiso corn, to which a sort of religious reputation is attached, on account of the grains, when roasted, splitting regularly into the form of a cross. Of the well known Indian corn, *Z. Mays*, there are numerous varieties, some of which are sufficiently hardy to thrive in this climate.

1951. *Coin*. A name used by Theophrastus to designate a kind of grass. *C. Lachryna*, commonly called Job's tears, derives its name from the appearance of its shining pearly fruit, which, when suspended on its slender pedicels, resembles in no inconsiderable degree a falling tear. Tropical grasses, which flower and seed plentifully in rich light soil.

|                                       |               |        |   |      |                   |                   |                 |    |     |                        |
|---------------------------------------|---------------|--------|---|------|-------------------|-------------------|-----------------|----|-----|------------------------|
| *1952. TRIPSACUM <i>W.</i> TRIPSACUM. |               |        |   |      | <i>Gramineae.</i> | <i>Sp. 3-4.</i>   |                 |    |     |                        |
| 13177 dactyloides <i>W.</i>           | rough-seeded  | ♂ Δ un | 4 | au   | Ap                | Virginia          | 1640.           | D  | p.l | Lam. ill. t. 750       |
| 13178 monostachyon <i>W.</i>          | single-spiked | ♂ Δ un | 2 | au   | Ap                | N. Amer.          | 1815.           | D  | p.l | W. hort. ber. t. 1     |
| †13179 hermaphroditum <i>W.</i>       | hermaphrodite | ♂ □ un | 2 | au.s | Ap                | Jamaica           | 1776.           | D  | p.l |                        |
| 1953. HETEROPOGON <i>Rich.</i>        | HETEROPOGON.  |        |   |      |                   | <i>Gramineae.</i> | <i>Sp. 1-2.</i> |    |     |                        |
| 13180 gláber <i>Rich.</i>             | smooth        | ♂ Δ un | 2 | au   | Ap                | Switzerl.         | 1800.           | D  | co  | All. ped. t. 91. f. 4  |
| 1954. OLYRA <i>W.</i>                 | OLYRA.        |        |   |      |                   | <i>Gramineae.</i> | <i>Sp. 1-4.</i> |    |     |                        |
| 13181 paniculáta <i>W.</i>            | broad-leaved  | ♂ □ un | 3 | jl   | Ap                | W. Indies         | 1783.           | Sk | s.p | Sl. jam. 1.t. 64. f. 2 |

TETRANDRIA.

|                              |                 |   |    |    |       |                       |                   |         |    |     |                        |
|------------------------------|-----------------|---|----|----|-------|-----------------------|-------------------|---------|----|-----|------------------------|
| 1955. ALNUS <i>W.</i>        | ALDER.          |   |    |    |       | <i>Amentaceae.</i>    | <i>Sp. 6-9.</i>   |         |    |     |                        |
| 13182 glutinosa <i>W.</i>    | common          | ♂ | ec | 25 | mr.ap | Ap                    | Britain           | wat.pl  | L  | m.s | Eng. bot. 1508         |
| β laciniáta                  | cut-leaved      | ♂ | or | 25 | mr.ap | Ap                    | Britain           | ...     | L  | m.s | Willd. arb. 44         |
| 13183 oblongata <i>W.</i>    | oblong-leaved   | ♂ | or | 20 | jl    | Ap                    | S. Europe         | 1730.   | L  | m.s |                        |
| β elliptica                  | elliptic-leaved | ♂ | or | 20 | jl    | Ap                    | .....             | ...     | L  | m.s |                        |
| 13184 incána <i>W.</i>       | hoary-leaved    | ♂ | or | 20 | jn    | Ap                    | Europe            | 1780.   | L  | lp  |                        |
| β anguláta                   | elm-leaved      | ♂ | or | 20 | jn    | Ap                    | .....             | ...     | L  | lp  |                        |
| 13185 unduláta <i>W.</i>     | curl-leaved     | ♂ | or | 20 | my.jn | Ap                    | N. Amer.          | 1782.   | L  | lp  |                        |
| 13186 serruláta <i>W.</i>    | notch-leaved    | ♂ | or | 20 | mr    | Ap                    | N. Amer.          | 1789.   | L  | lp  | Abb. ins. 2. t. 92     |
| 13187 cordifolia <i>Tem.</i> | heart-leaved    | ♂ | or | 20 | my.jn | Ap                    | Naples            | 1818.   | L  | co  |                        |
| 1956. BETULA <i>W.</i>       | BIRCH.          |   |    |    |       | <i>Amentaceae.</i>    | <i>Sp. 15-19.</i> |         |    |     |                        |
| 13188 álba <i>W.</i>         | common          | ♂ | tm | 40 | ap.jn | Ap                    | Britain           | moi.w.  | S  | co  | Eng. bot. 2198         |
| 13189 pen'dula <i>Roth.</i>  | weeping         | ♂ | or | 40 | ap.jn | Ap                    | Britain           | woods   | S  | co  |                        |
| 13190 populifolia <i>W.</i>  | Poplar-leaved   | ♂ | or | 30 | jl    | Ap                    | N. Amer.          | 1750.   | L  | co  | Mich. arb. 2. t. 2     |
| 13191 excélsa <i>W.</i>      | tall            | ♂ | tm | 60 | my    | Ap                    | N. Amer.          | 1767.   | S  | co  | Dend. brit. 95         |
| 13192 daúrica <i>W.</i>      | Daurian         | ♂ | tm | 30 | jl    | Ap                    | Siberia           | 1786.   | L  | co  | Pall. ross. 1. t. 39   |
| 13193 nígra <i>W.</i>        | red             | ♂ | tm | 60 | jl.au | Ap                    | N. Amer.          | 1736.   | L  | co  | Dend. brit. 153        |
| 13194 lanulosa <i>Mich.</i>  | woolly          | ♂ | tm | 70 | jl.au | Ap                    | N. Amer.          | 1817.   | L  | co  |                        |
| 13195 papyrácea <i>W.</i>    | paper           | ♂ | tm | 50 | jn    | Ap                    | N. Amer.          | 1750.   | L  | co  | Willd. arb. t. 2. f. 1 |
| 13196 lénta <i>W.</i>        | soft            | ♂ | tm | 50 | jl    | Ap                    | N. Amer.          | 1759.   | L  | co  | Dend. brit. 144        |
| carpinifolia <i>Ehr.</i>     | smooth-dwarf    | ♂ | cu | 8  | my    | Ap                    | Scotland          | moi.h.  | L  | co  | Eng bot. 2326          |
| 13197 nána <i>W.</i>         | hairy-dwarf     | ♂ | or | 6  | ap.my | Ap                    | N. Amer.          | 1762.   | L  | s.p | Jac. vind. 2. t. 122   |
| 13198 púmila <i>W.</i>       | Pontic          | ♂ | or | 12 | ap.my | Ap                    | Turkey            | ...     | L  | s.p | Dend. brit. 94         |
| 13200 ováta <i>W.</i>        | ovate           | ♂ | or | 15 | ap.my | Ap                    | Hungary           | 1820.   | L  | co  | Dend. brit. 96         |
| 13201 fruticosa <i>W.</i>    | shrubby         | ♂ | or | 6  | ap.my | Ap                    | Siberia           | 1818.   | L  | co  | Dend. brit. 97         |
| 13202 pubéscens <i>Ehr.</i>  | pubescent       | ♂ | or | 30 | ap.my | Ap                    | Germany           | 1812.   | L  | co  |                        |
| †1957. BUXUS <i>W.</i>       | BOX TREE.       |   |    |    |       | <i>Euphorbiaceae.</i> | <i>Sp. 3.</i>     |         |    |     |                        |
| 13203 baleárica <i>W.</i>    | Minorca         | ♂ | or | 8  | jl    | Y.G                   | Minorca           | 1780.   | C  | co  |                        |
| 13204 sempervirens <i>W.</i> | common          | ♂ | or | 8  | ap    | Y.G                   | England           | ch.hil. | C  | co  | Eng. bot. 1341         |
| β angustifolia               | narrow-leaved   | ♂ | or | 8  | ap    | Y.G                   | .....             | ...     | C  | co  |                        |
| γ suffruticosa               | dwarf           | ♂ | or | 1  | n     | ...                   | Y.G               | .....   | Sk | co  |                        |
| 13205 chinénsis <i>Link.</i> | Chinese         | ♂ | or | 3  | n     | Y.G                   | China             | 1802.   | C  | co  |                        |



History, Use, Propagation, Culture,

1952. *Tripsacum*. So called by Linnæus, from *τριβω*, to bruise or crush, in allusion to the purpose to which its grain may be applied. Forage grasses of the West Indies.

1953. *Heteropogon*. From *heteros*, various, and *πωγων*, a beard; in allusion to the various kinds of awns with which the flowers are furnished.

1954. *Olyra*. A name under which Homer speaks of a grain which was used as the food of horses, and which has been thought analogous to Barley. The plant now so called is a native of America, and has no resemblance to that of the ancients.

1955. *Alnus*. From the Celtic word *al*, near, and *lan*, the edge of a river, in reference to the places where the species grow. *A. glutinosa*, *Aulne*, Fr., *Eller*, Ger., and *Alno*, Ital., is a well known timber tree, which will grow in marshy situations. The timber is applied to a variety of purposes, and in general for all works intended to be constantly under water, for turnery and furniture. The bark is used by dyers and tanners; the sap being of a yellow color and very astringent. There is a variety with cut leaves sold by the nurserymen as an ornamental tree, though it is more curious than showy.

1956. *Betula*. *Betu* is the Celtic word for the Birch. *Bouleau*, Fr., *Birchenbaum*, Ger., and *Betulla*, Ital. *B. pendula* is the most graceful tree of the genus; it grows both in mountainous situations and bogs, from Lapland to the subalpine parts of Italy and Asia. *B. lenta*, the mahogany birch, mountain mahogany, or cherry birch of Canada, abounds in the middle states of Pennsylvania, New York, and the Jerseys; but disappears altogether in the higher latitudes of the northern states. It is thought a very fit tree for planting in the valleys of the mountainous districts of Britain. Its growth is rapid, and the timber is close grained, beautifully variegated, and well adapted for cabinet work. The leaves, which appear early in spring, possess

- 13177 Spikes 3 clustered : male above ; female below  
 13178 Spike solitary : male above ; female below  
 13179 Spike solitary hermaphrodite flexuose, Spikelets somewhat distant

13180 Culm nearly simple, Sheath of leaves bearded at edge, Spike smooth

13181 Culm branched, Panicle terminal

*TETRANDRIA.*

13182 Lvs. roundish cuneiform obt. lobed at margin and serrat. somew. glutin. downy in axils of veins beneath

β Leaves oblong pinnatifid, Segments cut

13183 Leaves oblong blunthigh glutinous, Axils of the veins naked

β Leaves elliptical

13184 Leaves oblong acute downy beneath, Axils of the veins naked, Stipules lanceolate

β Leaves green beneath, Petioles green

13185 Lvs. obl. acute rounded at base, Petioles and veins hairy beneath, Axils of veins naked, Stipules ov.-obl.

13186 Leaves obovate acuminate, Veins and axils of veins beneath hairy, Stipules elliptical blunt

13187 Leaves cordate acuminate entire lucid above

13188 Leaves ovato-deltoid acute doubly serrated glabrous

13189 Leaves ovate acuminate cut serrate smooth, Branches scabrous pendulous

[smooth

13190 Lvs. delt. with long points unequal serrat. quite smooth, Scales of cones with lat. lobes roundish, Petioles

13191 Leaves ovate acute serrated, Scales of cones with lat. lobes rounded, Petioles downy shorter than pedunc.

13192 Leaves ovate narr. at base ent. unequally toothed smooth, Scales of cones ciliated : lateral lobes rounded

13193 Lvs. rhomb. ov. doubly serr. acute downy beneath entire at base, Scales of cones vill. with lin. uneq. lobes

13194 Leaves deltoid ovate small, Scales of female catkin densely woolly on the outside

13195 Leaves ovate acuminate doubly serrate, Veins hairy beneath

13196 Leaves cordate-ovate finely serrated acuminate, Scales of cones with blunt equal lobes and elevated veins

13197 Leaves orbicular crenate

13198 Leaves orbicular obovate serrated beneath with the branches downy, Female catkins cylindrical

13199 Petiole downy, Leaves rhomboid cut-toothed obtuse nearly smooth with tufts of hair in the axilla beneath

13200 Lvs. ovate doubly serr. smooth, Fem. peduncles branched, Scales of cones with equal trunc. nerved lobes

13201 Leaves roundish ovate nearly equally serrate smooth, Female catkins oblong

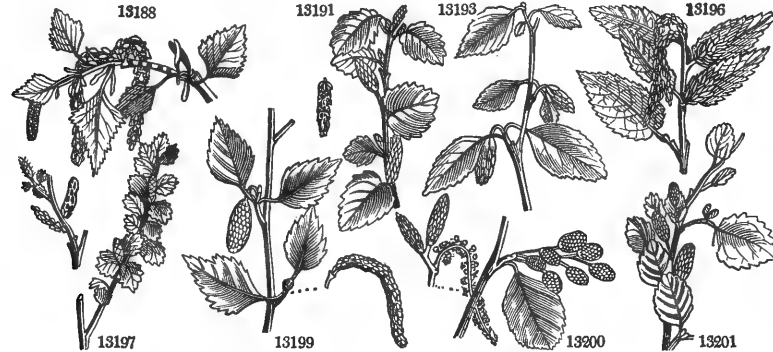
13202 Lvs. deltoid acute subord. doubly serr. beneath with branches pubesc. Scales of cones with lateral lobes

[rounded

13203 Leaves oblong, Petioles smooth, Anthers sagittate linear

13204 Leaves ovate, Petioles hairy at edge, Anthers ovate sagittate

13205 Leaves opposite oblong : younger downy ; old ones smooth, Fl. axillary solitary



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a peculiar fragrance, which they retain after being dried in a stove, affording by infusion an agreeable diluent, superior to some of the common teas of commerce.

*B. populifolia* and *papyracea* are elegant rapid growing trees, well deserving culture for their timber. All the species are ornamental, and more or less fragrant ; and *B. pumila* and *nana* are pretty little shrubs. Of the *Betula papyracea* the North American Indians construct their large portable canoes, from which circumstance that species is known by the name of canoe birch. *Betula lenta* is the most interesting of the genus, on account of the excellence of its wood. It is known by the names of mountain mahogany, black birch, cherry birch, and sweet birch. This last appellation it has from the sweet scent the branchlets give when bruised.

1957. *Burus*. An alteration of *ρυξος*, its Greek name. *B. sempervirens*, *Buis*, Fr., *Buchsbaum*, Ger., and *Bosso*, Ital. is one of the most useful of evergreen shrubs ; edgings of the dwarf variety are of universal use in the walled gardens of Europe ; and what is called the tree box is not less valuable as an evergreen shrub, which will grow under the shade and drip of trees. The box is a native of most parts of Europe, from Britain southwards, and is very abundant in different parts of France and Switzerland. It abounds in many countries of Asia, as about Mount Caucasus, in Persia, China, Cochin China, and America. It was formerly very common in England, but has gradually disappeared as agriculture extended. Box-Hill in Surrey, Boxley in Kent, and Boxwell in Gloucestershire, are named from their abounding in this tree. The timber of the box tree is of considerable value. It is sold by weight, and being very hard and smooth, and not apt to warp, is very well adapted to a variety of nice works. It is as extensively employed now as it appears to have been in the days of Evelyn, " for the turner, engraver, carver, mathematical instrument maker, comb and pipe or

|                             |                |   |   |     |                      |        |    |                 |            |    |      |                          |  |
|-----------------------------|----------------|---|---|-----|----------------------|--------|----|-----------------|------------|----|------|--------------------------|--|
| 1958. CICCA. <i>W.</i>      | CICCA.         |   |   |     | <i>Euphorbiaceæ.</i> | Sp. 1. |    |                 |            |    |      |                          |  |
| 13206 <i>disticha W.</i>    | long-leaved    | ♂ | □ | fr  | 10                   | ...    | G  | E. Indies       | 1796.      | C  | p.1  | Jac. schœ. 2. t. 194     |  |
| 1959. MORUS. <i>W.</i>      | MULBERRY.      |   |   |     |                      |        |    | <i>Urticææ.</i> | Sp. 5-7.   |    |      |                          |  |
| 13207 <i>alba W.</i>        | white          | ♂ | □ | clt | 30                   | jn     | Ap | China           | 1596.      | L  | co   | Schk. han. 3. t. 290     |  |
| 13208 <i>tatarica W.</i>    | Tartarian      | ♂ | □ | or  | 20                   | jn     | Ap | Tartary         | 1784.      | L  | co   | Pall. ros. 2. t. 52      |  |
| 13209 <i>nigra W.</i>       | common         | ♂ | □ | fr  | 30                   | jn     | Ap | Italy           | 1548.      | L  | co   | Dend. brit. 159          |  |
| 13210 <i>rûbra W.</i>       | red            | ♂ | □ | or  | 10                   | jn, jl | Ap | N. Amer.        | 1629.      | L  | r. m |                          |  |
| 13211 <i>tinctoria W.</i>   | Fustick-wood   | ♂ | □ | or  | 20                   | ...    | Ap | W. Indies       | 1739.      | C  | r. m | Plum. ic. t. 204         |  |
| 1960. BEHMERIA. <i>W.</i>   | BEHMERIA.      |   |   |     |                      |        |    | <i>Urticææ.</i> | Sp. 4-13.  |    |      |                          |  |
| 13212 <i>cylindrica W.</i>  | cylindrical    | ♂ | △ | un  | 4                    | jn, au | G  | Virginia        | 1759.      | Sk | s.p  | Slo. jam. 1. t. 82. f. 2 |  |
| 13213 <i>rubescens W.</i>   | tree           | ♂ | □ | or  | 10                   | f. my  | G  | Canaries        | 1779.      | C  | s.p  | Jac. frag. t. 5. f. 1    |  |
| 13214 <i>ramiflora W.</i>   | branch-flower. | ♂ | △ | un  | 8                    | f. my  | G  | Jamaica         | 1823.      | C  | co   | Jacq. amer. t. 137       |  |
| 13215 <i>lateriflora W.</i> | side-flowering | ♂ | △ | un  | 1½                   | f. my  | G  | N. Amer.        | 1820.      | Sk | co   |                          |  |
| 1961. PILEA. <i>Lindl.</i>  | PILEA.         |   |   |     |                      |        |    | <i>Urticææ.</i> | Sp. 1-3.   |    |      |                          |  |
| 13216 <i>muscosa Lindl.</i> | small-leaved   | ♂ | △ | pr  | ½                    | ap, my | G  | W. Indies       | 1793.      | C  | co   | Lind. coll. 4.           |  |
| 1962. URTICA. <i>W.</i>     | NETTLE.        |   |   |     |                      |        |    | <i>Urticææ.</i> | Sp. 32-67. |    |      |                          |  |
| 13217 <i>pulifera W.</i>    | Roman          | ♂ | ○ | w   | 1½                   | jn, au | G  | England         | rub.       | S  | co   | Eng. bot. 148            |  |
| 13218 <i>balearica W.</i>   | Balearic       | ♂ | ○ | w   | 1½                   | jn, jl | G  | Balearic I.     | 1733.      | S  | co   | Blackw. t. 321. f. 1     |  |
| 13219 <i>convexa Hort.</i>  | convex         | ♂ | ○ | w   | 1½                   | jn, jl | G  | .....           | 1824.      | S  | co   |                          |  |
| 13220 <i>Dodartii W.</i>    | Dodart's       | ♂ | ○ | w   | 1½                   | jl, au | G  | S. Europe       | 1683.      | S  | co   |                          |  |
| 13221 <i>pumila W.</i>      | dwarf          | ♂ | ○ | w   | 1                    | jl, au | G  | N. Amer.        | 1793.      | S  | co   |                          |  |
| 13222 <i>involuta B. M.</i> | involucered    | ♂ | □ | un  | 1                    | jl, au | G  | W. Indies       | 1821.      | C  | co   | Bot. mag. 2481           |  |
| 13223 <i>grandifolia W.</i> | great-leaved   | ♂ | □ | un  | 3                    | jl, au | G  | Jamaica         | 1793.      | C  | co   | Slo. jam. 1. t. 83. f. 2 |  |



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flute maker; and the roots for the inlay, and cabinet maker. Of box are made wheels and shivers, pins, pegs for musical instruments, nut-crackers, button-moulds, weavers' shuttles, hollar-sticks, bump-sticks, and dressers for shoemakers, rulers, rolling-pins, pestles, mail-balls, beetles, tops, tables, chessmen, screws, bobbins for bone-lace, spoons, knife-handles, but especially combs.

The English wood is esteemed inferior to that which comes from the Levant, and the American box is said to be preferable to ours, for most purposes; but the English is superior for the purpose of the engraver.

The ancients made combs of box, and musical instruments to be played upon by the mouth. The Romans likewise clipped it into form, for which nothing, says Pliny, is more fit. And Martial mentions clipped box trees in the gardens at Bassus's country-house.

The tree box was second to the yew with us in former times for the purpose of being clipped into the shape of animals, &c.; but the dwarf box stood unrivalled "for bordering up a knot, and was esteemed a marvellous fine ornament to the flower garden."

The branches were in request among our ancestors for decking up houses; they are still seen among other evergreens in churches at Christmas, and in some countries they are borne by attendants at funerals.

Box has been much celebrated as a medicine in the venereal disease, colicks, intermittent fevers, and even madness. According to Dr. Blaine, it is the principal ingredient in Well's Watford Drink, which is given as a preventive to canine madness.

Pliny affirms, that no animal will touch the seed of box. Gmelin relates, that the branches are fatal to the camels that eat them. None of our animals seem to touch this tree. Corsican honey was supposed by the ancients to owe its infamy to the bees feeding on the box.

1958. *Cicca.* A word of unknown meaning. *Cicca disticha* thrives in light loamy soil, and is increased by cuttings with their leaves on, planted in sand, and covered with a hand-glass.

1959. *Morus.* *Moræa* was the Greek name of the Mulberry; it is derived from the Celtic *mor*, which signifies black. *Murier*, Fr., *Maulbeerbaum*, Ger., and *Moro*, Ital. *M. alba* is commonly cultivated in France and other countries for its leaves, to feed silk-worms; though in some parts of Spain and in Persia they are said to prefer the black Mulberry. In China, it appears that both sorts are grown for the same purpose. The most valuable variety of *M. alba* is one grown in Italy, and especially in Lombardy, with vigorous shoots, and much larger leaves than the other. A number of plants of this variety have been lately imported for the purpose of making a plantation in the south of Ireland, with a view to try the growth of silk in that country. In France the white Mulberry is grown as pollard elms are in England; in Lombardy it is grown exactly in the same way as we grow willows for baskets, and in similar soil; in China it is also grown in moist loamy soil, and both there and in the East Indies as low bushes, and the plantation rooted up and renewed every three or four years. In many parts of the continent, when the leaves are wanted for the worms, they are stripped off the young shoots, which are left naked on the tree; in other places the shoots are cut off, which is not so injurious to the tree, while the points of the shoots, as well as the leaves, are eaten by the worms. The plants are sometimes raised by seed, but more commonly by layers; the Italian variety is frequently grafted on seedling stocks of the common sort, in order to preserve it from degenerating. In the East Indies, the plants are raised from cuttings, three or four of which are placed together where they are finally to remain. (*Encyc. of Agr. 884.*)

The fruit of the white Mulberry is white, and less acid than that of the black species. *M. nigra* is naturally a stronger tree than the other; the fruit is of a dark blackish red, and of an agreeable aromatic and acid flavor. It has a place in the *Materia Medica*, as cooling and laxative, allaying thirst, and being grateful in febrile diseases. Young trees, like most others of the Monœcious class, often produce

13206 Leaflets oblong, Racemes lateral

13207 Leaves deeply cordate unequal at the base ovate lobed unequally serrated smoothish

13208 Leaves slightly cordate equal at base ovate or lobed equally serrated smooth

13209 Leaves cordate ovate or lobed unequally toothed scabrous

13210 Leaves cordate ovate acuminate or 3-lobed equally serrate scabrous soft beneath, Fem. spikes cylindrical

13211 Leaves oblong unequal at base, Spines axillary solitary

13212 Leaves opp. ovate-obl. acum. toothed smooth, Fl. dioecious, Male spikes clust. interrupt. : fem. cylindrical

13213 Lvs. altern. obl. narrow, at each end entire, Spikes axill. clustered interruptedly branched, Branches hairy

13214 Lvs. altern. broadly lanc. acum. serrated rugose, Fl. cluster. axill. and lateral monocious, Males 3-androus

13215 Lvs. altern. ovate-lanceolate acuminate serrated scabrous, Fl. clustered lateral, Stem herbaceous

13216 Leaves ovate acute entire, Stem simple ascending

13217 Leaves opposite ovate or somewhat heart-shaped deeply serrated, Heads of fruit globose

13218 Leaves opposite cordate serrate, Fruit-bearing catkins globose

13219 Leaves opposite entire convex oblong, Fruit-bearing catkins globose

13220 Leaves opposite ovate nearly entire, Heads of fruit globose

13221 Leaves opp. ovate blunt-pointed 3-ribbed serrated, Fl.-stalks somewhat corymbose shorter than footstalks

13222 Leaves opposite ovate rugose obtuse, Flower-stalks in the axillæ of the upper leaves

13223 Leaves opposite ovate pointed copiously serrated, Stipulas elliptical entire glauc. Corymbs much branched axillary longer than the footstalks



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only male blossoms for many years after they are planted, and yet afterwards become fruitful. As the tree increases in age, it increases in fruitfulness; and in full grown trees the fruit is much larger and better flavored than in young ones. In some of the old gardens near London, there are mulberry trees of a great age, which are very healthy and fruitful. Bradley says, that most of these were planted in the times of James I., who attempted unsuccessfully to set up a silk manufacture in England. The fruit of the mulberry, like that of the strawberry and raspberry, is said not to undergo the acetous fermentation in the stomach, and therefore it may be safely eaten by gouty and rheumatic persons. It is a mistake, however, to suppose that these fruits are lighter than others which have not the same antifermenative qualities.

The mulberry is generally propagated by layers, but it may also be increased by seeds, cuttings, or grafting. It is generally grown as a standard in orchards; but will produce fruit sooner as an espalier or wall tree.

*M. rubra* has black shoots, rougher leaves than the black mulberry, and a dark reddish fruit, longer than the common sort, and of a very pleasant taste. The tree is cultivated in China for feeding silk-worms, but not so generally as the white mulberry. *M. indica* is also cultivated for the same purpose. *M. tatarica* bears pale red berries of an insipid taste, but eaten in Russia fresh, conserved, or dried; a wine and a spirit are also made from them, and the leaves are used for feeding silk-worms.

*M. tinctoria* is a tall branching tree, with a fine head, smooth leaves, and awl-shaped solitary spines. The whole plant abounds in a slightly glutinous milk of a sulphureous color. The timber is yellow, and a good deal used in dyeing that color, for which it is chiefly imported into Europe, under the name of Fustick-wood. The berries are sweet and wholesome, but not much eaten, excepting by birds.

All the species of *Morus* are remarkable for putting out their leaves late; so that when they appear, gardeners may safely set out their greenhouse plants, taking it for granted, that all danger from frost is over.

160. *Bahmeria*. Named after George Rudolph Böhmer, a German botanist, and a member of the academy of Wittemberg. He published several works, besides an academical dissertation upon the cellular tissue of vegetables. Plants of little beauty, and easy cultivation and propagation.

161. *Pilea*. So called by Mr. Lindley, from *πῖλας*, a cap; in allusion to the nature of one of the divisions of the perianthium. A neat little creeping plant, which makes a good cover to hide the earth of large pots of tropical plants.

162. *Urtica*. A word formed from *uro*, to burn, in allusion to the stinging properties of most of the species. The English term *Nettle* seems to be the Anglo-Saxon *Netel*, which is itself an alteration of *næd*, a needle, in the same language. *U. dioica* grows all over Europe, in Barbary, Siberia, and Japan, in hedges, neglected fields, gardens, and pastures. This species, *U. urens*, and *pitulifera*, with one or two others, are furnished with stings. The small projecting bristles or prickles with which they are covered are tubular, and stand on a bag filled with a poisonous juice; they are perforated at the point, and when they are gently pressed vertically, the pressure at once forces the poison to ascend the tube, and enables the point to lodge it in the skin. The tops of the tender shoots of *U. dioica* are sometimes used as a pot herb early in spring, and they have even been forced for that purpose. A strong decoction of the plant salted, will coagulate milk very readily and without any disagreeable flavor. The stalk is found to have a texture somewhat like that of hemp, and to be capable of being manufactured into cloth, ropes, and paper. The leaves are the only food of the caterpillars of three of our most beautiful butterflies, *Atalanta*, *Paphia*, and *Urtica*, the principal food of the Io, and the occasional food of the *Comma album*; the caterpillars also of the *urticata* and *verticalis* moths feed on it: a great number of other indiscriminate feeders devour its foliage; and the bases of the leaves in autumn are frequently disfigured by tubercles, which contain small maggots, probably producing *Musca Urtica*. As a remedy for the



|                          |                  |      |         |    |               |           |        |                     |
|--------------------------|------------------|------|---------|----|---------------|-----------|--------|---------------------|
| 13224 reticuláta W.      | net-leaved       | ☐ un | 2 jn.au | G  | Jamaica       | 1793.     | C co   | Bot. mag. 2567      |
| 13225 rúfa W.            | rusty            | ☐ un | 1 jn.s  | G  | Jamaica       | 1793.     | C co   |                     |
| 13226 greus W.           | small            | ○ w  | 1 jn.s  | Ap | Britain       | clt.gr.   | C co   | Eng. bot. 1236      |
| 13227 dioica W.          | common           | ☐ w  | 1½ jls  | Ap | Britain       | wa.gr.    | C co   | Eng. bot. 1750      |
| 13228 membranácea W.     | membranous       | ☐ un | 1½ jls  | Ap | Spain         | 1820.     | C co   |                     |
| 13229 crassifólia        | thick-leaved     | ☐ un | 2 jls   | Ap | S. Amer.      | 1822.     | C co   |                     |
| 13230 árdens Link.       | burning          | ○ un | 1 jls   | Ap | Nepal         | 1821.     | S co   |                     |
| 13231 cannabína W.       | Hemp-leaved      | ☐ un | 3 jls   | Ap | Siberia       | 1749.     | S co   | Am.rut. 249.t.25    |
| 13232 rugósa W.          | rough-stalked    | ☐ un | 2 my.jl | Ap | Jamaica       | 1793.     | C co   |                     |
| 13233 nudicaulis W.      | naked-stalked    | ☐ un | 3 my.jl | Ap | Jamaica       | 1793.     | C co   |                     |
| 13234 grácilis W.        | slender-stalked  | ☐ un | 3 jn.au | Ap | Huds. B.      | 1782.     | C co   |                     |
| 13235 Parietária W.      | Pellitory-leav'd | ☐ un | 1 jls   | Ap | Jamaica       | 1793.     | C co   | Slo.jam.1.t.93.f.1  |
| 13236 ciliáta W.         | ciliated         | ☐ un | 1 jls   | Ap | Jamaica       | 1815.     | C co   |                     |
| 13237 pulchrélla Link.   | pretty           | ☐ un | 1½ jls  | Ap | E. Indies     | 1820.     | C co   |                     |
| 13238 scabrélla Roz.     | rough            | ☐ un | 1 ...   | Ap | E. Indies     | 1815.     | C co   |                     |
| 13239 e'stuans W.        | Surinam          | ☐ un | 1 jn.jl | Ap | Surinam       | 1803.     | C co   | Jac.schoe.3.t.388   |
| 13240 canadénsis W.      | Canada           | ☐ un | 3 au.o  | Ap | Canada        | 1656.     | C co   | Pl.alm. t.237.f.2   |
| 13241 nívea W.           | white-leaved     | ☐ un | 2 au.s  | Ap | China         | 1739.     | C pl   | Jac. vind. 2.t.166  |
| 13242 baccifera W.       | berry-bearing    | ☐ un | 4 jl.au | Ap | S. Amer.      | 1793.     | Sk s.p | Bot. rep. 454       |
| 13243 caracásana W.      | Caraccas         | ☐ un | 8 jl.au | Ap | Caraccas      | 1824.     | C co   | Jacq. schoe.f.386   |
| 13244 caravellána Schrk. | long-stalked     | ○ un | 4 jl.au | Ap | S. Amer.      | 1825.     | S co   |                     |
| 13245 elongáta Link.     | lengthened       | ○ un | 3 jl.au | Ap | Philipp. Is.  | 1823.     | S co   |                     |
| 13246 diversifólia Link. | various-leaved   | ☐ un | 3 au.s  | Ap | E. Indies     | 1823.     | S co   |                     |
| 13247 hórrida Link.      | horrid           | ○ un | 3 au.s  | Ap | Nepal         | 1821.     | S co   |                     |
| 13248 arboréscens Link.  | arborescent      | ☐ un | 8 au.s  | Ap | Manilla       | 1822.     | C co   |                     |
| 1963. PACHYSAN'DRA. Mi.  | PACHYSANDRA.     |      |         |    | Euphorbiaceæ. | Sp. 2     |        |                     |
| 13249 procúmbens W.      | trailing         | ☐ pr | ¼ mr.ap | W  | N. Amer.      | 1800.     | D s.p  | Bot. reg. 33        |
| 13250 coriácea Hooker.   | coriaceous       | ☐ pr | 4 jn.jl | W  | Nepal         | 1822.     | C co   | Hook. ex. fl. 148   |
| 1964. DIO'TIS. W.        | DIOTIS.          |      |         |    | Chenopodeæ.   | Sp. 1.    |        |                     |
| 13251 ceratóides W.      | shrubby          | ☐ or | 2 mr    | Ap | Siberia       | 1780.     | L s.p  | Jac. ic. 1. t. 189  |
| 1965. EMPLEU'RUM. W.     | EMPLEURUM.       |      |         |    | Diosmeæ.      | Sp. 1.    |        |                     |
| 13252 serrulátum W.      | Cape             | ☐ or | 3 jn.jl | Pk | C. G. H       | 1774.     | C pl   | Exot. bot. 2. t. 63 |
| 1966. AU'CUBA. W.        | AUCUBA.          |      |         |    | Loranthææ.    | Sp. 1.    |        |                     |
| 13253 japónica W.        | blotch-leaved    | ☐ or | 6 my.jl | Ap | Japan         | 1783.     | C co   | Bot. mag. 1197      |
| 1967. LITTOREL'LA. W.    | SHORE WEED.      |      |         |    | Plantaginææ.  | Sp. 1.    |        |                     |
| 13254 lacústria W.       | Plantain-leav'd  | ☐ tr | ½ jn.au | W  | Britain       | w.s.a.p   | S pl   | Eng. bot. 468       |
| 1968. SERPIC'ULA. W.     | SERPICULA.       |      |         |    | Onagrariæ.    | Sp. 1.—3. |        |                     |
| 13255 répens W.          | creeping         | ☐ tr | ¼ jl.au | W  | C. G. H.      | 1789.     | D pl   | Lam. ill. t. 758    |
| 1969. MACLU'RA. Nutt.    | OSAGE ORANGE.    |      |         |    | Urticææ.      | Sp. 1.    |        |                     |
| 13256 aurantiaca Nutt.   | common           | ☐ fr | 20 ...  | Ap | N. Amer.      | 1818.     | C pl   | Lamb.pin. supp.     |



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sting of the nettle, its own juice, or that of the dock, may be applied. The exotic species are of easy culture.

1963. *Pachysandra*. From *παχυς*, thick, and *ανη ανδρες*, signifying, in botanical language, a stamen; the stamens are very stout. A plant of easy culture in common light soil, and freely increased by suckers from the roots.

1964. *Diotis*. From *δις*, double, and *ωσ αρος*, an ear, on account of the two appendages which exist at the base of the florets. A shrub of no great beauty, which thrives in light soil, and is easily increased by layers or cuttings under a hand-glass.

1965. *Empleurum*. From *εμ*, in, and *πλευρον*, the pleura, or membrane which envelopes the lungs. The seeds of this plant are attached to a sort of coriaceous membrane.

1966. *Aucuba*. The Japanese name of the plant. It is a well known laurel-like evergreen shrub, with leaves mottled with yellow Female flowers only have been produced in the gardens; but according to Kœmpfer,

- 13224 Leaves opposite elliptic-oblong acute serrated towards the point reticulated beneath, Stipulas ovate-entire, Clusters paniced about the length of the footstalks
- 13225 Leaves opposite elliptical acute serrated triple-ribbed their veins hairy, Stipulas roundish permanent, Clusters slightly branched, Stem shrubby shaggy with rusty hairs
- 13226 Leaves opposite elliptical with about 5 ribs, Clusters of flowers nearly simple
- 13227 Leaves ovate acuminate cordate at the base, Clusters of flowers much branched in pairs mostly dioecious
- 13228 Leaves opposite broadly ovate somewhat heart-shaped coarsely serrated, Fls. monœcious : male in twin upright unbranched stalked spikes with winged recept. : fem. in nearly sess. spikes shorter than footst.
- 13229 Leaves opposite ovate obl. acute 3-ribbed serrated thickish reticulated and pale beneath, Corymbs stalked forked longer than the leaves, Flowers tufted
- 13230 Stem petioles and lvs. covered with rigid dense stimuli. Lvs. ov. acum. doubly serrat. Spikes comp. whorled
- 13231 Leaves opposite in three deep pinnatifid segments, Clusters cylindrical in pairs erect
- 13232 Leaves opposite elliptical serrated 3-ribbed rugged, Clusters short dense terminal, Stem simple erect
- 13233 Lvs. chiefly term. opposite ellipt.-lanc. pointed 3-ribbed entire nearly smth. Stem angul. leaf. below, Cluster lateral dioecious
- 13234 Leaves opposite ovato-lanc. serr. heart-shaped at the base, Stem and footstalks hispid, Flowers dioecious, Clusters in pairs somewhat branched about as long as the footstalks
- 13235 Leaves opposite ovato-lanc. entire, Stem much branched, Flowers dioecious
- 13236 Leaves opposite ellipt. 3-ribbed crenate fringed acute at each end entire at the base, Stem divaricated, Flowers aggregate on axillary stalks about the length of the footstalks
- 13237 Leaves long lanc. very rugose : glabrous above ; beneath having a fine white down
- 13238 Stem downy roughish, Lvs. on long stalks ov. acute crenat. downy roughish 3-nerv. Stip. lanc. acute scar.
- 13239 Lvs. alternate ov. serrat. minutely heart-shap. at the base, Clusters axill. forked, Fruit in orbicular corymbs
- 13240 Lvs. alternate ovate somewhat hairy serrated, Stipulas obtuse, Clusters axill. compound spreading shorter than the leaves ; the lower ones male sessile ; upper female stalked.
- 13241 Leaves alternate roundish-ovate pointed toothed 3-ribbed snow white and downy beneath, Clusters axill. repeatedly compound, Fl. fasciculate
- 13242 Leaves alternate heart-shaped toothed prickly as well as the shrubby stem, Calyx of the fruit pulpy
- 13243 Leaves altern. heart-shaped acutely crenate rough above soft and downy beneath, Panicles lateral leafless forked divaricated, Flowers capitate dioecious, Stem arboreous
- 13244 Leaves on long stalks cordate acuminate acutely serrated stinging, Spikes paniced
- 13245 Leaves stalked cordate acuminate serrated stinging, Racemes axillary
- 13246 Leaves cordate entire and 3-lobed coarsely tooth-serrated, Petioles and stem with long strigose prickles
- 13247 Stem with very long stimuli, Leaves pinnatifid with finely toothed segments, Spikes axillary compound
- 13248 Stem downy, Leaves on long stalks ovate-lanceolate acuminate subcrenate rough above soft beneath
- 13249 Stem procumbent, Leaves short oval crenate toothed above, Calyx minutely ciliated
- 13250 Leaves ovate lanceolate acuminate nerved
- 13251 Leaves lanceolate downy, Female flowers woolly
- 13252 Leaves lanceolate ensate crenate smooth, Capsules 1-celled
- 13253 The only species
- 13254 The only species
- 13255 Flowers tetrandrous, Leaves alternate linear lanceolate entire rough
- 13256 A small lactescent tree with alternate entire leaves and spiny branches



and Miscellaneous Particulars.

the fruit is a red oblong drupe, like a laurel berry, with a white sweetish pulp, and a kernel with a bitter taste.

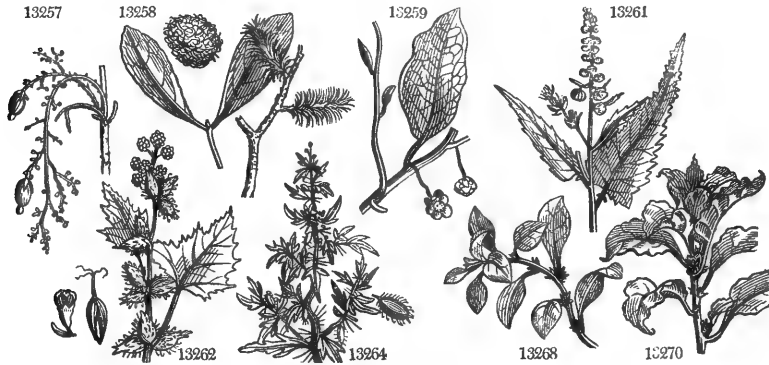
1967. *Littorella*. From *litus*, the shore, in allusion to the places where it grows. A pretty little delicate plant, with long tremulous white stamens.

1968. *Serpicula*. From *serpo*, to creep, on account of the habits of the species.

1969. *Maclura*. Dedicated by Nuttall, to William Maclure, Esq. of the United States, a philosopher, whose devotion to natural history, and particularly to the geology of North America, has scarcely been exceeded by Ramond or Saussure in Europe. A spreading deciduous tree, about twenty or thirty feet high, with a yellow axillary berry the size of an orange, but not so succulent, and said to be as agreeable when fully ripe. It was originally found by Hunter and Dumar, on the banks of the Little Missouri or Washita river, also near Natchitoches and upon the banks of the Arkansas.

PENTANDRIA.

|  |   |     |    |                         |       |       |   |
|--|---|-----|----|-------------------------|-------|-------|---|
| 1970. EXOCARPUS. <i>Lab.</i> EXOCARPUS.          |   |     |    | <i>Coniferæ.</i> Sp. 1. |       |       |   |
| 13257 cupressiformis <i>Lab.</i> Cypress-like    | ♂ | □   | tm | 40                      | ...   | Ap    | V. Di. L 1824. C p.l Lab.voyaget.14         |
| 1971. NEPHELIUM. <i>W.</i> RAMBUTAN.             |   |     |    |                         |       |       | <i>Sapindacæ.</i> Sp. 1.                    |
| 13258 lappaceum <i>W.</i> Bur-seeded             | ♀ | □   | fr | 20                      | ...   | G     | E. Indies 1809. C ap Lam. ill. t. 764       |
| 1972. SCHIZANDRA. <i>W.</i> SCHIZANDRA.          |   |     |    |                         |       |       | <i>Menispermæ.</i> Sp. 1.                   |
| 13259 coccinea <i>W.</i> scarlet-flower'd        | ♂ | □   | or |                         |       | jn.jl | Sc N. Amer. 1806. L ap Bot mag. 1413        |
| 1973. FRANZERIA. <i>Cap.</i> FRANZERIA.          |   |     |    |                         |       |       | ..... Sp. 2-4                               |
| 13260 artemisioides <i>W.</i> Mugwort-leav.      | ♂ | □   | un | 6                       | jls   | G     | Peru 1759. C p.l W. hort. ber. 2            |
| 13261 ambrosioides <i>W.</i> Ambrosia-leav.      | ♂ | □   | un | 4                       | jls   | G     | Mexico 1796. C p.l Cav. ic. t. 2. 200       |
| 1974. XANTHIUM. <i>W.</i> XANTHIUM.              |   |     |    |                         |       |       | ..... Sp. 4-5.                              |
| 13262 Strumarium <i>W.</i> Small Burdock         | ○ | un  | 3  | jls                     | G     |       | England dungh. S co Eng. bot. 2544          |
| 13263 orientale <i>W.</i> oriental               | ○ | un  | 4  | jls                     | G     |       | China 1685. S co Sch. hand. 3. t. 291       |
| 13264 spinosum <i>W.</i> spiny                   | ○ | un  | 3  | jls                     | G     |       | S. Europe 1713. S co Hern. parad. 246       |
| 13265 echinatum <i>W.</i> hedgehog               | ○ | un  | 3  | jls                     | G     |       | ..... S co Co. got. 1784 c. ic.             |
| 1975. AMARANTUS. <i>W.</i> AMARANTH.             |   |     |    |                         |       |       | <i>Amarantacæ.</i> Sp. 37-45.               |
| 13266 tenuifolius <i>W.</i> fine-leaved          | ○ | un  | 1  | jls                     | G     |       | E. Indies 1801. S co                        |
| 13267 angustifolius <i>W.</i> narrow-leaved      | ○ | un  | 1½ | jls                     | G     |       | Levant 1723. S co                           |
| 13268 albus <i>W.</i> white                      | ○ | un  | 1½ | jls                     | G     |       | N. Amer. 1778. S co W. ama. 9. t. 1. f. 2   |
| 13269 græcizans <i>W.</i> Pelitory-leaved        | ○ | un  | 1½ | jls                     | G     |       | N. Amer. 1759. S co W. ama. 8. t. 4. f. 7   |
| 13270 melancholicus <i>W.</i> melancholy         | ○ | or  | 2  | jls                     | Pu    |       | E. Indies 1731. S co W. am. 15. t. 9. f. 18 |
| 13271 tricolor <i>W.</i> three-colored           | □ | or  | 2  | ins                     | Ry    |       | E. Indies 1548. S r.m Kn. th. 2. t. A. 3. 6 |
| 13272 bicolor <i>W.</i> two-colored              | ○ | or  | 1½ | jls                     | Ry    |       | E. Indies 1802. S r.m                       |
| 13273 polygamus <i>W.</i> hermaphrodite          | ○ | un  | 2  | jls                     | G     |       | E. Indies 1780. S co Rum. amb. 5. t. 82     |
| 13274 gangeticus <i>W.</i> oval-spiked           | ○ | un  | 2  | jls                     | G     |       | E. Indies 1778. S co W. am. 16. t. 6. f. 11 |
| 13275 mangostanus <i>W.</i> rhomb-leaved         | ○ | un  | 2  | jls                     | G     |       | E. Indies 1801. S co W. amar. 13. t. 12     |
| 13276 polystachyus <i>W.</i> many-spiked         | ○ | un  | 3  | jls                     | G     |       | E. Indies 1816. S co                        |
| 13277 tristis <i>W.</i> round-headed             | ○ | un  | 2  | jn. au                  | Pu    |       | China 1759. S co W. am. 21. t. 5. f. 10     |
| 13278 inance nus <i>W.</i> unpleasant            | ○ | un  | 2  | jn. au                  | G     |       | Japan 1820. S co Hout. pfl. t. 72. f. 1     |
| 13279 incom' tus <i>W. en. s.</i> shabby         | ○ | un  | 2  | jn. au                  | G     |       | ..... 1823. S co                            |
| 13280 lividus <i>W.</i> livid                    | ○ | un  | 5  | jls                     | R     |       | N. Amer. 1759. S co W. am. 20. t. 1. f. 1   |
| 13281 oleraceus <i>W.</i> eatable                | ○ | clt | 6  | jl. au                  | Pa. R |       | E. Indies 1764. S co W. am. 17. t. 5. f. 9  |
| 13282 bullatus <i>Besser.</i> blistered          | ○ | un  | 4  | jl. au                  | G     |       | ..... 1822. S co                            |
| 13283 Bitum <i>W.</i> wild                       | ○ | un  | 2  | jn. au                  | G     |       | England dungh. S co Eng. bot. 2212          |
| 13284 prostratus <i>W.</i> trailing              | ✕ | un  | 2  | jls                     | G     |       | France 1739. S co                           |
| 13285 spicatus <i>P. S.</i> spiked               | ○ | un  | 3  | jls                     | G     |       | Europe ... S co                             |
| 13286 viridis <i>W.</i> green                    | ○ | un  | 3  | aus                     | G     |       | Brazil 1768. S co W. am. 18. t. 8. f. 16    |
| 13287 polygonoides <i>W.</i> spotted-leaved      | ✕ | un  | 1½ | jl. au                  | G     |       | Jamaica 1778. S co W. am. 11. t. 6. f. 12   |
| 13288 scandens <i>W.</i> climbing                | ○ | un  | 2  | jl. au                  | G     |       | America 1796. S co                          |
| 13289 deflexus <i>W.</i> bending                 | ✕ | un  | 1  | jl. au                  | G     |       | ..... 1805. S co W. a. 10. t. 10. f. 20     |
| 13290 cauliflorus <i>Link.</i> stem-flowering    | ○ | un  | 4  | jn. s                   | G     |       | Nepal 1821. S co                            |
| 13291 hybridus <i>W.</i> clustered               | ○ | un  | 4  | jn. s                   | G     |       | N. Amer. 1656. S co W. am. 26. t. 9. f. 17  |
| 13292 strictus <i>W.</i> upright                 | ○ | un  | 2  | jls                     | G     |       | N. Amer. 1793. S co W. am. 27. t. 3. f. 5   |
| 13293 paniculatus <i>W.</i> panicked             | ○ | or  | 6  | jls                     | G     |       | N. Amer. 1798. S co W. am. 32. t. 2. f. 4   |
| 13294 sanguineus <i>W.</i> spreading             | ○ | or  | 3  | jls                     | R     |       | Bahama I. 1775. S co W. am. 31. t. 2. f. 3  |
| 13295 retroflexus <i>W.</i> hairy                | ○ | un  | 2  | jls                     | G     |       | Pensylva. 1759. S co W. a. 33. t. 11. f. 21 |
| 13296 lætus <i>W.</i> blunt-leaved               | ○ | un  | 2  | jls                     | R     |       | ..... 1799. S co W. am. 28. t. 8. f. 15     |
| 13297 flavus <i>W.</i> pale                      | ○ | un  | 4  | jls                     | L. Y  |       | India 1759. S co W. am. 35. t. 3. f. 6      |
| 13298 chlorostachys <i>W.</i> nodding            | ○ | un  | 3  | jls                     | G     |       | ..... 1796. S co W. a. 34. t. 10. f. 19     |
| 13299 hypochondriacus <i>W.</i> Prince's Feather | ○ | or  | 5  | jls                     | D. R  |       | Virginia 1684. S co                         |
| 13300 eruentus <i>W.</i> various-leaved          | ○ | or  | 3  | jn. au                  | D. R  |       | China 1728. S r.m                           |
| 13301 hæticus <i>W.</i> oval-leaved              | ○ | or  | 3  | au                      | PK    |       | ..... 1796. S co W. am. 25. t. 7. f. 13     |
| 13302 caudatus <i>W.</i> Love lies bleeding      | ○ | or  | 4  | aus                     | R     |       | E. Indies 1596. S co                        |
| β maximus <i>tree</i>                            | ○ | or  | 6  | aus                     | R     |       | ..... 1820. S co                            |



History, Use, Propagation, Culture,

1970. *Exocarpus*. So called from *εξω*, outside, and *καρπος*, fruit, because the nut appears to be seated on the outside of the pericarp, on account of the great receptacle on which it is placed.

1971. *Nephtium*. According to Dodoens, *Nephtium* was a name anciently given to the Burdock. The modern plant bears bristly fruit like the involucreum of the Burdock. It is an excellent fruit, known in the islands of the Indian Archipelago by the name of Rambutan; grows in rich light loam, and is struck in pots of sand under a glass.

1972. *Schizandra*. From *σχιζω*, to cut, and *ανδρς*, a stamen; its stamens are split. A handsome plant, which grows in light loam and peat, and ripened cuttings root in sand under a hand-glass.

## PENTANDRIA.

13257 The only species

13258 Leaves alternate pinnated, Racemes erect shorter than leaves

13259 Leaves lanceolate oval acute at each end end, rarely somewhat toothed

13260 Leaves bipinnatifid toothed, Petioles winged

13261 Leaves ovate-lanceolate cordate toothed, Petioles with an appendage

13262 Stem unarmed, Leaves cordate 3-nerved

13263 Stem unarmed, Leaves cuneiform ovate somewhat 3-lobed

13264 Spines ternate, Leaves 3-lobed

13265 Stem unarmed, Fruit oval aculeate, Prickles hooked echinate at base

1. *Triandrous.*

13266 Clusters axillary, Leaves linear-lanceolate cuneate retuse, Stem branched diffuse

13267 Clusters axillary, Leaves linear-lanceolate acute mucronate, Stem branched erect

13268 Clusters axillary, Leaves obovate retuse, Stem square simple

13269 Clusters axillary, Flowers trifid, Leaves obovate emarginate, Stem roundish branched

13270 Clusters axillary stalked roundish, Leaves ovate-lanceolate colored

13271 Clusters sessile, Leaves oblong lanceolate colored

13272 Clusters sessile capitate, Leaves ovate acuminate blunt colored

13273 Clusters in short spikes, Cal. and bract. with hooked bristles, Leaves oblong lanceolate emarginate

13274 Clusters shortly spiked ovate, Leaves ovate lanceolate emarginate

13275 Clusters somewhat spiked axillary solitary, Leaves rhomboid roundish

13276 Clusters spiked, Spikes axillary and terminal, Leaves ovate-lanceolate emarginate

13277 Clusters spiked loosely, Leaves subcordate ovate emarginate shorter than petiole

13278 Clusters somewhat spiked and 3-leaved: axillary in pairs, Leaves rhomboid lanceolate

13279 Clusters spiked, Leaves rhomboid-ovate acute

13280 Clusters somewhat spiked rounded, Leaves elliptical retuse, Stem erect

13281 Clusters axillary branched, Leaves rugose oblong very blunt emarginate

13282 Leaves subrhomboid acute repand bellate, Spikes terminal, Sepals mucronate pungent

13283 Clusters somewhat spiked, Flowers 3-leaved, Leaves ovate retuse, Stem diffuse

13284 Clusters spiked, Flowers 3-leaved, Leaves rhomb.-ov. bluntish retuse, Stem prostrate branched

13285 Clusters spiked terminal, Leaves ovate-oblong, Stem erect somewhat branched

13286 Clusters axillary twin triandrous, Male flowers 3-leaved, Leaves elliptical emarginate wavy at edge

13287 Clusters 3-leaved, Female flowers funnel-shaped, Leaves rhomboid ovate emarginate

13288 Leaves ovate, Spikes interrupted compound, Spikelets inflexed, Stem weak

13289 Spike very short few-fl. Leaves rhomboid lanceolate, Capsules not dehiscent

2. *Pentandrous.*

13290 Leaves oval acute somewhat wavy toothed, Clusters axillary cymose

13291 Raceme decomposed clustered erect, Leaves ovate-lanceolate

13292 Raceme compound erect straight, Leaves ovate concave

13293 Racemes supradecomposed, Branches spreading pubescent, Leaves ovate-lanceolate

13294 Racemes supradecomposed erect, Branches spreading smooth, Leaves oblong acute

13295 Racemes supradecomposed erect clustered, Branches downy, Leaves ovate wavy

13296 Racemes compound erect, Leaves ovate blunt mucronate

13297 Racemes compound nodding, Leaves ovate lanceolate

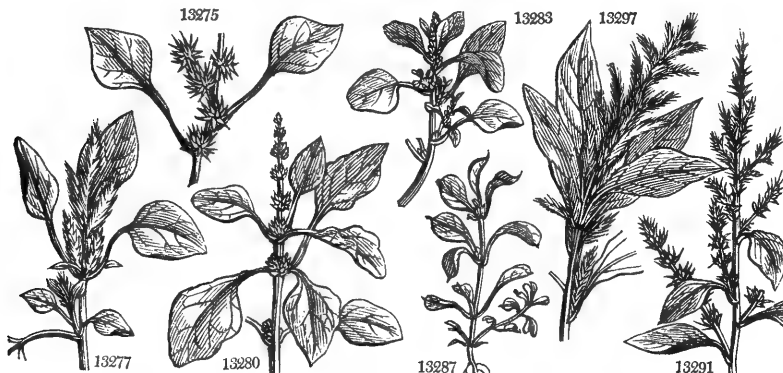
13298 Racemes compound nodding, Leaves lanceolate

13299 Racemes compound erect clustered, Leaves oblong lanceolate mucronate

13300 Racemes decomposed naked spreading, Leaves lanceolate ovate

13301 Racemes simply spiked, Flowers axillary clustered, Leaves ovate acute

13302 Racemes decomposed pendulous, Leaves lanceolate ovate, Stem nodding

*and Miscellaneous Particulars.*

13273. *Franzeria*. A genus dedicated by Canavilles to Antony Franzer, a botanical physician, whose merits are forgotten. Cuttings root in loam and peat under a hand-glass.

13274. *Xanthium*. From *ξανθος*, yellow, a color which it is asserted by Dioscorides, *lib. 4. cap. 133*, that an infusion of this plant communicates to the hair. Weeds of little beauty and easy culture.

13275. *Amaranthus*. From *α*, privative, and *μαρτυρος*, to wither, because the flowers of most of the species retain their bright colors when dead. Some of the species are very ornamental, and most of them might probably be used as spinage, as some sorts are in the East. *A. polygamus* is used in this way in Guiana and China, and *A. oleraceus*, *tristis*, and *viridis*, in India. *A. melancholicus* and *tricolor* are popular tender

|                               |                   |        |    |       |   |                       |           |   |    |                      |
|-------------------------------|-------------------|--------|----|-------|---|-----------------------|-----------|---|----|----------------------|
| 13303 epinóseus <i>W.</i>     | prickly           | ○ un   | 2  | jl.s  | G | India                 | 1683.     | S | co | W.am.38. t.4. f.8    |
| 13304 specióseus <i>E. M.</i> | showy             | ○ or   | 6  | jl.au | R | Nepal                 | 1819.     | S | co | Bot. mag. 2327       |
| 1976. LUFFA. <i>Cav.</i>      | LUFFA.            |        |    |       |   | <i>Cucurbitaceae.</i> | Sp. 1—2.  |   |    |                      |
| 13305 fœ'tida <i>Cav.</i>     | stinking          | ✱ □ or | 12 | jn.o  |   | India                 | 1812.     | S | co | Bot. mag. 1638       |
| 1977. AMBROSIA. <i>W.</i>     | AMBROSIA.         |        |    |       |   | .....                 | Sp. 6—10. |   |    |                      |
| 13306 integrifólia <i>W.</i>  | entire-leaved     | ○ un   | 3  | jl.s  | G | N. Amer.              | 1816.     | S | co |                      |
| 13307 trifida <i>W.</i>       | trifid-leaved     | ○ un   | 6  | jl.s  | G | N. Amer.              | 1692.     | S | co | Moris. s.6. t.1. f.4 |
| 13308 elátior <i>W.</i>       | tall              | ○ un   | 8  | jl.au | G | N. Amer.              | 1696.     | S | co | Herm. lugd. t.35     |
| 13309 artemisifólia <i>W.</i> | Mugwort-leav.     | ○ un   | 5  | jl.au | G | N. Amer.              | 1759.     | S | co |                      |
| 13310 paniculáta <i>W.</i>    | panicked          | ○ un   | 3  | jl.s  | G | N. Amer.              | 1811.     | S | co | Flu.alm. t.10. f.5   |
| 13311 marítima <i>W.</i>      | sea               | ○ un   | 3  | jl.au | G | Italy                 | 1570.     | S | co | Sch.hand.3.t.292     |
| 1978. SECURINE/GA. <i>W.</i>  | OTARHEITE MYRTLE. |        |    |       |   | <i>Euphorbiaceae.</i> | Sp. 1—2.  |   |    |                      |
| 13312 nitída <i>W.</i>        | shining-leaved    | ♀ □ tm | 40 | jn.jl | W | Mauritius             | 1793.     | C | co | Lindl. coll. 9       |

HEXANDRIA.

|                              |                  |         |    |       |        |                   |           |    |     |                     |
|------------------------------|------------------|---------|----|-------|--------|-------------------|-----------|----|-----|---------------------|
| 1979. ZIZA'NIA. <i>W.</i>    | ZIZANIA.         |         |    |       |        | <i>Gramineae.</i> | Sp. 1—5.  |    |     |                     |
| 13313 aquática <i>H. K.</i>  | Canada Rice      | ♣ ○ ec  | 6  | jl.s  | G      | N. Amer.          | 1790.     | S  | co  | Lin. trans.7. t.13  |
| 1980. PHA/RUS. <i>W.</i>     | PHARUS.          |         |    |       |        | <i>Gramineae.</i> | Sp. 1—3.  |    |     |                     |
| 13314 latifólius <i>W.</i>   | broad-leaved     | ♣ □ or  | 6  | jl.au | G      | Jamaica           | 1793.     | S  | r.m | Br. jam. t. 38. f.3 |
| *1981. GUETTAR'DA. <i>W.</i> | GUETTARDA.       |         |    |       |        | <i>Rubiaceae.</i> | Sp. 2—17. |    |     |                     |
| §13315 speciósa <i>W.</i>    | great-flowered   | ♀ □ spl | 30 | ...   | Sc     | E. Indies         | 1771.     | S  | p.1 |                     |
| 13315 rugósa <i>W.</i>       | rough-leaved     | ♀ □ or  | 20 | ...   | W.     | Indies            | 1793.     | S  | r.m |                     |
| 1982. SA'GUS. <i>W.</i>      | SAGO PALM.       |         |    |       |        | <i>Palmae.</i>    | Sp. 3—4.  |    |     |                     |
| 13317 Rump'hii <i>W.</i>     | Rumphius's       | ♀ □ clt | 50 | ...   | G      | E. Indies         | 1800.     | Sk | r.m | Ru.am.1. t.17, 18   |
| 13318 Ruffia <i>W.</i>       | turbinate        | ♀ □ or  | 60 | ...   | G      | Madagasc.         | 1820.     | S  | r.m |                     |
| 13319 vinífera <i>Hort.</i>  | prickly          | ♀ □ or  | 50 | ...   | G      | Guinea            | 1820.     | S  | r.m | Bea. f. d'Oware     |
| *1983. CO'COS. <i>W.</i>     | COCOA-NUT-TREE.  |         |    |       |        | <i>Palmae.</i>    | Sp. 3—11. |    |     |                     |
| 13320 nucifera <i>W.</i>     | common           | ♀ □ clt | 50 | ...   | Pa. G. | E. Indies         | 1690.     | S  | r.m | Roxb. cor. 1. t.73  |
| §13321 aculéata <i>W.</i>    | prickly          | ♀ □ clt | 50 | ...   | Pa. G. | W. Indies         | 1796.     | S  | r.m | Jac.am.278.t.169    |
| §13322 Rusifórmis <i>W.</i>  | Great Macaw-tree | ♀ □ clt | 30 | ...   | Pa. G. | Jamaica           | 1731.     | S  | r.m |                     |



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annuals, and *A. sanguineus* and *caudatus* common border flowers; like all the species, they are of easy culture in light rich soil. Most of the species are very prolific in seeds, which preserve their germinating quality several years.

1976. *Luffa*. Its name in Arabic is *lodff*, according to Forskahl. A curious kind of gourd, not often seen on account of its offensive odor. It is cultivated in Arabia and China. It climbs up the Palm trees, covering and elegantly adorning their trunks. The fruit when young is pickled, like the Mango; but Europeans think it has a disagreeable taste, and is not very wholesome. *L. Charantia* has a fruit with a yellowish skin, but very red flesh, and when ripe, it bursts elastically. Culture as in Cucumis.

1977. *Ambrosia*. A poetical name. *Ambrosia* is the name of the food of the heathen divinities, as nectar was their beverage; of the former, the odor was delightful, whence its name has been applied to an herb, the leaves of which, when bruised, emit a grateful scent. Weedy plants of no beauty.

1978. *Securinea*. From *securis*, a hatchet. The name was given by Commerson, because the wood was so hard as to be capable of being manufactured into cutting instruments. It grows and flowers freely in loam and peat, and cuttings strike in sand under a hand-glass.

1979. *Zizania*. One of the Greek names of the rye-grass was *ζίζανιον*; according to Golius, the same plant was called by the Arabs *Zohân*. The modern plant has no relation to the ancient, being a native of America, where it is called Canada rice. This plant has been acclimated in Middlesex and Roes-shire; it grows on the margins of ponds, and is exceedingly prolific of bland farinaceous seeds, which afford a very good meal. It abounds in all the shallow streams of North West America, where its seeds contribute essentially to the support of the wandering tribes of Indians, and feed immense flocks of wild swans, geese, and other water fowl. Finkerton says, this plant seems intended by nature to become the bread corn of the north.

1980. *Pharus*. From *φαρος*, a covering. Brown gave this name to the plants, because their long broad leaves are employed as wrappers for various purposes by the natives of Jamaica. Fine stove grasses.

1981. *Guettarda*. Etienne Guettard was a French botanist, who published in 1747, a catalogue of the plants growing in the vicinity of Estampes. Splendid plants, which grow in loam, peat, and sand; and are increased by cuttings in sand in a moist heat and covered.

1982. *Sagus*. So named in allusion to the nutritive properties of the substance obtained from it. From this palm is produced the Sago of the shops. The wood is full of white pith, like that of elder; the pith is taken out, bruised in a mortar, and then put into a cloth or strainer, held over a trough, and water being poured in, the pith is washed through the cloth into the trough; the water being then drawn off, the sago is taken out and dried for use or transportation. The fruit is eaten by the Japanese, but the tree is chiefly esteemed for its highly nutritive pith.

1983. *Cocos*. Linnæus regards this name as of Greek origin. In that language, *κοκκος* means a kind of fruit, but it does not appear that there was any relation between that and the modern cocoa nut. D'Herbelot

- 13303 Racemes pentandrous terminal compound, Axillæ spiny  
 13304 Clusters densely spiked somewhat whorled, Spikes decomposed erect colored, Lvs. obl. ellipt. red beneath  
 13305 Leaves cordate 5-lobed, Flowers large, Gourd a span long  
 13306 Leaves ovate sessile acuminate serrate ciliated at base  
 13307 Leaves 3-lobed serrated  
 13308 Leaves bipinnatifid smoothish, Petioles with long cilia, Racemes terminal paniced  
 13309 Leaves bipinnatifid hoary beneath : upper pinnatifid, Racemes 3 terminal  
 13310 Leaves smooth bipinnatifid : upper pinnatifid, Racemes terminal solitary, Branches fastigate  
 13311 Leaves bipinnatifid blunt hoary beneath, Racemes terminal solitary, Branches villous  
 13312 Leaves alternate ovate, Flowers axillary clustered

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- 13313 Panicle effuse, Glumes aristate : male and female mixed  
 13314 Panicle branched, Glumes awnless smooth, Leaves ovate-lanceolate  
 13315 Leaves obovate acute downy beneath, Flowers 7-androus 7-fid  
 13316 Leaves subcordate ovate acute scabrous downy beneath, Flowers hexandrous  
 13317 Branchlets of the spadix smooth  
 13318 Branchlets of the spadix annular  
 13319 Pinnae spinulose, Fruit oblong furrowed

- 13320 Unarmed, Fronds pinnated, Leaflets replicate ensiform  
 13321 Caudex cylindrical prickly upwards, Fronds pinnated prickly  
 13322 Aculeate spiny, Caudex fusiform, Fronds pinnated, Stems and spathes spiny



### and Miscellaneous Particulars.

says, (*Bibl. Or.* 278.) that in India the fruit is called *cozi*, whence the Turkish name *coz*, for a nut : but this requires confirmation. In Malabar it is called *temga*, in the Moluccas *calappa*, and by the Brahmins *medo*. *C. nucifera* is a native of, and cultivated in, most places within the tropics. The trees grow to a great height, with a straight trunk, and, like almost every species of the Palm tribe, without branches. The leaves are from twelve to fifteen feet long : the flowers come out round the top of the trunk in large clusters, inclosed in a sheath, and the nuts succeed them, commonly ten or twelve together.

There are few trees more extensively or variously useful. The leaves are employed as thatch to cover houses, and to make mats either for sitting or lying upon. The leaf, when reduced to fine fibres, is the material of which a beautiful and costly carpeting is fabricated for those in the higher ranks ; the coarse fibres are made into brooms. After these useful materials are taken from this leaf, the stem still remains, which is about the thickness of the ankle, and furnishes firewood.

The wood of this palm, when fresh cut, is spongy ; but becomes hard after being seasoned, and assumes a dark brown color. On the top of the tree a large shoot is produced, which, when boiled, resembles brocoli, but is said to be of a more delicate taste ; and though much liked, is seldom used by the natives, because on cutting it off, the pith is exposed, and the tree dies. Between this cabbage-like shoot and the leaves, there spring several buds, from which, on making an incision, there distils a juice differing little from water, either in the color or consistence. It is the employment of a certain class of men to climb to the top of the trees in the evening, with earthen pots tied to their waists, which they fix there to receive the juice, which is regularly carried away before the sun has had any influence upon it. This liquor is sold at the bazaars by the natives under the name of toddy. It is used for yeast, and forms an excellent substitute. In this state it is drank with avidity, both by the low Europeans and the natives, and is reckoned a cooling and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a sharp taste, and a slight intoxicating quality. By boiling it, a coarse kind of sugar is obtained ; and by distillation, it yields a strong ardent spirit, which being everywhere sold, and at a low price, constitutes one of the most destructive annoyances to our soldiers. The name given to this pernicious drink by Europeans, is Pariah arrack, from the supposition that it is only drank by the Pariahs, or out-casts, that have no rank.

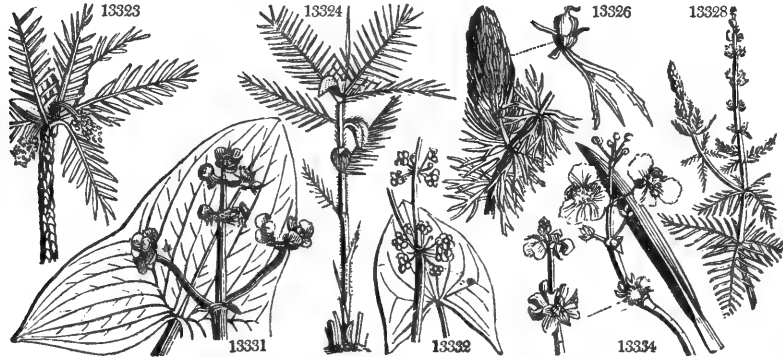
The trees from which the toddy is drawn do not bear any fruit, on account of the destruction of the buds ; but if the buds be left entire, they produce clusters of the cocoa nut. This nut in the husk is as large as a man's head, and when ripe falls with the least wind. If gathered fresh, it is green on the outside ; the husk and the shell are tender. The shell, when divested of the husk, may be about the size of an ostrich's egg, and is lined with a white pulpy substance, which contains about a pint and a half of a liquor like water ; and though the taste be sweet and agreeable, it is different to that of the toddy.

In proportion as the fruit grows old, the shell hardens, and the liquor diminishes, till it is at last entirely absorbed by the white milky substance, which gradually acquires the hardness of the kernel of the almond,

|                            |                |                |        |   |           |       |   |                      |
|----------------------------|----------------|----------------|--------|---|-----------|-------|---|----------------------|
| 1984. ELATE. <i>W.</i>     | ELATE.         | <i>Palmae.</i> | Sp. 1. |   |           |       |   |                      |
| 13323 sylvéstris <i>W.</i> | prickly-leaved | ♂ □ or 14      | ap.jn  | G | E. Indies | 1763. | S | r.m Rh.mal.3.t.92.25 |
| 1985. BACTRIS. <i>W.</i>   | BACTRIS.       |                |        |   |           |       |   |                      |
| 13324 minor <i>W.</i>      | lesser         | ♂ □ or 12      | ...    | G | S. Amer.  | 1691. | S | r.m Jac.am.t.171.f.1 |
| 13325 major <i>W.</i>      | greater        | ♂ □ or 25      | ...    | G | Carthag.  | 1800. | S | r.m Jac.am.t.171.f.2 |

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|                                  |                |                    |           |    |           |         |   |                        |
|----------------------------------|----------------|--------------------|-----------|----|-----------|---------|---|------------------------|
| 1986. CERATOPHYLLUM. <i>W.</i>   | HORNWORT.      | <i>Fluviales.</i>  | Sp. 2—    |    |           |         |   |                        |
| 13326 demérsun <i>W.</i>         | common         | ♂ △ un 1           | jl.a      | G  | Britain   | dit.    | D | l.p Eng. bot. 947      |
| 13327 submérsum <i>W.</i>        | unarmed        | ♂ △ un 1           | jl.a      | G  | Britain   | dit.    | D | l.p Eng. bot. 679      |
| 1987. MYRIOPHYLLUM. <i>W.</i>    | WATER MILFOIL. | <i>Onagrariee.</i> | Sp. 2—5.  |    |           |         |   |                        |
| 13328 spicatum <i>W.</i>         | spiked         | ♂ △ pr 1           | jn.au     | R  | Britain   | dit.    | D | l.p Eng. bot. 83       |
| 13329 verticillatum <i>W.</i>    | verticillate   | ♂ △ pr 1           | jl        | G  | England   | ponds.  | D | l.p Eng. bot. 218      |
| 1988. SAGITTARIA. <i>W.</i>      | ARROW-HEAD.    | <i>Alismacee.</i>  | Sp. 6—16. |    |           |         |   |                        |
| 13330 sagittifolia <i>W.</i>     | common         | ♂ △ or 2           | jn.au     | W  | England   | ivers.  | D | l.p Eng. bot. 84       |
| 13331 sinénsis <i>B. M.</i>      | Chinese        | ♂ △ or 2           | sn        | W  | China     | 1812.   | D | l.p Bot. mag. 1631     |
| 13332 obtusifolia <i>W.</i>      | blunt-leaved   | ♂ △ or 2           | jl.au     | W  | China     | 1804.   | D | l.p Rhe. mal.11.t.43   |
| 13333 lancifolia <i>W.</i>       | lance-leaved   | ♂ △ or 1           | jn.jl     | W  | W. Indies | 1787.   | D | l.p Bot. mag. 1792     |
| 13334 rigida <i>B. M.</i>        | brittle-leaved | ♂ △ or 1           | jn.jl     | W  | N. Amer.  | 1806.   | D | l.p Bot. mag. 1632     |
| 13335 graminca <i>W.</i>         | Grass-leaved   | ♂ △ or 1           | jl.au     | W  | Carolina  | 1812.   | D | l.p                    |
| †1989. BEGONIA. <i>W.</i>        | BEGONIA.       |                    |           |    |           |         |   |                        |
| 13336 nitida <i>W.</i>           | shining-leaved | ♂ □ or 1           | my.d      | W  | Jamaica   | 1777.   | C | s.p Par. lond. 72      |
| 13337 dichotoma <i>W.</i>        | forked         | ♂ □ or 2           | jl.au     | W  | Caraccas  | 1800.   | C | s.p Jac. ic. 3. t. 619 |
| 13338 discolor <i>H. K.</i>      | two-colored    | ♂ □ or 3           | my.s      | W  | China     | 1804.   | R | s.p Bot. mag. 1473     |
| <i>Evansiana</i> <i>B. R.</i>    |                |                    |           |    |           |         |   |                        |
| 13339 macrophylla <i>W.</i>      | large-leaved   | ♂ □ or 3           | my.s      | W  | Jamaica   | 1793.   | C | s.p Pluic.34.t.45.f.1  |
| 13340 tuberosa <i>W.</i>         | tuberous       | ♂ △ or 1           | jl.s      | W  | Amboyna   | 1810.   | C | l.p R.am.5.t.169.f.2   |
| 13341 acuminata <i>W.</i>        | pointed-leaved | ♂ □ or 1           | my.d      | W  | Jamaica   | 1790.   | C | s.p Bot. reg. 364      |
| 13342 humilis <i>W.</i>          | small          | ♂ □ or 1           | o         | W  | W. Indies | 1789.   | C | l.p Lin. trans.1.t.15  |
| 13343 hirsuta <i>W.</i>          | shaggy-leaved  | ♂ □ or 1           | my.jn     | W  | W. Indies | 1788.   | C | l.p Aub. gui.2.t.348   |
| 13344 ulmifolia <i>W.</i>        | elm-leaved     | ♂ □ or 2           | my.jn     | W  | S. Amer.  | 1822.   | C | l.p Bot. cab. 638      |
| 13345 argyrostigma <i>Fisch.</i> | silver-spotted | ♂ □ or 3           | jl.o      | W  | Brazils   | 1819.   | C | l.p Bot. reg. 666      |
| <i>maculata</i> <i>Raddi</i>     |                |                    |           |    |           |         |   |                        |
| 13346 spatulata <i>W.</i>        | spatulate      | ♂ △ or 1           | jl.o      | W  | W. Indies | 1819.   | C | l.p Bot. cab. 107      |
| 13347 picta <i>Lodd.</i>         | painted        | ♂ △ or 1           | o         | W  | Nepal     | 1818.   | C | l.p Bot. cab. 571      |
| 13348 pauciflora <i>Lindley</i>  | few-flowered   | ♂ △ or 1           | jl.o      | W  | .....     | 1816.   | C | l.p Bot. reg. 471      |
| 13349 odorata <i>W.</i>          | sweet-scented  | ♂ △ or 1           | jl.o      | W  | .....     | 1824.   | C | l.p                    |
| 13350 hirtella <i>Link.</i>      | hairy          | ♂ △ or 1           | jl.o      | W  | .....     | 1824.   | C | l.p                    |
| 13351 disticha <i>Link.</i>      | distichous     | ♂ △ or 1           | jl.o      | W  | .....     | 1824.   | C | l.p                    |
| 1990. POTEIRIUM. <i>W.</i>       | BURNET.        |                    |           |    |           |         |   |                        |
| 13352 agrimonifolium <i>Can.</i> | Agrimony-ld.   | ♂ △ pr 3           | jl        | G  | Spain     | 1822.   | S | co                     |
| 13353 Sanguisorba <i>W.</i>      | common         | ♂ △ ag 2           | jl        | G  | England   | ch.hil. | D | co Eng. bot. 860       |
| 13354 polygamum <i>W.</i>        | Hungarian      | ♂ △ or 3           | jl.au     | Br | Hungary   | 1803.   | D | co Pir.ar.hu 2.t.198   |



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and is almost as easily detached from the shell. The natives use this nut as their victuals; and from it they also express a considerable quantity of the purest and best lamp oil. The substance which remains after this operation, supplies an excellent food for poultry and hogs. Cups and a variety of excellent utensils are made of the shell.

The husk of the cocoa nut is nearly an inch thick, and is, perhaps, the most valuable part of the tree; for it consists of a number of strong fibres, easily separable, which furnish the material for the greatest part of the Indian cordage; but is by no means the only substitute which the country affords for hemp. This the natives work up with much skill.

Plants of the cocoa nut tree are frequent in our stoves, being easily raised from the nuts sold in the shops, planted in rich earth, and on a moist heat; but the plants are seldom allowed room enough to come into flower; though it has been observed, that this is almost the only palm that could be cultivated in this country for perfecting its fruit; all the others being diocious plants. Sweet observes, that they seldom succeed well in our collections; perhaps from being too much exposed to the sun: he is "informed they thrive best in the shade in the West Indies, where cultivators of them plant tall trees near them for that purpose." (*Bot. Cult.* p. 42.) *C. aculeata* has a trunk the thickness of the human body; the pinnae of the fronds are longer than in the cocoa, and prickly like the bark of the trunk. The fruit is as large as a crab, and of the same shape; under a green skin it has a thin sweetish astringent pulp; and within that, a nut full of a white sweet eatable kernel. The nut is said to yield the true palm oil. The outside of the trunk is made into laths, bows, and darts.

1984. *Elate*. This was one of the names given by the Greeks to the membrane which envelops the female flowers of the date; that is to say, to its spathe. Modern authors have applied the word to a kind of Indian palm. The fruit of *E. sylvéstris* resembles a wild plum. The poorer sort of people chew it in the same manner with the *Areca* nut, with the leaf of the betel pepper and quick-lime. The elephants are fond of the fruit-stalks, which are very sweet. In our stoves the plants require a sandy loam, and a strong heat.

13323 Fronds pinnated, Leaflets opposite

13324 Fruit roundish

13325 Fruit ovate

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13326 Fruit armed with three spines

13327 Fruit unarmed

13328 Sterile flowers in interrupted leafless spiked whorls

13329 Leaves pinnated capillary : upper pectinate-pinnatifid, Flowers axillary whorled

13330 Leaves lanceolate acuminate sagittate : lobes lanceolate straight, Scape simple

13331 Leaves 3-fid and 3-parted : lobes nearly equal nerved, Scape branched angular, Male fl. solitary terminal

13332 Leaves ovate rounded blunt sagittate : lobes ovate acuminate spreading, Scape paniced

13333 Leaves ovate narrowed at each end, Scape branched below

13334 Leaves lanceolate keeled, Petioles 3-cornered, Scapes simple, Female flowers sessile

13335 Leaves lanceolate linear, Female heads small

13336 Shrubby erect, Lvs. very smooth unequally cordate obsolete toothed, Wing of caps. very large roundish

13337 Shrubby erect, Lvs. unequally cord. subangul. toothletted smooth hairy ben. at the veins, Fan. dichotom.

13338 Leaves angular serrulate crimson beneath, Stem nodose, Wings of caps. unequal rounded

13339 Caulscent, Lvs. unequally cord. cren-tooth. : lower angular, Wings of caps. with obt. ang. one very large

13340 Creeping, Leaves unequally cordate angular toothed, Wings of capsule parallel

13341 Caulscent, Leaves hispid  $\frac{1}{2}$  cordate acuminate unequally toothed, Largest wing of caps. obtusangular

13342 Caulscent erect, Leaves hispid  $\frac{1}{2}$  cordate doubly serrate, Wings of caps. rounded nearly equal

13343 Caulscent, Leaves hispid  $\frac{1}{2}$  cordate doubly serrated, Largest wing of caps. very large obtusangular

13344 Caulscent erect, Lvs. hisp. on each side unequally oblong doubly tooth. Largest wing of caps. obtusangul.

13345 Leaves long acuminate repand spotted with white above red beneath

13346 Leaves blunt obsolete toothletted smoothish, Stipules spatulate unequal ciliated, Wings of caps. blunt

13347 Stemless, Leaves ovate cordate hirsute finely serrulated mottled, Capsules hairy

13348 Leaves nearly equally cordate very blunt crenate downy : upper cucullate, Stipules lanceolate scariose

13349 Leaves acuminate somewhat angular unequally obsolete toothletted smooth on each side, Stip. scariose

13350 Leaves angular unequally serrulate-ciliated hairy beneath at the veins, Stipules scariose lanceol. fringed

13351 Leaves acute crenulate smooth strigose beneath, Cyme distichous, One wing of capsule very large acute

13352 Hirsute, Leaflets lanceolate, Spikes oblong ovate

13353 Thorns none, Stem somewhat angular, Stamens much longer than the calyx

13354 Unarmed, Stems angular, Terminal flowers female : lower male; intermediate hermaphrodite



*and Miscellaneous Particulars.*

1985. *Bactria*. So called by Jacquin, from *βακτρον*, a cane, because the small stem is made into walking-sticks, which are much valued. B. minor produces a fruit of a dark purple color, the size of a common cherry, containing an acid juice, of which the Americans make a sort of wine. It is also eaten raw, but is not pleasant. Canes are made of the stem; they are dark-colored, shining, jointed, and very light; the French call them *Cannes de Tobago*. B. major has a large nut with a solid kernel, which is eaten in Carthage. In our stoves they form handsome plants, and grow freely in sandy loam; like other palms, they are only to be increased by seed.

1986. *Ceratophyllum*. So called from *κερας*, a horn, and *φυλλον*, a leaf, on account of the numerous horned divisions of the leaves. Aquatic weeds of no beauty.

1987. *Myriophyllum*. From *μυριος*, a myriad, and *φυλλον*, a leaf, on account of the infinite number of divisions of its leaves. Aquatics of some beauty, and the easiest culture.

1988. *Sagittaria*. So called from *sagitta*, an arrow, in reference to the arrow-headed form of the leaves. S. sagittifolia is one of the handsomest of British aquatics, and is common in Siberia, China, Japan, and Virginia. The bulb, which fixes itself in the solid earth below the mud, constitutes an article of food among the Chinese, and upon that account they cultivate it extensively. The roots are larger in those countries than with us. All the species are of common culture.

1989. *Begonia*. Named in honor of Michael Begon, a Frenchman, born in 1638; he was an intendant of Marine, and a promoter of botany. These are universally plants remarkable for the neatness of their foliage, and their succulent habit. B. argyrostigma and discolor are the two most beautiful species. They are all cultivated without difficulty either from seeds or cuttings.

1990. *Poterium*. Literally, this word signifies a drinking vessel, and in the same sense, a kind of beverage. A drink was made of it, which was reckoned useful in many complaints; it is also an ingredient in cool tankards. P. sanguisorba is sometimes sown along with clover as an herbage plant; it is now, however, out of



|       |                       |                 |     |    |    |       |     |                       |                 |     |     |                    |
|-------|-----------------------|-----------------|-----|----|----|-------|-----|-----------------------|-----------------|-----|-----|--------------------|
| 13355 | hybridum <i>W.</i>    | sweet           | ♀ △ | or | 2  | ju.jl | G   | France                | 1683.           | D   | co  | Barr. ic. t. 632   |
| 13356 | caudatum <i>W.</i>    | smooth shrubby  | □   | or | 3  | ja.ap | G   | Canaries              | 1779.           | S   | p.l |                    |
| 13357 | spinosum <i>W.</i>    | prickly shrubby | □   | or | 2  | ap.au | G   | Levant                | 1595.           | S   | p.l | Moria.s.8.t.13.f.5 |
| 1991. | AMIROLA. <i>Pers.</i> | AMIROLA.        |     |    |    |       |     | <i>Terebintaceae.</i> | <i>Sp. 1.</i>   |     |     |                    |
| 13358 | nitida <i>Pers.</i>   | shining-leaved  | ■ □ | or | 9  | ...   | ... | Peru                  | 1824.           | C   | p.l |                    |
| 1992. | ACIDOTON. <i>W.</i>   | ACIDOTON.       |     |    |    |       |     | .....                 | <i>Sp. 1.</i>   |     |     |                    |
| 13359 | grens <i>W.</i>       | stinging        | ■ □ | un | 8  | ...   | G   | Jamaica               | 1793.           | C   | l.p | Slo.jam.1.t.83.f.1 |
| 1993. | THELYGONUM. <i>W.</i> | THELYGONUM.     |     |    |    |       |     | <i>Urticaceae.</i>    | <i>Sp. 1.</i>   |     |     |                    |
| 13360 | Cynocrámbe <i>W.</i>  | Dog's-cabbage   | ★ □ | un | 2  | jl    | G   | S. Europe             | 1710.           | S   | co  | Lam. ill. t. 777   |
| 1994. | CASTA/NEA. <i>W.</i>  | CHESNUT.        |     |    |    |       |     | <i>Amentaceae.</i>    | <i>Sp. 2.</i>   |     |     |                    |
| 13361 | vésca <i>W.</i>       | common          | ♀   | tm | 50 | my.jn | G   | England woods.        | S               | s.l |     | Eng. bot. 886      |
| 13362 | pumila <i>W.</i>      | dwarf           | ♀   | or | 12 | jl    | G.y | N. Amer.              | 1699.           | S   | p.l | Mich. arb. 2. t. 7 |
| 1995. | O'STRYA. <i>W.</i>    | HOP-HORNBEAM.   |     |    |    |       |     | <i>Amentaceae.</i>    | <i>Sp. 2-4.</i> |     |     |                    |
| 13363 | vulgáris <i>W.</i>    | common          | ♀   | or | 20 | my    | Ap  | Italy                 | 1724.           | L   | s.l | Dend. brit. 143    |
| 13364 | virgínica <i>W.</i>   | American        | ♀   | or | 20 | my.jn | Ap  | N. Amer.              | 1692.           | L   | s.l | Abb. ins. 2. t. 75 |
| 1996. | CARPINUS. <i>W.</i>   | HORNBEAM.       |     |    |    |       |     | <i>Amentaceae.</i>    | <i>Sp. 3-5.</i> |     |     |                    |
| 13365 | Bétulus <i>W.</i>     | cut-leaved      | ♀   | tm | 30 | mr.my | Ap  | Britain woods.        | S               | co  |     | Eng. bot. 2032     |
|       | β incisa              | American        | ♀   | or | 15 | mr.my | Ap  | .....                 | ...             | L   | co  |                    |
| 13366 | americana <i>W.</i>   | eastern         | ♀   | or | 20 | ...   | Ap  | N. Amer.              | 1812.           | S   | co  | Dend. brit. 157    |
| 13367 | orientális <i>W.</i>  | eastern         | ♀   | or | 12 | ...   | Ap  | Levant                | 1739.           | L   | co  | Dend. brit. 98     |
| 1997. | FA/GUS. <i>W.</i>     | BEECH.          |     |    |    |       |     | <i>Amentaceae.</i>    | <i>Sp. 2.</i>   |     |     |                    |
| 13368 | sylvática <i>W.</i>   | common          | ♀   | tm | 70 | ap.my | Ap  | Britain woods.        | S               | co  |     | Eng. bot. 1846     |
|       | β atro-rubens Duroi   | purple-leaved   | ♀   | or | 30 | ap.my | Ap  | .....                 | ...             | L   | co  |                    |
|       | γ S. incisa W.        | Fern-leaved     | ♀   | or | 10 | ap.my | Ap  | .....                 | ...             | G   | s.l |                    |
| 13369 | ferrugínea <i>W.</i>  | American        | ♀   | or | 30 | my.jn | Ap  | N. Amer.              | 1766.           | L   | s.l | Mich. arb. 2. t. 9 |
| 1998. | CORYLUS. <i>W.</i>    | NUT-TREE.       |     |    |    |       |     | <i>Amentaceae.</i>    | <i>Sp. 5-7.</i> |     |     |                    |
| 13370 | Avellána <i>W.</i>    | Common Hazel    | ■   | fr | 10 | f.ap  | Ap  | Britain woods.        | S               | co  |     | Eng. bot. 723      |
|       | β álba                | White Filbert   | ■   | fr | 10 | f.ap  | Ap  | .....                 | ...             | L   | co  |                    |
|       | γ rúbris              | Red Filbert     | ■   | fr | 10 | f.ap  | Ap  | .....                 | ...             | L   | co  |                    |
|       | δ grándis             | Cob             | ■   | fr | 8  | f.ap  | Ap  | .....                 | ...             | L   | co  |                    |
|       | ε gloyceráta          | clustered       | ■   | fr | 8  | f.ap  | Ap  | .....                 | ...             | L   | co  |                    |
|       | ζ cris'pa             | friezled        | ■   | fr | 8  | f.ap  | Ap  | .....                 | ...             | L   | co  |                    |
| 13371 | tubulósa <i>W.</i>    | Lambert's       | ■   | fr | 10 | mr.ap | Ap  | S. Europe             | 1759.           | L   | co  | Lam. ill. t. 780   |



History, Use, Propagation, Culture.

repute. The leaves when bruised smell like cucumbers, and taste something like the parings of that fruit; they are sometimes put into salads. All the species are of the easiest culture.

1991. *Amirola*. A word with an unknown meaning. The Peruvians form the shining black seeds of *Amirola nitida* into rosaries.

1992. *Acidoton*. From *axiduros*, pointed; in allusion to the stinging pointed hairs of the leaves.

1993. *Thelygonum*. A name under which Pliny described a plant which appears to have been *Mercurialis*. It was derived from *θηλυς*, a woman, and *γωνυ*, a knee, because of its joints, which were thought to resemble a woman's knee. *Cynocrambe*, literally interpreted dog-cabbage, was the Greek name of *Mercurialis perennis*.

1994. *Castanea*. A native of the territory of Castanea, a town of Thessaly, near the borders of the river Peneus, where magnificent chestnut trees still are found. The chesnut, *Chátagnier*, Fr., *Castanienbaum*, Ger., *Castagno*, Ital., is, like the walnut, both a timber and a fruit tree; some of the oldest trees in the world are of this species; as that mentioned by Brydone on Etna, and the chesnut at Tortworth, in Gloucestershire. The fruit is generally eaten roasted; abroad, it is not only boiled and roasted, but ground into meal, and puddings, cakes, and bread are made from it. The timber is thought to have been formerly in very general use for house carpentry, though some consider what is generally called chesnut in our old buildings as oak. It is one of the best trees for hop poles, and scarcely any other is now planted in Kent and other hop districts for that purpose. Some excellent fruit-bearing varieties have been lately imported from France; these are increased by grafting or budding in the usual methods, but the plants for coppice woods or timber are best raised from nuts. There is a variety with striped leaves which is very ornamental. The most esteemed of the French kinds are called *Marron*, a word which in old French literally signifies a substance, which it must be confessed the fruit is not unlike.

The American chesnut differs so little from the European, that no specific distinction can be drawn. It is one of the largest and most useful trees of the forests, the wood being extremely durable, and in high esteem for posts and rails to construct fences. The nuts are very delicious. The *Castanea pumila* or Chinquapin nut, is a small tree, or rather shrub, growing to the height of thirty feet in the southern states, but scarcely exceeding seven or eight in cold latitudes. The fruit is very sweet and agreeable to eat.

1995. *Ostrya*. So called from *οστρα*, a scale, in allusion to the scaly catkins of the fruit, which resemble those of the hop, whence the plants are called Hop-Hornbeam. The wood of *Ostrya virginica* is exceedingly hard and heavy, whence it is generally known in America under the name of Iron-wood. In some parts it is called Lever-wood.

1996. *Carpinus*. From the Celtic words *car*, wood, and *pin*, the head; that is to say, wood fit for the yokes of cattle. The wood is white, and of a fine close texture, which makes it peculiarly fit to be wrought into the

- 13355 Unarmed, Stems round striated  
 13356 Unarmed shrubby, Branches round villous, Spikes long loose  
 13357 Spiny shrubby, Spines branched, Branches villous somewhat angular, Spikes oblong loose
- 13358 Leaves simple and ternate ovate serrated, Petioles thickened on each side
- 13359 Leaves alternate lanceolate ovate, Flowers in racemes
- 13360 Leaves ovate, Stem diffuse
- 13361 Leaves oblongo-lanceolate acuminate mucronate serrate glabrous on each side  
 13362 Leaves oblong acute mucronate serrate white with down beneath
- 13363 Cones ovate pendulous, Leaves ovate acute, Buds blunt  
 13364 Cones oblong ovate erect, Leaves oblong ovate acuminate, Buds acute
- 13365 Scales or bracteas of the fruit oblong serrated with two smaller lateral lobes
- 13366 Scales of cones 3-parted: middle segment oblique ovate lanceolate 1-toothed on one side  
 13367 Scales of cones ovate unequal at base undivided somewhat angular unequally serrated
- 13368 Leaves ovate glabrous obsolete dentate, their margins ciliated
- 13369 Leaves ovate acuminate downy beneath coarsely toothed ciliated at edge
- 13370 Stip. obl. obt. Lvs. roundish-cordate pointed, Invol. of fruit campanulate rather spreading torn at margin
- 13371 Stip. obl. blunt, Cal. of fruit tubul. cylind. contracted at end cut toothed, Leaves roundish cord. acuminate



and Miscellaneous Particulars.

various forms with which the country people of all nations have delighted to ornament their yokes. Our English word Horn-beam has evidently the same meaning. *C. Betulus* is a tree of little merit or beauty, having persistent leaves like the beech; it is well adapted for hedges or separation, where the object is shelter.

197. *Fagus*. From the Greek *φαγος*, which also signifies eatable. We all know that mast was the original food of man. The *Fagus* of Virgil, was the *Quercus Æsculus*. *Hêtre*, Fr., *Büche*, Ger., *Foggio*, Ital. *F. sylvatica* is a handsome tree in every stage of its growth. It seems to thrive best in a chalky clay or loam, rather sheltered. It is one of the handsomest single trees for parks, and is well adapted to form lofty hedges. The timber is brittle, and not of long duration; but it is much used by turners, joiners, and millwrights. The bark is remarkably thin, and has been used for making baskets and band-boxes. The leaves are used in France by the country people, on account of their elastic quality, instead of straw for the pallasse to lay under their mattresses. The mast is readily eaten by swine and deer.

*F. cuprea*, the copper colored, and *F. purpurea*, the purple beech, are two of the most striking of timber trees, from the color of their foliage. They are propagated by grafting, and grow as freely as the common beech.

*Fagus ferruginea* is distinguished by the Americans from the common kind by the name of Red Beech, the wood being of a darker color.

198. *Corylus*. From *κορυς*, a bonnet; to which the enveloping calyx may be very well compared. Our word Hazel is in like manner derived from the Anglo-Saxon *Hæsel*, which signifies an head-dress. *Noisette*, Fr., *Nussbaum*, Ger., and *Avellano*, Ital. *C. avellana* has the specific name from Avellino, a city of the kingdom of Naples, near which, in a valley, it grows to a great extent, and in Swinburne's time, brought in an annual profit of near 12,000. sterling. It is said they were originally imported into Italy from Pontus, and known among the Romans by the appellation of *nux Pontica*, which in process of time, was changed into that of *nux Avellana*, from the place where they had been propagated with the greatest success. The common Hazel-nut is wild in many woods and coppices in Britain, whence the fruit is gathered in plenty and sent to the neighbouring markets. As underwood, the plant is of some value for hoops, fishing-rods, walking-sticks, wifes for fagoting, crate-making, hurdles, wattling-fences, and springles to fasten down thatch. Formerly the roots were used by the cabinet-makers; and where yeast was scarce, they twisted the twigs, steeped them in ale during its fermentation, hung them up to dry, and when they brewed put them into the wort.

There are several varieties of the cultivated filbert. What is called the frizzled filbert is esteemed the best. The plants do not require a rich soil, but one with a dry bottom. They are generally propagated by suckers, and grown as dwarf standards, each plant with a single clean stem, from six feet high down to twelve inches. When allowed to throw up suckers from the root and form a thick bush, they cease to bear fruit in any quantity. The filbert bears principally upon the sides of the upper young branches, and from small shoots which proceed from the bases of side branches cut off the preceding year. Hence the spurring-in method of

|                      |                          |   |     |    |       |    |           |       |   |     |                          |
|----------------------|--------------------------|---|-----|----|-------|----|-----------|-------|---|-----|--------------------------|
| 13372 americana W.   | Dwarf Cuckold            | ♂ | fr  | 6  | mr.ap | Ap | N. Amer.  | 1798. | L | co  | Wa. am. t. 29. f. 63     |
| 13373 rostrata W.    | Com. Cuckold             | ♂ | fr  | 5  | mr.ap | Ap | N. Amer.  | 1745. | L | co  | Willd. arb. t. 1. f. 2   |
| 13374 Colurna W.     | Constantinople           | ♂ | fr  | 10 | mr.ap | Ap | Constant. | 1665. | L | co  | Dend. brit. 99           |
| †1999. JUG'LANS. W.  | WALNUT.                  |   |     |    |       |    |           |       |   |     |                          |
| 13375 regia W.       | common                   | ♂ | tm  | 50 | ap.my | Ap | Persia    | 1562. | S | co  | Lam. ill. 781            |
| 13376 nigra W.       | black                    | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | 1629. | S | co  | Dend. brit. 156          |
| 13377 cinerea W.     | Butter Nut               | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | 1656. | S | co  | Jac. ic. 1. t. 192       |
| 13378 oliviformis W. | Pekan Nut                | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | ...   | S | co  | Mich. arb. 1. t. 3       |
|                      | angustifolia H. K.       |   |     |    |       |    |           |       |   |     |                          |
| 13379 sulcata W.     | thick shell-bark Hickory | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | 1804. | S | co  | Mich. arb. 1. t. 8       |
| 13380 alba W.        | shell-bark Hickory       | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | 1629. | S | co  | Dend. brit. 148          |
| 13381 compressa W.   | flat-fruited             | ♂ | tm  | 30 | ap.my | Ap | N. Amer.  | 1730. | S | co  | Mich. arb. 1. t. 7       |
| 13382 amara Mich.    | bitter Nut               | ♂ | tm  | 30 | my    | Ap | N. Amer.  | 1800. | S | co  |                          |
| 13383 obcordata W.   | obcordate                | ♂ | tm  | 30 | my    | Ap | N. Amer.  | 1812. | S | co  | M. arb. 1. t. 9. f. 3, 4 |
| 13384 glabra W.      | Hog-nut                  | ♂ | tm  | 30 | my    | Ap | N. Amer.  | 1799. | S | co  | M. arb. 1. t. 9. f. 1, 2 |
|                      | porcina Mich.            |   |     |    |       |    |           |       |   |     |                          |
| 2000. QUERCUS. W.    | OAK.                     |   |     |    |       |    |           |       |   |     |                          |
| 13385 Phellos Ph.    | Willow                   | ♂ | tm  | 60 | my.jn | Ap | N. Amer.  | 1723. | S | s.l | Mich. arb. 1. t. 12      |
| 13386 maritima Ph.   | sea                      | ♂ | or  | 6  | my.jn | Ap | N. Amer.  | 1811. | S | co  | Mi. quer. t. 13. f. 1    |
| 13387 sericea Ph.    | running                  | ♂ | or  | 2  | my.jn | Ap | N. Amer.  | 1724. | S | co  | Mich. arb. 2. t. 15      |
| 13388 virens Ph.     | live                     | ♂ | tm  | 40 | my    | Ap | N. Amer.  | 1739. | S | s.l | Mich. arb. 2. t. 11      |
| 13389 cinerea Ph.    | ash-colored              | ♂ | or  | 10 | my.jn | Ap | N. Amer.  | 1789. | S | co  | Mich. arb. 2. t. 14      |
|                      |                          |   |     |    |       |    |           |       |   |     |                          |
| 13390 imbricaria Ph. | shingle                  | ♂ | tm  | 40 | my.jn | Ap | N. Amer.  | 1786. | S | co  | Mich. arb. 2. t. 13      |
| 13391 laurifolia W.  | Laurel                   | ♂ | tm  | 50 | my    | Ap | N. Amer.  | 1786. | S | co  | Mich. querc. t. 17       |
|                      | β obtusa Mich.           |   | tm  | my | Ap    | Ap | N. Amer.  | 1786. | S | co  | Mich. querc. t. 18       |
| 13392 lutea W.       | yellow                   | ♂ | tm  | 20 | my    | Ap | Mexico    | 1825. | S | co  |                          |
|                      |                          |   |     |    |       |    |           |       |   |     |                          |
| 13393 Ballota W.     | Barbary                  | ♂ | tm  | 60 | my.jn | Ap | Barbary   | ...   | S | s.l |                          |
| 13394 Ylex W.        | evergreen                | ♂ | tm  | 60 | my.jn | Ap | S. France | 1581. | S | s.l | Dend. brit. 90           |
|                      | α integrifolia           |   | tm  | 60 | my.jn | Ap | S. France | 1581. | S | s.l |                          |
|                      | β serrata                |   | or  | 60 | my.jn | Ap | S. France | 1581. | G | s.l | Duh. arb. 1. t. 123      |
|                      | γ oblonga                |   | or  | 60 | my.jn | Ap | S. France | 1581. | G | s.l | Duh. arb. 1. t. 124      |
| 13395 Süber W.       | notched-leaved           | ♂ | clt | 20 | jn    | Ap | S. France | 1699. | S | s.l | Dend. brit. 99           |
| 13396 coccifera W.   | long-leaved              | ♂ | clt | 10 | my    | Ap | S. France | 1683. | G | s.l | Dend. brit. 91           |
| 13397 granifera W.   | Cork-tree                | ♂ | or  | 30 | jn    | Ap | France    | 1730  | G | s.l |                          |
|                      | Kermes                   |   |     |    |       |    |           |       |   |     |                          |
|                      | Holly-leaved             |   |     |    |       |    |           |       |   |     |                          |



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pruning is the most successful in the production of fruit. C. Colurna may be treated in the same manner as the other, but the plants kept at a somewhat greater distance apart.

The nuts of the American Hazel-nut, *Corylus americana*, are very excellent.

1999. *Juglans*. That is to say, *Jovis glans*, the nut of Jove, on account of its excellence, which must have been great indeed, when gods had nothing but oak or beech-mast to eat. *J. regia*, walnut, from *gaul*-nut, the tree being introduced from France, *Noyer*, Fr., *Walnussbaum*, Ger., and *Noce*, Ital., is cultivated both as a fruit and timber-tree. The fruit in a green state, before the stone hardens, is much used for pickling, and also as an adulteration of soy sauce. An oil, which supplies the place of that of almonds, is expressed from the kernel in France. In Spain they strew the gratings of old and hard nuts, first peeled, into their tartes and other meats. The leaves strewed on the ground, and left there, annoy worms; or macerated in warm water, afford a liquor, which from its bitterness may effect their death. The urripe fruit is used in medicine for the same purpose. Pliny says, "the more walnuts one eats, with the more ease will he drive worms out of the stomach." The timber is used in this country for gun-stocks, being lighter in proportion to its strength and elasticity than any other. It is used in cabinet-work in most parts of the continent: the young timber is held to make the finest colored wood, but the old to be finer variegated for ornament. When propagated for timber, the nut is sown; but when fruit is the object, inarching from the branches of fruit-bearing trees is preferable. Budding has also been successfully adopted by Mr. Knight; the buds succeed best when taken from the base of the annual shoots; ordinary-sized buds from the upper parts of such shoots generally fail. Walnut trees that have not been grafted or budded, may be induced to produce blossoms by ringing the bark.

*Juglans nigra*, the black walnut, is a tree of large size, and its nuts are eaten by men and several species of animals. The wood is put to various mechanical and economical uses. *J. cathartica* is known under the name of butter-nut, oil-nut, and white walnut; the nuts are used by the American Indians medicinally. The fruit of *J. oliviformis*, or the Pekan-nut, is delicious; sometimes it is exposed in the fruiterers' shops for sale. The nuts of *J. sulcata*, which is called thick shell-bark hickory, and Springfield and Gloucester nut, are large and well-tasted. The shell-bark hickory, shag-bark, or scaly-bark hickory, *J. alba*, is so called on account of its bark, which is torn lengthwise in long loose strips, as in *J. sulcata*. The wood of *J. tomentosa*, the Mocker-nut, white-heart hickory, or common hickory, is excellent for mechanical purposes, and particularly esteemed as fire-wood; but the nuts are hard, with but little kernel in them. The Americans make very good and durable brooms by slitting into narrow slips the very tough wood of *J. glabra*, which is called pig or hog-nut, also broom hickory.

13372 Cal. of fruit roundish campan. larger than nut, Limb dilated tooth serrated, Lvs. roundish cord. acumin.  
 13373 Stip. lin. lanc. Cal. of fruit camp. tubul. larger than nut 2-parted: seg. cut toothed, Lvs. obl. ovate acumin.  
 13374 Stip. lanc. acum. Cal. of fruit double: outer many-parted; inn. 3-part. Seg. palm. Lvs. roundish ov. cordate

13375 Leaflets about nine oval smooth subserrated nearly equal, Fruit globose  
 13376 Leaflets numerous lanceolate serrated beneath with the petioles downy, Fruit globose dotted rough  
 13377 Leaflets numerous oblong lanceolate serrated soft with down beneath, Petioles viscid, Fruit oblong ovate  
 13378 Leaflets numerous lanceolate serrated, the odd one with a long stalk, Fruit oblong 4-cornered

13379 Leaf. about 9 lanceolate acuminate serrate downy beneath: the odd one sess. Fruit roundish with 4 keels  
 13380 Leaflets 7 obl. lanc. acuminate serrated rough and downy beneath: the odd one sess. Fruit squarish smooth  
 13381 Leaf. 7 obl. lanc. acum. serr. downy beneath and soft: the odd one sess. Fruit ov. Nuts oblique compressed  
 13382 Leaflets about 9 ovate-oblong acum. finely serrated smooth on each side; the odd one with a short stalk  
 13383 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Nuts obcord. smooth  
 13384 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Fruit and nuts oblong

A. *Leaves entire, or little toothed.*

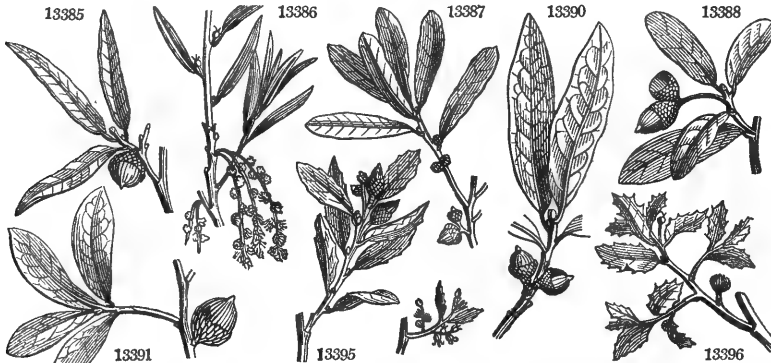
13385 Leaves membranaceous linear lanc. tapering at each end entire smooth with a small point, Nut roundish  
 13386 Leaves coriaceous elliptical-lanceolate entire smooth with a small point, Nut roundish  
 13387 Lv. lanc.-obl. somewhat wavy obt. at the base rather dilated upwards silky beneath, Nut almost globular  
 13388 Lvs. coriac. ellipt.-obl. revol. ent. pointless obt. at base clothed with starry down ben. Fr. stalk. Nut oblong  
 13389 Lvs. coriac. ellipt.-lanc. revol. ent. blunt. with a small point clothed with starry down beneath, Fruit sessile, Nut nearly globose  
 13390 Leaves elliptical oblong acute at each end entire almost sessile downy beneath, Nut nearly globose  
 13391 Leaves obovate entire smooth nearly sessile tapering at the base, Nut roundish even

13392 Leaves obovate entire shining somewhat heart-shaped at the base downy and yellow beneath

B. *Leaves toothed spiny.*

13393 Leaves elliptical coriaceous entire or serrated very downy beneath, Bark even, Nut cylindrical elongated  
 13394 Leaves ovate-oblong acute coriaceous entire or serrated hoary beneath, Bark even, Nut ovate

13395 Leaves ovate-oblong bluntish coriaceous entire or sharply serrated downy beneath, Bark cracked fungous  
 13396 Lvs. ellipt.-obl. rigid smooth on both sides with spread. brist. spin. teeth, Nut ov. Cal. with spread. point. sc.  
 13397 Leaves roundish ellipt. nearly sess. undulated with deep spin. divaricat. teeth densely downy beneath somewhat heart-shaped at the base



and *Miscellaneous Particulars.*

9000. *Quercus*. This name is derived from the Celtic *quer*, fine, and *cuez*, a tree; it was so called, in distinction to other trees, because the holy mistletoe grew upon it: otherwise the common name of the oak in Celtic was *deru*, whence *druids*, and the Greek *δρυς*. Phellos was the Greek name of the cork, *Q. suber*. Gramuntia has derived its name from growing in the wood of Grammont, near Montpellier. *Suber* is generally thought to have been formed from the Latin *sub*, under, because the bark was used by the Roman women as sandals, both for keeping their feet dry, and increasing their stature; but Vossius is of opinion, that it comes from *εὐωαε*, the Greek name of bark of any kind. *Coccifera* has been so called because the little insect, coccus, which affords the well-known kermes dye, is found upon it. *Kermes* itself is an alteration of *germez*, which signifies in Arabic, a little worm; the same people called the red dye *germez*, whence our Norman-English word *cramoisie*. *Robur* is an alteration of *rove*, a Celtic synonym of the oak. *Æglops*, literally goat's-beard, was so called on account of the long truss or beard-like lichens which were frequently found hanging suspended from it.

The oak is a genus of trees familiar to man in the temperate zones of both hemispheres. *Q. Robur*, now valued for its timber and bark, and formerly for its acorns, is familiar to every Briton. There are two distinct varieties or subspecies; *Q. sessiliflora* and *pedunculata*, and another *Q. pubescens*. *Q. pedunculata* is thought to be the common oak of England, being much more frequent in natural woods than the others. The timber of this variety is said to be whitish and hard, while that of the sessile-fruited is reddish and brittle. The bark of this and all the hardy species of oak is or may be used by the tanner. Oak saw-dust is the principal indigenous vegetable used in dyeing fustian; and different shades of drab and brown are also made from it. Oak-apples are used in dyeing as a substitute for galls; the black got from them by the addition of coppers is more beautiful than that from galls, but not so durable. These galls are occasioned by an insect of the *Cynips* kind, which deposits its eggs in the substance of the leaf. When the bark of the oak has performed its office to the tanner, it is employed by the gardener to produce heat by its fermentation. Oak leaves are also used for the same purpose. When a great proportion of the island was in forest, acorns were of importance for feeding swine; they are still valued for this purpose in districts where the oak abounds, as in Hampshire and Northamptonshire. *Q. cerris* is a very handsome tree, and the timber is considered nearly as valuable as that of the common oak. The Lucombe (from the name of the nurseryman who raised it) and Fulham (from the name of the nursery where it was first originated) varieties are nearly evergreens; they retain their verdure till Christmas, and remain on the tree in a brown or withered state till April or May following.

*Q. coccinea* is one of the handsomest of the American oaks; the leaves, which are six inches long, change in

|                                |                           |   |    |    |        |    |           |        |   |     |                        |
|--------------------------------|---------------------------|---|----|----|--------|----|-----------|--------|---|-----|------------------------|
| 13398 lusitánica <i>W.</i>     | Portugal                  | ♀ | tm | 40 | jn     | Ap | Portugal  | 1824   | G | s.1 | Cav. ic. 2. t. 129     |
| 13399 Prinosides <i>W.</i>     | Dwarf Chesnut             | ♂ | or | 3  | jn     | Ap | N. Amer.  | 1823.  | G | s.1 | Mi. querc. t. 9. f. 1  |
|                                | <i>Chin'quapin Ph.</i>    |   |    |    |        |    |           |        |   |     |                        |
| 13400 infectória <i>W.</i>     | Dyer's                    | ♀ | tm | 40 | my, jn | Ap | Levant    | 1822.  | G | co  | N. duh. 7. t. 49 f. 1  |
| 13401 Turnéri <i>W.</i>        | Turner's                  | ♀ | tm | 40 | my, jn | Ap | .....     | ...    | G | co  |                        |
| 13402 Prinus <i>Ph.</i>        | Chesnut                   | ♀ | tm | 60 | my, jn | Ap | N. Amer.  | 1730.  | S | s.1 | Mich. arb. 2. t. 7     |
| 13403 bicolor <i>Ph.</i>       | white swamp               | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1811.  | S | s.1 | Mich. arb. 2. t. 6     |
| 13404 montána <i>Ph.</i>       | Rock Chesnut              | ♀ | tm | 50 | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. arb. 2. t. 8     |
| 13405 aquática <i>Ph.</i>      | water                     | ♀ | tm | 40 | my     | Ap | N. Amer.  | 1723.  | S | s.1 | Mich. arb. 2. t. 17    |
| 13406 nána <i>Ph.</i>          | dwarf                     | ♀ | or | 12 | my     | Ap | N. Amer.  | 1738.  | S | s.1 | Abb. ins. 2. t. 59     |
| 13407 Castánea <i>Ph.</i>      | Yellow                    | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1822.  | S | s.1 |                        |
| 13408 nigra <i>Ph.</i>         | black                     | ♀ | or | 20 | my     | Ap | N. Amer.  | 1739.  | S | s.1 | Mich. arb. 2. t. 18    |
| 13409 triloba <i>Ph.</i>       | downy-black               | ♀ | tm | 30 | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. querc. t. 26     |
| 13410 stelláta <i>W.</i>       | Iron                      | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1819.  | S | s.1 | Mich. querc. t. 1      |
| 13411 hemispha'rica <i>Ph.</i> | hemispherical             | ♂ | or | 10 | my     | Ap | N. Amer.  | ...    | S | s.1 |                        |
| 13412 elongáta <i>W.</i>       | Spanish                   | ♀ | tm | 50 | my     | Ap | N. Amer.  | ...    | S | s.1 |                        |
|                                | <i>falcata Mich.</i>      |   |    |    |        |    |           |        |   |     |                        |
| 13413 tinctória <i>Ph.</i>     | Quercitron                | ♀ | tm | 70 | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. querc. t. 24     |
| 13414 discolor <i>Ph.</i>      | two-colored               | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1763.  | S | s.1 | Mich. querc. t. 25     |
| 13415 rúbra <i>Ph.</i>         | champion                  | ♀ | tm | 40 | my     | Ap | N. Amer.  | 1739.  | S | s.1 | Mich. arb. 2. t. 16    |
| 13416 heterophýlla <i>Ph.</i>  | various-leaved            | ♀ | tm | 40 | my     | Ap | N. Amer.  | ...    | S | s.1 | Mich. arb. 2. t. 23    |
| 13417 coccinea <i>Ph.</i>      | scarlet                   | ♀ | tm | 50 | my     | Ap | N. Amer.  | 1691.  | S | s.1 | Mich. querc. t. 23     |
| 13418 Catesbæi <i>W.</i>       | barren scrub              | ♀ | or | 15 | my     | Ap | N. Amer.  | 1823.  | S | s.1 | Mich. querc. t. 29     |
| 13419 palústris <i>Ph.</i>     | marsh                     | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. arb. 2. t. 25    |
| 13420 macrocar'pa <i>Ph.</i>   | over-cup white            | ♀ | tm | 40 | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. arb. 2. t. 3     |
| 13421 Banisteri <i>Mich.</i>   | Banister's                | ♀ | or | 6  | my     | Ap | N. Amer.  | 1800.  | S | s.1 | Mich. arb. 2. t. 19    |
| 13422 E'gilops <i>W.</i>       | Velonia                   | ♀ | tm | 20 | ...    | Ap | Levant    | 1731.  | S | s.1 | Mil. dic. n. 7. t. 215 |
| 13423 álba <i>Ph.</i>          | white                     | ♀ | tm | 60 | my     | Ap | N. Amer.  | 1724.  | S | s.1 | Mich. arb. 2. t. 1     |
|                                | <i>repandá Mich.</i>      |   |    |    |        |    |           |        |   |     |                        |
| 13424 E'sculus <i>W.</i>       | Italian                   | ♀ | tm | 60 | my     | Ap | N. Amer.  | ...    | S | co  |                        |
| 13425 Róbur <i>W.</i>          | sessile-fruited           | ♀ | tm | 60 | ap. my | Ap | S. Europe | 1739.  | S | s.1 |                        |
|                                | <i>Q. sessilifóra Sm.</i> |   |    |    |        |    | Britain   | woods. | S | h.1 | Eng. bot. 1845         |
| 13426 pedunculáta <i>W.</i>    | common                    | ♀ | tm | 60 | ap. my | Ap | Britain   | ...    | S | h.1 | Eng. bot. 1342         |
| 13427 pubescens <i>W.</i>      | durmast                   | ♀ | tm | 40 | ap. my | Ap | Britain   | ...    | S | h.1 | Hayne ab. t. 141       |
| 13428 fastigiáta <i>Lam.</i>   | Cypress-oak               | ♀ | tm | 40 | ap. my | Ap | S. Europe | 1820.  | G | co  | N. duh. 7. t. 55       |
| 13429 Taúzin <i>Lam.</i>       | hoary                     | ♀ | tm | 40 | ap. my | Ap | S. Europe | 1802.  | G | co  | N. duh. 7. t. 56       |
| 13430 Cérris <i>W.</i>         | Turkey                    | ♀ | tm | 50 | my     | Ap | S. Europe | 1735.  | S | co  | Dend. brit. 92         |
|                                | <i>β bulláta</i>          |   |    |    |        |    | S. Europe | ...    | G | co  |                        |
|                                | <i>γ sinuáta</i>          |   |    |    |        |    | S. Europe | ...    | G | co  |                        |
|                                | <i>δ exoniensis</i>       |   |    |    |        |    | .....     | ...    | G | co  |                        |
|                                | <i>ε sempervirens</i>     |   |    |    |        |    | .....     | ...    | G | co  |                        |
|                                | <i>ζ dentáta</i>          |   |    |    |        |    | .....     | ...    | G | co  | Dend. brit. 93         |
| 13431 austriaca <i>W.</i>      | Austrian                  | ♀ | tm | 50 | my     | Ap | .....     | ...    | G | co  | Clus. hist. 1. p. 20   |
|                                |                           |   |    |    |        |    | Austria   | 1824.  | G | co  |                        |



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autumn to a beautiful scarlet color, and unless hard frost comes on early, they do not fall off the tree till near Christmas. *Q. rubra* bears a near resemblance to the last species. *Q. tinctoria*, *Quercitron*, Fr., has been recommended to be cultivated on account of its bark, which affords a valuable yellow dye. (*Caled. Hort. Mem.* iii. 378.

*Q. suber* is cultivated in Spain, Portugal, and the south of France, for its cork-bark. The exterior bark is the cork, which is taken from the tree every eight or ten years; but there is an interior bark which is left on to protect the tree, so that stripping off the outer bark is so far from injuring the trees, that it is necessary to their continuation. Trees that are never barked are said to die at the age of fifty or sixty years. The bark is taken off for the first time when the tree is about fifteen years old; it soon grows again, and may be rebarked three times, the bark improving every time till the tree attains the age of thirty years. It is taken off in sheets or tables, much in the same way as oak or larch bark is taken from the standing trees in this country. After being detached, it is flattened by presenting the convex side to the heat, or by pressure. In either case it is charred on both surfaces to close the transverse pores, previously to its being sold. The carbonized surface produced by this charring, may be seen in bungs and taps; but not in corks, which being cut in the lengthway of the wood, the charring is taken off in the rounding.

13398 Leaves elliptic. with deep point. serratures downy beneath, Fruit racemose, Cal. hemispherical, Nut obl.  
 13399 Lvs. on short stalks obov. acutely and coarsely toothed at base glaucous ben. Cup hemispheric. Acorn ov.

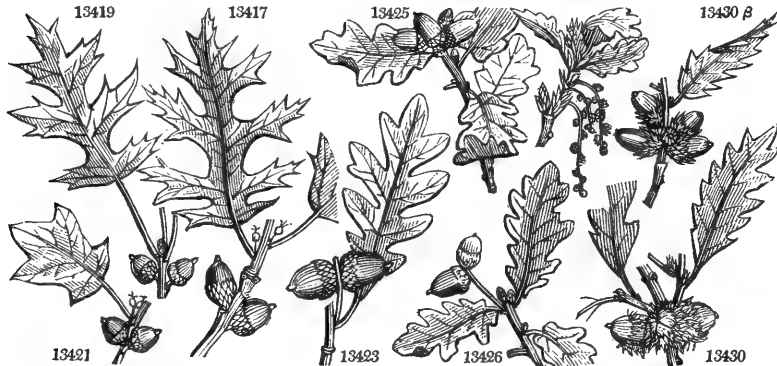
C. *Leaves sinuated.*

13400 Leaves oblong mucronate-toothed smooth on each side  
 13401 Leaves oblong coarsely mucronate-toothed smooth on each side cuneate at base, Branchlets hairy  
 13402 Lvs. on long stalks obov. ac. somew. downy ben. with near. eq. serrat. Cal. of fr. contract. at base, Nut ov.  
 13403 Lvs. nearly sess. obovate downy and white beneath with very broad unequal teeth, Fruit in pairs on long  
 bristle-pointed stalks, Calyx hemispherical, Nut oblong ovate  
 13404 Lvs. on shortish stalks obovate acute downy and white beneath with nearly equal dilated short blunt serr.  
 Cal. hemispherical with rugged scales, Nut oblong ovate  
 13405 Lvs. wedge-shaped smooth tapering at the base dilated and obscurely 3-lobed at the end : the middle lobe  
 largest, Calyx nearly hemispherical, Nut roundish  
 13406 Lvs. obl. wedge-shaped smooth somew. sinuated 3-lobed at extrem. Lobes divaricated pointed : the middle  
 one largest, Forks of the vein downy beneath  
 13407 Lvs. on long footst. obl. lanc. pointed somewhat downy ben. with numerous nearly equal dilated serratures,  
 Cal. hemispherical, Nut round ovate  
 13408 Lvs. wedge-shaped somew. cord. dilated very slightly 3-lobed at the end, smooth above rusty beneath, Cal.  
 hemispherical with membranous scales, Nut round ovate  
 13409 Lvs. wedge-shaped with 3 terminal bristly-pointed lobes : the midd. one longest downy beneath, Cal. of the  
 fruit flattish, Nut nearly round  
 13410 Leaves oblong sinuated downy beneath : lobes blunt ; upper dilated 2-lobed, Cups hemispherical

13411 Leaves evergreen oblong-lanceolate undivided 3-lobed or sinuated smooth on both sides, Lobes pointed  
 13412 Lvs. downy ben. sinuat. with 3 or more somew. falc. brist.-point. lobes : term. one elong. jagg. Cal. hemisph.  
 [undern. Nut globose  
 13413 Lvs. downy ben. obov. obl. dilat. wide. sinuat. Lobes short obt. slight. toothed bristle-point. Cal. of fruit flat  
 13414 Leaves downy beneath oblong pinnatifid lobed bristle-pointed, Calyx turbinate, Nut ovate  
 13415 Lvs. smooth obl. sinuat. on long stalks, Lobes ac. sharply tooth. bristle-point. Cal. of fr. flat undern. Nut ov.  
 13416 Lvs. on long stalks ovate lanc. or obl. entire or unequally lobed, Cup hemispherical, Acorn nearly globose  
 13417 Lvs. smooth obl. deeply and widely sinuated on long stalks, Cal. of the fruit turbinate  $\frac{1}{2}$  as long as the nut  
 13418 Lvs. smth. obl. wedge-shap. at base deeply and widely sinuat. on short stalks, Cal. of fr. turbin.  $\frac{1}{2}$  as long as nut  
 13419 Lvs. smooth obl. deeply and widely sinuated on long stalks, Forks of the veins densely warty beneath, Cal.  
 of the fruit flattened, Nut nearly globose  
 13420 Lvs. obl. lyr. downy ben. : term. lobe very large 3-cleft sinuat. Cal. of fr. hemisph. scaly fring. with bristles  
 13421 Leaves obovate cuneiform 3-5-lobed, Lobes setaceous mucronate downy beneath [elong. spread. scales  
 13422 Lvs. ov. obl. with bristle-pointed tooth-like lobes hoary ben. Cal. of fr. very large hemispherical with lanc.  
 13423 Lvs. obl. deeply pinnatif. glaucous ben. Lobes lin. obl. obt. ent. dilated upw. Fr. stalked, Cal. depress. warty  
 $\beta$  Leaves slightly lobed green on each side [hemispherical  
 13424 Lvs. ov. obl. sinuat. smooth paler ben. : segm. bluntish somew. angular at base, Fruit nearly sess. Cal. scaly  
 13425 Lvs. decidu. oblong smooth dilated upwards stalked, Lobes obtuse, Stalks of fruit elongated, Nut oblong

13426 Leaves oblong subsessile smooth sinuated : lobes round, Fruit oblong stalked [Fruit nearly sessile  
 13427 Lvs. obl. obov. stalked sinuat. downy ben. : lobes obt. angul. wavy somew. heart-shap. and unequal at base,  
 13428 Leaves subsessile smooth oblong ovate pinnatifid sinuated blunt, Branches ascending  
 13429 Leaves softly villous deeply pinnatifid : segm. oblong blunt sinuated, Cups warty [hemisph. bristly  
 13430 Lvs. on very short stalks obl. deeply and uneq. pinnatif. hairy ben. Stip. longer than footst. Cal. of the fruit

13431 Lvs. on longish stalks ovate obl. slightly but copiously sinuated downy and hoary ben. : lobes short ovate  
 acute entire, Stipules shorter than the footstalks, Cal. of the fruit hemispherical bristly



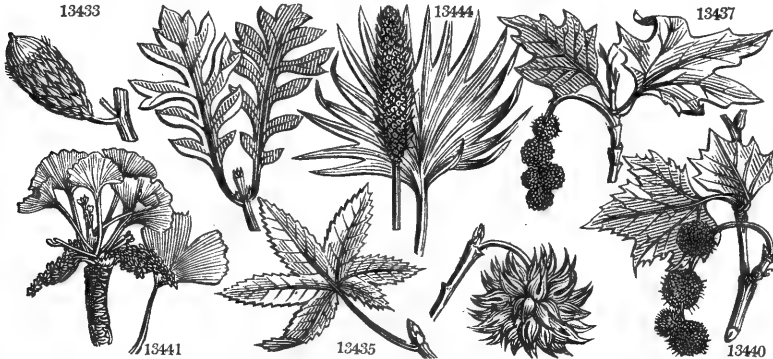
and Miscellaneous Particulars.

The uses of cork in Britain are well known. It was used as sandals by the Greeks, whence our cork soles, and probably the Venetian choppings (*cioppini*, Ital.), or shoes so high heeled, as to raise the women above the men. The poor people in Spain lay broad planks of it by their bed-side to tread on, as great persons use Turkey and Persian carpets to defend them from the floor; and sometimes they line the walls and insides of their houses built of stone with this bark, which renders them very warm, and corrects the moisture of the air. Both in Spain and Barbary bee-hives are made of cork; for this purpose, they roll the bark into a cylinder of five or six feet long, and six inches in diameter, boring holes for the entrance and exit of the bees, as in the Polish hives. (*Encyc. of Gard.* 1738.)

*Q. coccifera*, *Cusaja*, Span., has prickly leaves like those of the holly, or *Q. ilex*, from this species is collected the kermes or scarlet grain, a little red gall, occasioned by the puncture of the *Coccus ilicis*. With these galls scarlet color was dyed, till the discovery of America, when another species of *Coccus*, the cochinillifer, was found in the Mexican woods upon the Cactus.

*Q. phellos* is remarkable for the form of the leaves, which differ in character from those of the rest of the species. *Q. ilex*, the holly, or holm oak, *Chêne verd*, Fr., *Elíce*, Ital., and *Enzina*, Span., is a handsome evergreen tree, and the timber is supposed equal to that of the common oak. *Q. gramuntia* is thought by some

|   |                              |                 |   |     |    |       |    |           |       |    |     |                        |
|---|------------------------------|-----------------|---|-----|----|-------|----|-----------|-------|----|-----|------------------------|
| 13432   | <i>Pseudo sùber Desf.</i>    | false Cork      | 辛 | tm  | 40 | my    | Ap | S. Europe | 1894. | G  | co  | Sant. itin. 156. t. 4  |
| 13433   | <i>olivæformis Ph.</i>       | moosey-cup      | 辛 | tm  | 50 | my    | Ap | N. Amer.  | 1811. | S  | h.l | Mich. arb. 2. t. 2     |
| 13434   | <i>lyràta Ph.</i>            | Swamp-post      | 辛 | or  | 15 | my    | Ap | N. Amer.  | 1786. | S  | h.l | Mich. arb. 2. t. 5     |
| *2001. LIQUIDAMBAR. W. LIQUIDAMBAR. <i>Amentaceæ.</i> Sp. 2.        |                              |                 |   |     |    |       |    |           |       |    |     |                        |
| 13435   | <i>Styraciflua W.</i>        | Sweet-gum       | 辛 | tm  | 60 | mr.ap | Ap | N. Amer.  | 1683. | S  | sl  | Mi.ar.3.p.194.t.4      |
| 13436   | <i>imbèrbe W.</i>            | oriental        | 辛 | or  | 6  | ...   | Ap | Levant    | 1759. | L  | sl  |                        |
| *2002. PLATANUS. W. PLANE-TREE. <i>Amentaceæ.</i> Sp. 4-5.          |                              |                 |   |     |    |       |    |           |       |    |     |                        |
| 13437   | <i>orientális W.</i>         | oriental        | 辛 | tm  | 50 | ap.my | Ap | Levant    | 1548. | C  | co  | Dend. brit. 101        |
| 13438   | <i>cuneàta W.</i>            | wave-leaved     | 辛 | or  | 6  | ap.my | Ap | Levant    | 1739. | C  | co  |                        |
| 13439   | <i>acerifolia W.</i>         | Maple-leaved    | 辛 | tm  | 70 | ap.my | Ap | Levant    | 1794. | C  | co  |                        |
| 13440   | <i>occidentális W.</i>       | American        | 辛 | tm  | 70 | ap.my | Ap | N. Amer.  | 1640. | C  | co  | Dend. brit. 100        |
| *2003. SALISBURIA. L. T. SALISBURIA. <i>Amentaceæ.</i> Sp. 1.       |                              |                 |   |     |    |       |    |           |       |    |     |                        |
| 13441   | <i>adiantifolia L. T.</i>    | Maiden-hair-iv. | 辛 | or  | 20 | ap.my | Ap | Japan     | 1754. | C  | sl  | Dend. brit. 168        |
| *2004. CARLUDOVICA. Fl. per. CARLUDOVICA. <i>Pandaneæ.</i> Sp. 3-5. |                              |                 |   |     |    |       |    |           |       |    |     |                        |
| 13442   | <i>angustifolia Fl. per.</i> | narrow-leaved   | 辛 | or  | 3  | ...   | W  | Peru      | 1818. | Sk | p.l |                        |
| 13443   | <i>latifolia Fl. per.</i>    | broad-lgaved    | 辛 | or  | 3  | jl.au | W  | Peru      | 1818. | Sk | p.l |                        |
| 13444   | <i>palмата Fl. per.</i>      | palmate         | 辛 | or  | 3  | jl.au | W  | Peru      | 1818. | Sk | p.l |                        |
| *2005. CALADIVUM. W. CALADIUM. <i>Aroidææ.</i> Sp. 16-37.           |                              |                 |   |     |    |       |    |           |       |    |     |                        |
| 13445   | <i>helleborifolium W.</i>    | Hellebore-ld.   | 辛 | or  | 2  | jn.jl | W  | Caraccas  | 1796. | R  | sp  | Jac. ic. 3. t. 613     |
| 13446   | <i>bicolor W.</i>            | two-colored     | 辛 | or  | 1  | jn.jl | W  | Madeira   | 1773. | R  | sp  | Bot. mag. 820          |
| 13447   | <i>nympheifolium W.</i>      | Water-lily-ld.  | 辛 | or  | 4  | ...   | W  | E. Indies | 1800. | R  | sp  | Rhe. mat. 11. t. 22    |
| 13448   | <i>esculentum W.</i>         | esculent        | 辛 | clt | 2  | ...   | W  | America   | 1739. | R  | sp  | Sljam. 1. t. 106. f. 1 |
| 13449   | <i>sagittifolium W.</i>      | arrow-leaved    | 辛 | or  | 2  | ...   | W  | W. Indies | 1710. | R  | sp  | Jac. vind. 2. t. 157   |
| 13450   | <i>pinnatifidum W.</i>       | pinnatifid      | 辛 | or  | 2  | ...   | W  | Caraccas  | 1817. | R  | sp  | Jac. schæ. 2. t. 187   |
| 13451   | <i>seguinum W.</i>           | Dumb-Cane       | 辛 | or  | 6  | my    | W  | America   | 1759. | R  | sp  | Hook. ex. fl. 1        |
| 13452   | <i>grandifolium W.</i>       | great-leaved    | 辛 | or  | 6  | my.jl | W  | Caraccas  | 1803. | R  | sp  | Jac. schæ. 2. t. 189   |
| 13453   | <i>arborescens W.</i>        | tree            | 辛 | or  | 8  | jn.jl | W  | W. Indies | 1759. | R  | sp  | Plu. ame. 44. t. 60    |
| 13454   | <i>tripartitum W.</i>        | ternate-leaved  | 辛 | or  | 3  | ...   | W  | Caraccas  | 1816. | R  | sp  | Jac. schæ. 2. t. 190   |
| 13455   | <i>auritum W.</i>            | ear-leaved      | 辛 | or  | 3  | ...   | W  | America   | 1739. | R  | sp  | Jac. schæ. 2. t. 191   |
| 13456   | <i>læcerum W.</i>            | toen            | 辛 | or  | 4  | ...   | W  | Caraccas  | 1822. | R  | sp  |                        |
| 13457   | <i>odoratum Roxb.</i>        | fragrant        | 辛 | or  | 2  | ...   | W  | Caraccas  | 1822. | R  | sp  |                        |
| 13458   | <i>maculatum Lodd.</i>       | spotted         | 辛 | or  | 6  | mr    | W  | Fegu      | 1818. | R  | sp  | Bot. reg. 641          |
| 13459   | <i>scandens W.</i>           | climbing        | 辛 | or  | 2  | ...   | W  | S. Amer.  | 1820. | C  | sp  | Bot. cab. 608          |
| 13460   | <i>xanthorhizum Jacq.</i>    | yellow-rooted   | 辛 | or  | 4  | ...   | W  | Guinea    | 1822. | R  | sp  | Fl. d'Oware, t. 3      |
|   |                              |                 | 辛 | or  | 4  | ...   | W  | .....     | 1822. | R  | sp  | Jac. schæ. 2. t. 188   |



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to be only a variety of this species. The acorns of *Q. esculus* are sweet, and, it is said, are frequently eaten by the poor in the south of France: the tree very much resembles the common English oak.

The willow oak grows to the height of about fifty or sixty feet. The *Q. virens*, or live oak, grows to the height of forty or fifty feet, spreading its branches, when in open places, extremely wide; it yields the finest and most durable ship-timber of any species known; for which reason it is considered one of the most valuable trees in America. The laurel-oak, or, as it is sometimes called, swamp willow oak, is about fifty or sixty feet high; its wood, according to the elder Michaux, is very valuable, and almost preferable to that of *Q. virens*. The water oak, *Q. aquatica*, is about forty feet high when full grown: its wood is but little valued. Its leaves vary according to the soil and age, *ad infinitum*. There is scarcely one tree found having leaves like the other; and the same tree is almost as variable in its different branches. The downy black oak, *Q. triloba*, is from twenty to forty feet high, according to Michaux, of very rapid growth, and extremely well calculated for inclosing land. The barren oak, or black jack of the Virginians, *Q. nigra*, is of low growth, especially in the more northern states; it bears very abundantly, and furnishes a fine meat for hogs; the wood is small, but excellent for fuel. The black oak, or Quercitron, *Q. tinctoria*, is one of the largest trees of the American forest, and highly valuable on account of its timber as well as bark, which is very superior for tanning to any other oak. *Q. falcata* is a very large tree, commonly called Spanish oak. The wood of the upland white oak, or iron oak, is of great value in ship-building. The fruit of the *Q. Prinus*, known by the name of the chesnut white oak, swamp chesnut oak, and, in the southern states of North America, white oak, is large, and of a sweet taste. The bark of the rock chesnut oak, *Q. montana*, is excellent for tanning. The yellow oak, *Q. castanea*, is a large and beautiful tree with eatable acorns.

2001. *Liquidambar*. From this tree flows a strong balsamic substance, which has been compared to ambergris, and named from *Ambar*, amber, and *liquidum*, fluid. *L. styraciflua*, in its general form and leaves, bears a considerable resemblance to the lesser Maple, (*Acer campestre*) as the wood is good timber and beautifully variegated. Between the wood and the bark issues a fragrant gum, which trickles from the wounded trees, and by the heat of the sun congeals into transparent drops, which the Indians chew as a preservative to their teeth. It smells like the balsam of Tolu. The species are propagated by layers, or from seeds.

The sweet gum-tree, or *Liquidambar styraciflua*, is sometimes found of an immense size, particularly in the southern states; its wood is of an exquisite hard texture and fine grain, and furniture made of it has a handsome appearance.

2002. *Platanus*. From *πλατανος*, ample, broad, in allusion to the shadow afforded by the foliage. The species are trees of peculiar grace and elegance, and from that circumstance, and the classical associations attached to them, they are eminently adapted for pleasure grounds. The chenar, or eastern plane, is very much employed

- 13432 Leaves oblong sinuate serrated downy beneath, Bark fungous  
 13433 Lvs. obl. smooth glaucous ben. deeply and unequally pinnatif. Fruit ellipt.-ovate, Cal. cup-shaped fringed  
 13434 Lvs. obl. deeply sinuated smooth much contracted in the middle: lobes acute; the upper ones dilated angular and abrupt, Calyx of the fruit globose muricated nearly covering the nut  
 13435 Leaves palmate-lobed, Recesses at the base of the veins villous  
 13436 Leaves palmate-lobed, Recesses at the base of the veins smooth  
 13437 Leaves 5-lobed palmate cuneate at base, Segm. lanceolate sinuated, Stipules nearly entire  
 13438 Leaves 3-5-lobed toothed cuneate at the base smoothish  
 13439 Leaves cordate 5-lobed remotely toothed truncate at base  
 13440 Leaves 5 angular obsoletely lobed toothed cuneate at base downy beneath

13441 The only species

- 13442 Fronds forked: segments ensiform narrow, Stems round  
 13443 Fronds forked: segments lanceolate, Stems channelled  
 13444 Fronds flabelliform 3-5-parted

- 13445 Stemless, Leaves pedate entire, Spadix as long as spathe [contracted in the middle  
 13446 Stemless, Lvs. pell.-cordate sagittate colored in the disk, Spadix shorter than the hooded spathe, which is  
 13447 Stemless, Lvs. pell.-cordate sagittate sagittate, Spadix longer than the cylindrical spathe sagittate at end  
 13448 Stemless, Leaves pedate-cordate, Spadix shorter than ovate-lanceolate spathe  
 13449 Stemless, Leaves sagittate acuminate, Spadix shorter than ovate-cucullate spathe  
 13450 Stemless, Leaves pinnatifid  
 13451 Caulicent suberect, Leaves oblong cuspidate, Spadix shorter than oblong spathe  
 13452 Caulicent rooting, Leaves cordate sagittate, Spadix as long as the cucullate ovate spathe  
 13453 Caulicent erect, Leaves sagittate, Spadix shorter than the cucullate ovate spathe  
 13454 Caulicent rooting, Leaves ternate, Petioles naked, Spadix as long as the cucullate ovate spathe  
 13455 Caules. root. Lvs. tern.: lat. leaflets eared at base on outside, Petiol. winged bel. Spad. shorter than spathe  
 13456 Caulicent rooting, Leaves cordate sinuate  
 13457 Caulicent, Leaves cordate with rounded lobes, Spadix as long as cymbiform spathe  
 13458 Caulicent suberect, Leaves oblong acuminate cuspidate cordate at base finely spotted with clear white  
 13459 Caulicent scandent, Leaves ovate oblong acuminate, Spadix longer than cucullate spathe  
 13460 Caules. erect, Lvs. cord. sagittate, Spadix shorter than spathe, which is cucullate and contracted in middle



and Miscellaneous Particulars.

in the gardens of Persia and India; it was highly esteemed by the Greeks and Romans, and was planted near their houses in the form of avenues and groves. Groves of these trees are still equally revered in India, and are commonly found near the native temples and burial places of the princes. The timber is considered of similar quality to that of sycamore. All the species are of easy culture by layers, and they will also grow by cuttings.

The *Platanus occidentalis* is known in America by the name of the button-wood, water beech, sycamore, and plane-tree; in Canada it is called cotton-tree. It is, perhaps, the largest tree in North America; on the fertile banks of the Ohio and Mississippi there are trees measuring from ten to sixteen feet in diameter.

2003. *Saisburia*. So called in honor of Richard Anthony Salisbury, F. R. S., a modern distinguished botanist. A large tree remarkable for its fan-shaped leaves, cloven like some of the *Adiantum* species. The fruit is a pale brown drupe of a globular form; it has never been produced in this country, though there are trees of a considerable size. The fruit is yellow when ripe, with a fleshy, juicy, white pulp, adhering closely to the drupe, which is like that of an apricot. The kernel is white, rather firm, sweet, with a mixture of austerity or bitterness when raw, but agreeable when roasted. Dr. Abel says, he saw the fruit exposed in the markets in China, but could not find out to what purpose it was applied.

2004. *Carludovica*. Named by the authors of the *Flora Peruviana*, in honor of Charles IV., king of Spain, and Luiza, his queen; both of whom were noble patrons of botany, and deserving of a finer genus to commemorate their virtues. The species are low palm-like herbs, of little beauty, but of great botanical interest.

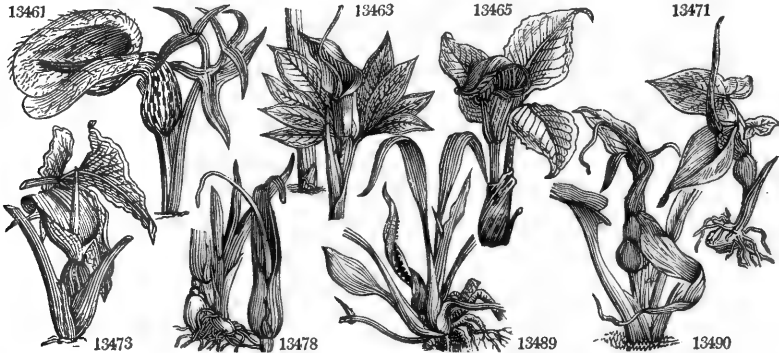
2005. *Caladium*. A name originally employed by Rumphius, to designate some species of *Arum*, and revived by Ventenat. Its meaning is unknown. The species have the appearance of *Arca*, and are only cultivated for their singularly spotted stems, or neat green leaves, which are rarely disfigured by any of the accidents to which other stove plants are liable. The species are plants of the same general appearance as *Arum*. *C. sagittifolium*, *Chou-de-Bresil*, Fr., and *Esbare Arum*, Ger., bears a near resemblance to *Arum Colocasia*, and is carefully cultivated in the West Indies for the leaves, which are boiled and eaten as coleworts, being extremely pleasing to the taste. The roots are also eaten there, but they are in less esteem than the leaves. This is generally supposed to be the species of the *Arum* family the most universally cultivated. It is found in the East and West Indies, China, Japan, New Zealand, and the South Sea Islands. The root is extremely acrid, and when eaten raw, will excoriate the mouth; but baked in hot ashes, it loses its acrimonious quality, and becomes mild and well tasted; it is, however, heavy on a weak stomach, and is apt to occasion costiveness. The leaves, which are very soft, glaucous, and covered with a very fine silky nap, are used in many places instead of plates and dishes.



|                                  |                 |   |     |     |                |                |           |         |       |                     |
|----------------------------------|-----------------|---|-----|-----|----------------|----------------|-----------|---------|-------|---------------------|
| *2006. A'RUM. <i>W.</i>          | ARUM.           |   |     |     | <i>Aroidæ.</i> | Sp. 30-45.     |           |         |       |                     |
| 13461 crinitum <i>W.</i>         | hairy-sheathed  | △ | cu  | 1   | mr.ap          | Br             | Minorca   | 1777.   | R s.l | Bot. reg. 831       |
| 13462 Dracunculus <i>W.</i>      | Comm. Dragon    | △ | or  | 3   | jn.jl          | Br             | S. Europe | 1548.   | R s.l | Mor. s.13.t.5.f.46  |
| 13463 Dracuncium <i>W.</i>       | Green Dragon    | △ | or  | 2   | jn             | G              | N. Amer.  | 1759.   | R s.l | Bot. reg. 663       |
| 13464 venustum <i>W.</i>         | purple-flower'd | △ | cu  | 1½  | mr             | Pu             | .....     | 1774.   | R s.l |                     |
| 13465 triphýllum <i>W.</i>       | three-leaved    | △ | cu  | 3   | my.jn          | Br             | N. Amer.  | 1664.   | R s.l | Bot. mag. 950       |
| 13466 atropúbens <i>W.</i>       | purple-stalked  | △ | cu  | 1   | jn.jl          | Br             | N. Amer.  | 1758.   | R s.l | Pluk. al. t.148.f.6 |
| 13467 ternátum <i>W.</i>         | Japan           | △ | cu  | 3   | my.jl          | Pu             | Japan     | 1774.   | R s.l |                     |
| 13468 Colocasia <i>W.</i>        | Egyptian        | △ | cul | 2   | ...            | G              | Levant    | 1551.   | R s.p |                     |
| 13469 macrorrhizon <i>W.</i>     | long-rooted     | △ | cu  | 2   | ...            | G              | E. Indies | 1803.   | R s.p | Herm. parad. 73     |
| 13470 divaricátum <i>W.</i>      | divaricated     | △ | cu  | 2   | jn.jl          | G              | E. Indies | 1759.   | R s.p | Rhe.mal.11. t.20    |
| 13471 trilobátum <i>W.</i>       | three-lobed     | △ | cu  | 1   | my.jn          | Pu             | Ceylon    | 1714.   | R s.p | Bot. mag. 339       |
| 13472 maculátum <i>W.</i>        | common          | △ | w   | 1   | my.jl          | W              | Britain   | sh.p.l. | R co  | Eng. bot. 1393      |
| 13473 orixánsæ <i>B. Br.</i>     | Orixian         | △ | or  | 1   | au.o           | Pu             | E. Indies | 1802.   | R s.p | Bot. reg. 450       |
| 13474 itálicum <i>W.</i>         | Italian         | △ | or  | 1½  | my.jl          | LY             | Italy     | 1683.   | R co  | Bot. mag. 2432      |
| 13475 minútum <i>W.</i>          | small           | △ | cu  | 1   | jn.jl          | Pu             | E. Indies | 1812.   | R co  | Rhe.mal.11. t.17    |
| 13476 virginicum <i>W.</i>       | Virginian       | △ | cu  | 1   | jn.jl          | R              | N. Amer.  | 1759.   | R s.p |                     |
| §13477 Arisárum <i>W.</i>        | Friar's Cowl    | △ | cu  | 1½  | ap.jn          | LY             | S. Europe | 1596.   | R s.l | Jac.schœ.2.t.192    |
| 13478 tenuifólium <i>W.</i>      | Grass-leaved    | △ | cu  | 1   | ap.jn          | W              | S. Europe | 1570.   | R s.p | Bot. reg. 512       |
| 13479 cucullátum <i>Lour.</i>    | hooded          | △ | cu  | 2   | ...            | G              | China     | 1824.   | R s.p |                     |
| 13480 indicum <i>Lour.</i>       | Indian          | △ | cu  | 5   | ...            | Br             | China     | 1824.   | R s.p |                     |
| 13481 obtusilóbum <i>Link.</i>   | blunt-lobed     | △ | or  | 2   | ...            | ...            | .....     | 1824.   | R s.p |                     |
| 13482 sagittifólium <i>Link.</i> | arrow-headed    | △ | or  | 2   | ...            | ...            | .....     | 1824.   | R l.p |                     |
| 13483 viviparum <i>Lodd.</i>     | viviparous      | △ | or  | 1½  | my             | G              | .....     | 1817.   | R l.p | Bot. cab. 281       |
| 13484 integrifólium <i>Link.</i> | entire-leaved   | △ | or  | 3   | my.jn          | G              | .....     | 1825.   | R l.p |                     |
| 13485 ramósum <i>Link.</i>       | branched        | △ | or  | 3   | my.jn          | ...            | .....     | 1810.   | R l.p |                     |
| 13486 hederáceum <i>W.</i>       | Ivy-leaved      | △ | cu  | 6   | my.jn          | Pu             | W. Indies | 1793.   | R l.p | Jac. amer. t. 152   |
| 13487 lingulátum <i>W.</i>       | tongue-leaved   | △ | cu  | 3   | ...            | ...            | W. Indies | 1793.   | R l.p | Plum. ic. 26. t.37  |
| 13488 bulbiferum <i>B. M.</i>    | bulb-bearing    | △ | or  | 6   | my             | Pa             | Bengal    | 1813.   | R l.p | Bot. mag. 2072      |
| 13489 spirále <i>W.</i>          | spiral          | △ | cu  | 1   | my             | Br             | China     | 1816.   | R l.p | Bot. mag. 2220      |
| 13490 flagellifórmæ <i>Lodd.</i> | whip-lash       | △ | cu  | 1   | my             | Br             | Bengal    | 1819.   | R l.p | Bot. cab. 396       |
| 2007. CARYOTA. <i>W.</i>         | CARYOTA.        |   |     |     |                | <i>Palmeæ.</i> | Sp. 2-3.  |         |       |                     |
| 13491 árens <i>W.</i>            | tern-leaved     | △ | or  | 20  | ...            | W              | E. Indies | 1788.   | S r.m | Rhee.mal.1. t.11    |
| 13492 mtis <i>Lour.</i>          | unarmed         | △ | or  | ... | ...            | ...            | China     | 1820.   | S r.m |                     |

MONADELPHIA.

|                               |               |   |     |    |     |                |           |       |       |                    |
|-------------------------------|---------------|---|-----|----|-----|----------------|-----------|-------|-------|--------------------|
| 2008. NIPA. <i>Thunb.</i>     | NIPA.         |   |     |    |     | <i>Palmeæ.</i> | Sp. 1.    |       |       |                    |
| 13493 frúticans <i>Thunb.</i> | shrubby       | △ | or  | 10 | ... | W              | E. Indies | 1822. | S r.m | Rumph. 1. t. 16    |
| *2009. ARE'CA. <i>W.</i>      | CABBAGE-TREE. |   |     |    |     | <i>Palmeæ.</i> | Sp. 5-9.  |       |       |                    |
| 13494 Câtechu <i>W.</i>       | medicinal     | △ | clt | 30 | ... | W              | E. Indies | 1690. | S r.m | Rox. cor. 1. t. 75 |
| 13495 húmilis <i>W.</i>       | dwarf         | △ | clt | 6  | ... | W              | E. Indies | 1814. | S r.m | Rump.amb.1.t.7     |
| §13496 olerácea <i>W.</i>     | esulent       | △ | clt | 40 | ... | W              | W. Indies | 1656. | S r.m | Jac. amer. t. 170  |



History, Use, Propagation, Culture,

2006. *Arum*. Formerly *aron*; supposed to be an ancient Egyptian word by which the *A. colocasia* was known. The last mentioned name is an alteration of its Arabic denomination *qalqas*, according to Forskahl. Perennial herbaceous plants, mostly natives of hot climates. The roots are fleshy, hot, and acrid, but in many species eatable; they are generally without stems, and altogether, with the *Caladiums*, form a very singular family. *A. Dracunculus*, *Serpentaire*, Fr., *Drachenwarz*, Ger., and *Dracunculo*, Ital., is a very remarkable plant; the stalks of the leaves being spotted with brown and purple, like the belly of a snake. The flower, which, like others of the genus, has a very singular appearance, smells so strongly of carrion, that few persons can endure it. It might be used in medicine and domestic economy for the same purposes as *A. maculatum*. *A. Colocasia* has a tuberous thick large oblong root, and leaves resembling those of the water-lily. In Egypt and the Levant, this plant is esteemed a wholesome food, though not very delicate. The roots and petioles are boiled, and the leaves when young are sometimes eaten raw. *A. trilobatum*, and various others, are similarly used in the West Indies. There and in Europe the culture of all the species is of the simplest kind.

*A. maculatum*, *Gouet*, Fr., *Aronswartzel*, Ger., and *Aro*, Ital., has a tuberous whitish root about the size of a large nutmeg, which is used both as food and medicine. On tasting them, they seem to be merely mucilaginous and insipid, but they soon affect the tongue with a pungency as if pricked by needles; this uneasy sensation may be alleviated by milk, butter, or oil. The acrimony is lost in drying, and the roots become farinaceous, insipid, and fit for boiling or baking. In the Isle of Portland, where the plant is very abundant, the roots are generally eaten by the country people; they are macerated, steeped, and the powder so obtained is dried and sent to London, and sold under the name of Portland sago. Medicinally, the root in its recent state is stimulant, diaphoretic, and expectorant. Though retained in the *Materia Medica*, it is seldom used. The berries which succeed the flower are devoured by birds; and Mr. Curtis thinks, that even the roots are eaten by them, particularly pheasants. Dried and powdered, they are used by the French as a wash for the skin, under the name of cypress powder.

2007. *Caryota*. The Greeks gave this name to a kind of cultivated date. Pliny says, it was so called,

- 13461 Leaves pedate entire, Spadix cylindrical shorter than ovate flat spathe, which is hairy inside
- 13462 Leaves pedate entire, Spadix lanceolate shorter than the ovate flat smooth spathe
- 13463 Leaves pedate entire, Spadix subulate longer than the oblong convolute spathe
- 13464 Leaves pedate entire, Spadix shorter than lanceolate spathe
- 13465 Stemless, Leaves ternate entire, Spadix clavate shorter than ovate acuminate flat stalked spathe
- 13466 Stemless, Leaves ternate ovate twice as short as spadix
- 13467 Stemless, Leaves ternate, Spadix longer than spathe
- 13468 Stemless, Leaves peltate ovate repand emarginate at base
- 13469 Stemless, Leaves peltate cordate repand 2-parted at base
- 13470 Stemless, Leaves cordate hastate, Spadix subulate longer than the reflexed ovate-lanceolate spathe
- 13471 Stemless, Leaves sagittate 3-lobed, Flowers sessile
- 13472 Leaves all radical hastato-agitate : lobes deflexed, Spadix club-shaped obtuse shorter than the spathe
- 13473 Leaves hastate 3-parted, Spathe stalked 2-colored longer than spadix : the end lanceolate and deflexed
- 13474 Stemless, Lvs. veiny with white hastate sagit. : lobes auricled diyaricating, Spad. clav. shorter than spathe
- 13475 Stemless, Lvs. hastate sagittate mucronate : lobes deflex. Petioles dotted, Spad. cylind. shorter than spathe
- 13476 Stemless, Leaves hastate cordate acute : angles obtuse [cucullate spathe
- 13477 Stemless, Lvs. hast. sagittate mucron. : lobes deflexed oblong obtuse, Spadix cylind. incurved shorter than
- 13478 Stemless, Leaves linear-lanceolate, Spadix subulate longer than lanceolate spathe
- 13479 Caulescens erect, Leaves peltate cordate : auricles cucullate
- 13480 Caulescens suberect, Leaves ovate bifid at base rounded, Spadices axillary
- 13481 Caulescens, Leaves peltate cordate acute cut out at the base with a wide recess
- 13482 Leaves sagittate acute rounded at base
- 13483 Leaves peltate cordate sagittate, Spathe roundish oblong acute, Spadix obtuse much shorter than spathe
- 13484 Leaves lanceolate acute entire, Edge of petiole sheathing, Spathe cucullate
- 13485 Leaves peltate cordate
- 13486 Caulescens rooting, Leaves cordate oblong acuminate, Petioles round
- 13487 Caulescens creeping, Leaves cordate lanceolate, Petioles with a membranous edge
- 13488 Stemless, Leaves decomposed bulbiferous, Spadix oblong ovate shorter than the obtuse veiny spathe
- 13489 Stemless, Leaves linear lanceolate, Spadix lanceolate shorter than the oblong lanc. spirally twisted spathe
- 13490 Steml. Lvs. ov. ent. or 3-lob. Spathe ureocel. at base : reflex. and taper-point. at end, Spadix length of spathe
  
- 13491 Unarmed fronds bipinnate, Leaflets cuneiform obliquely bitten off
- 13492 Fronds bipinnate, Petioles nodding, Fruit 1-seeded

MONADELPHIA.

13493 Frond pinnate, Female flowers terminal capitate : male lateral with dichotomous peduncles

- 13494 Fronds pinnate, Leaflets plaited terminal bitten off, Stems and spadices smooth
- 13495 Fronds pinnate, Leaflets cuneiform truncate, Fruit globose ovate acute
- 13496 Fronds pinnate, Leaflets linear acute, Fruit oblong incurved



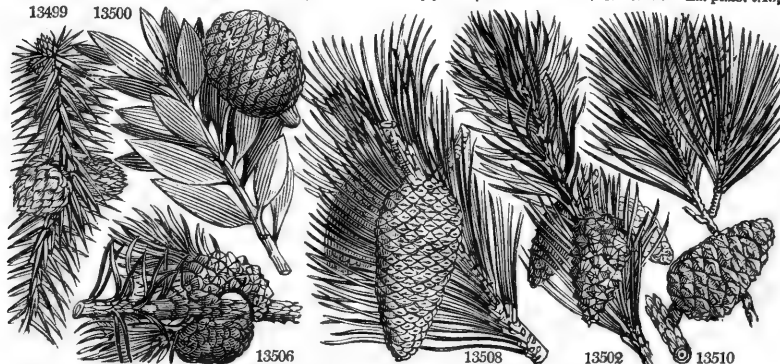
and Miscellaneous Particulars.

because a wine was prepared from it which soon got into the head, *waga*, head. *C. urens*, a fine species of palm, produces flowers in long pendulous spikes, which are succeeded by strings of succulent globular berries, dark red when ripe, with a thin skin, soft pulp, and very sharp and acrid to the taste. In Ceylon, it yields a sort of liquor, sweet, wholesome, and no stronger than water. It is taken from the tree twice or thrice a day, and an ordinary tree will yield three or four gallons. They boil this liquor, and thus make a kind of brown sugar of it, called Jaggory. The fruit is not eatable. When the tree has come to maturity, there comes out a bud from the top; this bud they cut and prepare by putting salt, pepper, lemons, garlick, leaves, &c. over it, which keep it from ripening. They daily cut off a thin slice from the end, and the liquor drops into a vessel, which they set to catch it. The buds, like those of the Cocoa and Betel-nut, are excellent in taste, resembling walnuts or almonds. *C. mitis* is a very beautiful palm, with fronds four feet long and a branched spike of flowers, succeeded by berries, round, coriaceous, smooth, black, the size of a musket bullet, but not eatable. Both species grow freely in sandy loam.

2008. *Nipa*. The name given to this fine palm in the Moluccas.  
 2009. *Areca*. The name which this palm bears in Malabar is, when it is an old tree, *Areec* ; when young it is called *Paynga*. A. Catechu produces the nut which is cut in slices, wrapped in the aromatic leaves of the betel-pepper, and chewed as we do tobacco. These leaves are previously covered with a thin layer of shell-lime (Ehunam), to preserve the flavor longer in the mouth. In most parts of the East Indies the natives are continually chewing it, swallowing their saliva tinged with the juice, and spitting out the rest. The inside of their mouths appears as red as blood, and it gives their teeth a dark color : but it preserves the teeth, sweetens the breath, and is a stomachic and diuretic. This palm is very generally cultivated in the East Indies.

*A. oleracea* is the highest of the American palms, and is very distinct from the East Indian *Areca*. The sheaths of the leaves are very close, and form the green top of the trunk a foot and a half in length. The

|                                     |                         |            |       |    |           |        |   |                             |
|-------------------------------------|-------------------------|------------|-------|----|-----------|--------|---|-----------------------------|
| 13497 <i>crinita</i> W.             | hairy-coated            | ♂ □ or 20  | ...   | W  | I. France | 1824.  | S | r m                         |
| 13498 <i>lutescens</i> W.           | yellow                  | ♂ □ or 20  | ...   | W  | I. France | 1824.  | S | r m                         |
| *2010. <i>BEYLIS</i> Salisb.        | BELIS.                  |            |       |    |           |        |   |                             |
| †13499 <i>jaculifolia</i> Salisb.   | lance-leaved            | ♂ □ or 20  | ...   | Ap | China     | 1804.  | C | p l Lam.pin.52. t.34        |
|                                     | <i>Pinus lanceolata</i> |            |       |    |           |        |   |                             |
| *2011. A'GATHIS. Salisb.            | DAMMAR PINE.            |            |       |    |           |        |   |                             |
| †13500 <i>loranthifolia</i> Salisb. | common                  | ♂ □ or 30  | ...   | Ap | Amboyna   | 1804.  | C | p l Rumph. 2. t. 57         |
|                                     | <i>Pinus Dam'mara</i>   |            |       |    |           |        |   |                             |
| †13501 <i>australis</i> Hort.       | Kawrie Pine             | ♂ □ tm 100 | ...   | Ap | N. Zeal.  | 1821.  | C | p l                         |
| †*2012. PINUS. W.                   | PINE.                   |            |       |    |           |        |   |                             |
| 13502 <i>sylvestris</i> W.          | Scotch                  | ♂ tm 80    | my    | Ap | Scotland  | sc.ap. | S | a l Lamb. pin. 1. t. 1      |
| 13503 <i>Pumilio</i> W.             | dwarf                   | or 20      | ap.my | Ap | Carniola  | 1779.  | S | a l Lamb. pin. 5. t. 2      |
| 13504 <i>Laricio</i> P. S.          | Corsican                | tm 80      | ...   | Ap | Corsica   | 1814.  | S | a l Mi. arb. 1. p. 61. t. 5 |
| 13505 <i>pungens</i> Ph             | pungent                 | tm 40      | ...   | Ap | N. Amer.  | 1804.  | L | a l Lamb. pin. 7. t. 3      |
| 13506 <i>Banksiana</i> Ph.          | Scrub Pine              | or 12      | my.jn | Ap | Huds. Bay | 1785.  | L | a l Lamb. pin. 9. t. 4, 5   |
| 13507 <i>Mughus</i> W.              | Mugho                   | or 10      | my.jn | Ap | Switzerl. | ...    | S | co Jacic. r. 1. t. 193      |
| 13508 <i>Pinaster</i> W.            | cluster                 | tm 60      | ap.my | Ap | S. Europe | 1596.  | L | a l La. pin. 11. t. 6, 7, 8 |
| 13509 <i>Pinea</i> W.               | stone                   | tm 40      | my    | Ap | S. Europe | 1548.  | L | a l La. pin. 13. t. 9, 10   |
| 13510 <i>maritima</i> W.            | maritime                | tm 40      | my.jn | Ap | S. Europe | 1759.  | L | a l La. pin. 15. t. 11      |
| 13511 <i>halepensis</i> W.          | Aleppo                  | tm 40      | my    | Ap | Levant    | 1683.  | L | a l La. pin. 18. t. 13      |
| 13512 <i>inope</i> Ph.              | Jersey                  | tm 50      | my    | Ap | N. Amer.  | 1739.  | S | a l La. pin. 20. t. 14      |
| 13513 <i>resinosa</i> Ph.           | pitch                   | tm 50      | my    | Ap | N. Amer.  | 1756.  | L | a l La. pin. 22. t. 15      |
| 13514 <i>variabilis</i> Ph.         | two and 3-leav.         | tm 40      | my.jn | Ap | N. Amer.  | 1739.  | L | a l La. pi. 23. t. 16, 17   |
| 13515 <i>Tæda</i> Ph.               | frankincense            | tm 30      | my.jn | Ap | N. Amer.  | 1713.  | L | a l La. pi. 2. 5, 3         |
| 13516 <i>excelsa</i> Wall.          | Nepal                   | tm 100     | ...   | Ap | Nepal     | 1823.  | S | a l Mi. arb. 1. p. 86. t. 7 |
| 13517 <i>serotina</i> Ph.           | Fox-tail                | or 60      | my.jn | Ap | N. Amer.  | 1713.  | S | a l La. pi. 25. t. 18, 19   |
| 13518 <i>rigida</i> Ph.             | three-leaved            | or 80      | my.jn | Ap | N. Amer.  | 1759.  | L | a l                         |



History, Use, Propagation, Culture,

inhabitants cut off this top, take out the white heart of two or three inches in diameter, consisting of the leaves closely folded together, and eat it, either raw with pepper and salt, or fried with butter like the artichoke.

2010. *Belis*. Named by R. A. Salisbury, in the Transactions of the Linnean Society, from *ελος*, a javelin, on account of the form and texture of the leaves, which are not unlike a javelin head. *B. lanceolata* is a beautiful evergreen shrub, with distichous neat leaves, easily cultivated in any good conservatory.

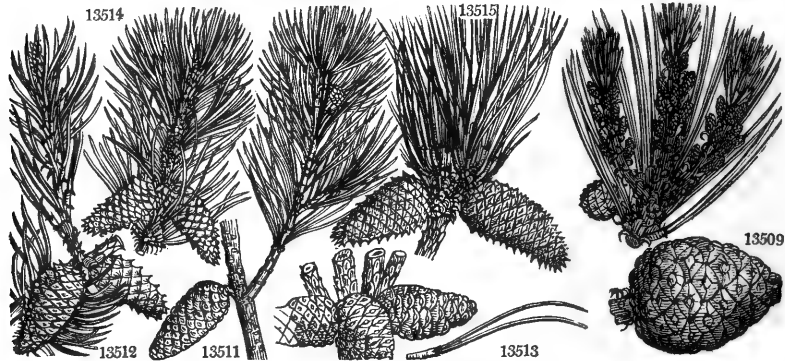
2011. *Agathis*. From *αγαθης*, a cluster, because the flowers are collected in clusters. This genus is formed of the Dammar Pines, of which the *A. australis*, or New Zealand Cowdie Pine, is one of the finest trees in the world, often growing perfectly straight to the height of 100 feet or more, and yielding one of the best descriptions of wood for masts.

2012. *Pinus*. This name is of Celtic origin, and is the same in all the dialects of that tongue. *Pin* or *pen*, a rock or mountain, has given rise to *pin*, in Armorian; *pinige*, in Erse; *pinna*, in Welsh; *pinus*, in Anglo-Saxon; *pine*, in English; *pynbaum*, in German; all signifying the fir-tree: hence also the Apennines (*Alpes pennines*), Pennafiel, Pennafior, &c. towns of Spain embosomed in mountains. The fruit of *P. Pinea* was formerly called Nux pinea, the pine nut. *Pinaster* is Pliny's name for the wild pine. *Cembra* is an alteration of the word *cembro* or *cirmoto*, the name given by the inhabitants of Trentin and Valteline to the plant. *Tæda* is derived from the Greek *ταει δαδος*, which signifies a torch, for which the wood of *P. tæda* is particularly adapted. *Strobus* is a name employed by Pliny for an eastern tree, which was used to perfume apartments. The moderns have applied it to a noble North American species.

The trees which compose this genus are not less remarkable for their grandeur and beauty, than for their valuable timber. They are all evergreens, and of lofty and erect growth. The trunk of the Scotch pine is more generally employed and more universally applicable as timber than any other tree in the temperate zone of the northern hemisphere. *P. sylvestris*, *Pin*, Fr., *Keifer* or *Föhre*, Ger., and *Pinea*, Ital., is erroneously called a fir; and has the term Scotch applied to it, because it is the only species of the genus indigenous to Britain, and there only in the northern parts of Scotland. It is also indigenous in the Alps, in the north of Germany, Russia, and abundantly so in Sweden and Norway. The finest pine woods in Britain, are at Invercauld in Inverness-shire, and Gordon Castle in Aberdeenshire. The timber of the Scotch pine is the red or yellow deal of the north of Europe, and is the most durable and valuable of any of the genus, unless we except, in point of durability, the larch. That grown in cold elevated situations in the highlands of Scotland, is found to be not inferior in quality to any imported from Norway; but that which has been planted in the low districts, is greatly inferior in point of durability, and can seldom be used in house carpentry and joinery. The tree is of great value as a nurse plant to others less hardy. The trunk of the tree produces resin by incision, and the roots tar by distillation. Several varieties of the wild pine have been noticed by botanists. According to Sang, the variety commonly cultivated is least worth the trouble. "The *P. sylvestris*, var. *montana*," he says, "is the variety which yields the red wood: even young trees of this sort are said to become red in their wood and full of resin very soon. The late Mr. Don, of Forfar, exhibited specimens of cones of each variety to the Highland Society of Scotland, and likewise to the Caledonian Horticultural Society. The variety preferred by Don, is distinguished by the disposition of its branches, which are remarkable for their horizontal direction, and for a tendency to bend downwards close to the trunk. The leaves are broader and shorter than in the common kind, and are distinguishable at a distance by their much lighter and beautiful glaucous appearance.

- 13497 Fronds pinnated, Stems hirsute, Spadixes branched spiny, Spines incurved  
 13498 Fronds pinnated, Leaflets plaited bitten off, Stems and spadixes branched smooth, Fruit roundish gibbous
- 13499 Leaves solitary lanceolate flat spreading, Cones round, Scales acuminate
- 13500 Leaves elliptical lanceolate striated
- 13501 Leaves ovate oblong smooth not striated

- 13502 Leaves in pairs rigid, Cones conico-ovate acute as long as the leaves, generally in pairs  
 13503 Leaves in pairs, Trunk ascending, Cones ovate erect  
 13504 Lvs. twin very long of two forms, Cones ovate, Scales narrowed at base very thickened at end not angular  
 13505 Leaves twin short acute, Cones ovate conical, Prickles of scales long subulate incurved : lower reflexed  
 13506 Leaves twin divaricating oblique, Cones recurved twisted, Crest of anthers dilated  
 13507 Leaves double or triple rigid, Cones oblong generally in pairs rounded at base  
 13508 Leaves twin roughish at edge, Cones oblong conical shorter than leaf narrowed at base, Scales echinate  
 13509 Leaves twin : the first ciliated, Cones ovate blunt somewhat unarmed longer than leaf, Nuts hard  
 13510 Leaves twin very fine, Cones ovate-conical very smooth solitary stalked  
 13511 Leaves twin, Cones ovate-conical rounded at base somewhat shorter than leaf, Scales blunt  
 13512 Leaves twin, Cones oblong-conical the length of leaves solitary rounded at base, Scales echinate  
 13513 Leaves twin, Cones ovate-conical rounded at base solitary half as short as leaves, Scales unarmed  
 13514 Leaves twin or ternate, Cones ovate-conical subsolitary, Prickles of scales incurved  
 13515 Leaves long, Cones deflexed : spines inflexed, Sheath of leaves long  
 13516 Leaves in 5s very long slender lax toothletted, Cones cylindrical smooth pendulous longer than leaves  
 13517 Leaves 3 very long, Cones roundish ovate mucronate  
 13518 Leaves 3, Cones ovate clustered, Spines of scales reflexed, Sheath of scales short



and Miscellaneous Particulars.

The bark of the trunk is smoother than in the common kind. The cones are thicker, and not so much pointed. The plant is more hardy than the common sort, grows freely in almost any soil or situation, and quickly arrives at a considerable size."

*P. laricio* is said to be nearly allied to the Scotch pine, but a much handsomer and finer tree. Professor Thouin considered it equally hardy with *P. sylvestris*; its wood is more weighty and resinous, and consequently more compact, stronger, and flexible. It grows wild on the summits of the highest mountains in Corsica. *P. resinosa*, the red Canadian pine, is not unlike the Scotch pine, but rather redder in the bark. The timber of this tree is frequently imported as masts, and is considered valuable. Grown on a damp and fertile soil, it is much less durable than from elevated situations; it is equally hardy with *P. sylvestris*. *P. pinaster* is a grand and picturesque tree, and is a great favorite with the Roman and Florentine painters. The timber is of less value than that of any of the others that have been mentioned; in Switzerland it is cut into shingles for covering their houses. It is highly deserving of culture as an ornamental tree, but not for timber.

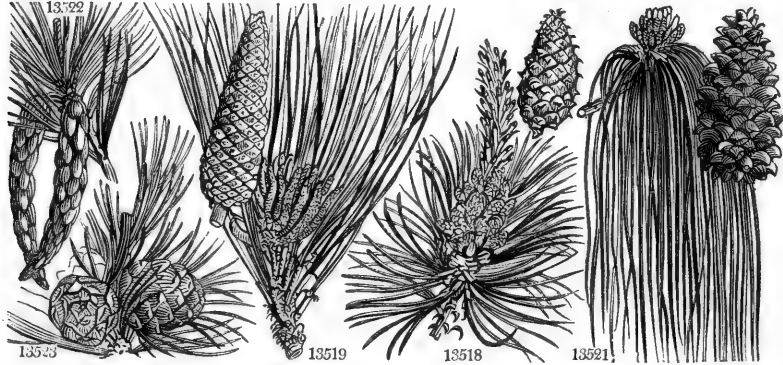
*P. pinea* is very common in the south of Italy; there is an immense forest of them at Ravenna, and they are much planted in the gardens of the villas of Rome and Florence. The seeds of this and the last species are eaten throughout Italy, both by the poor and rich. They are as sweet as almonds, but with a slight flavor of turpentine. The wood is not so resinous as that of most of the other sorts, and the tree can only be considered as deserving culture for its pictorial effect. *P. cembra*, the Tannenbaum of Lord Byron (Childe Harold), and the Apherousli pine of Harte (Essays), grows higher up the Alps than other pines, and is even found at elevations where the larch will not grow. The wood is very soft, and having scarcely any grain, is very fit for the carver. The peasants of the Tyrol, where this tree abounds, make various sorts of carved works with the wood, which they dispose of in Switzerland among the common people, who are fond of the resinous smell which it exhales.

*P. taeda* has longer leaves than the wild pine, and larger cones than *P. pinea*; the timber is like that of the Scotch pine, but has more resin. There are a number of these trees at Wolburn Abbey, which grow as freely as the Scotch pine, and the timber, as far as it has been tried, is superior.

*P. palustris* is remarkable for the length of its leaves, which often exceed a foot, and hang down in tufts at the end of the branches, having a singular appearance. It grows in a warmer climate than most other pines; produces a valuable timber in America, but has been but little cultivated in this country. *P. strobus* forms the connecting link between the pine and the larch tribe, and is the tallest tree of the genus. The bark is smooth and elegant, and the leaves numerous, soft, and of a bluish green. The timber is imported in vast quantities under the name of white pine; it is much used in house carpentry, but is considered less durable than the red deal of Norway (*P. sylvestris*), or the pitch pine of Canada (*P. resinosa*). The tree seems to be of so delicate a habit, as to prevent our expecting it ever to become very large or valuable in Britain. It has been a good deal cultivated, having formerly been supposed the most valuable tree of the genus, next to the common pine.

The *Pinus canariensis* seems never to have been well described or understood. Some have taken it for the *Pinus Larix*, others for the *Pinus taeda*, whilst others had confounded it with the *Pinus maritima*. Von Buch, and the late Christian Smith, named it in their catalogue of the vegetation of Teneriff, *Pinus canariensis*, and they state, that it inhabits that island from the edge of the sea to an elevation of 6700 Parisian feet above the level of the sea; but that the region where it is most abundant may be reckoned at from 4080

|                             |                |   |                       |     |       |    |           |       |   |     |                      |
|-----------------------------|----------------|---|-----------------------|-----|-------|----|-----------|-------|---|-----|----------------------|
| 13519 palustris Ph.         | swamp          | ● | tm                    | 20  | ...   | Ap | N. Amer.  | 1730. | S | s.l | Lam.pin.27. t.20     |
| 13520 canariensis Buch.     | Canary         | ● | or                    | 40  | ...   | Ap | Canaries  | 1815. | S | s.l | Pl. r. gen. c. ic.   |
| 13521 longifolia W.         | long-leaved    | ● | or                    | 40  | ...   | Ap | E. Indies | 1801. | G | p.l | Lam.pin.23. t.21     |
| 13522 Stróbus W.            | Weymouth       | ● | tm                    | 50  | ap    | Ap | N. Amer.  | 1705. | L | s.l | Lam.pin.31. t.22     |
| 13523 Cembra W.             | Siberian       | ● | tm                    | 25  | my    | Ap | Siberia   | 1746. | S | s.l | La. pi. 34. t.23, 24 |
| †*2013. 'ABIES. Salisb.     | Fir.           | ● | Coniferae. Sp. 10—12. |     |       |    |           |       |   |     |                      |
| 13524 Fraseri Ph.           | Double Balsam  | ● | or                    | 30  | my    | Ap | Pensylv.  | 1811. | C | s.l |                      |
| 13525 Picea W.              | Silver         | ● | tm                    | 30  | my    | Ap | Germany   | 1603. | L | s.l | Lam.pin.46. t.30     |
| 13526 Balsamea W.           | Balm of Gilead | ● | or                    | 50  | my    | Ap | N. Amer.  | 1696. | S | s.l | Lam.pin.48. t.31     |
| 13527 canadensis Ph.        | Hemlockspruce  | ● | or                    | 30  | my    | Ap | N. Amer.  | 1795. | S | s.l | Lam.pin.50. t.32     |
| 13528 orientalis W.         | Oriental       | ● | or                    | 30  | my    | Ap | Levant    | 1825. | S | co  | Lam.pin. c. ic.      |
| 13529 clausbrasiliana Hort. | Clanbrazil     | ● | or                    | 6   | my    | Ap | .....     |       | L | co  |                      |
| 13530 communis              | Norway spruce  | ● | tm                    | 100 | ap    | Ap | N. Europe | 1548. | S | s.l | Lam.pin.37. t.25     |
| 13531 álba Ph.              | White spruce   | ● | tm                    | 50  | my.jn | Ap | N. Amer.  | 1700. | S | s.l | Lam.pin.39. t.26     |



History, Use, Propagation, Culture.

to 5900 feet, where snow falls for about a month. The temperature of the zone M. Decandolle estimates to be similar to that of Scotland, or to the north of France, or of Germany. The wood is resinous, highly inflammable, and is excellent for constructing buildings, being known to continue sound for ages.

The *Pinus inops*, Jersey pine, pitch or scrub pine, is of middle size, straggling growth, and full of resin. Its branches are tougher than those of any other pine, and might be used for many purposes if its wood were not subject to so early a decay. The pitch pine, *P. resinosa*, is generally known in its native country by the name of Norway pine; sometimes, particularly among the Canadian French, red pine. It grows in close forests, is very tall, and its bark remarkably smooth and red: the timber is very heavy; for which reason it is rejected for masts, though its shape and size appear to recommend it for that purpose. The scrub pine, *P. Banksiana*, is a small straggling tree, which in some instances, when growing among barren rocks, does not rise above five or eight feet high, though it will grow to a considerable size when by accident or culture it is brought on good soil: trees of this species now in England exude a great quantity of resin from their branches. The yellow pine, *P. variabilis*, is most in use for building houses as well as shipping. *P. taeda*, the loblolly or Oldfield pine, is found in large tracts in the southern states of North America: all the woods seem to be filled with its seeds; for when any piece of cleared land is neglected for any space of time, it will be covered with these pines. It is difficult, and in some cases almost impracticable, to recover lands so run over, as the ground appears to have lost all fertile properties for other vegetation. The long leaved, yellow, pitch, or brown pine, *P. palustris*, is a beautiful as well as very useful tree. The white or Weymouth pine grows in the state of Vermont to an enormous size; it is the best timber in America for masts.

2013. *Abies*. According to Bulet, this name is derived from one of the dialects of the Celtic, *abetoa*, whence *abete*, Italian, *abeto*, Spanish, &c. Hesychius, the Greek grammarian, calls it *αβιν*.

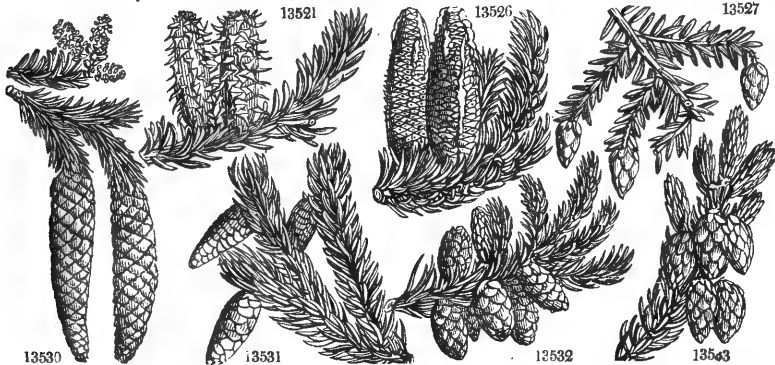
*Abies communis*, *Sapin*, Fr., *Fichtenbaum*, Ger., and *Abiete*, Ital., is one of the tallest of European firs, with a very straight but not thick trunk. It is a native of the north of Germany and Russia, and particularly abundant in Norway; its timber being the white deal, and, at an earlier age, the long spars imported from that country and the Baltic. The timber is inferior to that of the common pine in durability and bulk; and being often knotty, is not proportionally strong for horizontal bearings with that timber. White Norway deal, however, is used for a great variety of purposes in building; and the entire trees are more prized than any other for masts for small craft, for spars both for marine purposes and on land. What constitutes the value of this fir is, that its timber is equally durable at any age, like that of the larch; and what renders it peculiarly adapted for masts, spars, scaffolding, poles, &c. is its habit, almost in every case, whether standing single or detached, of growing perfectly erect and straight. The tree may be cut for rods, stakes, and scythes, or other implement handles, when the trunk at the base is not more than two inches in diameter, and the bark being kept on it, it will prove almost as durable as the larch. Pontey says, that poles of spruce are so far inferior to those of larch, that they are more apt to crack when exposed whole to the influence of the sun and air: but in all other respects they are nearly equal to it, and in straightness surpass it. The tree is peculiarly valuable as a nurse, from being evergreen and closely covered with branches, by which radiated heat is retained; from its conical shape and rigid stem, by which it does not suffocate or whip the adjoining trees; from its being valuable at whatever age it is thinned out; and from its being an excellent shelter for the most valuable game. It will not, however, grow in elevated situations, where the common pine and larch will flourish. It is also an excellent hedge plant for shelter, but is deficient in point of defence and durability. By incision, it yields a resin, from which, by various preparations, turpentine and Burgundy pitch are formed. The tops or sprouts give the flavor to what is called spruce beer.

*A. álba*, *rubra*, and *nigra*, are American firs of the spruce kind, resembling in their general properties those of Europe. The black spruce is reckoned the most durable: in America it is used for knees for ship-building, where neither oak nor larch can be easily obtained. These knees are not prepared from two diverging branches, as in the oak, but from a portion of the base of the trunk connected with one of the largest diverging roots. The timber of the red spruce is universally preferred throughout the United States for sail yards, and, indeed, imported for this purpose into Liverpool from Nova Scotia, where it is also used for constructing casks for salted fish. It is chiefly from the decoction in water of young shoots of the black spruce, and not exclusively from those of the white species, as supposed by Lambert, that the celebrated beer is prepared by fermentation, with a due proportion of sugar and molasses. The essence of spruce of the dealers is prepared by evaporating this decoction to the consistence of honey.

*A. picca* displays a more stable and majestic form than any of the firs. The upper surface of the leaves is of a fine vivid green, and their under surface has two white lines running lengthwise on each side of the

- 13519 Leaves 3 very long, Cones subcylindrical muricated, Stipules pinnatifid ragged persistent  
 13520 Lvs. very fine and slender of a bright glaucous green, Cones oblong pendulous, Scales obtuse spreading  
 13521 Leaves 3 very fine very long, Sheath long, Stipules entire deciduous, Crest of anthers convex entire  
 13522 Leaves quinate, Cones cylindrical longer than leaf lax  
 13523 Leaves quinate, Cones ovate obtuse, Scales appressed, Nuts hard

- 13524 Leaves solitary glaucous beneath emarginate, Cones ovate obl. erect, Bractes oblong reflexed emarginate  
 13525 Leaves solitary flat emarginate pectinate, Scales of cone very blunt appressed  
 13526 Leaves solitary flat emarginate subpectinate suberect above, Scales of the cone in fl. acuminate reflexed  
 13527 Leaves solitary flat toothed somewhat dichous, Cones ovate terminal scarcely longer than leaf  
 13528 Leaves solitary 4-cornered, Cones ovate cylindrical, Scales rhomboid  
 13529 This is a stunted variety of *Abies communis*  
 13530 Leaves solitary 4-cornered, Cones cylindrical, Scales rhomboid flattened repand at end eroded  
 13531 Leaves solitary 4-cornered incurved, Cones subcylindrical lax, Scales obovate entire



and Miscellaneous Particulars.

midrib, giving the leaves that silvery look which has given rise to the name. The timber is reckoned much inferior in value to that of the common pine, or of the white spruce. It should not be cut till after forty or fifty years growth; at this age, if it has grown in a sheltered rocky steep or dell, it will be found to have produced a great bulk of timber. It is more prolific in resinous matter than any other tree of the fir kind.

A. balsamea is a tree of more delicate habits than the silver fir; its timber is of little value, and the balm or resin procured from it possesses no medical properties superior to those of common turpentine. During summer, the tree sends out a pleasing terbinthinate odor.

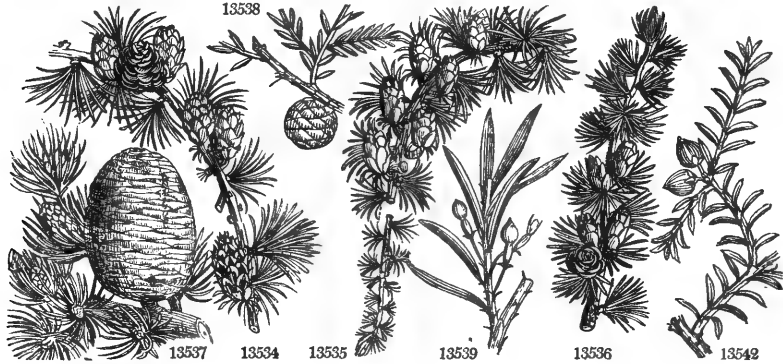
A. canadensis is a drooping low evergreen tree, elegant in appearance, and valuable as growing under the shade or drip of other trees.

All the species of the pine, fir, and larch families, with the exception of one or two, as yet rare in this country, are raised from seeds. The cones are gathered in the winter season, and exposed to the sun, or to a gentle heat on a kiln, in order to facilitate the separation of the seeds. The cones of the cedar should be kept for a year at least after they are taken from the tree, before the seed be attempted to be taken out. This is necessary on account of the soft nature of the seeds, and the great quantity of resinous matter which the cones contain when growing, and which is discharged by keeping. Cedar cones are generally imported from the Levant, and the seeds retain their vegetative powers for many years. The cones of the Scotch pine, spruce, and larch, are the principal kinds which are opened by kiln heat. The cones of the Weymouth pine, silver fir, and balm of Gilead fir, give out their seeds with very little trouble. April is the best season for sowing all the species. The soil should be soft and rich, well mellowed by the preceding winter's frost and snow, carefully dug and raked with a long toothed rake as finely as possible. The rarer sorts are generally sown in pots, but the more common in beds. The manner of sowing is by first drawing off the surface of the bed to the depth of half an inch; then drawing a light roller along it to render the surface perfectly even; next depositing the seed; and afterwards replacing the earth drawn off with a spade as evenly as possible. This is what is technically called bedding in, and is one of the nicest operations of nursery culture. The seed of the Scotch pine and Pinaster require a covering of half an inch in depth; those of the Weymouth pine, three quarters of an inch; and those of the stone pine, an inch and a quarter. The Cedar is generally sown in broad pots, or boxes of light sandy loam, and covered half an inch. The seeds of the larch require a covering of only a quarter of an inch; those of the spruce fir, an inch; those of the silver fir and balm of Gilead fir, from half to three quarters of an inch. The seeds of the American spruce fir are smaller than those of any of the preceding kinds, and therefore require a lighter covering than any of them; one-fifth of an inch is quite sufficient. The strictest attention is required, both in regard to quality of soil, and thickness of covering the seed; for though resinous trees are extremely hardy when grown up, yet they are all very tender in infancy. In sowing the seed, a considerable loss will be sustained by the suffocation of young plants if it is deposited too thick, and by the want of plants if too thin. The judicious gardener will be regulated by the goodness of the seed, and the size of the foliage of the different species. The raising regular crops of the pine family is reckoned a master piece of nursery culture in the open ground; and as it has been most extensively practised in the Scotch nurseries, it is generally considered as best understood there. (See *Song-Plant. Kal.*)

The pine, fir, and larch families benefit less by transplanting in the nursery than the non-resinous trees. And in general, where circumstances admit, the better plan is to remove them at once from the seed-bed at two years old, to where they are finally to remain. The more delicate species, including the cedar and most of the pines, are best transplanted into pots, unless they can be placed at once where they are to remain. The more common pines and firs are transplanted at two years of age into nursery lines, about the middle of April for all the tribe, excepting the larch, which, being deciduous, should be transplanted in February. No description of tree-plants receive so much injury as this tribe from the loss of roots, from the roots being exposed to the air by being kept long out of the soil, or from compression and exclusion of air and moisture by being kept in close bundles, or thick layers. They should, therefore, be finally planted as soon as possible after removal from the nursery; and, indeed, whenever it is practicable, no more should be taken up in one day than can be planted that day or the next. Nor are any plants more easily deprived of the vital principle, by packing and carriage either by sea or land; though, being all evergreens, excepting the larch, they do not readily show it. This has been stated to us by experienced planters in Wales and different parts of England, as the reason why so few trees are finally produced from the immense numbers of Scotch pine and larch fir annually sent to the south by the Scotch nurserymen.

*Abies Balsamea* forms an elegant tree forty or fifty feet high. It grows in high and cold situations in the northern states of North America, where it is called balsam of Gilead fir, fir balsam, and American silver fir.

|                                  |                              |   |    |    |       |    |           |       |   |     |                            |
|----------------------------------|------------------------------|---|----|----|-------|----|-----------|-------|---|-----|----------------------------|
| 13532 rúbra Ph.                  | Red spruce                   | ♂ | tm | 50 | my    | Ap | N. Amer.  | 1755. | S | s.1 | Lam.pin.43. t.28           |
| 13533 nigra Ph.                  | Black spruce                 | ♀ | tm | 50 | my    | Ap | N. Amer.  | 1700. | S | s.1 | Lam.pin.41. t.27           |
| *2014. LA'RIX. <i>Saltib.</i>    | LARCH.                       |   |    |    |       |    |           |       |   |     | <i>Coniferae. Sp. 4-5.</i> |
| 13534 communis                   | common white                 | ♀ | tm | 50 | mr.ap | Ap | Germany   | 1629. | S | s.1 | Lam.pin.53. t.35           |
| 13535 pëndula W.                 | Black                        | ♀ | tm | 30 | my    | Ap | N. Amer.  | 1739. | S | s.1 | Lam.pin.56. t.36           |
| 13536 microcarpa W.              | Red                          | ♀ | tm | 80 | my    | Ap | N. Amer.  | 1760. | S | s.1 | Lam.pin.58. t.37           |
| §13537 Cédrus W.                 | Cedar of Lebanon             | ♀ | or | 60 | my    | Ap | Levant    | 1683. | S | s.1 | Lam.pin.59. t.37           |
| 2015. SCHUBERTIA. <i>Mirb.</i>   | SCHUBERTIA.                  |   |    |    |       |    |           |       |   |     | <i>Coniferae. Sp. 1.</i>   |
| 13538 disticha <i>Mirb.</i>      | deciduous Cypress            | ♀ | or | 30 | my    | Ap | N. Amer.  | 1640. | S | s.p | Micarb.3.p.4.t.1           |
|                                  | <i>Cupressus disticha</i> L. |   |    |    |       |    |           |       |   |     |                            |
| 2016. PODOCARPUS. <i>L'Her.</i>  | PODOCARPUS.                  |   |    |    |       |    |           |       |   |     | <i>Coniferae. Sp. 4-6.</i> |
| 13539 macrophyllus <i>Hort.</i>  | long-leaved                  | ♂ | or | 10 | jlau  | Ap | China     | 1804. | C | l.p | Bank.ic.Kæt.t.24           |
| 13540 verticillatus <i>Hort.</i> | whorl-leaved                 | ♂ | or | 10 | jl    | Ap | Japan     | ...   | C | l.p |                            |
| 13541 elongátus P. S.            | African                      | ♂ | or | 10 | jl    | Ap | C. G. H.  | 1774. | C | l.p |                            |
| 13542 núcifer P. S.              | nut-bearing                  | ♂ | or | 20 | ...   | Ap | Japan     | 1822. | C | l.p | Kæ.amcen. t.815            |
| 2017. CUPRESSUS. W.              | CYPRESS.                     |   |    |    |       |    |           |       |   |     | <i>Coniferae. Sp. 5-9.</i> |
| 13543 sempervirens W.            | common                       | ♂ | or | 20 | my    | Ap | Candia    | 1548. | S | co  | Dend. brit. 155            |
|                                  | <i>u stricta</i>             | ♂ | or | 20 | ny    | Ap | Mediterr. | ...   | S | co  |                            |
|                                  | <i>β horizontális</i>        | ♂ | or | 20 | my    | Ap | Mediterr. | ...   | S | co  |                            |
| 13544 lusitánica W.              | Cedar of Goa                 | ♂ | or | 12 | ap.my | Ap | Goa       | 1683. | C | p.l | Lam.pin.95. t.42           |
| 13545 thyoïdes W.                | White Cedar                  | ♂ | or | 20 | ap.my | Ap | N. Amer.  | 1736. | L | co  | Dend. brit. 156            |
| 13546 juniperoides W.            | African                      | ♂ | or | 6  | ap.my | Ap | C. G. H.  | 1756. | C | p.l |                            |
| 13547 austrális P. S.            | slender-branch.              | ♂ | or | 10 | ap.my | Ap | N. Holl.  | ...   | S | p.l |                            |
| 2018. THU'JA. W.                 | ARBOR VITÆ.                  |   |    |    |       |    |           |       |   |     | <i>Coniferae. Sp. 4-9.</i> |
| 13548 occidentális W.            | American                     | ♂ | or | 25 | my    | Ap | N. Amer.  | 1596. | L | co  | M.larb.3.p.29.t.13         |
| 13549 orientális W.              | Chinese                      | ♂ | or | 25 | my    | Ap | China     | 1752. | S | co  | Dend. brit. 149            |



History, Use, Propagation, Culture,

The hemlock spruce is a very elegant tree, and grows in some situations to an enormous size: its bark is a fine substitute for oak-bark in tanning.

2014. *Larix*. This has also for its root the Celtic word *lar*, which signifies fat, in allusion to the abundance of resin afforded by the plant. Even Dioscorides remarks, that *Larix* is the Gallic name for resin. The authors of the Dictionary of Trevoux make the word *Cedrus* come from *κωδών*, sweet-scented, on account of the balsamic odor exhaled by the wood when burned.

*L. Cedrus*, *Cèdre*, Fr., *Cederbaum*, Ger., and *Cedro*, Ital., is unquestionably the most celebrated tree of the genus, and not less remarkable for the irregular grandeur of its form. The general character of its shoot, even when the tree is young, is singularly bold and picturesque, and quite different from that of every other species of the tribe. It is a native of the coldest parts of the mountains of Libanus, Amanus, and Taurus; but it is not now to be found in those places in great numbers. Maundrell, in his journey from Aleppo to Jerusalem, in 1696, could reckon only sixteen large trees, though many small ones; one of the largest was twelve yards six inches in the spread of its boughs. The forest of Libanus never seems to have recovered the havoc made by Solomon's forty score thousand hewers: so that we have now, as Professor Martyn observes, probably more cedars in England than there are in Palestine.

From the branching head of this tree, and its aversion to pruning, it is not likely ever to become valuable as timber in this country. When planted for that purpose, it should, as Sang recommends, be sown in groves, and thus by proximity drawn up with few branches. Much has been said of cedar timber, which borders on the miraculous; as far as experience has gone, it is greatly inferior to that of the common larch, or the wild pine. The great use of the cedar is to plant singly on lawns, or in the margin of plantations, where one or two specimens will give force and character to the duller front of round-headed trees.

*L. Communis*, *Mélez*, Fr., *Lerchenbaum*, Ger., and *Laricio*, Ital., is a deciduous tree, and there are two or three species or varieties not yet distinctly ascertained. There is a variety with red and another with white flowers; one with cinerous bark, called the Russian larch, and one with pendulous branches. *L. pendula* and *L. microcarpa* are considered species or subspecies; the timber of both is said to be harder than that of the common white larch; but these trees have never yet had a fair trial in this country. As there are a few large specimens at Dunkeld and Athol, seeds will probably soon be obtained, and from their progeny a practical estimate may be formed of their merits in this country. The red larch trees on the Athol estates do not contain one-third as many cubic feet of timber as the white larch of the same age. The wood is so ponderous that it will scarcely swim on water. (*Hort. Trans.* iv. 416.) The timber of the white larch has been as much extolled as that of the cedar, and with much more reason. The rapidity of its growth is not less remarkable than the durability of the timber. Both have been experimentally proved in the Highlands of Scotland. It is stated by the Duke of Athol, that on mountainous tracts there, at an elevation of 1500 or 1600 feet, the larch, at eighty years of age, has arrived at a size to produce six loads (300 cubic feet) of timber; appearing in durability and every other quality to be likely to answer every purpose both of civil and naval architecture. (*Hort. Trans.* iv. 416.) The tree will arrive at a timber size in almost any situation or soil. Sang, a forest manager of extensive practice, has paid great attention to this tree. "It bears," he says, "the ascendancy over the Scotch pine in the following important circumstances: that it brings double the price, at least, per measurable foot; that it will arrive at a useful timber size in one-half, or a third part of the time, in general, which the pine requires; and, above all, that the timber of the larch, at thirty or forty years old,

13532 Leaves solitary subulate, Cones oblong blunt, Scales rounded somewhat 2-lobed entire at edge  
 13533 Leaves solitary 4-cornered erect straight, Cones ovate, Scales elliptical wavy at edge erect

13534 Leaves fascicled deciduous, Cones ovate-oblong, Edges of scales reflexed lacerated, Bractes panduriform  
 13535 Leaves fascicled deciduous, Cones oblong, Edges of scales inflexed, Bractes panduriform sharply acumin.  
 13536 Leaves fascicled deciduous, Cones roundish few-fl. Scales reflexed, Bractes panduriform bluntly acuminate  
 13537 Leaves fascicled rigid evergreen acute, Cones roundish, Scales truncate appressed

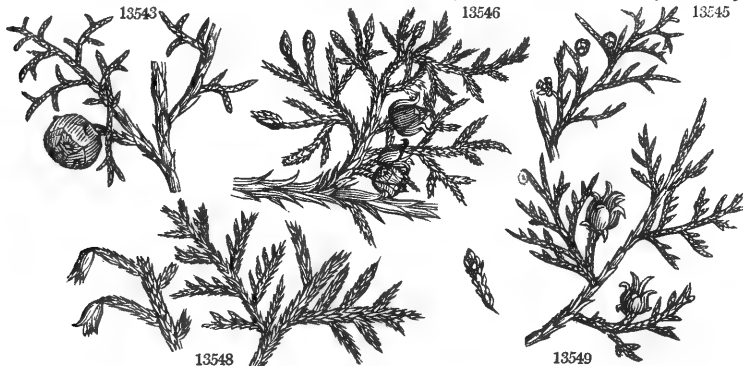
13538 Leaves distichous spreading

13539 Leaves solitary lanceolate remote  
 13540 Leaves whorled linear falcate  
 13541 Leaves lanceolate, Branches whorled  
 13542 Leaves solitary linear cuspidate remote

13543 Branches quadrang. Lvs. imbric. in 4 rows blunt appr. convex, Cones glob. Scales unarm. Branches straight

13544 Branches quadrang. Lvs. imbric. in 4 rows appr. glauc. keel. Cones subglob. Sc. mucron. Branches pendulous  
 13545 Branches compressed, Leaves imbricated 4 ways ovate warded at base  
 13546 Leaves linear much spreading decussate  
 13547 Leaves linear crossing appressed, Branches very slender

13548 Branches 2-edged, Leaves imbricated in 4 rows ovate rhomboid appressed naked warded, Cones obovate  
 13549 Branches 2-edged, Lvs. imbric. in 4 rows ovate rhomboid appressed furrowed in middle, Cones elliptical



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when it has been planted in a soil and climate adapted to the production of perfect timber, is in every respect superior in quality to that of the pine at 100 years old. In short, it is probable, that the larch will supersede the Scotch pine in most situations in this island, at no very distant period."

The chief objections to the timber of the larch are its liability to warp and twist; but this Montearth and others have proved may be effectually prevented by barking the trees in spring while growing, and not cutting them down till the following autumn, or even for a year afterwards. This is also said to prevent the timber from being attacked by the dry rot. The bark of the larch is more than half as valuable as that of the oak in tanning; turpentine is extracted from it in the Tyrol by incision; but that being always injurious to the timber, can never be recommended for adoption in this country. (See *Encyc. of Gard.* 7053. *Montearth's Forester's Guide*, 2d edit. p. 234.)

Like all other trees, and especially the resinous tribe, the timber of the larch is much affected by climate and soil. A certain elevation of surface, coldness of climate, and inferiority of soil, is absolutely necessary to produce the timber in perfection. Sang has known it in many places make the most rapid progress for thirty or thirty-five years, and though there was no external signs of disorder, yet when it was felled, the wood had begun to rot in the hearts of the trees, and some were quite hollow a good way upwards. (*Plant. Kal.* 59.)

*Larix pendula*, black larch, *Tamarack* or *Hackmatack* of the Americans, is a beautiful tree, resembling the European larch in appearance, as well as in the excellent qualities of its wood and bark.

2015. *Schubertia*. Named in honor of M. Schubert, a Polish botanist. The deciduous cypress grows in extensive swamps, and on the banks of large rivers, from Indian river, Delaware, to Florida, and on the Mississippi; it is one of the largest trees of the new continent, and one of the most valuable timbers that country produces; it grows to a considerable height, in this country, though the extremities of the young shoots are almost every autumn destroyed by frost. The finest specimens are at Sion-house and Biekenheim.

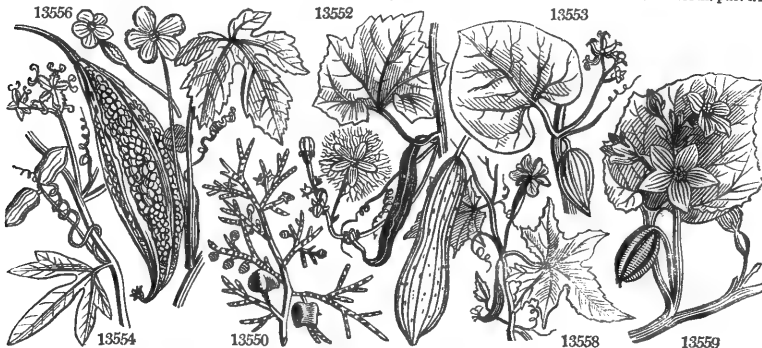
2016. *Podocarpus*. From *πυρ ποδος*, a foot, and *καρπος*, fruit; in allusion to the stalk of the fruit. The species are increased by ripened cuttings in sand under a hand-glass.

2017. *Cupressus*. In Greek *κυπαρισσος*, from the isle of Cyprus, where this tree is very abundant. *Cupressus sempervirens* is a common timber tree in some parts of the Levant. It was employed by the Moors round their palaces, and both by the ancient and modern Romans in their villas and gardens. The timber of this tree is said to resist the worm, and to be of great durability. The doors of St. Peter's church at Rome were formed of this material, and have lasted eleven hundred years. The Greeks made their coffins of it; and the mummy chests of Egypt are many of them of this wood. In Crete, Malta, and other places, it is used for the common purposes of building, and when imported into this country it is employed by the cabinet-maker and turner. Near buildings, where the prevailing architectural lines are horizontal, it forms very suitable combinations; it is also considered an appropriate tree for burial places. *C. Thuyoides* is an abundant tree in the swamps of New Jersey and Pennsylvania. It is used for fencing and house-building, and is in the highest esteem for shingles and pipe staves. *C. lusitanica* is a native both of Goa and Japan, and the handsomest tree of the genus. It is easily distinguished from all the evergreens of the Coniferæ by its abundance of very long dichotomous pendent branchlets. The culture of the hardy species of this genus, and also of *Thuja*, is the same as that of *Pinus*.

2018. *Thuja*. An alteration of *thya*, its real name; from *θυσ*, to sacrifice. Its wood, which gives out when burnt an agreeable perfume, was used in sacrifices. *Thuja occidentalis*, *Cédre blanc*, Fr., is a well known



|                          |                    |         |    |       |     |           |       |   |     |                     |
|--------------------------|--------------------|---------|----|-------|-----|-----------|-------|---|-----|---------------------|
| 13550 articulata W.      | jointed            | ♂   or  | 15 | f.my  | Ap  | Barbary   | 1815. | S | co  |                     |
| 13551 cupressoides W.    | African            | ♀   or  | 10 | ...   | Ap  | C. G. H.  | 1799. | S | p.1 | Bot. cab. 844       |
| *9019. TRICHOSANTHES. W. | Snake Gourd.       |         |    |       |     |           |       |   |     |                     |
| 13552 Anguina W.         | common             | ♂   or  | 4  | my.jn | W   | China     | 1755. | S | co  | Bot. mag. 72?       |
| 13553 cucumerina W.      | Cucumber-like      | ♂   or  | 4  | jn.jl | Y   | E. Indies | 1804. | S | co  | Rhee.mal.8. t.15    |
| 13554 tuberosa W.        | tuberous           | ♂   Δ   | 6  | jn.jl | Y   | W. Indies | 1810. | D | co  | Plum. ic. t. 24     |
| 9020. MOMORDICA. W.      | MOMORDICA.         |         |    |       |     |           |       |   |     |                     |
| 13555 Balsamina W.       | Balsam Apple       | ♂   or  | 4  | jn.jl | Y   | India     | 1568. | S | co  |                     |
| 13556 Charántia W.       | hairy              | ♂   or  | 4  | jn.jl | Y   | E. Indies | 1710. | S | co  | Bot. mag. 2455      |
| 13557 operculata W.      | rough-fruited      | ♂   or  | 4  | jn.s  | Y   | W. Indies | 1731. | S | co  | Comm. rar. t. 22    |
| 13558 Lóffa W.           | Egyptian           | ♂   or  | 4  | jl.au | L.Y | E. Indies | 1739. | S | co  | Rum.am.5.t.147      |
| 13559 Elatérium W.       | Squirting Cucumber | ♂   Δ   | 4  | jn.jl | Y   | S. Europe | 1548. | D | r.m | Bot. mag. 1914      |
| *9021. CUCURBITA. W.     | GOURD.             |         |    |       |     |           |       |   |     |                     |
| 13560 ovifera W.         | egg-shaped         | ♂   clt | 3  | jl.s  | Y   | Astracan  | ...   | S | co  |                     |
| 13561 lagenaria W.       | bottle             | ♂   clt | 10 | jl.s  | W   | India     | 1597. | S | co  | Rum.am.5. t.144     |
| 13562 aurántia W.        | Orange-fruited     | ♂   clt | 3  | jn.au | Y   | ...       | 1802. | S | co  |                     |
| 13563 Pépo W.            | Pumpkin            | ♂   clt | 16 | jn.au | Y   | Levant    | 1570. | S | co  |                     |
| 13564 verrucósa W.       | warted             | ♂   clt | 12 | jn.jl | Y   | ...       | 1658. | S | co  |                     |
| 13565 subverrucósa W.    | pimpled            | ♂   clt | 12 | jn.jl | Y   | ...       | ...   | S | co  |                     |
| 13566 Melopépo W.        | squash             | ♂   clt | 3  | my.s  | Y   | ...       | 1597. | S | co  | Moris. s. l.t.8.f.4 |
| 13567 Citrúllus W.       | Water Melon        | ♂   clt | 6  | my.s  | Y   | S. Europe | 1597. | S | co  | Rum.am.5. t.146     |
| 9022. CU'YUMIS. W.       | CUCUMBER.          |         |    |       |     |           |       |   |     |                     |
| 13568 Colocynthis W.     | bitter             | ♂   or  | 6  | my.au | Y   | C. G. H.  | 1551. | S | r.m |                     |
| 13569 prophetárum W.     | globe              | ♂   or  | 2  | jn.s  | Y   | Levant    | 1777. | S | co  | Ja. vind. l. t. 9   |
| 13570 Angúria W.         | round prickly      | ♂   or  | 2  | jl.au | Y   | Jamaica   | 1692. | S | co  | Mill. ic. l. t. 35  |
| 13571 africána W.        | African            | ♂   or  | 2  | jl.au | Y   | C. G. H.  | ...   | S | co  | Hern. par. t.134    |



History, Use, Propagation, Culture,

popular evergreen, which, though it seldom rises above the height of a shrub here, yet in Upper Canada attains the height of a timber tree, and the wood is considered more durable than any other. The trunk is sawn up into planks and boards for houses and boat-building, and the branches used for posts and fencing. The smaller branches and spray form besoms, and the leaves, made into a salve, are used by the Indians to cure the rheumatism. In England, the timber has been chiefly employed by the turner and cabinet-maker. In its native country the *Arbor-vitæ* succeeds best in soils where the roots have abundance of moisture. It grows tallest in swamps and marshes; in very dry places it never comes to any degree of perfection. The first tree of this species sent to Europe, was planted in the royal garden of Pontainbleau, in the reign of Francis the first. *T. orientalis* is a shrub resembling the other in general appearance. Both these species are readily increased by seeds, cuttings, or layers.

9019. *Trichosanthes*. From *τριχ*, hair, and *ανθος*, a flower. The limb of the flower is divided into ten parts, of which the five outer are reversed and acute, the five interior ciliated. *T. Anguina* is a popular annual, with the habit of the common cucumber. The flowers are cut into many small threads, and the fruit is taper, and nearly a foot long. *T. cucumerina* has smooth fruit of a red or orange color, the size of a pear. In the popular medicine of Malabar, the seeds are used for disorders of the stomach and bowels. Culture as for the common gourd.

9020. *Momordica*. From *mordeo*, *momordi*, to chew; its seeds have an irregular rugose surface, and the appearance of having been chewed. *M. elaterium* has a large fleshy perennial root, somewhat like that of Bryony. The stems are thick, rough, trailing, branching, with rough leaves on long footstalks. The fruit is an inch and a half in length, swelling like a cucumber, of a grey color like the leaves, and covered with short prickles. When fully ripe, it cuts the peduncles, and casts out the seed and juice with great force and to a considerable distance through the hole in the base, where the footstalk is inserted. For medicinal use, the fruit is gathered in September, just before it is ripe, and the clear juice which runs from it and that obtained by the expression of the fruit are inspissated, and form the elaterium of the shops. This fruit is a very violent cathartic. It was much employed by the ancients, who regarded every part of the plant as purgative; but Dr. Clutterbuck has proved that this is an error. (*Thomson's Lond. Disp.* 388.)

*M. balsamina* has a fleshy ovate fruit, remotely tubercled in longitudinal rows, smooth in the other parts, red when ripe, bursting irregularly, and dispersing the seeds with a spring. This fruit in Syria is famous for curing wounds. They cut it open when unripe, and infuse it in sweet oil, exposed to the sun for some days, until the oil is become red. It may then be applied to a fresh wound dropped on cotton. *M. operculata* has a green fruit, the top of which falls off when it is ripe like a lid; within it has no pulp, but is dry, and filled with netted fibres, very much interwoven.

9021. *Cucurbita*. A Latin word signifying a vessel. It is said to be derived from the Celtic *cuce*, a hollow thing. *C. lagenaria* has a fruit shaped like a bottle, with a large roundish belly, and a neck very smooth; when ripe of a pale yellow color, some near six feet long and eighteen inches round; the rind becoming hard, and being dried contains water; seeds quadrangular oblong, cut off and emarginate at top, three-cornered and beaked at bottom; edge keeled with a double raised line, smoothish, of a pale bay color. The Arabians call the bottle gourd *Charrah*. The poor people eat it boiled, with vinegar, or fill the shell with rice and meat, and thus make a kind of pudding of it. It grows in all parts of Egypt and in Arabia, wherever the mountains are covered with rich soil. In Jamaica, the shells are generally used for water cups, and frequently serve for bottles among the negroes and poorer sort of white people in the country. A decoction of the leaves

13590 Branches compressed, Lvs. imbricated in 4 rows lanc. acute appressed warted under end, Cones 4-cornered  
 13591 Branches round, Leaves imbricated in 4 rows oblong appressed smooth, Cones 4-cornered roundish

13592 Fruit rounded oblong incurved, Leaves cordate repand mucronate toothletted  
 13593 Fruit ovate acute, Leaves roundish cordate angular repand  
 13594 Fruit oblong acute, Leaves 5-lobed palmated entire

13595 Fruit roundish ovate narrowed at each end angul. warted, Bract cordate toothed above midd. of pedunc.  
 13596 Fruit oblong acuminate angular warted, Bract cordate entire below the middle of the peduncle  
 13597 Fruit elliptical angular warted beaked, Beak deciduous forming a lid  
 13598 Fruit cylindrical oblong, Furrows chain-like, Bract cordate entire at the base of the peduncle  
 13599 Fruit elliptical hispid, Leaves cordate hispid blunt toothed, Stem without tendrils

13600 Leaves cordate angular 5-lobed toothletted downy, Fruit obovate striped with lines lengthwise  
 13601 Leaves cordate roundish obtuse downy toothletted with 2 glands at base beneath, Fruit woody clavate  
 13602 Leaves subcordate about 3-lobed cuspidate finely toothletted rough, Fruit globose smooth  
 13603 Leaves cordate obtuse about 5-lobed toothletted, Fruit roundish or oblong smooth  
 13604 Leaves cordate deeply 5-lobed: the middle lobe narrowed at base, Fruit roundish elliptical warted  
 13605 Leaves cordate deeply 5-lobed: middle lobe narrowed at base toothletted, Fruit clav. ellipt. somew. warted  
 13606 Leaves cordate obtuse about 5-lobed toothletted, Fruit depressed umbonate tumid at edge  
 13607 Leaves 5-lobed, Lobes sinuate pinnatifid blunt, Fruit elliptical smooth

13608 Leaves multifid, Fruit globose smooth  
 13609 Leaves cordate 5-lobed toothletted blunt, Fruit globose spiny muricated  
 13610 Leaves palmate sinuated, Fruit round echinate  
 13611 Fruit oval echinate, Leaves palmate sinuated, Stem angular



and Miscellaneous Particulars.

is recommended much in purging clysters; and the pulp of the fruit is often employed in resolute poultices: it is bitter and purgative, and may be used instead of Coloquintida.

C. pepo, *Patison*, Fr., has hispid branchy tendrils stems, which in good soil will extend forty or fifty feet in a season, and cover an eighth part of an acre. The fruit is oblong, ovate, varying in form and size; some not less than four feet in circumference. In some parts of England the pompon (corruptly pumpkin) is sometimes planted by cottagers on dunghills, and suffered to trail at length over the grass of an orchard. When the fruit is ripe, they cut a hole on one side, and having taken out the seeds, fill the void space with sliced apples, adding a little sugar and spice, and then, having baked the whole, eat it with butter, under the name of pumpkin pie. On the continent the fruit, both unripe and ripe, is used in soups, stews, and fried in oil or butter. The tender tops of the shoots boiled as greens are much more delicate than the fruit. C. aurantia is more tender than the common pompon. The fruit is small, round, of a bright yellow when ripe, and may be used like those of the other species. C. verrucosa has a small round fruit, with a woody rind. In America it is gathered when half grown, and boiled to eat as a substitute for greens; but for this purpose this and most of the species are inferior to the succade Gourd.

C. melopepo, *Potiron*, Fr., *Pfebin Kürbiss*, Ger., and *Popone*, Ital., has a large fruit, reddish yellow or yellowish-white within and without, roundish, but often flatted at top and bottom; torulose, and sometimes warted. It is cultivated in America as a culinary vegetable. C. Citrullus, *Pastèque*, Fr., *Wassermelone*, Ger., and *Cocomero*, Ital., is readily distinguished from all the other species by its deeply cut leaves. The fruit is roundish, large, smooth, often a foot and a half in length, with a white icy flesh, streaked with dark red and black seeds. It is much cultivated in the warm countries of Europe, and also in Asia, Africa, and America, for its cooling quality. It serves the Egyptians for meat, drink, and physic. It is eaten in abundance during the season, which is from the beginning of May until the overflowing of the Nile; that is, to the end of July or beginning of August. It is the only medicine the common people use in ardent fevers. For this purpose they have a variety that is softer and more juicy than the common sort; when this is very ripe, or almost putrid, they collect the juice, and mix it with rose-water and a little sugar. This fruit should be eaten by Europeans with great caution; when taken in the heat of the day, whilst the body is warm, colics and other bad consequences often ensue, and it is well known that persons are much troubled with worms at the time this fruit is in season.

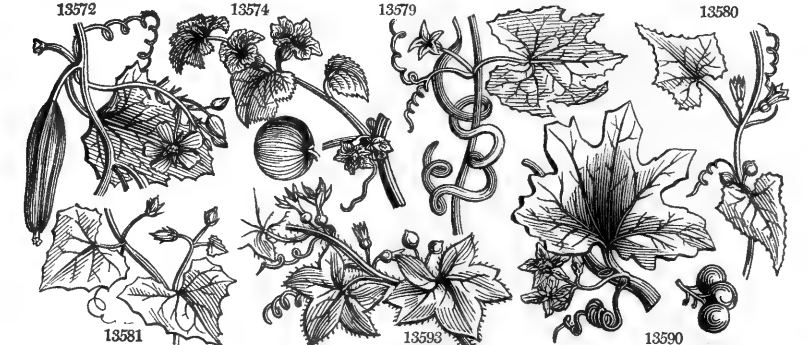
The Succade Gourd, a variety of C. ovifera, has an elliptical oblong pale-yellow fruit, by far the best for culinary purposes of any species of Cucurbit. When very young, it is good fried with butter; when about half grown, it is excellent either boiled as a substitute for greens, or stewed in slices with rich sauce; when full grown, it is used for pies. Sabine, who has cultivated most species of Cucurbita, considers the vegetable marrow without a rival. (*Hort. Trans.* vol. ii. 255.)

All the species may be raised on a hot-bed in April, and transferred to the open garden at the end of May, under a warm aspect and in a rich soil; or they may be sown in a trench filled with hot dung, where they are finally to remain. Their after culture is of the easiest description.

It is not very generally known, that the tender tops of all the species of the Cucurbita and Cucumis families, whose fruit may be eaten, when boiled form a very tender substitute for greens.

2322. *Cucumis*. A word with the same derivation as the last. C. Colocynthis has fruit the size and color of orange; the pulp light, spongy, and white, and most intolerably bitter. When ripe, it is peeled and dried in a stove, and in this state it is imported from the Mediterranean under the name of colocuintida. Medicinally, it

|                           |                         |   |    |     |    |       |       |                      |            |       |      |                      |                 |
|---------------------------|-------------------------|---|----|-----|----|-------|-------|----------------------|------------|-------|------|----------------------|-----------------|
| 13579 acutángulus W.      | acute-angled            | ✱ | ○  | or  | 2  | ln.s  | Y     | India                | 1692.      | S     | co   | Jac.vin.3.t.73,74    |                 |
| 13573 Mélo W.             | Melon                   | ✱ | ○  | cul | 4  | my.s  | Y     | .....                | 1570.      | S     | r.m  | Sabb. hort. t. 65    |                 |
| 13574 Dudám W.            | Apple-shaped            | ✱ | ○  | or  | 6  | jl.au | Y     | Levant               | 1705.      | S     | r.m  | Bot. rep. 548        |                 |
| 13575 Cháte W.            | hairy                   | ✱ | ○  | or  | 3  | ju    | Y     | Levant               | 1759.      | S     | co   | Alp.egypt. t.117     |                 |
| 13576 pubéscens W.        | pubescent               | ✱ | ○  | or  | 3  | jn.s  | Y     | .....                | 1815.      | S     | co   |                      |                 |
| 13577 satívus W.          | common                  | ✱ | ○  | cul | 4  | jl.s  | Y     | E. Indies            | 1573.      | S     | r.m  | Sabb. hort. t. 63    |                 |
| 13578 flexuósus W.        | Snake                   | ✱ | ○  | or  | 6  | my.s  | Y     | E. Indies            | 1597.      | S     | r.m  | Ger.herb.763.f.3     |                 |
| 13579 anguinus W.         | Serpent                 | ✱ | ○  | or  | 6  | my.s  | Y     | E. Indies            | .....      | S     | r.m  | Rumph. 5. t. 148     |                 |
| 13580 maderaspátanus W.   | Madras                  | ✱ | ○  | or  | 3  | jl.au | Y     | E. Indies            | 1805.      | S     | co   | Pluk.al. t.170.f.2   |                 |
| 2023. SIC'YOS. W.         | SINGLE-SEEDED CUCUMBER. |   |    |     |    |       |       | <i>Cucurbitaceæ.</i> | Sp. 2-6.   |       |      |                      |                 |
| 13581 anguláta W.         | angular-leaved          | ✱ | ○  | cul | 3  | jl.s  | Y     | N. Amer.             | 1710.      | S     | co   | Plu.phyt.t.26.f.4    |                 |
| 13582 vitifólia W.        | Vine-leaved             | ✱ | ○  | cul | 3  | jl.s  | Y     | .....                | ...        | S     | co   |                      |                 |
| 2024. BRYONIA. W.         | BRYONY.                 |   |    |     |    |       |       | <i>Cucurbitaceæ.</i> | Sp. 18-42. |       |      |                      |                 |
| 13583 scábira W.          | globe-fruited           | ✱ | △  | un  | 6  | s.o   | W.g.  | C. G. H.             | 1774.      | C     | p.l' |                      |                 |
| 13584 triloba W.          | threc-lobed             | ✱ | △  | un  | 6  | s.o   | W.g.  | C. G. H.             | 1825.      | C     | p.l  |                      |                 |
| 13585 verrucósa W.        | rough                   | ✱ | △  | un  | 4  | ...   | W.g.  | Canaries             | 1779.      | D     | co   |                      |                 |
| 13586 grándis W.          | great-flowered          | ✱ | △  | un  | 8  | my.au | W.g.  | E. Indies            | 1783.      | C     | p.l  | R.am.5. t.166. f.1   |                 |
| 13587 epigæ'a W.          | umbel-flower'd          | ✱ | △  | un  | 2  | ...   | W.g.  | E. Indies            | 1815.      | D     | co   |                      |                 |
| 13588 scabrèlla W.        | bristly                 | ✱ | ○  | un  | 2  | my.jl | W.g.  | E. Indies            | 1781.      | D     | co   |                      |                 |
| 13589 latebrósa W.        | hairy                   | ✱ | △  | un  | 3  | jn    | W.g.  | Canaries             | 1779.      | D     | co   |                      |                 |
| 13590 dioica W.           | red-berried             | ✱ | △  | m   | 8  | my.s  | W.g.  | Britain              | hed.       | D     | co   | Eng. bot. 439        |                 |
| 13591 álba W.             | black-berried           | ✱ | △  | m   | 8  | jn.jl | W.g.  | Europe               | 1807.      | D     | co   | Lam. ill. t. 796     |                 |
| 13592 ntída Link.         | shining                 | ✱ | △  | un  | 3  | jl.s  | W.g.  | .....                | 1824.      | S     | co   |                      |                 |
| 13593 crética W.          | Cretan                  | ✱ | △  | un  | 1½ | jl.s  | W.g.  | Cania                | 1759.      | D     | co   | An. mus.12. t. 17    |                 |
| 13594 quinquéloba Th      | five-lobed              | ✱ | △  | un  | 3  | jn.o  | Br    | C. G. H.             | .....      | D     | co   | Bot. reg. 82         |                 |
| 13595 ficifólia W.        | Fig-leaved              | ✱ | △  | un  | 3  | ...   | W.g.  | Buen.Ay.             | 1726.      | D     | co   | Dill. et. t.50. f.58 |                 |
| 13596 palmáta W.          | palmed                  | ✱ | △  | un  | 4  | jl.au | W.g.  | Ceylon               | 1778.      | D     | co   |                      |                 |
| 13597 laciniósa W.        | lacinated               | ✱ | △  | un  | 4  | jl.au | W.g.  | E. Indies            | 1710.      | D     | co   | Herm. lugd. t.97     |                 |
| 13598 africána W.         | African                 | ✱ | △  | un  | 4  | jl.au | W.g.  | C. G. H.             | 1759.      | D     | co   | Herm.par. t.708      |                 |
| 13599 dissécta W.         | smooth-leaved           | ✱ | △  | un  | 3  | jl.au | W.g.  | C. G. H.             | 1710.      | D     | p.l  |                      |                 |
| 2025. ANDRACH'NE. W.      | BASTARD ORPINE.         |   |    |     |    |       |       | <i>Euphorbiaceæ.</i> | Sp. 1-2.   |       |      |                      |                 |
| 13600 telephióides W.     | annual                  | ○ | w  |     |    | ½     | jl.au | W                    | Italy      | 1732. | S    | co                   | Lam. ill t. 797 |
| 2026. STILLING'IA. W.     | STILLINGIA.             |   |    |     |    |       |       | <i>Euphorbiaceæ.</i> | Sp. 3.     |       |      |                      |                 |
| 13601 sylvática W.        | wood                    | ✱ | △  | un  | 2  | jl.au | Y     | Carolina             | 1787.      | C     | s.p  |                      |                 |
| 13602 ligustrina W.       | Privet-leaved           | ✱ | △  | un  | 5  | ...   | Y     | N. Amer.             | 1812.      | C     | s.p  |                      |                 |
| 13603 sebifera W.         | Tallow-tree             | ✱ | □  | ec  | 10 | s     | Y     | China                | 1703.      | C     | s.p  | Plu.am. t.390.f.2    |                 |
| *2027. PHYLLANTHUS. W.    | PHYLLANTHUS.            |   |    |     |    |       |       | <i>Euphorbiaceæ.</i> | Sp. 16-60. |       |      |                      |                 |
| 13604 obovátus W.         | annual                  | ○ | un |     | ½  | jl.au | Ap    | N. Amer.             | 1803.      | C     | s.p  |                      |                 |
| 13605 maderaspaténsis W.  | Madras                  | ○ | un |     | 3  | jl    | Ap    | E. Indies            | 1783.      | C     | s.p  | Bot. cab. 116        |                 |
| 13606 grandifólius W.     | great-leaved            | ○ | un |     | 5  | ...   | Ap    | America              | 1771.      | C     | s.p  | Bot. cab. 839        |                 |
| 13607 virósus W.          | venomous                | ○ | pr |     | 4  | ...   | G     | E. Indies            | 1802.      | C     | s.p  | Bot. cab. 721        |                 |
| 13608 turbinátus B. M.    | shining-leaved          | ○ | pr |     | 2  | jl    | G     | China                | ...        | C     | s.p  | Bot. mag. 1862       |                 |
| 13609 reticulátus Hort.   | netted                  | ○ | pr |     | 3  | aus.  | R     | E. Indies            | ...        | C     | s.p  | Bot. cab. 116        |                 |
| 13610 fraxinifólius Hort. | Ash-leaved              | ○ | pr |     | 4  | aus.  | G     | E. Indies            | 1819.      | C     | s.p  | Bot. cab. 839        |                 |
| 13611 mimosoides W.       | Mimosa-like             | ○ | pr |     | 10 | aus.  | G     | Caribbees            | 1817.      | C     | s.p  | Bot. cab. 721        |                 |
| 13612 Conámi W.           | Brazilian               | ○ | pr |     | 6  | jl    | G     | W. Indies            | 1791.      | C     | p.l  | Aub. gui.2. t.354    |                 |
| 13613 racemósus W.        | racemed                 | ○ | pr |     | 1½ | jl.au | G     | E. Indies            | 1793.      | C     | s.p  |                      |                 |
| 13614 Nirári W.           | Indian annual           | ○ | pr |     | ¾  | jn.s  | G     | E. Indies            | 1692.      | S     | p.   | Rhe.mal.10. t.15     |                 |
| 13615 polyphýllus W.      | many-leaved             | ○ | pr |     | 3  | jl.s  | G     | E. Indies            | 1805.      | C     | s.p  |                      |                 |
| 13616 E'mblica W.         | shrubby                 | ○ | pr |     | 12 | ...   | G     | E. Indies            | 1768.      | C     | s.p  | Bot. cab. 548        |                 |



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is a very powerful drastic cathartic, requiring to be employed with caution, on account of its violent effects. When given alone, even in moderate doses, it purges vehemently, producing violent gripings, bloody ejections, and not unfrequently convulsions and inflammations of the bowels. (*Thom. Lond. Disp. 271.*)

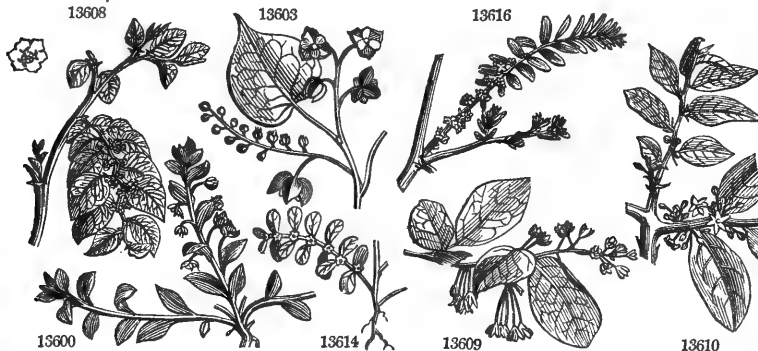
C. sativus and Melo (*μᾶλορ*, an apple) are too well known to require farther notice in a work of this description. C. anguria has hispid angular stems, and small flowers like those of Bryonia. The fruit is of the size and shape of a pullet's egg, of a dark-green color, and prickly like a hedgehog. It is eaten green, or with other herbs in soups in the West India Islands, and is esteemed an agreeable and wholesome ingredient. C. propehtarum has a striped fruit smaller than a melon; the odor nauseous, and the taste as bitter as Coloquintida. The fruit of C. acutangulus is very insipid, but in India is eaten boiled and pickled. C. Chate has a roundish fruit almost like that of the melon; the taste is somewhat sweet and cool, but not so cool as the water melon. In Egypt it is eaten as the most pleasant fruit they have, and that from which delicate persons have least to apprehend. The culture of all the species is similar to that of the common cucumber.

2023. *Sicyos*. Σικκος was one of the Greek names of the cucumber, from σικκος, unpleasant. The species are trailing plants like those of Cucumis, but with much smaller fruits.

2024. *Bryonia*. From βρυον, to push or grow rapidly, in allusion to the manner of its growth. B. alba and dioica, differ in little else besides the color of the berries, and by some are considered one species. Goats are

- 13572 Leaves roundish angular, Fruit with 10 acute angles  
 13573 Angles of leaves rounded, Fruit torulose  
 13574 Angles of leaves rounded, Fruit spherical with a retuse nipple  
 13575 Hirsute, Angles of leaves entire toothed, Fruit fusiform narrowed at each end hairy  
 13576 Leaves cordate subangular acutish finely toothed scabrous, Fruit elliptical blunt downy  
 13577 Angles of leaves straight, Fruit oblong rough  
 13578 Leaves angular somewhat lobed, Fruit cylindrical furrowed curved  
 13579 Leaves lobed, Fruit cylindrical very long smooth doubled up  
 13580 Leaves cordate entire toothletted, Fruit globose smooth
- 13581 Leaves cordate with an obtuse angle, 5-angular toothletted smooth  
 13582 Leaves roundish-cordate with a recess 5-lobed toothed hairy viscid
- 13583 Leaves cordate angular toothed rough with callous dots above and hairs beneath, Fl. in umbels  
 13584 Leaves 3-lobed smooth above rough beneath  
 13585 Leaves cordate angular above and the veins beneath covered with callous dots, Tendrils simple  
 13586 Leaves cordate angular entire smooth with callous dots above and 5 glands at the base beneath  
 13587 Leaves 3-lobed rough toothed, Lateral lobes angular somewhat 2-lobed, Fl. axillary somewhat umbellate  
 13588 Lvs. 3-lobed toothed hispid on each side, Lat. lobes dilated angular: middle elong. Stem muricato-hispid  
 13589 Leaves somewhat 3-lobed hairy narrowed at base  
 13590 Leaves cordate palmate 5-lobed toothed with callous dots, Fl. racemose dioecious  
 13591 Leaves cordate 5-lobed toothed rough with callous dots, Flowers racemose  
 13592 Leaves cordate 5-lobed apiculate hairy, Peduncles in umbels  
 13593 Leaves cordate 5-lobed entire with callous asperities on each side  
 13594 Leaves 5-lobed toothletted scabrous above, Peduncles 1-flowered  
 13595 Leaves 5-lobed somewhat toothletted, Lobes obtuse, Petioles and stem hispid  
 13596 Leaves palmate smooth 5-parted: segments lanceolate repand serrated  
 13597 Leaves 5-parted palmate, Segm. oblong lanc. acuminate serrated, Petioles muricated, Peduncles 1-flowered  
 13598 Upper leaves 5-parted palmate, Segments oblong cut-toothed: lower cordate angular toothed  
 13599 Lvs. 5-parted palmate, Segm. pinnatifid linear revolute at edge rough, Flowers in umbels, Berries acute
- 13600 Procumbent herbaceous
- 13601 Leaves sessile oblong blunt narrowed at base serrulate, Stem herbaceous  
 13602 Leaves petiolate lanceolate narrowed at each end entire, Stem shrubby  
 13603 Leaves stalked rhomboid acuminate entire, Stem arborescent

- 13604 Leaves obovate bluntish, Flowers twin axillary stalked, Stem branched round erect  
 13605 Leaves lanceolate cuneate blunt mucronate, Flowers solitary stalked axillary, Stem shrubby branched  
 13606 Leaves ovate-oblong blunt mucronate, Flowers axillary in threes, Branches compressed 3-cornered  
 13607 Leaves elliptical ovate blunt narrowed at base, Fls. axillary aggregate dioecious, Branches square compr.  
 13608 Leaves simple orbicular-ovate lucid, Flowers axillary: male turbinate nodding  
 13609 Leaves oblong obtuse netted with red veins beneath, Flowers racemose and fasciculate  
 13610 Leaves elliptical acute at each end, Stipules ovate acute as long as petiole, Flowers fascicled  
 13611 Lvs. pinn. flower-bearing: leaflets oblong attenuated at base and narrower on one side, Fls. axill. aggreg.  
 13612 Lvs. ovate acute, Fls. axill. somew. umbelled, Pedunc. filiform with 2 bractes at base, Branchlets compr.  
 13613 Leaves lanceolate acute, Flowers terminal about 3, Branches pinnaeform 2-edged  
 13614 Lvs. pinn. fl. bearing: leaf. elliptical obtuse, Pedunc. axill. lower usually twin and male; upp. solit. fem.  
 13615 Lvs. pinn. fl. bearing: leaflets linear obtuse mucronate, Flowers axillary solitary; the female uppermost  
 13616 Leaves pinnate fl. bearing: leaflets linear sharpish, Flowers axillary clustered, Petioles round downy



and Miscellaneous Particulars.

the only quadrupeds said to eat this plant. The root grows to a vast size. Gerarde says, "the queene's chiefe chirurgeon, Master William Goodorous, shewed me a roote heereof, that waied halfe an hundred waighte, and of the bignesse of a childe of a yeere old." To this Linnaeus ascribes the quickness of its growth, though it springs late. The roots have been formerly by impostors brought into an human shape, carried about the country, and shewn for mandrakes to the common people. The method which these people practised, was to open the earth round a young thriving Bryony plant, being careful not to disturb the lower fibres of the root; to fix a mould such as is used by those who make plaster figures close to the root, fastening it with wire to keep it in its proper situation, and then to fill in the earth about the root, leaving it to grow to the shape of the mould, which is effected in one summer. This root is a famous hydragogue, and highly purgative and acrid.

2025. *Andrachne*. The Greek name of the Purslane. The modern plant bears some analogy to that of the Greeks, in its thick and fleshy leaf. Plants of little beauty, and the easiest culture.

2026. *Stillingia*. Named after Dr. Benjamin Stillingfleet, an English botanist. *S. Sebifera* is the tallow-tree of China. An oil is expressed from the kernel, which hardens by cold to the consistence of common tallow, and by boiling becomes as hard as bees' wax. *Stillingia sylvatica* is considered a specific in cases of syphilis.

2027. *Phyllanthus*. From *φυλλον*, a leaf, and *ανθος*, a flower, because the flowers grow upon the edges of the

|        |                                |                    |        |    |       |     |                      |                    |       |                      |
|--------|--------------------------------|--------------------|--------|----|-------|-----|----------------------|--------------------|-------|----------------------|
| §13617 | <i>latifolius</i> W. en.       | Sea-side Laurel    | ☼ □ pr | 2  | au o  | R   | Jamaica              | 1783.              | C s p | Bot. mag. 1021       |
|        | <i>Xylophylia latifolia</i> W. |                    |        |    |       |     |                      |                    |       |                      |
| §13618 | <i>angustifolius</i> W. en.    | narrow-leaved      | ☼ □ pr | 2  | jl.au | R   | Jamaica              | 1789.              | C s p |                      |
| §13619 | <i>falcatus</i> W. en.         | sickle-leaved      | ☼ □ pr | 2  | jl.au | R   | Bahama               | 1.1699.            | C s p | Bot. rep. 331        |
| 2028.  | <b>ALEURITES</b> W.            | <b>ALEURITES</b>   |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 1—4.    |       |                      |
| 13620  | <i>triloba</i> W.              | three-lobed        | ♀ □ ft | 10 | ...   | Ap  | Society Is.          | 1793.              | S r m |                      |
| 2029.  | <b>OMPHA'LEA</b> W.            | <b>OMPHALEA</b>    |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 1—3.    |       |                      |
| 13621  | <i>triandra</i> W.             | long-leaved        | ♀ □ or | 15 | jn.jl | G   | Jamaica              | 1763.              | C p l | Bot. cab. 519        |
| 2030.  | <b>HIPPO'MANE</b> W.           | <b>MANCHINEEL</b>  |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 1.      |       |                      |
| 13622  | <i>Mancinella</i> W.           | common             | ♀ □ p  | 80 | ...   | G   | W. Indies            | 1690.              | L r m | Jacq.amer. t.159     |
| 2031.  | <b>SA'PIUM</b> W.              | <b>SAPIUM</b>      |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 1—4.    |       |                      |
| 13623  | <i>aucuparium</i> W.           | two-glanded        | ♀ □ or | 30 | ...   | G   | W. Indies            | 1692.              | C p l | Jac. amer. t. 158    |
| *2032. | <b>CRO'TON</b> W.              | <b>CROTON</b>      |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 20—118. |       |                      |
| 13624  | <i>variegatum</i> W.           | variegated         | ☼ □ or | 10 | ...   | W.g | E. Indies            | 1804.              | C p l | Rhee.mal.6. t.61     |
| 13625  | <i>lineare</i> Jac.            | rosemary-leaf.     | ☼ □ pr | 6  | jl    | W.g | W. Indies            | 1733.              | C p l | Bot. cab. 481        |
| 13626  | <i>maritimum</i> W.            | sea-side           | ☼ □ un | 4  | ...   | W.g | Carolina             | 1786.              | S co  |                      |
| 13627  | <i>palifstre</i> W.            | marsh              | ☼ □ un | 3  | jl.au | W.g | VeraCruz             | 1731.              | C p l | Mart. dec.4. t.38    |
| 13628  | <i>glabellum</i> W.            | Laurel-leaved      | ☼ □ or | fl | ...   | W.g | Jamaica              | 1778.              | C p l | Slo. ja.2. t.174.f.2 |
| §13629 | <i>tinctorium</i> W.           | official           | ○ dy   | 3  | jl    | W.g | S. Europe            | 1570.              | C p l | Act. p. 1712. t.17   |
| 13630  | <i>argenteum</i> W.            | silver-leaved      | ☼ □ un | 2  | jl.au | W.g | S. Amer.             | 1733.              | S co  |                      |
| 13631  | <i>Tigium</i> W.               | purging            | ☼ □ m  | 10 | au.s  | W.g | E. Indies            | 1796.              | S co  | Rhee.mal.2. t.33     |
| 13632  | <i>Eleuteria</i> W.            | Sea-side Balsam    | ☼ □ m  | 6  | ...   | W.g | Jamaica              | 1748.              | C l p | Pluk.al. t.220.f.5   |
| 13633  | <i>micans</i> Sw.              | glittering         | ☼ □ un | 3  | ...   | W.g | Jamaica              | 1815.              | C l p | Jac. ic. 3. t. 692   |
| 13634  | <i>pingens</i> W.              | pungent            | ☼ □ un | 4  | ...   | W.g | Caracass             | 1791.              | C l p | Bot. cab. 440        |
| 13635  | <i>penicillatum</i> W.         | penicilled         | ☼ □ un | 4  | jl.au | W.g | Cuba                 | 1799.              | C p l | Bot. cab. 440        |
| 13636  | <i>aromaticum</i> W.           | aromatic           | ☼ □ un | 6  | ...   | W.g | Ceylon               | 1793.              | C p l | Rum.am.3. t.126      |
| 13637  | <i>humile</i> W.               | humble             | ☼ □ un | 2  | ...   | W.g | Jamaica              | 1799.              | C p l |                      |
| 13638  | <i>moluccanum</i> W.           | Molucca            | ☼ □ un | 10 | ...   | W.g | Ceylon               | 1803.              | C p l |                      |
|        | <i>Aleurites ambinus</i> P. S. |                    | ☼ □ un | 6  | jl.au | W.g | W. Indies            | 1782.              | C p l |                      |
| 13639  | <i>Astrottes</i> W.            | woolly             | ☼ □ un | 6  | jl.au | W.g | W. Indies            | 1782.              | C p l |                      |
| 13640  | <i>lobatum</i> W.              | various-leaved     | ☼ □ un | 2  | jl.au | W.g | Vera Cruz            | 1730.              | S co  | Mart. dec.5. t.46    |
| 13641  | <i>pictum</i> Roeb.            | painted            | ☼ □ or | 4  | jl.au | W.g | E. Indies            | 1810.              | C p l | Bot. cab. 870        |
| 13642  | <i>tomentosum</i> Link.        | downy              | ☼ □ un | 2  | my.jn | W.g | .....                | 1824.              | C co  |                      |
| *2033. | <b>JA'TROPHA</b> W.            | <b>PHYSIC-NUT.</b> |        |    |       |     | <i>Euphorbiaceæ.</i> | <i>Sp.</i> 9—21.   |       |                      |
| 13643  | <i>napeifolia</i> W.           | Napæa-leaved       | ☼ □ un | 3  | jn.au | G   | Antilles             | 1825.              | S r m | Bot. cab. 117        |
| 13644  | <i>gessyifolia</i> W.          | Cotton-leaved      | ☼ □ or | 3  | my.au | G   | W. Indies            | 1690.              | S l p | Bot. cab. 117        |
| 13645  | <i>integerrima</i> W.          | spicy              | ☼ □ or | 3  | my.au | R   | Cuba                 | 1809.              | S r m | Bot. mag. 1464       |
| 13646  | <i>panduræfolia</i> W.         | fiddle-leaved      | ☼ □ or | 4  | my.au | S   | Cuba                 | 1800.              | S r m | Bot. mag. 604        |
| 13647  | <i>Cúrcas</i> W.               | angular-leaved     | ☼ □ or | 4  | ...   | G   | S. Amer.             | 1731.              | S r m | Jac.vind. 3. t. 63   |
| 13648  | <i>multifida</i> W.            | multifid           | ☼ □ or | 3  | jn.au | G   | S. Amer.             | 1696.              | S r m | Par. lond. 91        |



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leaves. Many of the species of this genus are remarkable for the neatness of their foliage and general aspect. The abolished genus *Xylophylia*, which is now included in *Phyllanthus*, is very generally cultivated on account of the pretty and at the same time singular appearance of its leafless leaf-like branches, covered over at the edges with multitudes of pink flowers. All the species require common stove culture.

2028. *Aleurites*. From *αλευας*, flour, all the parts of the plant seeming to be dusted with a farinaceous substance. A handsome plant of easy culture, and ripe cuttings with their leaves untouched, root in sand under a hand-glass.

2029. *Omphalea*. A curtailment of *Omphalandra*, a name under which Dr. Patrick Browne, in his History of Jamaica, first described the plant. He formed it from *ομφαλος*, a navel, and *ανθη*, a stamen; because the male organs are collected in a fleshy navel-like mass occupying the centre of the flowers. It grows freely in light loamy soil, and cuttings, with their leaves uninjured, root in sand under a hand-glass.

2030. *Hippomane*. From *ιππος*, a horse, and *μανια*, madness; the name was given by the Greeks to a plant which grew in Arcadia, and which possessed the dangerous property of making horses furious. This Hippomane must not, however, be confounded with that of Virgil (third Georgic), which is an animal substance.

The Manchineel-tree grows to a vast size on the sea coast of the Caribbee Islands and neighbouring continent. The leaves are ovate, serrated, acute, and very shining. The fruit fall off from the tree spontaneously, and pave all the ground with their numbers. They are highly poisonous, and are said to be eaten by the sea-crabs, which collect about the trees in vast numbers. But this is supposed by Jacquin to be a vulgar error. The whole tree abounds with a white milk, which is highly poisonous, and so very caustic, that a single drop placed upon the skin instantly causes the sensation of a hot iron, and in a short space raises a blister. It is a common belief that to sleep beneath the branches is death; but Jacquin and his companions reposed under it for three hours at a time without inconvenience. The wood is a most beautiful material for furniture, being finely variegated with brown and white, and susceptible of a high polish. The workmen who fell the trees, first kindle a fire around the stem, by which means the juice becomes so much inspissated as not to follow the blows of their axes. Whole woods on the sea-coast of Martinique have been burnt, in order to clear the country of such a dangerous pest.

- 13617 Leaves pinnate lanceolate acuminate subrenate coriaceous, Flowers stalked  
 13618 Leaves pinnate linear-lanceolate lined crenate, Flowers stalked hermaphrodite  
 13619 Leaves scattered linear-lanceolate subfalcate crenate, Flowers subsessile  
 13620 Leaves 3-lobed  
 13621 Leaves oblong blunt very smooth, Flowers triandrous, Stem arborescent  
 13622 Leaves ovato-serrated  
 13623 Leaves oblong acuminate serrulate, Petioles with 2 glands at the end  
 13624 Leaves lanceolate entire smooth variegated stalked  
 13625 Leaves linear entire stalked downy beneath  
 13626 Leaves elliptical entire bluntnish hoary downy beneath stalked, Spikes terminal few-flowered  
 13627 Leaves ovate lanceolate plaited serrated scabrous  
 13628 Leaves ovate bluntnish entire smooth, Fruit stalked  
 13629 Leaves ovate rhomboid repand entire at base hoary on each side, Pedunc. terminal about 3-fl.  
 13630 Leaves ovate serrated at end hoary downy beneath, Stipules ciliated, Spikes terminal subcapitate bracteate  
 13631 Leaves ovate acuminate serrated smooth with 2 glands at base, Petioles shorter than leaf, Racemes term.  
 13632 Leaves ovate acuminate entire smooth silvery with scales ben. Racemes comp. axillary, Stem arborescent  
 13633 Leaves cordate ovate attenuate somewhat toothletted warted and green above, silvery and shining beneath  
 13634 Leaves cordate acuminate serrulate rough above downy beneath with 4 glands at the base  
 13635 Lvs. round-cord. acum. ent. glandular-ciliated downy beneath, A fascicle of stalked glands at base of lvs.  
 13636 Leaves oblong subcordate serrulate scabrous downy beneath with 2 glands at the base, Raceme terminal  
 13637 Leaves ovate acute subcordate entire scabrous above downy beneath  
 13638 Leaves subcordate angular blunt repand scabrous downy beneath  
 13639 Leaves obl.-lanc. subcordate scabrous downy beneath and with 2 glands at base, Branches densely downy  
 13640 Leaves 3-5-lobed serrated with hairy petioles, Stem herbaceous  
 13641 Leaves oblong-lanceolate obtuse at base variegated and stained with red, Spikes axillary suberect  
 13642 Downy, Leaves cordate roundish blunt repand greenish above hoary beneath  
 13643 Leaves palmate 7-lobed hispid beneath stinging: lobes pinnatifid, Petiole with 1 gland at end  
 13644 Lvs. cord. 5-lobed serrated fringed with glands, Branched glandular hairs in axilla of leaves and petioles  
 13645 Leaves ovate acuminate entire very smooth, Racemes subcymose  
 13646 Leaves oblong subpanduriform acuminate entire angular at base with 2 teeth on each side  
 13647 Leaves cordate angular  
 13648 Leaves palmate 11-lobed smooth: lobes pinnatifid cuneate, Stipules setaceous multifid



and Miscellaneous Particulars.

2031. *Sapitum*. A name under which Pliny indicates a sort of pine, so named from the abundance of resin which it produces; from *saps*, fat or greasy in Celtic. The Americans employ the juice of *Sapitum acuparium* as bird-lime, for catching parrots and other birds. For this purpose they cut off a limb of the tree, and the next day collect the sap which has flowed out and become inspissated. They call it *Mangle castivo*. The juice is also burned in lamps. Cuttings root freely in sand under a hand-glass.

2032. *Croton*. The Greek name of a certain insect called *ricinus* by the Latins, which the fruit of *Croton* resembles.

*Croton Tiglium* affords an oil used in medicine, which is so powerfully irritating, that a small drop placed upon the tongue, has the effect of exciting an irritation along the whole intestinal canal, which does not soon subside. It is usually employed in mixture with oil of almonds, in order to weaken its too violent powers. *C. lineare* in its general appearance resembles rosemary, and is called wild rosemary in Jamaica. *C. tinctorium* is used to dye both silk and wool of an elegant blue color, and the juice is used to color wines and jellies. The substance for this purpose is called Turnsol, and is made of the juice which is lodged between the calyx and the seeds: this, if rubbed on cloths, appears at first of a lively green, but soon changes to a blueish purple; if these cloths are put into water, and afterwards wrung, they will dye the water of a claret color; the rags thus dyed are brought to England, and sold in the druggists' shops by the name of Turnsol.

*C. Eleuteria* furnishes the Cascarilla bark, which is chiefly imported from Eleutheria, one of the Bahama Islands. It consists of pieces of about six or eight inches long, scarcely one-tenth of an inch thick, quilled, and covered with a thin whitish epidermis. It has a pleasant spicy odor, and a bitter warm aromatic taste. It is very inflammable, and is easily distinguished from all other barks by emitting, when burnt and extinguished, a fragrant smell resembling that of musk. Medically, this bark is a valuable carminative and tonic, and is an excellent adjunct to the Cinchona bark in fevers. *C. lacciferum*, a plant not yet in gardens, is one among several species on which the gum lac is said to be produced. Some of the spines we are in possession of, are much admired for their variegated leaves; all of them are freely propagated by cuttings with the leaves on, planted in sand, and plunged in moist heat under a hand-glass.

2033. *Jatropha*. From *ιατροφα*, a remedy, and *φαγη*, to eat. The *J. Manihot* (*Mandioka*, Brazilian) or *Cassa-*

|       |                            |                      |   |     |    |       |     |                       |            |       |     |                     |                      |
|-------|----------------------------|----------------------|---|-----|----|-------|-----|-----------------------|------------|-------|-----|---------------------|----------------------|
| 13649 | Mánihot <i>W.</i>          | Cassava              | ☐ | clt | 3  | jl.au | G   | S. Amer.              | 1739       | S     | r.m | Sloan.jam.1. t.85   |                      |
| 13650 | úrens <i>W.</i>            | stinging             | ☐ | or  | 3  | ny.jl | G   | Brazil                | 1630.      | S     | r.m | Bot. cab. 478       |                      |
| 13651 | herbácea <i>W.</i>         | annual               | ☐ | un  | 1½ | jl.au | G   | VeraCruz              | 1739.      | S     | r.m | Reliq.hou.6. t.15   |                      |
| 2034. | RICINUS. <i>W.</i>         | PALMA-CHRISTI.       |   |     |    |       |     | <i>Euphorbiaceae.</i> | Sp. 9—10.  |       |     |                     |                      |
| 13652 | communis <i>W.</i>         | Castor-oil plant     | ☐ | m   | 6  | jl.au | G   | E. Indies             | 1548.      | S     | co  | Bot. mag. 2209      |                      |
| 13653 | viridis <i>W.</i>          | green                | ☐ | or  | 6  | au    | G   | E. Indies             | 1802.      | S     | sp  | W. hort. ber. 49    |                      |
| 13654 | africanus <i>W.</i>        | African              | ☐ | or  | 15 | jl.au | G   | Africa                | ...        | S     | sp  |                     |                      |
| 13655 | lividus <i>W.</i>          | livid-leaved         | ☐ | or  | 8  | jl    | Pu  | C. G. H.              | 1795.      | S     | sp  | Jac. ic. 1. t. 196  |                      |
| 13656 | inermis <i>W.</i>          | smooth-capsul.       | ☐ | or  | 6  | jl.au | Pu  | India                 | 1758.      | S     | sp  | Jac. ic. 1. t. 195  |                      |
| 13657 | armátus <i>B. R.</i>       | rough-capsuled       | ☐ | or  | 6  | jl.s  | G   | Malta                 | 1807.      | S     | sp  | Bot. rep. 430       |                      |
| 13658 | Tanárius <i>W.</i>         | scalloped-leaved     | ☐ | or  | 4  | jl.s  | G   | E. Indies             | 1810.      | S     | sp  | Rum.am.3. t.121     |                      |
| 2035. | HU'RA. <i>W.</i>           | SANDBOX-TREE.        |   |     |    |       |     | <i>Euphorbiaceae.</i> | Sp. 2.     |       |     |                     |                      |
| 13659 | strépens <i>W. en.</i>     | unequal-tooth.       | ☐ | or  | 12 | ...   | W.Y | S. Amer.              | ...        | C     | lp  |                     |                      |
| 13660 | crépítans <i>W. en.</i>    | equal-toothed        | ☐ | or  | 12 | ...   | W.Y | S. Amer.              | 1733.      | S     | pl  | Lam. ill. t. 793    |                      |
| 2036. | STERCULIA. <i>W.</i>       | STERCULIA.           |   |     |    |       |     | <i>Sterculiaceae.</i> | Sp. 5—23.  |       |     |                     |                      |
| 13661 | Balíngnas <i>W.</i>        | coronet-flower.      | ☐ | or  | 90 | jn.s  | G   | E. Indies             | 1787.      | Sk    | pl  | Bot. reg. 185       |                      |
| 13662 | crinita <i>W.</i>          | hairy-capsuled       | ☐ | or  | 20 | ...   | G   | W. Indies             | 1793.      | O     | pl  | Aut. gal. 2. t. 279 |                      |
| 13663 | úrens <i>W.</i>            | stinging             | ☐ | or  | 10 | ...   | G   | E. Indies             | 1793.      | O     | pl  | Rox. con. 1. t. 24  |                      |
| 13664 | platanifolia <i>W.</i>     | Plane-tree-ldv.      | ☐ | or  | 30 | jl    | ... | G                     | China      | 1757. | S   | pl                  | Cav. diss. 5. t. 145 |
| 13665 | foe'tida <i>W.</i>         | fetid                | ☐ | or  | 8  | ...   | G   | E. Indies             | 1690.      | S     | pl  | Rhee.mal.4. t.36    |                      |
| 2037. | HERITIERA. <i>W.</i>       | LOOKING-GLASS PLANT. |   |     |    |       |     | <i>Sp. 1—2.</i>       |            |       |     |                     |                      |
| 13666 | litorális <i>W.</i>        | Laurel-leaved        | ☐ | or  | 20 | ...   | ... | E. Indies             | 1780.      | C     | pl  | Rhee.mal.6. t.21    |                      |
| 2038. | ACA'LYPHA. <i>W.</i>       | ACALYPHA.            |   |     |    |       |     | <i>Euphorbiaceae.</i> | Sp. 14—43. |       |     |                     |                      |
| 13667 | virginica <i>W.</i>        | Virginian            | ☐ | un  | 2  | jl.au | G   | N. Amer.              | 1759.      | S     | co  | Sch. han.3. t.311   |                      |
| 13668 | caroliniana <i>W.</i>      | Carolina             | ☐ | un  | 2  | jl.au | G   | N. Amer.              | 1811.      | S     | co  | Lam.ill. t.789.f.2  |                      |
| 13669 | ciliáta <i>W.</i>          | ciliated             | ☐ | un  | 2  | jl.au | G   | E. Indies             | 1799.      | S     | co  | Vah.symb.1.t.20     |                      |
| 13670 | pauciflora <i>W. en.</i>   | few-flowered         | ☐ | un  | 2  | jl.au | G   | China                 | 1816.      | S     | co  |                     |                      |
| 13671 | brachystácha <i>W. en.</i> | saw-leaved           | ☐ | un  | 2  | jl.au | G   | China                 | 1816.      | S     | co  |                     |                      |
| 13672 | indica <i>W.</i>           | Indian               | ☐ | un  | 2  | jl.s  | G   | E. Indies             | 1759.      | S     | co  | Rhe.mal.10. t.81    |                      |
| 13673 | alopeuroideá <i>W.</i>     | Fox-tail             | ☐ | un  | 2  | jl.s  | G   | Venezula              | 1804.      | S     | co  | Jac. ic. 3. t. 620  |                      |
| 13674 | diversifolia <i>Jacq.</i>  | various-leaved       | ☐ | un  | 2  | ...   | G   | Caraccas              | ...        | C     | co  |                     |                      |
| 13675 | integrifolia <i>W.</i>     | entire-leaved        | ☐ | un  | 5  | jn.s  | G   | Mauritius             | 1823.      | C     | co  |                     |                      |
| 13676 | rúbra <i>W.</i>            | red                  | ☐ | un  | 1½ | jl    | R   | ...                   | 1820.      | C     | co  |                     |                      |
| 13677 | hispida <i>W.</i>          | hispid               | ☐ | un  | 3  | jl.au | G   | E. Indies             | ...        | C     | co  |                     |                      |
| 13678 | cuspidáta <i>W.</i>        | cuspidate            | ☐ | un  | 4  | jn.jl | G   | Caraccas              | 1819.      | C     | co  |                     |                      |
| 13679 | virgáta <i>W.</i>          | virgate              | ☐ | un  | 6  | jn.jl | G   | Jamaica               | 1823.      | C     | co  | Bro. jam.t.36.f.2   |                      |
| 13680 | scabrósa <i>W.</i>         | rough                | ☐ | un  | 6  | jn.jl | G   | Jamaica               | 1820.      | C     | co  |                     |                      |
| 2039. | DALECHAMPIA. <i>W.</i>     | DALECHAMPIA.         |   |     |    |       |     | <i>Euphorbiaceae.</i> | Sp. 1—17.  |       |     |                     |                      |
| 13681 | scándens <i>W.</i>         | climbing             | ☐ | un  | 12 | jn.jl | G   | W. Indies             | 1739.      | C     | lp  | Jac.am.252.t.160    |                      |



History, Use, Propagation, Culture,

root, yields an excellent nutritious article of food when the juice has been expressed, which is a strong poison. *J. gossypifolia* is considered a beneficial plant in the West Indies, on account of the seeds, which are much relished by and very nourishing to poultry. *J. Manihot*, the Cassava of the West Indies, and the *Mandioca* and *Tapioca* of Brazil, formerly supplied the greater part of the nourishment of the natives of South America, and is now very generally cultivated there and in the West Indies. It yields an agreeable wholesome food; is of rapid growth, the roots arriving to perfection in about eight months, and it will thrive in any soil or situation. The juice of the root is sweetish, and when swallowed, or when the root is eaten without preparation, it brings on convulsions, and occasions violent retching and purging. It acts only on the nervous system; it produces no inflammation on the stomach; but the stomach of a man or other animal poisoned by it, appears to be contracted one half. A little mint-water and salt of wormwood, timely administered, will prevent all bad consequences. In preparing the roots for use as food, they are washed, scraped, and grated to a pulp; this pulp is then pressed, and when dried is a powder resembling starch or flower fit for use. It is generally baked as bread, and bears a considerable resemblance to that made from wheat flour. The roots entire, or in a powdered state, form an article of considerable export from different parts of Brazil. All the species thrive well in our stoves, and are increased by cuttings, which Sweet states, succeed best when stuck in the tan in a good heat.

2034. *Ricinus*. A name with the same derivation as *Croton*, No. 2032, which see. *R. communis*, though an annual and herbaceous plant in our gardens, becomes a tree in Africa of several years' standing. In Candia it continues many years, and, according to Belon, requires a ladder to come at the seeds. The seeds furnish the well known Castor-oil of medicine. This oil is obtained both by coction and expression. The former method is performed by tying up the seeds, previously decorticated and bruised, in a bag, which is suspended in boiling water, till all the oil is extracted and rises to the surface, when it is skimmed off. Oil so obtained is apt to become rancid, and, therefore, the better mode is to subject the seeds to the press, in the same manner as is done with almonds to procure almond oil. (See *Amygdalus*.) The oil obtained is equal to one fourth of the weight of the seeds employed. It is often adulterated with olive oil, linseed oil, and poppy oil. The great value of castor oil as a purgative is the mildness and rapidity with which it operates. It is peculiarly adapted for infants,

- 13649 Leaves undivided 3-5-lobed palmate entire glaucous beneath  
 13650 Leaves 5-lobed cordate toothed hispid stinging  
 13651 Prickly, Leaves 3-lobed, Stem herbaceous

- 13652 Leaves peltate palmate : lobes lanceolate serrated, Stem herbaceous frosted, Capsules prickly  
 13653 Lvs. pelt. palm. : lobes oblong toothed ; middle obsolete 3-lobed, Stem herbaceous frosted, Caps. prickly  
 13654 Leaves peltate palmate : lobes oblong serrated, Stem shrubby smooth, Stigmas 6, Caps. prickly  
 13655 Leaves peltate palmate colored : lobes obl. serrate-toothed, Stem shrubby smooth colored, Caps. prickly  
 13656 Leaves peltate palmate : lobes oblong serrated, Stem shrubby frosted, Capsules unarmed  
 13657 Leaves palmate deeply palmate 9 cut serrated, Petioles glandular, Caps. with herbaceous spines  
 13658 Leaves peltate ovate acuminate repand toothed, Caps. prickly

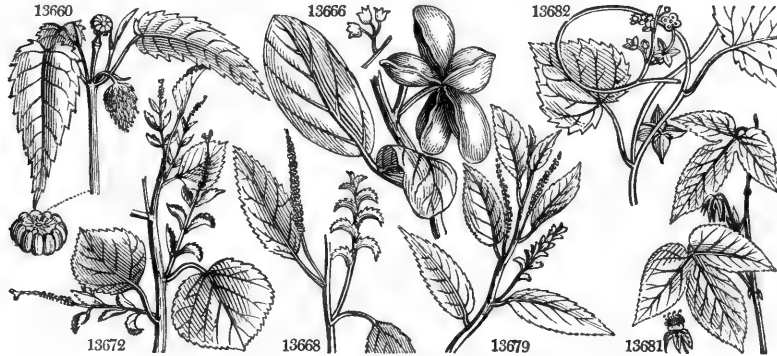
- 13659 Leaves ovate oblong slightly cordate toothed : lower teeth long entire at end  
 13660 Leaves ovate deeply cordate equally serrate, Male catkin ovate

- 13661 Leaves ovate lanceolate, Capsules obovate  
 13662 Hermaphrodite, Leaves ovate entire, Flowers paniced decandrous, Caps. smooth  
 13663 Leaves 5-lobed : lobes acuminate, Calyxes campanulate, Caps. ovate hispid  
 13664 Leaves palmate 5-lobed, Calyxes rotate reflexed  
 13665 Leaves digitate

- 13666 Leaves ovate simply veiny

- 13667 Female flowers at base of male spike, Invol. ovate acuminate toothed, Leaves obl. lanc. remotely toothed  
 13668 Fem. fls. at base of male spike, Invol. cordate toothed, Leaves subrhomboid ovate serrated entire at base  
 13669 Spikes axill. male upwards : female downw. Invol. cordate acuminate with imbricated serratures ciliated  
 13670 Female flowers solitary or twin at base of the male spike, Invol. cordate serrate, Leaves rhomboid ovate  
 13671 Female flowers at base of the male spike without an involucre, Leaves roundish ovate subcordate serrated  
 13672 Spikes axill. male above female below. Invol. smoothish serrated, Leaves ovate acum. serr. cuneate at base  
 13673 Female spike cylind. solitary terminal, Invol. 3-parted awned ciliated, Leaves roundish-ovate acuminate  
 13674 Female flowers twin axillary, Involucres entire, Leaves ovate acuminate serrulate, Stem shrubby  
 13675 Flowers dioecious : male spiked ; female axillary, Invol. roundish entire, Leaves smooth lanc. subcord.  
 13676 Spikes male above ; fem. below. Invol. cuneiform toothed at edge, Styles multifid, Lvs. obl. subcord. serr.  
 13677 Spikes axillary male above ; female below. Invol. cordate hispid, Leaves ovate acute hispid  
 13678 Male spikes axillary female at base, Invol. O, Leaves ovate cordate acuminate serrated  
 13679 Spikes axillary erect, Female involcs. cordate toothed very large, Leaves ovate-lanceolate serrated smooth  
 13680 Flowers dioecious spiked, Spikes axill. Invol. of females cordate cut, Leaves obl. lanceolate serrated smooth

- 13681 Leaves 3-lobed serrated : lobes oblong serrated, Bractes 3-lobed ciliated, Petioles shorter than peduncle



and Miscellaneous Particulars.

women in childbed, and persons bed-ridden. Sown in pots on heat early in the season, and transplanted as soon as the frosts are over into a mass of light rich soil, the plant makes one of the most magnificent of border annuals, often attaining the height of ten or twelve feet.

2035. *Hura*. Its American name. *H. crepitans* is a rapid growing tree. From the quickness of its vegetation, its parts are of so loose a texture, that a loud clap of thunder, or a sudden gust of wind, frequently causes the largest boughs to snap asunder. The wood is only fit for joists and spars : the sap of the leaves and bark is corrosive, and the seeds when roasted purge both upwards and downwards. The species are propagated by large ripened cuttings, planted in sand, plunged in heat, and covered with a hand-glass. Its fruit when ripe bursts with a loud crack, whence the specific name of crepitans ; they are of a very elegant form, resembling a depressed sphere with many rounded ribs, arranged with the utmost symmetry.

2036. *Sterculia*. *Sterculius* was the god of the privy, from *stercus*, excrement. It has been well observed by a French author, that the Romans, in the madness of paganism, finished by deifying the most immodest objects and the most disgusting actions. They had the gods *Sterculius*, *Crepitus*, *Priapus* ; and the goddesses *Caca*, *Pertunda*, &c. &c. The flowers of one species and the leaves of the other are highly fetid. The species are lofty trees with large leaves, and some of them very showy flowers : they all thrive in light loamy soil ; and ripened cuttings, with their leaves on, root in sand, plunged in moist heat, and covered with a hand-glass. The famous Cola nut of Guinea is the produce of *S. acuminata*.

2037. *Heritiera*. Named in honor of Charles Louis L'Heritier de Brutelle, a distinguished French botanist, who was unfortunately assassinated in a street of Paris in 1800. He published many works, which will always have a high reputation for the excellence of their text, and the magnificence of their illustrations. A fine tree, which may be treated like *Sterculia*.

2038. *Acalypha*. A Greek name for the nettle, which this genus much resembles. It is compounded of  $\alpha$ , privative,  $\alpha\lambda\alpha\sigma$ , beautiful, and  $\alpha\pi\eta$ , touch. Plants of no beauty and the easiest culture.

2039. *Dalechampia*. So called after James Dalechamp, a French botanist, born in 1513, died in 1588. He left a General History of Plants, and some commentaries upon Pliny. May be treated as *Plukenetia*.



2040. *PLUKENETIA*. *W.* PLUKENETIA. *Euphorbiaceae*. Sp. 1—5.  
13682 volūbilis *W.* twining  $\frac{1}{2}$  □ un 6 jl. au G W. Indies 1739. C p. 1 Plu. ic. 220. t. 226

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2040. *Plukenetia*. Named after Leonard Plukenet, an English botanist, who published some valuable works, with an immense number of copperplates, of singular merit for their time. The names of two of these works are so singular as to deserve explanation. One was called *Amaltheum botanicum*. This word in Greek, *Ἀμαλθεύμα*, was the name of the goat which suckled Jupiter. As its milk was exquisite and abundant, the word came to signify, among the ancients, the symbol of richness and abundance. The famous library of Atticus was called *Amaltheum*, on account of the number and variety of the books which it contained. In



CLASS XXII. — DICECIA.

*Male and female flowers upon different plants.*

To this class many of the observations made upon the last are equally applicable. Like it, the genera would have been more conveniently distributed among previous classes. The genera it contains are chiefly trees, and many of them form the most valuable portion of the forests of all parts of the world.

In Monandria is found the celebrated *Pandanus* or screw pine, which, with its strange spiral branches, constitutes one of the most singular features of the vegetation of the Isle of France. *Diandria* contains the valuable *Salix*; *Pentandria*, the hop, the hemp, and the spinage. The black Bryony, and various palms have a station in *Hexandria*; the poplar in *Octandria*; the Papaw and the Bonduc tree in *Decandria*. *Monadelphia* is richly endowed with valuable trees, such as the yew, the Norfolk Island pine, the juniper, the nutmeg; and it also contains the wonderful pitcher-plant of China.

Order 1. MONANDRIA.



Stamen 1.

2041. *Pandanus*. Male. Cal. O. Cor. O. Anthers cuspidate. Female. Cal. O. Cor. O. Style bifid. Drupe compound or simple.

Order 2. DIANDRIA.



Stamens 2.

2042. *Salix*. Barren fl. Scales of the catkin single-flowered, imbricated, with a nectariferous gland at its base. Perianth. O. Stam. 1-5. Fertile fl. Scales of the catkin single-flowered. Perianth. O. Stigmas 2, often cleft. Caps. 1-celled, 2-valved, many-seeded. Seeds comose.

2043. *Cecropia*. Male. Spatha falling off. Catkin cylindrical. Cal. turbinate 4-cornered scales. Cor. O. Female, as in the male. Style 1. Stigma torn. Ovaries imbricated. Berry 1-seeded.

2044. *Borya*. Male. Cal. 4-leaved. Cor. O. Stamens 2-3. Female. Stigma capitate. Berry 1-seeded.

Order 3. TRIANDRIA.



Stamens 3.

2045. *Empetrum*. Barren fl. Cal. tripartite. Cor. of 3 petals (7 in E. B.). Stam. 3 (9 in E. B.), upon long filaments. Fertile fl. Cal. tripartite. Cor. of 3 petals. Style very short. Stigma with 6-9 rays. Berry superior, globose, with 6-9 seeds.

2046. *Willenovia*. Male. Cal. of many glumes. Petals 6. Nectary fleshy, 6-parted, surrounding the corolla. Female. Ovary superior. Style 1. Stigmas 2-3. Drupe 1-seeded.

2047. *Restio*. Spike imbricated. Cal. 6 equal glumes. Cor. O. Female. Styles 2-3. Nut stony, 1-celled, 1-seeded.

2048. *Etegia*. Cal. 6 unequal glumes. Female. Styles 3. Caps. 6-celled. Seeds solitary.

13682 Angles of capsules compressed keeled

*and Miscellaneous Particulars.*

this sense Plukenet applied it to a work in which a great variety of curious plants was assembled. The other work was called *Almagestum*. This also came originally from the Greek. Claudius Ptolomæus, an astronomer and mathematician, published about the middle of the second century a work on astronomy, called *Σύστημα κόσμου*, which may be Englished "Great work." Ishac ben Honain translated it into Arabic at the beginning of the ninth century, by order of the Caliph Mahmoud; to its title he added the Arabic article *Al*, and so formed the word *Al-magesti* or *Almagesti*.

2049. *Phœnix*. Cal. 3-parted. Petals 3. Ovary 1. Drupe ovate-oblong.  
 2050. *Stilago*. Male. Cal. tubular, 3-4-toothed. Cor. O. Stamens 2-3. Female, an annular disk at the base of the ovary. Stigmas 2, one bifid. Drupe 1-seeded.  
 2051. *Oxyris*. Male. Cal. 3-fid. Cor. O. Female. Style 1. Stigma roundish. Berry 1-celled.

## Order 4. TETRANDRIA.



Stamens 4.

2052. *Aulax*. Male. Flowers racemose. Cal. O. Petals 4, stamiferous. Female. Stigma oblique. Nut exserted, ventricose, bearded.  
 2053. *Leucadendron*. Male. Flowers capitate. Cal. O. Petals 4, stamiferous. Female. Stigma oblique. Nut or samara 1-seeded, included in the scales of the cone.  
 2054. *Viscum*. Barren fl. Cal. O. Petals 4, dilated at the base, connate, resembling a cal. Anthers sessile, adnate with the petals. Fertile fl. Cal. submarginate. Petals 4, dilated at the base. Style 1. Drupe inferior, 1-seeded.  
 2055. *Myrica*. Barren fl. Scales of the catkin concave. Perianth. O. Fertile fl. Scales of the catkin concave. Perianth. O. Styles 2. Drupe 1-celled, 1-seeded.  
 2056. *Nageia*. Cal. 4-leaved. Cor. O. Style bifid. Drupe 1-seeded.  
 2057. *Shepherdia*. Male flowers in a catkin, 8-androus. Female racemose at the ends of the branches. Limb of calyx flat, regular, 4-parted. Disk with 8 glands. Fruit of Hippophae.  
 2058. *Hippophae*. Male flowers in a catkin, tetrandrous. Female solitary in the axillæ of the leaves. Calyx tubular, bifid at end, closed. Disk O. Fruit formed of a berried calyx and akenium.  
 2059. *Broussonetia*. Male. A cylindrical catkin. Cal. 4-parted. Female. A globose catkin. Cal. tubular, 3-4-toothed. Ovaries becoming fleshy, clavate, prominent. Style lateral. Seed 1, covered by the calyx.  
 2060. *Schafferia*. Cal. 4-leaved. Petals 4 or O. Berry 2-celled. Seeds solitary.  
 2061. *Brucea*. Male. Cal. 4-parted. Petals 4. Disk 4-lobed. Female. Pericarps 4, 1-seeded.  
 2062. *Anthospermum*. Male. Cal. 4-toothed. Cor. with a short tube, and 4-parted limb. Female. Ovary inferior. Styles 2, reflexed. Fruit bipartible.  
 2063. *Trophis*. Male. Cal. O. Petals 4. Female. Cal. O. Cor. O. Style 2-parted. Berry 1-seeded.  
 2064. *Montinia*. Male. Cal. 4-toothed. Petals 4. Female. Style bifid. Stigmas reniform. Capsule inferior, 2-celled, many-seeded.

## Order 5. PENTANDRIA.



Stamens 5.

2065. *Pistacia*. Male. Cal. 5-fid. Cor. O. Female. Cal. 3-fid. Cor. O. Styles 5. Drupe 1-seeded.  
 2066. *Xanthoxylum*. Male. Cal. 5-parted. Cor. O. Stamens 3-5. Female. Ovaries 5. Caps. 3-5, one-seeded.  
 2067. *Picramnia*. Male. Cal. 3-5-parted. Petals 3-5. Stamens 3-5. Female. Styles 2. Berry 2-celled, 2-seeded.  
 2068. *Antidesma*. Male. Cal. 5-leaved. Cor. O. Anthers bifid. Female. Stigmas 5. Berry cylindrical, 1-seeded.  
 2069. *Iresine*. Male. Cal. 2-leaved. Petals 5. Scales 5-7. Female. Stigmas 2, sessile. Caps. with downy seeds.  
 2070. *Spinacia*. Male. Cal. 5-parted. Cor. O. Female. Styles 4. Seed 1, within the indurated calyx.  
 2071. *Fluggæa*. Male. Cal. 5-leaved. Cor. O. Rudiment of an ovary. Female. Style 2-parted. Stigmas recurved, bifid. Berry 4-seeded. Seeds with an arillus.  
 2072. *Acnida*. Male. Cal. 5-parted. Cor. O. Female. Cal. 3-parted. Styles O. Stigmas 3, sessile. Caps 1-seeded.

2074. *Cannabis*. Male. Cal. 5-parted. Female. Cal. 5-leaved, entire, opening at the side. Styles 2. Nut 2-valved within the closed calyx.

2074. *Humulus*. Barren fl. Perianth. single, of 5 leaves. Anthers with 2 pores at the extremity. Fertile fl. Scales of the catkin large, persistent, concave, entire, single-flowered. Perianth. O. Styles 2. Seed 1.

2075. *Modecca*. Cal. 5-fid. Petals 5, inserted in the calyx. Scales 5-10, rarely O. Male. Stamens 5. Anthers erect. Female. Caps. stalked, 1-celled, 3-valved, many-seeded.

## Order 6. HEXANDRIA.



Stamens 6.

2076. *Xerotes*. Cor. 6-parted, somewhat colored. Male. Stamens 6. Anthers peltate. Female. Stamens abortive. Ovary 3-celled, with 1-seeded cells. Caps. cartilaginous, 3-celled, 3-valved. Seeds peltate.

2077. *Elais*. Cal. 6-leaved. Cor. 6-fid. Style 1. Stigmas 3. Drupe 1-seeded, fibrous. Nut 3-valved.

2078. *Chamaedorea*. Cal. 3-parted. Cor. 3-parted. Stamens 6. Rudiment of a style. Female. Scales 3. Styles 3. Drupe succulent, 1-seeded.

2079. *Borassus*. Cal. 3-leaved. Cor. hypocrateriform, with a 3-parted limb. Female. Cal. 8-9-leaved, imbricated. Cor. O. Style O. Drupe with 3 stones.

2080. *Mauritia*. Cal. cyathiform, somewhat 3-toothed. Petals 3. Drupe 1-seeded, tessellated.

2081. *Smilax*. Cal. 5-leaved. Cor. O. Styles 3. Berry 3-celled. Seeds 2.

2082. *Tamus*. Cal. 6-parted. Cor. O. Styles 3-fid. Berry 3-celled, inferior. Seeds 2.

2083. *Testudinaria*. Perianth. 6-parted, spreading; segments linear, nearly equal. Male. Stamens 6, inserted in the base of the segments. Female. Styles 3, united. Capsule membranous. Seeds winged.

2084. *Rajania*. Cal. 6-parted. Cor. O. Styles 5. Samarae 1-seeded.

2085. *Dioscorea*. Cal. 6-parted. Cor. O. Styles 3. Capsule 3-celled, compressed. Seeds 2, membranous. Leaves generally alternate.

2086. *Maba*. Cal. 3-fid. Cor. tubular, trifold. Drupe 2-celled. Cells 2-seeded.

## Order 7. OCTANDRIA.



Stamens 8.

2087. *Populus*. Barren fl. Scales of the catkin lacerated. Anthers 8-30, arising from a turbinate, oblique, entire, single perianth. Fertile fl. Scales of the catkin lacerated. Perianth. turbinate, entire. Stigmas 4. Caps. superior, 2-celled, 2-valved, many-seeded. Seeds comose.

## Order 8. ENNEANDRIA.



Stamens 9.

2088. *Mercurialis*. Barren fl. Perianth. single, tripartite. Stam. 9-12. Anthers globose, 2-lobed. Fertile fl. Perianth. single, tripartite. Styles 2. Caps. 2-celled. Cells 1-seeded.

2089. *Hydrocharis*. Barren fl. Cal. tripartite. Petals 3, "the three interior filaments beaked." *Sm.* Fertile fl. Cal. tripartite. Petals 3. Styles 6, each with 2 stigmas. Caps. inferior, coriaceous, roundish, six-celled, many-seeded.

2090. *Triplaris*. Cal. 3-parted. Petals 3. Stamens 9. Styles 3. Capsule 1-seeded, 3-valved.

## Order 9. DECANDRIA.



Stamens 10.

2091. *Coriaria*. Cal. 5-parted. Cor. O. Scales 5. Anthers 2-parted. Styles 5. Caps. 5, 1-seeded, covered by the enlarged scales.

2092. *Kiggelaria*. Cal. 5-parted. Petals 5; glands 5, 3-lobed. Anthers perforated. Styles 5. Capsule one-celled, 5-valved, many-seeded.

2093. *Schinus*. Cal. 5-fid. Petals 5. Berry 3-coccous.

2094. *Gymnocladus*. Cal. 5-toothed. Petals 5. Style 1. Legumen 1-celled, pulpy inside.

2095. *Carica*. Male. Cal. hardly any. Cor. 5-fid, funnel-shaped. Filam. in the tube of the cor. Female. Cal. 5-toothed. Petals 5. Stigmas 5. Berry furrowed, 1-celled, many-seeded.

## Order 10. DODECANDRIA.



Stamens 12.

2096. *Stratiotes*. Male. Spathe 2-leaved. Cal. 3-parted. Petals 3. Stamens 11-13, perfect, 20 abortive. Ovary inferior, 6-angular. Styles 6, 2-parted. Berry 6-celled, many-seeded.

2097. *Hyænanche*. Cal. 5-7-leaved. Cor. O. Stamens 10-20. Style 1. Stigmas 3. Caps. 3-celled, 3-coccous. Cells 2-seeded.

2098. *Euclea*. Cal. 5-toothed. Cor. 5-parted. Stamens 15. Ovary superior. Styles 2. Caps. berried, 3-horned, 3-celled. Seeds solitary, with an arillus.

2099. *Datisca*. Male. Cal. 5-leaved. Cor. O. Anthers sessile. Female. Cal. 2-toothed. Styles 3. Capsule 3-angular, 3-horned, 1-celled, pervious, inferior.

2100. *Menispermum*. Male. Cal. 2-leaved. Petals 4 or 6 on the outside, 8 inside. Stamens 16. Female. Stamens 8, sterile. Ovaries 2-3. Berries 2, 1-seeded.

2101. *Coccolus*. Sepals and petals ternate, usually in two, rarely in three rows. Male. Stamens 6, distinct, opposite the petals. Female. Drupes berried, 1-6, generally oblique, reniform, somewhat compressed, 1-seeded. Cotyledons distinct.

## Order 11. ICOSANDRIA.




Stamens numerous, inserted in the calyx.

2102. *Flacourtia*. Cal. 5-parted. Cor. O. Stamens 50-100. Stigma stellate, sessile. Berry many-celled, with 2-seeded cells.

2103. *Peumus*. Male. Cal. campanulate, 5-fid. Petals 5, inserted in the calyx, reflexed. Stamens about 46, glandular. Female. Scales 5, subsagittate. Ovaries 2-9. Style O. Drupes oval, acuminate.

2104. *Geonium*. Cal. 5-leaved. Cor. O. Stamens 12. Stigmas 3, lacerated. Caps. 3-celled, 3-valved, 3-seeded.

2105. *Rottlera*. Male. Cal. 2-parted. Cor. O. Stamens 30-40. Female. Cal. 4-toothed. Styles 3. Caps. 3-celled, triccoccus, 3-seeded.

Order 12. POLYANDRIA.  Stamens numerous, inserted under the ovarium.

2106. *Cliffortia*. Cal. 3-leaved. Cor. O. Stamens about 30. Styles 3. Caps. 3-celled. Seed 1.  
 2107. *Cycas*. Male. Catkin imbricated. Cal. a spatulate scale. Cor. O. Anthers globose, sessile, on a scale. Female. Spadix compressed, 2-sided. Cal. O. Cor. O. Style 1. Drupe 1-seeded.  
 2108. *Zamia*. Catkin like a cone. Male. Calyx an obovate scale. Cor. O. Anthers globose, opening by a slit, sessile on the scale. Female. Cal. peltate scales. Ovaries 2. Style O. Berries 2, 1-seeded.

 Order 13. MONADELPHIA.  Stamens united into one body.

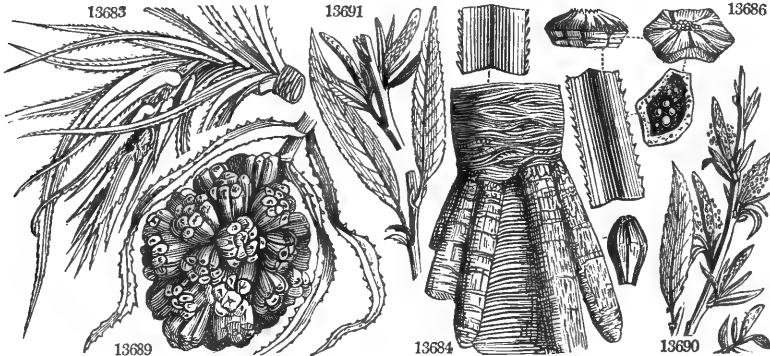
2109. *Latania*. Spadix many-leaved. Calyx 3-leaved. Petals 3. Stamens 15-16. Drupe coated, with three stones.  
 2110. *Leptocarpus*. Cal. 6-leaved, glumaceous. Cor. O. Stamens 3. Ovary superior. Style 1. Stigmas 2 or 3. Utricle or nut crustaceous, crowned by the base of the style.  
 2111. *Ruscus*. Cal. 6-leaved. Cor. O. Male. Rudiment of ovary ovate, perforated at end. Female. Style 1. Berry 3-celled. Seeds 2.  
 2112. *Aracaria*. Male. Catkin imbricated. Cal. a woody scale. Anthers 10-12, united in a scale. Female. Catkin cone-shaped. Cal. a lanceolate 2-flowered scale. Style O. Stigma 2-valved. Nut coriaceous, cuneiform, winged at end.  
 2113. *Juniperus*. Barren fl. Scales of the catkin subpeltate. Perianth. O. Stam. 4-8, 1-celled. Fertile fl. Scales of the catkin few, united at length, fleshy, and surrounding the 3-seeded berry.  
 2114. *Taxus*. Barren fl. Perianth, single at the base. Stam. numerous. Anthers peltate, 6-8-celled. Cells opening beneath. Fertile fl. Perianth, single, urceolate, scaly. Style O. Drupe fleshy, perforated at the extremity.  
 2115. *Ephedra*. Male. A catkin. Cal. 2-fid. Stamens 7. Anthers 4 inferior, 2 superior. Female. Cal. 2-parted, quintuple. Ovaries 2. Seeds 2, covered by the berried calyx.  
 2116. *Cissampelos*. Male. Cal. 4-leaved. Cor. O. Disk rotate. Stamens 5. Filaments connate. Female. Cal. 1-leaved, ligulate, roundish. Styles 3. Berry 1-seeded.  
 2117. *Excoecaria*. Male. Catkin cylindrical. Cal. a scale. Filament 3-parted. Female. Calyx 3 scales. Caps. 3-coccous.  
 2118. *Adelia*. Male. Cal. 3-parted. Cor. O. Stamens OO. Female. Cal. 5-parted. Styles 3, torn. Capsule 3-coccous.  
 2119. *Loureira*. Male. Cal. 5-parted. Cor. tubular, campanulate, 5-fid. Stamens 8-13, cohering at base. Female. Stigmas 3-4. Capsule dicoccous, 2-celled, with 1-seeded cells.  
 2120. *Myrsitica*. Male. Cal. O. Cor. campanulate, trifiid. Filament columnar. Anthers 6-10, connate. Female. Style 1. Stigmas 2. Drupe with an arilled 1-seeded nut. Seed large, veiny, variegated in the inside.  
 2121. *Nepenthes*. Cal. 4-parted, spreading, colored inside. Cor. O. Filament columnar. Anthers 15-17, connate. Stigma peltate, sessile. Caps. 4-celled, many-seeded.  
 2122. *Cluytia*. Male. Cal. 5-leaved. Petals 5. Disk glandular. Stamens 5, inserted into the rudiment of an ovarium. Female. Styles 3. Capsule 3-celled. Seed 1.

MONANDRIA.

|                                   |               |   |   |       |                  |                  |           |       |                           |
|-----------------------------------|---------------|---|---|-------|------------------|------------------|-----------|-------|---------------------------|
| 2041. PANDA'NUS. <i>W.</i>        | SCREW-PINE.   |   |   |       | <i>Pandaneæ.</i> | <i>Sp. 7—25.</i> |           |       |                           |
| 13683 odoratissimus <i>W.</i>     | green-spined  | ♂ | □ | or 20 | ...              | W                | E. Indies | 1771. | S r.m Rox.cor.1. t.94-6   |
| 13684 útilis <i>W. en.</i>        | red-spined    | ♂ | □ | or 20 | ...              | W                | Bourbon   | ...   | S r.m Ja.fra. t.13,14.f.1 |
| 13685 spirális <i>R. Br.</i>      | spiral        | ♂ | □ | or 20 | ...              | W                | N. S. W.  | 1805. | S r.m                     |
| 13686 húmilis <i>W.</i>           | dwarf         | ♂ | □ | or 8  | ...              | W                | Mauritius | ...   | S r.m Jac.frag. t.14. f.2 |
| 13687 amaryllifolius <i>Robt.</i> | entire-leaved | ♂ | □ | or 20 | ...              | W                | E. Indies | 1820. | S r.m                     |
| 13688 candelábrum <i>Beauv.</i>   | Candlestick   | ♂ | □ | or 15 | ...              | W                | Guinea    | 1822. | S r.m Fl. d'Oware. t.21   |
| 13689 fasciculáris <i>W.</i>      | fasciated     | ♂ | □ | or 20 | ...              | W                | E. Indies | 1822. | S r.m Rheede. 2. t. 6     |

DIANDRIA.

|                              |                 |   |    |       |                   |                     |           |         |                            |
|------------------------------|-----------------|---|----|-------|-------------------|---------------------|-----------|---------|----------------------------|
| 2042. SA'LIX. <i>W.</i>      | WILLOW.         |   |    |       | <i>Amentaceæ.</i> | <i>Sp. 125—163.</i> |           |         |                            |
| 13690 triándra <i>W.</i>     | long-leaved     | ♀ | tm | 30    | my.au             | Ap                  | Britain   | riv.ba. | C m.s Eng. bot. 1435       |
| 13691 lanceoláta             | sharp-leaved    | ♀ | tm | 30    | ap.my             | Ap                  | England   | mea.    | C m.s Eng. bot. 1436       |
| 13692 Hoppeána <i>W.</i>     | Hoppe's         | ♀ | tm | 30    | ap.my             | Ap                  | Austria   | 1820.   | C m.s                      |
| 13693 unduláta <i>W.</i>     | wave-leaved     | ♀ | tm | 30    | ap.my             | Ap                  | Germany   | ...     | C m.s                      |
| 13694 Villarsána <i>W.</i>   | Villars's       | ♂ | or | 6     | ap.my             | Ap                  | S. France | 1818.   | C m.s                      |
| 13695 amygdalina <i>W.</i>   | Almond-leaved   | ♂ | or | 6     | ap.my             | Ap                  | Britain   | mar.    | C m.s Eng. bot. 1936       |
| 13696 decípiens <i>E. B.</i> | varnished       | ♂ | or | 8     | my                | Ap                  | England   | woods.  | C m.s Eng. bot. 1937       |
| 13697 Russelliána <i>W.</i>  | Bedford         | ♀ | tm | 40    | ap.my             | Ap                  | England   | mar.    | C m.s Eng. bot. 1808       |
| 13698 Humboldtána <i>W.</i>  | Humboldt's      | ♂ | or | 10    | ...               | Ap                  | Peru      | 1823.   | C m.s                      |
| 13699 tetrasperma <i>W.</i>  | four-seeded     | ♂ | □  | or 20 | ...               | Ap                  | E. Indies | 1796.   | C m.s Rox. cor. 1. t. 97   |
| 13700 nígra <i>W.</i>        | black           | ♀ | or | 20    | my                | Ap                  | N. Amer.  | 1811.   | C m.s An.bot.2. t.5. f.5   |
| 13701 pentándra <i>W.</i>    | Bay-leaved      | ♂ | or | 15    | mr.jn             | Ap                  | Britain   | riv.ba. | C m.s Eng. bot. 1805       |
| 13702 nígricans <i>W.</i>    | dark broad-ldv. | ♂ | or | 10    | ap                | Ap                  | England   | os.hol. | C m.s Eng. bot. 1213       |
| 13703 phycifolia <i>W.</i>   | Tea-leaved      | ♂ | or | 14    | my                | Ap                  | Scotland  | sc.alp. | C m.s Eng. bot. 1958       |
| 13704 Wulfeniána <i>W.</i>   | Wulfen's        | ♂ | or | 6     | my                | Ap                  | Carinthia | 1818.   | C m.s                      |
| 13705 silesiaca <i>W.</i>    | Silesian        | ♂ | or | 6     | my                | Ap                  | Silesia   | 1816.   | C m.s                      |
| 13706 Pontederána <i>W.</i>  | Pontedera's     | ♂ | or | 3     | my                | Ap                  | Switzerl. | 1821.   | C m.s                      |
| 13707 laurina <i>W.</i>      | two-colored     | ♂ | or | 8     | ap.my             | Ap                  | England   | ...     | C m.s Eng. bot. 1806       |
| 13708 tenuifolia <i>W.</i>   | thin-leaved     | ♂ | or | 2     | my.jn             | Ap                  | Britain   | sto.hi. | C m.s Eng. bot. 2186       |
| 13709 Ammanniána <i>W.</i>   | Ammann's        | ♀ | or | 20    | my.jn             | Ap                  | Austria   | 1821.   | C m.s H. sal. t.17,18,19   |
| 13710 hastáta <i>W.</i>      | halbert-leaved  | ♀ | or | 15    | my                | Ap                  | Lapland   | 1780.   | C m.s Fl. lapp. t. 8. f. g |
| 13711 serruláta <i>W.</i>    | serrulate       | ♂ | or | 8     | my                | Ap                  | Lapland   | 1810.   | C m.s Fl. dan. t. 1238     |



History, Use, Propagation, Culture,

2041. *Pandanus*. The Malay name of the genus is *Pandang*, which is said to signify, being interpreted, something to be regarded, and to have been so named on account of the beauty of the tree, and its exquisite odor. *P. odoratissimus* is a large spreading branching bush, with stem-clasping imbricated leaves, bearing some resemblance to those of the pine-apple; from three to five feet long, and placed in three spiral rows round the extremities of the branches. It grows in all soils and situations in the warmer parts of Asia, and is much employed there for hedges. It grows readily from branches, whence it is rare to find the full-grown ripe fruit. The tender white leaves of the flowers, chiefly those of the male, yield that most delightful fragrance, for which they are so generally esteemed, and for which the plant is cultivated in Japan. Of all the perfumes, it is by far the richest and most powerful. The lower pulpy part of the drupe is sometimes eaten by the natives in times of scarcity and famine. The tender white base of the leaves is also eaten raw or boiled, at such melancholy times. The taste of the pulpy part of the drupe is very disagreeable. The roots are composed of tough fibres, which basket-makers use to tie their work with; they are so soft and spongy as to serve the natives for corks. The leaves are composed of longitudinal, tough, useful fibres. In the South Sea Islands, where the *Pandanus* is also a native, this or some other species or variety is used for making mats. The leaves are beautifully white and glossy. In the Sandwich islands these mats are handsomely worked in

## MONANDRIA.

- 13683 Leaves at back and edges spiny-toothed, Fruit globose solitary  
 13684 Leaves at back and edges spiny-toothed, Fruit globose, Branches ternate dichotomous  
 13685 Stem without stolones, Clust. of drupes with from 9 to 20 cells obtuse depressed and tessellate at end  
 13686 Leaves at back and edges spiny-toothed, Fruit globose aggregated  
 13687 Leaves quite entire  
 13688 Leaves at edge and back serrate-spiny, Branches of stem erect  
 13689 Leaves and edges spiny-toothed, Spines distant, Drupe oblong solitary, Fruits fasciated

## DIANDRIA.

## § 1. Leaves smooth-serrated.

- 13690 Leaves lin. obl. serr. smooth rather unequally sloping at base, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigma nearly sessile  
 13691 Leaves lanceolate tapering toward each end serrat. smooth Footst. decurr. Catk. accompanying the leaves triandrous, Ovary stalked oblong constricted smooth  
 13692 Leaves lanceolate tapering at each end serrated glaucous beneath, Catkins accompanying the leaves triandrous polygamous, Ovary stalked oblong lanceolate smooth, Stigmas sessile  
 13693 Leaves lanceolate pointed obtuse at the base smooth wavy and serrated, Footstalks decurrent, Catkins accompanying the leaves triandrous, Ovary stalked elliptic oblong, Style elongated  
 13694 Leaves elliptical roundish at the base serrated pointed glaucous white beneath, Catkins accompanying the leaves triandrous, Ovary stalked ovate smooth, Stigmas sessile  
 13695 Leaves ovate unequal at the base serrated smooth, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigmas nearly sessile, Young branches furrowed  
 13696 Lvs. lanc. serrate quite smooth, Petioles somew. glandular, Ovary narrowed stalked, Branches varnished  
 13697 Leaves lanceolate acuminate serrated smooth, Ovaries pedicellate subulate smooth  
 13698 Lvs. lin. pointed finely serrat. smooth, Stam. about 6, Ovary stalked round-ovate smooth, Stigmas sessile  
 13699 Leaves elliptic-lanceolate pointed finely serrated smooth glaucous beneath, Catkins following the leaves, Stamens about 6 deflexed, Ovary stalked ovate smooth, Style elongated  
 13700 Leaves ovato-lanc. pointed serrated green on both sides smooth with a downy rib and footst. Catkins accompanying the leaves vill. Stam. about 5 bearded at base, Ovary stalked ov. lanc. smooth, Stigm. divid.  
 13701 Leaves elliptic-lanceolate or ovate pointed crenate glandular smooth, Footstalks glandular at the top, Catkins following the leaves, Stam. 5 or more hairy, Ovary ovate smooth nearly sessile  
 13702 Leaves ellipt. lanc. acute cren. smooth glaucous beneath, Catkins before leaves, Ovary stalked lanc. downy  
 13703 Leaves elliptical lanceolate with wavy serratures smooth glaucous beneath, Stipules somewhat lunate glandular on the inside, Ovary stalked silky, Style longer than the stigma  
 13704 Leaves obovate bluntish serrated smooth glaucous beneath, Catkins dense with fringed scales, Ovary stalked awl-shaped nearly smooth, Style longer than the stigmas  
 13705 Leaves elliptical acute at each end smooth serrat. green on both sides : midrib footstalks as well as young foliage downy, Catkins before the leaves, Ovary ovato-lanceolate long stalked smooth  
 13706 Leaves elliptical acute serrated smooth obtuse at base glaucous beneath : midrib footstalk as well as young foliage hairy, Ovary oblong downy  
 13707 Leaves elliptical acute tooth-serrated smoothish glaucous beneath, Ovary lanceolate silky  
 13708 Lvs. ellipt. acute serrat. smoothish glaucous ben. Stip. small or none, Catk. hairy, Caps. sess. very smooth  
 13709 Leaves oblong elliptical acute serrated smooth glaucous beneath, Footstalks elongated downy, Stipules ovate toothed permanent, Catkins before the leaves, Ovary lanceolate smooth  
 13710 Lvs. ovate acute serrated undulate crackling smooth heart-shaped at the base glaucous beneath, Stipules unequally heart-shaped longer than the broad footstalks, Catkins very woolly, Ovary lanc. smooth  
 13711 Lvs. ovate acute serrated smooth glaucous beneath, Footstalks very short smooth, Stipules ovate serrated permanent, Catkins accompanying the leaves, Ovary lanceolate nearly sessile



## and Miscellaneous Particulars.

a variety of patterns, and stained of different colors. The branches being of a soft spongy juicy nature, cattle will eat them very well when cut into small pieces. They call it Wharra tree at Otaheite. (*Hawkesw. Voy. ii. 217.*)

3042. *Saltz.* From the Celtic *sal*, near, and *lis*, water. Our common name osier, seems to be a slight alteration of the Greek *ασια*, which means the same thing. This is a numerous and difficult genus of trees and shrubs, with one or two exceptions limited in their range to the temperate regions of Europe and America. Many of the species are distinguished by such delicate shades, that only the most acute botanists can recognize them. Soil, situation, and climate produce so considerable a change in their appearance, as to render it difficult to determine what are species and what varieties. Those species which attain a timber size, are chiefly valued for the rapidity of their growth; they produce a great bulk of trunk and lop in a short time, and the bark of most of the species has recently been used in tanning; being, at an average of sorts, about half as valuable as that of the oak. *S. alba* is considered the most valuable timber tree of the genus; it has a branching stem, and tapering flame-shaped head. It may be seen pollarded by way-sides in most parts of Europe, in which state it is very productive of poles, fence wood, crate ware, fuel, and bark for the tanner, which is considered nearly as good as that of the oak. A variety of this species, called by Pontey, the red

|       |                            |                 |   |        |        |    |                   |   |                         |
|-------|----------------------------|-----------------|---|--------|--------|----|-------------------|---|-------------------------|
| 13712 | <i>prinoides Ph.</i>       | Prinos-like     | ♀ | or 10  | mr.ap  | Ap | N. Amer. 1811.    | C | m.s.                    |
| 13713 | <i>discolor W.</i>         | brown-branch.   | ♂ | or 8   | ap     | Ap | N. Amer. 1811.    | C | m.s. Ann.bot.2.t.5.f.1  |
| 13714 | <i>angustata Ph.</i>       | narrow-leaved   | ♀ | or 10  | mr.ap  | Ap | Pensylv. 1811.    | C | m.s.                    |
| 13715 | <i>petiolaris W.</i>       | dark long-leav. | ♀ | or 10  | ap     | Ap | England mar.      | C | m.s. Eng. bot. 1147     |
| 13716 | <i>myricoides W.</i>       | Gale-like       | ♂ | or 8   | ap     | Ap | N. Amer. 1811.    | C | m.s. Ann.bot.2.t.5.f.2  |
| 13717 | <i>cordata W.</i>          | heart-leaved    | ♂ | or 6   | ap.my  | Ap | N. Amer. 1811.    | C | m.s. Ann.bot.2.t.5.f.8  |
| 13718 | <i>rigida W.</i>           | rigid           | ♀ | or 15  | ap.my  | Ap | N. Amer. 1811.    | C | m.s. Ann.bot.2.t.5.f.4  |
| 13719 | <i>lucida W.</i>           | shining         | ♂ | or 8   | my     | Ap | N. Amer. 1811.    | C | m.s. Ann.bot.2.t.5.f.7  |
| 13720 | <i>ambigua Psh.</i>        | doubtful        | ♀ | or 20  | ap     | Ap | N. Amer. 1821.    | C | m.s.                    |
| 13721 | <i>acutifolia W.</i>       | sharp-leaved    | ♂ | or 8   | ap     | Ap | Casp. Sea 1823.   | C | m.s.                    |
| 13722 | <i>vitellina W.</i>        | yellow-branch.  | ♀ | clt 15 | mr.my  | Ap | England mar.      | C | m.s. Eng. bot. 1389     |
| 13723 | <i>fragilis W.</i>         | cracking        | ♀ | or 15  | ap.my  | Ap | Britain mar.      | C | m.s. Eng. bot. 1807     |
| 13724 | <i>praecox W.</i>          | early           | ♀ | or 20  | ap.my  | Ap | Austria 1820.     | C | m.s.                    |
| 13725 | <i>Meyeriána W.</i>        | Meyer's         | ♀ | or 20  | ap.my  | Ap | Germany 1822.     | C | m.s.                    |
| 13726 | <i>babilónica W.</i>       | weeping         | ♀ | el 30  | my     | Ap | Levant 1692.      | C | m.s. Rauw.it. 183.t.25  |
| 13727 | <i>purpurea W.</i>         | bitter purple   | ♂ | 8      | mr     | Ap | England mar.      | C | m.s. Eng. bot. 1388     |
| 13728 | <i>pomeránica W. en.</i>   | Pomeranian      | ♂ | or 10  | my     | Ap | Pomeran. 1822.    | C | m.s.                    |
| 13729 | <i>Hélix W.</i>            | Rose            | ♀ | or 10  | mr.ap  | Ap | Britain mar.      | C | m.s. Eng. bot. 1343     |
| 13730 | <i>Lambertiána W.</i>      | Boyton          | ♂ | clt 10 | mr.ap  | Ap | England riv.ba.   | C | m.s. Eng. bot. 1359     |
| 13731 | <i>tetra'pla Link.</i>     | pretty          | ♂ | or 4   | mr.ap  | Ap | ..... 1825.       | C | m.s.                    |
| 13732 | <i>rubra W.</i>            | Green Osier     | ♂ | clt 8  | ap.my  | Ap | England os.hol.   | C | m.s. Eng. bot. 1145     |
| 13733 | <i>Forbyána W.</i>         | Basket Osier    | ♂ | clt 8  | ap     | Ap | England os.hol.   | C | m.s. Eng. bot. 1344     |
| 13734 | <i>Croweána W.</i>         | Crowe's         | ♂ | clt 8  | ap.my  | Ap | England mar.      | C | m.s. Eng. bot. 1146     |
| 13735 | <i>malifolia W.</i>        | Apple-leaved    | ♂ | or 3   | ap     | Ap | England inoun.    | C | m.s. Eng. bot. 1617     |
| 13736 | <i>Houstoniána Ph.</i>     | Houston's       | ♂ | or 4   | ap.my  | Ap | Virginia ...      | C | m.s.                    |
| 13737 | <i>falcata Ph.</i>         | sickle-leaved   | ♂ | or 4   | ap.my  | Ap | N. Amer. 1811.    | C | m.s.                    |
| 13738 | <i>Starkeána W.</i>        | Starke's        | ♂ | or 4   | ap.my  | Ap | Silesia 1820.     | C | m.s.                    |
| 13739 | <i>prunifolia W.</i>       | Plum-leaved     | ♂ | or 3   | ap.my  | Ap | Scotland sc.alp.  | C | m.s. Eng. bot. 1361     |
| 13740 | <i>mysinites W.</i>        | Whortle-leav'd  | ♂ | or 3   | ap.jn  | Ap | Scotland sc.alp.  | C | m.s. Eng. bot. 1360     |
| 13741 | <i>Waldsteiniana W.</i>    | Waldstein's     | ♂ | or 4   | ap.jn  | Ap | Croatia 1822.     | C | m.s.                    |
| 13742 | <i>venulosa E. B.</i>      | veiny-leaved    | ♂ | or 2   | ap.my  | Ap | Scotland sc.alp.  | C | m.s. Eng. bot. 1362     |
| 13743 | <i>planifolia Ph.</i>      | flat-leaved     | ♂ | or 2   | ... ap | Ap | Labrador 1811.    | C | m.s.                    |
| 13744 | <i>fuscata Ph.</i>         | brown-stemm'd   | ♂ | or 2   | ap     | Ap | N. Amer. 1811.    | C | m.s.                    |
| 13745 | <i>vacciniifolia E. B.</i> | Bilberry-leaved | ♂ | or 2   | ap.my  | Ap | Scotland s.of.sc. | C | m.s. Eng. bot. 2341     |
| 13746 | <i>carinata W.</i>         | folded-leaved   | ♂ | or 3   | ap.my  | Ap | Scotland sc.alp.  | C | m.s. Eng. bot. 1363     |
| 13747 | <i>coruscans W.</i>        | glittering      | ♂ | or 3   | ap.my  | Ap | Germany 1818.     | C | m.s. Jacq. aust. t. 408 |
| 13748 | <i>eriantha Schleich.</i>  | woolly-flower'd | ♂ | or 2   | ap     | Ap | Switzerl. 1823.   | C | m.s.                    |



History, Use, Propagation, Culture,

twigged upland willow, and the *S. Russelliana*, are considered the two next best species of the tree kind, and indeed, greatly resemble each other.

The best willows for hoops and basket work are *S. viminalis*, *stipularis*, *rubra*, *Forbyana*, *triandra*, *mollissima*, and *vitellina*. *S. triandra* is the most common, and is grown both for basket work and hoops. *S. Forbyana* is the best for the finer sorts of basket work. *S. stipularis* is the species commonly cultivated in Holland for hoops and rods. *S. purpurea* is one of the toughest of willows, and the extreme bitterness of the leaves and twigs renders it valuable for the tanner, for withs and basket work, not being liable to be eaten by vermin, and for hedges which cattle will not browse on. In bands for thatching, Linnæus says, it lasts above

- 13712 Lvs oval-obl. acute with distant wavy serratures smooth glauc. ben. Stipules  $\frac{1}{2}$  heart-shaped deeply toothed, Catkins villous before the leaves, Ovary stalked ovate pointed silky, Style elongated, Stigma cloven
- 13713 Leaves ovato-lanceolate smooth bluntly serrated glaucous beneath, Catkins before the leaves, Scales short rounded hairy, Ovary awl-shaped silky on a stalk thrice the length of the scale
- 13714 Lvs. lanc. acute very long gradually tapering at base finely serrated quite smooth scarcely paler beneath, Stip.  $\frac{1}{2}$  heart-shap. Catkins before lvs. erect smooth, Ovary stalk. ov. smooth, Style divid. Stigm. 2-lobed
- 13715 Leaves lanceolate serrated smooth glaucous beneath somewhat unequal at base, Stipules lunate toothed, Catkins lax, Ovary stalked ovate silky, Stigmas sessile divide
- 13716 Lvs. ovato-lanc. bluntly serr. smooth ac. glauc. ben. gland. at base, Stip. ov. with gland. serrat. Catk. wool. Ovary lanceolate smooth its stalk longer than the scale, Style the length of the divided stigmas
- 13717 Lvs. ovato-lanc. serrat. smooth paler ben. heart-shaped at the base, Stip. rounded finely toothed, Catk. accomp. lvs. mostly triand. Sc. lanc. woolly, Ovary stalked lanc. smooth, Style length of divided stigm.
- 13718 Lvs. ellipt. lanc. rigid smooth sharply serrat. two lowest serratures elongated, Footst. hairy, Stip. dilated round. with glandul. serrat. Catk. accomp. lvs. mostly triand. Sc. woolly, Ovary lanc. smth. on long stalk
- 13719 Lvs. ov taper-point. smooth shining with glandul. serrat. mostly crowded at stip. tooth. Catk. accomp. lvs. mostly triand. Scales hairy at base obt. serr. and smooth at end, Ovary stalked lanc. awl-shaped smooth, Style divided, Stigma obtuse
- 13720 Leaves lanceolate pointed smooth green on both sides with gland. serr. Catkins accomp. lvs. Nect. double rather large: its lobes lanceolate smooth toothed at the summit; the terminal flowers triandrous
- 13721 Lvs. lanc. acum. uneq. and bluntly serrated smooth somew. glauc. ben. Branches dark purple with a bloom
- 13722 Leaves lanc. acute with cartilaginous serrat. smooth above glaucous and somew. silky ben. Stip. small and deciduous smooth on their inside. Ovary sessile ovato-lanceolate smooth, Stigmas nearly sessile 2-lobed
- 13723 Leaves ovato-lanc. pointed serrated throughout very smooth, Footstalks glandular, Ovary ovate nearly sessile, Male flowers with an abortive ovary
- 13724 Leaves broadly lanc. pointed smooth with glandular serrat. glaucous beneath, Footstalks slightly hairy without glands, Catkins before the leaves, Ovary sessile ovate smooth, Style elongated
- 13725 Triandrous, Stamens reflexed, Leaves about four inches long and one broad smooth and green beneath
- 13726 Leaves lanceolate taper-pointed sharply serrated smooth glaucous beneath, Stipules  $\frac{1}{2}$  ovate taper-pointed revolute, Catkins naked accompanying the leaves, Ovary ovate sessile smooth, Branches pendulous
- 13727 Decumb. Stam. 1, Leaves ovobovato-lanc. serrated smooth narrow at base, Stigm. very short ov. nearly sess.
- 13728 Lvs. downy serrulate acum. glaucous beneath, when old becoming smoother, Catkins before lvs. Style long
- 13729 Erect, Stamen 1, Leaves mostly opposite oblong lanc. pointed slightly serrated smooth linear at base, Style nearly as long as divided stigmas
- 13730 Erect, Stam. 1, Lvs. obov. lanc. ac. serrat. smth. round. at base, Stip. none, Stig. very short ov. notched obt.
- 13731 Branches downy, Leaves elliptical acute glaucous beneath: the young ones downy
- 13732 Stam. combined below, Leaves linear lanc. elongated acute smooth with shallow serrat. green on both sides
- 13733 Erect, Stamen 1, Leaves alternate with small stipules lanceolate acute with shallow serratures smooth rounded at base glaucous beneath, Style nearly as long as the linear divided stigmas
- 13734 Stamens combined below, Leaves elliptical slightly serrated quite smooth glaucous beneath
- 13735 Leaves elliptic-oblong toothed waved thin and crackling very smooth, Stipules heart-shaped about the length of the footstalk, Catkins very woolly, Ovary lanceolate smooth on a short stalk
- 13736 Leaves linear lanceolate acute very finely serrated smooth shining and green on both sides, Stipules none, Catkins accompanying leaves cylindrical villous, Scales ovate acute, Stam. 3 to 5 bearded half way up
- 13737 Leaves very long linear-lanc. closely serrated tapering gradually and somewhat falcate upwards acute at the base smooth on both sides: the young ones silky, Stipules crescent-shaped toothed deflexed
- 13738 Leaves elliptical nearly orbicular smooth somewhat serrated in the middle rather glauc. beneath, Catk. after the leaves, Capsules ovato-lanceolate stalked downy
- 13739 Leaves ovate serrated naked smooth and even above glaucous beneath, Branches rather downy, Capsules ovate silky, Style as long as the stigmas
- 13740 Leaves elliptical serrated smooth veiny polished on both sides, Young branches hairy, Ovary awl-shaped clothed with silky hairs, Style as long as the cloven stigmas
- 13741 Leaves obovate-elliptical smooth rather acute serrated in the middle shining above somewhat glaucous beneath, Ovary lanceolate silky, Young branches smooth
- 13742 Lvs. ov. serrat. nak. reticul. with promin. veins above rather glauc. ben. Ovary ellipt. silky, Style very short
- 13743 Somew. erect straggling, Branches polished, Lvs. obl. lanc. acute at each end serrul. in midd. very smooth
- 13744 Leaves obovate lanceolate acute smooth subserrated glaucous beneath, Stipules small, Ovaries ovate silky
- 13745 Leaves ovate serrated smooth even above glaucous and silky beneath, Ovary ovate silky, Style as long as the stigmas, Stems decumbent
- 13746 Leaves ovate finely toothed smooth minutely veined folded so as to form a keel, Ovary ovate downy
- 13747 Lvs. ov. ellipt. ac. serrat. smooth tapering at base glauc. ben.: lower serrat. glandular, Caps. ov. lanc. smth.
- 13748 Leaves oblong acute serrulate whole colored beneath, when old quite smooth



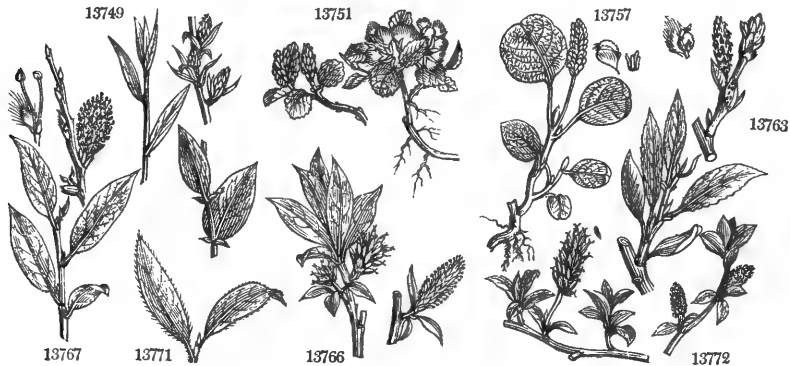
and Miscellaneous Particulars.

a century in Scania. Few of the willow species can be considered ornamental, though the male plants of *S. pentandra* and *amygdalina* produce numerous showy catkins of a bright yellow color, and very odoriferous. The leaves of *S. pentandra* are also fragrant, exuding a copious yellow resin from their serrated edges. The down of the seeds of this and other species, mixed with the third part of cotton, has been found a useful adulteration, especially for stuffing cushions and forming candle-wicks. Goldfinches and other birds line their nests with this material.

The weeping-willow is generally admired; it grows wild on the coast of Persia, and is common in China. It is sometimes said to have been introduced by Pope, but the celebrated specimen of that tree which stood in



|       |                            |                |   |    |     |       |    |           |          |   |     |                    |
|-------|----------------------------|----------------|---|----|-----|-------|----|-----------|----------|---|-----|--------------------|
| 13749 | arbúscula <i>W.</i>        | little-tree    | ♂ | or | ♀   | ap    | Ap | Scotland  | sc.alp.  | C | m.s | Eng. bot. 1356     |
| 13750 | húmilia <i>W.</i>          | humble         | ♂ | or | 1/2 | ap    | Ap | .....     | 1830.    | C | m.s |                    |
| 13751 | herbácea <i>W.</i>         | least          | ♂ | or | 1/2 | jn    | Ap | Britain   | sc.alp.  | C | m.s | Eng. bot. 1907     |
| 13752 | ulmifólia <i>Thuill.</i>   | elm-leaved     | ♂ | or | 1/2 | my    | Ap | Switzerl. | 1821.    | C | m.s |                    |
| 13753 | arbutifólia <i>W.</i>      | Arbutus-leav'd | ♂ | or | 1/2 | ap.my | Ap | Switzerl. | 1818.    | C | m.s |                    |
| 13754 | Kitaibeliana <i>W.</i>     | Kitaibel's     | ♂ | or | 1/2 | ap.my | Ap | Carpathi. | 1823.    | C | m.s |                    |
| 13755 | retúsa <i>W.</i>           | blunt-leaved   | ♂ | or | 1/2 | my    | Ap | Italy     | 1763.    | C | m.s |                    |
| 13756 | serpyllifólia <i>W.</i>    | Thyme-leaved   | ♂ | or | 1/2 | my    | Ap | Switzerl. | 1818.    | C | m.s |                    |
| 13757 | reticuláta <i>W.</i>       | wrinkled       | ♂ | or | 1/2 | jn.jl | Ap | Britain   | sc.alp.  | C | co  | Eng. bot. 1908     |
| 13758 | myrtilloides <i>W.</i>     | Myrtle-leaved  | ♂ | or | 2   | my    | Ap | Sweden    | 1772.    | C | m.s | Vil.da.3.t.50.f.11 |
| 13759 | recurváta <i>Ph.</i>       | recurved-flow. | ♂ | or | 3   | ap    | Ap | N. Amer.  | 1811.    | C | m.s |                    |
| 13760 | Uva-úrssi <i>Ph.</i>       | Bearberry-like | ♂ | or | 1/2 | ap.my | Ap | Labrador  | ...      | C | m.s |                    |
| 13761 | cordifólia <i>Ph.</i>      | cordate-leaved | ♂ | or | 3   | ...   | Ap | N. Amer.  | 1811.    | C | m.s |                    |
| 13762 | pedicelláris <i>Ph.</i>    | pedicellated   | ♂ | or | 3   | ap    | Ap | N. Amer.  | 1811.    | C | m.s |                    |
| 13763 | gláuca <i>W.</i>           | glaucous       | ♂ | or | 1   | my    | Ap | Scotland  | sc.alp.  | C | m.s | Eng. bot. 1810     |
| 13764 | seríceá <i>W.</i>          | silky          | ♂ | or | 1   | my    | Ap | S. Europe | 1820.    | C | m.s | Vil.de.3.t.51.f.27 |
| 13765 | lanáta <i>W.</i>           | woolly         | ♂ | or | 2   | my    | Ap | Lapland   | 1818.    | C | m.s |                    |
| 13766 | Lappónaum <i>W.</i>        | Lapland        | ♂ | or | 2   | my    | Ap | Lapland   | 1812.    | C | m.s | Fl.lappon.t.3.f.I  |
| 13767 | arenária <i>W.</i>         | downy mount.   | ♂ | or | 3   | my.jn | Ap | Scotland  | sc.alp.  | C | m.s | Eng. bot. 1809     |
| 13768 | cinérea <i>W.</i>          | gray           | ♀ | or | 15  | my    | Ap | Britain   | woods.   | C | m.s | Eng. bot. 1897     |
| 13769 | obtúsa <i>Link.</i>        | blunt          | ♂ | or | 4   | my    | Ap | Switzerl. | 1820.    | C | m.s |                    |
| 13770 | bicólor <i>W.</i>          | two-colored    | ♂ | or | 5   | my    | Ap | Hercynia  | 1820.    | C | m.s |                    |
| 13771 | Muhlenbergiana <i>Ph.</i>  | Muhlenberg's   | ♂ | or | 3   | ap    | Ap | N. Amer.  | 1811.    | C | m.s | Ann.bot.2.t.5.f.9  |
| 13772 | Jacquiniána <i>W.</i>      | Jacquin's      | ♂ | or | 2   | ap    | Ap | Austria   | 1818.    | C | m.s | Jac. aust.I. t.409 |
| 13773 | trístis <i>W.</i>          | linear-leaved  | ♂ | or | 4   | ap    | Ap | N. Amer.  | 1765.    | C | m.s |                    |
| 13774 | argénteá <i>W.</i>         | silky sand     | ♂ | or | 3   | my    | Ap | Britain   | san.sh   | C | m.s | Eng. bot. 1364     |
| 13775 | leucophýlla <i>W.</i>      | white-leaved   | ♂ | or | 4   | my    | Ap | Europe    | 1824.    | C | m.s |                    |
| 13776 | elæagnóides <i>Schiet.</i> | Elæagnus-leav. | ♂ | or | 4   | my    | Ap | Europe    | 1824.    | C | m.s |                    |
| 13777 | répens <i>W.</i>           | creeping       | ♂ | or | 2   | my    | Ap | Britain   | sa.heca. | C | m.s | Eng. bot. 183      |
| 13778 | fúscá <i>W.</i>            | brown          | ♂ | or | 2   | my    | Ap | Britain   | m.heca.  | C | m.s | Eng. bot. 1960     |
| 13779 | prostráta <i>W.</i>        | prostrate      | ♂ | or | 1   | my    | Ap | Britain   | m.alp.   | C | m.s | Eng. bot. 1959     |
| 13780 | Schraderiana <i>W.</i>     | Schrader's     | ♂ | or | 2   | my    | Ap | Germany   | 1820.    | C | m.s |                    |
| 13781 | pyrenáica <i>W.</i>        | Pyrenean       | ♂ | or | 1   | my    | Ap | Pyrenees  | 1823.    | C | m.s |                    |
| 13782 | hirta <i>W.</i>            | hairy-branched | ♀ | or | 15  | ap.my | Ap | England   | woods.   | C | m.s | Eng. bot. 1404     |
| 13783 | Dicksoniana <i>W.</i>      | Dickson's      | ♂ | or | 1   | ap    | Ap | Scotland  | sc.alp.  | C | m.s | Eng. bot. 1390     |
| 13784 | parvifólia <i>E. B.</i>    | small-leaved   | ♂ | or | 2   | ap.my | Ap | England   | moi.h.   | C | m.s | Eng. bot. 1961     |
| 13785 | ascéndens <i>E. B.</i>     | ascending      | ♂ | or | 1/2 | ap.my | Ap | England   | moi.h.   | C | m.s | Eng. bot. 1962     |
| 13786 | incubáica <i>W.</i>        | trailing       | ♂ | or | 3   | my    | Ap | Europe    | 1775.    | C | m.s |                    |
| 13787 | rosmarinifólia <i>W.</i>   | Rosemary-Jvd.  | ♂ | or | 2   | ap.my | Ap | Britain   | san.pl.  | C | m.s | Eng. bot. 1365     |



*History, Use, Propagation, Culture,*

the poet's garden at Twickenham, was a cutting from some rods employed in a package which came from Spain. Pope being present when the package was opened, observed that the pieces of stick appeared as if they had some vegetation, and added, perhaps they may produce something which we have not in England. Under this idea he planted it in his garden, and it produced the willow tree that has given birth to so many others; not as the parent tree of all the willows in the country, but as an admired and celebrated specimen. *S. herbacea* is not properly an herbaceous plant, but possesses the Linnæan character of a tree, and is the smallest yet

13749 Lvs. lanc. acut. serrul. smooth glauc. ben. Catkins appearing with lvs. Caps. ov. lanc. smooth, Styles twin  
 13750 Lvs. obl. lanc. acute crenul.-serr. glaucous beneath, Stipules obsolete, Scales short round with long hairs  
 13751 Lvs. orbicul. somew. retuse serrated shining on each side, Fem. catkins about 5-fl. Caps. ov. lanc. smooth  
 13752 Lvs. obl. and ovate acute toothletted glaucous beneath, Stipules large toothed, Catkins short, Styles long  
 13753 Leaves lanc. acute obscurely serrated smooth and shining on both sides reticulated with veins beneath,  
 Ovary lanceolate hairy, Style elongated, Stigmas deeply divided

§ 2. *Leaves smooth entire.*

[lanceolate smooth ovary

13754 Leaves obovato-lanc. ent. emarg. smooth shining above, Catk. cylind. many-fl. Scales shorter than ovato-  
 13755 Leaves obovate entire smooth shining above, Fem. catk. obl. of few-fl. Scales length of obl. smooth ovary  
 13756 Lvs. ov. or ovato-lanc. acute ent. smooth shin. above, Catk. obl. of few-fls. Caps. ellipt. smooth, Stigm. sess.  
 13757 Lvs. orbicular somewhat ellipt. obt. entire coriaceous smooth with reticulated veins glaucous beneath,  
 Stigmas nearly sessile, Capsule shaggy

13758 Lvs. ovate entire bluntnish smooth glaucous beneath, Ovary ovato-lanc. smooth its stalk longer than scale  
 13759 Leaves ovob. lanc. acute entire glandular at edge smooth glaucous ben.: young ones silky, Stipules none  
 13760 Stem depressed, Leaves spatulate obovate obtuse entire smooth shining above gland. at margin beneath,  
 Stip. none, Catk. lax, Scales obl. fringed, Ovary stalked ovate smooth, Style deeply divid. Stigm. 2-lobed  
 13761 Stem depressed, Leaves oval rather acute entire reticulated with veins heart-shaped at the base smooth  
 above pale rib with a hairy rib and margin beneath, Stipules  $\frac{1}{2}$  heart-shaped  
 13762 Stem erect, Branches smooth, Lvs. obov. lanc. acute entire smooth, Stip. none, Catk. stalked very smooth,  
 Scales oblong scarcely hairy, Ovary ovate obl. smooth its stalk twice as long as scale, Stigm. sess. divided

§ 3. *Leaves villous.*

[ovate woolly

13763 Leaves nearly entire ellipt.-lanc. even and nearly smooth above woolly ben. Footst. decurrent, Ovary sess.  
 13764 Leaves oblong lanceolate entire obtuse silky on each side, Caps. ovate oblong villous sessile  
 13765 Leaves roundish ovate acute entire shaggy on both sides hoary beneath, Capsules sessile smooth, Style  
 four times as long as the blunt divided stigmas  
 13766 Leaves lanceolate entire bluntnish clothed on both sides with long silky hairs, Ovary sessile very woolly,  
 Style about the length of the deeply separated cloven blunt stigmas

13767 Leaves nearly entire ovate acute reticulated and somew. downy above veiny and densely woolly beneath,  
 Ovary sessile very woolly, Style about the length of the deeply separated linear divided stigmas

13768 Stem erect, Lower leaves entire: upper more or less serrated obovate lanc. reticulated with veins glaucous  
 and downy ben. Stip. half heart-shaped serr. Ovary lanc. stalked silky, Style as long as blunt stigmas

13769 Leaves ovate acute serrulate smooth above hairy beneath, Stipules minute, Catkins long

13770 Leaves elliptical acute waved and slightly serrated nearly smooth glaucous beneath, Footstalks dilated at  
 the base, Catkins before the leaves, Ovary stalked lanceolate silky

13771 Leaves lanceolate sharpish nearly entire downy revolute veiny and rugose beneath, Stipules lanc. decid.  
 Scales of the catk. oblong fringed, Ovary ovato-lanceolate silky stalked, Style short, Stigmas divided

13772 Leaves elliptical entire tapering at each end polished: the veins beneath as well as the margin hairy, Ovary  
 elliptical downy, Style elongated

13773 Leaves entire elliptical somewhat revolute with a recurved point rather downy above silky and shining  
 beneath as well as the branches, Ovary stalked ovato-lanceolate silky, Style shorter than the stigmas

13774 Leaves elliptical entire recurved acute above downy beneath silky, Ovary ovate lanceolate villous

13775 Leaves brown above downy with short hairs hoary beneath acute nearly entire

13776 Leaves obtuse brown smooth and opaque above silky beneath [ovate downy, Stem depressed

13777 Lvs. ellipt.-lanc. straight somew. point. nearly ent. almost naked above glauc. and silky ben. Ovary stalked

13778 Leaves ellipt.-obl. acute straight flat with a few glandular teeth glaucous and silky beneath, Footstalks  
 slender, Stem erect much branched, Stipules none

13779 Leaves elliptical acute convex rarely toothed glaucous rugged and silky beneath, Stem prost. Branches  
 elongated straight, Ovary stalked ovate silky, Style shorter than the stigm.

13780 Leaves elliptical acute finely downy on both sides glaucous beneath slightly serrated towards the point,  
 Stipules very small, Catkins rather before the leaves ovate hairy

13781 Leaves elliptical entire acute at each end reticulated with veins glaucous beneath most hairy at margin,  
 Ovary somewhat stalked ovato-lanceolate villous, Style the length of the deeply divided stigm.

13782 Leaves elliptical heart-shaped pointed finely notched downy on both sides, Stipules half heart-shaped  
 flat-toothed nearly smooth, Branches hairy

13783 Leaves elliptical acute slightly-toothed smooth, Young branches very smooth, Catkins ovate short erect,  
 Ovary stalked ovate silky, Stigmas ovate obtuse nearly sessile

13784 Lvs. ellipt. nearly ent. with recurv. points glaucous and silky ben. Stem decumbent, Stipules ovate entire

13785 Lvs. ellipt.-obl. somew. serrat. with recurv. points glauc. and silky ben. Stem ascend. Stipules ovate serrated

13786 Leaves lanc. pointed straight somewhat elliptical entire convex smooth above glaucous and silky beneath,  
 Catkins oval erect, Ovary stalked lanceolate, Style the length of the stigma

13787 Leaves linear-lanceolate pointed straight entire silky beneath, Stem erect, Stipules upright flat, Catkins  
 recurved, Ovary stalked lanceolate silky



and Miscellaneous Particulars.

known; being only from one to three inches in height. *S. retusa* is nearly as little as *S. herbacea*. *S. vitellina* with its brilliant yellow bark, planted in shrubberies, contrasts well with evergreens and the purple twigged dogwood.

Almost all the willows are of the easiest propagation and culture. Plantations for basket-work or hoops should be made on deep loamy soil on the banks of rivers, within reach of water, but by no means saturated with it. Few willows are either bog or marsh plants. The cultivated species require as much attention as

|                                 |                 |   |        |       |    |                      |         |   |                         |
|---------------------------------|-----------------|---|--------|-------|----|----------------------|---------|---|-------------------------|
| 13788 ripária <i>W.</i>         | bank            | ♂ | or 6   | ap.my | Ap | Germany              | 1821.   | C | m.s.                    |
| 13789 angustifolia <i>W.</i>    | narrow-leaved   | ♂ | or 3   | ap.my | Ap | Caspian              | 1825.   | C | m.s.                    |
| 13790 grisea <i>W.</i>          | grizzly         | ♂ | or 6   | ap.my | Ap | Pensylv.             | 1820.   | C | m.s.                    |
| 13791 spatulata <i>W.</i>       | spatulate       | ♂ | or 5   | ap.my | Ap | Germany              | 1818.   | C | m.s.                    |
| 13792 aurita <i>W. en.</i>      | eared           | ♂ | clt 2  | ap.my | Ap | Europe               | 1820.   | C | m.s. Hofsal.1.t.22.f.1  |
| 13793 uliginosa <i>W. en.</i>   | marsh           | ♂ | or 2   | ap.jn | Ap | Britain              | woods.  | C | m.s. Eng. bot. 1487     |
| 13794 aurita <i>E. B.</i>       | water           | ♀ | or 10  | ap    | Ap | Britain              | w.thi.  | C | m.s. Eng. bot. 1437     |
| 13795 oleifolia <i>W.</i>       | Olive-leaved    | ♂ | or 4   | mr    | Ap | Britain              | thick.  | C | m.s. Eng. bot. 1402     |
| 13796 cotinifolia <i>W.</i>     | Quince-leaved   | ♂ | or 2   | ap    | Ap | Britain              | woods.  | C | m.s. Eng. bot. 1403     |
| 13797 spachelata <i>W.</i>      | withered-point. | ♂ | or 2   | ap.my | Ap | Scotland             | sc.alp. | C | m.s. Eng. bot. 2333     |
| 13798 cáprea <i>W.</i>          | greatround-lvd. | ♀ | or 30  | ap.my | Ap | Britain              | dr.wo.  | C | ins. Eng. bot. 1488     |
| 13799 Stuartiana <i>E. B.</i>   | Stuart's        | ♂ | or 4   | jl.au | Ap | Scotland             | sc.alp. | C | m.s. Eng. bot. 2586     |
| 13800 acuminata <i>W.</i>       | acuminate       | ♀ | or 15  | ap    | Ap | Britain              | moi.w.  | C | m.s. Eng. bot. 1434     |
| 13801 confera <i>Ph.</i>        | Cone-bearing    | ♀ | or 10  | my    | Ap | N. Amer.             | 1820.   | C | m.s. Wa.am.t.31.f.72    |
| 13802 viminalis <i>W.</i>       | Common Osier    | ♂ | clt 12 | ap.my | Ap | Britain              | os.gro. | C | m.s. Eng. bot. 1898     |
| 13803 mollissima <i>E. B.</i>   | Smith's         | ♀ | or 20  | ap.my | Ap | England              | os.gro. | C | m.s. Eng. bot. 1509     |
| 13804 stipularis <i>W.</i>      | auricled        | ♂ | clt 6  | mr.ap | Ap | England              | os.gro. | C | m.s. Eng. bot. 1214     |
| 13805 cándida <i>Ph.</i>        | hoary           | ♀ | or 10  | ap.my | Ap | N. Amer.             | 1811.   | C | m.s.                    |
| 13806 Fluggeana <i>W.</i>       | Flugge's        | ♀ | or 10  | ap.my | Ap | S. France            | 1820.   | C | m.s. Vi.del.3 t.51.f.28 |
| 13807 álba <i>W.</i>            | common white    | ♀ | clt 40 | ap.my | Ap | Britain              | woods.  | C | m.s. Eng. bot. 2430     |
| 13808 cærúlea <i>E. B.</i>      | blue            | ♀ | or 40  | ap.my | Ap | England              | m.me.   | C | m.s. Eng. bot. 2431     |
| 13809 rupéstris <i>E. B.</i>    | silky root      | ♂ | or 3   | ap    | Ap | Scotland             | sc.alp. | C | m.s. Eng. bot. 2342     |
| 13810 Andersoniana <i>E. B.</i> | Anderson's      | ♂ | or 3   | ap.my | Ap | Scotland             | sc.mo.  | C | m.s. Eng. bot. 2343     |
| 13811 Forsteriana <i>E. B.</i>  | Forster's       | ♀ | or 10  | ap.my | Ap | Scotland             | sc.wo.  | C | m.s. Eng. bot. 2344     |
| 13812 finmar'chica <i>W.</i>    | Finmark         | ♀ | or 10  | ap.my | Ap | Sweden               | 1825.   | C | m.s.                    |
| 13813 holosericea <i>W.</i>     | velvety         | ♂ | or 8   | ap.my | Ap | Germany              | 1822.   | C | m.s.                    |
| 2043. CECROPIA. <i>W.</i>       | SNAKE-WOOD.     |   |        |       |    | Urticææ. Sp. 1-3.    |         |   |                         |
| 13814 peltata <i>W.</i>         | peltate         | ♂ | or 30  | ...   | Ap | Jamaica              | 1778.   | C | p.l. Lam. ill. t. 800   |
| 2044. BO'RYA. <i>W.</i>         | BORYA.          |   |        |       |    | Euphorbiacææ. Sp. 6. |         |   |                         |
| 13815 porulosa <i>W.</i>        | Florida         | ♂ | un 6   | ...   | G  | Florida              | 1806.   | C | m.s.                    |
| 13816 ligustrina <i>W.</i>      | Privet-leaved   | ♂ | un 6   | ...   | G  | N. Amer.             | 1812.   | C | m.s.                    |
| 13817 acuminata <i>W.</i>       | pointed         | ♂ | un 6   | ...   | G  | N. Amer.             | 1812.   | C | m.s. Mich.ame.2.t.28    |
| 13818 prinoides <i>W.</i>       | Prinos-like     | ♂ | un 6   | ...   | G  | N. Amer.             | 1824.   | C | m.s.                    |
| 13819 nitida <i>W.</i>          | shining         | ♂ | un 6   | ...   | G  | N. Amer.             | 1824.   | C | m.s.                    |
| 13820 retusa <i>W.</i>          | glaucous        | ♂ | un 6   | ...   | G  | N. Amer.             | 1824.   | C | m.s.                    |

TRIANDRIA.

|                             |               |   |       |       |    |          |       |   |                   |
|-----------------------------|---------------|---|-------|-------|----|----------|-------|---|-------------------|
| *2045. EMPE'TRUM. <i>W.</i> | CROW BERRY.   |   |       |       |    | Sp. 2-3. |       |   |                   |
| §13821 álbum <i>W.</i>      | white-berried | ♂ | or 1½ | ap.jn | Ap | Portugal | 1774. | L | s.p               |
| 13822 nigrum <i>W.</i>      | black-berried | ♂ | or 1  | ap.my | Ap | Britain  | m.he. | L | s.p Eng. bot. 526 |



History, Use, Propagation, Culture,

young trees in a nursery, otherwise they will soon become stunted and of irregular growth. Excellent directions for their culture may be found in Sang's Planter's Kalender.

2043. *Cecropia*. From *zízeçayá*, to cry out, a sort of translation of the English word trumpet-wood. This tree has the trunk and branches hollow every where, and sloped from space to space with membranaceous septas, and answering to so many annual marks in the surface. The leaves are large, peltate, lobed like those of *Carica* *Papaya*, and placed at the ends of the branches. The fruits rise four, five or more, from the very top of a common peduncle, and shoot into so many oblong cylindrical berries, composed of a row of little acini, something like our raspberry, which they resemble in flavor when ripe, and are agreeable to most European palates on that account. The wood of this tree, when dry, is very apt to take fire by attrition. The native Indians have taken the hint, and always kindle their fires in the woods by rubbing a piece of it against some

- 13788 Leaves linear-lanceolate with small glandular teeth entire at the base clothed with close-pressed hairs above downy and rugged with veins beneath, Ovary ovate smooth  
 13789 Leaves linear very narrow without stipules nearly entire ovate at the base hoary above silky beneath  
 13790 Leaves lanceolate pointed serr. smooth above glauc. and silky beneath, Stipules linear deflex. deciduous, Catk. before the leaves, Scales hairy, Ovary stalked oblong silky, Stigm. nearly sessile  
 13791 Leaves lanceolate-obovate with a recurved point serrated at the end clothed with depressed hairs above rugged veiny and downy beneath, Stipules lanceolate  
 13792 Leaves obovate lanceolate obtuse mucronate with a hooked point subserrate green above hoary beneath  
 13793 Leaves obovate with a recurved point with wavy serrat. at end green and downy above hoary and shaggy with rugged veins beneath, Stip.  $\frac{1}{2}$  heart-shaped toothed, Caps. lanceolate stalked, Stigm. nearly sessile  
 13794 Lvs. slightly serrat. obov. ellipt. downy flat rather glauc. ben. Stipules rounded tooth. Stigm. nearly sess.  
 13795 Lvs. obov. lanc. flat rather rigid minute. indent. ac. undern. glauc. and hairy, Stip. small notch. Catk. ellipt.  
 13796 Lvs. ellipt. almost circular slightly tooth. downy with rectang. veins ben. Style as long as notched stigmas  
 13797 Leaves entire elliptical acute even downy on both sides somewhat withered at the point, Stipules obsol. Ovary lanceolate silky on a long hairy stalk, Stigmas nearly sessile  
 13798 Leaves ovate pointed serrated waved downy beneath, Stipules somewhat crescent-shaped, Ovary ovate downy on a long hairy stalk, Stigmas undivided nearly sessile  
 13799 Leaves nearly entire lanceolate acute shaggy above densely silky beneath, Stigmas capillary deeply divided, Style as long as the ovary  
 13800 Leaves lanc. oblong pointed waved slightly downy beneath, Stipules kidney-shaped, Ovary ovate silky, Style the length of the linear stigmas  
 13801 Leaves oblong lanceolate acute distantly serrated smooth above flat and downy beneath, Stipules lunate somewhat toothed, Ovary stalked lanceolate silky, Style elongated, Stigm. deeply cloven  
 13802 Leaves linear inclining to lanceolate very long pointed entire somewhat wavy silky beneath, Branches straight and slender, Ovary sessile, Style as long as the undivided linear stigmas  
 13803 Leaves lanceolate pointed obsoletely crenate whitish and silky beneath, Stipules crescent-shaped minute, Stigmas linear deeply divided about the length of the style  
 13804 Leaves lanc. pointed obscurely crenate downy beneath, Stipules half heart-shaped very large, Nectary cylindrical, Stigmas linear undivided longer than the style  
 13805 Leaves linear lanceolate pointed revol. obscurely toothed downy above snow-white and cottony beneath, Stip. lanc. about the length of the footstalk, Scales of the catk. with hairs as long as the stamens  
 13806 Lvs. obl. lanc. ac. at each end nearly ent. without stipul. smooth. above downy ben. Ovary ovate lanc. silky  
 13807 Leaves elliptic-lanceolate acute serrated permanently silky on both sides: the lowest serratures glandular, Stamens hairy, Stigmas deeply cloven  
 13808 Lvs. lanc. taper-point. serrat. : under-side at length almost naked; lowest serrat.gland. Stigm. deeply cloven  
 13809 Lvs. obovate serrated flat even silky on both sides, Stipules hairy, Branches minutely downy, Ovary stalked awl-shaped silky, Style as long as the undivided stigmas  
 13810 Leaves elliptic obl. acute finely notched slightly downy paler beneath, Stipulas half-ovate nearly smooth, Branches minutely downy, Ovary stalked smooth, Style as long as the cloven stigmas  
 13811 Leaves elliptical obovate acute notched slightly downy glaucous beneath, Stipules vaulted, Branches minutely downy, Ovary stalked silky, Style longer than the thick undivided stigmas  
 13812 Lvs. obl. acute entire silky on each side hoary ben. Ovaries long-pointed lax, Scales very blunt smooth  
 13813 Lvs. lanc. acum. toothl. at end smooth above rugose and soft beneath, Caps. downy lanc. Stigmas sessile  
 13814 Leaves 9-lobed: lobes oblong bluntish hispid and rough above white and downy beneath  
 13815 Leaves oblong lanceolate obtuse sessile coriaceous revolute at edge dotted beneath  
 13816 Leaves ovate-lanceolate acute subsessile somewhat membranous  
 13817 Leaves ovate-lanceolate narrowed at each end stalked membranous serrulated  
 13818 Leaves  $2\frac{1}{2}$  inches long 1 broad serrated  
 13819 Leaves acute serrulate very smooth shining opposite and alternate  
 13820 Leaves alternate tapered into a short stalk retuse emarginate mucronulate very smooth glaucous

## TRIANDRIA.

- 13821 Erect, Branches downy, Leaves linear revolute at edge roughish above  
 13822 Procumbent, Leaves linear oblong



## and Miscellaneous Particulars.

harder wood. The bark is strong and fibrous, and is frequently used for all sorts of cordage. The trunk is very light, and for that reason much used for bark-logs and fishing-floats. The smaller branches, when cleaned of the septums, serve for wind instruments. Both trunk and branches yield a great quantity of fixed salt, which is much used among the French, to despumate and granulate their sugars. The fruit is much fed upon by pigeons and other birds, and thus the tree is much spread and propagated. (*Browne.*) It may be increased like *Brosimum*.

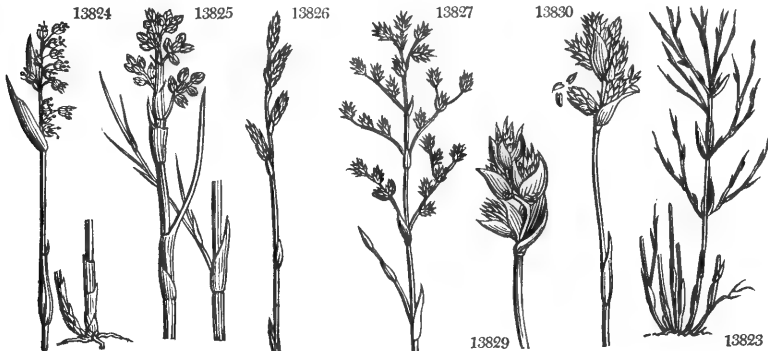
2044. *Borya*. Named in honor of M. Bory de St. Vincent, a distinguished French traveller and naturalist, known out of the scientific world by the violence of his liberal opinions. Small bushes of North America, of little beauty. Sir James Smith has altered the name to *Bigelovia*.

2045. *Empetrum*. So called from the places of its natural growth, *in*, in, and *πετρας*, a stone. *E. nigrum* is

|                                   |                    |           |        |           |          |       |                          |
|-----------------------------------|--------------------|-----------|--------|-----------|----------|-------|--------------------------|
| 9046. WILDENOVIA. Th. WILDENOVIA. | <i>Restiaceæ.</i>  | Sp. 1—3.  |        |           |          |       |                          |
| 13823 téres W. round-stalked      | ▲   Δ   pr         | 2         | jn, jl | Ap        | C. G. H. | 1790. | R sp Ac.h.1790.t.2.f.2   |
| * 2047. RES'TIO. W. ROPE GRASS.   | <i>Restiaceæ.</i>  | Sp. 5—47. |        |           |          |       |                          |
| 13824 tectórum W. thatch          | ▲   Δ   un         | 3         | my, jn | Ap        | C. G. H. | 1793. | R s.p. Ro.gra.10.t.3.f.2 |
| 13825 virgátus W. twiggy          | ▲   Δ   un         | 3         | my, jn | Ap        | C. G. H. | 1824. | R s.p. Rot.gra.5.t.1.f.2 |
| 13826 dichótomus W. dichotomous   | ▲   Δ   un         | 3         | my, jn | Ap        | C. G. H. | 1823. | R s.p. Rot.gra.4.t.2.f.1 |
| 13827 paniculátus W. panicked     | ▲   Δ   un         | 2         | my, jn | Ap        | C. G. H. | 1824. | R s.p. Rot.gra.4.t.2.f.3 |
| 13828 vaginátus W. sheathed       | ▲   Δ   un         | 3         | my, jn | Ap        | C. G. H. | 1820. | R s.p.                   |
| 2048. ELE'GIA. W. ELEGIA.         | <i>Restiaceæ.</i>  | Sp. 2—3.  |        |           |          |       |                          |
| 13829 júncea Thunb. Rush-like     | ▲   Δ   un         | 1         | jl, au | Ap        | C. G. H. | 1789. | C lp Rot.gra.8.t.3.f.4   |
| 13830 racemósa Lam. racemed       | ▲   Δ   un         | 1         | my, jn | Ap        | C. G. H. | 1804. | C lp Lam.ill.t.804.f.4   |
| 2049. PHŒ'NIX. W. DATE PALM.      | <i>Palmæ.</i>      | Sp. 4.    |        |           |          |       |                          |
| 13831 dactylifera W. common       | □   □   fr         | ...       | W.G.   | Levant    | 1597.    | S r.m | Kamæ.686.t.1.2           |
| 13832 reclínata W. reclining      | □   □   or 10      | ...       | W.G.   | C. G. H.  | 1792.    | S lp  | Jac.frag.37.t.34         |
| 13833 farinifera W. small         | □   □   or 8       | ...       | W.G.   | E. Indies | 1800.    | S r.m | Rox. cor.1.t.74          |
| 13834 acáulis Rosb. stemless      | □   □   or 6       | ...       | W.G.   | E. Indies | 1816.    | S r.m |                          |
| 2050. STÍLA'GO. W. STILAGO.       | .....              | Sp. 2.    |        |           |          |       |                          |
| 13835 Bónius W. Laurel-leaved     | □   □   un 20      | au        | Ap     | E. Indies | 1757.    | C pl  | Rhee.mal.4.t.56          |
| 13836 diándra W. diandrous        | □   □   un 20      | ...       | Ap     | E. Indies | 1800.    | C pl  | Rox. cor.2.t.166         |
| 2051. OSY'RIS. W. POET'S CASSIA.  | <i>Santalaceæ.</i> | Sp. 1—2.  |        |           |          |       |                          |
| 13837 álba W. white               | ■   □   or 3       | ...       | W      | S. Europe | 1739.    | C lp  | Lam.ill.t.802            |

TETRANDRIA.

|                                    |                   |        |   |          |       |      |               |
|------------------------------------|-------------------|--------|---|----------|-------|------|---------------|
| 2052. AU'LAX. R. Br. AULAX.        | <i>Proteaceæ.</i> | Sp. 2. |   |          |       |      |               |
| 13839 pinifólia R. Br. Pine-leaved | ■   □   or 2      | jl, s  | Y | C. G. H. | 1780. | C lp | Bot. rep. 76  |
| 13839 umbelláta R. Br. umbelled    | ■   □   or 2      | jn, au | Y | C. G. H. | 1774. | C lp | Bot. rep. 248 |



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very common in the northern parts of Europe, in elevated situations, on dry, barren, moorish, or boggy soils. It is more patient of cold than even the common heath. The Highlanders' children eat the berries, but they are no very desirable fruit; and taken in large quantities, are said to bring on a slight head-ache. The Russian peasants, however, eat them, and the Kamtschadales gather great quantities of them to boil with their fish, or to make a sort of pudding with the bulbs of their lilies. They are esteemed antiscorbutic and diuretic. Grouse and heathcocks feed upon them, and they give the excrement a tinge of purple. Boiled in alum-water they afford a dark purple dye; and boiled with fat, they are said to be used in dyeing otter and sable skins black. Cattle do not seem to browse on this shrub. The French word *Camarine*, is an alteration of *Camarinas*, the Portuguese name of *E. album*.

2046. *Willdenovia*. A rush-like plant, with long flexible slender shoots, named in honor of Charles Louis Willdenow, a celebrated Prussian botanist, whose edition of Linnæus's *Species Plantarum* is not only the best which has been published in modern days, but excellent in itself.

2047. *Restio*. From *restis*, cord; the supple shoots of many species are used as withs at the Cape of Good Hope. The houses of the Cape of Good Hope are commonly thatched with this plant both in town and country, and sometimes whole huts are built with it. A roof thatched with it will last twenty or thirty years, and would last much longer, if the south-east wind did not blow much dirt into it, which causes it to rot.

2048. *Elegia*. From *ελεγος*, lamentation, in allusion to the sad or mourning color of the whole plant. A hard rushy plant, with the habit of a *Restio*.

2049. *Phoenix*. The Greek name of the date, and probably so called from Phœnicia, whence the best dates were brought. *Dactylifera* is the Greek version of *Palma*, both signifying the hand, to the fingers of which the ancients likened the bunches of dates. *P. dactylifera* is a lofty palm, with a rugged trunk, on account of the persisting vestiges of the decayed leaves. These leaves, when the tree is grown to a size for bearing fruit, are six or eight feet long, with pinnae three feet long, and a little more than an inch broad. The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spathe, which opens and withers; those of the male have six short stamina, with narrow four-cornered anthers filled with farina. The female flowers have no stamina, but have a roundish germ, which afterwards becomes an oval berry, with a thick pulp enclosing a hard oblong stone, with a deep furrow running longitudinally. The fruit of this tree makes a great part of the diet of the inhabitants of Arabia and part of Persia. In Upper Egypt many families subsist almost entirely upon it. They make a conserve of it with sugar; and even grind the hard stones in their hand-mills for their camels. In Barbary they turn handsome beads for paternosters of these stones. The date is said to strengthen the stomach and intestines, to stop looseness, and promote expectoration, for which purpose it is given in pectoral decoctions. It is also recommended in the piles, given in red wine. From the leaves of the tree they make baskets or bags in Barbary. In Egypt they make fly-flaps of them, and brushes to clean their sofas or clothes. The hard boughs are used as fences to their gardens, and cages to carry their fowls to market. The trunk is split for the same purposes, and is even used in small buildings. It serves likewise for firing. The threads of the web-like integument between the

13823 Culm and branches round smooth

- 13824 Culm simple leafless, Spikes racemose somewhat 1-sided roundish triquetrous cernuous with bractæe  
 13825 Culm dichotomous leafy, Branches compressed, Spikes paniced pendulous  
 13826 Culm dichotomous leafy decumbent, Branches round, Spikes solitary and alternate  
 13827 Culm dichotomous leafy, Branches compressed, Spikes sessile alternate erect  
 13828 Culm simple leafless, Spikes alternate erect, Scales acuminate

13829 Culm simple nearly naked, Spathes very large ovate nearly acute, Spikes clustered thyrsoid  
 13830 Culm channelled, Spathes large ovate obtuse, Spikes racemose

- 13831 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate straight  
 13832 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate loosely spreading  
 13833 Fronds pinnated unarmed, Leaflets linear-subulate folded together, Flowers hexandrous  
 13834 Pinnæ linear-ensiform folded together: lower spiny

13835 Flowers triandrous

13836 Flowers diandrous

13837 The only species

### TETRANDRIA.

13838 Leaves filiform channelled  
 13839 Leaves flat spatulate-linear



and Miscellaneous Particulars.

boughs make ropes and the rigging of smaller vessels. The juice of the date tree is procured by cutting off the head or crown of the more vigorous plant, and scooping the top of the trunk into the shape of a basin; where the sap in ascending lodges itself, at the rate of three or four quarts a day, during the first week or fortnight; after which, the quantity daily diminishes, and at the end of six weeks or two months the tree becomes dry, and serves for timber or firewood. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrup, but quickly becomes tart and ropy, acquiring an intoxicating quality, and giving upon distillation an agreeable spirit or araky, which is the general name in the East for all hot liquors extracted by the alembick.

*P. farinifera* produces black drupes of the size of a large kidney bean; these the natives of Coromandel eat as gathered from the bush without any preparation. The leaflets are wrought into mats; the common petioles are split into three or four, and used for making ordinary baskets of various kinds; but they are not so proper for this purpose as the bamboo. The small trunk, when divested of its leaves, and the strong brown fibrous web that surrounds the trunk at their insertions, is generally fifteen or eighteen inches long, and six in diameter at the thickest part; its exterior or woody part consists of white fibres matted together, which envelope a large quantity of farinaceous substance, used as food by the natives in times of scarcity; but to separate this from the fibres, the trunk is split into six or eight pieces, then dried, beaten in wooden mortars, and afterwards sifted: the rest of the preparation consists in boiling the meal into a thick gruel, or, as it is called in India, congee. It seems to be much less nutritive than sago, and is less palatable.

2050. *Siliago*. Perhaps so called from the length of the style; but the name is unexplained by its author. *S. diandra* produces an eatable fruit used by the natives, but not esteemed by Europeans. The species thrive in sandy loam, and outtings root in sand under a hand-glass.

2051. *Osyris*. The Greek name of a tree with long supple branches, which were used for brushes and similar purposes. The modern shrub has also slender flexible branches, of which packing materials are formed throughout the south of Europe.

2052. *Aulax*. From *αυλαξ*, a furrow; in allusion, we presume, to the furrows on the under-side of the leaves of the original species. Neat shrubs with narrow leaves; nearly allied to *Protea*. This, Sweet observes, is "a pretty genus belonging to the *Proteaceæ*, which thrives best in a very sandy loam, with a great many potsherds broken small at the bottom of the pot, to let the water drain off freely, as they frequently get too much water, which makes the mould sodden, and stagnates their growth. Ripened cuttings, taken off at a joint, and planted in a pot of sand, will strike root, if placed under a hand-glass in the propagating house, and the glass to be occasionally left off, an hour or two at a time, to give them air, and keep them from damping; which should be done in a morning before the sun has much power, or it will make them flag and injure them. Plants are readily raised from seeds, which should be sown in a mixture of two-thirds loam and one-third sand: as soon as they come up, they should be planted off in small pots, in the same kind of soil, as they are very apt to die, if left too long in the seed-pot." (*Bot. Cult.* 143.)

|                            |                          |             |            |         |                                |
|----------------------------|--------------------------|-------------|------------|---------|--------------------------------|
| 2053. LEUCADENDRON. R. Br. | LEUCADENDRON. Proteaceæ. | Sp. 24—37.  |            |         |                                |
| 13840 argenteum R. Br.     | Silver Tree              | 1693.       | C          | lp      | Lam. ill. t. 53. f. 1          |
| 13841 plumosum R. Br.      | feather-flower'd         | 1774.       | C          | lp      |                                |
| 13842 imbricatium R. Br.   | imbricated               | 1790.       | C          | lp      |                                |
| 13843 buxifolium R. Br.    | Bux-leaved               | 1812.       | C          | lp      |                                |
| 13844 Levisanus R. Br.     | short-leaved             | 1774.       | C          | lp      | Bur. afr. t. 100. f. 2         |
| 13845 linifolium R. Br.    | Flax-leaved              | ...         | C          | lp      | Jac. schœ. l. t. 26            |
| 13846 fusciflorum R. Br.   | starred                  | ...         | C          | lp      | Bot. mag. 881                  |
| Prôteæ stellâris B. M.     |                          |             |            |         |                                |
| 13847 tortum L. T.         | twisted-leaved           | 1790.       | C          | lp      | Bot. reg. 826                  |
| 13848 cinereum L. T.       | gray                     | 1774.       | C          | lp      |                                |
| 13849 corymbosum L. T.     | corymbed                 | 1790.       | C          | lp      | Bot. reg. 402                  |
| 13850 decorum L. T.        | decorous                 | 1790.       | C          | lp      |                                |
| 13851 cœcolor L. T.        | one-colored              | 1774.       | C          | lp      | Bot. reg. 307                  |
| 13852 grandiflorum L. T.   | great-flowered           | 1789.       | C          | lp      | Par. lond. 105                 |
| 13853 decurrens L. T.      | decurrent                | 1812.       | C          | lp      |                                |
| 13854 strictum L. T.       | upright                  | 1795.       | C          | lp      | Par. lond. 75                  |
| 13855 virgatum L. T.       | slender                  | ...         | C          | lp      |                                |
| 13856 adscendens L. T.     | pale                     | 1774.       | C          | lp      | Pl. man. t. 229. f. 6          |
| 13857 concinnum L. T.      | neat                     | 1800.       | C          | lp      |                                |
| 13858 salignum L. T.       | Willow-leaved            | 1774.       | C          | lp      | Boer. lug. 2. t. 204           |
| 13859 uliginosum L. T.     | swamp                    | 1795.       | C          | lp      | Breyn. cen. 21. t. 9           |
| 13860 floridum L. T.       | florid                   | 1795.       | C          | lp      | Bot. rep. 572                  |
| 13861 æmulum L. T.         | incurved                 | 1789.       | C          | lp      | Bot. rep. 429                  |
| 13862 abietinum L. T.      | Pine-leaved              | 1789.       | C          | lp      | Bot. rep. 461                  |
| 13863 scabrum L. T.        | rough                    | 1812.       | C          | lp      |                                |
| 2054. VIS/CUM. W.          | MISLETOE.                | Loranthææ.  | Sp. 1.     |         |                                |
| 13864 album W.             | common                   | £ cu 2 my G | England    | trees.  | S m s Eng. bot. 1470           |
| 2055. MYRICA. W.           | CANDLEBERRY MYRTLE.      | Amentaceæ.  | Sp. 12—21. |         |                                |
| 13865 Gale W.              | Sweet Gale               | 4 my Ap     | Britain    | sp. bo. | L s p Eng. bot. 562            |
| 13866 cerifera W.          | common                   | 8 my jn Ap  | N. Amer.   | 1699.   | S s p Cat. car. 1. t. 69       |
| 13867 carolinensis W.      | broad-leaved             | 4 my Ap     | N. Amer.   | 1730.   | S s p Cat. car. 1. t. 13       |
| 13868 pensylvanica Ph.     | Pensylvanian             | 3 my Ap     | N. Amer.   | ...     | C s p Du. ar. en. 2. t. 55     |
| 13869 Faya W.              | Azorian                  | 6 jn jl Ap  | Azores     | 1777.   | L s l Du. ar. en. 2. t. 56     |
| 13870 æthiopia W.          | African                  | 8 jn jl Ap  | C. G. H.   | 1793.   | L s l Plu. alm. t. 43. f. 8    |
| 13871 serrata W.           | saw-leaved               | 3 au Ap     | C. G. H.   | 1793.   | L s l Plu. am. t. 424. f. 3    |
| 13872 laciniata W. en.     | smooth Oak-lv.           | 3 jn jl Ap  | C. G. H.   | 1752.   | L s l Jac. frag. 2. t. 1. f. 4 |
| 13873 quercifolia W. cn.   | hairy Oak-lvd.           | 3 jn jl Ap  | C. G. H.   | 1752.   | L r m                          |
| 13874 cordifolia W.        | heart-leaved             | 4 my jl Ap  | C. G. H.   | 1759.   | L p l Plu. alm. t. 319. f. 7   |
| 13875 mexicana W.          | Mexican                  | 8 f Ap      | Mexico     | 1823.   | L p l                          |
| 13876 segregata Jacq.      | netted                   | 6 ... Ap    | S. Amer.   | 1824.   | L p l Jacq. ic. t. 625         |



History, Use, Propagation, Culture,

2053. *Leucadendron*. From λευκος, white, and δένδρον, a tree, in allusion to the appearance of the most common species, No. 13,340. The species are evergreen shrubs, with handsome foliage; they grow in light soil well drained and not over watered, and are increased by ripened cuttings in sand under a hand-glass.

2054. *Viscum*. From the Latin *viscus*, clammy, on account of the sticky nature of the berries. *Gai, Fr., Mistl, Ger., and Visco, Ital.* This may be considered the only true parasitical plant indigenous to Britain, as at no period of its existence does it derive any nourishment from the soil like *Orobanche*, or from decayed bark or wood like certain *Fungi*, and other epiphytes. The root of the mistletoe insinuates its fibres into the woody substance of the tree; the shoots are dichotomous, round, smooth, and even; and of a pale green, like the leaves, which are tongue-shaped and entire. The whole forms a pendant bush of from two to five feet in diameter, evergreen, and in winter covered with small white very glutinous berries. The British species of mistletoe is commonly found on fruit trees; but it will grow on various others, as the thorn, oak, maple, poplar, lime, ash, &c.; and in the neighbourhood of Magdebourg it is abundant on *Pinus sylvestris*. It is not difficult to propagate by inserting the berries in slits in the bark early in spring, and tying a shred of mat over the slit to protect them from the birds. The Druids sent round their attendant youths with branches of the mistletoe to announce the entrance of the new year; and something like the same custom is still continued in France. In England branches of it are hung up in most houses at Christmas, along with other evergreens. The berries are devoured by several birds of the thrush kind, and especially by the Mistletoe Thrush. Bird-lime is made from the berries, and also from the bark, boiled in water, beaten in a mortar and washed. It is, however, more commonly manufactured from the bark of the holly.

2055. *Myrica*. The Greek (μυρική) synonym of the Tamarix. It is said to have been derived from μωρον, to flow, because the plants are always found on the banks of rivers, and in inundated spots. *M. Gale* has leaves of a bitter taste, but fragrant like those of the myrtle. Their essential oil rises in distillation. The northern nations formerly used this plant instead of hops, and it is still in use for that purpose in some of the western isles, and a few places in the Highlands of Scotland. Unless it be boiled a long time, it is reported to occasion head-ache. The catkins or cones boiled in water throw up a scum resembling bees' wax, which gathered in sufficient quantities would make candles. It is used to tan calf-skins. Gathered in the autumn it dyes wool

- 13840 Arborescent, Leaves lanceolate silky, Branches villous, Bractes short downy, Cal. silky
- 13841 Shrubby, Leaves linear lanceolate oblique smoothish, Male cal. smooth: female feathery, Fruit villous
- 13842 Lvs. lanc. lin. smooth rounded at base, Branches vill. Scales of cone silky cuneate, Fruit comose mucronate
- 13843 Leaves oval lanceolate: when old smooth, Scales of cone dilated-cuneate silky
- 13844 Leaves spatulate callous at end, and branches villous, Fruit comose pointless
- 13845 Leaves linear spatulate tapering at base and branches smooth, Male head sessile larger than leaves
- 13846 Leaves linear lanceolate smooth: the younger straight tapering at base, Female head shorter than leaves

- 13847 Leaves linear bluntish twisted smooth. Branchlets somewhat silky, Cal. silky, Fruit comose pointless
- 13848 Leaves spatulate linear silky with a callous head at end, Cal. very shaggy, Fr. cuneate downy
- 13849 Lvs. lin. acute channelled imbricated erect smooth, Scales of cone acute recurved, Fruit orbcd. ciliated
- 13850 Lvs. obl. veiny callous at end recurved smoothish: floral colored  $\frac{1}{2}$  scarious, Scales of cone downy outside
- 13851 Leaves spatulate obl. callous at end smooth, Branches downy, Scales of cone retuse ciliated downy at base
- 13852 Lvs. lanc. obl. callous at end smooth: floral colored, Branches somewhat downy, Scales ovate obt. smooth
- 13853 Lvs. spatul. lanc. call. at end subdecurrent concave and branches smooth, Scales of cone roundish smoothish
- 13854 Lvs. lin. lanc. mucron. finally smooth, Invol. ov. ac. longer than head, Scales of cone round. dilated smooth
- 13855 Lvs. lin. acute with transparent edges and branches quite smooth: floral lin. lanc. long, Fr. winged emargin.
- 13856 Leaves linear lanceolate acute: floral lanceolate colored concave, Shrub low with ascending branches
- 13857 Lvs. obl. lanceolate bluntnish veinless and branches quite smooth: floral  $\frac{1}{2}$ -colored, Fruit winged emarginate
- 13858 Leaves linear lanceolate cuspidate somewhat silky: floral lanceolate colored, Fruit very narrow winged
- 13859 Leaves lanc. lin. silky with down on each side with callous points at end, Branches downy, Calyx hairy
- 13860 Lvs. lanc. lin. silky with down on each side with call. points at end, Branches shag. Cal. of male hairy in lines
- 13861 Upp. lvs. lanc. spatul. ac. rugose, Cones ov. Scales cohering at base distinct above with recurv. beard. edges
- 13862 Lvs. all filiform chann. bluntnish smooth spreading incurved, Scales cohering at base distinct above 2-lobed
- 13863 Lvs. all filiform channelled acute imbric. straightish ciliated, Scales cohering at base distinct above 2-lobed

13864 Leaves lanceolate obtuse, Stem dichotomous, Heads of flowers axillary

- 13865 Leaves lanceolate broader upwards serrated, Stem shrubby
- 13866 Leaves oblong narrowed at base suberrate at end, Scales of male catkins acute, Berries globose
- 13867 Leaves oblong narrowed at base coarsely serrated, Scales of male catkins acute, Berries globose
- 13868 Leaves oblong acute at each end entire or slightly serrated at end revolute at edge
- 13869 Leaves elliptical lanceolate subserrate, Male catkins compound, Drupe with a 4 celled nucleus
- 13870 Leaves elliptical toothed: the lowest quite entire
- 13871 Leaves lanceolate unequally acuminate serrated, Catkins long lax
- 13872 Leaves oblong deeply sinuated smooth
- 13873 Leaves oblong oppositely sinuated hairy
- 13874 Leaves subcordate serrate sessile
- 13875 Leaves oblong lanc. cuneate tapered at base nearly entire smooth shining with the middle nerve downy
- 13876 Leaves lanceolate entire netted with veins, Catkins few-flowered lax

















and Miscellaneous Particulars.

yellow, and is used for that purpose both in Sweden and Wales. The Swedes sometimes use a strong decoction of it to kill bugs and lice, and to cure the itch. The Welsh lay branches of it upon and under their beds to keep off fleas and moths, and give it as a vermifuge in powder and infusion, applying it also externally to the abdomen. In most of the Hebrides, as well as in the Highlands of Scotland, an infusion of the leaves is frequently given to children to destroy the worms. In Isla and Jura the inhabitants garnish their dishes with it, and lay it between their linen and other garments to give them a fine scent, and to drive away moths. When it grows within reach of a port, the sailors make besoms of it for sweeping their ships. In the isle of Ely they make faggots with it to heat their ovens. Linnæus was induced to suspect, from the smell of this shrub, that camphor might possibly be prepared from it. Horses and goats eat; sheep and cows refuse it.





*M. cerifera* may be used for most of the purposes of the former species. Candles are made from the berries in North America, whence it is called there the tallow shrub or candleberry tree; some also name it the bayberry-bush. It grows abundantly on a wet soil, and seems to thrive particularly well in the neighbourhood of the sea, nor does it seem ever to be found high up in the country. The berries intended for making candles are gathered late in autumn, and are thrown into a pot of boiling water; their fat melts out, floats at the top of the water, and may be skimmed off. The fat when congealed looks like tallow or wax, but has a dirty green color; it is therefore melted again and refined, by which means it acquires a fine and pretty transparent green color. It is dearer than common tallow, but cheaper than wax. They usually mix some tallow with it. Candles of this kind do not easily bend or melt in summer as common candles do; they burn better and slower, nor do they cause any smoke, but rather yield an agreeable smell when they are extinguished. At present not many candles of this kind are used, the animal tallow is readily come at, it being very troublesome to gather the berries. They are chiefly used by poor people, who live near where the bushes grow, and have not cattle enough to supply them. A soap is made from the fat which has an agreeable scent, and is excellent for shaving; and it is used by surgeons for plasters. In Carolina they likewise make sealing-wax from these berries. The root is accounted a specific in the tooth-ache.

All the species grow well in peat soil or sandy loam, in a moist situation. They are increased by seeds or layers, but not readily by cuttings.



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| 2056. NAGEIA. <i>Gartn.</i> NAGEIA. <i>Amentaceæ.</i> Sp. 1—3.   | 13877 Putranjiva <i>Rozb.</i> grey-barked   un 12 ... Ap E. Indies 1822. C r m |
| † 2057. SHEPHERDIA. <i>Nutt.</i> SHEPHERDIA. <i>Elaeagnæ.</i> Sp. 1.   | 13878 canadensis <i>Nutt.</i> Canadian  or 10 ap.my Ap N. Amer. 1759. L co  |
| † 2058. HIPPOPHAE. <i>W.</i> SEA BUCKTHORN <i>Elaeagnæ.</i> Sp. 1.   | 13879 rhamnoides <i>W.</i> common  or 12 ap.my Ap England sea co. L co Eng. bot. 425  |
| 2059. BROUSSONETIA. <i>W.</i> BROUSSONETIA. <i>Urticæ.</i> Sp. 2.  | 13880 papyrifera <i>W.</i> Paper Mulberry  or 12 f.s Ap Japan 1751. C co <i>Kæm.amoc.t.472</i>  |
| 13881 spatulata <i>Hort.</i> entire-leaved  or 12 f.s Ap ..... 1824. C co  |  |
| 2060. SCHEFFERIA. <i>W.</i> SCHEFFERIA. <i>.....</i> Sp. 1—2.  | 13882 completa <i>W.</i> white-flowered  or 6 au G W. Indies 1793. C p.l <i>Lam. iil. t. 809</i>  |
| 2061. BRUCEA. <i>W.</i> BRUCEA. <i>Terebintaceæ.</i> Sp. 2—3.  | 13883 ferruginea <i>W.</i> Ash-leaved  or 6 ap.my G Abyssinia 1775. C p.l <i>Bot. cab. 129</i>  |
| 13884 sumatrana <i>Rozb.</i> Sumatra  or 10 ap.my G E. Indies 1820. C p.l   |  |
| 2062. ANTHOSPERMUM. <i>W.</i> AMBER TREE. <i>Rubiaceæ.</i> Sp. 1—4.  | 13885 ethiopicum <i>W.</i> Ethiopian  or 2 jn.jl G.W C. G. H. 1692. C p.l <i>Flu.alm.t.183.f.1</i>  |
| 2063. TROPHIS. <i>W.</i> RAMOON TREE. <i>.....</i> Sp. 2—4.  | 13886 americana <i>W.</i> American  or 20 ap.my G W. Indies 1780. C l.p <i>Bro.jam. t.57. f.1</i>   |
| 13887 aspera <i>W.</i> rough-leaved  or 25 ... G E. Indies 1802. C l.p  |  |
| 2064. MONTYNIA. <i>W.</i> MONTYNIA. <i>Onagraricæ.</i> Sp. 1.  | 13888 caryophyllacea <i>H.K.</i> Sea Pursl.-lvd.  or 1 jl C. G. H. 1774. C p.l <i>Smith spi.14.t.15</i>   |

PENTANDRIA.

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| 2065. PISTACIA. <i>W.</i> PISTACIA TREE. <i>Terebintaceæ.</i> Sp. 5—7.   | 13889 officinarum <i>H. K.</i> official  m 15 ap.my Ap Levant 1570. C l.p <i>Rauw. it. 72. t. 9</i>     |
| 13890 reticulata <i>W.</i> net-leaved  or 15 ap Ap Levant 1752. C l.p | 13891 <i>narbonensis</i> L. Turpentine Tree  or 20 jn.jl Ap S. Europe 1656. C r.m <i>Blackw. t. 478</i> |
| 13892 atlantica <i>W.</i> Atlantic  or 12 ... Ap Barbary 1790. C r.m  |  |



History, Use, Propagation, Culture,

2056. *Nageia*. *Nagi* is the Japanese name of one of the species. That in the gardens is an uninteresting shrub with a loose elegant foliage, and a light grey bark. Ripened cuttings strike freely in a bark pit.

2057. *Shepherdia*. A name given by Nuttall to the *Hippophae canadensis* of our gardens, in honor of Mr. William Shepherd, the worthy curator of the Liverpool botanic garden. A small inelegant tree, with dark green deciduous leaves, covered over with brownish silvery scales on the lower side.

2058. *Hippophae*. An ancient name given to some plant now unknown, which was applied medicinally to horses; from *hippos*, a horse, and *phos*, to give light. *H. rhamnoides* is very prolific in berries, which are yellow when ripe, succulent, smooth, and gratefully acid to the taste. They are much eaten by the Tartars; and the fishermen of the Gulph of Bothnia prepare a rob from them, which imparts a grateful flavor to fresh fish. Every part of the plant will dye yellow. The species grow in common soil, and are readily increased by layers or cuttings of the roots.

2059. *Broussonetia*. Named by L'Heritier, in honor of his countryman P. N. V. Broussonet, a well known naturalist, who travelled in Barbary, and published an *Ichthyologia* in 1782. This is a vigorous growing shrub or low tree, with large lobed leaves, variously shaped; the foliage of the male and female plant differing so much from each other that they might easily be taken for distinct species. The fruit is little larger than peas, and from the bark the Chinese make paper, and the Otahaitans cloth.

*B. papyrifera*, though a low tree, produces vigorous shoots, furnished with large leaves. The fruit is little larger than peas, surrounded with long purple hairs, when ripe changing to a black purple color, and full of sweet juice. In China and Japan it is cultivated as we do osiers, for the sake of the young shoots, from the bark of which the inhabitants of the east countries make paper. The bark being separated from the wood is steeped in water, and the inner bark separated from the outer; the former making the whitest and best paper. The bark is next slowly boiled, then washed, and afterwards put on a wooden table and beaten into a pulp. This pulp being put in water, separates like grains of meal. An infusion of rice and the root of manihot is next added to it. From the liquor so prepared, the sheets of paper are poured out one by one, and when pressed, the operation is finished.

The juice of this tree is sufficiently tenacious to be used in China as a glue, in gilding either leather or paper. The finest and whitest cloth worn by the principal people at Otahete and in the Sandwich Islands is made of the bark of this tree. The cloth of the Bread-fruit tree is inferior in whiteness and softness, and worn chiefly by the common people.

2060. *Schæfferia*. So called after James Christian Schæffer, a German naturalist of celebrity, who is best known by his excellent work on the Fungi of Bavaria, published in 1762. An inelegant shrub with green flowers.

- 13877 Leaves ovate lanceolate oblique at base finely and simply serrated smooth
- 13878 Leaves oblong stellate-hairy above brownish white and scaly beneath
- 13879 Leaves linear-lanceolate smooth above white with scales beneath
- 13880 Leaves 3-5-lobed acuminate serrated scabrous  
13881 Leaves cucullate entire
- 13882 Flowers tetrapetalous axillary
- 13883 Leaves opposite stalked pinnated with an odd one of 5 or 6 pairs  
13884 Leaflets serrated villous beneath, Racemes often compound
- 13885 Leaves somewhat whorled linear smooth
- 13886 Unarmed, Leaves oblong acum. entire smooth, Fruit 1-seeded cornute, Horns reflexed shorter than fruit  
13887 Unarmed, Leaves obovate oblong acuminate unequally serrate very scabrous on each side
- 13888 Leaves alternate oblong oval, Fl. solitary

## PENTANDRIA.

- 13889 Leaves pinnated with an odd one, Leaflets 5 ovate tapered at base rather acute and mucronate at end  
13890 Leaves pinnate and ternate, Leaflets roundish narrowed at base netted with veins retuse mucronate
- 13891 Leaves pinnate with an odd one, Leaflets about 7 ovate-lanceolate rounded at base acute mucronate  
13892 Leaves pinnate with an odd one, Leaflets lanceolate about 9, Petiole winged between the terminal pairs



and Miscellaneous Particulars.

2061. *Brucea*. Named in honor of James Bruce, a celebrated Scotch traveller in Abyssinia, who discovered the plant.

2062. *Anthospermum*. From *ανθος*, a flower, and *σπέρμα*, seed; its female flower is entirely naked, consisting of a single ovarium; whence its name. A heath-looking evergreen, the leaves of which are fragrant when bruised, and the propagation and culture of the easiest description.

2063. *Trophis*. From *τροφή*, to nourish. *T. americana* produces berries about the size of large grapes, and of an agreeable pleasant flavor. The leaves and twigs are used as fodder for cattle when grass is scarce. Cuttings root in sand under a glass.

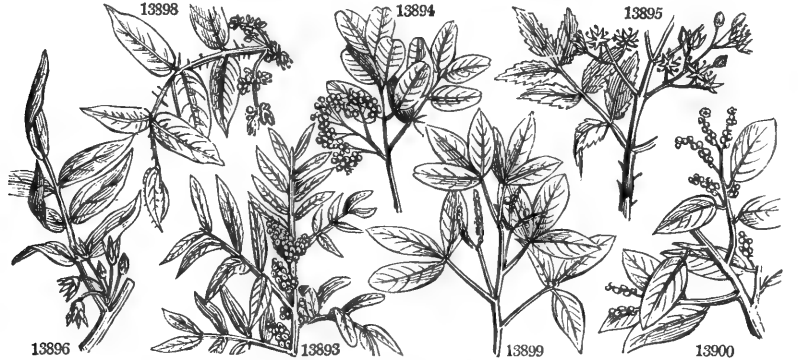
2064. *Montinia*. In honor of Laurence Montin, a Swede, who published a little tract upon *Splachnum*. The specific name seems to hint at the nature of his disposition. A little worthless weed-like Cape plant.

2065. *Pistacia*. Said by Forskahl to have been altered by the Latins from its Arabic name *foustaq*. *P. officinalis* abounds in Sicily, where it is cultivated for its nuts. The male flowers come out from the side of the branches in loose bunches, and are of an herbaceous color. The female flowers come out in the same manner in clusters. The male puts forth its flowers first, and some gardeners pluck them whilst yet shut, dry them, and afterwards sprinkle the pollen over the female tree: but the method usually followed in Sicily, when the trees are far asunder, is to wait till the female buds are open, and then to gather bunches of male blossoms ready to blow; these are stuck into a pot of moist mould, and hung upon the female tree till they are quite dry and empty. This operation is called *tuchiarare*, and never fails to produce fructification; sometimes the gardeners ingraft the male bud upon the female tree.

*P. Ferrebinthus* (from *πέρας*, to cut) furnishes the Cyprus turpentine. It is procured by wounding the bark of the trunk in several places, during the month of July, leaving a space of about three inches between the wounds; from these the turpentine is received on stones, upon which it becomes so much condensed by the coldness of the night, as to admit of being scraped off with a knife, which is always done before sunrise: in order to free it from all extraneous admixture, it is again liquified by the sun's heat, and passed through a strainer; it is then fit for use. The quantity produced is very inconsiderable; four large trees, sixty years old, only yielding two pounds nine ounces and six drachms; but in the eastern part of Cyprus and Chio, the trees afford somewhat more, though still so little as to render it very costly, and on this account it is commonly adulterated, especially with other turpentine. The best Chio turpentine is generally about the consistency of thick honey, very tenacious, clear, and almost transparent, white, inclining to yellow, and of a fragrant smell, moderately warm to the taste, but free from acrimony and bitterness.

*P. Lentiscus* (*lentiscere*, to be sticky) produces the mastick, which is obtained most abundantly, by making transverse incisions in the bark of the tree, whence the mastick exudes in drops, which are suffered

|       |  |                              |        |    |       |     |                 |                      |          |     |                          |      |
|-------|--|------------------------------|--------|----|-------|-----|-----------------|----------------------|----------|-----|--------------------------|------|
| 13893 | <i>Lentiscus W.</i><br><i>β massiliensis</i> | Mastic Tree<br>narrow-leaved | ♣ □ ec | 15 | my    | Ap  | S. Europe       | 1664.                | L        | r.m | Bot. mag.                | 1967 |
| 2066. | ZANTHOXYLUM W.                               | TOOTH-ACH TREE.              |        |    |       |     | <i>Rutaceæ.</i> | Sp. 5—43.            |          |     |                          |      |
| 13894 | <i>emarginatum W.</i>                        | notch-leaved                 | ♣ □ or | 10 |       | G.w | Jamaica         | 1739.                | C        | lp  | Slo. ja. 2. t. 168. f. 4 |      |
| 13895 | <i>Clava Hérculis W.</i>                     | Lentiscus-leav.              | ♣ □ or | 10 | ap.my | G.w | W. Indies       | 1739.                | C        | lp  | Cat. car. 1. t. 26       |      |
| 13896 | <i>fraxineum W.</i>                          | common                       | ♣ or   | 6  | mr.ap | G.w | N. Amer.        | 1759.                | L        | sl  | Duh. arb. 1. t. 97       |      |
| 13897 | <i>tricárpum H. K.</i>                       | three-capsuled               | ♣ or   | 6  | ...   | G.w | N. Amer.        | 1806.                | L        | ls  |                          |      |
| 13898 | <i>nitidum Dec.</i>                          | shining                      | ♣ □ or | 6  | ap.my | G.w | China           | 1823.                | L        | r.m | Bot. mag.                | 2558 |
| 2067. | PICRAMNIA W.                                 | PICRAMNIA.                   |        |    |       |     |                 | Sp. 1—2.             |          |     |                          |      |
| 13899 | <i>Antidesma W.</i>                          | Ash-leaved                   | ♣ □ un | 4  | ..... | G   | Jamaica         | 1793.                | C        | pl  | Slo. ja. 2. t. 208. f. 2 |      |
| 2068. | ANTIDESMA W.                                 | ANTIDESMA.                   |        |    |       |     |                 | Sp. 2—10.            |          |     |                          |      |
| 13900 | <i>alexiteria W.</i>                         | Laurel-leaved                | ♣ □ un | 10 | my.jn | Ap  | E. Indies       | 1793.                | C        | pl  | Rhee. mal. 5. t. 11      |      |
| 13901 | <i>paniculata W.</i>                         | panicled                     | ♣ □ un | 10 | ..... | Ap  | E. Indies       | 1800.                | C        | pl  |                          |      |
| 2069. | IREFINE W.                                   | IREFINE.                     |        |    |       |     |                 | <i>Amaranthaceæ.</i> | Sp. 3—3. |     |                          |      |
| 13902 | <i>celosoides W.</i>                         | Florida                      | ♣ Δ pr | 1½ | jl.au | W   | America         | 1733.                | D        | lp  | Lam. ill. t. 813         |      |
| 13903 | <i>elongata W.</i>                           | long-leaved                  | ♣ Δ pr | 2  | jl.au | W   | S. Amer.        | 1822.                | S        | lp  | Pluk. al. t. 261. f. 1   |      |
| 13904 | <i>diffusa W.</i>                            | straggling                   | ♣ Δ pr | 1½ | jl.au | W   | S. Amer.        | 1818.                | S        | lp  |                          |      |
| 2070. | SPINACIA W.                                  | SPINAGE.                     |        |    |       |     |                 | <i>Chenopodeæ.</i>   | Sp. 1.   |     |                          |      |
| 13905 | <i>oleracea W.</i>                           | common                       | ○ cul  | 1½ | mr.o  | G   | .....           | 1568.                | S        | co  | Sch. hand. 3. t. 324     |      |
|       | <i>α spinosa</i>                             | prickly                      | ○ cul  | 1½ | mr.o  | G   | .....           | .....                | S        | co  |                          |      |
|       | <i>β glabra Mill.</i>                        | round                        | ○ cul  | 1½ | mr.o  | G   | .....           | .....                | S        | co  |                          |      |
| 2071. | FLUGGÆA W.                                   | FLUGGÆA.                     |        |    |       |     |                 | <i>Euphorbiaceæ.</i> | Sp. 1.   |     |                          |      |
| 13906 | <i>leucopyrus W.</i>                         | white                        | ♣ □ un | 6  | ...   | Ap  | E. Indies       | 1825.                | C        | r.m |                          |      |
| 2072. | ACNIDA W.                                    | VIRGINIAN HEMP.              |        |    |       |     |                 | <i>Chenopodeæ.</i>   | Sp. 1—3. |     |                          |      |
| 13907 | <i>cannabina W.</i>                          | common                       | ○ un   | 2  | jn.jl | G.y | N. Amer.        | 1640.                | S        | co  |                          |      |
| 2073. | CANNABIS W.                                  | HEMP.                        |        |    |       |     |                 | <i>Urticeæ.</i>      | Sp. 1.   |     |                          |      |
| 13908 | <i>sativa W.</i>                             | common                       | ○ ag   | 6  | jn.jl | G   | India           | ...                  | S        | h.l | Sch. hand. 3. t. 325     |      |
| 2074. | HUMULUS W.                                   | Hop.                         |        |    |       |     |                 | <i>Urticeæ.</i>      | Sp. 1.   |     |                          |      |
| 13909 | <i>Lúpulus W.</i>                            | common                       | ♣ Δ ag | 15 | jn.au | Y   | Britain         | hed.                 | D        | r.m | Eng. bot.                | 427  |



History, Use, Propagation, Culture.

to run down to the ground, and after they are concentered they are collected for use. These incisions are made at the beginning of August, when the weather is very dry, and are continued till the end of September.

Turpentine and mastic are considered as astringent and diuretic; but though they retain a place in our *Materia Medica*, they are not much used by modern practitioners. Mastic is used by the Turkish and Armenian women as a masticatory for cleaning the teeth and giving an agreeable smell to the breath. It is also employed to fill the cavities of carious teeth. (*Thom. Lond. Disp.* 444.)

2066. *Xanthoxylum.* From *ξανθοξυλον*, yellow, and *ξύλον*, wood. *X. Clava-Herculis* is esteemed a good timber tree in Jamaica; and an infusion of the leaves is used to cure the tooth-ach there and in Carolina. All the species may be increased by ripened cuttings, or by cuttings of the roots.

2067. *Picramnia.* From *πιεραμία*, bitter. A small tree with fruit the size of a gooseberry, and pinnate leaves; the whole plant abounding in the bitter principle. Large cuttings strike freely in sand under a hand-glass.

2068. *Antidesma.* So called from the use of the bark in making ropes; from *αντι*, like, and *δερμας*, a bond. *A. alexiteria* is a middle-sized evergreen tree, with leaves resembling those of the lemon, and fruit in racemes, red and acid like the barberry. A decoction of the leaves is reputed to be an antidote against the bite of serpents, and the bark is used for making ropes. All the species require a rich loamy soil, and ripened cuttings with their leaves on root in sand in a moist heat.

2069. *Iresine.* Suppliants were accustomed among the Greeks to present themselves before the altar with a branch of olive bound with wool, which offering they called *εγχεσίωνη*; whence this plant, which is very like such a branch, on account of its close clusters of woolly flowers, has been named. Herbaceous plants not of great beauty.

2070. *Spinacia.* From *spina*, a prickle, on account of the processes of the seed. A well known annual esculent of the easiest culture in any rich soil.

2071. *Fluggæa.* Named by Willdenow, in honor of — Flügge, a German Cryptogamic botanist. A shrub with round ash-colored spiny branches. The spines are from one and a half to three inches long, very strong and numerous, whitish, and covered with leaves.

2072. *Acnida.* From *α*, privative, and *ανιδη*, a Greek name of the nettle; that is to say, a nettle-like plant, which does not sting.

2073. *Cannabis.* According to Bullet, this name is taken from the Celtic *can*, a reed, and *ab*, small. But Goliuss says, the plant has been known by the Arabs from time immemorial under the name of *qaneb*. The hemp is a manufactory plant of equal antiquity with the flax. It grows to a great height on rich soils under a warm climate; in some parts of Italy it has been found eighteen feet high (*Crada. Agr.*); the common height in Lombardy and the Bolognese territory is twelve feet; in this country it seldom exceeds six feet, and the fibre of British hemp is no finer than where it is three times the length. The culture, management, and uses of hemp are nearly the same as those of flax; but the male and female flowers being on different plants, and the male plant decaying long before the female, the former requires to be pulled up as soon as the setting of the seed in the females shews that they have effected their purpose. Hemp is sown on well prepared

13893 Leaves abruptly pinnate, Leaflets lanceolate about 8, Petiole winged

13894 Unarmed, Leaves pinnate of 2 or 3 pair, Leaflets ovate emarginate villous, Racemes terminal  
 13895 Prickly, Leaves pinnate of 4 pair, Leaflets ovate repand-toothed unequal at base sessile, Panicles terminal  
 13896 Lvs. pinn. with an odd one of 4-5 pair, Leaf, ov. obsolete serrul. equal at base, Petiol. rounded unarmed  
 13897 Lvs. pinn. with odd 1 of 3-5 pair, Leaf, stalk obl. oval acum. serrul. obliq. at base, Petiol. and branch prickly  
 13898 Branches petioles and ribs prickly, Leaves pinnate with an odd one of 2-3 pairs, Leaflets oblong shining with remote glandular crenatures

13899 Racemes filiform pendulous, Flowers triandrous, Styles 2 recurved

13900 Lvs. obl. narrowed at base acumin. at end smooth shining on each side, Racemes axillary twin or solitary

13901 Lvs. roundish ellipt. rounded at each end retuse emarginate at point downy beneath, Racem. term. paniced

13902 Leaves dotted scabrous : lower oblong acuminate ; upper ovate-lanceolate, Panicle branched compact

13903 Leaves ovate-oblong acute, Panicle erect, Branches simple, Stem furrowed

13904 Leaves ovate smooth cuspidate, Panicle diffuse branched, Stem furrowed

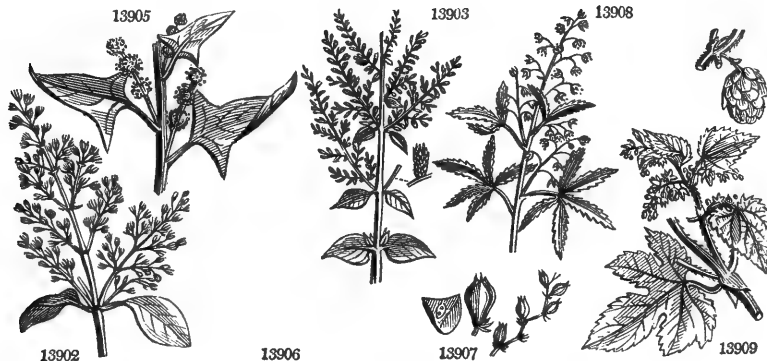
13905 Leaves sagittate, Fruit sessile

13906 The only species. Leaves alternate orbic ovate entire smooth, Spines 2 or 3 inches long

13907 Leaves lanceolate, Capsules smoothish acutangular

13908 The only species

13909 The only species



and Miscellaneous Particulars.

loamy soil about the end of April : the male plants are generally pulled about the beginning of July, and the females four or five weeks after them, when they have ripened their seeds. The plants being tied in bundles, are watered and bleached, in the same manner as flax ; or they are dried and stacked without having gone through this process, and the fibres separated when wanted by the flax-breaking machine of recent invention, or by steeping in hot water and soft soap. The produce of hemp in fibre varies from three to six hundred weight per acre ; in seed, from eleven to twelve bushels. The fibre produces a cloth stronger than that from flax, and the best of all cordage and ropes. An oil is extracted from the seeds of hemp, which is used in cookery in Russia, and in this country by painters. The seeds themselves are reckoned a good food for poultry, and are supposed to occasion hens to lay a greater quantity of eggs. Small birds in general are very fond of them, but they should be given to caged birds with caution, and mixed with other seeds. A very singular effect is recorded, on very good authority, to have been sometimes produced by feeding bullfinches and goldfinches on hemp-seed alone, or in too great quantity ; viz. that of changing the red and yellow on these birds to a total blackness. (*Ency. of Agr.* 5327.)

2074. *Humulus*. From *humus*, fresh earth ; the hop grows only in rich soils. Our English word *hop*, seems to be the Anglo-Saxon *hoppa*, to climb. *Lupulus* is a contraction of *Lupus salictarius*, the name by which it was, according to Pliny, formerly called, because it grew among the willows, to which, by twining round and choking up, it proved as destructive as the wolf to the flock.

The hop has been cultivated in Europe an unknown length of time for its flowers, which are used for preserving beer. Its culture was introduced from Flanders in the reign of Henry VIII., though indigenous both in Scotland and Ireland : it is little cultivated in those countries, owing to the humidity of their autumnal season. Like other plants of this sort, the hop bears its flowers on different individuals ; the female plant, therefore, is alone cultivated. There are several varieties grown in Kent and Surrey under the names of Flemish, Canterbury, Goldings, &c. ; the first is the most hardy, differing little from the wild or hedge-hop ; the Goldings is a very improved and highly productive variety, but more subject to the blight than the other. The hop prefers a deep loamy soil on a dry bottom ; a sheltered situation exposed to the south or south-west, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverized and manured previously to planting. In hop districts, the ground is generally trenched either with the plough or spade. The mode of planting is generally in rows, six feet apart, and the same distance in the row. Five, six, or seven plants are generally placed together in a circular form, and at a distance of five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools ; each should have two joints or buds ; from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of beans or cabbages is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of five or six feet. The third year the hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each hill. The most durable timber for poles is that of the Spanish chesnut, which is much grown

2075. *MODEC'CA*. Lam. *MODECCA*. *Passifloræ*. Sp. 1.  
 13910 lobata Jacq. lobe-leaved  $\square$  or 12 au G S. Leone 1812. C r.m Bot. reg. 433

HEXANDRIA.

|  |  |                   |  |                        |                                       |
|--|--|-------------------|--|------------------------|---------------------------------------|
| 2076. <i>XEROTES</i> . R. Br. <i>XEROTES</i> .<br>13911 longifolia R. Br. long-leaved<br>13912 rigida R. Br. rigid                                       | $\text{Y}$ $\square$ or 3<br>$\text{Y}$ $\square$ or 2                                 | ...<br>...        | <i>Juncæ</i> . Sp. 2-24.<br>G.w N. Holl. 1796.<br>G.w N. Holl. 1791.                   | D r.m<br>D r.m         | Bot. cab. 798                         |
| 2077. <i>ELA'IS</i> . W. <i>OILY PALM</i> .<br>13913 melanococca Gaertn. black-seeded<br>13914 occidentalis W. West Indian<br>13915 guineensis W. Guinea | $\text{H}$ $\square$ or 30<br>$\text{H}$ $\square$ or 30<br>$\text{H}$ $\square$ or 30 | ...<br>...<br>... | <i>Palmeæ</i> . Sp. 3.<br>G.w N. Grena. 1821.<br>G.w Jamaica 1820.<br>G.w Guinea 1730. | S co<br>S r.m<br>S r.m | Jac. amer. t. 172                     |
| 2078. <i>CHAMÆDORÆA</i> . W. <i>CHAMÆDORÆA</i> .<br>13916 gracilis W. slender  | $\text{H}$ $\square$ or 10   | ...               | <i>Palmeæ</i> . Sp. 1.<br>W.G Caracass 1803.   | Sk r.m                 | Jac.sch.2.t.247,8                     |
| 2079. <i>BORASSUS</i> . W. <i>BORASSUS</i> .<br>13917 fiabelliformis W. fan-leaved   | $\text{H}$ $\square$ or 30   | ...               | <i>Palmeæ</i> . Sp. 1.<br>W.G E. Indies 1771.  | S r.m                  | Rox.co.1.t.71,72                      |
| 2080. <i>MAURITIA</i> . W. <i>MAURITIA</i> .<br>13918 flexuosa W. wavy-spiked  | $\text{H}$ $\square$ or 40   | ...               | <i>Palmeæ</i> . Sp. 1.<br>W.G Surinam 1816.  | S r.m                  |                                       |
| 2081. <i>SMYLAX</i> .<br>13919 aspera W. Rough Bindw.<br><i>auriculata</i> W. ear-leaved   | $\text{H}$ un 8 s<br>$\text{H}$ un 8 s   | ...               | <i>Smilacæ</i> . Sp. 22-68.<br>W.G S. Europe 1648.<br>W.G S. Europe 1648.              | Sk s.p<br>Sk s.p       | Sch.hand.3.t.328<br>Pluk.al.t.110.f.3 |
| 13920 excelsa W. tall  | $\text{H}$ $\square$ un 12 au.s  | ...               | W.G Syria 1739.  | Sk s.p                 | Buxb.cen.1.t.27                       |
| 13921 zeylanica W. Ceylon  | $\text{H}$ $\square$ un 10 ...   | ...               | W.G E. Indies 1778.  | Sk p.l                 | Rum.am.5.t.161                        |
| 13922 quadrangularis W. square-stalked   | $\text{H}$ un 6 jn.jl  | ...               | W.G N. Amer. 1812.   | Sk s.p                 | Dend.brit. 109                        |
| 13923 Sarsaparilla W. medicinal  | $\text{H}$ m 4 jl.au   | ...               | W.G N. Amer. 1664.   | Sk s.p                 | Dend.brit. 111                        |
| 13924 China W. Chinese   | $\text{H}$ $\square$ m 6 ...   | ...               | W.G China 1759.  | Sk s.p                 | Kem.amæ.t.782                         |
| 13925 rotundifolia W. round-leaved   | $\text{H}$ un 6 jl.au  | ...               | W.G N. Amer. 1760.   | Sk s.p                 |                                       |
| 13926 laurifolia W. Laurel-leaved  | $\text{H}$ un 5 jl   | ...               | W.G N. Amer. 1739.   | Sk s.p                 | Cat. car. 1. t. 15                    |



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in Kent as coppice wood for that purpose. The after-culture of the hop consists in stirring the soil, and keeping it free from weeds; in guiding the shoots to the poles, and sometimes tying them for that purpose with withered rushes; in eradicating any superfluous shoots which may arise from the root, and in raising a small heap of earth over the root to prevent any more shoots from arising.

Hops are known to be ready for gathering, when the chaffy capsules acquire a brown color, and a firm consistence. Each chaffy capsule or leafed calyx contains one seed. Before these are picked, the poles with the attached stalks are pulled up, and placed horizontally on frames of wood, two or three poles at a time. The hops are then picked off by women and children. After being carefully separated from the leaves and stalks, they are dropped into a large cloth hung all round within the frame on tenter-hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, as they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in sacks in the green state in which they are pulled. In very warm weather, and when they are pulled in a moist state, they will often heat in five or six hours: for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season. The operation of drying hops is not materially different from that of drying malt, and the kilns are of the same construction. The hops are spread on a hair-cloth, from eight to twelve inches deep, according as the season is dry or wet, and the hops ripe or immature. When the ends of the hopstalks become quite shrivelled and dry, they are taken off the kiln and laid on a boarded floor till they become quite cool, when they are put into bags.

The bagging of hops is thus performed: in the floor of the room where hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop-bag. After tying a handful of hops in each of the lower corners of a large bag, which serve afterwards for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the trap, the packer goes into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard as that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, other two handles having been previously formed in the corners in the manner mentioned above. The brightest and finest colored hops are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used for brewing fine ales, and the latter by the porter brewers. But when hops are intended to be kept two or three years, they are put into bags of strong cloth, and firmly pressed so as to exclude the air.

The stripping and stacking of the poles succeeds to the operation of picking. The shoots or bind being stripped off, such poles as are not decayed are set up together in a conical pile of three or four hundred, the centre of which is formed by three stout poles bound together a few feet from their tops, and their lower ends spread out.

The produce of no crop is so liable to variation as that of the hop; in a good season an acre will produce 20 cwt.; in a bad season none, or only 2 or 3 cwt. From 10 to 12 cwt. in a season is considered a tolerable average

13910 Leaves entire 3-7-lobed without glands cordate at base

### HEXANDRIA.

13911 Stemless, Lvs. long lin. coriaceous straight toothed at end rough at edge, Panicles lanceolate contracted  
13912 Scapes and spikes short, Lvs. distichous cartilaginous convex beneath  $\frac{1}{2}$  truncate at end, Stem very short

13913 Stem ascending, Stalks spiny serrated, Anthers and fruits ovate acute  
13914 Fronds pinnated, Leaflets sheathed, Stems unarmed  
13915 Fronds pinnated, Stems toothed spiny diverging: upper teeth recurved

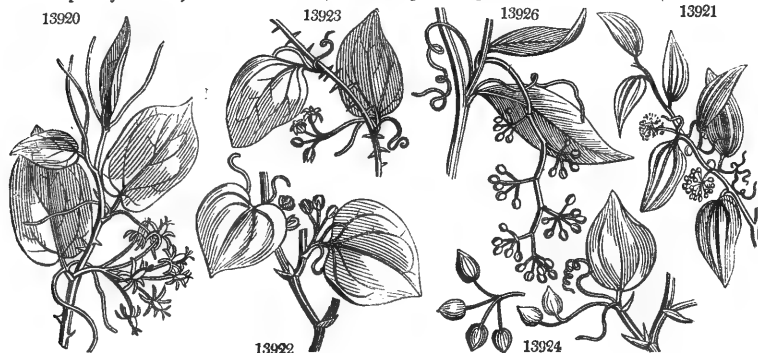
13916 Fronds pinnated 2 feet long: pinnæ alternate oblong narrowed at base pointed at end

13917 Fronds palmate plaited cucullate, Stalks serrated

13918 Fronds flabelliform, Male spadix flexuose a foot long and more

13919 Stem prickly angular, Leaves hastate cordate lanceolate 7-9-nerved prickly toothed coriaceous

13920 Stem prickly angular, Leaves unarmed ovate slightly cordate about 7-nerved  
13921 Stem prickly somewhat square, Leaves unarmed 3-5-nerved ovate-oblong cordate  
13922 Stem prickly square, Leaves unarmed ovate acute 5-nerved  
13923 Stem prickly nearly square, Leaves unarmed ovate-lanceolate cuspidate about 5-nerved glaucous beneath  
13924 Stem prickly rounded, Leaves roundish-cordate acute at each end 5-nerved  
13925 Stem prickly rounded, Leaves roundish-ovate acuminate slightly cordate 5-nerved  
13926 Stem prickly rounded, Branches unarmed, Leaves ellipt. or elliptical-lanc. obtuse recurved acute 3-nerved



### and Miscellaneous Particulars.

crop. The quality of hops is estimated by the abundance or scarcity of an unctuous clammy powder which adheres to them, and by their bright yellow color.

The expences of forming a hop plantation are very great; but once in bearing, it will continue so for ten or fifteen years before it requires to be renewed. The hop culture in England, like that of the culture of the vine in France, is only calculated for cultivators of considerable capital, who can retain the produce from years of abundance to years of scarcity. It is calculated on an average, that the hop crop fails almost entirely every fifth year, when the price will rise from two to thirty pounds per cwt. To those who can cultivate and preserve the hop with a view to such a rise, few crops will be equally profitable.

The hop is peculiarly liable to diseases; when young it is devoured by fleas of different kinds; and at a more advanced stage it is attacked by the green fly, red spider, and other moth, the larvæ of which prey even upon its roots. The honey dew often materially injures the hop crop; and the mould, the fireblast, and other blights injure it at different times towards the latter periods of the growth of the plants.

The use of hop in brewing is to prevent the beer from becoming sour, and this is the grand purpose for which it is cultivated. But the young shoots both of the wild and improved hops are eaten early in the spring as asparagus, and were formerly brought to market for that purpose. The stalk and leaves will dye wool yellow. From the stalks a strong cloth is made in Sweden, the mode of preparing which is described by Linnæus in his Flora Suecica. A decoction of the roots is said to be as good a sudorific as Sarsaparilla; and the smell of the flowers is soporific. During the illness of George the third, in 1787, a pillow filled with hops was used instead of opiates.

2075. *Modecca*, is an Indian word by which two or three species of this genus appear in the Hortus Malabaricus, and has been adopted as a generic name by Lamarck. A curious plant resembling a bryony, of easy culture and propagation.

2076. *Xerotes*. From  $\xi\eta\rho\epsilon\varsigma$ , dry, on account of the aridity of the herbage and of the situations in which it grows.

2077. *Elais*. The natives of Guinea express oil from the fruit of this, as the Greeks from their olives,  $\epsilon\lambda\alpha\iota\alpha$ , whence its name. This palm bears a fruit about the size of a large plum. The inhabitants of the West India Islands draw an oil from it, by the same process used in extracting oil from olives. From the sap an inebriating liquor is fermented, and the negroes weave the leaves into mats, on which they repose.

2078. *Chamædorea*. Named, we presume, from  $\chi\alpha\mu\alpha\iota$ , dwarf, and  $\delta\omega\epsilon\rho\alpha$ , a gift: but we are ignorant of the sense in which the name has been applied.

2079. *Barassus*. This is one of the names which were applied to the spatha of the date; and was applied by Linnæus to the designation of this family of palms. The fruit of this palm is of the size and shape of a child's head; a wine and a sugar are made from the sap of the trunk.

2080. *Mauritia*. Named in honor of Prince Maurice of Nassau, the patron of Piso, for whom he obtained the necessary aid towards publishing his Natural History of Brazil. A fine genus of palms.

2081. *Smilax*. From  $\sigma\mu\iota\lambda\alpha\varsigma$ , a grater; the stems are rough with stiff prickles. *S. aspera* has roots not unlike those of the Sarsaparilla. They have the same qualities, but in an inferior degree; and may be distinguished by

|       |                             |  |    |     |     |       |     |            |       |        |                     |
|-------|-----------------------------|--|----|-----|-----|-------|-----|------------|-------|--------|---------------------|
| 13927 | tannoides <i>W.</i>         | Tamus-leaved                           | △  | un  | 6   | jn.jl | W.g | N. Amer.   | 1739. | Sk s.p | Cat. car. 1. t. 52  |
| 13928 | austrálica <i>R. Br.</i>    | oblong-leaved                          | □  | un  | 6   | ...   | W.g | N. S. W.   | 1815. | Sk s.p |                     |
| 13929 | cadéca                      | deciduous                              | △  | un  | 6   | jn.jl | W.g | N. Amer.   | 1759. | Sk s.p |                     |
| 13930 | Bona nóx <i>W.</i>          | ciliated                               | △  | un  | 6   | jn.jl | W.g | N. Amer.   | 1739. | Sk s.p | Pluk.al.t.111.f.1   |
| 13931 | latifolia <i>B. P.</i>      | broad-leaved                           | □  | un  | 8   | ...   | G.w | N. Holl.   | 1791. | Sk s.p |                     |
| 13932 | herbácea <i>W.</i>          | herbaceous                             | △  | un  | 4   | jl    | G   | N. Amer.   | 1699. | Sk s.p | Bot. mag. 1920      |
| 13933 | lanceolata <i>W.</i>        | spear-leaved                           | △  | un  | 5   | my.jn | G.w | N. Amer.   | 1785. | Sk s.p | Cat. car. 2. t. 84  |
| 13934 | glycyphýlla <i>B. P.</i>    | Botany Bay Tea                         | □  | un  | 6   | ...   | G.w | N. S. W.   | 1815. | Sk s.p |                     |
| 13935 | púbera <i>W.</i>            | downy                                  | un | 5   | ... | ...   | G.w | N. Amer.   | 1806. | Sk s.p |                     |
| 13936 | Pseudo-china <i>W.</i>      | Bastard Chinese                        | □  | un  | 6   | my.jn | G.w | America    | 1739. | C pl   | Slo. ja.1.t.143.f.1 |
| 13937 | pedunculáris <i>W.</i>      | long-peduncled                         | △  | un  | 6   | my.jl | G.w | N. Amer.   | 1812. | C pl   |                     |
| 13938 | gláucia <i>E. M.</i>        | glaucous-leav'd                        | △  | un  | 2   | my.jl | G.w | N. Amer.   | 1811. | C pl   | Bot. mag. 1846      |
| 13939 | rúbens <i>Wats.</i>         | pink                                   | un | 6   | jl  | ...   | G.w | N. Amer.   | ...   | C pl   | Bot. mag. 1808      |
| 13940 | longifolia <i>W.</i>        | long-leaved                            | □  | un  | 10  | my.jl | G.w | Cayenne    | 1820. | C pl   | Dend. brit. 108     |
| 2082  | TA'MUS. <i>W.</i>           | BLACK BRYONY.                          |    |     |     |       |     |            |       |        |                     |
| 13941 | communis <i>W.</i>          | common                                 | △  | m   | 10  | my.au | G   | England    | 1739. | R s.p  | Eng. bot. 91        |
| 13942 | crética <i>W.</i>           | Cretan                                 | △  | un  | 5   | jl.au | G   | Candia     |       | R pl   |                     |
| 2083  | TESTUDINÁRIA. <i>Burch.</i> | ELEPHANT'S FOOT, OR HOTTENTOT'S BREAD. |    |     |     |       |     |            |       |        |                     |
| 13943 | elephan'tipes <i>Burch.</i> | common                                 | △  | cu  | 8   | jl.au | Y   | C. G. H.   | 1774. | R pl   | Bot. mag. 1347      |
| 2094  | RAJA'NTA. <i>W.</i>         | RAJANIA.                               |    |     |     |       |     |            |       |        |                     |
| 13944 | cordáta <i>W.</i>           | Tamus-leaved                           | △  | un  | 6   | jl    | G   | W. Indies  | 1786. | R pl   | Plum.ia.t.155.f.1   |
| 2085  | DIOSCO'REA. <i>W.</i>       | YAM.                                   |    |     |     |       |     |            |       |        |                     |
| 13945 | pentaphýlla <i>W.</i>       | five-leaved                            | □  | cul | 10  | ...   | G   | E. Indies  | 1768. | R r.m  | Rhee.mal.7. t.35    |
| 13946 | aculeáta <i>W.</i>          | prickly-stemm.                         | △  | cul | 10  | ...   | G   | E. Indies  | 1803. | R r.m  | Rhee.mal.7. t.37    |
| 13947 | aláta <i>W.</i>             | wing-stalked                           | △  | cul | 15  | ...   | G   | India      | 1739. | R r.m  | Rhee.mal.7. t.38    |
| 13948 | bulbifera <i>W.</i>         | bulb-bearing                           | △  | esc | 12  | jl.au | G   | E. Indies  | 1692. | R r.m  | Par. lond. 17       |
| 13949 | satíva <i>W.</i>            | common                                 | △  | clt | 20  | au    | G   | W. Indies  | 1733. | R r.m  | Rhee.mal.8. t.51    |
| 13950 | triphýlla <i>W.</i>         | three-leaved                           | □  | un  | 8   | ...   | G   | Malabar    | 1820. | R r.m  | Rumph. 5. t. 128    |
| 13951 | brasilíensis <i>W.</i>      | Brazilian                              | □  | esc | 8   | ...   | G   | Brazil     | 1823. | R r.m  |                     |
| 13952 | coriácea <i>W.</i>          | leathery                               | □  | un  | 8   | ...   | G   | S. Amer.   | 1818. | R r.m  |                     |
| 13953 | altíssima <i>W.</i>         | tallest                                | □  | un  | 20  | ...   | G   | Martinique | 1821. | R r.m  | Plum. ic.117. f.1   |
| 13954 | angustifolia <i>W.</i>      | narrow-leaved                          | □  | un  | 10  | ...   | G   | Peru       | 1821. | R r.m  |                     |
| 13955 | villosa <i>W.</i>           | pubescent                              | △  | un  | 3   | au    | R   | N. Amer.   | 1752. | R s.p  | Jac. ic. 3. t. 626  |
| 13956 | oppositifolia <i>W.</i>     | opposite-leaved                        | △  | un  | 6   | ...   | G   | E. Indies  | 1803. | R s.p  | Pet. gaz. t.31. f.6 |



History, Use, Propagation, Culture,

being larger, more porous, and much less compressed. *S. Sarsaparilla* (*sarza*, furze, Spanish) has long slender roots covered with a wrinkled brown bark, white within, and having a small woody heart. It is inodorous, and has a mucilaginous very slightly bitter taste. Medicinally it is demulcent and diuretic. It was brought to Europe about the year 1530, and introduced as a medicine of great efficacy in the cure of lues venerea; but it fell into disrepute and was little used, till it was again brought into esteem by Dr. William Hunter and Sir William Fordyce, about the middle of the last century; not, however, as a remedy fitted to cure syphilis, but of much efficacy in rendering a mercurial course more certain, and after the use of mercury. Experience, however, has not verified the encomiums bestowed on it; and the extensive observations of Mr. Pearson have fixed the degree of benefit which is to be expected from this root in syphilitic complaints. The contagious matter and the mineral specific may, he observes, jointly produce, in certain habits of body, a new series of symptoms, which, strictly speaking, are not venereal, which cannot be cured by mercury, and which are sometimes more to be dreaded than the simple and natural effects of the venereal virus. Some of the most formidable of these appearances may be removed by sarsaparilla, the venereal virus still remaining in the system; and when the force of the poison has been completely subdued by mercury, the same vegetable is also capable of freeing the patient from what may be called the sequelæ of a mercurial course. Sarsaparilla is also recommended in scrophula, elephantiasis, or cutaneous affections resembling it, and in chronic rheumatism; but its efficacy is doubtful. (*Thom. Lond. Disp.* 505.)

*S. China* has roots as long as a child's hand, twisted, full of knots, reddish on the outside, flesh-colored in the heart, and destitute of smell. It is employed both as food and medicine in China, and to feed hogs in the West Indies. None of the species are of much beauty or worth growing, but as objects of curiosity.

2082. *Tamus*. This name was employed by Columella and others, for a plant resembling a vine, and bearing fruit not unlike grapes; a description which does not apply badly to the modern plant. *T. communis* has very large tuberous black coated masses attached to its roots. These are so acrid, that the pulp has been formerly used as a stimulating plaster. The young shoots, however, are so mild as to be good eating when dressed like asparagus. The Moors eat them boiled with oil and salt. The flowers of the female plant are succeeded by ovate smooth berries.

2083. *Testudinaria*. So called from the resemblance which the great rugged cracked root of this plant bears to the shell of a tortoise (*testudo*). The rootstock is a large fleshy mass, covered with a thick bark cracked deeply in every direction. The Hottentots in time of scarcity make use of the fleshy inside of the root as a sort of yam.

2084. *Rajania*. Named in honor of our distinguished countryman John Ray, a distinguished naturalist,

- 13927 Stem prickly rounded, Leaves ovate oblong acute subpanduriform obsolete cordate 3-nerved  
 13928 Stems prickly rounded, Leaves oblong acute unarmed 5-nerved smooth, Petioles with tendrils  
 13929 Stem prickly rounded, Leaves ovate mucronate 5-nerved  
 13930 Stem unarmed angular, Leaves cordate ovate acute ciliate prickly 7-nerved  
 13931 Stem unarmed angular, Leaves ovate 5-nerved smooth subcordate or obtuse at base, Petioles with tendrils  
 13932 Stem unarmed angular, Leaves ovate acuminate 7-nerved, Common pedunc. of umbel longer than leaf  
 13933 Stem unarmed rounded, Leaves unarmed lanceolate  
 13934 Stem unarmed rounded, Leaves obl. lanc. acute 3-nerved smooth glaucous beneath, Petioles with tendrils  
 13935 Stem unarmed rounded, Leaves oblong acute cordate about 5-nerved soft with down beneath  
 13936 Stem unarmed rounded, Leaves unarmed : cauline cordate ; of the branches ovate-oblong 5-nerved  
 13937 Stem unarm. round. Lvs. roundish ov. cord. acum. 9-nerv. Peduncles of fr.-bear. umbel longer than leaves  
 13938 Stem prickly, Lvs. unarmed rounded ovate mucronulate about 7-nerv. glauc. beneath, Pedunc. about 2 fl.  
 13939 Stem angular prickly, Leaves ovate subcordate rather obtuse mucronate coriaceous 5-nerved denticulate  
 13940 Stem prickly square, Leaves unarmed hastate oblong obtuse mucronate about 7-nerved

13941 Leaves cordate undivided

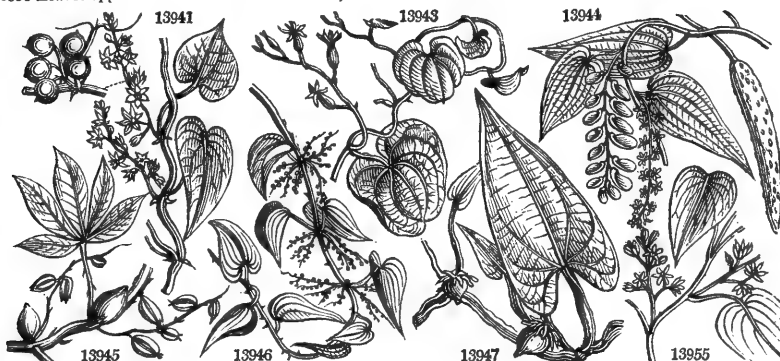
13942 Leaves 3-lobed

13943 Leaves reniform entire

13944 Leaves ovate lanceolate cordate 7-nerved

- 13945 Leaves alternate digitate, Leaflets 5 oblong acuminate veiny, Stem aculeate bulbiferous  
 13946 Leaves alternate roundish cordate acuminate 7-nerved, Stem aculeate bulbiferous  
 13947 Leaves opposite ovate cordate-sagittate cuspidate 7-nerved, Stem winged bulbiferous  
 13948 Leaves alternate cordate roundish ovate acuminate about 9-nerved, Stem smooth bulbiferous [round  
 13949 Lvs. altern. cord. round. ov. cuspid. about 9-nerv. : lobes of base close together, Caps. obov. Stem smooth  
 13950 Leaves alternate ternate, Leaflets obl. acuminate nerved, Stem prickly  
 13951 Leaves alternate cordate 3-lobed : middle lobe acuminate, Stem compressed round naked  
 13952 Leaves alternate cordate oblong acuminate coriaceous 7-nerved, Stem round smooth  
 13953 Leaves opposite cordate roundish ovate acute 7-nerved, Stem round smooth  
 13954 Leaves alternate cordate lanc. narrow 3-nerved longer than petiole, Stem smooth  
 13955 Leaves opposite and whorled cordate acuminate 9-nerved downy beneath, Stem round

13956 Leaves opposite ovate acuminate 7-nerved, Stem round smooth




and Miscellaneous Particulars.

born in 1628, died in 1705, and author of many works of the highest reputation. His zoological arrangement is still regarded with much respect. Twining plants resembling the Yam.

2085. *Dioscorea*. In memory of Pedacius Dioscorides, a Greek physician, born at Anazarba, in Cilicia. He is generally believed to have lived under Nero, but this is very uncertain. Adulfarrage makes him to have flourished under Ptolemy Physcon; but he is not generally credited. *D. sativa*, *Iguame*, Fr., and *Iakame*, Portug., has large thick tubers, a foot broad, and palmated like some Orchises. The stalks are slender, and with the leaves bear some resemblance to black bryony. The yam is largely cultivated for food in Africa and the East and West Indies, especially in the latter for the negroes. The roots grow to a great size, are mealy, and esteemed to be easy of digestion; they are palatable, and not inferior to any roots now in use, either for delicacy of flavor or nutriment. They are eaten instead of bread, either roasted on the embers or boiled; the flower is also made into bread and puddings. In Otaheite they make a dish, which they esteem very delicious, from the roots of the yam, with the kernel of the cocoa-nut scraped, and the pulp of the Musa or Banana. The juice of yam-roots fresh is acrid, and excites an itching on the skin. There are many varieties of these roots, some spreading out like the fingers (*Rumph. t. 121.*); others twisted like a serpent (*Rumph. t. 122.*); others again very small, scarcely weighing more than a pound, with a whitish ash-colored bark, whereas the bark is commonly black. The flesh of the yam is white or purplish, and viscid, but becomes farinaceous or mealy when dressed.

*D. aculeata*, by some considered only an improved variety of the *sativa*, is universally cultivated in the East and West Indies, in Africa, and in all the islands of the southern ocean within the torrid zone, and even as far as New Zealand. The tubers are frequently three feet long, and weigh thirty pounds. All the edible species and varieties are propagated in foreign countries like the common potato, but they arrive much sooner at maturity. The buds of the roots are not apparent, but still a small piece of skin is left to each set; for from this piece of bark alone the shoots proceed. Holes are made in rows two feet apart, and at eighteen inches distant in the row; into those holes two or three sets are put, first covered with earth, and then with a little haulm or rubbish to retain moisture. The only after-culture consists in hoeing up the weeds. They are commonly planted in August, and are ripe about the November or December following. When dug up, the greatest care is taken not to wound them, as that occasions them to sprout much earlier than they otherwise would do. They should be rubbed over with ashes, and piled regularly on beds or hurdles raised above the floor, that the air may come easily between them; or, if they be piled in heaps, some ashes should be strewed between the layers. None of the species are worth cultivating as ornamental plants; but some of the edible sorts have been raised in hotbeds in the Paris garden, and being transplanted early into a warm situation, have produced tubers of a considerable size.



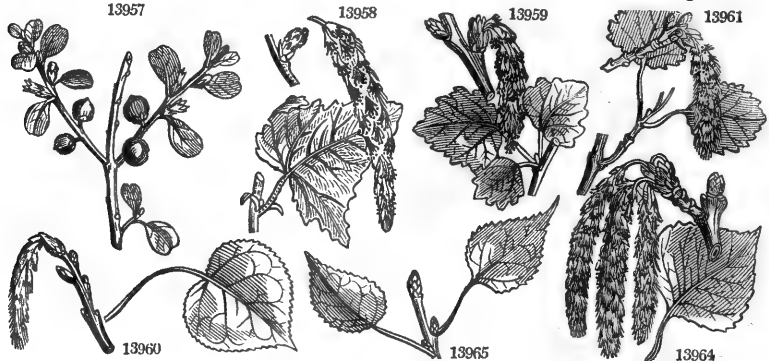
2086. MA'BA. J. **MABA.** *Ebenaceae.* Sp. 1-5.  
 13957 buxifolia P. S. Box-leaved  pr 1 1/2 ... Y E. Indies 1810. S s.p Rox. cor. i. t. 45

OCTANDRIA.

|                                       |                               |   |    |    |                    |         |           |         |       |                     |
|---------------------------------------|-------------------------------|---|----|----|--------------------|---------|-----------|---------|-------|---------------------|
| 12087. PO'PULUS. W.                   | POPLAR.                       |   |    |    | <i>Amentaceae.</i> | Sp. 16. |           |         |       |                     |
| 13958 alba W.                         | Abele Tree                    | 辛 | tm | 40 | mr.ap              | Ap      | Britain   | moi.w.  | Sk co | Eng. bot. 1618      |
| 13959 canescens W.                    | gray                          | 辛 | tm | 40 | mr.ap              | Ap      | England   | wat.pl. | Sk co | Eng. bot. 1619      |
| 13960 trepida W.                      | Trembling Americ.             | 辛 | tm | 30 | ...                | Ap      | N. Amer.  | 1812.   | C co  | Mic.arb.3. t.8.f.1  |
| 13961 tremula W.                      | Aspen                         | 辛 | tm | 50 | mr.ap              | Ap      | Britain   | moi.w.  | Sk co | Eng. bot. 1909      |
| 13962 laevigata W.                    | smooth                        | 辛 | tm | 80 | mr.ap              | Ap      | N. Amer.  | 1769.   | G co  | Mic. arb.3. t.11    |
| 13963 graeca W.                       | Athenian                      | 辛 | tm | 40 | mr.ap              | Ap      | Archipel. | 1779    | C co  | Duh. ar.184. t.54   |
| 13964 nigra W.                        | black                         | 辛 | tm | 30 | mr.ap              | Ap      | Britain   | wat.pl. | C co  | Eng. bot. 1910      |
| 13965 betulifolia Ph. hudsonica Mich. | black American                | 辛 | tm | 40 | mr.ap              | Ap      | N. Amer.  | ...     | C co  | Mi.arb.3. t.10.f.1  |
| 13966 dilatata W.                     | Lombardy                      | 辛 | tm | 70 | mr.ap              | Ap      | Italy     | 1758.   | C co  | Arb.brit. 2.t.221   |
| 13967 monilifera W.                   | Canadian                      | 辛 | tm | 70 | my                 | Ap      | Canada    | 1772.   | C co  | Dend. brit. 102     |
|                                       | <i>P. grandidentata</i> Mich. |   |    |    |                    |         |           |         |       |                     |
| 13968 aclades'ca Lindl.               | black Italian                 | 辛 | tm | 70 | my                 | Ap      | N. Amer.  | ...     | C co  |                     |
| 13969 angulata W.                     | Carolina                      | 辛 | tm | 80 | mr                 | Ap      | Carolina  | 1738.   | C co  | Mi.a.3.p.302.t.12   |
| 13970 balsamifera W.                  | Tacamahac                     | 辛 | tm | 70 | ap                 | Ap      | N. Amer.  | 1692.   | C co  | Mic.ar.3. t.13. f.1 |
| 13971 macrophylla Lindl.              | Ontario                       | 辛 | tm | 70 | ...                | Ap      | N. Amer.  | 1820.   | C co  |                     |
| 13972 candicans W.                    | heart-leaved                  | 辛 | tm | 50 | mr                 | Ap      | N. Amer.  | 1772.   | G co  | Cat. car. i. t. 34  |
| 13973 heterophylla W.                 | variously-leaved              | 辛 | tm | 70 | ap.my              | Ap      | N. Amer.  | 1765.   | G co  | Mich. arb. 3. t. 9  |

ENNEANDRIA.

|                         |           |   |   |   |       |                       |          |         |       |                |                    |
|-------------------------|-----------|---|---|---|-------|-----------------------|----------|---------|-------|----------------|--------------------|
| 2088. MERCURIA' LIS. W. | MERCURY.  |   |   |   |       | <i>Euphorbiaceae.</i> | Sp. 5-7. |         |       |                |                    |
| 13974 perennis W.       | perennial | 辛 | w | 1 | ap.my | G                     | Britain  | woods.  | D s.l | Eng. bot. 1872 |                    |
| 13975 ambigua W.        | doutful   | 辛 | o | w | 1     | jl.au                 | G        | Spain   | 1806. | S co           | tn.fil.dec.1. t. 8 |
| 13976 annua W.          | annual    | 辛 | o | w | 1     | jl.s                  | G        | Britain | rub.  | S co           | Eng. bot. 559      |



History, Use, Propagation, Culture,

2085. *Maba*. The name given to the plant by the natives of Tonga-Tabu, according to Forster. (*Gen.* 61.) This shrub or small tree produces edible berries very well tasted. The wood is dark colored, remarkably hard and durable, and where its size will admit, is employed for such uses as require the most durable, compact, and heavy timber.

2086. *Populus*. In ancient times the public places of Rome were decorated with rows of this tree, whence it came to be called *arbor populi*, as being a tree peculiarly appropriated to the *populi*. But *Bullet* asserts, that the Poplar has obtained its name from the constant motion of the leaves, which are in a perpetual state of agitation like the *populaceae*. All the species are rapid-growing soft-wooded timber trees, some of which attain a very great size. *P. alba* is one of the most valuable of the British species. The leaves of the common gray poplar are of a blackish-green above, but having a thick white cotton underneath; they are about three inches long, on petioles a foot in length. The leaves of the Abele are about double the size, and divided into three, four, or five lobes. The leaves of the gray poplar are also larger more deeply lobed, and the under-side of the leaves and young shoots are covered with a hoary down. The Abele is said to have been introduced from Flanders, and the hoary poplar to have been originated in this country. The timber is of great value for all sorts of wooden vessels, especially butchers' trays. It is of quick growth, soft, white, and stringy, and little subject to swell or shrink. It makes beautiful floors and turners' ware. Some of the finest Abeles in England are at Hartwell near Aylesbury.

*P. tremula* is commonly called the asp, from the German *espe*, which is the general name for all poplars, is a rapid-growing tree in almost any soil or situation; but the numerous shoots of the roots spread so near the surface that they will not permit any thing else to grow there. The wood is extremely light, white, smooth, soft, and durable in the air. It may be used for the same purposes as that of the Abele. The bark is the favorite food of beavers. On the leaves and leafstalks may sometimes be seen red glandular substances about the size of a pea, which are the nests of *Tipula juniperina*. *P. nigra* has a naked lofty trunk covered with an ash-colored bark, and a regular handsome head. It is a tree of quick growth, and on the banks of rivers and in moist situations it grows up to a great height in a short time. The bark is light like cork, and is sometimes used by fishermen to float their nets. The timber is light and soft, fit for the turner and pattenmaker, and excellent for flooring-boards. These boards are much slower in taking fire than those of resinous trees; they smoke a long time before they burst into a flame: of course the wood is bad for fuel. Many species of insects are supported by this and the other poplars. The red substance like berries upon the leafstalks of this species are occasioned by the *Aphis Bursonia*. The leaves and young shoots are gathered in Sweden and other parts of Europe during the month of October and dried, to be given as fodder to the sheep in winter. The practice is as old as the time of the Romans; who, as well as the modern Italians, planted this tree for their vines to run on. In Kamchatka the inhabitants are sometimes reduced to the necessity of converting the inner bark into bread. Scheffer made paper from the cotton down of the seeds. The buds both of this and the white poplar smell very pleasant early in the spring, and being pressed between the fingers yield a balsamic resinous substance, which, extracted by spirits of wine, smells like storax. A drachm of this tincture in broth is administered in internal ulcers and excoriations.

The black Italian poplar, so much recommended by Pontey, and said by him to have been intro-

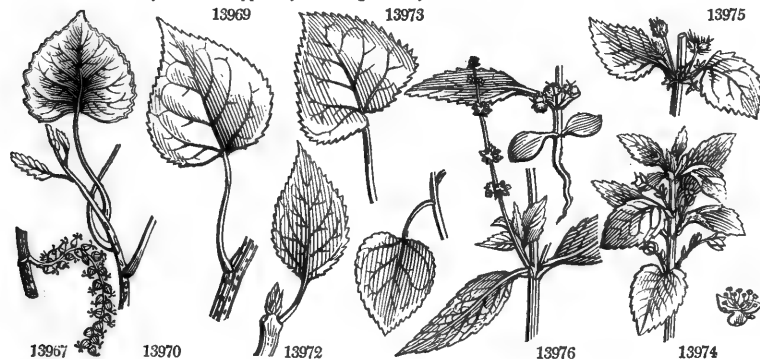
13957 Leaves obovate entire, Flowers sessile, Calyxes hairy

## OCTANDRIA.

- 13958 Lvs. roundish cord. lobed toothed glab. above downy and very white beneath, Fert. catkins ov. Stigmas 4  
 13959 Leaves roundish angular-repand toothed hoary beneath, Catkins cylindrical lax  
 13960 Leaves roundish toothed with 2 glands at base acuminate smooth: younger silky  
 13961 Lvs. nearly orbicul. broadly tooth. glab. on both sides, Petioles compressed, Stigmas 4 auricled at base  
 13962 Lvs. roundish ov. acum. subcord. unequally serrat. smooth, Petioles compressed, Branches round smooth  
 13963 Lvs. round. ov. acute slightly cord. with equal close serratures smooth a little ciliat. Branches round smooth  
 13964 Leaves deltoid acute serrated glabrous on both sides. Fertile catkins cylindrical lax, Stigmas 4  
 13965 Leaves rhomboid acuminate toothed smooth, Younger branches hairy  
 13966 Leaves smooth on each side acuminate serrate deltoid, broader than long  
 13967 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. slightly winged towards end compound  
 13968 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. winged simple  
 13969 Leaves cordate deltoid acuminate bluntly hook-toothed, Branches winged angular  
 13970 Leaves ovate acuminate with close serratures white and netted beneath, Buds resinous  
 13971 Leaves cordate ovate large somewhat entire pale beneath  
 13972 Lvs. cordate ovate acumin. bluntly and unequally serrated white beneath 3 nerved netted, Buds resinous  
 13973 Lvs. cordate roundish-ovate blunt hook-toothed: younger downy beneath

## ENNEANDRIA.

- 13974 Stem perfectly simple, Leaves rough, Root creeping perennial  
 13975 Stem herbaceous brachiate, Leaves ovate-oblong smooth ciliated, Fls. whorled: male and female mixed  
 13976 Stem branched, Branches opposite, Leaves glabrous, Root fibrous annual



## and Miscellaneous Particulars.

duced from America, seems intermediate between *P. nigra* and *dilatata*; indeed, all the three sorts are so considered as but one species. *P. dilatata* differs from the common black poplar chiefly in its close conical manner of growth, which resembles the cypress. The leaves are greater in breadth than length; whereas in the black poplar the longitudinal diameter is the greatest. Though it generally attains a great height, the increase of the trunk is by no means so rapid as in most of the other poplars. It cannot, therefore, be highly recommended as a timber tree. In Italy it is considered peculiarly adapted for packing-boxes: nails do not split it; and if cases of this wood fall or are thrown carelessly on the ground, it gives way a little, and returns to its former position without splitting, which oak and other heavy woods will not do. In Lombardy all the vessels in which the grapes are carried home in carts from the vineyards, are of poplar plank, about two inches thick, and in them the grapes are squeezed. Such vessels last thirty or forty years; and by their lightness are manageable, however large and long. A four-wheeled cart is in general covered with one of them, and it contains about fifteen hundred weight of grapes, each hundred being a hundred pounds of thirty ounces. The conic form of the Lombardy poplar, as a deciduous tree, is peculiar. Among evergreens we find the same character in the cypress; and both trees, in many situations, have a good effect. The cypress often, among the ruins of ancient (and the buildings of modern) Rome, breaks the regularity of a wall or a pediment; and the poplar has the effect among deciduous trees of the round-headed kind. One beauty the Italian poplar possesses which is almost peculiar to it; and that is the waving line it forms when agitated by the wind. Most trees, in these circumstances, are partially agitated; one side is at rest while the other is in motion; but the Italian poplar waves in one single sweep from the top to the bottom, like an ostrich-feather on a lady's head. All the branches coincide in the motion, and the least blast makes an impression upon it when other trees are at rest.

*P. balsamifera* is a moderate sized conical tree, a native both of Siberia and America. The buds of this tree, from autumn to the leafing season, are covered with abundance of a glutinous yellow balsam, which often collects into drops, and is pressed from the tree for medical use. This balsam is brought to Europe from Canada in shells. It is smooth, of an even texture, a yellowish color, and a fragrant scent. In Siberia a medicated wine is prepared from the buds, which is diuretic, and esteemed by the inhabitants serviceable in the scurvy. The grouse and other birds of that family feeding on these buds during winter, acquire a flavor which is much esteemed by epicures. *P. candicans* bears a general resemblance to the preceding species; and, like it, the buds are covered with a resinous tenacious balsam. The other American species are rapid-growing bulky timber-trees, well calculated for immediate effect and utility; but all the species being short-lived when compared with oaks, elms, and other slower-growing hard-wooded trees, confer a temporary premature character on landscape; for nothing can be great and lasting but what advances by degrees. Such poplars as do not grow freely from cuttings of the shoots, are most rapidly increased by cuttings of the roots; but the largest plants are produced from layers.

2087. *Mercurialis*. Mercury is said to have discovered the virtues of this plant. Böhmer, indeed, in his Lexicon, says, after Ambrosius, that the name is a corruption of *multicellularis*, as being useful to women; but the Greeks call it *ἑρμαίον*, which is the same as *Mercurialis* in its mythological sense. *M. perennis* is not eaten by any quadruped, and is poisonous to men and sheep. The plant on being dried turns blue, and steeped in water it

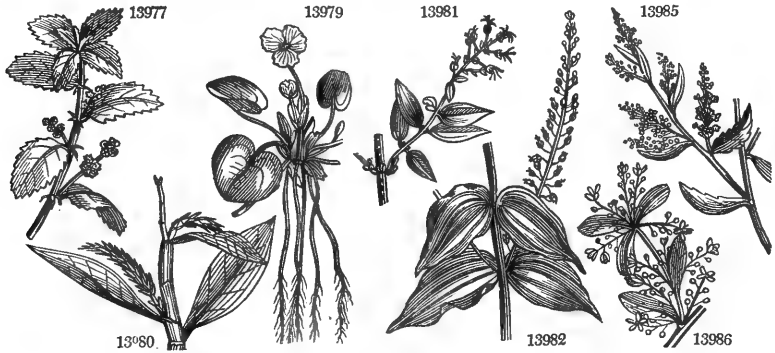
|       |                       |             |   |    |    |       |       |                        |          |       |    |                |                |
|-------|-----------------------|-------------|---|----|----|-------|-------|------------------------|----------|-------|----|----------------|----------------|
| 13977 | ellíptica <i>W.</i>   | oval-leaved | — | un | 1  | my.jl | G     | Portugal               | 1802.    | C     | co | Vent. cels. 13 |                |
| 13978 | tomentosa <i>W.</i>   | woolly      | — | un | 1  | jl.s  | G     | Spain                  | 1640.    | C     | co |                |                |
| 2089. | HYDROCHARIS <i>W.</i> | FROG-BIT.   |   |    |    |       |       | <i>Hydrocharideae.</i> | Sp. 1.   |       |    |                |                |
| 13979 | Mórsus-ránæ <i>W.</i> | common      | ≡ | △  | cu | ½     | jn.jl | W                      | Britain  | dit.  | D  | co             | Eng. bot. 808  |
| 2090. | TRIP'LARIS <i>W.</i>  | TRIPLARIS.  |   |    |    |       |       | .....                  | Sp. 1-7. |       |    |                |                |
| 13980 | americana <i>W.</i>   | American    | † | □  | tm | 40    |       | Pa.Y                   | S. Amer. | 1824. | C  | r.m            | Aublet, t. 347 |

DECANDRIA.

|        |                           |                |   |    |     |       |       |                    |          |       |     |                  |                     |
|--------|---------------------------|----------------|---|----|-----|-------|-------|--------------------|----------|-------|-----|------------------|---------------------|
| 2091.  | CORIA'RIA. <i>W.</i>      | CORIARIA.      |   |    |     |       |       | <i>Coriariæ.</i>   | Sp. 2-7. |       |     |                  |                     |
| 13981  | myrtifolia <i>W.</i>      | Myrtle-leaved  | ≡ | or | 6   | my.au | G     | S. Europe          | 1629.    | L     | co  | Dend. brit. 103  |                     |
| 13982  | sarmentosa <i>Forst.</i>  | running        | ≡ | cu | 3   | my.au | G     | N. Zeal.           | 1823.    | L     | co  | Bot. mag. 2470   |                     |
| 2092.  | KIGGELA'RIA. <i>W.</i>    | KIGGELARIA.    |   |    |     |       |       | <i>Euphorbiææ.</i> | Sp. 1-2. |       |     |                  |                     |
| 13983  | africana <i>W.</i>        | African        | † | □  | or  | 10    | my.jn | W.g                | C. G. H. | 1683. | C   | s.l              | Lam. ill. t. 821    |
| *2093. | SCHINUS. <i>W.</i>        | SCHINUS.       |   |    |     |       |       | <i>Terebintææ.</i> | Sp. 3-7. |       |     |                  |                     |
| 13984  | Mólle <i>W.</i>           | Peruvian       | ≡ | □  | or  | 12    | jl.au | G                  | Peru     | 1597. | L   | r.m              | Mill. ic. 2. t. 246 |
| 13985  | dentata <i>H. K.</i>      | tooth-leaved   | ≡ | □  | or  | 6     | my.jl | G                  | Owhyhee  | 1795. | L   | r.m              | Bot. rep. 620       |
| 13986  | dependens <i>H. K.</i>    | entre-leaved   | ≡ | □  | or  | 8     | my.jl | G                  | Chili    | 1790. | C   | p.l              | Cav. ic. 3. t. 239  |
|        | <i>Amphis polygama W.</i> |                |   |    |     |       |       |                    |          |       |     |                  |                     |
| 2094.  | GYMNOCLADUS. <i>W.</i>    | GYMNOCLADUS.   |   |    |     |       |       | <i>Leguminosæ.</i> | Sp. 1.   |       |     |                  |                     |
| 13987  | canadensis <i>W.</i>      | Canadian       | † | or | 20  | ...   | W     | Canada             | 1748.    | R     | s.l | Mich.ame.2. t.51 |                     |
| 2095.  | CA'RICA. <i>W.</i>        | PAPAW TREE.    |   |    |     |       |       | <i>Cucurbitææ?</i> | Sp. 4-6. |       |     |                  |                     |
| 13988  | Papáya <i>W.</i>          | common         | ≡ | □  | cul | 20    | jl    | G                  | India    | 1690. | S   | r.m              | Bot. reg. 459       |
| 13989  | cauliflora <i>W.</i>      | stem-flowering | ≡ | □  | or  | 20    | ...   | G                  | Caracas  | 1806. | S   | r.m              | Jac.schoe.3.t.311   |
| 13990  | spinosa <i>W.</i>         | prickly        | ≡ | □  | or  | 20    | ...   | W.g                | Guiana   | 1821. | S   | r.m              | Aublet, t. 346      |
| 13991  | microcarpa <i>W.</i>      | small-fruited  | ≡ | □  | or  | 20    | ...   | W.g                | Caracas  | 1806. | S   | r.m              | Ja.sch.3.t.309,10   |
|        | <i>β monoica Desf.</i>    | monœcious      | ≡ | □  | or  | 20    | ...   | W.g                | .....    | 1818. | S   | r.m              |                     |

DODECANDRIA.

|       |                          |                |   |   |    |   |       |                       |          |       |   |     |                    |
|-------|--------------------------|----------------|---|---|----|---|-------|-----------------------|----------|-------|---|-----|--------------------|
| 2096. | STRATIO'TES. <i>W.</i>   | WATER SOLDIER. |   |   |    |   |       | <i>Hydrocharideæ.</i> | Sp. 1.   |       |   |     |                    |
| 13992 | aloides <i>W.</i>        | Aloe-like      | ≡ | △ | el | 2 | jn.jl | W                     | England  | dit.  | D | lp  | Eng. bot. 379      |
| 2097. | HYÆNAN'CHE. <i>H. K.</i> | HYÆNA POISON.  |   |   |    |   |       | .....                 | Sp. 1.   |       |   |     |                    |
| 13993 | globosa <i>H. K.</i>     | Cape           | ≡ | □ | or | 8 | aps   | W.g                   | C. G. H. | 1783. | C | lp  | Lam.cinc.52.t.10   |
| 2098. | EU'CLEA. <i>W.</i>       | EUCLEA.        |   |   |    |   |       | .....                 | Sp. 2-5. |       |   |     |                    |
| 13994 | racemosa <i>W.</i>       | round-leaved   | ≡ | □ | or | 5 | n.d   | W                     | C. G. H. | 1772. | C | p.l | Jac.frag.3.t.1.f.5 |
| 13995 | undulata <i>W.</i>       | wave-leaved    | ≡ | □ | or | 5 | ...   | W                     | C. G. H. | 1794. | C | p.l |                    |



History, Use, Propagation, Culture,

affords a fine deep blue color, destructible, however, both by acids and alkalis. It has been observed that the male and female plants are seldom found intermixed, each sort usually growing in large patches; whence it is probable that this plant, which increases much by the root, rarely produces perfect seeds. *M. annua* was formerly accounted medicinal; its seeds taste like those of hemp.

2089. *Hydrocharis*. From *ὕδωρ*, water, and *χαερίε*, grace. This little plant is one of the prettiest ornaments of still waters. This plant increases by runners, which shoot out to a great length, and at the joints drop down long roots, which penetrate deep into the mud. The joints are furnished with pendulous buds, supported on long footstalks. The buds consist of two stipulaceous scales folded together, within which are curiously enveloped the embryo leaves of the future plant.

2090. *Triplaris*. All the parts of the fructification are in threes or *triple*. *T. americana* is a tree forty feet high, with a dense pyramidal head. The leaves are oblong, entire, smooth, a span long. The branches are often hollow, and are then filled with an innumerable quantity of little red ants, which are often showered down upon any incautious traveller who may stand under the shade of the tree, and whom they bite severely. (*Bredemeyer*.)

2091. *Coriaria*. A tanner's plant; from *corium*, a hide. *Coriaria myrtifolia* has handsome leaves, but very little beauty in the flowers. It is considerably astringent, and is used not only in tanning leather, but in dyeing black colors. It produces abundance of suckers.

2092. *Kiggelaria*. Named after Francis Kiggelar, an obscure botanist, who lived at the end of the seventeenth century. An uninteresting plant. Ripened cuttings strike in heat under a hand-glass.

2093. *Schinus*. This was the Greek name of the *Pistacia Lentiscus*. It is now applied to an American genus which resembles *Pistacia* in sensible properties. The word *molle*, applied to one species, does not allude to any softness in the plant which bears the name, but is a slight alteration of the Peruvian word *mulli*. Fragrant shrubs with beautiful foliage, easily cultivated in a cold conservatory or out of doors in a warm sheltered place.

2094. *Gymnocladus*. From *γυμνος*, naked, and *κλαδος*, a shoot, on account of the naked appearance of its strange rigid shoots during the winter. This tree or shrub has pinnate leaves nearly a foot and a half long; both leaves and stalks are armed with thorns. The stalks at first grow erect, but afterwards twine about the neighbouring trees and shrubs. It is best propagated by cuttings of the roots.

13977 Stem suffruticose brachiate, Leaves elliptical acute at each end smooth glandular serrated  
 13978 Stem suffruticose, Leaves oblong downy with serratures on each side at the end

13979 The only species

13980 Racemes terminal and axillary brachiate

### DECANDRIA.

13981 Leaves ovate-lanceolate 3-nerved stalked

13982 Procumbent diffuse, Leaves cordate-ovate acuminate entire 5-nerved stalked, Racemes nodding

13983 Leaves oblong unequally serrated

13984 Leaves pinnated, Leaflets serrated: the odd one very long, Petioles equal

13985 Leaves simple toothed

13986 Leaves simple entire and trifid, Flowers generally octandrous

13987 Leaves bipinnate very large deciduous, Flowers equal diceious

13988 Leaves palmate 7-lobed: middle lobe sinuated; segments oblong acute, Male flowers corymbose

13989 Leaves palmate 5-lobed: middle lobe sinuated; segments lanc. acum. Male fls. from excrescences of trunk

13990 Leaves digitate, Leaflets 7 oblong acuminate entire, Trunk spiny

13991 Leaves 3 or 5-lobed: middle lobe 3-lobed, Male flowers corymbose

β Lower leaves entire: cauline 3-lobed; upper 5-lobed, Flowers monœcious subracemose erect

### DODECANDRIA.

13992 Leaves linear lanceolate keeled prickly toothed

13993 Branches diffuse cinereous scarred, Leaves opposite 3 or 4-nate oblong retuse coriaceous

13994 Leaves oblong or obovate flat

13995 Leaves obovate wavy



### and Miscellaneous Particulars.

2095. *Carica*. According to Linnæus, because a native of Caria; but as the plant has no relation to that country, it would be better to adopt, with Jussieu, the specific name *Papaya* for the genus. *C. Papaya* rises with a thick soft herbaceous stem to the height of eighteen or twenty feet, naked till within two feet of the top, and having marks of the fallen leaves great part of its length. The leaves have long footstalks, are very large, and divided into many lobes. The whole plant abounds with a milky acrid juice, which is esteemed good for the ringworm. The male flowers, which are in loose clusters on long peduncles, are of a pure white, and have an agreeable odor. Sometimes these are succeeded by a small fruit about the size of a pear, which has occasioned some to suppose the male plant a distinct species. The flowers of the female have short peduncles; they are large and bell-shaped, composed of six yellow petals. When these drop off, the germ swells to a large fleshy fruit the size of a small melon. When ripe it is eaten by the inhabitants of the Caribbee Islands, but its flavor is very indifferent. The most common use of them is when they are about half grown, to soak them in salt water, to get out the milky juice, and pickle them as mangoes, for which they are considered a good substitute. The plant generally is said to have the property of intenerating animal fibre by suspension under its leaves or branches; but this quality wants confirmation. In our stoves the plants grow freely in loamy soil, and are increased by large cuttings with their leaves on in a moist heat.

2096. *Stratiotes*. From *στρατιωτης*, a camp; in English, water-soldier; both names alluding to the military appearance of the plant, with its long sword-like leaves, and flowers which may be likened to plumes of white feathers. An aquatic plant, remaining the greatest part of the year immersed in water, but rising to flower. It increases with such rapidity as to become a troublesome weed in artificial pieces of water in which it is planted.

2097. *Hyænanche*. From *hyæna*, and *αγχνη*, pain; because the fruit is used at the Cape of Good Hope to poison hyænas. A small tree, six or seven feet high, also called *Toxicodendron capense*. The flowers grow in axillary branched yellowish panicles, and are succeeded by smooth nuts, which, being pounded, are used to poison the carcasses of lambs, by which the hyænas are infallibly destroyed.

2098. *Euclea*. From *ευκλεια*, glory or beauty; in allusion to the permanent beauty of the neat evergreen foliage of the plants. Shrubs or small trees, natives of the Cape of Good Hope. Of one species the berries are brought to the market of Cape Town for sale, and is the only kind of native fruit, except that of *Cissus capensis*, which is there eaten. Ripened cuttings root in sand under a glass.

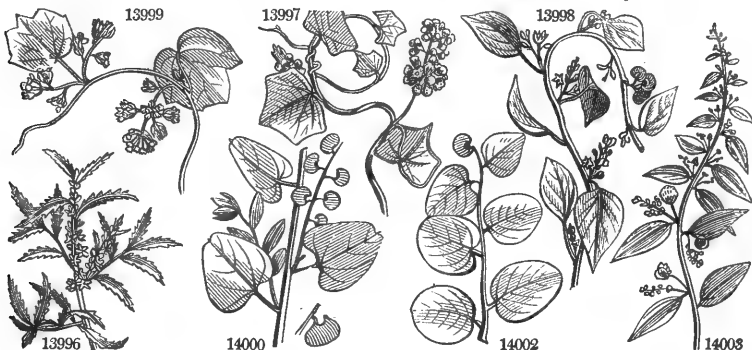
|                               |  |       |    |    |                    |                 |           |             |                              |                   |
|-------------------------------|--|-------|----|----|--------------------|-----------------|-----------|-------------|------------------------------|-------------------|
| 9099. DATISCA. <i>W.</i>      | DATISCA.                               |       |    |    | <i>Rosedaceae.</i> | <i>Sp.</i> 1—2. |           |             |                              |                   |
| 13996 cannabina <i>W.</i>     | Hemp-like                              | ♂     | △  | or | 4                  | jl.s            | Y         | Candia      | 1640. D co Alp. exot. t. 296 |                   |
| 9100. MENISPERMUM. <i>D.</i>  | MOON SEED.                             |       |    |    |                    |                 |           |             |                              |                   |
| 13997 canadense <i>W.</i>     | Canadian                               | ♂     | or | 10 | jn.jl              | G.Y             | N. Amer.  | 1691. R s.p | Bot. mag. 1910               |                   |
| 13998 virginicum <i>W.</i>    | Virginian                              | ♂     | or | 20 | jn.jl              | G.Y             | N. Amer.  | 1732. R s.p | Dil.elt. t.178.f.219         |                   |
| 13999 smilactinum <i>Dec.</i> | Smilac-leaved                          | ♂     | or | 10 | ...                | G.Y             | Carolina  | 1776. R l.p | Jac. ic. 3. t. 629           |                   |
|                               | <i>Cissampelos smilacina</i> <i>W.</i> |       |    |    |                    |                 |           |             |                              |                   |
| 9101. COCCULUS. <i>Dec.</i>   | COCCULUS.                              |       |    |    |                    |                 |           |             |                              |                   |
| 14000 Plukenetii <i>Dec.</i>  | official                               | ♂     | or | 10 | ...                | G.Y             | E. Indies | 1790. R l.p | Pl.man. t.345.f.2            |                   |
| 14001 carolinus <i>W.</i>     | Carolina                               | ♂     | or | 4  | jn.jl              | G.Y             | N. Amer.  | 1810. R s.p |                              |                   |
|                               | <i>Wendlandia populifolia</i>          |       |    |    |                    |                 |           |             |                              |                   |
| 14002 orbiculatus <i>Dec.</i> | round-leaved                           | ♂     | or | 6  | ...                | G.Y             | E. Indies | 1790. R l.p | Pluk.al. t.384.f.6           |                   |
| 14003 villosus <i>Dec.</i>    | villous                                | ♂     | or | 6  | ...                | G.Y             | E. Indies | 1800. R l.p | Plu.am. t.384.f.3            |                   |
|                               | <i>β hirsutus</i> <i>Dec.</i>          | hairy | ♂  | or | 6                  | ...             | G.Y       | E. Indies   | 1800. R l.p                  | Plu.am. t.384.f.7 |

ICOSANDRIA.

|                              |                 |   |    |    |       |        |           |             |                   |
|------------------------------|-----------------|---|----|----|-------|--------|-----------|-------------|-------------------|
| 2102. FLACOURTIA. <i>W.</i>  | FLACOURTIA.     |   |    |    |       |        |           |             |                   |
| 14004 Ramontchi <i>W.</i>    | shining-leaved  | ♂ | fr | 12 | jn.jl | W      | Madagasc. | 1775. C p.1 | L'He.stir.59.t.30 |
| 14005 flavescens <i>W.</i>   | yellow-flower'd | ♂ | fr | 15 | ...   | W      | Guinea    | 1780. C p.1 |                   |
| 14006 cataphracta <i>W.</i>  | many-spined     | ♂ | fr | 4  | ...   | W      | E. Indies | 1804. C p.1 |                   |
| 14007 saspida <i>W.</i>      | esulent         | ♂ | fr | 10 | ...   | W      | E. Indies | 1800. C p.1 | Roxb.cor.1. t.69  |
| 2103. PEUMUS. <i>Pers.</i>   | PEUMUS.         |   |    |    |       |        |           |             |                   |
| 14008 fragrans <i>Pers.</i>  | fragrant        | ♂ | ft | 30 | ..... | Sp. 1. | Chili     | 1824. C p.1 | Feuillee, 3. t. 6 |
| 2104. GELONIUM. <i>Rozb.</i> | GELONIUM.       |   |    |    |       |        |           |             |                   |
| 14009 bifarium <i>Rozb.</i>  | oval-leaved     | ♂ | un | 6  | jn.au | Ap     | E. Indies | 1793. C p.1 |                   |
| 2105. ROTTLERA. <i>Rozb.</i> | ROTTLERA.       |   |    |    |       |        |           |             |                   |
| 14010 tinctoria <i>Rozb.</i> | dyer's          | ♂ | un | 15 | ...   | Ap     | E. Indies | 1810. C p.1 | Roxb.cor.2.t.168  |

POLYANDRIA.

|                             |                |   |    |    |       |     |          |             |                      |
|-----------------------------|----------------|---|----|----|-------|-----|----------|-------------|----------------------|
| 2106. CLIFFORTIA. <i>W.</i> | CLIFFORTIA.    |   |    |    |       |     |          |             |                      |
| 14011 cuneata <i>W.</i>     | wedge-leaved   | ♂ | or | 3  | ap    | G.w | C. G. H. | 1787. C p.1 |                      |
| 14012 flexifolia <i>W.</i>  | flex-leaved    | ♂ | or | 3  | mys   | G   | C. G. H. | 1714. C p.1 | Dill. elt. t.31.f.35 |
| 14013 tridentata <i>W.</i>  | three-toothed  | ♂ | or | 3  | mys   | G.w | C. G. H. | 1800. C p.1 |                      |
| 14014 ruscifolia <i>W.</i>  | Ruscus-leaved  | ♂ | or | 3  | jn.jl | G.w | C. G. H. | 1752. C p.1 | L'hort. cliff. t.31  |
| 14015 cinerea <i>W.</i>     | cinereous      | ♂ | or | 4  | jn.jl | G.w | C. G. H. | 1800. C p.1 |                      |
| 14016 pulchella <i>W.</i>   | beautiful      | ♂ | or | 14 | ap.my | G.w | C. G. H. | 1795. C p.1 |                      |
| 14017 crenata <i>W.</i>     | notched-leaved | ♂ | or | 3  | jl.au | G.w | C. G. H. | 1791. C p.1 |                      |
| 14018 ericifolia <i>W.</i>  | Heath-leaved   | ♂ | or | 3  | jl.s  | G.w | C. G. H. | 1799. C p.1 |                      |



History, Use, Propagation, Culture,

2099. *Datisca*. A word the meaning of which is unknown. The plant is of no beauty, and of the easiest culture.

2100. *Menispermum*. From *menis*, the moon, and *perma*, seed; on account of the crescent-like form of the fruit. All the species are of the easiest propagation and culture.

The *M. palmatum* produces the famous Colombo root, which is so remarkable for the intenseness of its bitter taste, and valuable on this account in dyspepsia, diarrhoea, dysentery, and as a wash for putrid sores.

2101. *Coccus*. This word is derived from *coccus*, the name of the well-known dyers' insect, and has been applied to this genus on account of the resemblance which has been found to exist between that insect and the scarlet berries of the plant. A genus with the habit of *Menispermum*.

*Coccus Plukenetii* produces berries and bunches like grapes, but smaller; first white, then red, and finally blackish purple. In the East Indies they are made up into a paste, and used to intoxicate fish, birds, and different sorts of vermin.

2102. *Flacourtia*. Named in honor of Etienne de Flacourt, a director of the French East India Company, and the commander of an expedition to Madagascar in 1648; of which he afterwards wrote an account, containing considerable details upon the botany of the country. L'Heritier dedicated to him the first species of the genus, which was found by him in Madagascar, where it is called *Ramontchi*. It is a thorny shrub or tree, with leaves and fruit resembling those of the plum. The fruit is green when young, of a beautiful red when ripe, and finally of a dark violet color: the skin is very thin, and the flesh transparent red, of the same consistence with our common plums: in the middle are a dozen or fourteen small kernels, the size of those in the apple, and nearly of the same shape; they are bitterish like our apricot kernels, and covered with a tender shell. The natives eat the fruit; it is sweet, but leaves a slight sharpness in the mouth. An island on the coast of Madagascar is covered with these trees; and because they resemble the European plum-tree, the sailors have named the island *Ile aux Prunes*, or Plum-tree Island. All the species grow freely in a mixture of loam and peat, and cuttings root in sand, plunged and covered.

2103. *Peumus*. The Chilian name of this plant is *Peumo*. It is the *Ruizia* of the Flora Peruviana, and forms an evergreen tree among the woods upon the sandy shores of Chili; it is valuable for its wood, which is very fragrant.

13996 Stem smooth

13997 Leaves peltate cordate roundish angular

13998 Leaves peltate cordate lobed

13999 Leaves peltate smoothish cordate-roundish bluntly angular glaucous beneath, Racemes simple

14000 Leaves ovate subcordate at base bluntly truncate at end with a little point, Fem. racemes axillary simple

14001 Leaves cordate villous beneath

14002 Leaves orbicular subcordate obtuse 5-7-nerved mucronulate ash-colored beneath, Peduncles very large

14003 Leaves ovate or lanceolate 3-5-nerved: younger villous; old ones downy, Branchlets vill. Pedicels few. fl.

### ICOSANDRIA.

14004 Leaves roundish ovate acute crenate

14005 Leaves oblong obtuse serrated narrowed at base

14006 Leaves ovate oblong acuminate serrated

14007 Leaves elliptical bluntish repand serrated obtuse at base

14008 Leaves ovate oblong with pellucid dots, Racemes short pellucid

14009 Leaves elliptical sharp-pointed

14010 Leaves alternate oblong elliptical acute at each end

### POLYANDRIA.

14011 Leaves alternate cuneiform truncate 5-toothed at end streaked with veins

14012 Leaves altern. roundish ellipt. amplexicaul. from the middle to end mucronate toothed streaked with veins

14013 Leaves alternate oblong cuneiform entire and 3-toothed nerved downy beneath

14014 Leaves alternate lanceolate smooth nerved terminated by a spine: floral 3-toothed, Branches downy

14015 Leaves connate ovate 3-cornered hoary

14016 Leaves opposite orbicular entire appressed many-nerved

14017 Leaves opposite or ternate orbicular appressed toothletted 7-nerved

14018 Leaves fasciated rounded furrowed smooth



and Miscellaneous Particulars.

2104. *Telonium*. So named by Roxburgh; but it is not known with what meaning. East Indian trees, with alternate leaves, the tubular stipular of a *Ficus*, and axillary flowers.

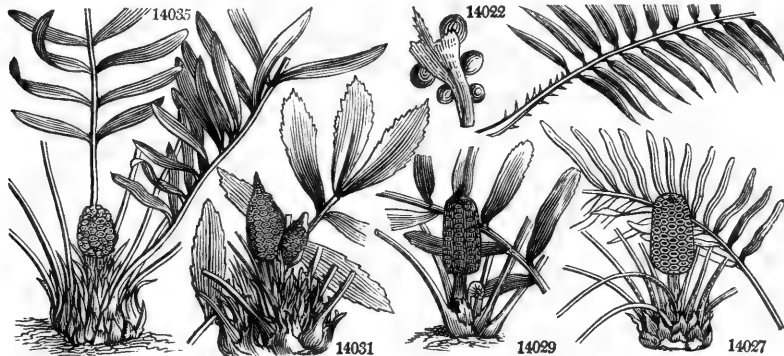
2105. *Rottlera*. Named by Roxburgh, in honor of the Rev. Dr. Rottler, an East Indian botanist of reputation, who resided many years at Tranquebar in the character of a Danish missionary. *Rottlera tinctoria* is a native of the inland mountainous parts of the Circars of Hindostan, flowering in the cold season. Dr. Roxburgh never found it any where else. This is a middle-sized, erect, branching tree. Leaves alternate, stalked, elliptic, oblong, acute, entire, from four to eight inches in length, three-ribbed, and veiny; nearly smooth above; downy beneath, furnished at their base with two brown glands. Footstalks round, downy, from one to three inches long. Flowers small, in clusters about the tops of the branches, axillary, and terminal; the latter branched. Capsules the size of a small cherry, clothed with abundance of deep red granular powder, easily rubbed off. This powder is a valuable article of commerce, being much esteemed, especially among the Moors, for dyeing silk of a deep, bright, very beautiful and durable, full orange or flower color. When the capsules are ripe, in February or March, they are gathered, and the powder carefully brushed off. It is preserved without any further process, and is sold to the merchants trading to Hyderabad and other inland parts. This substance is but little acted upon by water, except with the admixture of alkaline salts, when it gives out a very deep blood-red color. To spirits it communicates a rich, deep, reddish flame color; but in neither instance does it dissolve, the grains remaining entire, like sand. The inhabitants know this powder by the name of *Wassunta-gunda*, and use it in the following manner:—To four parts of *Wassunta-gunda* are added one of alum, and two of salt of soda, native barilla. These are rubbed well together, with a portion of expressed oil of *Sesamum*, so small as hardly to be perceived. When well mixed, the whole is put into boiling water, in quantity proportioned to the silk which is to be dyed, and kept boiling smartly, more or less time, according to the shade required. The silk is turned frequently, to render the color uniform.

2106. *Cliffortia*. Named in honor of George Cliffort, a Dutch gentleman; a great lover of plants, and one of the earliest of Linnaeus's patrons. He had a superb garden at Hartcamp, of which Linnaeus published the catalogue in one volume folio, in 1737. Shrubs of little beauty, except *C. pulchella*, which is exceedingly pretty; they are easily cultivated in a good greenhouse.

|                                |               |   |    |     |       |     |                 |                 |    |     |                     |
|--------------------------------|---------------|---|----|-----|-------|-----|-----------------|-----------------|----|-----|---------------------|
| 14019 obcordata <i>W.</i>      | heart-leaved  | ☐ | or | 3   | jn.au | G.w | C. G. H.        | 1790.           | C  | p1  |                     |
| 14020 trifoliata <i>W.</i>     | three-leaved  | ☐ | or | 10  | apjl  | G.w | C. G. H.        | 1782.           | C  | p1  | Pluk.al. t.319.f.4  |
| 14021 sarmentosa <i>W.</i>     | twiggly       | ☐ | or | 4   | jn.au | W   | C. G. H.        | 1793.           | C  | p1  |                     |
| 2107. <i>CYCAS. W.</i>         |               |   |    |     |       |     | <i>Cycadeæ.</i> | <i>Sp. 2-4.</i> |    |     |                     |
| 14022 circinalis <i>W.</i>     | broad-leaved  | ☐ | cu | 3   | ...   | Ap  | E. Indies       | 1700.           | Sk | r.m | Rh.mal.3.t.13.21    |
| 14023 revoluta <i>W.</i>       | narrow-leaved | ☐ | cu | 3   | jl.au | Ap  | China           | 1737.           | Sk | r.m | Lin. trans.6. t.29  |
| 2108. <i>ZAMIA. W.</i>         |               |   |    |     |       |     | <i>Cycadeæ.</i> | <i>Sp. 15.</i>  |    |     |                     |
| 14024 pungens <i>W.</i>        | needle        | ☐ | cu | ... | ...   | Ap  | C. G. H.        | 1775.           | Sk | l.p | Till. pis.129. t.45 |
| 14025 ecadifolia <i>W.</i>     | Cycas-leaved  | ☐ | cu | ... | ...   | Ap  | C. G. H.        | 1775.           | Sk | l.p | Ja.frag.1.t.25,26   |
| 14026 angustifolia <i>Jac.</i> | narrow-leaved | ☐ | cu | ... | jl.au | Ap  | Bahama I.       | ...             | Sk | p1  | Jac. ic. 3. t. 636  |
| 14027 media <i>Jac.</i>        | intermediate  | ☐ | cu | ... | jl.au | Ap  | W. Indies       | ...             | Sk | p1  | Bot. mag. 1838      |
| 14028 debilis <i>W.</i>        | long-leaved   | ☐ | cu | ... | jl.au | Ap  | W. Indies       | 1777.           | Sk | p1  | Bot. cab. 155       |
| 14029 integrifolia <i>W.</i>   | dwarf         | ☐ | cu | ... | jl.au | Ap  | W. Indies       | 1768.           | Sk | p1  | Bot. mag. 1851      |
| 14030 pygmaea <i>B. M.</i>     | least         | ☐ | cu | ... | my    | Ap  | W. Indies       | ...             | Sk | p1  | Bot. mag. 1741      |
| 14031 furfuracea <i>W.</i>     | broad-leaved  | ☐ | cu | 3   | jl.au | Ap  | W. Indies       | 1691.           | Sk | p1  | Bot. mag. 1939      |
| 14032 spiralis <i>W.</i>       | spiral        | ☐ | cu | 3   | ...   | Ap  | N. S. W.        | 1796.           | Sk | p1  |                     |
| 14033 hirtida <i>W.</i>        | gray          | ☐ | cu | 3   | ...   | Ap  | C. G. H.        | 1800.           | Sk | p1  | Jac.fr.27. t.27,28  |
| 14034 Cycædis <i>W.</i>        | Cycas-like    | ☐ | cu | 3   | ...   | Ap  | C. G. H.        | 1775.           | Sk | p1  | Th.act.ups.2. t.5   |
| 14035 pumila <i>B. M.</i>      | pygmy         | ☐ | cu | 1½  | ...   | Ap  | C. G. H.        | 1812.           | Sk | p1  | Bot. mag. 2006      |
| 14036 lanuginosa <i>W.</i>     | woolly        | ☐ | cu | 3   | ...   | Ap  | C. G. H.        | 1812.           | Sk | p1  | Jac.frag. t.27,28   |
| 14037 longifolia <i>W.</i>     | long-leaved   | ☐ | cu | 7   | ...   | Ap  | C. G. H.        | 1818.           | Sk | p1  | Jac.fragm. t.29     |
| 14038 tridentata <i>W.</i>     | three-toothed | ☐ | cu | 2   | ...   | Ap  | C. G. H.        | 1814.           | Sk | p1  |                     |

## MONADELPHIA.

|                                  |                             |   |    |     |       |     |                    |                 |    |    |                    |
|----------------------------------|-----------------------------|---|----|-----|-------|-----|--------------------|-----------------|----|----|--------------------|
| 2109. <i>LATA'NIA. J.</i>        | BOURBON PALM.               |   |    |     |       |     | <i>Palmae.</i>     | <i>Sp. 2.</i>   |    |    |                    |
| 14039 rubra <i>W.</i>            | red                         | ☐ | or | 15  | ...   | G.w | Mauritius          | 1788.           | S  | co | Jac.frag. 13. t. 8 |
| 14040 borbonica <i>W.</i>        | common                      | ☐ | or | 20  | ...   | G.w | Bourbon            | 1816.           | S  | co | Jac.frag. t.11.f.1 |
| 2110. <i>LEPTOCARPUS. R. Br.</i> | <i>LEPTOCARPUS.</i>         |   |    |     |       |     | <i>Restiaceæ.</i>  | <i>Sp. 1-7.</i> |    |    |                    |
| 14041 tenax <i>R. Br.</i>        | tough                       | ☐ | un | 2   | ...   | Ap  | N. Hoil.           | 1823.           | D  | co | Lab.no.holt.t.229  |
|                                  | <i>Schœnodum tenax</i> Lab. |   |    |     |       |     |                    |                 |    |    |                    |
| 2111. <i>RUSCUS. W.</i>          | BUTCHER'S BROOM.            |   |    |     |       |     | <i>Asphodeleæ.</i> | <i>Sp. 5-7.</i> |    |    |                    |
| 14042 aculeatus <i>W.</i>        | prickly                     | ☐ | or | 1   | jn.d  | G   | England            | thick.          | Sk | co | Eng. bot. 560      |
|                                  | <i>β lãrus</i> L. T.        |   |    |     |       |     | Portugal           | ...             | Sk | co |                    |
| 14043 Hypophyllum <i>W.</i>      | broad-leaved                | ☐ | or | 1   | my.jn | G   | Italy              | 1640.           | Sk | co | Bot. mag. 2049     |
| 14044 Hypoglossum <i>W.</i>      | double-leaved               | ☐ | or | 1   | ap.my | G   | Italy              | 1586.           | Sk | co | Sch.han.3. t.340   |
| 14045 andrógynus <i>W.</i>       | climbing                    | ☐ | or | 3   | ap.my | G.w | Canaries           | 1713.           | R  | p1 | Bot. mag. 1892     |
| 14046 racemosus <i>W.</i>        | Alexandrian Laurel          | ☐ | or | 4   | jn    | G.v | Portugal           | 1713.           | Sk | co | Dend. brit. 145    |
| †*2112. <i>ARAUCA'RIA. J.</i>    | <i>ARAUCARIA.</i>           |   |    |     |       |     | <i>Conifereæ.</i>  | <i>Sp. 2-3.</i> |    |    |                    |
| 14047 imbricata <i>W.</i>        | Sir J. Banks's              | ☐ | tm | 150 | ...   | Ap  | Chili              | 1796.           | C  | p1 | Lam. ill. t. 328   |
| §14048 excelsa <i>H. K.</i>      | Norfolk Island              | ☐ | tm | 100 | ...   | Ap  | Norfolk I.         | 1793.           | C  | p1 | Lam.pin.t.39,40    |



His. ry, Use, Propagation, Culture.

2107. *Cycas.* A name employed by the ancients to designate a little palm which grew in Ethiopia. The modern plant is analogous to it. This genus, which seems intermediate between palms and ferns, produces the nutritive granulated powdered called *sago*, from *saga*, the name of a sort of bread made from the pith of the trunk in Tongquin. It is cultivated in China and Japan, and the fruit is eaten in the latter country. The tree, however, is chiefly valued for the pith of its trunk, which is full of white pith like that of the elder. The tree being cut down, this pith is beaten with a wooden pestle in a great mortar or trough; it is then strained, and the sediment, without further preparation, constitutes *sago*. The native Indians live wholly upon it for three or four months in the year. That which is transported is dried and granulated. In our stores these plants require the culture common to all the palm tribe; a rich loamy soil, plenty of pot-ron, and a strong moist heat.

2108. *Zamia.* From *ζαμία*, loss or damage. Pliny applied the name to the pine-cones of the fir, which, when suffered to decay upon the tree, injured the succeeding crop. The modern genus bears heads of flowers very like pine cones.

2109. *Latania.* The name of this plant in the Isle of Bourbon is *Latanier*. *L. borbonica* is a middle-sized palm with plaited fan-like fronds, which from the elongation of the axis and terminal lobe, seems as if pinnate. When young their middle nerve is downy; it afterwards becomes naked. The stalks of the leaves are spiny. The other species, *L. rubra*, is a much smaller plant, and is remarkable for its red livid leaves.

2110. *Leptocarpus.* From *λεπτος*, smooth, and *καρπος*, fruit; with reference to the polished surface of the seeds. Rushy plants allied to *Restio*, and all natives of New Holland and the South Seas.

2111. *Ruscus.* Anciently *bruscus*, and derived, it is said, from *βουξ*, box, and *κελεμ*, holly, in Celtic; box-holly. The French at this day call one species *buis-épineux* and *petit-houx*. *R. aculeatus* has thick white twining roots, which strike deep into the ground, and send out fibres like those of asparagus. The stem is suffruticose, tough, stiff, and dark green; having many stiff sharp prickly pointed leaves. From the middle of the leaf above, comes out a single flower, on a very short pedicel: when it first appears it is the size and shape of a small pin's head; when expanded, composed of three outer calyxed leaves, and three inner ones con-

- 14019 Leaves ternate veinless smooth roundish elliptical : the middle one smaller orbiculate  
 14020 Leaves ternate fasciated veiny hairy : lateral lanceolate entire ; middle one obovate 3-toothed  
 14021 Leaves ternate linear villous

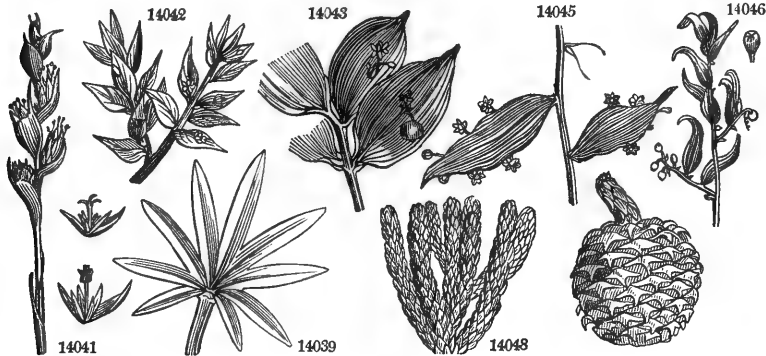
- 14022 Fronds pinnated, Leaflets lanceolate linear acute 1-nerved flat  
 14023 Fronds pinnated, Leaflets linear mucronate 1-nerved revolute at edge

- [unarmed  
 14024 Fronds pinnat. Leaf. subul. spread. straight rigid mucron. : outer margin of base rounded, Stalk roundish  
 14025 Fronds pinnated, Leaflets linear mucronate distichous : lower opposite, Stalk  $\frac{1}{2}$ -round channelled downy  
 14026 Fronds pinnated, Leaflets linear entire with a callous end twice emarginate obtuse, Stalk  $\frac{1}{2}$ -round  
 14027 Fronds pinnated, Leaflets linear lanc. blunt obsoletely serrulate at end and flat, Stalk 3-cornered smooth  
 14028 Fronds pinnated, Leaflets lanc. acute pointless serrate at end, Stalk 3-cornered smooth  
 14029 Fronds pinnat. Leaf. lanc. rounded blunt narrow. at base serrul. on outside at end, Stalk smooth nearly sq.  
 14030 Very smooth, Leaflets of 16 pairs ovate oblique imbr. serr. at end, Stem round, Ament. ovate nodding  
 14031 Fronds pinnated, Leaf. lanc. ac. pointless serrat. from middle to end chaflly ben. Stalk roundish spiny below  
 14032 Fronds pinnated, Leaflets in 30-40 pairs falciform outwards with 3 or 4 prickly teeth at the end [smooth  
 14033 Fronds pinnat. Leaf. frost. glauc. lanc. ac. point. with spiny teeth in midd. on outside, Stalk sq. and trunk  
 14034 Leaflets oblique linear-lanceolate subulate hairy curved with 1 or 3 spines at the end and none on stalk  
 14035 Leaflets linear entire obtuse of 20 pairs, Stem round unarmed scurly at base [woolly  
 14036 Leaf. oblique lanc. acute mucron. in midd. on outside with 2 spiny teeth smooth, Stalk sq. smooth, Trunk  
 14037 Leaflets oblique lanceolate distichous acute pointless entire, Stalk smooth bluntly 4-cornered  
 14038 Leaflets oblique linear somewhat sulcate 3-toothed at end smooth, Stalk  $\frac{1}{2}$  round channelled

MONADELPHIA.

- 14039 Fronds plaited flabelliform, Leaflets spiny serrulate, Stalk unarmed  
 14040 Fronds plaited flabelliform elongated in the middle, Leaflets smooth at edge, Stalk spiny  
 14041 Spike divided, Catkins oblong somewhat squarrose, Scales cartilaginous acuminate, Culm simple  
 14042 Leaves mucronate pungent flower-bearing on their upper side and naked  
      $\beta$  Leaves elliptical acute at each end, Branches weak  
 14043 Leaves bearing flowers on their underside naked  
 14044 Leaves bearing flowers on their upper side under a leaflet  
 14045 Leaves bearing flowers at their edge  
 14046 Raceme terminal hermaphrodite

- 14047 Leaves about 8 imbricated ovate-lanceolate mucronate perennial  
 14048 Old leaves closely imbricated inflexed pointless



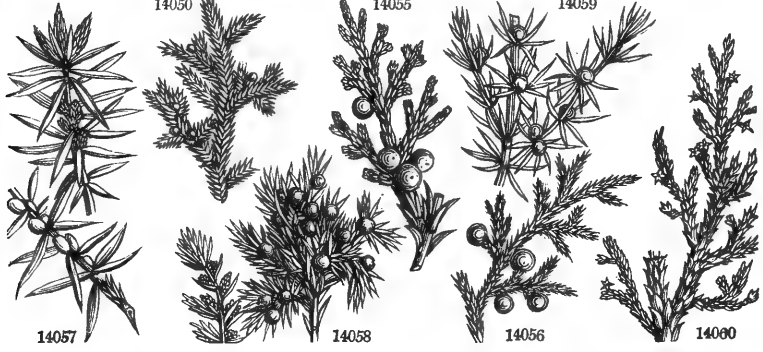
and Miscellaneous Particulars.

sidered as petals. Mr. Woodward remarks, that the flower does not properly grow out of the leaf, but on a pedicel from the bosom of the leaf, which is immersed beneath the outer coat, whence it may with ease be dissected. The female flowers are succeeded by red berries, almost as large as some cherries ; they are sweet tasted, with two large orange-colored seeds in each. The green shoots were formerly used by butchers for sweeping their blocks, whence the common English name of the plant. It is still made into besoms in Italy. The tender growths, soon after they have sprung up from the root in spring, have been gathered and eaten by the poor like those of asparagus ; and the branches, with the ripe fruit on them, were formerly stuck up in sand, with the stalks of Peony and Iris, displaying their capsules of ripe seeds ; the three together made a sort of winter nosegay for rooms. In landscape gardening the plant is valuable as an evergreen, which will grow under the shade and drip of other trees. It harmonizes well with Daphne Laureola, and Ulex nana, and Vaccinium vitis idæa. R. hypophyllum has the flowers on the under side of the leaves, which are succeeded by small red berries about the size of those of Juniper. R. racemosus is an elegant evergreen shrub, by some supposed to be the plant with which the ancients crowned their victors ; but the more general opinion is in favor of Laurus nobilis. All the species are readily increased by suckers from the root.

2112. *Araucaria*. The inhabitants of Chili call this noble ornament of their forests *araucanos*. *A. excelsa*, the Norfolk Island pine, is a most superb plant, growing to an enormous size, and never losing the bright imperishable foliage with which it is covered, as with a coat of mail. This genus, Sweet observes, " may be termed the handsomest genus of plants with which we are acquainted. *A. imbricata*, in particular, is certainly one of the grandest plants known. It will thrive well in the open air, with the protection of a mat or two in very severe weather, and when got pretty large, will, no doubt, be perfectly hardy. *A. excelsa*, or Norfolk Island pine, is also a beautiful tree, but will not do without the protection of a greenhouse. An equal mixture of sandy loam and peat will suit them very well ; and cuttings may be rooted, though with difficulty, taken off at a joint in ripened wood, and planted in a pot of sand, which must be put under a hand-glass, in the propagating house, but not plunged in heat." (*Bot. Cult.* p. 136.)



|                              |                      |      |                       |       |                       |                       |
|------------------------------|----------------------|------|-----------------------|-------|-----------------------|-----------------------|
| 2113. JUNIPERUS. W. JUNIPER. |                      |      | Coniferae. Sp. 14—17. |       |                       |                       |
| 14049 thurifera W.           | Spanish              | ♂ or | 10 my.jn              | Ap    | S. Europe             | 1752. L s.l           |
| 14050 bermudiána W.          | Bermudas Cedar       | ♂ Δ  | tm 20                 | my.jn | Ap                    | Bermudas 1683. S p.l  |
| 14051 chinénsis W.           | Chinese              | ♂ Δ  | or 10                 | my.jn | Ap                    | China 1804. L p.l     |
| 14052 excélas W.             | tall                 | ♂    | tm 20                 | ...   | Ap                    | Siberia 1806. L s.l   |
| 14053 Sabína W.              | Common Savin         | ♂    | or 4                  | my.jn | Ap                    | S. Europe 1548. L s.l |
| β tamarisciifolia            | Tamarisk-Ivd. do.    | ♂    | or 4                  | my.jn | Ap                    | S. Europe 1562. L s.l |
| 14054 prostráta P. S.        | prostrate            | ♂    | or 3                  | my.jn | Ap                    | N. Amer. ... S s.l    |
| 14055 daérica Pall.          | Daurian              | ♂    | or 8                  | jn.au | Ap                    | Dauria 1791. L s.l    |
| 14056 virginiana W.          | Red Cedar            | ♂    | tm 30                 | my.jn | Ap                    | N. Amer. 1664. S s.p  |
| 14057 commúnis W.            | common               | ♂    | tm 15                 | my.jn | Ap                    | Britain heaths. S s.l |
| β suécica                    | Swedish              | ♂    | or 15                 | my.jn | Ap                    | N. Europe ... L s.l   |
| 14058 nána W.                | mountain             | ♂    | or 2                  | my.jn | Ap                    | Siberia ... S l.p     |
| 14059 Oxycédrus W.           | brown-berried        | ♂    | or 15                 | my.jn | Ap                    | Spain 1739. C s.l     |
| 14060 phenicea W.            | Phœnician            | ♂    | or 15                 | my.jn | Ap                    | S. Europe 1683. C s.l |
| 14061 lycia W.               | Lycian               | ♂    | or 10                 | my.jn | Ap                    | S. Europe 1693. L s.l |
| 14062 barbádensis W.         | Barbadoes Cedar      | ♂ □  | or 20                 | ...   | Ap                    | Florida 1811. L s.l   |
| †2114. TAXUS. W.             | YEW-TREE.            |      |                       |       | Coniferae. Sp. 1.     |                       |
| 14063 baccáta W.             | common               | ♂    | or 20                 | f.ap  | Ap                    | Britain m.w.o S co    |
| β hibérnica Hooker           | Irish                | ♂    | or 12                 | ...   | Ap                    | Ireland C p.l         |
| 2115. EPHE'DRA. W.           | EPHE'DRA.            |      |                       |       | Coniferae. Sp. 3—5.   |                       |
| 14064 distáchya W.           | great                | ♂    | cu 2                  | jn.jl | Ap                    | France 1570. L co     |
| 14065 monostáchya W.         | small                | ♂    | cu 2                  | s.n   | Ap                    | Siberia 1772. L co    |
| 14066 altíssima Desf.        | lofty                | ♂ □  | cu 24                 | ...   | Ap                    | Barbary 1825. L co    |
| 2116. CISSAM'PELOS. Dec.     | PAIREIRA BRAVA ROOT. |      |                       |       | Menispermæ. Sp. 3—28. |                       |
| 14067 Paréira Dec.           | genuine              | ♂ □  | or 6                  | jl.au | G                     | S. Amer. 1732. C s.p  |



History, Use, Propagation, Culture,

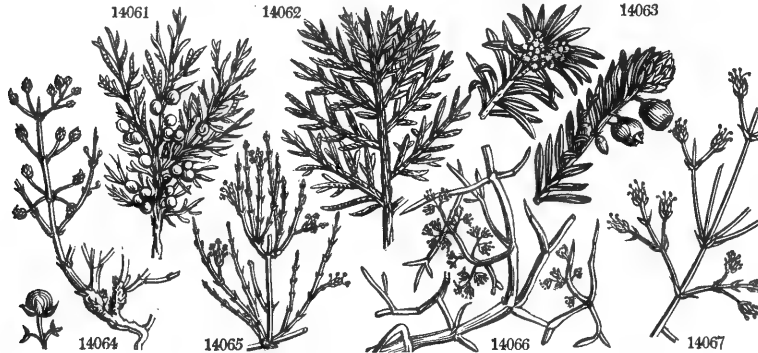
2113. *Juniperus*. From the Celtic *jenepirus*, which signifies rough, or rude. *Sandarach*, the name of a resin produced by the Juniper, is, according to Golius (p. 1225.), an alteration of the Arabic word *sandarôda*. The species, with only one or two exceptions, are close conical-growing evergreen shrubs or trees. The timber of *J. Barbádensis* and Bermudiana is imported from the West Indies under the name of Bermudas Cedar. *J. Virginiana* grows in the West Indies, the North American continent, and in Japan. It is one of the highest timber trees in Jamaica, affording very large boards of a reddish brown color, close and firm contecture, shining, very odoriferous, and bitter to the taste. It is imported into this and various other countries for the purposes of the cabinet-maker, as it is offensive to most insects. *J. communis* is common in all the northern parts of Europe, in fertile or barren soils, on hills or in vallies, in open sandy plains, or in moist and close woods. On the sides of hills its trunk grows long, but on the tops of rocky mountains and on bogs it is a tufted shrub. In England it is found chiefly on open downs in a chalky or sandy soil. In Scotland it is found in granite, trap and schistous hills and mountains; but not in the highest summits of the latter. In the south of Europe it is only found in elevated situations; it abounds in the Alps of Switzerland, but is not very common in the Appennines. In our shrubberies it forms a respectable looking conical bush, grouping and combining very well with cypresses, American cedars, and various species of the pine and fir tribe. It is easily transplanted, and bears cropping. Grass will not grow beneath it, but the *Avena Pratensis* is said to destroy it. The wood is hard and durable; the bark may be made into ropes; and ardent spirits, impregnated with the essential oil of these berries, forms the true Juniper water or gin. Various insects feed on this shrub; and it is eaten by horses, sheep, and goats, when they can get nothing better. A gum oozes spontaneously from the trunk of old plants, which is *Sandarach*, and in its powdered form is known under the name of pounce. Juniper berries require to remain two years on the tree before they are fully ripe. The greater quantity of those which are used in Britain, are brought from Germany, Holland, and Italy. They have a peculiar aromatic odor, and a sweetish, pungent, bitterish taste when chewed. In distillation with water, they yield a volatile terebinthinate oil of a greenish color, on which their virtues depend. The flavor and diuretic properties of hollands depend on this oil; it is also supposed to be used for flavoring English gin, but for this purpose oil of turpentine is used. Medicinally, Juniper berries are diuretic and cordial. They have been long known as a remedy in hydropic affections; but they cannot be depended on alone, although they form an excellent adjunct to foxglove and squill. The tops yield the same essential oil as the berries, and may therefore be substituted for them. (*Thom. Lond. Disp.*) *J. suecica* by some considered only a variety. *J. sabina* seldom produces flowers or seeds in our gardens. Professor Pallas says, that in the Chersonesus Taurica, where it is very common, the savin is often found a foot and a half diameter; that it grows upright there, like a cypress, whereas by the Tanais it is procumbent, the branches extending on the sand several fathoms; that the wood very much resembles that of *J. lycia*, but has a more cadaverous smell, and the leaves are more fetid. The leaves and tops of common savin have a strong, heavy, disagreeable flavor, and a bitter hot taste, with a considerable degree of acrimony. These qualities depend on an essential oil, which is obtained in considerable quantity by distillation with water. Both water and alcohol extract its active principles; and Lewis found that on inspissating the spirituous tincture, there remains an extract consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black, resinous, tenacious, less pungent, and subastrigent. Medicinally, savin is a powerful stimulant, possessing diaphoretic, emmenagogue, and anthelmintic properties. It has certainly, however, a considerable effect on the uterine system; but, on account of its stimulating properties, is suited to those cases only of amenorrhœa which are unattended by fever, and in which the circulation is

- 14049 Leaves imbricated in 4 rows acute  
 14050 Lower leaves ternate : upper binate decurrent subulate spreading acute  
 14051 Leaves decurrent imbricated spreading closely packed, of the stem in threes of the branches in fours  
 14052 Leaves opposite blunthigh glandular in the middle imbricated in 4 ways, Stem arboreous  
 14053 Lvs. opp. blunt glandular in the middle imbricated in 4 ways : the younger acute and opp. Stem shrubby  
 14054 Leaves opp. acute imbricated in about 4 rows smooth glaucous, Branches horizontal prostrate  
 14055 Leaves opposite acute imbricated decurrent : occasionally spreading and subulate  
 14056 Leaves in 3s adnate at base : younger imbricated ; old ones spreading  
 14057 Leaves ternate spreading mucronate longer than the berry  
 14058 Leaves ternate falcate somewhat imbricated the length of berries  
 14059 Leaves ternate spreading pointed shorter than berry  
 14060 Leaves ternate obliterated imbricated blunt  
 14061 Leaves ternate imbricated all ways ovate blunt  
 14062 Leaves all imbricated in 4 rows : younger ovate ; old ones acute

14063 Leaves thickly set linear distichous flat, Male receptacles globose

- 14064 Sheaths of joints 2-toothed blunt, Catkins 2-3 opposite stalked, Peduncles shorter than catkins  
 14065 Sheaths of joints 2-toothed blunt, Catkins solitary scattered or opposite, Peduncles longer than catkin  
 14066 Sheaths of joints bifid acum. Male catkins clustered sessile or stalked, Fem. solit. stalk. Branches spreading

14067 Leaves peltate subcordate ovate-orbicular silky beneath, Female racemes longer than leaves



and Miscellaneous Particulars.

languid. In plethoric habits, its use should be preceded by repeated bleedings; and at all times its internal exhibition requires caution. It has been given in gout and worm cases also, but is seldom used. As an external local stimulant or escharotic, the dried leaves in powder are applied to warts, flabby ulcers, and carious bones; and the expressed juice diluted, or an infusion of the leaves, as a lotion to gangrenous sores, scabies, and tinea capitis, or mixed with lard and wax as an issue ointment. (*Thom. Lond. Disp.* p. 342.)

J. Lycia, which greatly resembles the savin, is commonly thought to produce the gum resin called Olibanum; though Dr. Thomson and others consider the *Boswellia serrata* of Roxburgh as the true plant. Olibanum is supposed to have been the incense used by the ancients in their religious ceremonies; it is much employed by the Roman Catholics in their churches, and generally as a perfume in sick rooms.

2114. *Taxus*. According to Voessius this word is derived from *ταξος*, an arrow, because that weapon was formerly poisoned with the juice of the plant. Yew seems to be an alteration of the Celtic *iug*, green. *T. baccata* inhabits mountainous woods in Europe, North America, and Japan. Caesar mentions it as very common in Gaul and Germany. In Britain and Ireland there was formerly great abundance in a wild state, and planted in church-yards. Ray says that our ancestors planted the yew in church-yards because it was an evergreen tree, as a symbol of that immortality which they hoped and expected for the persons there deposited. Hence a custom, which still exists in a few places of Wales and Ireland, of carrying twigs of this and other evergreen trees in funerals, and throwing them into the grave with the corpse. According to some, the yew was planted in church-yards on account of its utility in making bows; but this is by no means likely, when the tree was so common in a wild state, and when a single one would have afforded so very scanty a supply. The bow was considered an engine of military warfare, at least up to the time of Henry VIII.; so great was the demand for yew in the days of archery, that our own stock could not supply the demand; it was obliged to be imported, and various laws were passed concerning it from the time of Edward IV. to Elizabeth. The wood of the yew is red and veined, very hard and smooth, used by turners, cabinet-makers, millwrights, and a variety of other artisans. Flood-gates for ponds made of it, are said to be of incredible duration. The twigs and leaves of yew, eaten in a very small quantity, are certain death to horses and cows; but deer, it is said, will crop these trees with impunity, and sheep and goats are said by Linnaeus to eat them. Turkeys, peacocks, and other poultry and birds eat both the leaves and fruit. A few of the berries are not deleterious to the human species, but the leaves are fatal. The tree is very patient of the shears, and was much employed in the ancient style of gardening for verdant architecture and sculpture. Allowed to take its natural shape, and when advanced to a considerable age, it forms one of handsomest of British evergreens, harmonizing admirably with the holly, the box, and the juniper. The yew is generally propagated from seeds, which are either sown as soon as they are ripe, without clearing them from the pulp, or mixed with sand, and laid in a heap to be turned over two or three times during the winter, and in spring, the seeds from which the pulp will have rotted sown in beds of light loamy soil. By either mode, a part of the plants will come up the first season, and the remainder in that following. The Irish yew is probably a distinct species.

2115. *Ephedra*. This was a name given by the Greeks to our *Equisetum*, which the plant now called *Ephedra* strongly resembles. *E. Distachya* abounds in the southern parts of Russia, and from thence southwards to Persia and India. The berries ripen in July and August: they are sweetish, mucous, and leave a little heat in the throat. They are eaten by the Russian peasants, and by the wandering hordes of all Great Tartary.

2116. *Cissampelos*. From *κισσος*, the Greek name of the ivy, and *αμπελος*, vine; a plant partaking of the

|                               |                |       |    |       |     |           |       |   |     |                                |
|-------------------------------|----------------|-------|----|-------|-----|-----------|-------|---|-----|--------------------------------|
| 14068 Caapéba <i>Dec.</i>     | nervous-leaved | ☒ or  | 4  | jl.au | G   | S. Amer.  | 1733. | C | s.p | Plum. 5c. 67. f. 2             |
| 14069 capen'sis <i>Dec.</i>   | Cape           | ☒ or  | 5  | ...   | G   | C. G. H.  | 1775. | R | p.l |                                |
| 2117. EXCÆCÁRIA. <i>W.</i>    | EXCÆCÁRIA.     |       |    |       |     |           |       |   |     | <i>Euphorbiaceæ.</i> Sp. 1-6.  |
| 14070 serrata <i>H. K.</i>    | saw-leaved     | ☒ or  | 6  | fn    | W   | Chili     | 1796. | C | p.l |                                |
| 2118. ADELIA. <i>W.</i>       | ADELIA.        |       |    |       |     |           |       |   |     | <i>Euphorbiaceæ.</i> Sp. 3-6.  |
| 14071 Bernárdia <i>W.</i>     | villos-leaved  | ☒ or  | 6  | jl.au | G   | Jamaica   | 1768. | C | p.l |                                |
| 14072 Ricinéla <i>W.</i>      | smooth-leaved  | ☒ or  | 6  | jn.au | G.w | Jamaica   | 1768. | C | p.l |                                |
| 14073 Acidóton <i>W.</i>      | Box-leaved     | ☒ or  | 3  | jn.jl | G.w | Jamaica   | 1768. | C | p.l |                                |
| 2119. LOUREIRA. <i>W.</i>     | LOUREIRA.      |       |    |       |     |           |       |   |     | <i>Euphorbiaceæ.</i> Sp. 1-2.  |
| 14074 glandulosa <i>W.</i>    | glandulous     | ☒ or  | 6  | ...   | ... | Mexico    | 1799. | C | p.l | Cav. ic. 5. t. 430             |
| 2120. MYRISTICA. <i>W.</i>    | NUTMEG.        |       |    |       |     |           |       |   |     | <i>Myristicææ.</i> Sp. 2-14.   |
| 14075 moschata <i>W.</i>      | true           | ♂ cit | 30 | ...   | G.w | E. Indies | 1795. | C | p.l | Lam. ill. t. 832               |
| 14076 fátua <i>W.</i>         | tasteless      | ♂ or  | 30 | ...   | G.w | Surinam   | 1812. | C | p.l | Pluk.al. t.250.f.6             |
| 2121. NEPEN'THES. <i>W.</i>   | PITCHER PLANT. |       |    |       |     |           |       |   |     | <i>Sp.</i> 1-6.                |
| 14077 distillatória <i>W.</i> | Chinese        | ☒ cu  | 2  | ap.my | G   | China     | 1789. | C | p.l | Bur. zeyl.42. t.17             |
| †2122. CLUY'TIA. <i>W.</i>    | CLUY'TIA.      |       |    |       |     |           |       |   |     | <i>Euphorbiaceæ.</i> Sp. 8-11. |
| 14078 alaternoides <i>W.</i>  | narrow-leaved  | ☒ pr  | 2  | mr.d  | W   | C. G. H.  | 1692. | C | p.l | Bot. mag. 1321                 |
| 14079 polygonoides <i>W.</i>  | Polygonum-like | ☒ pr  | 2  | mr.d  | W   | C. G. H.  | 1790. | C | p.l | W. hort. ber. 51               |
| 14080 daphnoides <i>W.</i>    | Daphne-leaved  | ☒ pr  | 3  | my.jn | W   | C. G. H.  | 1731. | C | p.l | W. hort. ber. 52               |
| 14081 ericoides <i>W.</i>     | Heath-leaved   | ☒ pr  | 2  | ap.jn | W   | C. G. H.  | 1790. | C | p.l |                                |
| 14082 polifolia <i>W.</i>     | Foley-leaved   | ☒ pr  | 2  | ap.jn | W   | C. G. H.  | 1790. | C | p.l | Jac. schœ. 2. t. 50            |
| 14083 tomentosa <i>W.</i>     | tomentose      | ☒ pr  | 3  | ap.jn | W   | C. G. H.  | 1812. | C | p.l |                                |
| 14084 pulchella <i>W.</i>     | broad-leaved   | ☒ pr  | 2  | ja.jn | W   | C. G. H.  | 1739. | C | p.l | Bot. mag. 1945                 |
| 14085 collina <i>W.</i>       | hill           | ☒ pr  | 3  | ...   | W   | E. Indies | 1807. | C | p.l | Rox. cor. 2. t.160             |



History, Use, Propagation, Culture,

nature of the former in its foliage, and of the latter in its fruit. The roots of several species are said to have powerful medicinal qualities. That of the *C. pareira*, or *Pareira brava*, is bitter, diuretic, and aperient; of *C. caapeba* more mucilaginous.

2117. *Excæcaria*. From *excæcare*, to blind. The juice of this plant is so acrid as to cause loss of sight whenever it touches the eyes. *Agalochum*, the produce of one of the species, was the name given by the Greeks to an aromatic wood they obtained from India. In Arabia it is called, according to *Golius*, *aghâoudy*.

2118. *Adelia*. From *α*, privative, and *δραω*, visible. The parts of fructification are so minute as to be hardly visible. *A. Bernardia* derives its name from having been considered a distinct genus, and dedicated to the celebrated Bernard de Jussieu. *Bernardia* is the name which ought to have been adopted for the genus. Ugly uninteresting shrubs.

2119. *Loureira*. Dedicated by Cavanilles to John de Loureiro, a Portuguese missionary, who travelled in China and Cochin-china, of which he published the Flora in 1790.

2120. *Myristica*. From *μυρεα*, myrrh, on account of the odor of the fruit. *M. moschata* produces spheroidal drupes, fleshy, smooth, and finally drying up into a coriaceous crust, and opening on one side. Each berry contains an ovate, globular, serrated nut. The arillus or cover, which is commonly called mace, is fleshy, coriaceous, and reddish-saffron colored. Under this are two shells, the outer thin and brittle, and reticulated by the impressions of the mace: the inner shell is membranaceous, and adheres very closely to the kernel. The fruit would be a drupe was it not for the arillus.

The nutmeg-tree yields three crops annually; the first in April, which is the best; the second in August, and the third in December; yet the fruit requires nine months to ripen it. When it is gathered, the outer coriaceous covering is first stripped off, and then the mace carefully separated and dried in the sun. The nutmegs in the shell are next exposed to heat and smoke for three months, then broken, and the kernels thrown into a strong mixture of lime and water; after which they are cleaned and packed up. This process is necessary for their preservation, and with the same intention the mace is sprinkled with salt water. There are several varieties of the tree; but that denominated the queen nutmeg, which bears a small round nut, is the best. They are imported in chests, which contain each from 100 to 140lbs. weight; the mace comes in chests also of different sizes. The essential oil which is obtained in Banda by the distillation of the nut is brought

- 14068 Leaves somewhat orbicular cordate at base 7-nerved or little downy, Fem. racemes the length of leaves  
 14069 Lvs. ovate bluntish smooth on short stalks, Racemes much branched, male ? scarcely longer than petiole  
 14070 Monœcious diandrous, Leaves oblong serrated  
 14071 Leaves oblong downy serrated  
 14072 Leaves obovate entire  
 14073 Leaves oblong blunt entire fascicled, Spines axillary  
 14074 Leaves cordate glandular on the limb  
 14075 Leaves oblong acuminate smooth, Veins simple, Fruit solitary smooth  
 14076 Leaves oblong lanceolate with starry down beneath, Veins simple, Fruit racemose downy  
 14077 Leaves sessile, Pitchers cylindrical, Flowers paniced

- 14078 Leaves sessile linear lanceolate acute, Flowers axillary solitary  
 14079 Leaves sessile obovate acute, Peduncles about 3-fl. axillary  
 14080 Leaves subsessile lanceolate obovate, Flowers axillary solitary  
 14081 Leaves subsessile linear-lanceolate acute thickish, Flowers axillary twin  
 14082 Leaves stalked linear blunt mucronate revolute at edge, Flowers axillary subsolitary on long stalks  
 14083 Leaves elliptical blunt densely downy on each side, Flowers axillary solitary sessile  
 14084 Leaves stalked ovate acute smooth, Flowers in 5s axillary  
 14085 Leaves stalked elliptical blunt somewhat retuse smooth shining, Flowers axillary polygamous about 3



and Miscellaneous Particulars.

in bottles, and the expressed oil in stone jars. Nutmegs are frequently punctured and boiled in order to obtain the essential oil, and the orifices afterwards closed with powdered sassafras. The fraud is detected by the lightness of the nutmeg. The nutmeg has a fragrant, agreeable, spicy odor, and a warm aromatic taste.

As the medical properties of nutmeg and mace depend on the essential oil they contain, they agree in these circumstances; and both are stimulant, carminative, and, in large doses, narcotic. Mace is more generally used as a culinary spice; but the nutmeg and its volatile oil are in frequent use to cover the disagreeable taste of other medicines, and are sometimes ordered in cases of languor, vomiting, and diarrhœa, and in flatulent colic. On account of the narcotic property of the oil, nutmeg should be cautiously employed in apoplectic and paralytic habits. In India its dangerous effects have been frequently felt; and in this country instances have occurred in which the nutmeg, taken in large quantity, produced drowsiness, great stupor, and insensibility, and on awakening delirium, which alternated with sleep for several hours. (*Thom. Lond. Disp.* p. 395.)

*M. fatua* is a branching lofty tree; the branches long, tortuous and declining; the leafy and flowering branches downy and ferruginous; and the flowers in axillary and terminal clusters. The fruit varies in size and form on different trees; but is generally oblong, and about as long as a pigeon's egg. From the kernel is extracted a species of yellowish suet or fat, which serves for various medical and economical purposes, and is made into candles. From the wounded bark flows a red acrid juice. The plants are at present rare in British collections: they grow in light loam and peat, and may be increased by cuttings in sand under a bell-glass.

2121. *Nepenthes*. The name under which Homer speaks of a substance, which appears to have been opium. It is impossible to conceive in what sense the word has been applied to the plants now bearing the name. They are the famous pitcher-plants of China and the East Indies, which bear leaves, the extremities of which are hollowed out into cup-like appendages, which are generally filled with water, which seems as if confined within them by a little lid, by which the pitchers are surmounted. The cultivation of the plants is extremely difficult. It requires a very damp atmosphere, much heat, and perhaps, not much light. They are managed more successfully by Loddiges of Hackney, than by any cultivators in this country.

2122. *Cluytia*. Named by Boerhaave, after Outgers Cluyt, or Augier Clutius, a Dutchman, and professor of botany at Leyden. He published, in 1634, a little tract upon the Cocoa-nut of the Maldives, which he called *nux-medica*. The species are of little beauty or interest, and of the easiest propagation and culture.



## CLASS XXIII. — POLYGAMIA.

Flowers either male, female, or hermaphrodite, upon the same or different plants.

This class differs from the two preceding in having not only the sexes in different flowers upon the same individual as in Monœcia, or upon separate individuals as in Dioecia, but also combined in one flower, mixed among those which are unisexual. It may, therefore, be considered to contain those genera which are in a state of transition from the common hermaphrodite structure to absolute unisexuality.

To the first of its orders are referred several grasses, which are excluded from the early classes on account of the separation of their sexes; it also contains the numerous tribe of Mimosas, so well known for their various properties as objects of food, of ornament, of medicine, or of curiosity. The maple is also stationed in the first class, as are a few genera of palms.

The most important genera of the second class, besides the poetical Palmetto, are the ash and the fig. Gleditschia and Ceratonia, two families of Leguminosæ, are valuable, the former for its light, airy, elegant foliage, and the latter for its sweet pods, which are used in Spain, in great quantities, as fodder for cattle.

Order 1. MONŒCIA.  Flowers monœcious.

2123. *Iuga*. Hermaphrodite. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous. Pod 2-valved. Seeds enwrapped in pulp, or in an arillus. Male. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous.
2124. *Mimosa*. Hermaphrodite. Cal. 5-toothed. Cor. O. or 5-toothed. Stam. 8. Pod separating into one-seeded joints. Male. Cal. 5-toothed. Cor. O. or 5-toothed. Stamens 8.
2125. *Schrankia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10. Pod 4-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10.
2126. *Desmanthus*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 20. Pod 2-valved. Male. Cal. 5-toothed. Cor. O. Stamens 20.
2127. *Acacia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100. Pod 2-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100.
2128. *Veratrum*. Hermaphrodite. Cal. O. Cor. 6-petalous. Stamens 6. Ovaries 3. Caps. 3, many-seeded. Male. Same as hermaphrodite, but no ovary.
2129. *Andropogon*. Hermaphrodite. Cal. 1-f. Paleæ glume bearded, either at base or tip. Stamens 3. Styles 2. Seed 1. Male. Ovary none.
2130. *Chloris*. Flowers 1-sided. Cal. 2-valved, with 2 or 6 florets: one sessile, hermaphrodite; the other stalked, male. Hermaphrodite. Paleæ with a terminal beard. Stamens 3. Styles 2. Seed 1. Male. Cal. O. Paleæ one or two, bearded. Stamens 3.
2131. *Sorghum*. Flowers paniced. Glume coriaceous-cartilaginous, 2-flowered closed. Paleæ of the hermaphrodite bearded; of the neuter single, beardless. Male. Glume 1-f. stalked. Paleæ 2, beardless.
2132. *Holcus*. Hermaphrodite. Cal. glume 1-2-flowered. Paleæ bearded under the end. Stamens 3. Styles 2. Seed 1. Male. Cal. glume 2-valved. Paleæ O. or 2. Stamens 3.
2133. *Ischemum*. Hermaphrodite. Cal. glume 2-flowered. Paleæ 2. Stamens 3. Styles 2. Seed 1. Male. Cal. and palea as in hermaphrodite. Stamens 3.
2134. *Egiops*. Hermaphrodite. Cal. glume about 3-flowered, cartilaginous. Palea terminated by a triple beard. Stamens 3. Styles 2. Seed 1. Male. Cal. and pal. of hermaphrodite. Stamens 3.
2135. *Manisuris*. Hermaphrodite. Glume 1-f. Paleæ 2. Stamens 3. Style bifid. Male. Glume 1-f. Paleæ 2. Stam. 3. All the valves of calyx emarginate at end and sides.
2136. *Valantia*. Hermaphrodite. Cal. O. Cor. 4-parted. Stamens 4. Style 2-fid. Seed 1. Male. Cal. O. Cor. 3-4-parted. Styles 3-4.
2137. *Pavetaria*. Hermaphrodite. Cal. 4-fid. Cor. O. Stam. 4. Style 1. Seed 1. Female. Cal. 4-fid. Cor. O. Style 1. Seed 1.
2138. *Atriplex*. Perfect fl. Perianth. single, 5-partite, inferior. Stam. 5. Style bipartite. Fruit depressed, 1-seeded, covered by the cal. Pistilliferous fl. Perianth. single, 2-partite. Stam. O. The rest as in the perfect flower.
2139. *Rhagodia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5, or fewer. Acinus depressed. Male. Cal., cor., and stam. of the hermaphrodite.
2140. *Terminalia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stam. 10. Drupe inferior. Male. Cal. five-parted. Cor. O. Stamens 10.
2141. *Fusanus*. Hermaphrodite. Cal. 5-fid. Cor. O. Stamens 4. Ovary inferior. Stigma 4. A drupe. Male. Fruit abortive. Cal., cor., and stam. of hermaphrodite.
2142. *Brabejum*. Hermaphrodite. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. Drupe with a fleshy round nut. Male. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. abortive.
2143. *Acer*. Hermaphrodite. Cal. 5-fid. Cor. 5 petals. Stamens 8. Styles 2. Samara winged at end, one-seeded. Male. Cal. 5-fid. Cor. 5 petals. Stamens 8.
2144. *Negundium*. Cal. very small, unequally 4-5-toothed. Pet. O. Male. Flowers fascicled. Anthers 4-5, linear, sessile. Female. Flowers racemose.
2145. *Celtis*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Styles 2. A drupe. Male. Cal. six-parted. Cor. O. Stamens 6.
2146. *Gouania*. Hermaphrodite. Cal. 5-fid. superior. Cor. O. Stamens 5. Style 3-fid. Fruit 3-cornered, 3-parted. Male. Cal. 5-fid. Cor. O. Stamens 5.
2147. *Hermas*. Hermaphrodite. An umbel. Cor. 5 petals. Stamens 5, sterile. Male. An umbel. Cor. 5 petals. Stamens 5, fertile. Styles 2. Seeds 2, inferior, cordate, orbicular.
2148. *Bridelia*. Hermaphrodite. Cal. 5-parted. Petals 5, inserted in calyx. Stamens 5, monadelphous. Styles 2, bifid. Berry 2-seeded. Male. Cal. 5-parted. Petals 5, inserted in the calyx. Filam. columnar, bearing 5 anthers. Female. Cal. and corolla of male. Styles 2, bifid. Berry 2-seeded.
2149. *Feronia*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 10. Style 1. Berry 5-celled, many-seeded. Male. Cal. 5-toothed. Cor. 5 petals. Stamens 10.
2150. *Ailantus*. Hermaphrodite. Cal. 5-parted. Cor. 5 petals. Stamens 2-3. Ovaria 3-5. Styles lateral. Samaras 1-seeded. Male. Cal. 5-parted. Cor. 5 petals. Stamens 10. Female. Cal. 5-parted. Cor. 5 petals. Ovaries 3-5. Styles lateral. Samaras 1-seeded.
2151. *Clusia*. Hermaphrodite. Cal. 6-leaved. Cor. 4-6 petals. Anthers clustered. Stigmas 4-6. Caps. 6-celled, many-seeded. Male. Cal. 4-6-leaved. Cor. 6 petals. Stamens numerous.
2152. *Ophiorylon*. Hermaphrodite. Cal. 5-fid. Cor. 5-fid. Stamens 3. Ovary 1. Male. Cal. 2-fid. Cor. 5-fid. Stamens 2.

2153. *Rhapis*. Hermaphrodite. Cal. 3-fid. Cor. 3-fid. Stamens 6. Ovary 1. Drupe 1-seeded. Male. Cal. 3-fid. Cor. 3-fid. Stamens 6.

## Order 2. DICECIA.

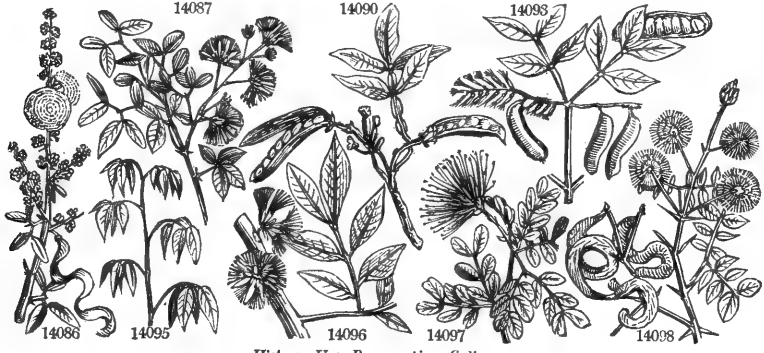


Flowers dicecious.

2154. *Gleditschia*. Hermaphrodite. Cal. 4-fid. Cor. 4 petals. Stamens 6. A pod. Male. Cal. 3-leaved. Petals 3. Stamens 6. Female. Cal. 5-leaved. Petals 5. A pod.
2155. *Ceratonia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Style 1. Pod coriaceous, many-seeded. Male. Cal. 5-parted. Cor. O. Stamens 5. Female. Cal. about 5-toothed. Cor. O. Style 1. Pod coriaceous, many-seeded.
2156. *Frazinus*. Hermaphrodite. Cal. O. or 4-parted. Cor. O. or 4 petals. Stamens 2. Samara 1-seeded. Female. Cal. O. or 4-parted. Cor. O. or 4 petals. Samara 1-seeded.
2157. *Brosimum*. Hermaphrodite. Catkin globose, with a solitary ovary at end. Cal. a scale. Cor. O. Anthers peltate, solitary. Style 2-fid. Female. Cal. O. Cor. O. Ovary imbricated with scales. Style 2-fid. Berry coated, 1-seeded.
2158. *Diospyrus*. Hermaphrodite. Cal. and cor. 4-fid. Stam. 8. Style 4-fid. Berry 8-seeded. Male. Cal. and cor. 4-fid. Stamens 8.
2159. *Myrsine*. Cor. half 5-cleft, conniving. Ovary filling the corolla. Drupe 1-seeded. Nut 5-celled.
2160. *Nyssa*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-parted. Cor. O. Stam. 10.
2161. *Hamiltonia*. Hermaphrodite. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5. Ovary 1.
2162. *Laurophyllus*. Hermaphrodite. Cal. 4-leaved. Cor. O. Stamens 4. Ovary superior. Style 1. Male. Cal. 4-leaved. Cor. O. Stamens 4.
2163. *Bursera*. Hermaphrodite. Cal. 5-toothed. Petals 5. Stamens 10. Style O. Caps. 3-valved, one-seeded. Male. Cal. 5-toothed. Petals 5. Stamens 10.
2164. *Arctopus*. Male. An umbel. Petals and stamens 5. Hermaphrodite. An umbel. Petals 5. Styles 2. Seeds 2. Involucre very large.
2165. *Panax*. Hermaphrodite. An umbel. Cal. 5-fid. Petals 5. Stamens 5. Styles 2. Berry 2-seeded. Male. An umbel. Cal. entire. Petals 5. Stamens 5.
2166. *Ficus*. Common receptacle turbinate, closed, fleshy. Female. Cal. 5-parted. Cor. O. Ovary 1. Seed 1. Male. Cal. 3-parted. Cor. O. Stamens 3.

MONŒCIA.

|                                 |                 |   |       |                    |             |                 |                          |
|---------------------------------|-----------------|---|-------|--------------------|-------------|-----------------|--------------------------|
| 2123. IN'GA. <i>W.</i>          | INGA.           |   |       | <i>Leguminosæ.</i> | Sp. 13—112. |                 |                          |
| 14086 <i>dulcis W.</i>          | sweet           | ☉ | or 20 | ...                | Pk          | E. Indies 1800. | C p.l Roxb. cor.1. t.99  |
| 14087 <i>Unguis-Cati W.</i>     | four-leaved     | ☉ | or 20 | ...                | Pk          | W. Indies 1690. | S p.l Jac.choz.3.t.392   |
| 14088 <i>biglobosa W.</i>       | two-headed      | ☉ | fr 30 | ...                | Pk          | Martiniq. 1823. | S p.l Jaam. t.179. f.87  |
| 14089 <i>macrophylla W.</i>     | large-leaved    | ☉ | or 20 | ...                | Pk          | Cumana 1815.    | S s.p                    |
| 14090 <i>vêra W.</i>            | common          | ☉ | or 30 | jl.au              | W           | W. Indies 1739. | S s.p Sljam.2.t.183.f.1  |
| 14091 <i>rhoifolia W. en.</i>   | villous         | ☉ | or 12 | ...                | ...         | Brazil 1815.    | S s.p                    |
| 14092 <i>alba W.</i>            | white           | ☉ | or 20 | ...                | W           | E. Indies 1804. | S s.p                    |
| 14093 <i>marginata W.</i>       | margin'd        | ☉ | fr 20 | ...                | Pk          | W. Indies 1752. | S s.p Pluk.al. t.141.f.2 |
| 14094 <i>mellifera W.</i>       | honey-bearing   | ☉ | or 20 | ...                | Pk          | Arabia 1822.    | S p.l                    |
| 14095 <i>nodosa W.</i>          | knobbed         | ☉ | or 10 | mr.ap              | Pu          | Ceylon 1690.    | S s.p Pluk.al. t.211.f.5 |
| 14096 <i>latifolia W.</i>       | broad-leaved    | ☉ | or 10 | mr.ap              | Pu          | W. Indies 1768. | S p.l Plum. ic. t. 9     |
| 14097 <i>purpurea W.</i>        | Soldier Wood    | ☉ | or 6  | mr.ap              | Pu          | W. Indies 1733. | C p.l Bot. reg. 129      |
| 14098 <i>circinalis W.</i>      | spiral-podded   | ☉ | or 10 | ...                | Pu          | W. Indies 1726. | C p.l Plum. ic. t. 5     |
| *2124. MIMO'SA. <i>W.</i>       |                 |   |       |                    |             |                 |                          |
| 14099 <i>viva W.</i>            | MIMOSA.         | ☉ | or 1½ | jl.s               | Pu          | Jamaica 1739.   | S p.l Sljam.2.t.182.f.7  |
| 14100 <i>casta W.</i>           | chaste          | ☉ | pr 2  | jl                 | Pa.Y        | E. Indies 1741. | S p.l Com.hort.1. t.28   |
| 14101 <i>sensitiva W.</i>       | Sensitive Plant | ☉ | cu 1½ | ap.s               | Pk          | Brazil 1648.    | C s.p Bot. reg. 25       |
| 14102 <i>latispinosa Lam.</i>   | broad-spined    | ☉ | el 3  | s                  | W           | Madagasc. 1823. | S s.p                    |
| 14103 <i>obtusifolia W. en.</i> | blunt-leaved    | ☉ | el 3  | ...                | Pu          | Brazil 1816.    | S s.p                    |
| 14104 <i>pubica W.</i>          | Humble Plant    | ☉ | el 1  | ap.s               | W           | Brazil 1638.    | S r.m Bot. rep. 544      |
| 14105 <i>polydactyla Humb.</i>  | many-fingered   | ☉ | el 1½ | jn.jl              | Pu          | Brazil 1822.    | S r.m Kunth. mim. t.5    |
| 14106 <i>pigra H. K.</i>        | straight-spined | ☉ | el 2  | jn.jl              | W           | Vera Cruz 1733. | S l.p Brey'n. cent. t.20 |
| 14107 <i>rubicarila W.</i>      | Bramble-stalk.  | ☉ | el 3  | jn.jl              | Pa.Y        | E. Indies 1799. | S l.p Roxb.cor.2.t.200   |
| 14108 <i>asperata W.</i>        | rough           | ☉ | el 2  | jn.jl              | W           | W. Indies 1823. | S l.p Dec. legum. t.63   |
| 14109 <i>concinna W.</i>        | neat            | ☉ | el 3  | ...                | Pu          | E. Indies 1794. | S p.l                    |
| 14110 <i>polystachya W. en.</i> | many-spiked     | ☉ | el 20 | ...                | W           | Martinico 1816. | S p.l Dec.leg. t.61,62   |
| 2125. SCHRANKIA. <i>W.</i>      |                 |   |       |                    |             |                 |                          |
| 14111 <i>aculeata W.</i>        | SCHRANKIA.      | ☉ | cu 2  | jl.au              | Pk          | Vera Cruz 1733. | S p.l Mil.ic.2.t.182.f.1 |
| 14112 <i>uncinata W.</i>        | hooked          | ☉ | cu 2  | jl.au              | Pk          | N. Amer. 1789.  | S p.l Vent. choix. 28    |



History, Use, Propagation, Culture,

2123. *Inga*. This is an American name adopted by Marcgraaf. A fine genus of plants, remarkable for their beautiful foliage and flowers; but in cultivation they seldom blossom. *I. purpurea* is a remarkably elegant plant, and so is *Inga biglobosa*. *I. unguis-Cati*, the Cat's claw, *Mimosa*, is so called from the form of its curved spines. All the species require the greatest heat of the bark stove; they increase very slowly by cuttings.

2124. *Mimosa*. Said to be derived from *mu*, a buffalo, because the leaves of the sensitive species appear as if to play with the hand that touches them.

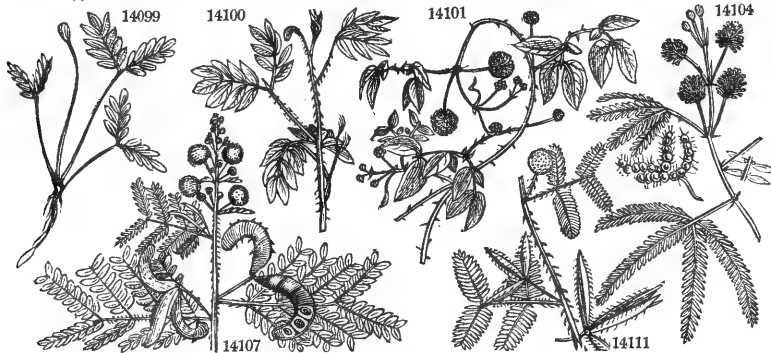
The cause of the well known motion in the leaves of the sensitive plant, has been the subject of many ingenious explanations; but it has not been treated by any botanist with so much ingenuity and address as by Dr. Dutrochet, whose theory we give, as explained by Mr. Lindley in the Botanical Register. M. Dutrochet states, that having ascertained hot nitric acid to possess the power of separating and reducing to its simplest form the whole mass of vegetable tissue, and that the action of the same acid produced other effects equally advantageous for the examination of the most obscure parts of vegetable structure, he was induced to give his attention to that of the *Mimosa pudica*, in the hope of gaining some evidence respecting the cause to which its sensibility is to be ascribed. Beginning with the pith, he observed a considerable number of minute globules of a greenish color, intermingled among the cells, and adhering to them in an irregular manner. After attempting to shew the probability of these globules having deceived M. Mirbel in various points of his analysis of vegetation, and especially in regard to the pores, which that botanist supposes to exist in the cellular tissue of plants, Dr. Dutrochet proceeds to remark, that the application of hot nitric acid to these globules renders them perfectly opaque, whence he concludes, that they are, in fact, minute cells filled with a particular fluid, which is subject to become concrete by the application of acids. Now, it is known, that such fluids as are thus altered by acids, are usually dissolved and liquefied again by the application of alkalis. A few drops, therefore, of a solution of hydrate of potash were suffered to fall upon a portion of the pith on which nitric acid had been acting, and the mixture was exposed to the heat of a lamp. Being examined after a few minutes, the globules were found to have resumed their natural appearance. This curious fact indicated, in the opinion of Dr. Dutrochet, a strong and unexpected point of analogy between plants and animals. According to the microscopical researches of some modern observers, it has been ascertained that all the organs of animals are composed of a conglomeration of minute corpuscles, similar to those just described; the corpuscles which constitute the muscles are soluble in acids, but those which compose the nervous system are insoluble in the same acids, and only soluble in alkalis. Now, as the chemical properties and the external appearance of the particles scattered among the cellular tissue of plants, and constituting the nervous system of animals, are the same, the author is induced to infer, that the spherical particles of plants are, in fact, the

## MONŒCIA.

14086 Spines stipulary very short straight, Leaves of two pairs halved oblong obt. Panicle simple long terminal  
 14087 Spines stipulary straight, Leaves of two pairs roundish elliptical halved emarginate, Raceme terminal  
 14088 Unarmed, Leaves bipinnate, Spike double of two globes pendulous  
 14089 Unarm. Lvs. bipin. of 2 pairs, Leaf. ov. ac. smooth shining above, Glands betw. every pair, Petiole winged  
 14090 Unarm. Lvs. pinn. of about 5 pairs, Leaf. ov. obl. acum. smooth, Gland between every pair, Petiole winged  
 14091 Leaf. of 5 pairs obl. acum. hairy above and shining villous beneath, Branches covered with rusty down  
 14092 Unarmed, Lvs. of 3 pairs, Leaflets obl. acuminate equal smooth, Gland between each pair, Petiole winged  
 14093 Unarm. Lvs. pinn. of 2 pairs, Leaf. obl. lanc. acum. smooth, Gland between each pair, Petiole wing. at end  
 14094 Spines stipulary recurved, Leaves of 2 pairs, Leaflets obl. acuminate equal smooth, A gland between the lowest small ones  
 14095 Unarm. Lvs. pinn. of 2 pairs, Leaf. obl. lanc. acum. smooth, Gland between each pair, Petiole wing. at end  
 14096 Unarmed, Lvs. conjugate pinnate, Leaflets ov. obl. term. opp. lateral alternate, Flowers in lateral umbels  
 14097 Unarmed, Lvs. conjugate pinnate, Leaf. obl. blunt uneq. at base, Petioles without glands, Heads stalked  
 14098 Spines stipular, Lvs. conjugate pinnate, Pinnæ of 3 pairs, Leaflets ovate acute smooth, Pods spirally twisted

14099 Unarmed herbaceous, Leaves conjugate pinnate, Pinnæ 4 pairs, Leaflets roundish, Pods with one joint  
 14100 Prickles of branches and stems scattered hooked, Lvs. bipinn. ciliat. and rough, Sutures of pods very spiny  
 14101 Stem and petioles prickly, Leaflets nearly halved ovate acute hairy beneath smooth above  
 14102 Spines of petiol. scatter. very broad compr. straight, Lvs. bipinn. finally smooth without glands, Leaf. 10-15  
 14103 Stem and petioles prickly, Leaflets halved cordate ovate blunt smooth  
 14104 Stem prickly more or less hispid, Leaves digitate-pinnate, Pinnæ 4 of many pairs, Leaflets linear  
 14105 Stem aculeate smooth hairy upwards, Leaves digitate-pinnate, Pinnæ 8 of many pairs, Leaflets linear  
 14106 Like *M. asperata*, but less hairy  
 14107 Prickles of branches and stems scattered hooked, Leaves bipinnate, Pinnæ of 5 pairs, Leaflets 20-25 lin.  
 14108 Leaves bipinnate, Pinnæ of 8-12 pairs, Leaflets of many pairs bristly ben. Peduncles twin as long as head  
 14109 Prickly, Leaves bipinnate: partial of 6 pairs; proper of many pairs cultrate, Gland of petiole depressed  
 14110 Lvs. bipinnate terminated by a tendril, Pinnæ of 2-3 pairs, Leaflets oval emarg. Spikes numerous fasciated

14111 Prickly, Leaves bipinnate: partial of 3 pairs; proper of many pairs, Pods acute, Stem 4-cornered  
 14112 Prickly, Leaves bipinnate: partial of 6 pairs; proper of many pairs, Pods acute, Stem 5-cornered



and Miscellaneous Particulars.

scattered elements of their nervous system. This hypothesis receives additional strength from the great similarity which exists between the medullary substance of the brain of Mollusca Gasteropoda and the cellular medullary tissue of plants. In pursuit of this idea, Dr. Dutrochet made a variety of experiments upon the sensitive plant, the results of which seem to be these. — The principal point of locomotion, or of *mobility*, exists in the little swelling which is situated at the base of the common and partial petioles of the leaves; this swelling is composed of a very delicate cellular tissue, in which is found an immense number of nervous corpuscles; the axis of the swelling is formed of a little fascicle of tubular vessels. It was ascertained by some delicate experiments, that the power of movement, or of contraction and expansion, exists in the parenchyma and cellular tissue of the swelling, and that the central fibres have no specific action connected with the motion. It also appeared that the energy of the nervous powers of the leaf depended wholly upon an abundance of sap, and that a diminution of that fluid occasioned an extreme diminution of the sensibility of the leaves. Prosecuting his remarks yet further, the author ascertained, that in the motion of the sensitive plant, two distinct actions take place, the one of locomotion, which is the consequence of direct violence offered to the leaves, and which occurs in the swellings already spoken of; the other of *nermivation*, which depends upon some stimulus applied to the surface of the leaflets, unaccompanied by actual violence, such as the solar rays concentrated in the focus of a lens. As in all cases, the bending or folding of the leaves evidently takes place from one leaf to another with perfect continuity; it may safely be inferred, that the invisible nervous action takes place in a direct line from the point of original irritation, and that the cause by which this action of *nermivation* is produced, must be some internal uninterrupted agency. This was, after much curious investigation, determined by the author to exist neither in the pith, nor in the bark, nor even in the cellular tissue filled with nervous corpuscles, and on which, he supposes, the locomotion of the swelling at the base of petioles to depend. It is in the ligneous part of the central system, in certain tubes supplied with nervous corpuscles, and serving for the transmission of the sap, that Dr. Dutrochet believes he has found the true seat of *nermivation*, which he attributes to the agency of the sap alone, while he considers the power of locomotion to depend upon the nervous corpuscles alone.

Some of the species ripen seed; others may be increased by cuttings from the points of the young shoots planted in sand and kept closely covered.

The pods of *M. fagifolia* contain a sweet whitish pulp, which the natives of Martinique suck; they call the tree and its fruit *Pois Doux*, or sweet pea.

2125. *Schrankia*. Named by Willdenow, in honor of his countryman, Francis de Paula Schrank, a well known German botanist. Herbaceous prickly shabby-looking plants, with the habit of *Mimosa*.



| 2126. DESMANTHUS. <i>W.</i> DESMANTHUS. |                            |  | <i>Leguminosæ.</i> Sp. 7—19.   |       |    |  |
|---|----------------------------|--|--------------------------------|-------|----|--|
| 14113                                   | <i>nátans W.</i>           | floating <input type="checkbox"/> un         | 2                              | jl.s  | W  | China 1800. C p.l Bot. rep. 629                |
| 14114                                   | <i>plénus W.</i>           | double-yellow <input type="checkbox"/> un    | 2                              | jl.s  | Y  | Vera Cruz 1733. C p.l Mil. ic. 2. t. 182. f. 2 |
| 14115                                   | <i>diffúsus W.</i>         | prostrate <input type="checkbox"/> un        | 3                              | jl.au | W  | W. India 1774. C p.l Pluk. al. t. 307. f. 3    |
| 14116                                   | <i>virgátus W.</i>         | long-twiggd <input type="checkbox"/> un      | 3                              | jl.au | Y  | S p.l Bot. mag. 2454                           |
| 14117                                   | <i>punctátus W.</i>        | spotted-stalked <input type="checkbox"/> un  | 3                              | jl.au | W  | Jamaica 1683. C p.l Com. hort. 1. t. 31        |
| 14118                                   | <i>cinéreus W.</i>         | Ash-colored <input type="checkbox"/> un      | 3                              | jn.jl | W  | E. Indies 1739. C p.l Rox. cor. 2. t. 174      |
| 14119                                   | <i>divérgens W. en.</i>    | divergent <input type="checkbox"/> un        | 6                              | jn.jl | W  | Abyssinia 1816. C p.l Bruce Abyss. t. 6        |
| †2127. ACA'CIA. <i>W.</i> ACACIA.       |                            |  | <i>Leguminosæ.</i> Sp. 83—258. |       |    |  |
| 14120                                   | <i>verticilláta W.</i>     | whorl-leaved <input type="checkbox"/> or     | 10                             | mr.my | Y  | V. Di. Isl. 1790. S a.p Bot. mag. 110          |
| 14121                                   | <i>juniperina W.</i>       | Juniper-leaved <input type="checkbox"/> or   | 6                              | mr.jn | Y  | N. S. W. 1790. C s.p Bot. cab. 386             |
| 14122                                   | <i>acicularis H. K.</i>    | needle-leaved <input type="checkbox"/> or    | 6                              | mr.au | Y  | N. S. W. 1796. S a.p Bot. mag. 2166            |
| 14123                                   | <i>genistifolia Link.</i>  | furze-leaved <input type="checkbox"/> or     | 3                              | mr.au | Y  | N. S. W. 1825. S a.p Bot. reg. 928             |
| 14124                                   | <i>sulcata H. K.</i>       | furrowed-leav. <input type="checkbox"/> or   | 2                              | my.au | Y  | N. S. W. 1796. S s.p Bot. cab. 730             |
| 14125                                   | <i>suavéolens W.</i>       | sweet-scented <input type="checkbox"/> or    | 4                              | f.jn  | Y  | N. S. W. 1790. C s.p Bot. reg. 2168            |
| 14126                                   | <i>glaucescens W.</i>      | many-flowered <input type="checkbox"/> or    | 3                              | f.jn  | Y  | N. S. W. 1790. S s.p Bot. reg. 928             |
| 14127                                   | <i>floribánda W.</i>       | blunt-leaved <input type="checkbox"/> or     | 6                              | my.jn | Y  | N. S. W. 1796. C s.p Vent. choix. 13           |
| 14128                                   | <i>linifolia W.</i>        | Flax-leaved <input type="checkbox"/> or      | 3                              | my.jn | Y  | N. S. W. 1790. S s.p Bot. mag. 2168            |
| 14129                                   | <i>linearis B. M.</i>      | linear <input type="checkbox"/> or           | 3                              | my.jn | Y  | N. S. W. 1820. S s.p Bot. mag. 2166            |
| 14130                                   | <i>calamifolia Lindl.</i>  | reed-leaved <input type="checkbox"/> or      | 3                              | my.jn | Y  | N. S. W. 1819. S s.p Bot. reg. 839             |
| 14131                                   | <i>stricta W.</i>          | double-headed <input type="checkbox"/> or    | 2                              | f.my  | Y  | N. S. W. 1790. S s.p Bot. reg. 539             |
| 14132                                   | <i>longifolia W.</i>       | long-leaved <input type="checkbox"/> or      | 10                             | mr.my | Y  | N. S. W. 1790. C s.p Bot. reg. 3166            |
| 14133                                   | <i>falcata W.</i>          | sickle-leaved <input type="checkbox"/> or    | 6                              | my.jn | Y  | N. S. W. 1790. S s.p Bot. reg. 2166            |
| 14134                                   | <i>laurifolia W.</i>       | Laurel-leaved <input type="checkbox"/> or    | 4                              | my.jn | Y  | Tanna 1775. S a.p Bot. reg. 634                |
| 14135                                   | <i>diffusa B. Reg.</i>     | diffuse <input type="checkbox"/> or          | 2                              | my.jn | Y  | N. S. W. 1818. S a.p Bot. reg. 680             |
| <i>A. prostrata Bot. Cab. 631</i>       |                            |  |                                |       |    |  |
| 14136                                   | <i>longissima Wendl.</i>   | longest-leaved <input type="checkbox"/> or   | 4                              | my.jn | Y  | N. S. W. 1819. s.p Bot. reg. 843               |
| 14137                                   | <i>undulata Lindl.</i>     | wavy-leaved <input type="checkbox"/> or      | 4                              | o.n   | Y  | N. S. W. 1817. s.p Bot. mag. 1659              |
| 14138                                   | <i>melanoxylon H. K.</i>   | black-wooded <input type="checkbox"/> or     | 8                              | ap.jn | Y  | V. Di. Isl. 1808. S s.p Lab. no. h. 2. t. 237  |
| 14139                                   | <i>Sophora H. K.</i>       | Sophora-podd. <input type="checkbox"/> or    | 10                             | ap.jn | Y  | V. Di. Isl. 1805. S s.p Bot. mag. 302          |
| 14140                                   | <i>marginaáta H. K.</i>    | marginate-leav. <input type="checkbox"/> or  | 4                              | ap.jn | Y  | N. S. W. 1803. S s.p Bot. cab. 384             |
| 14141                                   | <i>myrtifolia H. K.</i>    | Myrtle-leaved <input type="checkbox"/> or    | 3                              | f.my  | Y  | N. S. W. 1789. C s.p Bot. cab. 763             |
| 14142                                   | <i>lunata Dec.</i>         | lunate <input type="checkbox"/> or           | 2                              | ap.my | Y  | N. S. W. 1794. S s.p Bot. cab. 823             |
| 14143                                   | <i>angustifolia Wendl.</i> | narrow-leaved <input type="checkbox"/> or    | 2                              | ap.my | Y  | N. S. W. 1794. S s.p Bot. mag. 1745            |
| 14144                                   | <i>hispidula W.</i>        | little harsh <input type="checkbox"/> or     | 2                              | ap.my | Y  | N. S. W. 1794. S s.p Bot. mag. 1653            |
| 14145                                   | <i>decipiens H. K.</i>     | paradoxical <input type="checkbox"/> or      | 3                              | mr.jn | Y  | N. S. W. 1790. C s.p Bot. reg. 396             |
| 14146                                   | <i>biiflora H. K.</i>      | two-flowered <input type="checkbox"/> or     | 3                              | mr.jn | Y  | N. S. W. 1790. C s.p Bot. reg. 396             |
| 14147                                   | <i>armata H. K.</i>        | simp.-lv.-prick. <input type="checkbox"/> or | 6                              | ap.jn | Y  | N. S. W. 1803. S s.p Bot. mag. 1653            |
| 14148                                   | <i>alata H. K.</i>         | wing-stalked <input type="checkbox"/> or     | 6                              | ap.jl | Y  | N. S. W. 1803. C s.p Bot. reg. 396             |
| 14149                                   | <i>vestita B. Reg.</i>     | clothed <input type="checkbox"/> or          | 6                              | ap.jl | Y  | N. S. W. 1820. S s.p Bot. reg. 698             |
|   |                            |  |                                |       |    |  |
| 14150                                   | <i>scandens W.</i>         | climbing <input type="checkbox"/> or         | 10                             | ...   | Pu | India 1780. S a.p Rh. mal. 3. t. 32. 34        |
| 14151                                   | <i>Lambertiána B. Reg.</i> | Cowan's <input type="checkbox"/> el          | 6                              | my.jn | Pu | Mexico 1818. S a.p Bot. reg. 721               |
| 14152                                   | <i>ciliáta H. K.</i>       | ciliate-winged <input type="checkbox"/> or   | 8                              | mr.jn | Y  | N. S. W. 1803. S s.p Bot. mag. 2188            |
| 14153                                   | <i>nigricans H. K.</i>     | unequal-wing. <input type="checkbox"/> or    | 8                              | my.jl | Y  | N. S. W. 1803. S s.p Aub. gui. 2. t. 357       |
| 14154                                   | <i>guianénsis W.</i>       | Guiana <input type="checkbox"/> or           | 40                             | ...   | W  | Cayenne 1805. C l.p Bot. reg. 98               |
| 14155                                   | <i>Houstoni W.</i>         | Houston's <input type="checkbox"/> or        | 10                             | s.n   | Pu | Vera Cruz 1729. C p.l Rox. cor. 2. t. 120      |
| 14156                                   | <i>odoratissima W.</i>     | fragrant <input type="checkbox"/> or         | 40                             | ...   | W  | E. Indies 1790. S p.l Bot. reg. 396            |
| 14157                                   | <i>venúta W. en.</i>       | charming <input type="checkbox"/> or         | 6                              | ...   | PK | S. Amer. 1816. C l.p Plu. al. 6. t. 251. f. 2  |
| 14158                                   | <i>arboorea W.</i>         | tree <input type="checkbox"/> or             | 40                             | ...   | PK | Jamaica 1738. S p.l Scop. in. 1. t. 8          |
| 14159                                   | <i>Julibrissin W.</i>      | Silk tree <input type="checkbox"/> or        | 20                             | au    | W  | Levant 1745. C l.p Bot. reg. 698               |



History, Use, Propagation, Culture,

3126. *Desmanthus*. From *desus*, a bond, and *anus*, a flower, on account of the fascicles of flowers, which seem as if bound up together. These plants are chiefly aquatic; a few are prickly; and they all have the habit of *Mimosa*. D. *nátans* is used in China as a pot-herb; and is described by Loureiro, under the name of *Neptunia oleracea*. Willdenow, the author of the genus, observes, that the neuter forets have always a different color from that of the hermaphrodites, whence the spikes appear parti-colored, by which character the genus may be known at a distance. Culture as in *Mimosa*. D. *nátans* should be grown in water.

2127. *Acacia*. This was the Greek name of some plant of the present genus, and not being appropriated, was taken by Willdenow, in his reformation of the old genus *Mimosa*, as the designation of one of his new divisions. This is one of the most ornamental families of the greenhouse plants, and some are curious as well as beautiful. A. *Julibrissin*, the *Gul ebruschim*, or rose of silk of the Persians, and the *Gazia* of Italian gardeners, is an elegant hardy tree with beautiful tufts of pink colored flowers, which resemble tassels of silken threads.

A. *Catechu* and *vera* are used in medicine. The inner wood of the former tree is of a brown color, from which the catechu is thus prepared. After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior colored part is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; and when

- 14113 Unarmed, Leaves bipinnate : partial of 3 pairs ; proper of many pairs, Spikes ovate, Pedunc. with bractes  
 14114 Unarmed, Leaves bipinnate : partial of 3 or 4 pairs ; proper of 12 pairs, Spikes ovate, Stem prost. compres.  
 14115 Unarmed, Lvs. bipinnate : partial of 4 or 5 pairs ; proper of 12 pairs, Spikes few-f. capit. pentand. Pods lin.  
 14116 Unarmed, Lvs. bipinnate : partial of 4 pairs ; proper of 12 pairs, Spikes few-f. capitate decand. Pods linear  
 14117 Unarmed, Leaves bipinnate ; partial of 4 or 5 pairs ; proper of many pairs, Spikes ovate, Pods obl. blunt  
 14118 Spines solit. Lvs. bipinn. : partial of about 9 pairs ; proper of many pairs, Spikes cylind. atten. at base cernu.  
 14119 Spines solitary, Leaves bipinn. : partial of 8 pairs ; proper of many pairs, Spikes cylindrical twin pendulous

## 1. Leafless.

- 14120 Unarmed, Petioles linear subulate mucronate rigid pungent whorled, Spikes cylindrical solitary  
 14121 Unarmed, Petioles linear subulate mucronate rigid pungent alternate clustered, Spikes globose solitary  
 14122 Petioles round subulate mucronate scattered rigid, Stipules deciduous, Spikes globose solitary  
 14123 Stipules spiny very minute, Petioles linear subulate-pungent close together, Peduncles solitary  
 14124 Petioles filiform furrowed on each side : point harmless, Heads twin, Pods wavy  
 14125 Unarmed, Petioles linear narrowed at base mucron. Spikes globose stalked racemose, Branches 3-cornered  
 14126 Unarmed, Petioles lanceolate subfalcate narrowed at base blunt about 2-nerved glaucous, Spikes axillary  
 14127 Unarm. Petioles lin. narrowed at each end mucron. arcuate striat. Fls. interruptedly spiky. Branches round.  
 14128 Unarm. Petiol. lin. narrow at base straight mucron. Spikes glob. stalk. racem. Racemes nearly as long as lvs.  
 14129 Petioles narrow lin. very long 1-nerved erect entire, Spikes several axillary generally branched  
 14130 Stip. scarcely any, Petioles filiform compressed cernuous spreading with an incurved point, Pods torulose  
 14131 Unarmed, Petioles linear lanceolate narrowed at base obtuse, Spikes globose axillary stalked double  
 14132 Unarmed, Petioles lin. lanc. narrowed at each end 3-nerved striated, Spikes axillary double cylindrical  
 14133 Unarmed, Petioles oblong falcate narrowed at base acute veiny, Branches 2-edged  
 14134 Unarmed, Petioles ovato-acute many-nerved, Spikes globose stalked, Pods falcate  
 14135 Stip. very small decidu. Petiol. lin. 1-nerved with an oblique point, Branches procumb. diff. smooth angul.

- 14136 Petioles very long filiform 1-nerved spreading, Spikes several axillary generally branched  
 14137 Petioles half oblong wavy : their inner edge a little truncate, Stipules spiny, Branches smooth  
 14138 Petioles lanceolate oblong nerved somewhat falcate, Heads racemose, Young shoots furred  
 14139 Petioles oblong equal-sided nerved, Spikes twin sessile, Corollas 4-petals, Pods torose  
 14140 Petioles long lanc. somewhat falcate edged 1-nerved : the anterior edge with 1 gland, Heads racemose 4-fl.  
 14141 Unarmed, Petioles oblong acuminate veiny, Spikes globose stalked racemose  
 14142 Petioles half obl. somew. falcate tapered at base with a little gland on the convex side, Branches smooth  
 14143 Petioles linear tapered at base acute mucronate 1-nerved entire, Heads racemose many-flowered  
 14144 Unarmed, Petioles sessile oblong cuspidate toothletted scabrous, Spikes globose solitary axillary  
 14145 Petioles triangular : outer angle spiny ; inner bearing glands, Stip. setaceous caducous, Branchlets smooth  
 14146 Petiol. triangul. : outer angle spiny ; inner bearing glands, Stip. setaceous spiny persist. Branchlets downy  
 14147 Petiol. halv. obl. smooth mucronul. 1-nerv. : never parallel with inner edge, Stip. veiny, Branches hirsute  
 14148 Stem winged two ways, Petioles decurrent 1-nerved terminated by a spine, Stipules spiny  
 14149 Petioles half elliptical lanceolate mucronate aristate 1-nerved in middle and branches hispida

## 2. Leafy.

## \* Unarmed.

- 14150 Leaves conjugate pinnate terminated by a tendrill, Pinnæ of 4 pairs, Spikes filif. Petals 5, Stem climbing  
 14151 Unarmed, Leaves bipinnate : partial of 2 pair ; proper of 2 pair vill. Petiole without glands, Head globose  
 14152 Unarmed hairy, Lvs. bipinnate : partial of 2 pair ; proper of 2 or 3 pair, Stip. somew. setaceous deciduous  
 14153 Unarmed smooth, Leaves bipinnate : partial of 2 pair ; proper of 2 to 7 pair, Stip. subulate setaceous  
 14154 Lvs. bipinnate : partial and proper of 10 pairs ellipt. blunt, Gland of petiole convex, Spikes filif. solit. axill.  
 14155 Leaves bipinnate : partial of about 6 pairs ; proper of many, Petioles downy, Spike terminal interrupted  
 14156 Leaves bipinnate : partial of 4 pairs ; proper of 10-12, lowest very minute, Spikes globose term. panicled  
 14157 Unarmed, Leaves bipinnated, Pinnæ of 3 or 5 pair, Leaflets of 15 or 20 pair falcate acute smoothish  
 14158 Lvs. bipinn. : partial of 7 pair ; proper of 17 pair halv. acute, Spikes glob. stalk. axill. Pods carinate twisted  
 14159 Lvs. bipinn. : partial of 11 pair ; proper of many pair halv. acute, Spikes subglobose terminal aggregated



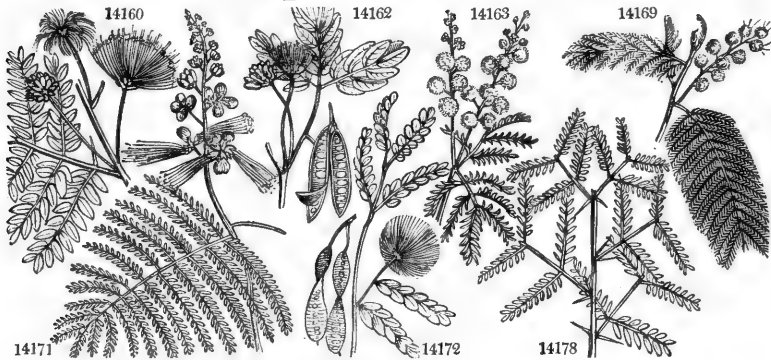
and Miscellaneous Particulars.

this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, boiled to one-third part, and then set in a place to cool for one day. The decoction is afterwards evaporated by the heat of the sun, stirring it several times in the day ; and when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cowdung. The mass is lastly divided into square or quadrangular pieces by a string, and completely dried by turning them in the sun, until they are fit for sale. This extract, when first introduced as a medicine into Europe, was named Terra Japonica, from the supposition that it came from Japan and was an earth.<sup>79</sup>

Medicinally catechu is one of the most valuable of the vegetable astringents ; and as the dark colored contains the greater quantity of tannin, on which its astringency depends, it is to be preferred for medicinal use. It is employed with the best effects in dysentery and diarrhœa, when the use of astringents is admissible ; in alvine and uterine hæmorrhages, leucorrhœa, gleet, and in obstinate catarrhal affections. As a local astringent, it is used in sponginess of the gums, and aphthous ulcerations of the mouth and fauces, and we have found the slow solution of a small piece of it in the mouth, a certain remedy for the troublesome cough induced by a relaxed uvula hanging into and irritating the glottis. Dr. Par.s recommends it as a dentifrice, especially when the gums are spongy.

A. vera produces the gum arabic of the shops. The tree is found in almost every part of Africa, but those

|                                   |                 |   |    |    |       |       |                    |            |       |     |                    |                    |
|-----------------------------------|-----------------|---|----|----|-------|-------|--------------------|------------|-------|-----|--------------------|--------------------|
| 14160 <i>speciosa W.</i>          | splendid        | ♂ | or | 10 | a.us  | Pu    | E. Indies          | 1742.      | C     | lp  | Jac. ic. 1. t. 198 |                    |
| 14161 <i>latistilqua W.</i>       | broad-podded    | ♂ | or | 10 | mr.jn | Pk    | W. Indies          | 1777.      | C     | lp  | Plum. ic. 3. t. 6  |                    |
| 14162 <i>Leb'beck W.</i>          | Egyptian        | ♀ | or | 90 | mr.jn | Pk    | Egypt              | 1823.      | C     | lp  | Pl.man.p.331.f.1   |                    |
| 14163 <i>discolor W.</i>          | two-colored     | ♂ | or | 10 | mr.jn | Y     | N. S. W.           | 1788.      | S     | ap  | Bot. rep. 235      |                    |
| 14164 <i>pubescens H. K.</i>      | hairy-stemmed   | ♂ | or | 10 | mr.jn | Y     | N. S. W.           | 1790.      | R     | ap  | Bot. rep. 1263     |                    |
| 14165 <i>lophantha W.</i>         | two-spiked      | ♂ | or | 6  | my.jl | Y     | N. Holl.           | 1803.      | S     | ap  | Bot. mag. 2108     |                    |
| 14166 <i>brachyloba W.</i>        | Illinois        | ♂ | or | 2  | ...   | W     | N. Amer.           | 1803.      | C     | sp  |                    |                    |
| 14167 <i>glandulosa W.</i>        | glandulous      | ♂ | or | 2  | ...   | W     | N. Amer.           | 1806.      | C     | sp  | Vent. choix. 27    |                    |
| 14168 <i>decurrens W.</i>         | decurrent       | ♂ | or | 6  | my.jl | Y     | N. S. W.           | 1790.      | S     | ap  |                    |                    |
| 14169 <i>mollis B. Reg.</i>       | soft            | ♂ | or | 6  | jl.au | Y     | N. Holl.           | 1810.      | C     | sp  | Bot. rep. 371      |                    |
| 14170 <i>peregina W.</i>          | white-flowered  | ♂ | or | 8  | jl    | W     | S. Amer.           | 1780.      | C     | sp  |                    |                    |
| 14171 <i>grandiflora W.</i>       | great-flowered  | ♂ | or | 10 | jn.s  | Pu    | E. Indies          | 1769.      | C     | p.l | Bot. rep. 592      |                    |
| 14172 <i>glauca W.</i>            | glaucous        | ♂ | or | 5  | jn.au | W     | America            | 1690.      | S     | ap  | Cat. car. 2. t. 42 |                    |
| 14173 <i>leucocéphala Pers.</i>   | white-headed    | ♂ | or | 5  | jn.au | W     | S. Amer.           | 1823.      | S     | ap  |                    |                    |
| 14174 <i>portoricensis W.</i>     | Portorice       | ♂ | or | 6  | jn.au | W     | S. Amer.           | 1824.      | S     | ap  | Jacq. ic. t. 633   |                    |
| 14175 <i>quadranguláris Link.</i> | quadrangular    | ♂ | or | 4  | jl.s  | W     | .....              | 1825.      | S     | ap  | Bot. mag. 2651     |                    |
| 14176 <i>dealbata Link.</i>       | whitened        | ♂ | or | 4  | ...   | Y     | .....              | 1824.      | C     | ap  |                    |                    |
| 14177 <i>strombulifera W.</i>     | spiral-podded   | ♂ | or | 8  | ...   | ...   | Peru               | 1825.      | S     | ap  |                    |                    |
| 14178 <i>reticulata W. en.</i>    | netted          | ♂ | or | 10 | ...   | W     | C. G. H.           | 1816.      | C     | ap  | Pluk.al. t.123.f.2 |                    |
| 14179 <i>pulchella H. K.</i>      | zigzag spiny    | ♂ | or | 4  | ap.jl | Y     | N. Holl.           | 1803.      | S     | ap  | Bot. cab. 212      |                    |
| 14180 <i>juliflora W.</i>         | long-flowered   | ♂ | or | 3  | ...   | W     | Jamaica            | 1793.      | C     | sp  |                    |                    |
| 14181 <i>Sénégal W.</i>           | Arabian         | ♂ | or | 20 | ...   | W     | Arabia             | 1823.      | C     | sp  | Alp. ægypt. t. 15  |                    |
| 14182 <i>Giraffe W. en.</i>       | camelopard's    | ♂ | or | 40 | ...   | ...   | C. G. H.           | 1816.      | S     | p.l |                    |                    |
| 14183 <i>Cáfra W.</i>             | Hottentot       | ♂ | or | 12 | ...   | Y.w   | C. G. H.           | 1800.      | S     | ap  |                    |                    |
| 14184 <i>Chúndra W.</i>           | hook-spined     | ♀ | or | 15 | ...   | ...   | E. Indies          | 1789.      | C     | ap  |                    |                    |
| 14185 <i>Cátechu W.</i>           | medicinal       | ♀ | or | m  | 40    | ...   | Pa.Y               | E. Indies  | 1790. | S   | p.l                | Rox. cor.2. t.175  |
| 14186 <i>leucophlæ'a W.</i>       | panicked        | ♀ | or | 12 | ...   | ...   | Pa.Y               | E. Indies  | 1812. | C   | p.l                | Rox. cor.2. t.150  |
| 14187 <i>cornigera W.</i>         | Cuckold Tree    | ♀ | or | 15 | ...   | ...   | Pa.Y               | S. Amer.   | 1692. | C   | p.l                | Plu.al.S.t.122.f.1 |
| 14188 <i>ebúrnea W.</i>           | ivory-thorned   | ♂ | or | 5  | ...   | Y     | E. Indies          | 1792.      | C     | p.l | Rox. cor.2. t.199  |                    |
| 14189 <i>hæmatóxylon W. en.</i>   | hoary           | ♂ | or | 20 | ...   | Y.w   | C. G. H.           | 1816.      | C     | p.l |                    |                    |
| 14190 <i>farnesiána W.</i>        | Sponge Tree     | ♀ | or | ft | 15    | jn.au | Y                  | St. Domin. | 1656. | S   | p.l                |                    |
| 14191 <i>véra W.</i>              | Egyptian Thorn  | ♀ | or | 12 | jl    | W     | Egypt              | 1596.      | C     | p.l | Pluk.al. t.123.f.1 |                    |
| 14192 <i>arábica W.</i>           | Gum Arab. tree  | ♀ | or | ec | 90    | ...   | W                  | E. Indies  | 1820. | S   | p.l                | Pluk.al. t.251.f.1 |
| 14193 <i>ca'sia W.</i>            | gray            | ♀ | or | 15 | ...   | Y     | E. Indies          | 1773.      | S     | p.l | Pluk. t. 330. f. 1 |                    |
| 14194 <i>pennáta W.</i>           | fine-leaved     | ♀ | or | 12 | ...   | Y     | E. Indies          | 1773.      | S     | p.l | Burm. zeyl.2.t.1   |                    |
| 14195 <i>Y'ntsia W.</i>           | angular-stalked | ♀ | or | 12 | ...   | Y.w   | E. Indies          | 1778.      | S     | p.l | Rheed.mal.6.t.4    |                    |
| 14196 <i>Ceratónia W.</i>         | round-leaved    | ♀ | or | 3  | ...   | W     | S. Amer.           | 1800.      | S     | p.l | Plum. ic. t. 8     |                    |
| 14197 <i>tamarindifolia W.</i>    | Tamarind-ldv.   | ♀ | or | 4  | ...   | W     | W. Indies          | 1774.      | S     | p.l | Jac. schæ.3.t.396  |                    |
| 14198 <i>hórrida W.</i>           | horrid          | ♂ | or | 6  | ...   | ...   | Africa             | 1823.      | S     | p.l | Pluk.al. t.121.f.4 |                    |
| 14199 <i>flexuósa W.</i>          | flexuose        | ♂ | or | 6  | ...   | ...   | Cumana             | 1824.      | S     | p.l |                    |                    |
| 14200 <i>brachyacantha W. en.</i> | short-spined    | ♂ | or | 4  | ...   | ...   | S. Amer.           | 1824.      | C     | p.l |                    |                    |
| 14201 <i>ciliáris W. en.</i>      | ciliated        | ♂ | or | 4  | ...   | ...   | S. Amer.           | 1822.      | C     | p.l |                    |                    |
| 14202 <i>peruviána W. en.</i>     | Peruvian        | ♂ | or | 6  | ...   | ...   | Peru               | 1820.      | C     | p.l |                    |                    |
| *2128. <i>VERA-TRUM. W.</i>       | VERATRUM.       |   |    |    |       |       | <i>Melanthaceæ</i> | Sp. 5-7.   |       |     |                    |                    |
| 14203 <i>álbum W.</i>             | white           | ♂ | or | 5  | jn.au | L.Y   | Europe             | 1548.      | Sk    | p.l | Fl. dan. 1120      |                    |
| 14204 <i>viride W.</i>            | green-flowered  | ♂ | or | 5  | jl.au | G     | N. Amer.           | 1742.      | Sk    | p.l | Bot. mag. 1096     |                    |



History, Use, Propagation, Culture,

which yield the gum which is exported from Barbary to Great Britain, grow principally in the Atlas mountains. It is a hard withered looking low tree, with a crooked stem, and a grey bark. The gum exudes naturally from the bark of the trunk and the branches, in a soft, nearly fluid state, and hardens in the air without losing its transparency. It is collected about the middle of December. It has a faint smell when first stowed in the warehouses, and is heard to crack spontaneously for many weeks.

Medicinally gum exerts no action on the living system, but is a simple demulcent, serving to lubricate abraded surfaces, and involve acrid matters in the primæ viæ. In the solid form it is scarcely ever given, unless to sheath the fauces, and allay the tickling irritation which occasions the cough in catarrh and phthisis pulmonalis; in which cases a piece of it is allowed to dissolve slowly in the mouth. It is chiefly used in a state of nuclage.

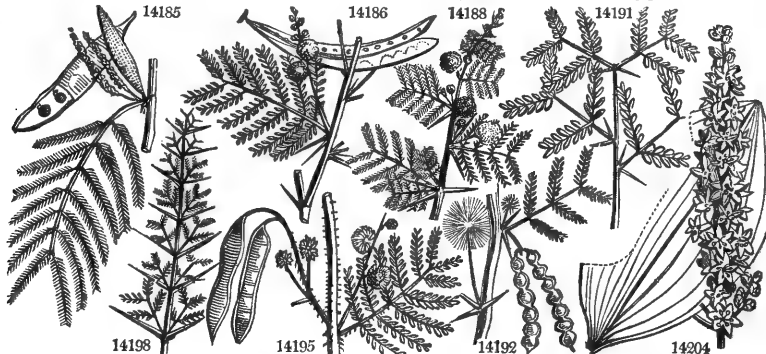
According to Sweet, all the species of *Acacia* are of easy culture. Those of the hothouse he recommends to be grown in loam and peat. "Cuttings," he says, "of most kinds will strike root. From the strongest growing kinds, take off large cuttings at a joint, and plunge them in a pot of sand under a hand-glass in the bark-bed.

- 14160 Lvs. bipinn. : partial of 4-5 pair ; proper of 7-11 pair halved blunt smooth, Spikes subcapitate axill. aggregate  
 14161 Lvs. bipinn. : partial of 5 pair ; proper of 10 pair ellipt. blunt, Spikes globose stalked termin. with bractæ  
 14162 Lvs. bipinn. : partial of 4 pair ; proper of many pair oblong halved blunt, Spikes subglobose term. aggregate  
 14163 Lvs. bipinn. : partial of 5 pair ; proper of about 10 pair discolored beneath, Spikes globose stalked racemose  
 14164 Lvs. bipinn. : partial of 8 pair ; proper of about 15 pair, Racemes axillary solitary, Heads globose stalked  
 14165 Lvs. bipinn. : partial of 9-12 pair ; proper of 20 pair lanc. veinless, A gland on stalk and betw. 2 term. petiol.  
 14166 Lvs. bipinn. : partial of 8 pair ; proper of many pair, A gland between the lowest pair of the partial ones  
 14167 Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland betw. every pair of partial ones, Spikes glob.  
 14168 Lvs. bipinn. : part. of 11 pair ; prop. of many pair, A gland betw. every pair of part. ones, Part. petiole marg.  
 14169 Lvs. bipinn. : partial of 8-16 pair ; proper of many pair lin. very close downy, A gland between every pair  
 14170 Lvs. bipinn. : partial of 16 pair ; proper of about 40 pair, A gland on petiole, Spikes glob. stalked axill. in 3s  
 14171 Lvs. bipinnate : partial of 17 pair ; proper of about 40 pair, Spikes subcapitate stalked racemose terminal  
 14172 Leaves bipinnate : partial 5-6 pairs ; proper of 18 distant pair, Spikes globose stalked axillary  
 14173 Leaves bipinnate, Pinnæ of 4 or 5 pair, Leaflets of 12 or 15 pair oblong linear acute, Petiole downy  
 14174 Lvs. bipinn. : partial of 5 pair ; proper of many pair lin. acute, Spikes glob. axill. about 3, Cal. ciliat. at edge  
 14175 Lvs. of 5 pair, Pinnæ of many pairs, Leaf. lin. acute ciliat. Rachis of lvs. downy, Heads axill. on long stalks  
 14176 Leaves of 15 pair, Pinnæ of many pair, Leaflets equal-sided minute downy, Racemes lateral

## \* Spiny.

- 14177 Spines stipulary, Leaves conjugate pinnate, Pinnæ of 4-6 pair, Pods spirally twisted  
 14178 Spines stipul. straight almost length of leaf. Leaflets oblong linear obtuse dist. Petiole with a gland at end  
 14179 Lvs. conjugate pinnate, A stalked gland betw. pinnæ which consist of 5-7 pair, Stip. spiny as long as leaves  
 14180 Spines stipulary twin, Lvs. bipinn. : partial of 2 pair ; proper of 20 pair, Spikes axill. 2-3 cylind. pendulous  
 14181 Spikes stipul. in 3s: midd. one reflex. Lvs. bipinn. : part. of 5 or 6 pair : prop. of many pair, Spikes axill. cylind.  
 14182 Spines stipul. twin con. as long as lvs. Lvs. bipinn. Pinnæ 3 or 6 pair, Leaf. 20 pair, Gland betw. every pinnæ  
 14183 Spines stipulary twin incurv. Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland on the petiole  
 14184 Spines stipulary twin hooked, Leaves bipinnate : partial of 9-13 pair ; proper of many pair, A gland on the petiole and between the three terminal outer leaflets  
 14185 Spines stipulary twin hooked, Leaves bipinnate : partial of 10 pair ; proper of many or downy, A gland on the petiole and between the two terminal outer leaflets  
 14186 Spines stipulary twin connate, Leaves bipinnate : partial of 6-10 pair ; proper of many, A gland between the 2 pair of partial leaves  
 14187 Spines stipulary connate compressed, Leaves bipinnate : partial of 6 pair : proper of 20 pair smooth, A gland on the petiole  
 14188 Spines stipul. connate twin, Leaves bipinnate : partial of 4 pair ; proper of 6 pair, Spikes globose aggregate  
 14189 Spines double slender and branches smooth, Branchlets, leaves, peduncles and fls. hoary  
 14190 Spines stipulary setac. dist. Lvs. bipinn. : partial 16 pair ; proper many pair, A gland on petiole and between 2 term. pair of partial leaves  
 14191 Spines stipulary twin spreading, Leaves bipinnate : partial of 2 pair ; proper of 8-10 pair, A gland betw. each pair of partial leaves  
 14192 Spines stipul. twin spread. Lvs. bipinn. : partial of 5 pair ; proper of many pr. Spikes globose axill. stalked  
 14193 Prickly, Lvs. bipinn. : partial of 7 pair ; proper of 16 pair, A gland on petiole, Spikes globose panic. term.  
 14194 Prickly, Lvs. bipinn. : partial and proper of many pr. A gland on petiole, Com. ped. and petioles prickly at  
 14195 Prickly, Leaves bipinnate : partial of 6 pair ; proper of about 12 pair incurved, Petioles prickly [base  
 14196 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 3 pair obovate 3-nerved  
 14197 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 15 pair, Gland on petioles stip. and bractes cordate  
 14198 Spines stipul. twin nearly as long as lvs. Lvs. bipinn. of 2 or 3 pr. : partial of about 10 pr. Spikes glob. stalked  
 14199 Spines stipulary twin connate, Leaves bipinnate : partial of 16 pair ; proper of many pair, A gland on the petiole and between the two terminal pair of partial leaves  
 14200 Spines stipulary twin hooked, Leaves bipinnate, Pinnæ of about 10 pair, Leaflets of 10 or 12 pair ciliated  
 14201 Spines stipul. twin straight subulate, Leaves bipinnate, Pinnæ of 3 or 4 pair, Leaflets of 13 pair ciliated  
 14202 Spines stipulary setaceous double, Leaves bipinnate, Pinnæ of 2 pair, Leaflets of 11-15 pair blunt smooth

- 14203 Racemes panicled, Bractes of branches oblong : partial as long as downy peduncle, Flowers erect  
 14204 Racemes panicled, Bractes of branches oblong-lanceolate : partial longer than downy petiole



## and Miscellaneous Particulars.

Of the smaller kinds take younger cuttings, and put them under a bell-glass, also plunged in water. The sooner the plants are potted off after they are rooted the better. If they stay too long, the sand injures their roots ; they should be kept under a close glass, and shaded for a few days after potting off, and exposed to the air by degrees." (*Bot. Cult.* 11.)

The greenhouse species are particularly valuable as flowering for the most part in winter, or early in spring ; they are very hardy and grow freely in loam, peat, and sand well drained. Cuttings of most kinds, Sweet observed, will root pretty freely, taken off in the young wood and planted in sand, under a bell-glass, and plunged in a little bottom heat. The kinds that do not root readily from cuttings may be increased by taking off roots, as large pieces as can be spared, and planting them in the same kind of soil as the old plants, when they should be plunged under a hand-glass in a little bottom heat. Most of the kinds might be propagated by that means. (*Bot. Cult.* 196.)

2128. *Veratrum*. Said by Lemery to be so called, because its root is *vera-trum*, truly black. *V. album* has a fleshy fusiform root, beset with strong fibres, gathered into a head ; this root and every part of the plant is

|        |                                  |                    |         |    |       |       |                  |                  |   |     |                          |
|--------|----------------------------------|--------------------|---------|----|-------|-------|------------------|------------------|---|-----|--------------------------|
| §14905 | <i>virginicum</i> <i>H. K.</i>   | Virginian          | ♂ Δ or  | 2  | jn.jl | Br    | N. Amer.         | 1768.            | D | lp  | Bot. mag. 985            |
| 14206  | <i>nigrum</i> <i>W.</i>          | dark-flowered      | ♂ Δ or  | 3  | jn.jl | D. Pu | Siberia          | 1596.            | D | p.l | Bot. mag. 963            |
| 14207  | <i>parviflorum</i> <i>W.</i>     | small-flowered     | ♂ Δ or  | 2  | jn.jl | G     | Carolina         | 1809.            | D | pl  |                          |
| *2129. | <b>ANDROPOGON.</b> <i>W.</i>     | <b>ANDROPOGON.</b> |         |    |       |       | <i>Gramineæ.</i> | <i>Sp. 6—66.</i> |   |     |                          |
| §14208 | <i>striatus</i> <i>W.</i>        | nerve-glumed       | ♂ Δ un  | 1½ | au    | Ap    | E. Indies        | 1793.            | D | co  |                          |
| §14209 | <i>contortus</i> <i>W.</i>       | twisted            | ♂ Δ un  | 2  | jl.s  | Ap    | E. Indies        | 1779.            | D | co  | Sch. ha. 3. t. 342. a.   |
| §14210 | <i>Schaenanthus</i> <i>W.</i>    | Lemon-grass        | ♂ Δ ft  | 1½ | ...   | Ap    | E. Indies        | 1786.            | D | co  | Ru. am. 5. t. 72. f. 2   |
| §14211 | <i>distachyos</i> <i>W.</i>      | two-spiked         | ♂ Δ un  | 1½ | jl.au | Ap    | S. Europe        | 1805.            | D | co  | Fl. græc. 1. t. 69       |
| §14212 | <i>muticus</i> <i>W.</i>         | smooth-spiked      | ♂ Δ un  | 1  | jl.s  | Ap    | C. G. H.         | 1794.            | D | co  |                          |
| 14213  | <i>Ischæmum</i> <i>W.</i>        | woolly             | ♂ Δ un  | 1  | au    | Ap    | S. Europe        | 1768.            | D | co  | Sch. gram. 2. t. 33      |
| *2130. | <b>CHLORIS.</b> <i>W.</i>        | <b>CHLORIS.</b>    |         |    |       |       | <i>Gramineæ.</i> | <i>Sp. 5—24.</i> |   |     |                          |
| §14214 | <i>petrea</i> <i>W.</i>          | flat-stalked       | ♂ Δ pr  | ½  | jl.au | Ap    | Jamaica          | 1779.            | D | co  | Vah. symb. 2. t. 27      |
| 14215  | <i>ciliata</i> <i>W.</i>         | ciliated           | ♂ Δ pr  | ½  | jl.s  | Ap    | Jamaica          | 1779.            | D | co  |                          |
| 14216  | <i>radiata</i> <i>W.</i>         | many-spiked        | ♂ Δ pr  | ½  | au.s  | Ap    | W. Indies        | 1739.            | S | co  | Moris. a. 3. t. 3. f. 15 |
| 14217  | <i>barbata</i> <i>W.</i>         | bearded            | ♂ Δ pr  | 1  | jn.jl | Ap    | E. Indies        | 1777.            | S | co  |                          |
| §14218 | <i>curtipendula</i> <i>W.</i>    | short-spiked       | ♂ Δ pr  | ½  | jn.au | Ap    | Illinois         | 1808.            | D | co  |                          |
| 2131.  | <b>SORGHUM.</b> <i>W. en.</i>    | <b>SORGHUM.</b>    |         |    |       |       | <i>Gramineæ.</i> | <i>Sp. 5—9.</i>  |   |     |                          |
| 14219  | <i>bicolor</i> <i>W. en.</i>     | two-colored        | ♂ ○ ctt | 3  | jl    | Ap    | Persia           | 1731.            | S | co  | M. ac. he. 8. t. 4. f. 4 |
| 14220  | <i>vulgare</i> <i>W. en.</i>     | Indian Millet      | ♂ ○ ctt | 4  | jl    | Ap    | India            | 1596.            | S | co  | M. ac. he. 3. t. 4. f. 3 |
| 14221  | <i>rubens</i> <i>W. en.</i>      | red-seeded         | ♂ ○ ctt | 3  | jl    | Ap    | Africa           | 1817.            | S | co  |                          |
| 14222  | <i>saccharatum</i> <i>W. en.</i> | yellow-seeded      | ♂ ○ ctt | 6  | jl.au | Ap    | India            | 1759.            | S | co  | A. ac. pa. 1. t. 4. f. 2 |
| 14223  | <i>halépense</i> <i>P. S.</i>    | panicled           | ♂ Δ un  | 3  | jl.au | Ap    | Syria            | 1691.            | D | co  | Fl. græc. 1. t. 68       |
| *2132. | <b>HOLCUS.</b> <i>W. en.</i>     | <b>SOFT-GRASS.</b> |         |    |       |       | <i>Gramineæ.</i> | <i>Sp. 6—8.</i>  |   |     |                          |
| §14224 | <i>Grillus</i> <i>R. Br.</i>     | purple-flower'd    | ♂ Δ un  |    | jn.jl | Ap    | S. Europe        | 1791.            | D | co  | Fl. græc. 1. t. 67       |
| 14225  | <i>mollis</i> <i>W.</i>          | creeping           | ♂ Δ ag  | 2  | jl.au | Ap    | Britain          | corn fl.         | D | h.l | Eng. bot. 1170           |
| 14226  | <i>lanatus</i> <i>W.</i>         | meadow             | ♂ Δ ag  | 3  | jn.jl | Ap    | Britain          | me. pa.          | D | h.l | Eng. bot. 1169           |
| §14227 | <i>avenaceus</i> <i>W. en.</i>   | Oat-like           | ♂ Δ ag  | 5  | jn.jl | Ap    | Britain          | me. pa.          | D | co  | Eng. bot. 813            |
| §14228 | <i>bulbosus</i> <i>W. en.</i>    | bulbous-rooted     | ♂ Δ ag  | 3  | jn.jl | Ap    | .....            | .....            | D | co  |                          |
| §14229 | <i>odoratus</i> <i>W.</i>        | sweet-scented      | ♂ Δ ft  | 1½ | jn.jl | Ap    | N. Amer.         | 1777.            | D | co  |                          |
| 2133.  | <b>ISCHÆMUM.</b> <i>W.</i>       | <b>ISCHEMUM.</b>   |         |    |       |       | <i>Gramineæ.</i> | <i>Sp. 2—21.</i> |   |     |                          |
| 14230  | <i>aristatum</i> <i>W.</i>       | bearded            | ♂ Δ un  | 2  | jn.jl | Ap    | E. Indies        | 1803.            | D | co  |                          |
| 14231  | <i>rugosum</i> <i>W.</i>         | rough              | ♂ ○ un  | 2  | jl.au | Ap    | E. Indies        | 1791.            | S | co  | Sal. stir. rar. 1. t. 1  |



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extremely acrid and poisonous. It is used in medicine, and its properties are found to depend on veratrine, the same alkaline principle which is the active ingredient of colchicum. Medicinally it is violently cathartic and sternutatory. When taken internally, even in moderate doses, its operation is violent and dangerous; producing besides hypercatharsis, with bloody stools and excessive vomiting, great anxiety, tremors, vertigo, syncope, sinking of the pulse, cold sweats, and convulsions, terminating, if the dose be large, in death. Its external application to an ulcerated surface also produces griping and purging. Notwithstanding these effects, Veratrum has been exhibited internally, and with advantage, in mania, epilepsy, scabies, lepra, and obstinate herpetic eruptions. But the most ordinary use of white hellebore is as a local stimulant. When taken internally as a poison, the best antidote is a strong infusion of nut-galls. (*Thom. Lond. Disp.* p. 545.)

*V. nigrum* is very nearly allied to album, but differs in color, and seems not to be so strong and acrid in its qualities; for when both sorts are placed near each other, snails will entirely devour the leaves of this species, when they will scarcely touch those of the other.

§129. *Andropogon.* From *ανδρ*, a man, and *πωγων*, a beard. A hyperbolic comparison of the little tuft of hairs upon the flower to the beard of a man. *A. schænanthus* has an agreeable smell, with a warm, bitterish, not unpleasant taste. It was formerly brought over from Turkey in bundles about a foot long, and kept in the shops to be employed as a stomachic and deobstruent, but it is now little used. All the species are of the easiest culture.

2130. *Chloris.* Derived from *χλωρος*, green, on account of the color of its herbage. Pretty little grasses, with beautiful one-sided spikes of silky flowers.

2131. *Sorghum.* *Sorghum* is the Indian name, according to Bauhin. *S. vulgare*, *grand millet*, Fr., *Saggena* or *Sorgo*, Ital., and *alcandia*, Span., is much cultivated in Arabia and most parts of Asia Minor. It has been introduced into Italy, Spain, Switzerland, and some parts of Germany; also into China, Cochinchina, and the West Indies, where it grows commonly five or six feet high or more, and being esteemed a hearty food for labourers, is called *Negro Guinea corn*. Its long awns or bristles defend it from the birds. In England, the autumns are seldom dry and warm enough to ripen the seeds well in the field. In Arabia it is called *Dora* or *Durra*. The flour is very white, and they make good bread of it, or rather cakes, about two inches in thickness. The bread which they make of it in some parts of Italy is dark and coarse. In Tuscany it is used chiefly for feeding poultry and pigeons; sometimes for kine, swine, and horses. Brooms are made of the spikes, which are also sent to this country for the same purpose. The Indian millet, as well as the common sort (*Panicum*), is cultivated in some parts of North America, and has been tried in this country, but it is only in the warmest autumns that it ripens its seeds. It might probably, however, be acclimated.

- 14205 Racemes panicled, Bractes shorter than peduncle, Petals with 2 glands at base  
 14206 Racemes supradecomposed panicled, Bractes of branches linear-lanceolate very long  
 14207 Racemes panicled, Petals bearing the stamens on their claw
- 14208 Spike simple, Flowers twin : hermaphrodite sessile awned ; male stalked, Outer valve of cal. nerved  
 14209 Spike simple, Lower flower beardless, Male and hermaphrodite calyxes hairy, Awns very long hirsute  
 14210 Spikes imbric. conjug. panic. bract. Fls. in 3s : midd. hermaph. beard. : beard smooth : lat. stalk. male beard.  
 14211 Spikes twin terminal, Florets twin bearded : hermaphrodite sessile ; male bearded, Culm undivided  
 14212 Spikes digitate about 3, Florets alternate sessile beardless  
 14213 Spikes digitate about 8, Florets twin woolly at base : hermaphrodite sessile bearded ; male stalked bearded
- 14214 Spikes 4-5-6 straight erect, Florets imbric. nearly smooth beardless, Outer valve of cal. beard. Culm compr.  
 14215 Spikes digitate about 5 erect, Glumes ciliated  
 14216 Spikes many fasciated nearly erect, Florets subulate smooth  
 14217 Spikes many fasciated, Glumes ciliated bearded, Male valves ventricose bearded  
 14218 Spikes many alternate panicled pendulous, Spikelets 4-flowered
- 14219 Panicle contracted ovate, Florets strigose with down black, Seeds white round  
 14220 Panicle contracted oblong, Florets obovate shining hairy, Seeds compressed  
 14221 Panicle spreading, Florets oblong acute shining ciliated  
 14222 Panicle effuse, Branches spreading, Florets villous oblong, Leaves broad lanceolate  
 14223 Panicle spreading, Branches rough, Florets lanc. acute silky shining, Leaves lanceolate rough at edge
- 14224 Panicle effuse spreading, Branches whorled 3-fl. Peduncles bearded, Leaves and sheaths hairy  
 14225 Glumes 2-fl. hermaphrodite, Sessile floret beardless stalked bearded, Beard longer than flower  
 14226 Glumes 2-fl. : hermaphrodite beardless, Beard of the male much shorter than flower recurved  
 14227 Male flowers with a jointed beard twice as long as calyx, Joints of culm smooth, Root nodose  
 14228 Male flowers with a jointed beard twice as long as calyx, Joints of culm villous, Root bulbous [Gm.  
 14229 Panicle spread, Glumes 3-fl. beardl. flower. heaped : hermap. in midd. diand. ; male triand. cilia. *Hierochloa*

- 14230 Leaves lanc. Florets naked, Outer valve of cal. with 2 nodules on each side, Beard of cor. long twisted  
 14231 Leaves lanceolate, Neuter florets intermediate wrinkled across : two lateral smooth



and Miscellaneous Particulars.

2132. *Holcus*. From *ἄλω*, to extract. It was a popular notion among the ancients, that the leaves of the plant they called *Holcus*, which seems to have been a grass of some kind, had the property of extracting thorns from the flesh. *H. mollis* is distinguished by its creeping roots, which, when once in possession of the soil, as Mr. Sinclair observes, can hardly be again expelled without great labor and expence. It is the true couch-grass of light sandy soils, and underground stolones have been found five feet in length, the growth of a few months only. These root-shoots contain a very considerable quantity of nutritive matter, which has the flavor of new made meal. Pigs are very fond of the roots, and dig them up with eagerness ; but the herbage is disliked by cattle, more than that of any other species of the genus, being extremely soft, dry, and tasteless. The best mode of banishing this weed from light arable lands, is to collect the roots with the fork after the plough. (*Sinclair, Hort. Gram.* 167.)

*H. lanatus* has a fibrous root, and grows on all soils from the richest to the poorest, but attains to the highest degree of luxuriance on light moist peaty soils. Cattle prefer almost any other grass to this ; it is seen in pastures with full grown perfect leaves, while the grasses that surround it are cropped to the roots. Its nutritive matter consists entirely of mucilage and sugar ; while the nutritive matters of grasses most liked by cattle are either sub-acid or saline. Mr. Sinclair suggests, that this grass might probably be made more palatable to cattle, by being sprinkled over with salt. (*Hort. Gram.* 164.)

*H. avenaceus*, the *Avena elatior* of Linnæus, Curtis, and Host, is a bulky productive grass, eaten by horses, cattle, and sheep, but less nutritious than many other grasses. It pushes rapidly after being cropped ; and though later in flowering than many other species, produces an early and plentiful supply of herbage in the spring. These properties would entitle it to rank high as a grass adapted for the alternate husbandry, but its nutritive matter contains too large a proportion of bitter extractive and saline matters to warrant its cultivation, without a considerable admixture of different grasses ; and the same objection extends to its culture for permanent pasture. It is always present in the composition of the best natural pastures, and, as before mentioned, eaten in common with other grasses. It does not, however, constitute a large proportion of the herbage, but rather the least of any of the more valuable grasses that have been mentioned. (*Hort. Gram.* p. 171.) This grass and *Triticum repens* are the two species eaten by dogs to excite vomiting. One variety has bulbous roots, and is a noxious weed in arable lands.

*H. odoratus* is one of the earliest flowering grasses ; but it is tender, the spring produce of herbage is inconsiderable, and its powerful creeping roots render it unfit for agricultural purposes. (*Hort. Gram.* 169.)

2133. *Ischaemum*. From *ἰσχω*, to stop, and *αιμα*, blood. Pliny says, that the Thracians first discovered that the woolly seed which is borne by the *Ischaemum*, if introduced into the nostrils, has the power of stopping the bleeding at the nose. Useless grasses.

|                                       |                                |    |       |                    |                   |                 |       |                                |
|---------------------------------------|--------------------------------|----|-------|--------------------|-------------------|-----------------|-------|--------------------------------|
| 2134. <i>ÆGILOPS</i> . <i>W.</i>      | HARD-GRASS.                    |    |       | <i>Gramineæ.</i>   | <i>Sp. 5.</i>     |                 |       |                                |
| 14232 ovata <i>W.</i>                 | oval-spiked                    | ♂  | ○ un  | ½ jn.jl            | Ap                | S. Europe       | 1683. | S co Fl. græc. 1. t. 93        |
| 14233 truncifolia <i>W.</i>           | long-spiked                    | ♂  | ○ un  | ½ jl.au            | Ap                | S. Europe       | 1739. | S co Sch. gr. 1. t. 10. f. 1   |
| 14234 cylindrica <i>W.</i>            | cylindrical                    | ♂  | ○ un  | 1 jn.jl            | Ap                | Hungary         | 1805. | S co Host. gram. 2. t. 7       |
| 14235 squarrosa <i>W.</i>             | rough-spiked                   | ♂  | △ un  | 1½ jn.jl           | Ap                | Levant          | 1794. | S co Sch. gr. 2. t. 27. f. 2   |
| 14236 caudata <i>W.</i>               | Cretan                         | ♂  | ○ un  | 1 jn.jl            | Ap                | Candia          | 1739  | S co Fl. græc. 1. t. 95        |
| 2135. <i>MANISURIS</i> . <i>W.</i>    | MANISURIS.                     |    |       | <i>Gramineæ.</i>   | <i>Sp. 1—2.</i>   |                 |       |                                |
| 14237 granulâris <i>W.</i>            | round-grained                  | ♂  | □ cu  | 1½ jn.jl           | Ap                | E. Indies       | 1784. | S co Roxb. cor. 2. t. 118      |
| 2136. <i>VALANTIA</i> . <i>W.</i>     | VALANTIA.                      |    |       | <i>Rubiaceæ.</i>   | <i>Sp. 10.</i>    |                 |       |                                |
| 14238 Cruciata <i>W.</i>              | Crosswort                      | ♂  | △ or  | 1½ my.jn           | Y                 | Britain         | ...   | D co Eng. bot. 143             |
| 14239 murâlis <i>W.</i>               | wall                           | ○  | ○ un  | ½ my.jl            | G                 | S. Europe       | 1739. | S co Col. eph. t. 297          |
| 14240 hispida <i>W.</i>               | bristly                        | ○  | ○ un  | 1 my.jl            | G.v               | S. Europe       | 1768. | S co                           |
| 14241 filiformis <i>W.</i>            | least                          | ♂  | ○ un  | ½ jls              | G.v               | Canaries        | 1780. | S co                           |
| 14242 pedemontâna <i>W.</i>           | Piedmont                       | ○  | ○ un  | ½ jl               | G.v               | Hungary         | 1799. | S co Pl. rar. hu. 1. t. 33     |
| 14243 Cucullaria <i>W.</i>            | hooded                         | ○  | ○ un  | my.jn              | G.v               | Levant          | 1780. | S co Bu. cen. 1. t. 19. f. 2   |
| 14244 Aparine <i>W.</i>               | warty-fruited                  | ○  | w     | ½ jn.au            | G.v               | Britain         | ...   | S co Eng. bot. 2173            |
|                                       | <i>Gâtium verrucosum</i> E. B. |    |       |                    |                   |                 |       |                                |
| 14245 articulata <i>W.</i>            | jointed                        | ○  | ○ un  | 1 jl.au            | G.v               | Egypt           | 1752. | S co                           |
| 14246 glabra <i>W.</i>                | smooth                         | ♂  | △ un  | 1 jl.au            | G                 | S. Europe       | 1731. | D co Pl. rar. hu. 1. t. 32     |
| 14247 aspera <i>W.</i>                | rough                          | ♂  | △ un  | ½ jn.jl            | G.v               | Siberia         | 1804. | D co                           |
| 2137. <i>PARIETARIA</i> . <i>W.</i>   | PELLITORY.                     |    |       | <i>Urticæ.</i>     | <i>Sp. 7—19.</i>  |                 |       |                                |
| 14248 indica <i>W.</i>                | Indian                         | ♂  | □ un  | 1½ ap.my           | G                 | E. Indies       | 1790. | D co                           |
| 14249 officinâlis <i>W.</i>           | wall                           | ♂  | △ w   | 1 jn.s             | G                 | Britain walls.  | D co  | Eng. bot. 879                  |
| 14250 judæica <i>W.</i>               | Basil-leaved                   | ♂  | △ un  | 1 jn.s             | G                 | Germany         | 1728. | S co Sch. hand. 3. t. 346      |
| 14251 pensylvanica <i>W.</i>          | Pensylvanian                   | ♂  | ○ un  | ½ jl               | G                 | Pensylva.       | 1821. | S co                           |
| 14252 urticifolia <i>W.</i>           | Nettle-leaved                  | ♂  | ○ un  | 1 jn.s             | G                 | Bourbon         | 1700. | S co                           |
| 14253 lusitanica <i>W.</i>            | Chickweed-lvd.                 | ♂  | ○ un  | ½ jl.au            | G                 | Spain           | 1710. | S co Boc. sic. t. 24. f. B.    |
| 14254 polygonoides <i>W.</i>          | Polygonon-lvd.                 | ○  | ○ un  | ½ jl.au            | G                 | Armenia         | 1728. | S co                           |
| 2138. <i>A/TRIPLEX</i> . <i>W.</i>    | ORACHE.                        |    |       | <i>Chenopodææ.</i> | <i>Sp. 15—37.</i> |                 |       |                                |
| 14255 Hâllmus <i>W.</i>               | tall shrubby                   | n. | or    | 5 jl.au            | G                 | Spain           | 1640. | C co Par. thea. 724. f. 2      |
| 14256 portulacoides <i>W.</i>         | dwarf shrubby                  | n. | or    | 2 jl.au            | G                 | Britain mud.s.  | C co  | Eng. bot. 261                  |
| 14257 glauca <i>W.</i>                | glaucous                       | n. | □ un  | 2 jl.au            | G                 | S. Europe       | 1732. | C s.l. DuR. leit. t. 40. f. 46 |
| 14258 âlbicans <i>W.</i>              | white                          | n. | □ un  | 2 jn.jl            | G                 | C. G. H.        | 1774. | C s.l.                         |
| 14259 rosea <i>W.</i>                 | Rose                           | ○  | ○ un  | 1½ jn.jl           | G                 | S. Europe       | 1739. | S co Sch. hand. 3. t. 350      |
| 14260 sibirica <i>W.</i>              | Siberian                       | ○  | ○ un  | 2 jl.au            | G                 | Siberia         | 1783. | S co S. h. 3. p. 538. t. 350   |
| 14261 tatarica <i>W.</i>              | Tartarian                      | ○  | ○ un  | 2 jl.au            | G                 | Tartary         | 1778. | S co S. h. 3. p. 539. t. 349   |
| 14262 hortensis <i>W.</i>             | garden                         | ○  | ○ cul | 6 jl.au            | G                 | Tartary         | 1548. | S co                           |
|                                       | <i>β rûbra</i>                 | ○  | ○ cul | 6 jl.au            | G                 | Tartary         | 1548. | S co                           |
| 14263 laciniata <i>W.</i>             | frosted sea                    | ○  | ○ w   | 1½ jl.au           | G                 | Britain san.sh. | S co  | Eng. bot. 165                  |
| 14264 pâtuia <i>W.</i>                | spreeding                      | ○  | ○ w   | ½ jn.s             | G                 | Britain dungh.  | S co  | Eng. bot. 936                  |
| 14265 angustifolia <i>W.</i>          | narrow-leaved                  | ○  | ○ w   | ½ jn.au            | G                 | Britain rub.    | S co  | Eng. bot. 1774                 |
| 14266 erecta <i>W.</i>                | upright                        | ○  | ○ w   | 1½ au              | G                 | England fields. | S co  | Eng. bot. 2223                 |
| 14267 littoralis <i>W.</i>            | Grass-leaved                   | ○  | ○ w   | 1 aus              | G                 | Britain mud.s.  | S co  | Eng. bot. 708                  |
| 14268 pedunculata <i>W.</i>           | pedunculated                   | ○  | ○ w   | 1½ jls             | G                 | England sal.m.  | S co  | Eng. bot. 232                  |
| 14269 microspërma <i>W.</i>           | small-seeded                   | ○  | ○ un  | 1½ jls             | G                 | Hungary         | 1800. | S co                           |
| 2139. <i>RHAGODIA</i> . <i>R. Br.</i> | RHAGODIA.                      |    |       | <i>Chenopodææ.</i> | <i>Sp. 1—7.</i>   |                 |       |                                |
| 14270 hastata <i>R. Br.</i>           | halberd-leaved                 | n. | □ un  | 2 jn.jl            | G                 | N. S. W.        | 1803. | C 1 p                          |



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2134. *Ægilops*. From *αἴγος*, a goat, and *ὄψ*, the eye. The ancients believed that the plant they named *Ægilops* had the power of curing a disease of one corner of the eye, which seems to have been what we call *Fistula lachrymalis*. The *Ægilops ovata* is a common Sicilian grass; when ripe, it is gathered by the peasantry, who tie the heads up in bunches, and set them on fire; they burn with rapidity, and so give the grains a slight roasting, which are then considered agreeable food.

2135. *Manisuris*. Said to be so called, from *μασος*, relaxed, and *ουρα*, tail, or, in botanical language, a head of grass; because the spikes are loose, and not compact. A curious little plant remarkable for its wrinkled grains.

2136. *Valantia*. Miserable weeds of no beauty or use; called by their present name by Linnæus in reference to Sebastian Vaillant, a learned and excellent French botanist, who died in 1722. The author of the name would have employed his time better in considering the botanical writings of Vaillant, than in identifying with the most worthless part of vegetation an author whose merits he was not able to understand. No man was more given to sneers of this kind than Linnæus; and yet his followers manifest a most extraordinary degree of sensitiveness whenever he is retorted upon in a similar way; although few ever deserved criticism in some things in a higher degree than himself.

2137. *Parietaria*. From *paries*, a wall. Weeds which are commonly found upon old walls, or rubbish heaps. *P. officinalis* presents some curious anomalies in its inflorescence and fructification. To obtain a perfect idea of

- 14232 Spike ovate, Cal. all with 4 beards scabrous, Culms ascending  
 14233 Spike cylind. Lower cal. with 2 beards : the rest with 3, Beards of 2 terminal florets longer than the rest  
 14234 Spike cylindrical, Cal. with 1 beard, Cor. beardless, Terminal beards very long  
 14235 Spike cylindrical, Cal. 2-toothed beardless, Co.r with 1 beard  
 14236 Spike cylindrical, Cal. 2-toothed : teeth unequal beardless, Valves of terminal floret with 1 valve only

14237 Valves of female fl. globose tessellated warted, Culm erect branched, Sheaths hairy

- 14238 Leaves 4 ellipt. obl. 3-nerved netted hispid, Peduncles branched smooth bracted, Fruit smooth  
 14239 Leaves 4 elliptical netted smooth, Male fl. trifid attached to the base of the hermaphrodite  
 14240 Leaves 4 obovate-oblong veinless roughish, Male fl. trifid attached to the base of the hermaphrodite  
 14241 Leaves 4 oblong ciliate toothletted netted smooth, Ovary oblong chafy longer than pedicel  
 14242 Leaves 4 oblong ciliate hispid, Pedunc. subfid ciliated, Male fl. trifid, Ovary smooth  
 14243 Leaves 4 oblong, Peduncles protected by the ovate deflexed bractea, Stem erect  
 14244 Leaves 6 linear lanceolate hispid at edge, Pedunc. 2-f. naked, Male fl. trifid, Fruit warted

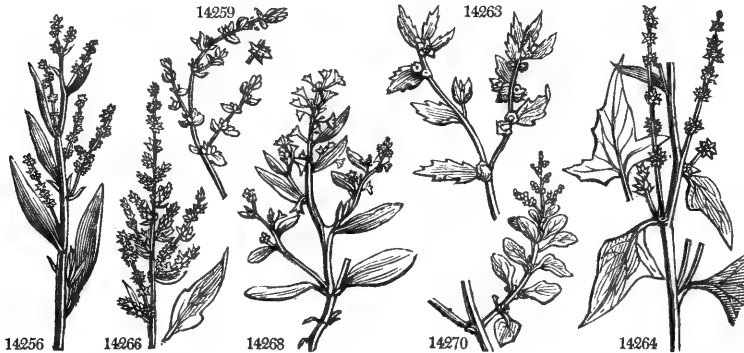
- 14245 Male fl. 4-fid, Pedunc. dichotomous leafless, Leaves cordate  
 14246 Leaves 4 elliptical ciliated, Pedunc. branched naked and fruit smooth  
 14247 Leaves 6 linear very rough at edge, Stalk and fruit hispid

- 14248 Leaves lanceolate, Stem erect  
 14249 Leaves oblong ovate acuminate at each end with pellucid dots, Pedunc. dichotomous, Cal. 2-leaved  
 14250 Leaves ovate, Stem erect, Invol. 3-flowered, Male corollas long cylindrical  
 14251 Leaves oblong lanceolate veiny with opaque dots, Involucre longer than flowers  
 14252 Leaves opposite stalked ovate serrated veiny downy, Flowers axillary  
 14253 Leaves roundish ovate obtuse the length of petiole, Stems filiform procumbent  
 14254 Leaves linear lanceolate subsessile hairy, Invol. longer than flower

- 14255 Stem shrubby, Leaves alternate or opposite oblong subrhomboid entire  
 14256 Stem shrubby, Leaves obovate-lanceolate entire silvery white  
 14257 Stem half-shrubby procumbent, Leaves ovate sessile entire : lower a little toothed  
 14258 Stem shrubby erect, Leaves hastate entire acute, Spikes terminal  
 14259 Stem herb. spreading, Leaves triangular hoary unequally toothed, Cal. of fruit quadrang. toothed  
 14260 Stem herbaceous spreading, Leaves rhomboid somewhat toothed, Cal. of fruit muricate toothed  
 14261 Stem herbaceous erect, Leaves oblong sinuated cuneate at base hoary beneath, Cal. of fruit toothed  
 14262 Stem herbaceous erect, Leaves triangular toothed whole-colored, Cal. of fruit ovate netted entire

- 14263 Stem herbaceous diffuse, Leaves ovato-deltoid dentato-sinuate very mealy beneath [tuberculat. at side  
 14264 Stem herb. spreading, Lvs. triang. hast. glab. above irregul. tooth. : upp. ones ent. Cal. of fr. more or less  
 14265 Stem herb. spread. Lvs. lanc. ent. : lower ones somew. hast. Cal. of fruit hastate slightly tuberculat. at sides  
 14266 Stem herbaceous erect, Leaves ovate-lanceolate ; lower sinuated, Cal. of seeds muricated  
 14267 Stem herbaceous erect, Lvs. all linear ent. or toothed, Perianth. of fruit sinuated and muricated on back  
 14268 Stem herbaceous flexuose spreading, Leaves obovate entire, Female flowers stalked cuneiform  
 14269 Stem herbaceous erect, Leaves triang. hastate acutish a little toothed, Cal. of fruit ovate acute entire

14270 Branches diffuse, Leaves nearly opposite rhomboid-hastate entire smooth, Spikes terminal leafless



and Miscellaneous Particulars

the manner in which this is carried on, the flowers should be examined at a very early period of their expansion. The manner in which the stamens shed their pollen is curious. The filaments on their first appearance all bend inwards ; as soon as the pollen is arrived at a proper state to be discharged, the warmth of the sun, or the least touch from the point of a pin will make them instantly fly back, and discharge a little cloud of dust. This process is best seen in a morning, when the sun shines on a plant in July or August : if the plant be large, numbers will be seen exploding at the same instant. Mr. Curtis remarks, that the same degree of cold (thirty-one Fahrenheit) which strips the mulberry of its leaves, will destroy the herbage of Parietaria. The ashes of the plant are said to contain a considerable quantity of nitre.

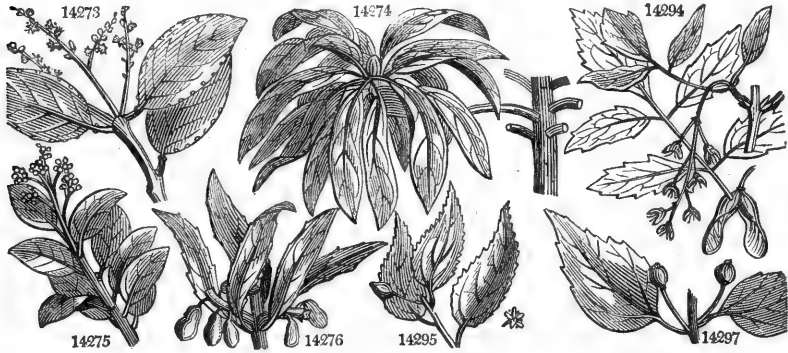
2138. *Atriplex*. The same name as *Atraphaxis*, which see. *A. Halimus* (*ελαιος*, maritime) grows on the sea-coast of the south of Europe, and in this country its silver-colored foliage adds to the variety of our shrubberies. *A. portulacoides* requires to be planted on a poor gravelly soil ; in its native state it prefers the seashore and salt marshes. *A. hortensis*, sometimes called mountain spinach, was formerly cultivated as a culinary herb, and is still grown to a considerable extent in the neighbourhood of Paris, and the leaves gathered as spinach. There are several varieties more or less tinged with red or purple. The leaves of all the species may no doubt be used as pot-herbs.

2139. *Rhagodia*. From *ραγωδιος*, bearing berries.

New Holland shrubs with alternate leaves, and flowers growing in racemose spikes.



|   |                  |   |       |                                |                              |   |
|---|------------------|---|-------|--------------------------------|------------------------------|---|
| 2140. <i>TERMINALIA</i> . <i>W.</i> <i>TERMINALIA</i> . |                  |   |       | <i>Combretaceae.</i> Sp. 4—11. |                              |   |
| 14271 <i>Catappa</i> <i>W.</i>                          | broad-leaved     | ☐ | or 90 | ...                            | W.g                          | E. Indies 1778. S p.1 Jac. lc. 1. t. 197      |
| 14272 <i>moluccana</i> <i>W.</i>                        | Molucca          | ☐ | or 90 | ...                            | W.g                          | E. Indies 1804. C p.1                         |
| 14273 <i>Chéoula</i> <i>W.</i>                          | oval-leaved      | ☐ | or 90 | ...                            | W.g                          | E. Indies 1796. C p.1 Rox. cor. 2. t.197      |
| 14274 <i>angustifolia</i> <i>W.</i>                     | narrow-leaved    | ☐ | or 20 | ...                            | W.g                          | E. Indies 1692. S p.1 Jac. vind. 3. t.100     |
| 2141. <i>FUSANUS</i> . <i>L.</i>                        | COLPOON.         |   |       |                                | <i>Santalaceae.</i> Sp. 1.   |   |
| 14275 <i>compressus</i> <i>L.</i>                       | flat-stalked     | ☐ | un 1½ | ...                            | G.w                          | C. G. H. 1776. C 1p Ber. ca. 38. t. 1. f. 1   |
| 2142. <i>BRABEJUM</i> . <i>W.</i>                       | AFRICAN-ALMOND.  |   |       |                                | <i>Proteaceae.</i> Sp. 1.    |   |
| 14276 <i>stellatum</i> <i>Thunb.</i>                    | common           | ☐ | or 15 | ...                            | C. G. H.                     | 1731. C 1p Brey. cent. 1. t. 1                |
| † 2143. <i>A' CER</i> . <i>W.</i>                       | MAPLE.           |   |       |                                | <i>Acerineae.</i> Sp. 17—30. |   |
| 14277 <i>heterophyllum</i> <i>W.</i>                    | evergreen        | ☐ | or 4  | ...                            | my.jn                        | Levant 1759. S co W. arb. 10. t. 1. f. 1      |
| 14278 <i>tataricum</i> <i>W.</i>                        | Tartarian        | ☐ | or 20 | ...                            | my.jn                        | G Tartary 1759. L co Dead. brit. 160          |
| 14279 <i>Pseudo-Platanus</i>                            | Sycamore         | ☐ | or 50 | ...                            | ap.my                        | G Britain hed. S co Eng. bot. 303             |
| 14280 <i>róbrum</i> <i>W.</i>                           | Red or Swamp     | ☐ | or 20 | ...                            | ap.my                        | R N. Amer. 1656. L s. 1 Mich. arb. 2. t. 14   |
| 14281 <i>dasycarpum</i> <i>W.</i>                       | Sir C. Wager's   | ☐ | or 25 | ...                            | ap.my                        | G Y N. Amer. 1725. L s. 1 Mich. arb. 2. t. 13 |
| 14282 <i>barbatum</i> <i>Ph.</i>                        | Sugar            | ☐ | or 15 | ...                            | ap.my                        | G N. Amer. 1812. S s. 1                       |
| 14283 <i>saccharinum</i> <i>W.</i>                      | Bearard          | ☐ | or 40 | ...                            | ap.my                        | Y N. Amer. 1735. S s. 1 Mich. arb. 2. t. 15   |
| 14284 <i>nigrum</i> <i>Ph.</i>                          | black            | ☐ | or 40 | ...                            | ap.my                        | G N. Amer. 1812. S s. 1 Mich. arb. 2. t. 16   |
| 14285 <i>platanoides</i> <i>W.</i>                      | Norway           | ☐ | or 50 | ...                            | my.jl                        | G Europe 1683. S co Sch. arb. 1. t. 3, 4      |
| β <i>laciniatum</i>                                     | cut-leaved       | ☐ | or 30 | ...                            | my.jl                        | G Europe 1683. L co Sch. arb. 1. t. 5         |
| 14286 <i>striatum</i> <i>Ph.</i>                        | striped-barked   | ☐ | or 20 | ...                            | my.jn                        | G N. Amer. 1755. L co Mich. arb. 2. t. 17     |
| 14287 <i>montanum</i> <i>Ph.</i>                        | mountain         | ☐ | or 25 | ...                            | ap.my                        | G N. Amer. 1750. L s. 1 Sch. arb. 1. t. 11    |
| 14288 <i>campéstre</i> <i>W.</i>                        | common           | ☐ | or 25 | ...                            | my.jn                        | G Britain hed. S co Eng. bot. 304             |
| 14289 <i>Opalus</i> <i>W.</i>                           | Italian          | ☐ | or 50 | ...                            | my.jn                        | G Italy 1752. L co                            |
| 14290 <i>opalifolium</i> <i>Vill.</i>                   | Guelder-rose-iv. | ☐ | or 12 | ...                            | my.jn                        | G S. France 1823. L co Tra. arc. Ln. 13. c    |
| 14291 <i>monspessulanum</i> <i>W.</i>                   | Montpellier      | ☐ | or 8  | ...                            | my                           | G France 1739. L co Sch. arb. 1. t. 14        |
| 14292 <i>obtusatum</i> <i>Kit.</i>                      | blunt-leaved     | ☐ | or 8  | ...                            | my                           | G Hungary 1825. L co Tra. arc. Ln. 14. c      |
| 14293 <i>créticum</i> <i>W.</i>                         | Creten           | ☐ | or 4  | ...                            | my.jn                        | G Levant 1752. L co Sch. arb. 1. t. 15        |
| * 2144. <i>NEGUNDIUM</i> . <i>Dec.</i> BOX-ELDER.       |                  |   |       |                                | <i>Acerineae.</i> Sp. 1—2.   |   |
| ‡ 14294 <i>americanum</i> <i>Dec.</i>                   | Ash-leaved       | ☐ | or 35 | ...                            | ap                           | G N. Amer. 1688. L s. 1 Sch. arb. 1. t. 12    |
| 2145. <i>CEL'TIS</i> . <i>W.</i>                        | NETTLE TREE.     |   |       |                                | <i>Ulmaceae.</i> Sp. 9—19.   |   |
| 14295 <i>australis</i> <i>W.</i>                        | European         | ☐ | or 40 | ...                            | my                           | G S. Europe 1796. S co Dend. brit. 105        |
| 14296 <i>Tournefortii</i> <i>W.</i>                     | Tournefort's     | ☐ | or 8  | ...                            | ...                          | G Levant 1739. S co Tourn. it. 2. t. 41       |
| 14297 <i>occidentalis</i> <i>W.</i>                     | American         | ☐ | or 20 | ...                            | ap.jn                        | G N. Amer. 1656. L co Dend. brit. 147         |
| 14298 <i>laevigata</i> <i>W.</i>                        | polished         | ☐ | or 20 | ...                            | ap.my                        | G Louisiana ... L co                          |
| 14299 <i>crassifolia</i> <i>W.</i>                      | Hoop-Ash         | ☐ | or 20 | ...                            | ap.my                        | G N. Amer. 1812. C co Duha. arb. 2. t. 9      |
| 14300 <i>pumila</i> <i>Ph.</i>                          | dwarf            | ☐ | or 6  | ...                            | my                           | G N. Amer. 1812. C co                         |



History, Use, Propagation, Culture.

2140. *Terminalia*. Because the leaves grow in bunches at the *termination* of the branches. The species grow in loam and peat, and ripened cuttings, with their leaves on, will root in sand closely covered.

2141. *Fusanus*. The ancient name of the *Euonymus*. This plant resembles it in foliage. A little Cape shrub, formerly included in *Thesium*.

2142. *Brabejum*. From *βραβειον*, a sceptre. The elegant racemes of splendid flowers may well be compared to a sceptre.

2143. *Acer*. A Latin word signifying vigorous or sharp. The wood was formerly manufactured into the heads of pikes and other weapons. The species consist of trees, most of them yielding a saccharine juice from the trunk, branches, and leaves. A *Pseudo-Platanus*, *Plane tree*, Scot., grows wild in Switzerland, Germany, Austria, and Italy. It is remarkably hardy, and will grow with an erect stem, exposed to the highest winds, or to the sea-breeze. It is in leaf by the middle of April; and on their first appearance the leaves are of a pleasant green, but they exude a clammy juice so abundantly, that they attract a variety of insects, which soon perforate and disfigure them. The flowers of none of the species are of any beauty. The shade of the tree is said to do less damage to pasture than most trees. The timber was formerly much used by the turner, and is still in repute by the saddle-tree maker and the millwright. In spring and autumn, if the trunk be pierced, it yields abundance of juice, from which a good wine may be made, or sugar to a certain extent produced by evaporation. A *rubrum* grows in swamps in Pennsylvania, where the natives use it for almost all sorts of wood-work; with the bark they dye a dark blue, and make a good black ink. The Canadians tap the tree for the juice, of which they make sugar and treacle. The scarlet flowers of this species come out in spring before the leaves; they are without petals, and have not more than six stamens.

A *saccharinum* bears a considerable resemblance to *A. platanoides*, especially when young. From this tree, and probably also from other species, the inhabitants of North America make a very good sort of sugar. The trees are tapped in February, March, and April, during warm days and frosty nights. The incision is made with an axe or auger, or about two inches deep. A spout of sumach or elder is introduced, through which the sap flows, from four to six weeks, into a trough, whence it is carried daily to a larger receiver; from which it is conveyed after being strained to the boiler. The boiling and refining process is or should be carried on in the same manner with that for the cane sugar in the West Indies. A tree of an ordinary size yields in a good season from twenty to thirty gallons of sap, from which are made from five to six pounds of granulated sugar.

A. *platanoides* grows on the mountains of the northern counties of Europe, descending in some places of

- 14271 Leaves obovate without glands at base blunt obsolete toothletted: beneath soft with down  
 14272 Leaves obovate without glands at base blunt entire smooth on each side  
 14273 Leaves obovate oblong blunt entire smooth on each side, Petioles with 2 glands above  
 14274 Leaves linear-lanceolate repand downy beneath

14275 The only species

14276 The only species

- 14277 Leaves evergreen entire and 3-lobed obsolete toothletted smooth on very short stalks  
 14278 Leaves cordate somewhat cut unequally toothed, Corymbs erect, Fruit smooth  
 14279 Lvs. cord. 5-lobed glauc. and smooth beneath: lobes unequally tooth. Racemes pendulous, Fruit smooth  
 14280 Lvs. on long stalks subcordate 5-fid smooth glauc. beneath: segm. acuminate cut-toothed, Umbels erect  
 14281 Lvs. cordate 5-fid whitish and smooth beneath: segm. acuminate cut-toothed, Fl. in capitate umbels  
 14282 Lvs. shortly 3-lobed serrated smooth on each side: male peduncles branched; female simple  
 14283 Lvs. subcord. acutely 5-lobed downy beneath: lobes nearly entire, Corymbs before the lvs. loose nodding  
 14284 Lvs. cordate 5-lobed downy beneath, Corymbs sessile nodding, Fruit smooth  
 14285 Lvs. cordate 5-fid smooth: segm. acuminate cuspidate somewhat toothed, Corymbs nearly erect

- 14286 Lvs. cordate 3-fid acuminate serrated smooth, Racemes simple long pendulous, Branches striated  
 14287 Lvs. about 5-lobed acute serrated downy beneath, Racemes compound erect  
 14288 Lvs. cord. bluntly 5-lobed shining smth. beneath: lobes nearly ent. Corymbs erect, Wings of fruit divaricat.  
 14289 Lvs. on long stalks round, coriac. bluntly 5-lob. pale ven.: lobes bluntly tooth. Corymbs erect, Fruit smth.  
 14290 Lvs. cord. 5-lobed glauc. beneath netted: lobes blunt crenate-tooth. Umb. pendul. Pedun. and fruit smooth  
 14291 Lvs. annual cordate 3-lobed: lobes nearly entire equal, Corymbs few-flowered erect, Fruit smooth  
 14292 Lvs. cordate slightly and very bluntly 5-lobed downy beneath: lobes repand, Umbels pendulous  
 14293 Lvs. evergreen tapered at base 3-fid: segments toothletted; lateral shortest, Corymbs few-flowered erect

14294 Leaves ternate and pinnate cut serrate, Male flowers corymbose: female racemose

- 14295 Leaves oblong-lanceolate acumin. finely serrated scabrous above beneath soft with down unequal at base  
 14296 Leaves ovate acute serrated unequal at base roughish above: younger somewhat cordate  
 14297 Leaves ovate acuminate serrated unequal at base rough above hairy beneath  
 14298 Leaves unequally cordate acuminate nearly entire smooth on each side  
 14299 Leaves ovate acuminate serrated unequally cordate at base subcoriaceous rough on both sides  
 14300 Leaves unequal at base ovate acuminate serrated smoothish on each side



and Miscellaneous Particulars.

Norway to the sea-shore. It abounds in the north of Poland and Lithuania, and is common through Germany, Switzerland, and Savoy. On a tolerable soil it attains a large size, and the leaves being smooth and of a shining green, as large or larger than those of the sycamore, and being seldom eaten or defaced, because the tree abounds in a sharp milky juice disliked by insects, they have a much better appearance than those of the sycamore; and in the spring, when the flowers are out, which are of a fine yellow color, this tree has great beauty. Hanbury observes, that in the autumn the leaves die to a golden yellow color, which produces a good effect at that season, when the different tints of the decaying vegetable world are displayed. He says further, that it is a quick growing tree, arrives at a great bulk, and is one of the best trees for sheltering habitations. Linneus recommends it for sheltering walks and plantations; as yielding a juice from which sugar may be made, if it be wounded in the winter; and as cutting out into a white smooth wood, fit for the stocks of guns, the joiner and the turner. Dr. Hunter observes, that it is a quick grower, arrives at a great bulk, and answers all the purposes of the sycamore; the raising it for use, as well as ornament and variety, should not be neglected. (*Müll. Gard. Dict.*)

*A. striatum* has a slender stem, with a smooth bark beautifully varied with green and white stripes, the boughs of a shining red in winter. The thickness of the shade, the beauty of the bark, and the tree not being liable to insects, render it very desirable for ornamental plantations; the only objections to it are, that it is subject to be injured by storms, and that the abundance of its foliage and seeds occasions a great litter in autumn.

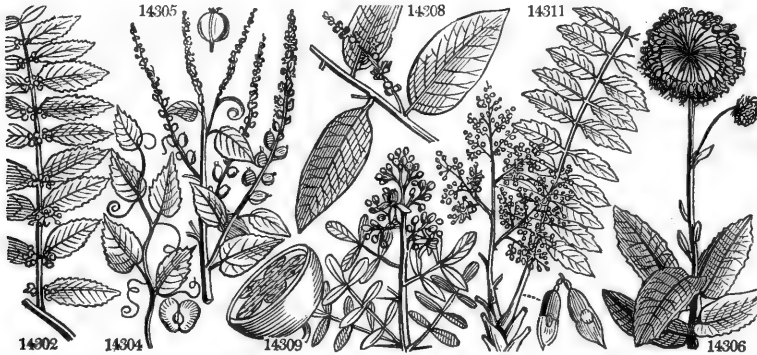
*A. campestre* forms a very picturesque little tree, and the timber is said to be far superior to that of the beech or the sycamore for the purposes of the turner. It is also frequently substituted for that of the holly and box by the mathematical instrument maker.

*A. Opalus* is a noble tree, with large and beautiful foliage, throwing an extensive shade; it is much prized in Italy for planting by avenues and public walks. All the species are easily raised from seed, though the ash-leaved and some other species are occasionally propagated by layers and cuttings; the cuttings should be cut off at a joint, and, as in the case of most hardy trees and shrubs, they succeed best when planted in the autumn in a sheltered situation in the open ground.

2144. *Negundium*. A genus obviously distinguished from *Acer* by its pinnated leaves. A fine ornamental tree, called in North America black ash. There is another species in China.

2145. *Celtis*. One of the names anciently given to the Lotus. Tournefort first applied the name to the modern genus, which may be said to resemble both in fruit and foliage the shrubby Lotus of the ancients.

|                                |                 |   |    |    |       |       |                        |           |       |                        |                         |
|--------------------------------|-----------------|---|----|----|-------|-------|------------------------|-----------|-------|------------------------|-------------------------|
| 14301 <i>sinensis</i> Pers.    | Chinese         | ♂ | or | 12 | ...   | G     | Asia                   | 1820.     | L     | p.1                    |                         |
| 14302 <i>micrantha</i> W.      | smooth          | ♀ | or | 10 | au.s  | G     | Jamaica                | 1739.     | C     | p.1 Plum.ic.t.206.f.1  |                         |
| 14303 <i>aculeata</i> W.       | prickly         | ♂ | or | 10 | ...   | G     | Jamaica                | 1791.     | C     | p.1                    |                         |
| 2146. <i>GOUANIA</i> . W.      | GOUANIA.        |   |    |    |       |       | <i>Rhamnea</i> .       | Sp. 2—20. |       |                        |                         |
| 14304 <i>domingensis</i> W.    | Chaw-stick      | ♂ | or | 10 | ...   | G     | W. Indies              | 1739.     | C     | p.1 Pluk.al. t.201.f.4 |                         |
| 14305 <i>tiliaefolia</i> W.    | Lime-tree-ld.   | ♂ | or | 10 | ...   | G     | E. Indies              | 1810.     | C     | p.1 Rox. cor. i. t. 98 |                         |
| 2147. <i>HERMAS</i> . W.       | HERMAS.         |   |    |    |       |       | <i>Umbellifera</i> .   | Sp. 2—5.  |       |                        |                         |
| 14306 <i>depauperata</i> W.    | hairy           | ♀ | △  | cu | 2     | jn.jl | G                      | C. G. H.  | 1795. | D                      | 1.p Bur. afr. t.71. f.2 |
| 14307 <i>gigantea</i> W.       | gigantic        | ♀ | △  | cu | 4     | jn.jl | G                      | C. G. H.  | 1794. | D                      | 1.p T.in.ac.p.14.t.11   |
| 2148. <i>BRIDELIA</i> . W.     | BRIDELIA.       |   |    |    |       |       | <i>Euphorbiaceae</i> . | Sp. 1—5.  |       |                        |                         |
| 14308 <i>spinosa</i> W.        | prickly         | ♂ | □  | or | 6     | jn.jl | Ap                     | E. Indies | 1823. | C                      | 1.p Roxb. cor. t. 172   |
| 2149. <i>FERONIA</i> . Correa. | ELEPHANT APPLE. |   |    |    |       |       | <i>Aurantiaceae</i> .  | Sp. 1.    |       |                        |                         |
| 14309 <i>elephantum</i> Corr.  | Indian          | ♂ | □  | ft | 40    | ...   | W                      | E. Indies | 1804. | C                      | 1.p Rox. cor.2. t.141   |
| 2150. <i>AILANTUS</i> . W.     | AILANTUS.       |   |    |    |       |       | <i>Terebintaceae</i> . | Sp. 2—4.  |       |                        |                         |
| 14310 <i>glandulosa</i> W.     | Chinese         | ♂ | or | 20 | au    | G     | China                  | 1751.     | R     | 1.p Dend. brit. 104    |                         |
| 14311 <i>excelsa</i> W.        | Indian          | ♂ | or | 50 | ...   | G     | E. Indies              | 1800.     | C     | a.p Rox. cor. i. t. 23 |                         |
| 2151. <i>CLUSIA</i> . W.       | BALSAM TREE.    |   |    |    |       |       | <i>Guttiferae</i> .    | Sp. 4—16. |       |                        |                         |
| 14312 <i>rosea</i> W.          | Rose-colored    | ♂ | or | 30 | jl.au | R     | Carolina               | 1692.     | C     | r.m Cat. car. 2. t. 99 |                         |
| 14313 <i>alba</i> W.           | white-flowered  | ♂ | or | 30 | ...   | W     | S. Amer.               | 1752.     | C     | 1.p Jac. amer. t. 166  |                         |
| 14314 <i>flava</i> W.          | yellow-flower'd | ♂ | or | 30 | s     | Y     | Jamaica                | 1759.     | C     | r.m Bot. rep. 223      |                         |
| 14315 <i>venosa</i> W.         | veiny-leaved    | ♂ | or | 50 | ...   | ...   | S. Amer.               | 1733.     | C     | r.m Plum. ic. 87. f. 2 |                         |
| 2152. <i>OPHIOXYLON</i> . W.   | OPHIOXYLON.     |   |    |    |       |       |                        | Sp. 1—3.  |       |                        |                         |
| 14316 <i>serpentinum</i> W.    | red-flowered    | ♂ | △  | or | 3     | my.jn | W                      | E. Indies | 1680. | R                      | r.m Bot. mag. 784       |
| 2153. <i>RHAPIS</i> . W.       | RHAPIS.         |   |    |    |       |       | <i>Palme</i> .         | Sp. 2.    |       |                        |                         |
| 14317 <i>fabelliformis</i> W.  | creeping-rooted | ♂ | △  | or | 6     | au    | G                      | China     | 1774. | R                      | p.1 Bot. mag. 1371      |
| 14318 <i>arundinacea</i> W.    | simple-leaved   | ♂ | △  | or | 6     | s     | G                      | Carolina  | 1765. | R                      | p.1                     |



History, Use, Propagation, Culture.

*C. australis*, sometimes called the lote tree, is reckoned among the largest timber trees of the south of Europe. The wood is one of the hardest we are acquainted with; it is also very tough and flexible. In France, the forked branches are peeled, and cut so as to resemble rude hay-forks, and in that state used for various agricultural purposes. The leaves have a cheerful light green color; the berries are the size of a small cherry, first yellow and then black; they are eaten by birds and children.

*C. occidentalis* bears a great resemblance to the first. The leaves come out late in the spring, but they are also the latest in fading of any of the deciduous sort; the timber is tough and pliable, and imported by coach-makers for the frames of their carriages. It grows more freely in this country than the European species, and in some years bears abundance of fruit.

*C. orientalis* is a low-spreading tree or bush; the timber is white, and yields a gum like that of the cherry. *C. aculeata* is an inelegant little tree, with a drupe double the size of a pea, which is eaten by the natives of the Caribbee Islands and the neighbouring continent. All the species are easily increased by layers or seeds.

2146. *Gouania*. Antoine Gouan was professor of botany at Montpellier in the middle of the eighteenth century, and was a good botanist. The species are increased by ripened cuttings under a hand-glass in heat.

2147. *Hermas*. A name, the meaning of which is wholly unknown. An inconspicuous starved-looking plant of no known use; whence it is called *depauperata*.

2148. *Bridelia*. Named in honor of Professor Bridel, the celebrated muscologist. Small bushes or trees, with little beauty to recommend them.

2149. *Feronia*. Elegantly named by the classical Correa de Serra, after Feronia, the goddess of the forests. This is a noble Indian timber tree, bearing a fruit not unlike an orange, to which it is botanically related.

2150. *Ailantus*. Derived from *Ailanto*, the name of one species in the Moluccas. The usual way of writing it, *Ailanthus*, is therefore incorrect. *A. glandulosa* is a tree which may be compared to a gigantic stag's-horn sumach; it has very large leaves, unequally pinnate, with foot-stalks from one to two feet in length, and numerous flowers in a terminating pedicel, which exhale a disagreeable odor. The tree grows very fast, and on very poor soil, especially if it be calcareous. If the bark be wounded, a resinous juice flows out, which hardens in a few days. The wood is hard, heavy, glossy like satin, and susceptible of a very fine polish. It is propagated by cuttings of the roots. In general the trees bear only male flowers; but in France it has produced both male and female flowers, and fruit twice in ten years.

2151. *Clusia*. So called, in honor of the celebrated Charles de l'Écluse, born at Artois in 1526, and died in 1609. He was one of the most excellent botanists who ever lived, and author of many works whose value will only cease with the world. But he is not more known for his mental excellence, than for his personal calamities. In his early youth he undertook to travel through Portugal, Spain, England, Hungary, and other countries in pursuit of plants; no easy task in those days. By excessive fatigue he contracted, so soon as in his twenty-fourth year, a dropsical complaint, of which he was afterwards cured with chicory by the celebrated

- 14301 Leaves broad ovate acuminate serrate smooth on each side  
 14302 Leaves ovate oblong acuminate serrulate unequally cordate at base rough above hairy beneath  
 14303 Lvs. ovate obl. acum. equally cordate at base entire obsolete serrated at end smooth, Branches prickly

- 14304 Leaves ovate acuminate bluntly serrated smooth  
 14305 Leaves cordate-ovate with glandular serratures roughish, Racemes terminal downy

- 14306 Stem downy, Leaves oblong sessile toothed downy beneath  
 14307 Leaves lanceolate ovate woolly above downy beneath entire

- 14308 Shrubby erect spiny, Leaves ovate entire acute glabrous

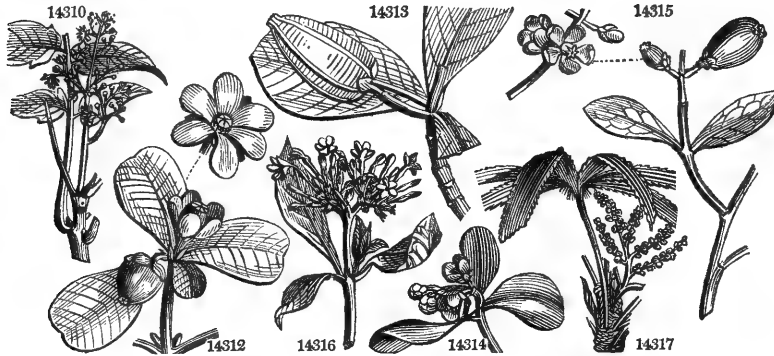
- 14309 The only species

- 14310 Leaves pinnated with an odd one, Leaflets toothed at base, Teeth glandular  
 14311 Leaves abruptly pinnated, Leaflets serrated

- 14312 Leaves obovate blunt veinless, Cor. hexapetalous twice as large as calyx  
 14313 Leaves obovate blunt veinless, Cor 5-7 petalous half as large again as calyx  
 14314 Leaves obovate blunt veinless, Cor. 4-petalous twice as large as calyx  
 15315 Leaves obovate blunt veiny, Flowers tetrapetalous

- 14316 Leaves in fours

- 14317 Fronds palmate plaited, Plaits and margins prickly  
 14318 Fronds simple 2-parted, Lobes acute plaited, Plaits roughish



and Miscellaneous Particulars.

Rondelet. See *Rondeletia*. At the age of thirty-nine he broke his right arm, during one of his botanical rambles; and a short time afterwards his right thigh. When fifty-five, he dislocated his left ankle while at Vienna; and eight years after his right hip. Having been unskillfully treated, he was ever after obliged to walk with crutches. The consequent deprivation of his natural exercise brought on other diseases, among not the least distressing of which were calculus and hernia. After having been the director of the Imperial Gardens of Vienna for fourteen years, he finally returned to his native country, Flanders. He was named professor of botany at Leyden, where he gave botanical lectures for sixteen years, when he died overwhelmed by the multitude of his bodily infirmities, but retaining his faculties unimpaired to the last.

The species are trees abounding in a tenacious glutinous juice, of a balsamic flavor, whence the English name. *C. rosea* has handsome flowers, in which the stamina and pistillum are covered with a gelatinous nutrient. The fruit is green and of the size of a middling apple, with eight lines running, like meridians on a globe, from the stalk to the crown of it. When it ripens, it opens at these lines, and divides into eight parts, disclosing many mucilaginous scarlet seeds, resembling those of the pomegranate. The whole tree is exceedingly beautiful, and the structure of the fruit is a most exquisite piece of mechanism. It grows on rocks, and frequently on the trunk and limbs of trees, occasioned by birds scattering or voiding the seeds, which being glutinous, like those of the mistletoe, take root in the same manner; but the roots not finding sufficient nutriment, spread on the surface of the tree till they find a decayed hole, or other lodgment, wherein is some small portion of soil; the fertility of this being exhausted, a root is discharged out of the hole till it reaches the ground, where it fixes itself, and the stem becomes a large tree. Roots have been known to do this at forty feet from the surface. The resin is used to cure sores in horses, and instead of tallow for boats.

*C. alba* is an elegant tree, and epiphytical on other vast trees, like the foregoing; the trunk is frequently a foot in diameter, and supports a spreading head. The whole abounds in a balsamic juice, of a green color, but becoming of a brownish color on being exposed to the air. The flowers are white, and of no great beauty; the fruit scarlet, with a scarlet pulp; the birds are very fond of them, hang over them on the wing, and pluck out the seeds with the pulp adhering.

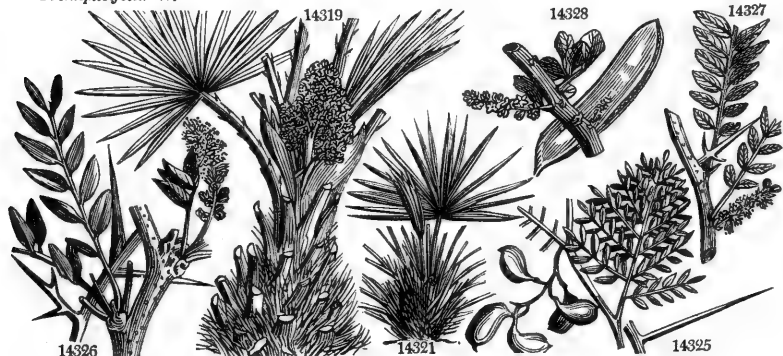
*C. flava* bears in all respects a considerable resemblance to the former. A very good idea of the progress of culture since Miller's time, may be formed by comparing his directions for propagating this plant, and those of Sweet. Mr. Miller says, the best way is to have them brought over in tubs from the West Indies: according to Sweet, the pots should be well drained, the soil for rooted plants should be a light sandy loam, and "cuttings root very freely in sand under a hand-glass."

2152. *Ophioxylon*. From *opsis*, serpent, and *ξύλον*, wood. In Ceylon they employ the plant in cases of the bite of serpents. It grows freely in a mixture of loam and peat, and may be increased by cuttings in sand under a hand-glass.

2153. *Rhapis*. So named by Loureiro, from *ραπίς*, a needle, on account of the acute awns of the corolla, which stick into the clothes. Culture as in the other palms; that is, abundance of heat and room, both for the roots and top.

DIÆCIA.

|                                 |                   |   |       |       |                      |                             |                |       |                      |
|---------------------------------|-------------------|---|-------|-------|----------------------|-----------------------------|----------------|-------|----------------------|
| 2154. CHAMÆROPS. <i>W.</i>      | CHAMÆROPS.        |   |       |       | <i>Palmæ. Sp. 4.</i> |                             |                |       |                      |
| 14319 <i>húmilis W.</i>         | Dwarf Fan Palm    | ♂ | Δ     | or 10 | f.mr                 | G.w                         | S. Europe      | 1731. | Sk r.m Bot. rep. 599 |
| 14320 <i>serruláta W.</i>       | saw-leaved        | ♂ | Δ     | or 10 | ...                  | G.w                         | N. Amer.       | 1809. | Sk r.m               |
| 14321 <i>Hýstrix Ph.</i>        | Porcupine         | ♂ | Δ     | or 10 | ...                  | G.w                         | Georgia        | 1801. | S r.m                |
| 14322 <i>Palmeto to W.</i>      | smooth-stalked    | ♂ | Δ     | or 20 | ...                  | G.w                         | Carolina       | 1809. | S r.m                |
| 2155. GLEDITSCHIA. <i>W.</i>    | GLEDITSCHIA.      |   |       |       |                      | <i>Leguminosæ. Sp. 5-7.</i> |                |       |                      |
| 14323 <i>triacánthos Ph.</i>    | Honey-locust Tree | ♂ | or 30 | jn.jl | G                    | N. Amer.                    | 1700.          | S a.l | Dend. brit. 138      |
| β <i>inermis</i>                | smooth            | ♂ | or 30 | jn.jl | G                    | .....                       | ...            | S a.l |                      |
| 14324 <i>brachycárpa Ph.</i>    | curved-spined     | ♂ | or 30 | jn.jl | G                    | N. Amer.                    | 1803.          | S a.l |                      |
| 14325 <i>monospérma Ph.</i>     | Swamp Locust Tree | ♂ | or 20 | jn.jl | G                    | N. Amer.                    | 1723.          | S p.l | Cat. car. 1. t. 43   |
| 14326 <i>hórrida W.</i>         | strong-spined     | ♂ | or 10 | jn.jl | G                    | China                       | 1774.          | L p.l | Dend. brit. 75       |
| 14327 <i>sinénsis P. S.</i>     | Chinese           | ♂ | or 10 | ...   | G                    | China                       | 1812.          | L p.l |                      |
| 2156. CERATONIA. <i>W.</i>      | CAROB TREE.       |   |       |       |                      | <i>Leguminosæ. Sp. 1.</i>   |                |       |                      |
| 14328 <i>Siliqua W.</i>         | St. John's Bread  | ♂ | Δ     | ec    | 15                   | s.o R.y                     | Levant         | 1570. | S a.l Bot. rep. 567  |
| 2157. FRAXINUS. <i>W.</i>       | ASH TREE.         |   |       |       |                      | <i>Oleinæ. Sp. 34-37.</i>   |                |       |                      |
| 14329 <i>americána W.</i>       | white             | ♂ | tm    | 30    | my                   | G                           | N. Amer.       | 1723. | G co                 |
| 14330 <i>acumináta Lam.</i>     | Green             | ♂ | tm    | 40    | my                   | G                           | N. Amer.       | 1723. | G co                 |
| 14331 <i>juglandifólia W.</i>   | Western black     | ♂ | or 40 | my.jn | G                    | N. Amer.                    | 1783.          | G co  | Du. Roi. ed. 2. t. 1 |
| 14332 <i>caroliniana W.</i>     | shining           | ♂ | or 30 | my.jn | G                    | N. Amer.                    | 1783.          | G co  | Catesb. car. t. 80   |
| 14333 <i>pubescens W.</i>       | Red or black      | ♂ | or 20 | my    | G                    | N. Amer.                    | 1811.          | G co  |                      |
| <i>nigra Duroi</i>              |                   | ♂ |       |       |                      |                             |                |       |                      |
| 14334 <i>pinnósa Vent.</i>      | cloth-leaved      | ♂ | tm    | 30    | my                   | G                           | Carolina       | 1820. | G co                 |
| 14335 <i>eptera W.</i>          | cut-winged        | ♂ | tm    | 30    | my                   | G                           | N. Amer.       | 1823. | G co                 |
| 14336 <i>quadranguláta W.</i>   | Blue              | ♂ | or 30 | my    | G                    | N. Amer.                    | 1822.          | G co  |                      |
| 14337 <i>platycárpa W.</i>      | broad-fruited     | ♂ | or 30 | my    | G                    | N. Amer.                    | 1820.          | G co  |                      |
| 14338 <i>expánsa W.</i>         | expanded          | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14339 <i>míxta Bosc.</i>        | mixed             | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14340 <i>pulverulénta Bosc.</i> | powdered          | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14341 <i>rubicúnda Bosc.</i>    | pink-veined       | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14342 <i>longifólia Bosc.</i>   | long-leaved       | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14343 <i>virídís Bosc.</i>      | green             | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14344 <i>cinérea Bosc.</i>      | ash-colored       | ♂ | or 30 | my    | G                    | N. Amer.                    | 1824.          | G co  |                      |
| 14345 <i>álba Bosc.</i>         | white             | ♂ | or 30 | ap.my | G                    | N. Amer.                    | 1823.          | G co  |                      |
| 14346 <i>Richárdi Bosc.</i>     | Richard's         | ♂ | or 30 | ap.my | G                    | N. Amer.                    | ...            | G co  |                      |
| 14347 <i>ováta Bosc.</i>        | ovate             | ♂ | or 30 | ap.my | G                    | N. Amer.                    | ...            | G co  |                      |
| 14348 <i>ellíptica Bosc.</i>    | elliptical        | ♂ | or 30 | ap.my | G                    | N. Amer.                    | 1825.          | G co  |                      |
| 14349 <i>nigra Bosc.</i>        | black-branched    | ♂ | or 30 | ap.my | G                    | N. Amer.                    | ...            | G co  |                      |
| 14350 <i>fúscá Bosc.</i>        | fuscous           | ♂ | or 30 | ap.my | G                    | N. Amer.                    | 1823.          | G co  |                      |
| 14351 <i>rúfa Bosc.</i>         | rufous            | ♂ | or 30 | ap.my | G                    | N. Amer.                    | 1822.          | G co  |                      |
| 14352 <i>pállida Bosc.</i>      | pale              | ♂ | or 30 | ap.my | G                    | N. Amer.                    | ...            | G co  |                      |
| 14353 <i>excélsior W.</i>       | common            | ♂ | tm    | 80    | ap.my                | G                           | Britain woods. | S a.l | Eng. bot. 1692       |
| β <i>péndula Hort.</i>          | weeping           | ♂ | or 20 | ap.my | G                    | .....                       | ...            | G co  |                      |
| γ <i>jaspídea W. en.</i>        | yellow-barked     | ♂ | or 30 | ap.my | G                    | .....                       | ...            | G co  |                      |
| δ <i>atrovirens P. S.</i>       | green curled-lv.  | ♂ | or 4  | ap.my | G                    | .....                       | ...            | G co  |                      |
| 14354 <i>verrucósa Link.</i>    | warted            | ♂ | or 60 | ap.my | G                    | England                     | Norf.          | G co  |                      |
| 14355 <i>heterophýlla Vahl.</i> | various-leaved    | ♂ | tm    | 30    | ap.my                | G                           | England woods. | G a.l | Eng bot. 2476        |
| <i>F. simplicifólia W.</i>      |                   | ♂ |       |       |                      |                             |                |       |                      |



History, Use, Propagation, Culture,

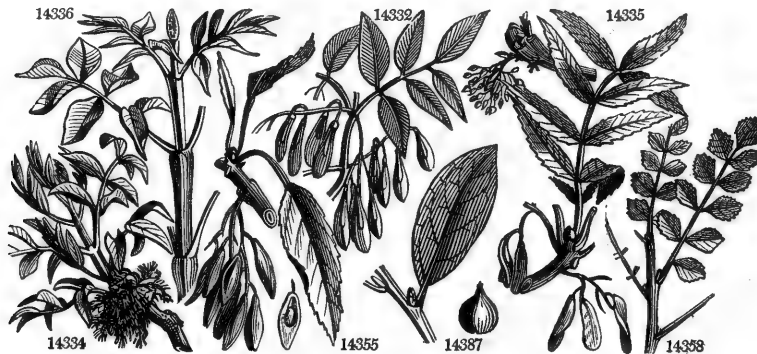
2154. *Chamærops*. This word is said by etymologists to be synonymous with χαμαιδενδρον, or χαμαιδενδρον, a dwarf oak. The modern genus consists of ornamental palms, which are fine hardy greenhouse plants.

2155. *Gleditschia*. Called in honor of John Gottlieb Gleditsch, a native of Leipzig, and member of the academy of Berlin, and the author of several works, among which his Arrangement of Fungi, published in 1753, and his Botanical System, are the most remarkable. *G. triacanthos*, the honey locust of North America, attains the size of a large tree, but very seldom flowers and ripens its seeds in this country. All the species grow in common garden soil, and are generally raised from seeds.

2156. *Ceratonia*. This name has been derived from κέρασ, a horn, in allusion to the long horn-like pods of this plant, which contain a sweet fecula, for the sake of which they are often imported from Spain under the name of the Algaroba bean. This last word is a slight alteration, by the prefix of the article *al*, of the Arabic name of the tree, *Kharrobb*, whence also our English name *Carob-tree*. This is generally considered the locust-tree of scripture; and in Spain, where the seeds are eaten, it is called Saint John's bread. Ignorance of eastern manners and natural history, Professor Martin observes, induced some persons to fancy that the locusts on which John the Baptist fed, were the tender shoots of plants, and that the wild honey was the pulp of the pod of the Carob, whence it had the name of Saint John's bread. There is better reason to suppose, he adds, that the shells of the carob pod might be the husks which the prodigal son desired to partake

## DIŒCIA.

- 14319 Fronds palmate with spiny stalks, Spathe simple  
 14320 Fronds palmate with spiny stalks, Caudex creeping  
 14321 Stem creeping, Stalks with very long entangled prickles, Fronds palmate  
 14322 Fronds palmate with unarmed stalks, Spathes double, Stem arboreous
- 14323 Branches spiny, Spines thick triple, Leaflets linear oblong, Pods many-seeded
- 14324 Spines short thick triple, Leaflets oblong blunt, Pods oblong short  
 14325 Branches somewhat spiny, Leaflets ovate-oblong, Pods 1-seeded  
 14326 Trunks spiny, Spines branched, Leaflets oval-oblong  
 14327 Spines robust alternately branched, Leaflets elliptical smooth
- 14328 The only species
- 14329 Leaflets stalked oblong shining acuminate entire glaucous beneath, Buds yellowish  
 14330 Leaflets quite entire with long points glaucous beneath, Buds tawny  
 14331 Leaf. stalked ovate opaque serrated glaucous ben. Axils of veins downy, Branches smooth, Buds fuscous  
 14332 Leaflets stalked lanceolate serrulate shining smooth, Branches smooth, Buds fuscous  
 14333 Leaflets stalked elliptical ovate serrated beneath with the petioles and branchlets downy
- 14334 Lvs. of 3 pair shining above vill. with down ben. Leaf. stalk. ov. ent. taper. toward each end, Buds tawny  
 14335 Leaflets oblong lanceolate subserrated, Wing of fruit stalked cuneate emarginate, Buds fuscous  
 14336 Leaflets subsessile lanc. ellipt. serrated downy beneath, Branches square with winged angles, Buds grey  
 14337 Leaflets subsessile serrated outwardly and fruit lanceolate elliptical  
 14338 Leaflets ovate oblong unequally serrate about 11 smooth stalked, Branchlets smooth, Buds fuscous  
 14339 Leaves of 5 pair smooth above, Veins above hairy, Leaflets oblong subsessile unequally toothed  
 14340 Lvs. of 6 pair somew. downy ben. Leaf. on long stalks oblong acute sinuate, Petioles somew. powdery  
 14341 Lvs. of 3 pair coriac. a little downy ben. Leaf. obl. acute somewhat toothed, Veins and petioles ben. pink  
 14342 Lvs. of 3 pair shining above ben. with the petioles downy, Leaflets obl. lanc. acuminate, Branches hirsute  
 14343 Lvs. of 3 pair shining above with veins downy ben. Leaflets oblong acute finely serrated, Branches green  
 14344 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaflets lanc. unequally toothed, Buds lin. cinereous hairy  
 14345 Lvs. of 3 pair beneath and petioles hirsute, Leaf. lanc. unequally and finely toothed acum. Branches grey  
 14346 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaf. obl. acute toothed, Branches cinereous hairy at base  
 14347 Leaves of 3 pair downy beneath, Leaflets ovate acute equally toothed, Buds tawny  
 14348 Lvs. of 3 pair hairy ben. Leaflets oblong mucronate somew. toothed, Branches brownish-black, Buds tawny  
 14349 Leaves of 3 pair smooth, Leaflets oblong acute subsinuate toothed, Branches blackish  
 14350 Lvs. of 3 pair smooth above, Veins beneath villous, Leaf. obl. mucron. equally toothed, Branches fuscous  
 14351 Leaves of 2 pair with rufous hairs beneath, Leaflets lanceolate acuminate cuspidate unequally toothed  
 14352 Leaves of 3 pair smooth, Leaflets subsessile ovate lanceolate toothed, Branches yellow  
 14353 Leaflets somewhat stalked lanceolate acuminate serrated smooth cuneate at base, Branches flat smooth
- 14354 Leaf. somewhat stalked lanceolate acuminate serrate smooth, Branches round warted  
 14355 Leaves simple and compound tooth-serrated, Buds black

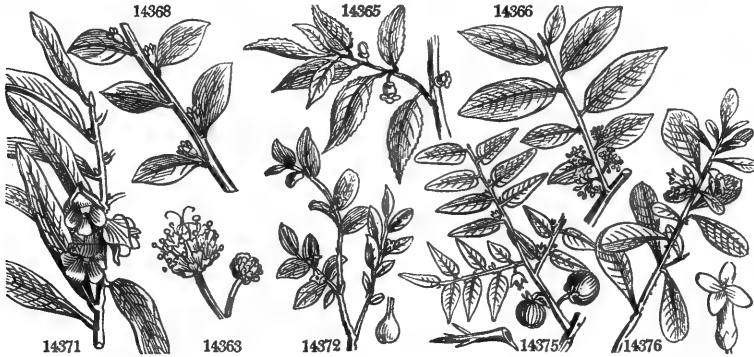


and Miscellaneous Particulars.

of with the swine. The tree is very common in the south of Spain, and the seeds or beans, as they were there called, often formed the principal food of the British cavalry horses during the war of 1811 and 1812. In our greenhouses the plant seldom flowers, but it grows very well in loam and peat, and ripened cuttings root in sand under a hand-glass.

2157. *Fraxinus*. The origin of this word is far from certain. Linnæus says, it has been taken from the Greek *φραξίς*, a separation, in allusion to the facility of splitting its wood. De Theis remarks, that M. A. Dureau de la Malle has proved, in a learned dissertation published in 1804, that the *Fraxinus* of the Latins and the *Melia* of the Greeks are our *Ornus europæus*, while the *Ornus* of the Latins and the *Boumelia* of the Greeks are, in fact, our *Fraxinus excelsior*, or common ash. *Le Frêne*, Fr., *Esche*, Ger., and *Frassino*, Ital. The English name is from the Celtic *æsc*, a pike. *F. excelsior* is one of the most useful of our native timber trees. It is peculiarly adapted for implements of husbandry, and the coachmaker and wheeler; it makes excellent fuel, with very little smoke; good hop-poles and hoops, excellent handles for tools, and very good walking-sticks. Its period of leafing is very late, being seldom earlier than the last week of April, and not unfrequently about the middle of May; the leaves have been used to adulterate tea; they are bitter, and said to communicate a rank taste to the milk and butter of cows which eat them. The roots spread to a great extent, and lie very near the surface; and these, together with the shade of the head, are found very injurious to hedges and pastures. The variety of this species, *F. pendula*, was first discovered in a field at Gambingay,

|         |                                    |                |   |     |    |       |     |            |       |   |     |                    |
|---------|------------------------------------|----------------|---|-----|----|-------|-----|------------|-------|---|-----|--------------------|
| 14356   | <i>macrophylla</i> Thoun           | large-leaved   | 半 | or  | 40 | ap.my | G   | .....      | 1823. | G | co  |                    |
| 14357   | <i>parvifolia</i> W.               | small-leaved   | 半 | or  | 20 | ap.my | G   | Levant     | 1823. | G | co  | Willd.arb.t.6.f.2  |
| 14358   | <i>lenticifolia</i> W.             | Aleppo         | 半 | or  | 6  | my.jn | G   | Aleppo     | 1710. | G | co  | Pluk.al.t.182.f.4  |
| 14359   | <i>argentea</i> Loes.              | silvery        | 半 | or  | 15 | my.jn | G   | Corsica    | 1825. | G | co  |                    |
| 14360   | <i>sambucifolia</i> W.             | Water          | 半 | or  | 30 | my.jn | G   | N. Amer.   | 1800. | G | s.l |                    |
| 14361   | <i>nána</i> Bosc.                  | dwarf          | 半 | or  | 6  | my.jn | G   | .....      | ...   | G | co  |                    |
| 14362   | <i>oxycarpa</i> W.                 | Caucasian      | 半 | or  | 20 | ...   | G   | Caucasus   | 1815. | G | co  |                    |
|         | <i>β oxyphylla</i> E.              | narrow-leaved  | 半 | or  | 20 | ...   | G   | S. Europe  | 1821. | G | co  |                    |
| † 2158. | BREAD-NUT.                         |                |   |     |    |       |     |            |       |   |     |                    |
| 14363   | <i>Alicastrum</i> W.               | Jamaica        | ■ | or  | 6  | ...   | Ap  | Jamaica    | 1776. | C | r.m | S.f.i.oc.1.t.1.f.1 |
| 14364   | <i>spurium</i> W.                  | Milkwood       | ■ | or  | 6  | ...   | Ap  | Jamaica    | 1789. | C | r.m |                    |
| 2159.   | DATE PLUM.                         |                |   |     |    |       |     |            |       |   |     |                    |
| 14365   | <i>Lótus</i> W.                    | European       | 半 | clt | 20 | jn.jl | Y.g | Italy      | 1596. | L | s.l | Mill.ic.t.116      |
| 14366   | <i>virginiana</i> W.               | American       | 半 | clt | 20 | jn.jl | Y.g | N. Amer.   | 1629. | S | s.l | Dend.brit.146      |
| 14367   | <i>pubescens</i> Ph.               | pubescent      | 半 | clt | 20 | ap    | Y.g | N. Amer.   | 1812. | C | s.l |                    |
| 14368   | <i>syvática</i> W.                 | wood           | □ | or  | 20 | ...   | W   | E. Indies  | 1812. | C | s.l | Roxb.cor.1.t.47    |
| 14369   | <i>E/benum</i> W.                  | smooth         | □ | tm  | 30 | ...   | W   | E. Indies  | 1792. | C | s.l | Ro.in.ac.ha.2.t.5  |
| 14370   | <i>Káki</i> W.                     | Japan          | □ | fr  | 12 | ...   | W.g | Japan      | 1789. | L | r.m | K&em.ame.t.806     |
| 14371   | <i>Embryopteris</i> Pers.          | polyandrous    | □ | fr  | 25 | jl    | W.g | E. Indies  | 1818. | L | r.m | Bot.reg.499        |
| 14372   | <i>vaccinioides</i> Lindl.         | Vaccinium-like | □ | pr  | 2  | ap.my | W   | China      | 1823. | C | r.m | Hook.ex.fl.139     |
| 14373   | <i>discolor</i> W.                 | Mabolo-fruit   | □ | fr  | 20 | ...   | ... | Philippin. | 1823. | C | r.m |                    |
| 14374   | <i>montána</i> W.                  | mountain       | □ | or  | 6  | ...   | W.g | E. Indies  | 1822. | C | r.m |                    |
| 14375   | <i>cordifolia</i> W.               | heart-leaved   | □ | or  | 15 | ...   | W.g | E. Indies  | 1794. | G | co  | Roxb.cor.1.t.50    |
| 14376   | <i>obováta</i> W.                  | four-seeded    | □ | or  | 15 | ...   | W.g | E. Indies  | 1796. | G | co  | Jac.schoe.3.t.512  |
| 2160.   | MYRSINE.                           |                |   |     |    |       |     |            |       |   |     |                    |
| 14377   | <i>africana</i> W.                 | African        | ■ | or  | 2  | nr.my | Br  | C. G. H.   | 1691. | C | pl  | Com.hort.1.t.64    |
| 14378   | <i>retúsa</i> W.                   | round-leaved   | ■ | pr  | 2  | jn    | W.g | Azores     | 1778. | C | pl  | Vent.cels.86       |
| 14379   | <i>Samára</i> R. Rr.               | oval-leaved    | ■ | pr  | 3  | f.n   | W.g | C. G. H.   | 1770. | C | lp  |                    |
|         | <i>Samára pentáandra</i> W.        |                |   |     |    |       |     |            |       |   |     |                    |
| 14380   | <i>melanóphleos</i> R. Br.         | Laurel-leaved  | ■ | pr  | 3  | ...   | W.g | C. G. H.   | 1783. | C | lp  | Jac.vind.1.t.71    |
|         | <i>Sideróxyton melanóphleum</i> W. |                |   |     |    |       |     |            |       |   |     |                    |
| 2161.   | TUPELO.                            |                |   |     |    |       |     |            |       |   |     |                    |
| 14381   | <i>villósa</i> W.                  | Sour-gum       | 半 | or  | 10 | my    | G   | N. Amer.   | 1806. | L | s.l | Mich. arb. 21      |
| 14382   | <i>bilfóra</i> W.                  | mountain       | 半 | or  | 10 | ap.my | G   | N. Amer.   | 1739. | C | s.l | Mich. arb. 22      |
| 14383   | <i>capitáta</i> H. K.              | round-headed   | 半 | or  | 10 | ...   | G   | N. Amer.   | 1806. | C | s.l |                    |
| 14384   | <i>toментósa</i> W.                | downy          | 半 | or  | 15 | ap.my | G   | N. Amer.   | 1818. | C | s.l |                    |
|         | <i>grandidentata</i> Mich.         |                |   |     |    |       |     |            |       |   |     |                    |
| 14385   | <i>can'dicans</i> W.               | Ogechee lime   | 半 | or  | 20 | ...   | G   | N. Amer.   | 1812. | C | s.l | Mich. arb. 20      |
| 14386   | <i>denticuláta</i> W.              | water          | 半 | or  | 30 | ...   | G   | N. Amer.   | 1735. | L | s.l | Cat.car.1.t.60     |
| 2162.   | HAMILTONIA.                        |                |   |     |    |       |     |            |       |   |     |                    |
| 14387   | <i>oleifera</i> W.                 | Olive-bearing  | ■ | or  | 6  | ...   | G.Y | N. Amer.   | 1800. | C | s.l |                    |
|         | <i>Pyralária púbera</i> Mich.      |                |   |     |    |       |     |            |       |   |     |                    |
| 2163.   | LAUROPHYLLUS.                      |                |   |     |    |       |     |            |       |   |     |                    |
| 14388   | <i>capensis</i> W.                 | Cape           | ■ | or  | 6  | ...   | G   | C. G. H.   | 1801. | L | pl  |                    |



History, Use, Propagation, Culture,

in Cambridgeshire. There are other varieties with curled leaves, striped leaves, variegated bark, &c. and some consider *F. simplicifolia* only a variety. *F. Americana* is a lofty tree, in few respects different from the common ash. Those species which do not produce seeds, are readily increased by grafting.

Little is known of the qualities of the greater part of the numerous varieties of American ash, distinguished by Bosc. They probably all form fine trees; the young plants in our gardens grow freely, and exhibit indications of valuable properties as ornamental trees.

2158. *Brosimum*. From *βρωμιος*, good to eat. *B. Alicastrum* is common in the woods of Jamaica. The timber is not despicable; but the leaves and younger branches are more useful, and a hearty fattening fodder for all sorts of cattle. The fruit, boiled with salt fish, pork, beef, or pickle, has been frequently the support of the negroes and poorer sort of white people in times of scarcity, and proved a wholesome, and not unpleasant food, when roasted, it eats something like our European chestnuts, and is called bread-nut. The leaves and younger shoots are full of gum, which renders them disagreeable to most cattle at first, but they soon grow very fond of them.

*B. spurium* is also common in woods in the West Indies, but its timber is of little value. In our stoves both species thrive well, and like loamy soil; and old cuttings, with their leaves on, root in sand in moist heat.

2159. *Diospyros*. From *Διος πυρος*, the fruit of Jove, or heavenly fruit. It has been fancied that the European species of this plant produced that famous fruit, which, according to ancient romancers, caused oblivion. *D. Kaki* is a valuable Japanese tree, which bears the fruit sometimes received from China in a dried form under the name of dates. *D. discolor* also bears a fine fruit. *D. lotus* produces fruit the size of a

14356 Leaves simple blistered ovate coarsely serrated dark-green quite smooth  
 14357 Leaf. ovate subsessile acute mucronate serrate smooth cuneate at base  
 14358 Leaf. oblong stalked acute at each end mucronate serrated smooth  
 14359 Leaves unequally pinnated of 3 pair, Leaflets stalked lanceolate acuminate serrated silvery  
 14360 Leaf. sessile ovate lanc. serrated rugose-shining rounded at base unequal, Axils of veins villous beneath  
 14361 Lvs. of 3 pairs smooth, Leaf. obl. acum. tooth. Com. petiole winged at base, Branches ciner. Buds blackish  
 14362 Leaflets subsessile lanc. acuminate serrated smooth, Fruit lanc. narrowed at each end with a long point

14363 Leaves ovate lanc. evergreen, Catkins globose stalked twin axillary, Fruit coated  
 14364 Leaves lanceolate-ovate acuminate, Catkins subsessile ovate axillary twin, Fruit soft

14365 Leaves obl. acuminate downy beneath, Buds hairy inside  
 14366 Leaves ovate bluntnish shining smooth netted with veins, Petioles downy, Buds smooth  
 14367 Leaves obl. acute downy beneath, Petioles long, Fruit few-seeded  
 14368 Lvs. obl. acute at base and end smooth on each side, Fl. trigynous erect, Hermaphrodite cor. as long as cal.  
 14369 Leaves ovate-lanc. acuminate, Buds hairy  
 14370 Leaves ovate-elliptical acuminate acute at base downy beneath, Branches downy  
 14371 Leaves lanc. oblong, Flowers axillary polyandrous, Berry 8-seeded  
 14372 Lvs. simple fleshy nerveless cover, on each side with scatter. stell. scales, Sterile obl.-lanc. Fert. lin.-lanc.  
 14373 Leaves oblong acute rounded at base acute at end : smooth above ; silky and glaucous beneath  
 14374 Leaves oblong rounded at base acute at end smooth on each side  
 14375 Spiny, Leaves oblong acuminate cordate downy beneath  
 14376 Leaves obovate blunt smooth on each side

14377 Leaves obovate elliptical acute serrated at end, Pedunc. umbelled axillary, Stamens exerted  
 14378 Leaves obovate retuse toothletted, Flowers axillary clustered, Stamens included  
 14379 Leaves ellipt. Corymbs axillary aggregate

14380 Leaves oblong lanc. subcoriaceous entire, Flowers axillary clustered

14381 Leaves oblong entire acute at each end, Petiole middle rib and edge villous, Female peduncles about 3-fl.  
 14382 Leaves ovate-oblong entire acute at each end smooth, Female peduncles 2-flowered  
 14383 Leaves cordate ovate slightly serrated glaucous beneath, Flowers in globose heads, Drupes oblong  
 14384 Leaves on long stalks obl. acuminate remotely serrate downy beneath, Female peduncles 1-flowered

14385 Leaves on short stalks obl. nearly entire cuneate at base whitish beneath, Female peduncle 1-fl.  
 14386 Leaves on long stalks obl. acuminate remotely serrated smooth on both sides, Female pedunc. 1-fl.

14387 Leaves oval-oblong acuminate entire

14388 Leaves stalked oblong acute serrated coriaceous veiny smooth



and Miscellaneous Particulars.

cherry, yellow when ripe, sweet, and somewhat astringent ; they are recommended as a cure for the diarrhoea. *D. virginiana* has a white brittle wood, covered with a dark brown bark. The fruit is in form and bigness like a date, very firm, like that fruit, and almost as sweet, with a large kernel.

2160. *Myrsine*. A Greek word synonymous with Myrtle. Modern botanists have applied the name to a genus of African myrtle-like shrubs. The species grow freely in loam and peat, and are increased by young cuttings in sand under a hand-glass.

2161. *Nyssa*. A name of a nymph, according to Linnæus. The species are large shrubs, which grow freely in any soil or situation, but prefer moisture. *N. denticulata* grows naturally in wet swamps in Carolina and Florida, and rises there to the height of eighty or hundred feet. Marshall, in his American Grove, describes it as a tree of great singularity and beauty. It produces fruit about the size and shape of small olives, which are preserved like them by the French inhabitants of the Mississipi, where it greatly abounds, and is called the olive-tree. The timber is white and soft when unseasoned, but light and compact when dry, which renders it very proper for the carver and turner. All the species are readily propagated by layers or seeds.

2162. *Hamiltonia*. Dedicated by Muhlenburg, to Mr. Hamilton, an American botanist. A shrub growing to the height of from three to six feet. The flowers grow in terminal racemes from an inch to an inch and a half long.

2163. *Lawrophyllus*. An hybrid name created by Thunberg, to express the resemblance of the leaves,  $\phi\omega\lambda\lambda\alpha$ , to a laurel. A shrub with stalked, oblong, acute, serrated, coriaceous leaves, and minute flowers growing in panicles three or four inches long.



|                                   |                 |   |   |    |                               |                              |            |            |                                 |
|-----------------------------------|-----------------|---|---|----|-------------------------------|------------------------------|------------|------------|---------------------------------|
| 12164. <i>BURSERIA W.</i>         | <i>BURSERIA</i> |   |   |    | <i>Terebinthaceae. Sp. 1.</i> |                              |            |            |                                 |
| 14389 <i>gummifera W.</i>         | Jamaica         | ♂ | □ | or | 20                            | W. G.                        | W. Indies  | 1690.      | S p.l Jac. amer. t. 65          |
| 2165. <i>ARCTOPUS W.</i>          | <i>ARCTOPUS</i> |   |   |    |                               | <i>Umbelliferae. Sp. 1.</i>  |            |            |                                 |
| 14390 <i>echinatus W.</i>         | rough           | ♂ | □ | m  | 1                             | my.jn                        | G C. G. H. | 1774.      | D p.l Bot. reg. 705             |
| 2166. <i>PANAX W.</i>             | <i>PANAX</i>    |   |   |    |                               | <i>Araliaceae. Sp. 4-16.</i> |            |            |                                 |
| 14391 <i>quinquefolium W.</i>     | Ginseng         | ♂ | △ | pr | 1 1/2                         | ju                           | L. Y       | N. Amer.   | 1740. D ap Bot. mag. 1333       |
| 14392 <i>trifolium W.</i>         | lesser          | ♂ | △ | pr | 1 1/2                         | my.jn                        | G          | N. Amer.   | 1759. D ap Bot. mag. 1334       |
| 14393 <i>aculeatum W.</i>         | prickly         | ♂ | □ | m  | 1 1/2                         | n                            | G          | China      | 1773. C ap Jac. ic. 3. t. 634   |
| 14394 <i>fruticosum W.</i>        | shrubby         | ♂ | □ | pr | 6                             | aus. G                       | W.         | Ternate    | 1800. R. r.m Bot. rep. 595      |
| 2167. <i>RYCUS W.</i>             | <i>RYCUS</i>    |   |   |    |                               | <i>Urticeae. Sp. 47-143.</i> |            |            |                                 |
| 14395 <i>Cárica W.</i>            | common          | ♂ | □ | fr | 15                            | ju.jl                        | Ap         | S. Europe  | 1548. C co Tre. ehret. t.73,4   |
| 14396 <i>rubrinervia Link.</i>    | red-nerved      | ♂ | □ | or | 10                            | ...                          | Ap         | Brazil     | 1824. C co                      |
| 14397 <i>aquática W.</i>          | rough-leaved    | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1758. C l.p Rhee.mal.3. t.62    |
| 14398 <i>nymphæifolia W.</i>      | Water-lily-ld.  | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1759. C p.l                     |
| 14399 <i>crassinervia W.</i>      | thick-nerved    | ♂ | □ | or | 10                            | ...                          | Ap         | S. Amer.   | 1823. C p.l                     |
| 14400 <i>religiosa W.</i>         | Poplar-leaved   | ♂ | □ | ec | 25                            | ...                          | Ap         | E. Indies  | 1731. C p.l Rhee.mal.1. t.27    |
| 14401 <i>benghalensis W.</i>      | Bengal          | ♂ | □ | or | 25                            | ap                           | Ap         | E. Indies  | 1690. C p.l Rhee.mal.1. t.28    |
| 14402 <i>venosa W.</i>            | vein-leaved     | ♂ | □ | or | 20                            | ...                          | Ap         | E. Indies  | 1763. C p.l W.ho.ber.1. t.36    |
| 14403 <i>Braz'ii Sabine</i>       | Brass's         | ♂ | □ | or | 20                            | ...                          | Ap         | S. Leone   | 1822. C p.l                     |
| 14404 <i>coriacea W.</i>          | leathery-leaved | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1772. C p.l                     |
| 14405 <i>lasiophylla Link.</i>    | woolly-leaved   | ♂ | □ | or | 10                            | ...                          | Ap         | .....      | 1820. C p.l                     |
| 14406 <i>costata W.</i>           | rib-leaved      | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1763. C p.l                     |
| 14407 <i>lúcida W.</i>            | shining-leaved  | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1772. C p.l                     |
| 14408 <i>oblongata Link.</i>      | oblong-leaved   | ♂ | □ | or | 6                             | ...                          | Ap         | C. G. H.   | 1825. C p.l                     |
| 14409 <i>martinicensis W.</i>     | round-fruited   | ♂ | □ | or | 10                            | ...                          | Ap         | W. Indies  | 1759. C p.l Sloa.jam.2. t.223   |
| 14410 <i>infectoria W.</i>        | veiny           | ♂ | □ | or | 15                            | ...                          | Ap         | E. Indies  | 1763. C p.l Rhee.mal.3. t.64    |
| 14411 <i>superstitiosa Link.</i>  | superstitious   | ♂ | □ | or | 6                             | ...                          | Ap         | .....      | 1763. C p.l                     |
| 14412 <i>pedunculata W.</i>       | Willow-leaved   | ♂ | □ | or | 6                             | ...                          | Ap         | S. Amer.   | 1776. C p.l Pluk.a.l. t.178.f.4 |
| 14413 <i>ulmifolia W.</i>         | elm-leaved      | ♂ | □ | or | 4                             | ...                          | Ap         | Phillipin. | 1813. C p.l                     |
| 14414 <i>cordata W.</i>           | heart-leaved    | ♂ | □ | or | 6                             | ...                          | Ap         | C. G. H.   | 1802. C p.l                     |
| 14415 <i>macrophylla P. S.</i>    | large-leaved    | ♂ | □ | or | 14                            | ...                          | Ap         | N. Holl.   | ..... C p.l                     |
| 14416 <i>obtusata Link.</i>       | blunt           | ♂ | □ | or | 4                             | ...                          | Ap         | .....      | 1821. C p.l                     |
| 14417 <i>Mun'tia Link.</i>        | doubtful        | ♂ | □ | or | 4                             | ...                          | Ap         | N. Holl.   | 1822. C p.l                     |
| 14418 <i>australis W.</i>         | ferruginous     | ♂ | □ | or | 6                             | mr.jn                        | Ap         | N. S. W.   | 1789. C p.l Ven.malm. t.114     |
| 14419 <i>elástica Rox.</i>        | Elastic-gum     | ♂ | □ | or | 20                            | ...                          | Ap         | E. Indies  | 1815. C p.l                     |
| 14420 <i>microcarpa Vahl.</i>     | small-fruited   | ♂ | □ | or | 20                            | ...                          | Ap         | Guinea     | 1819. C p.l                     |
| 14421 <i>ciliolata Link.</i>      | ciliated        | ♂ | □ | or | 4                             | ...                          | Ap         | .....      | 1823. C p.l                     |
| 14422 <i>stipulata W.</i>         | trailing        | ♂ | □ | or | 1/2                           | ...                          | Ap         | China      | 1771. C p.l                     |
| 14423 <i>púmila W.</i>            | dwarf           | ♂ | □ | or | 1/2                           | ...                          | Ap         | China      | 1759. C p.l Kæm.amc.t.804       |
| 14424 <i>tinctoria W.</i>         | Daubeite        | ♂ | □ | or | 15                            | my.jn                        | Ap         | Society I. | 1793. C p.l                     |
| 14425 <i>brasilensis Link.</i>    | Brazilian       | ♂ | □ | or | 4                             | ...                          | Ap         | Brazil     | 1823. C p.l                     |
| 14426 <i>benjámina W.</i>         | oval-leaved     | ♂ | □ | or | 10                            | ...                          | Ap         | E. Indies  | 1757. C p.l Rhee.mal.1. t.26    |
| 14427 <i>Lichtensteinii Link.</i> | Lichtenstein's  | ♂ | □ | or | 3                             | ...                          | Ap         | C. G. H.   | 1824. C p.l                     |
| 14428 <i>perfoliata W.</i>        | Laurel-leaved   | ♂ | □ | or | 8                             | ...                          | Ap         | S. Amer.   | 1780. C p.l                     |
| 14429 <i>nitida W.</i>            | glossy-leaved   | ♂ | □ | or | 6                             | mr.jn                        | Ap         | E. Indies  | 1781. C p.l                     |
| 14430 <i>indica W.</i>            | Banyan Tree     | ♂ | □ | or | 30                            | ...                          | Ap         | E. Indies  | 1759. C p.l                     |
| 14431 <i>populnea W.</i>          | poplar-leaved   | ♂ | □ | or | 12                            | ...                          | Ap         | S. Amer.   | 1812. C p.l                     |
| 14432 <i>lævigata Vahl.</i>       | polished        | ♂ | □ | or | 6                             | ...                          | Ap         | W. Indies  | 1823. C p.l                     |
| 14433 <i>racemosa W.</i>          | clustered       | ♂ | □ | or | 4                             | ...                          | Ap         | E. Indies  | 1753. C p.l Rhee.mal.1. t.25    |
| 14434 <i>retusa W.</i>            | blunt-leaved    | ♂ | □ | or | 2                             | ...                          | Ap         | E. Indies  | 1793. C p.l                     |
| 14435 <i>repens W.</i>            | creeping-stem.  | ♂ | □ | or | 1/2                           | ...                          | Ap         | E. Indies  | 1805. C p.l                     |
| 14436 <i>péndula Link.</i>        | pendulous       | ♂ | □ | or | 12                            | ...                          | Ap         | .....      | 1824. C p.l                     |



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2164. *Bursera*. So called after Joachim Burser, a disciple and friend of Caspar Bauhin, and professor of botany at Sara, in Naples. He is said to have left behind him an Herbarium, in twenty-five volumes. *B. gummifera* is a large tree with a fine leafy head, and abounds in copious watery balsamic fluid, which soon becomes inspissated by exposure to the air. The root is said to possess the same properties as *Quassia*. Hedges are made of it by the Spanish residents in South America, who call it *Almacigo*.

2165. *Arctopus*. Literally, bear's foot, *αρκτος* *πυε*. An inconspicuous prickly umbelliferous plant. The roots are used with success at the Cape, in cases of siphilis; but upon trial here some years since, they were found to be less efficient than *Sarsaparilla*.

2166. *Panax*. A high-sounding title, meaning little less than that the plant which bears it is the long sought *universal elixir*; the name has been taken from *πας*, and *ακος*, a remedy; a remedy for all things. *P. quinquefolium* is a native of Chinese Tartary, and also of North America. In the former country it has been gathered as an invaluable drug from time immemorial. The roots, which are said to bear some resemblance to the human form, are gathered and dried, and enter into almost every medicine used by the Tartars and Chinese. Osbeck says, that he never looked into the apothecaries' shops, but they were always selling Ginseng, that both poor people and those of the highest rank made use of it, and that they boil half an ounce in their

14389 Racemes axillary, Leaves pinnated with an odd one, Leaflets ovate acute

14390 Leaves prickly with stellate spines

14391 Stem herbaceous, Leaves ternate or quinque, Leaf. ovate acuminate serrated

14392 Stem herbaceous, Leaves ternate or quinque, Leaf. oblong lanc. serrated

14393 Leaves ternate: the upper near the flowers clustered simple, Petioles and branches prickly

14394 Leaves supradecomposed toothed-ciliated, Stem shrubby

14395 Leaves cordate 3-5-lobed repand-toothed: lobes blunt rough above downy beneath

14396 Leaves ovate with a short point netted beneath very smooth

14397 Leaves oblong 3-lobed and sinuate entire rough on each side

14398 Leaves cordate roundish mucronate entire glabrous glaucous beneath

14399 Leaves ovate oblong entire acute blunt at base smooth

14400 Leaves subcordate ovate with very long points

14401 Leaves ovate entire very blunt rounded at base subcordate 5-nerved

14402 Leaves oblong ovate entire acute subcordate at base impressed with dots on the upper surface

14403 Leaves oblong pointed smooth on both sides widely toothed, Branches covered with brown hairs

14404 Leaves oblong smooth narrowed at base cordate coriaceous, Veins immersed

14405 Leaves ovate blunt soft with down beneath

14406 Leaves ovate-cordate with a deep narrow sinus quite entire smooth acute green on each side

14407 Leaves ovate-cordate entire smooth blunt 3-nerved at base, Branches erect

14408 Leaves cordate oblong with a short point obtuse smooth with parallel nerves

14409 Leaves oblong-lanc. entire narrowed and acute at end rounded at base with white dots above

14410 Leaves obl. quite entire narrowed and acute at end rounded and subcord. at base: with punctures above

14411 Leaves ovate tapered at the base with a long point

14412 Leaves ovate-obl. entire acuminate blunt obsoletely cordate at base

14413 Leaves ovate unequal-sided toothed acuminate rough on each side

14414 Leaves ovate-lanc. entire slightly cordate at base

14415 Leaves cordate oblong entire nerved shining

14416 Leaves ovate-oblong bluntly serrate crenate hairy on each side

14417 Leaves oval acute serrated rough above soft beneath

14418 Leaves ellipt. entire rounded at each end smooth: young ones rusty with down beneath

14419 Leaves smooth elliptical entire shining very large

14420 Leaves oblong ovate blunt smooth, Fruit twin globose sessile

14421 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious

14422 Leaves ovate blunt entire cordate unequal at base, Stipules membranous twin persistent, Stem creeping

14423 Leaves ovate bluntnish entire netted beneath

14424 Leaves obliquely ovate blunt

14425 Leaves broad lanc. with a short point tapered at base shining very smooth netted beneath

14426 Lvs. ellipt. obl. ent. narrow, at base bluntly acum. at end with fine parallel veins; dotted with white above

14427 Leaves cordate lanc. repand toothed obtuse downy beneath

14428 Leaves obl. acuminate entire narrowed at base about 3-nerved with parallel veins

14429 Leaves obovate entire with very short points and fine parallel veins shining smooth

14430 Leaves ovate acuminate entire acute at base

14431 Leaves obl. with short points entire smooth

14432 Leaves cordate ovate acuminate veiny very smooth, Fruit stalked globose veiny

14433 Leaves oblong-lanc. acute quite entire somewhat narrowed at base 3-nerved veiny dotted beneath

14434 Leaves obovate entire blunt smooth, Branchlets furrowed

14435 Leaves cordate ovate acute serrated unequal at base scabrous above hairy beneath, Stem creeping

14436 Leaves oblong acuminate tapered at base, Branches pendulous



and Miscellaneous Particulars.

tea or soup every morning, as a remedy for consumption and other diseases. Jartoux relates, that the most eminent physicians of China have written volumes on the medicinal powers of this plant, asserting that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomiting, removes hysterical, hypochondriacal, and all nervous affections, giving a vigorous tone of body even in extreme old age. The French in Canada use this root for curing the asthma, and as a stomachic. After all, our physicians say, that we have no proofs of the efficacy of Ginseng in Europe, and that from its sensible qualities it seems to possess very little power as a medicine. The hardy species thrive well in light rich soil; the others grow in loam and peat, and are increased by cuttings in sand under a hand-glass.

2167. *Ficus*. It is not known what the derivation of this word is; but in most languages it is nearly the same. In Greek it is *συκκη*, in Latin *Ficus*, in Celtic *Figuesen*, in Teutonic *Seige*, in Slavonic *fige*, in Hungarian *fige*, in Anglo-Saxon *fic*. The species are trees or shrubs, abounding in a milky juice. The fruit is turbinate, fleshy, soft, and hollow within. All the species are natives of warm countries. *F. Carica*, *le figuier*, Fr., *Feigenbaum*, Ger., and *Fico*, Ital., is supposed to be originally from Caria, in Asia, though it is now acclimatized, and in some respects naturalized in the Levant and

|       |                                  |                 |        |       |    |           |       |                        |
|-------|----------------------------------|-----------------|--------|-------|----|-----------|-------|------------------------|
| 14437 | myrtifolia Link.                 | Myrtle-leaved   | ☐ or 4 | ...   | Ap | .....     | 1894. | C p.1                  |
| 14438 | aspera W.                        | rough-leaved    | ☐ or 3 | mr.jn | Ap | N. Holl.  | 1807. | C p.1                  |
| 14439 | oppositifolia W.<br>scabra P. S. | opposite-leaved | ☐ or 4 | ...   | Ap | E. Indies | 1802. | C p.1 Roxb.cor.2.t.124 |
| 14440 | arbutifolia Link.                | Arbutus-leav'd  | ☐ or 3 | ...   | Ap | .....     | 1825. | C p.1                  |
| 14441 | capensis W.                      | Cape            | ☐ or 4 | ...   | Ap | C. G. H.  | 1816. | C p.1                  |

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the south of Europe. In these countries the fruit green and dried forms an important part of the food of the inhabitants. In this country it is cultivated as a fruit tree, but not generally or extensively. It is only in very warm situations that it will ripen its fruit in the open air, even though trained against a wall; though there are one or two exceptions in Sussex on the sea-coast, where it ripens its fruit on standards. The only certain mode, however, is to grow it in houses built on purpose. No tree is more robust or more prolific. Even plants in pots or tubs kept in a temperature adapted for the orange-tree will fruit freely, and ripen two crops a year. Kept in the temperature of the pine-apple, Mr. Knight has proved, that the fig will go on growing and ripening fruit without intermission. A variety of curious and important matter respecting this tree will be found in the Transactions of the Horticultural Society, and in the Encyclo-

## CLASS XXIV. — CRYPTOGRAMIA.

Sexual organs hidden; either imperfect, or not existing.

This class differs essentially from all the preceding in the peculiar conformation of the organs of reproduction, which are not formed of male and female parts, like those of the higher classes of plants, but are of a nature altogether different, consisting either of buds under a particular form, or of vessels containing vegetable substances analogous to seeds, but differing in not being the result of impregnation, and in having the power of striking root indifferently from any point of their surface. The internal composition of these vegetable substances, which are denominated sporules, is, on account of their extreme minuteness, unknown. Willdenow describes Cryptogamous plants to be vegetables without any visible flower, and differing from other plants in their external characters, in which respect they also differ from each other. By more modern botanists they are said to be distinguished from other plants by the absence of lymphatic vessels, and of pores of the epidermis; but the latter character has been disputed, and neither apply to the three first orders of Cryptogamia. For the purposes of this work, which follows the system of Linnæus, the definition, if it can be so called, of Willdenow is most applicable. In the arrangement of the orders of Cryptogamia, it has been found advisable to adhere to the divisions of modern writers, who, by extensive observations, and great powers of perception, have brought this most abstruse part of botany to a considerable degree of perfection.

The orders which are here adopted, are

I. FILICES. Reproductive organs uniform. Thecæ naked, or covered by an involucre, placed on the back of a frond, which is either foliaceous, or contracted in such a way as only to cover the clusters of thecæ, and always circinate when young.

II. Equisetacæ. Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7 elongated involucre containing the seeds. Branches whorled, rigid.

III. Lycopodiaceæ. Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing granules, the other larger bodies. Stems covered with many small leaves.

IV. Marsiliaceæ. Reproductive organs radical, uniform. Sporules? contained in roundish, one or many-celled indehiscent heads. Plants simple, aquatic.

V. Musci. Reproductive organs of two kinds. Thecæ many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

VI. Hepaticæ. Reproductive organs of two kinds. 1st. Thecæ without an operculum, either naked or sessile, or furnished with a veil, through which they are, more or less, protruded. Sporules naked, or mixed with spiral threads. 2d. Minute, roundish, or oblong bodies variously situated. Plants frondose, of a cellular structure, not submersed.

VII. Algæ. Reproductive organs of two kinds. 1st. Thecæ or tubercles variously situated. 2d. Sporules or granules naked, or immersed in the frond. Plants always aquatic, and submersed.

VIII. Lichenes. Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

IX. Fungi. Reproductive organs uniform. Sporules arranged in tubular cells, placed in some part of the external surface. Substance various, mostly thick and fleshy, sometimes vesicular. Thallus none.

A few other divisions, such as Hypoxyla, &c., which have been proposed by some writers of authority, not having appeared to possess characters of sufficient importance, are here merged in others.

In consequence of the wide difference which exists between the lower orders of vegetables and the higher, and the impossibility of subjecting the former to cultivation, it has been found requisite, with the exception

- 14437 Leaves oblong acute subcordate at base netted beneath  
 14438 Leaves ovate unequal-sided sinuate-toothed cordate at base rough on each side  
 14439 Leaves opp. obovate oblong serrated acute scabrous above hairy beneath  
 14440 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious smooth  
 14441 Leaves ovate-oblong acute sinuate toothed smooth

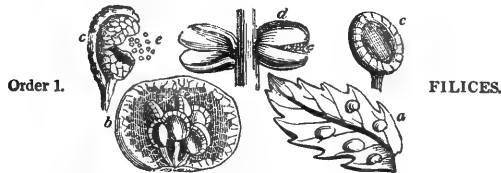
*and Miscellaneous Particulars.*

pædia of Gardening. (§ 5268.) *F. elastica* as well as some other plants produce the gum known as India-rubber.

*F. indica* is an immense tree, spreading very wide, the branches ash-colored, and throwing down roots into the soil. Marsden mentions one of these growing near Memgee, twenty miles west of Patna, in Bengal, which was in diameter 370 feet; the circumference of the shadow at noon was 1116 feet, and there were fifty or sixty stems. It is called the priest's tree, and held in so much veneration by the Gentoos, that if any one cuts or lops off a branch, he is looked upon with as great abhorrence as if he had broken a cow's leg. *F. religiosa* is so called, because it is sacred to the idol Vishnu. The horizontal branches root into the soil like the other; all the species are of remarkably easy culture, and root easily from large cuttings.

of Filices and their nearest allies, to introduce some alterations into the form of the pages of this work. These alterations commence with Musci.

The orders of Cryptogamia being equal in importance to the classes of flowering plants, they will be treated of as the classes have hitherto been treated. Each order will, therefore, stand by itself, and will have its genera and species arranged under it, without immediate connection with any other order.



*Reproductive organs uniform. Thecae naked, or having an involucre placed on the back of a frond, which is either foliaceous, or contracted so as only to cover the clusters of thecae, and always circinate when young.*

This is the most beautiful of all the orders of Cryptogamic plants, and has always been a favorite tribe, to which the most celebrated botanists of all modern times have given their attention. Till some time, however, after the death of Linneus, ferns shared the fate of all other departments of botany, being viewed rather as objects of elegant form than of scientific examination. Sir James Edward Smith was the first author who attempted to distribute them into genera, by characters derived from a minute inspection of their organs of reproduction; and his arrangement, however imperfect it may now be considered, is certainly that upon the principles of which the more precise divisions of recent authors have been effected. He was succeeded by Swartz, Willdenow, Brown, and many others, and lastly by Dr. George Frederick Kaulfuss, Professor of Botany at Halle, whose arrangement of 1824 is chiefly here adopted as being the most recent which has been published.

The principal distinction which exists between ferns and other orders of Cryptogamous plants is found in the situation of what are called their *sori*, or patches of reproductive organs, which are in all cases inserted upon the back surface of the leaf, or, as it is called in ferns, the frond, sometimes appearing only in the form of little spots, sometimes covering the whole of the under side of the frond, and sometimes contracting the substance of the frond, so as to give it the appearance of a single mass of fructification, bursting in a determinate manner, as in *Ophioglossum*, *Schizæa*, &c. Besides this character, the fronds are always rolled up in a circinate manner when they are first developed.

That part of the frond which occupies the place of the petiole of a compound leaf is called the *rachis*. The groups of thecae forming the organs of reproduction are called *sori* (*a*), which are either naked or covered with an involucre, or, as it is more frequently termed, *indusium*. (*b*) This latter organ, when present, either bursts outwardly towards the margin of the frond, or inwardly towards the midrib or rachis. It may also be either single or double; the latter term signifying, that there is a cover on each side the sorus. The bodies which are called *thecæ* by some authors, and capsules by others, are constructed in two ways; they are either surrounded

by an elastic furrowed ring, when they are called *Annulate* (c), or they are destitute of such a ring, in which case they are termed *Exannulate* (d). They contain the minute powdery matter, which is that by which ferns are reproduced; the constituent parts of this matter are called *sporules* (e), and are analogous to seeds in more perfect plants.

## TRIBE I. POLYPODIACEÆ.

*Thecæ* 1-celled, with an articulated, elastical, longitudinal ring, bursting across in an irregular manner.

2168. *Polybotrya*. Thecæ closely covering the whole surface of the pinnules of an altered frond. Indusium none.
2169. *Acrostichum*. Thecæ scattered, occupying all the lower surface of the frond, or a part of it. Indusium none.
2170. *Hemionitis*. Thecæ seated on the reticulated veins of the frond. Indusium none.
2171. *Gymnogramma*. Thecæ seated on the forked veins of the frond. Indusium none.
2172. *Meniscium*. Sori linear, lunulate, somewhat parallel, placed across the spaces between the veins of the fronds. Indusium none.
2173. *Xiphopteris*. Sori oblong, oblique, placed on the reflexed points of the frond. Indusium none.
2174. *Ceterach*. Sori linear, transverse, concealed under paleæ. Indusium none.
2175. *Polypodium*. Sori in little round scattered convex spots. Indusium none.
2176. *Ternstroemia*. Sori linear, longitudinal, placed between the midrib and margin of the frond under the end. Indusium none.
2177. *Nothochlæna*. Sori almost marginal, continuous, covered by the scales, setæ, or hairs of the frond. Indusium none.
2178. *Onoclea*. Sori globose, inserted upon columnar receptacles, inclosed within the berry-like pinnules. Indusium double: common placed on the edge of the pinnule, and united into the form of a berry; proper membranous enwrapping the sori.
2179. *Struthiopteris*. Sori linear, crossing, inserted upon crested receptacles, included in a double row within the somewhat articulated pinne. Indusium double: common marginal opening inwards in a rugged manner; proper membranous, and resembling a partition.
2180. *Allosorus*. Sori placed on the transverse forked veins of spike-like pinnules, finally becoming confluent. Common indusium very narrow, arising from the revolute margin which is rolled inwards.
2181. *Ellebocharpus*. Thecæ globose, irregularly attached to the longitudinal veins of the frond. Indusium transparent, discolored, arising from the revolute edge of the frond, continuous, and opening by a longitudinal suture.
2182. *Lomaria*. Sori linear, continuous, occupying the surface of the linear pinne of a particular frond. Indusium marginal or submarginal, conniving, involute.
2183. *Blechnum*. Sori linear, continuous, (sometimes interrupted) contiguous to the midrib. Indusium membranous, superficial, continuous, opening inwards.
2184. *Woodwardia*. Sori oblong, distinct, in rows, parallel, contiguous to the midrib. Indusium membranous, superficial, vaulted, opening inwards.
2185. *Doodia*. Sori lunulate, distinct, parallel with the midrib. Indusium membranous, superficial, flat, separating inwards.
2186. *Asplenium*. Sori linear, placed upon lateral veins. Indusium membranous, flat, separating inwards.
2187. *Atlantodia*. Sori oblong, oblique with respect to the midrib. Indusium membranous, vaulted, cylindrical, adhering to a vein, opening inwards, finally spreading outwards.
2188. *Scolopendrium*. Sori linear, oblique, opposite, double, parallel. Indusium membranous, opening in opposite pairs.
2189. *Diplazium*. Sori linear, double alongside the veins. Indusium double, narrow, placed between the sori, fixed lengthwise by the middle, with their exterior margin separate.
2190. *Pteris*. Sori continuous, linear, marginal. Indusium from the inflexed edge of the frond, opening inwards.

## POLYPODIACEÆ.

2168. POLYBOTRYA. *H. & B.* POLYBOTRYA. Sp. 1-17.  
14442 cervina *Kaulf.* hart's-tongue [X] or ½ ap.my Br Jamaica 1823. D l.p. Petiv. fil. t. 8. f. 3

*History, Use, Propagation, Culture.*

2168. *Polybotrya*. So called in allusion to the numerous bunches of the fertile divisions of its frond; from *πολύς*, many, and *βότρυς*, a bunch. Handsome species of West Indian and South American ferns. The genera of ferns are not very dissimilar in habit, so that it will be seldom that any remarks upon that subject will be found in these notes, which must necessarily consist chiefly of the etymology of the names. The medical properties are probably the same in all the genera; such as appear of any consequence are, however, inserted in the proper places. We will here take occasion to remark, that the cultivation of ferns is nearly the same in all cases, and that the soil best adapted for their growth is light peaty earth with a little loam. They are propagated by division of the roots, or by seeds or sporules. The latter plan has been practised at Liverpool,

2191. *Vittaria*. Sori solitary, continuous, linear, marginal or submarginal, immersed. Indusium double, superficial.
2192. *Lonchitis*. Sori lunate, marginal, placed under the recesses of the frond. Indusium from the margin of the frond, inflexed, opening inwards.
2193. *Antrophyum*. Sori linear, continuous, immersed in the reticulated veins of the frond. Indusium double, opening in the middle.
2194. *Adiantum*. Sori inserted into the indusium, linear, contiguous, or roundish. Indusium marginal, opening inwards, either nearly continuous, or squamiform, or reniform.
2195. *Cheilanthes*. Sori dot-like, separate, marginal in the recess of the indusium. Indusium either reflexed crenules of the frond, or squamiform, membranous, and arising from the margin, or nearly continuous, opening inwards.
2196. *Davallia*. Sori roundish, nearly terminal and marginal, distinct. Indusium superficial, attached inwards, and opening outwards.
2197. *Dicksonia*. Sori dot-like, marginal, solitary in the recesses of the frond. Indusium membranous, nearly globose, marginal, adnate, opening unequally with lacerated orifices, and spreading back in all directions.
2198. *Balanium*. Sori oblong-linear, nearly terminal and marginal, transverse. Indusium coriaceous, reniform, 2-valved, opening outwards: upper valve marginal, patera-shaped; lower nearly flat.
2199. *Aspidium*. Sori roundish, scattered. Indusium solitary, orbicular, peltate, or reniform.
2200. *Woodsia*. Sori dot-like, scattered. Indusium membranous, placed under the sori, somewhat patera-shaped and ciliated.
2201. *Cyathea*. Sori globose, scattered, inserted upon an elevated receptacle, which arises from a division of the vein. Indusium spherical, opening in the middle, and finally becoming patera-shaped.
2202. *Trichomanes*. Sori marginal, inserted upon a long setaceous receptacle. Indusium erect, campanulate.
2203. *Hymenophyllum*. Sori marginal, inserted upon a claviform receptacle. Indusium erect, 2-valved.

## TRIBE II. OSMUNDACEÆ.

*Thecæ without a ring, netted, pellucid, with radiating striæ upon their top, bursting lengthwise on one side.*

2204. *Todea*. Sori oblong, seated upon forked veins of an unchanged frond. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2205. *Osmunda*. Sori nearly globose, alternately arising from the margin of a frond, which becomes changed into a panicle. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2206. *Lygodium*. Thecæ oblong-ovate, striated at the end in a radiate manner, seated in two rows upon 1-sided marginal spikelets, fixed by their backs and opening lengthwise in front. Indusium funnel-shaped, covering up each capsule.
2207. *Anemia*. Thecæ ovate, striated at the top in a radiated manner, disposed in compound unilateral spikes, attached by the base, and opening lengthwise. Indusium none.

## TRIBE III. OPHIOGLOSSEÆ.

*Thecæ 1-celled, adnate at base, roundish, coriaceous, opaque, without a ring, not vascular, sometimes fastened together, half-bivalved.*

2208. *Botrychium*. Thecæ naked, globose, distinct, attached to the rachis of a compound spike, half 2-valved, opening nearly at one side.
2209. *Ophioglossum*. Thecæ naked, connate in a distichous jointed spike, half 2-valved, opening at the side.
2210. *Marattia*. Sori oval, somewhat marginal. Thecæ united in a double row, opening inwards by a cleft. Indusium arched, opening lengthwise above, 2-valved, inclosing on each side a row of thecæ.

## POLYPODIACEÆ.

14442 Ster. fronds pinnat. Pinn. ov. lanc. ent. margin. Fert. fr. bipinn. Pinnæ lin. Pinnul. obl. flatt. runn. together

*and Miscellaneous Particulars.*

by Mr. H. Shepherd, with so much success, that his method has been made the subject of a communication to the Horticultural Society, of which the following is an extract. "Having provided a common garden-pot four and a half inches in depth, and three and a half wide, let the bottom part, to the height of one inch, be filled with fragments of broken pots, by way of drain. Over these should be spread a stratum of such soil as is commonly used for potting greenhouse plants, of the depth of two inches; the remaining inch and half should be filled with brown loamy earth sifted through a hair-sieve, the surface being made perfectly smooth, and on this the seeds are to be scattered as evenly as possible. Care must be taken that the wind be not suffered to blow the seeds away, leaving nothing but empty capsules. The seeds being sown, no other covering is

|  |                 |        |            |    |   |
|--|-----------------|--------|------------|----|---|
| 2163. ACROS'TICHUM. L. ACROS'TICHUM.   | Sp. 5—42.       |        |            |    |   |
| 14443 simplex W.                       | simple          | ✓ △ or | 1 ...      | Br | Jamaica 1793. D l p Bot. cab. 709             |
| 14444 crinitum W.                      | hairy           | ✓ △ or | 1/2 ...    | Br | W. Indies 1793. D l p Plum. fil. t. 125       |
| 14445 alaicorne W.                     | Elk's-horn      | ✓ △ cu | 1/2 au.o   | Br | N. S. W. 1868. R s p Bot. reg. 262-3          |
| 14446 sorbifolium W.                   | Sorbus-leaved   | ✓ △ or | 1 1/2 ...  | Br | W. Indies 1793. D l p Plum. fil. t. 117       |
| 14447 aureum L.                        | golden          | ✓ △ or | 1/4 au     | Br | W. Indies 1815. D l p Plum. fil. t. 104       |
| 2170. HEMION'ITIS. L. HEMIONITIS.      | Sp. 1—5.        |        |            |    |   |
| 14448 palmata L.                       | palmed          | ✓ △ el | 1/2 ju.au  | Br | W. Indies 1793. D l p Hook. ex. fl. 33        |
| 2171. GYMNOGRAM'MA. Desv. GYMNOGRAMMA. | Sp. 6—26.       |        |            |    |   |
| 14449 pedatum Kaulf.                   | pedate          | ✓ △ pr | 1/2 ju.jl  | Br | N. Spain 1822. D l p Sw. syn. fil. t. 1 f. 3  |
| 14450 rufum Desv.                      | rusty-haired    | ✓ △ pr | 1/2 ju.au  | Br | Jamaica 1793. D l p Schk. fil. t. 17. 21      |
| Hemionitis rufa W.                     |                 |        |            |    |   |
| 14451 trifoliatum Desv.                | three-leaved    | ✓ △ or | 1 jl.au    | Br | Jamaica 1810. D l p Plum. fil. t. 144         |
| 14452 sulphureum Desv.                 | sulphury        | ✓ △ el | 1 ju.jl    | Br | Jamaica 1808. D l p Schku. crypt. t. 4        |
| 14453 tartareum Desv.                  | whitened        | ✓ △ el | 1 au       | Br | W. Indies 1817. D l p                         |
| Hemionitis dealbata W.                 |                 |        |            |    |   |
| 14454 calomelanos Kaulf.               | mealy           | ✓ △ el | 1 jl.au    | Br | W. Indies 1790. D s p W. hort. ber. 41        |
| Acrostichum calomelanos W.             |                 |        |            |    |   |
| 2172. MENIS'CIUM. Schreb. MENISCIUM.   | Sp. 1—6.        |        |            |    |   |
| 14455 reticulatum Schr.                | netted          | ✓ △ el | 1/2 ap.my  | Br | Martinico 1793. D l p Plum. fil. t. 110       |
| 2173. XIPHOP'TERIS. Kaulf. SWORD-FERN. | Sp. 1—2.        |        |            |    |   |
| 14456 serrulata Kaulf.                 | serrulate       | ✓ △ pr | 1/2 ju.jl  | Br | W. Indies 1823. D l p Schku. crypt. t. 7      |
| Grammitis serrulata W.                 |                 |        |            |    |   |
| 2174. CETERACH. W. CETERACH.           | Sp. 1—4.        |        |            |    |   |
| 14457 officinarum W.                   | common          | ✓ △ m  | 1/2 my.o   | Br | Britain cal.ro. D l p Eng. bot. 1244          |
| 2175. POLYPODIUM. L. POLYPODY.         | Sp. 27—160.     |        |            |    |   |
| 14458 piloselloides W.                 | Mouse-ear       | ✓ △ or | 1/2 au     | Br | W. Indies 1793. D l p Plum. fil. t. 118       |
| 14459 lycopodioides W.                 | Club-moss       | ✓ △ or | 1/2 jl     | Br | W. Indies 1793. D l p Schk. fil. t. 8. c. p   |
| 14460 phyllitidis W.                   | Hart's-tongue   | ✓ △ or | 2 ju.s     | Br | W. Indies 1793. Sk s p Plum. fil. t. 130      |
| 14461 Lin'gua W.                       | tongue-leaved   | ✓ △ or | 1 my.jl    | Br | China 1817. D l p Thunb. jap. t. 38           |
| 14462 aureum W.                        | golden          | ✓ △ or | 3 mr.ap    | Br | W. Indies 1742. Sk s p Plum. fil. t. 76       |
| 14463 vulgare W.                       | common          | ✓ △ or | 1 my.o     | Br | Britain sha.ba. D l p Eng. bot. 1149          |
| β cæmbricum                            | Welsh           | ✓ △ cu | 1 my.o     | Br | Britain ... D l p Bot. fil. t. 2. 75. a       |
| 14464 virginianum W.                   | Virginian       | ✓ △ or | 1 jl       | Br | N. Amer. ... D l p Plum. fil. t. 77           |
| 14465 pectinatum W.                    | comb-leaved     | ✓ △ or | 1 1/2 ju.s | Br | W. Indies 1793. Sk s p Bot. cab. 748          |
| 14466 asplenifolium W.                 | Spleenwort-lvd. | ✓ △ or | 2 jl       | Br | Martinico 1790. Sk s p Plum. fil. t. 102. A   |
| 14467 incanum W.                       | hoary           | ✓ △ or | 1/2 jl     | Br | N. Amer. 1811. D l p Schk. fil. t. 11. b      |
| 14468 Phegopteris W.                   | Sun-fern        | ✓ △ or | 1/2 ju.jl  | Br | Britain moun. D l p Eng. bot. 2224            |
| 14469 hexagonopterum W.                | triangular      | ✓ △ or | 1 jl       | Br | N. Amer. 1811. D l p Pluk. al. t. 284. f. 2   |
| 14470 pruinatum W.                     | white-leaved    | ✓ △ or | 2 s        | Br | Jamaica 1793. D l p                           |
| 14471 effusum W.                       | spreading       | ✓ △ or | 3 n        | Br | Jamaica 1769. Sk s p Slo. jam. 1. t. 57. f. 3 |
| 14472 Dryopteris W.                    | rigid-branch.   | ✓ △ or | 1 ju.s     | Br | Britain moi. p. D l p Eng. bot. 616           |
| 14473 calcareum W.                     | tender-branched | ✓ △ or | 1/2 jl     | Br | Britain cal. ro. D l p Eng. bot. 1525         |
| 14474 crassifolium W.                  | thick-leaved    | ✓ △ or | 3 s. au.s  | Br | W. Indies 1823. D l p Plum. fil. t. 123       |



History, Use, Propagation, Culture,

required than a bell-glass, which should just fit within the rim of the pot, so as to exclude all air. The pot is then to be kept in a pan always half full of water, and set in a shady part of the stove or hot-house, being always regularly watered as above directed. When the young plants have acquired their second leaf, it is proper to give them a little air, by placing a small piece of wood under the edge of the glass, at one side. In a short time afterwards the glass may entirely be removed."

The vegetation of ferns appears to be less tardy than botanists have supposed. Specimens of *Gymnogramma tartareum* having been brought from Jamaica to Liverpool, on the tenth of July 1817, a few seeds were brushed off them and sown immediately. Several plants thus obtained perfected seeds by the fifth of August 1818, which being committed to the earth, had produced young plants, covering the surface like a fine moss, by the eighth of September following. Specimens of *Pteris cretica*, and another marked *Pteris acrostichoides*, from William Jackson Hooker, Esq., afforded seeds which have vegetated and produced very fine plants of both species. Dr. William Carey sent from Serampore specimens of *Polypodium giganteum*, and what appears to be a new *Pliazium*. These reached Liverpool, July the tenth 1818; their seeds being immediately sown, had produced young plants by the eighth of September. A small fern from Sicily, with several others of this tribe, collected in the Brazils by William Swainson, Jun., Esq., afforded ripe seeds, which being sown in the spring of 1818, had partly vegetated, and in September had produced *Polypodium decumanum*, as well as *Gymnogramma calomelanos*. Mr. Shepherd obtained two plants of the latter from seeds brushed from the specimens in the Herbarium of Dr. John Reinhold Forster, now belonging to the botanic garden at Liverpool, and perhaps fifty years old. He made the experiments on other ferns in that collection, but without success, which, indeed, is not wonderful.

The seeds of this order of plants are of course liable to damage from damp or other accidents, like those of plants in general. It seems, moreover, that they are very soon shed by the bursting of their capules, so that

14443 Fronds lanceolate tapered each way smooth : fertile linear lanceolate, Stalks very short naked  
 14444 Fronds elliptical obtuse at each end hairy villous at the edges, Stalk villous  
 14445 Ster. fronds renif. somew. lobed entire horizontal : fert. erect palmate dichotom. bearing fr. on lanc. segm.  
 14446 Fronds pinnated : pinn. lanc. acumin. serr. cuneate at base, Fert. pinn. : pinn. linear entire, Stem climbing  
 14447 Fronds pinnated : pinn. altern. obl. lanceolate ent. cuneate and equal at base, all acum. : the upper fertile

14448 Fronds cordate 5-lobed toothed ciliated, Stalk long

14449 Fronds pinnate : pinnæ pinnatifid acuminate hairy

14450 Fronds pinnate : pinnæ oblong acutish subcordate subserrate on each side as well as the stalk hairy

14451 Fronds pinnate : pinnæ ternate in pairs and solitary stalked lin. crenul. : fertile yellow with meal beneath

14452 Fronds bipinnate : pinnulæ pinnatifid ; segm. cuneate truncate at end toothletted yell. with meal beneath

14453 Fronds bipinnate : upper pinn. confluent obl. obt. serrul. ; lower somew. pinnatif. white with meal beneath

14454 Fronds bipinnate : pinn. lanc. white with meal beneath ; lower pinnatifid auricled at base, upper confluent

14455 Fronds pinn. : pinn. lanc. acuminate cuneate at base all repand : lower opposite, Stem none

14456 Fronds linear toothed when fructifying entire at the end, Stem filiform ascending simple

14457 Fronds pinnatifid : segm. oblong obtuse chaffy with entire palææ beneath

14458 Fronds hairy : sterile oblong ovate entire ; fertile lanceolate, Sori solit. Stem filiform rooting chaffy

14459 Fronds lanceolate entire smooth, Sori solitary, Stem filiform creeping with bristly palææ

14460 Fronds lanceolate margined acute tapered at base smooth, Sori in two rows

14461 Fronds oblong obtuse entire smooth above rusty with down beneath, Sori contiguous copious

14462 Fronds deeply pinnatifid glaucous : segm. lanc. acuminate entire, Lower sori scattered ; upper solitary

14463 Fronds pinnatifid : segm. lin. lanc. blunt crenul. contig. : upper smaller by degrees, Sori solitary

14464 Fronds deeply pinnatifid : segm. lanc. blunt entire contig. ; upp. smaller by degrees, Sori solit. Stalk naked

14465 Fronds deeply pinnatifid : segm. lanc. acute entire parallel smooth ; upper and lower smallest, Sori solitary

14466 Fronds pinnatifid hairy : segments half ovate blunt, Sori solitary

14467 Fronds deeply pinnatifid : segm. altern. lin. ent. obt. ; upper smaller by degrees ben. as well as stalk chaffy

14468 Fronds bipinnatif. : 2 lower pinnæ def. ; segm. lin.-lanc. blunt ent. ciliat. Veins hairy, Sori solit. marginal

14469 Fronds downy and ciliated bipinnatifid, Membranes connecting the opposite pinnæ oblong hexagonal

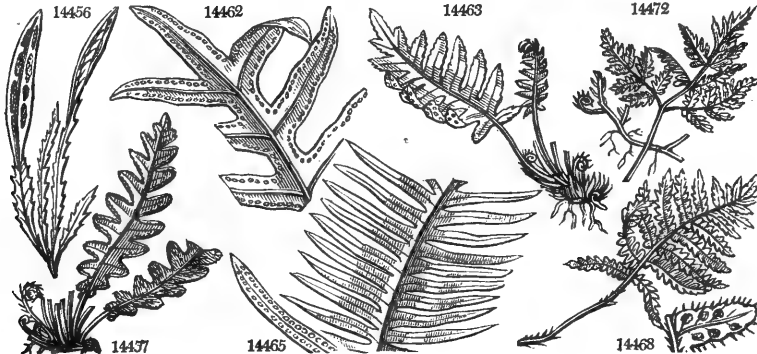
14470 Fronds 4-pinn. Branches and branchlets lanc. Pinnæ lanc. pinnatifid, Segm. ovate acute glaucous beneath

14471 Fronds 3-pinn. : pinnulæ pinnatif. ; segm. lin. serrat. acute, Rachis edged naked, Sori solit. Stalk smooth

14472 Fronds ternate bipinnate spreading deflexed : segments blunt nearly entire, Sori marginal, Root filiform

14473 Fronds ternate bipinnate straight rigid : segments bluish nearly entire, Sori marginal confluent

14474 Fronds oblong smooth entire margined acute at each end, Sori in rows



and Miscellaneous Particulars.

they are more likely to be found in such specimens as are just beginning to turn brown in their fructification, than in others more advanced.

2169. *Acrostichum*. Said to be formed from the words *ακρος* *συχος*, the commencement of a verse, and to have been so called because the reverse of their leaves indicates traces of lines, resembling the beginning of lines of poetry. These are fine, chiefly tropical, ferns, one of which, *A. aureum*, sometimes grows to the height of five or six feet.

2170. *Hemionitis*. Said by Dioscorides to be so called from the resemblance of its nature to that of a mule, *ἡμιονος* ; it was always considered sterile, bearing neither flowers nor fruit.

2171. *Gymnogramma*. Named by Desvieux from *γυμνος*, naked, and *γραμματα*, writing, in allusion to the disposition of the naked sori upon the forked veins of the frond, whence they seem to resemble Roman letters. The species have been separated from *Hemionitis* and *Acrostichum*.

2172. *Menisium*. From *μηνος*, the moon ; the sori are crescent-shaped. These ferns are remarkable for the arrangement of their veins. The little veins which unite the transverse veins of the sterile frond are usually at right angles, and generally united with each other by a little branch which sets off from one or other of their angles. In the fertile fronds the veins on which the sori are placed are either curved or straight.

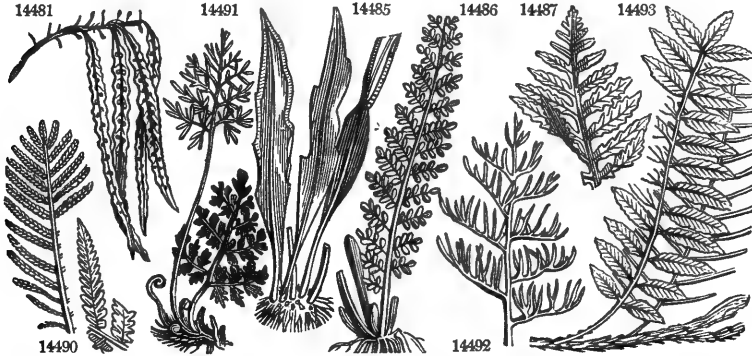
2173. *Xiphopteris*. Divided from *Grammitis* by Kaulfuss, who seems to have named it from *ξίφος*, a sword, and *πτερίς*, a fern, on account of the sword-like form of their fronds.

2174. *Ceterach*. The name employed by the Arabian and Persian physicians for this plant was *Chetherak* (*Gazoph. Ling. Pers.* p. 571.) They employed the plant in obstructions of the viscera, for the jaundice, and for disorders of the spleen.

2175. *Polypodium*. From *πολλος*, many, and *πυς ποδες*, a foot, on account of the multitude of the roots which form close entangled patches. Many of the species of this genus are noble plants. They are mostly epiphytic



|       |                                |                 |        |       |       |    |           |             |   |    |                        |
|-------|--------------------------------|-----------------|--------|-------|-------|----|-----------|-------------|---|----|------------------------|
| 14475 | <i>decumanum W.</i>            | tall            | ☞ ☒ el | 5     | au    | Br | Brazil    | 1818.       | D | lp |                        |
| 14476 | <i>fraxinifolium W.</i>        | ash-leaved      | ☞ ☒ el | 2     | au    | Br | Caracacs  | 1817.       | D | lp | Jacq. ic. t. 639       |
| 14477 | <i>lanceolatum W.</i>          | lanceolate      | ☞ ☒ or | 1     | au    | Br | W. Indies | 1812.       | D | lp | Plum. fil. t. 137      |
| 14478 | <i>phymatodes W.</i>           | red             | ☞ ☒ or | 1     | ju.au | Br | E. Indies | 1823.       | D | lp | Plu. phyt. 404. f. 5   |
| 14479 | <i>quercifolium W.</i>         | oak-leaved      | ☞ ☒ or | 1 1/2 | s     | Br | E. Indies | 1824.       | D | lp | Rumph. 6. t. 36        |
| 14480 | <i>repens W.</i>               | creeping        | ☞ ☒ pr | 2     | my.jn | Br | W. Indies | 1810.       | D | lp | Plum. fil. t. 134      |
| 14481 | <i>serpens W.</i>              | gliding         | ☞ ☒ pr | 1/2   | my.jn | Br | W. Indies | 1816.       | D | lp | Plum. fil. 121         |
| 14482 | <i>tenisium W.</i>             | jointed         | ☞ ☒ pr | 2     | my.jn | Br | S. Amer.  | 1815.       | D | lp |                        |
| 14483 | <i>pertusum</i>                | bored           | ☞ ☒ pr | 1/2   | ja.d  | Br | China     | 1821.       | D | lp | Hook. ex. fl. 162      |
| 14484 | <i>crenatum W.</i>             | crenate         | ☞ ☒ pr | 1 1/2 | au    | Br | Jamaica   | 1823.       | D | lp |                        |
| 2176. | <i>TENITIS. Swz.</i>           | TENITIS.        |        |       |       |    |           | Sp. 1—5.    |   |    |                        |
| 14485 | <i>lanceolata Kaulf.</i>       | lanceolate      | ☞ ☒ pr | 1     | au    | Br | W. Indies | 1818.       | D | lp | Plum. fil. t. 132      |
| 2177. | <i>NOTHOCHLÆNA. R. Br.</i>     | NOTHOCHLÆNA.    |        |       |       |    |           | Sp. 1—16.   |   |    |                        |
| 14486 | <i>lanuginosa Desv.</i>        | woolly          | ☞ ☒ or | 1/2   | au.s  | Br | Madeira   | 1778.       | R | sp | Desf. atl. 2. t. 256   |
|       | <i>Acrostichum vel leum W.</i> |                 |        |       |       |    |           |             |   |    |                        |
| 2178. | <i>ONOCLEA. L.</i>             | ONOCLEA.        |        |       |       |    |           | Sp. 2.      |   |    |                        |
| 14487 | <i>sensibilis W.</i>           | sensitive       | ☞ ☒ or | 1 1/2 | au    | Br | Virginia  | 1799.       | D | lp | Schk. fil. t. 102      |
| 14488 | <i>obtusilobata Schk.</i>      | obtuse-lobed    | ☞ ☒ or | 1     | jl    | Br | N. Amer.  | 1812.       | D | lp | Schk. fil. t. 103      |
| 2179. | <i>STRUTHIOPTERIS. W.</i>      | STRUTHIOPTERIS. |        |       |       |    |           | Sp. 2.      |   |    |                        |
| 14489 | <i>germanica W.</i>            | Russian         | ☞ ☒ or | 2     | jl.au | Br | Europe    | 1760.       | D | lp | Schk. fil. t. 105      |
| 14490 | <i>pensylvanica W.</i>         | Onoclea-like    | ☞ ☒ or | 2     | au    | Br | N. Amer.  | 1812.       | D | lp | Schk. fil. t. 111      |
| 2180. | <i>ALLOSORUS. Bernh.</i>       | ALLOSORUS.      |        |       |       |    |           | Sp. 1.      |   |    |                        |
| 14491 | <i>crispus Bernh.</i>          | curled          | ☞ ☒ cu | 1/2   | jl.au | Br | Britain   | sto. hi.    | D | lp | Eng. bot. 1160         |
|       | <i>Pteris crispata L.</i>      |                 |        |       |       |    |           |             |   |    |                        |
| 2181. | <i>ELLOBOCARPUS. Kaulf.</i>    | POD-FERN.       |        |       |       |    |           | Sp. 1—2.    |   |    |                        |
| 14492 | <i>oleraceus Kaulf.</i>        | estable         | ☞ ☒ or | 1 1/2 | au    | Br | Tranqueb. | 1818.       | D | lp | Plu. alm. t. 215. f. 3 |
| 2182. | <i>LOMARIA. W.</i>             | LOMARIA.        |        |       |       |    |           | Sp. 1—20.   |   |    |                        |
| 14493 | <i>longifolia Kaulf.</i>       | long-leaved     | ☞ ☒ or | 2     | jn.jl | Br | W. Indies | 1810.       | D | lp | Pl. fil. t. 117. destr |
| 2183. | <i>BLECHNUM. L.</i>            | BLECHNUM.       |        |       |       |    |           | Sp. 3—29.   |   |    |                        |
| 14494 | <i>boreale W.</i>              | northern        | ☞ ☒ pr | 1/2   | jl    | Br | Britain   | hea.        | D | lp | Eng. bot. 1159         |
| 14495 | <i>australe W.</i>             | Cape            | ☞ ☒ pr | 1/2   | mr.s  | Br | C. G. H.  | 1691.       | R | sp | Schk. fil. t. 110. b   |
| 14496 | <i>occidentale W.</i>          | American        | ☞ ☒ pr | 1     | mr.s  | Br | S. Amer.  | 1777.       | R | sp | Jac. ic. 3. t. 644     |
| 2184. | <i>WOODWARDIA. Sm.</i>         | WOODWARDIA.     |        |       |       |    |           | Sp. 2—7.    |   |    |                        |
| 14497 | <i>radicans W.</i>             | rooting-leaved  | ☞ ☒ or | 1 1/2 | s     | Br | Madeira   | 1779.       | R | sp | Schk. fil. t. 112      |
| 14498 | <i>virginica Ph.</i>           | Virginian       | ☞ ☒ or | 1     | au.s  | Br | N. Amer.  | 1774.       | D | lp | Plu. alm. t. 179. f. 2 |
| 2185. | <i>DOODIA. R. Br.</i>          | DOODIA.         |        |       |       |    |           | Sp. 1—3.    |   |    |                        |
| 14499 | <i>aspera R. Br.</i>           | rough-stalked   | ☞ ☒ pr | 1/2   | mr.s  | Br | N. S. W.  | 1808.       | R | sp |                        |
| 2186. | <i>ASPLENIUM. L.</i>           | SPLEENWORT.     |        |       |       |    |           | Sp. 27—117. |   |    |                        |
| 14500 | <i>fontanum R. Br.</i>         | smooth rock     | ☞ ☒ el | 1/2   | jn.au | Br | England   | w. & r.     | D | lp | Eng. bot. 2024         |
|       | <i>Aspidium fontanum E. B.</i> |                 |        |       |       |    |           |             |   |    |                        |
| 14501 | <i>Filix-foemina R. Br.</i>    | female          | ☞ ☒ or | 2     | jn.s  | Br | Britain   | w.sh.pl.    | D | lp | Eng. bot. 1459         |
| 14502 | <i>Adiantum-nigrum W.</i>      | black           | ☞ ☒ pr | 1     | ap.o  | Br | Britain   | sha.pl.     | D | lp | Eng. bot. 1950         |
| 14503 | <i>montanum W.</i>             | mountain        | ☞ ☒ pr | 1/2   | jl    | Br | N. Amer.  | 1812.       | D | lp |                        |
| 14504 | <i>lanceolatum W.</i>          | lanceolate      | ☞ ☒ pr | 1/2   | jn.s  | Br | England   | rocks.      | D | lp | Eng. bot. 240          |
| 14505 | <i>fragrans W.</i>             | fragrant        | ☞ ☒ el | 1/2   | jl    | Br | Jamaica   | 1793.       | D | lp | Plu. alm. t. 282. f. 1 |
| 14506 | <i>Ruta-muraria W.</i>         | Wall-rue        | ☞ ☒ cu | 1/2   | jn.o  | Br | Britain   | sh.roc.     | D | lp | Eng. bot. 150          |



History, Use, Propagation, Culture,

upon trees. *Polypodium vulgare* is sometimes burnt for the sake of its ashes, which contain a large proportion of carbonate of potash, which is employed in the fusion of flint for some kinds of glass-ware.

2176. *Tenitis*. From the resemblance of the interrupted line of sori to the *tenia* or tape-worm.

2177. *Nothochlæna*. From *νόσος*, spurious, and *χλαμα*, a cloak. So called because the sori are not enclosed in a genuine indusium, but are frequently covered over by the palææ of the frond. A genus extracted by Mr. Robert Brown from the ancient *Acrostichum*.

2178. *Onoclea*. A name given by Dioscorides, Pliny, and Galen, to a Boraginaceous plant, and strangely applied by the moderns to a genus of ferns. *O. sensibilis* has been so called from the delicacy of its frond, which is so impatient of injury as to perish with almost the least violence.

2179. *Struthiopteris*. Named from *στρουθός*, an ostrich, and *πτερίς*, a fern, on account of the similarity between its fine fronds and the feathers of an ostrich. A genus divided from *Osmunda* by Willdenow.

2180. *Allosorus*. From *ἄλλος*, various, and *sorus*; a name contrived by Bernhardi, in a paper printed in Schrader's Journal, we presume in allusion to the different states of the sori at different periods. A curious little rock plant.

2181. *Ellobocarpus*. Named by Kaulfuss, from *ἔλλοβος*, enclosed in a pod, and *καρπός*, fruit, in allusion to the pod-like form of the divisions of the fronds on which the sori are placed.

14475 Fronds deeply pinnatifid glaucous : segments lanceolate acuminate repand serrate, Sori in rows  
 14476 Fronds pinnate, Leaflets lanceolate acuminate repand wavy distant  
 14477 Fronds lanceolate entire smooth or somewhat scaly rigid erect, Sori solitary  
 14478 Fronds simple 3-lobed and pinnatifid : segments lanceolate acuminate opposite, Sori scattered immersed  
 14479 Sterile fronds sessile ovate sinuated : fertile pinnatifid ; segments lanceolate  
 14480 Fronds on a creeping stem lanceolate acuminate entire subulcid with flexuous veins, Sori scattered  
 14481 Sterile fronds oblong entire : fertile linear lanceolate repand, Sori solitary, Stem paleaceous rooting  
 14482 Fronds linear lanceolate much tapered at the base somewhat repand quite smooth, Sori scattered  
 14483 Ster. fronds obl. lanc. taper. at base : fert. lin.-lanc. bear. sori on upp. half, Sori oval immers. in dense wool  
 14484 Fronds pinnate, Pinn. somewhat stalked oblong acuminate coarsely and bluntly serrated, Sori in rows

14485 Fronds simple lanceolate acute at each end nearly entire fructifying at end

14486 Fronds bipinnate woolly : pinnules elliptical obtuse covered all over with long wool

14487 Pinnæ lanceolate acute cut toothed : pinnules and rachis smooth  
 14488 Pinnæ pinnatifid with rounded lobes : pinnules villous, Rachis scaly

14489 Sterile fronds bipinnatifid : segments entire acute equal  
 14490 Sterile fronds bipinnatifid : segments entire obtuse ; lower long acute

14491 Fronds supradecompond, Pinnæ alternate roundish cut

14492 Alternate pinnæ pinnulate on the upper-side linear : lower 2-parted

14493 Sterile pinnæ long-lanceolate acuminate cuneate at base repand-toothed : fertile linear

14494 Fronds pinnated smooth, Pinnæ linear bluntish entire nearly equal at base  
 14495 Fronds pinnated, Pinnæ linear-lanceolate mucronate auricled at base scabrous at edge  
 14496 Fronds pinnated, Lower pinnæ opposite lanceolate entire subcordate at base : upper alternate united

14497 Fronds pinnate-pinnatifid : segments lanceolate acuminate somewhat repand finely serrulate  
 14498 Fronds very smooth pinnate, Pinnæ sessile lanceolate pinnatifid, Segments oblong blunt crenulate

14499 Fronds lanceolate pinnatifid : segm. linear ensiform acuminate spinulose, Sori lanceolate in two rows

14500 Fronds pinn. : pinnæ cordate pinnatifid ; segm. ovate rather acute, lower and terminal usually 3-lobed

14501 Fronds bipinn. : pinnules obl. lanc. cut serrated : serratures 2 or 3-toothed nearly acute, Sori obl. straight  
 14502 Fronds bipinn. : pinnæ obl. lanc. acute ; pinnules oblong pinnatifid cut, Sori becoming confluent  
 14503 Fronds bipinn. : pinnules pinnatifid ; segments 3 or 2-toothed  
 14504 Fronds bipinn. : pinnules obovate blunt cuneate at base acutely toothed at end, Sori becoming confluent  
 14505 Fronds bipinn. : pinnules oblong acute at each end serrated at end : upper confluent  
 14506 Fronds alternately decomposed : pinnæ rhomboid cuneiform spreading blunt at end



and Miscellaneous Particulars.

2182. *Lomaria*. From *λωμα*, an edge, on account of the marginal position of the indusia. These are fine plants, resembling *Acrostichum* in habit.

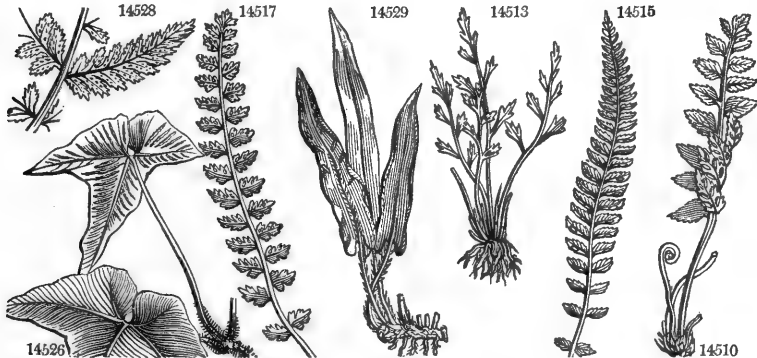
2183. *Blechnum*. One of the Greek names of the fern was *βλεχρον*. Athenæus writes it *βλαχρον*, and derives it from *βλαξ*, powerless, insipid.

2184. *Woodwardia*. Named by Sir James Smith, after his friend Thomas Jenkinson Woodward, Esq., a good practical English botanist. One of the species produces little hairy bulbs at the axillæ of the leaves, which either fall off and strike root in the ground, or vegetate while attached to the parent plant. This property is common to many other ferns, and in one instance, the young plants so produced have been mistaken in *Pteris cornuta* for parasites by an acute cryptogamic botanist.

2185. *Doodia*. So called in honor of Samuel Doody, a London apothecary, who was almost the first investigator of British cryptogamic plants. Small rough-leaved ferns of rigid texture.

2186. *Asplenium*. From *α*, privative, and *σπλην*, the spleen. This plant was formerly held to be a sovereign remedy for all diseases of this organ, and to be so powerful as even to destroy it if employed in excess.

|       |                                   |                  |   |   |    |    |       |    |                 |    |      |                       |
|-------|-----------------------------------|------------------|---|---|----|----|-------|----|-----------------|----|------|-----------------------|
| 14507 | <i>præmorsum W.</i>               | snip-leaved      | ✓ | ☒ | el | ½  | au    | Br | Jamaica 1793.   | R  | s.p. | Plu.alm. t.73. f.5    |
| 14508 | <i>striatum W.</i>                | striated         | ✓ | ☒ | pr | 1  | jn.au | Br | W. Indies 1793. | R  | s.p. | Plum. fil. t.18, 19   |
| 14509 | <i>rhizophorum W.</i>             | root-bearing     | ✓ | ☒ | pr | 1  | au    | Br | Jamaica 1793.   | D  | l.p. | Sl. ja. t.29.30. f.1  |
| 14510 | <i>viride W.</i>                  | green            | ✓ | Δ | pr | ½  | jn.s  | Br | Britain al.roc. | D  | l.p. | Eng. bot. 2257        |
| 14511 | <i>melanocaulon Ph.</i>           | black-stalked    | ✓ | Δ | pr | ½  | jl    | Br | N. Amer. 1812.  | D  | l.p. |                       |
| 14512 | <i>Trichomanes W.</i>             | Maiden-hair      | ✓ | Δ | pr | ½  | my.o  | Br | Britain sh.roc. | D  | l.p. | Eng. bot. 576         |
| 14513 | <i>alternifolium Sm.</i>          | alternate-leav'd | ✓ | Δ | cu | ½  | jn.o  | Br | Scotland ...    | D  | l.p. | Eng. bot. 2258        |
| 14514 | <i>ebëneum Ph.</i>                | ebony-stalked    | ✓ | Δ | or | ½  | s     | Br | N. Amer. 1779.  | D  | l.p. | Schk. fil. t. 73      |
| 14515 | <i>monánthemum W.</i>             | one-flowered     | ✓ | Δ | cu | 1  | jl    | Br | C. G. H. 1790.  | D  | l.p. | Smithined. t. 73      |
| 14516 | <i>Nidus W.</i>                   | Bird's Nest      | ✓ | Δ | el | 2  | au    | Br | E. Indies 1820. | D  | l.p. | Breyr. cent. t.99     |
| 14517 | <i>marinum W.</i>                 | sea              | ✓ | Δ | or | ½  | jn.o  | Br | Britain rocks.  | R  | s.p. | Eng. bot. 392         |
| 14518 | <i>angustifolium W.</i>           | narrow-leaved    | ✓ | Δ | el | 1  | jn.jl | Br | N. Amer. 1812.  | D  | l.p. | Schk. fil. t. 67. 69  |
| 14519 | <i>septentrionale W.</i>          | forked           | ✓ | Δ | cu | ½  | jn.o  | Br | Britain rocks.  | D  | l.p. | Eng. bot. 1017        |
| 14520 | <i>rhizophyllum W.</i>            | rooting-leaved   | ✓ | Δ | cu | ½  | jn.jl | Br | N. Amer. 1680.  | D  | l.p. | Pluk.al. t.105.f.3    |
| 14521 | <i>serratum W.</i>                | saw-leaved       | ✓ | Δ | pr | ½  | au    | Br | Jamaica 1793.   | D  | l.p. | Schk. fil. t. 64      |
| 14522 | <i>bisectum Suz.</i>              | split            | ✓ | Δ | or | 1½ | au    | Br | Jamaica 1821.   | D  | l.p. |                       |
| 14523 | <i>pumilum W.</i>                 | pygmy            | ✓ | Δ | pr | ½  | jn.jl | Br | W. Indies 1823. | D  | l.p. | Plum. fil. t.66. A.   |
| 14524 | <i>zamiæfolium W.</i>             | Zamia-leaved     | ✓ | Δ | cu | 1½ | jn.s  | Br | Caracas 1820.   | D  | l.p. |                       |
| 14525 | <i>acutum W.</i>                  | acute            | ✓ | Δ | or | 2  | ap.my | Br | Teneriffe 1818. | D  | l.p. |                       |
| 14526 | <i>palmatum W.</i>                | palmate          | ✓ | Δ | or | ¾  | aus   | Br | S. Europe 1816. | D  | l.p. | Bot. cab. 868         |
| 2187. | ALLANTODIA. R. Br.                | ALLANTODIA.      |   |   |    |    |       |    | Sp. 2—3.        |    |      |                       |
| 14527 | <i>axillaris Kauff.</i>           | axillary         | ✓ | Δ | or | 2  | jn.s  | Br | Madeira 1779.   | D  | l.p. |                       |
| 14528 | <i>umbræsa R. Br.</i>             | Madeira          | ✓ | Δ | or | 4  | jn.s  | Br | Madeira 1779.   | D  | l.p. | Schk. fil. t. 61      |
|       | <i>Polypodium umbrösium H. K.</i> |                  |   |   |    |    |       |    |                 |    |      |                       |
| 2188. | SCOLOPENDRIUM. Smith.             | HART'S TONGUE.   |   |   |    |    |       |    | Sp. 1.          |    |      |                       |
| 14529 | <i>officinærum Suz.</i>           | common           | ✓ | Δ | cu | 1½ | jl.au | Br | Britain m.s.pl. | D  | l.p. | Eng. bot. 1150        |
|       | <i>β crispum</i>                  | curled-leaved    | ✓ | Δ | cu | 1½ | jl.au | Br | Britain ...     | D  | l.p. |                       |
|       | <i>γ undulatum</i>                | wave-leaved      | ✓ | Δ | cu | 1½ | jl.au | Br | Britain ...     | D  | l.p. | Plu.phyt.248. f.1     |
|       | <i>δ multifidum</i>               | clustered        | ✓ | Δ | cu | 1½ | jl.au | Br | Britain ...     | D  | l.p. |                       |
|       | <i>ε ramosum</i>                  | branching        | ✓ | Δ | cu | 1½ | jl.au | Br | Britain ...     | D  | l.p. | Plu.phyt.248. f.1     |
| 2189. | DIPLAZIUM. Suz.                   | DIPLAZIUM.       |   |   |    |    |       |    | Sp. 2—13.       |    |      |                       |
| 14530 | <i>grandifolium W.</i>            | large-leaved     | ✓ | ☒ | or | 2  | au    | Br | Jamaica 1793.   | D  | l.p. |                       |
| 14531 | <i>auriculatum Kauff.</i>         | auricled         | ✓ | ☐ | or | 10 | au    | Br | Caracas 1820.   | D  | l.p. |                       |
| 2190. | PTERIS. L.                        | BRAKE.           |   |   |    |    |       |    | Sp. 15—37.      |    |      |                       |
| 14532 | <i>longifolia W.</i>              | long-leaved      | ✓ | ☒ | or | 2  | jl.s  | Br | W. Indies 1770. | Sk | s.p. | J. sch. 3. t.399,400  |
| 14533 | <i>grandifolia W.</i>             | large-leaved     | ✓ | ☒ | or | 2  | au    | Br | W. Indies 1793. | Sk | s.p. | Schk. fil. t. 89      |
| 14534 | <i>serrulata W.</i>               | various-leaved   | ✓ | Δ | pr | 1½ | aus   | Br | India 1770.     | Sk | s.p. | Schk. fil. t. 91      |
| 14535 | <i>atropurpurea W.</i>            | purple           | ✓ | Δ | pr | ½  | aus   | Br | N. Amer. 1770.  | D  | l.p. | Schk. fil. t. 101     |
| 14536 | <i>arguta W.</i>                  | sharp-notched    | ✓ | Δ | el | ½  | aus   | Br | Madeira 1778.   | D  | l.p. | Plu.alm.t.290.f.2     |
| 14537 | <i>aculeata W.</i>                | prickly-stemm.   | ✓ | Δ | or | 10 | aus   | Br | W. Indies 1793. | D  | l.p. | Plum. fil. t.5. et 11 |
| 14538 | <i>esculenta Suz.</i>             | esculent         | ✓ | Δ | or | 3  | aus   | Br | N. S. W. 1815.  | D  | l.p. | Lan. hol. 2. t.244    |
| 14539 | <i>caudata W.</i>                 | American         | ✓ | Δ | pr | 2  | s.d   | Br | N. Amer. 1777.  | D  | l.p. | Jac. ic. 3. t. 645    |
| 14540 | <i>aquilina W.</i>                | common           | ✓ | Δ | or | 3  | jl.au | Br | Britain hea.w.  | D  | l.p. | Eng. bot. 1679        |
| 14541 | <i>podophylla W.</i>              | pedated          | ✓ | Δ | pr | 1½ | jn.jl | Br | Jamaica 1793.   | D  | l.p. | Brow. jam.89. t.1     |
| 14542 | <i>crética W.</i>                 | Candian          | ✓ | Δ | cu | 1  | jl.au | Br | Candia 1820.    | D  | l.p. | Schku.crypt. t.90     |
| 14543 | <i>hastata W.</i>                 | hastate          | ✓ | Δ | or | 2  | jl.s  | Br | C. G. H. 1823.  | D  | l.p. | Pl. phyt. t. 403. f.5 |
| 14544 | <i>palmata W.</i>                 | palmate          | ✓ | Δ | or | ¾  | jn.au | Br | Caracas 1821.   | D  | l.p. |                       |
| 14545 | <i>pedata W.</i>                  | pedate           | ✓ | Δ | or | ¾  | jl.au | Br | Virginia 1820.  | D  | l.p. | Plum. fil. t. 152     |
| 14546 | <i>Plumieri Link.</i>             | Plumier's        | ✓ | Δ | or | 2  | jl    | Br | S. Amer. 1818.  | D  | l.p. |                       |
| 2191. | VITTA'RIA. Sm.                    | VITTARIA.        |   |   |    |    |       |    | Sp. 1—10.       |    |      |                       |
| 14547 | <i>lineata W.</i>                 | linear-leaved    | ✓ | ☒ | cu | 2  | au    | Br | America 1793.   | D  | l.p. | Schk. fil. t. 101.b.  |
| 2192. | LONCHITIS L.                      | LONCHITIS.       |   |   |    |    |       |    | Sp. 1—5.        |    |      |                       |
| 14548 | <i>hirsuta W.</i>                 | hairy            | ✓ | ☒ | pr | 1  | jn.s  | Br | W. Indies 1793. | D  | l.p. | Schk. fil. t. 86      |
| 2193. | ANTROPHYUM Kauff.                 | ANTROPHYUM.      |   |   |    |    |       |    | Sp. 1—8.        |    |      |                       |
| 14549 | <i>lanceolatum Kauff.</i>         | spear-leaved     | ✓ | ☒ | or | ¾  | jl.s  | Br | W. Indies 1793. | D  | l.p. | Schk. fil. t. 6       |
|       | <i>Hemionitis lanceolata L.</i>   |                  |   |   |    |    |       |    |                 |    |      |                       |



History, Use, Propagation, Culture,

2187. *Allantodia*. So named from *αλλαντος*, a sausage, or sort of small pudding, to which the cylindrical arched indusia bear considerable resemblance.

2188. *Scolopendrium*. On the lower surface of the fronds of this plant are to be seen little marks which bear a likeness to the insect called Scolopendra. It is probable that the supposed varieties of this plant are distinct species. One of them has been ascertained not to alter in being raised from seed.

2189. *Diplazium*. From *διπλασις*, double; the indusia are double. Handsome ferns of large size; one forms a small tree.

2190. *Pteris*. The Greeks called ferns in general by this name, because they generally resemble plumes, *πτερυγ*, in their light and divided appearance. *Pteris aquilina* is the common brake, well known as an excellent covert for game, and for serving for many household purposes in the north of England. It is used as litter for

- 14507 Fronds pinnated: pinnae cuneate ovate acute deeply pinnatifid; segments lanc. cuneate unequally toothed
- 14508 Fronds pinnated: pinnae stalked oblong acuminate pinnatifid; segm. obl. obt. sharply serrat. Sori parallel
- 14509 Fronds pinnated: pinnae ovate repand somew. auricled; term. remote small entire, Fronds rooting at end
- 14510 Fronds pinnated: pinnae alternate elliptical roundish crenate, Rachis flattened beneath
- 14511 Fronds pinnated: pinnae roundish blunt crenate cuneate at base, Stalk discolored
- 14512 Fronds pinnated: pinnae ovate-roundish crenate, Rachis shining keeled beneath
- 14513 Fronds pinnated: pinnae alternate cuneiform erect eroded at end
- 14514 Fronds pinnated: pinnae sessile lanceolate serrulate cordate at base auricled upwards
- 14515 Fronds pinnated: pinnae lanceolate blunt equally and bluntly serrated, Sorus one on each pinna
- 14516 Fronds broad-lanceolate subsessile, Sori very near parallel contiguous to the midrib
- 14517 Fronds pinnated: pinnae ovate oblique serrated obtuse unequal at base cuneate
- 14518 Fronds pinnat.: pinnae altern.; upp. usually opp. lin.-lanc. subrepand truncat. at base above rounded below
- 14519 Fronds pinnated: trifid; pinnae alternate linear torn at end
- 14520 Fronds lanceol. stalked rather crenate auricled cordate at base at the end very long linear-filiform rooting
- 14521 Fronds lanceolate on short stalks acuminate serrated tapered at base and entire, Sori contiguous parallel
- 14522 Fronds pinnate: pinnae lanceolate taper-pointed at end pinnatifid; segments bifid, Stalk shining glabrous
- 14523 Fronds ternate: middle leaflet pinnatifid; lateral 3-parted toothed
- 14524 Fronds pinnated: pinnae obl. lanceolate acuminate coriaceous serrated at end tapered at base, Stalk chaffy
- 14525 Fronds 3 pinnated: pinnae oblong lanceolate with very long points, Sori becoming confluent
- 14526 Frond 5-lobed cordate, Three middle lobes acuminate

- 14527 Fronds bipinnate: pinnules oblong pinnatifid; segments lanceolate finely bidentate, Sorus solit. at base
- 14528 Fronds 3-pinnate: pinnules lanceolate decurrent cut serrated, Sori contiguous finally becoming confluent

14529 Frond simple cordate-lingulate smooth beneath

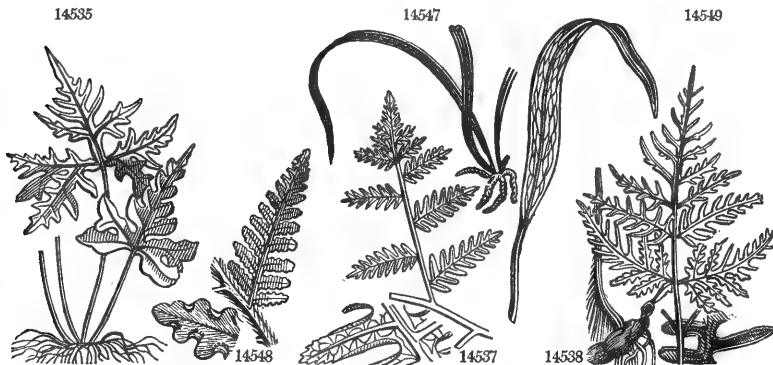
- 14530 Fronds pinnat.: pinnae lanc. serrat. at end truncate at base above rounded and somew. wedge-shaped below
- 14531 Fronds pinnat.: pinnae lanc. coarsely toothed; teeth rounded serrated at end tapered and finely toothed

- 14532 Fronds pinnated: pinnae linear auricled cordate at base serrulate, Stalk and rachis paleaceous hairy
- 14533 Fronds pinnated: pinnae oblong lanceol. on short stalks entire cuneate at base, Stalk and rachis smooth
- 14534 Fronds pinnated: pinnae lin. decurrent; lower 3-parted, Sterile acutely serrated: fertile ent. serrul. at end
- 14535 Fronds decomposed: lower bipinnate; pinnules lanceol. retuse at base, terminal longer, Stalk pubescent
- 14536 Fronds bipinnatifid, Lower branches twin 2-partite below, Pinnules lanceolate subfalcate sharply serrated
- 14537 Fronds supradecomposed: pinnae broad-lanceolate pinnatifid, Stem and branches prickly
- 14538 Fronds tripinnate: pinnules linear decurrent downy beneath; those at the end longest, Rachis smooth
- 14539 Frond 3-parted, Branches bipinnate, Pinnules linear elongated blunt entire: lower bipinnatifid
- 14540 Frond 3-parted, Branches bipinn. Pinnules lin. lanc.: upper undivided; lower pinnatif. Segm. obl. blunt
- 14541 Frond pedate, Branches pinnate, Pinnules obl. lanceolate acumin. pinnatifid, Segm. oblong acute serrated
- 14542 Fronds pinnat.: pinnae lanc. acumin. on short stalks tapered and serrated at base; lowest 2-parted or ternate
- 14543 Fronds bipinn.: pinnules somew. stalked ovate-lanc. blunt crenulate; lower hastate 3-lobed, Stalk smooth
- 14544 Fronds deeply 5-lobed palmate, Lobes pinnatifid: segments linear lanceolate acumin. Recesses rounded
- 14545 Fronds deeply 5-lobed palmate, Lobes pinnatifid: segments linear lanceolate acute, Recesses acute
- 14546 Pinnae opposite pinnatifid, Nerve above a little strigose, Pinnules lanceolate blunt entire, Petiole smooth

14547 Fronds linear very long pendulous, Sori solitary within the margin

14548 Fronds bipinnate hairy: pinnae pinnatifid acuminate; segments blunt, Stalk and rachis villous

14549 Fronds linear-lanceolate tapered at each end ribbed, Sori reticulated



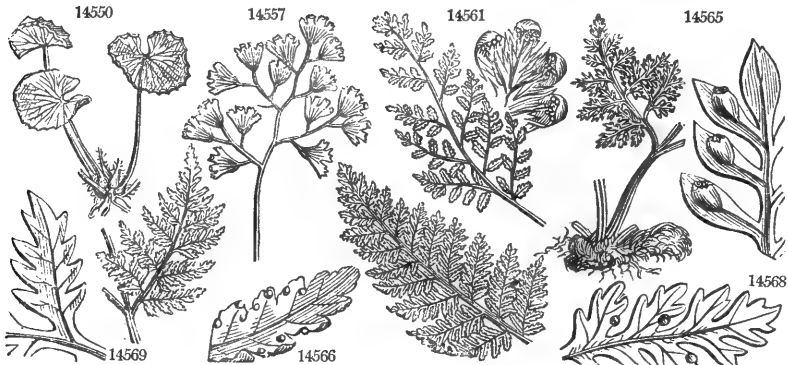
cattle, and very frequently for the purpose of thatching cottages. The ashes are employed in the manufactory of soap and glass. Its astringent quality has recommended it in dressing and preparing kid or chamois leather. The country people take it medicinally to destroy worms, and a bed made of the green plant is esteemed a sovereign cure for the rickets in children.

2191. *Vittaria*. From *vitta*, a ribband, on account of the narrow ribband-like appearance of the fronds. Small simple-leaved grass-like plants, of difficult cultivation.

2192. *Lonchitis*. From *λονχίς*, a lance, on account of the form of the fronds of some species. The Greeks had a plant named *λονχίσις*, but it must have been very different from that of the moderns.

2193. *Antrophyum*. A genus divided by Kaulfuss from *Hemionitis*, and named from *αντροφίον*, a cavern, and *φυόν*, to grow, in reference to its native places of habitation.

|   |                                    |             |    |       |    |                  |                            |
|---|------------------------------------|-------------|----|-------|----|------------------|----------------------------|
| 2194. <i>ADIAN'TUM</i> <i>W.</i>        | MAIDENHAIR.                        | Sp. 10—63.  |    |       |    |                  |                            |
| 14550 <i>reniforme</i> <i>W.</i>        | Kidney-leaved                      | ✓ Δ pr      | 2  | jn.s  | Br | Madeira 1699.    | R sp Bot. cab. 841         |
| 14551 <i>radiatum</i> <i>W.</i>         | radiated                           | ✓ Δ pr      | 2  | ap.au | Br | W. Indies 1776.  | D lp Plum. fil. t. 100     |
| 14552 <i>macrophyllum</i> <i>W.</i>     | large-leaved                       | ✓ Δ pr      | 1  | jl.au | Br | Jamaica 1793.    | D lp Bro. jam. t. 38.f.1   |
| 14553 <i>pedatum</i> <i>W.</i>          | Canadian                           | ✓ Δ el      | 1  | au.s  | Br | N. Amer. 1640.   | R sp Schk. fil. t. 115     |
| 14554 <i>villosum</i> <i>W.</i>         | hairy-stalked                      | ✓ Δ or      | 1  | jn.s  | Br | Jamaica 1775.    | D s.p Schk. fil. t. 120    |
| 14555 <i>pulverulentum</i> <i>W.</i>    | dusty                              | ✓ Δ el      | 1  | jn.s  | Br | W. Indies 1793.  | D s.p Schk. fil. t. 119    |
| 14556 <i>trapeziforme</i> <i>W.</i>     | rhomb-leaved                       | ✓ Δ el      | 1  | jn.jl | Br | W. Indies 1793.  | R s.p Schk. fil. t. 112    |
| 14557 <i>Capillus-veneris</i> <i>W.</i> | true                               | ✓ Δ el      | 1  | my.s  | Br | Britain rocks.   | R s.p Eng. bot. 1564       |
| 14558 <i>tenerum</i> <i>W.</i>          | tender                             | ✓ Δ el      | 1  | jl    | Br | Jamaica 1793.    | D s.p Pluk. al. t. 354.f.1 |
| 14559 <i>serrulatum</i> <i>W.</i>       | serrulate                          | ✓ Δ or      | 1  | au    | Br | Jamaica 1822.    | D lp Pluk. al. t. 125.f.2  |
| 2195. <i>CHEILAN'THES</i> <i>Swz.</i>   | CHEILANTHES.                       | Sp. 4—30.   |    |       |    |                  |                            |
| 14560 <i>pteroides</i> <i>W.</i>        | Pteris-like                        | ✓ Δ pr      | 1  | jl.s  | Br | C. G. H. 1775.   | D lp Ho.n.hist. 96.f.3     |
| 14561 <i>vestita</i> <i>Swz.</i>        | hairy                              | ✓ Δ pr      | 1  | au    | Br | N. Amer. 1812.   | D lp Schk. fil. t. 124     |
| 14562 <i>fragrans</i> <i>W.</i>         | sweet-scented                      | ✓ Δ pr      | 1  | au    | Br | Madeira 1778.    | D lp Sw. syn.f. t. 3.f.6   |
| 14563 <i>lentigera</i> <i>Swz.</i>      | chaffy                             | ✓ Δ pr      | 1  | jn.au | Br | N. Spain ...     | D lp                       |
| 2196. <i>DAVAL'LIA</i> <i>Sm.</i>       | DAVALLIA.                          | Sp. 2—39.   |    |       |    |                  |                            |
| 14564 <i>pyxidata</i> <i>W.</i>         | shining                            | ✓ Δ or      | 1  | ap.s  | Br | N. S. W. 1308.   | D lp                       |
| 14565 <i>canariensis</i> <i>W.</i>      | Hare's-foot                        | ✓ Δ or      | 1  | ap.s  | Br | Canaries 1699.   | R s.d Jac. ic. 1. t. 200   |
| 2197. <i>DICKSO'NIA</i> <i>L'Her.</i>   | DICKSONIA.                         | Sp. 3—23.   |    |       |    |                  |                            |
| 14566 <i>arborescens</i> <i>W.</i>      | tree                               | ✓ Δ or      | 15 | jn.d  | Br | St. Helena 1786. | D lp                       |
| 14567 <i>dissecta</i> <i>W.</i>         | cut-leaved                         | ✓ Δ pr      | 3  | s.o   | Br | Jamaica 1793.    | D lp                       |
| 14568 <i>pilosiuscula</i> <i>W.</i>     | hairy                              | ✓ Δ pr      | 2  | jl.s  | Br | N. Amer. 1811.   | D lp Schk. fil. t. 131     |
| 2198. <i>BALAN'TIUM</i> <i>Kaulf.</i>   | BALANTIUM.                         | Sp. 1—2.    |    |       |    |                  |                            |
| 14569 <i>Culcita</i> <i>Kaulf.</i>      | smooth-stemmed                     | ✓ Δ or      | 3  | au    | Br | Madeira ...      | D lp                       |
|   | <i>Dicksônia Culcita</i> <i>W.</i> |             |    |       |    |                  |                            |
| 2199. <i>ASPIDIUM</i> <i>Swz.</i>       | SHIELD FERN.                       | Sp. 30—160. |    |       |    |                  |                            |
| 14570 <i>dentatum</i> <i>W.</i>         | toothed                            | ✓ Δ or      | 2  | jl    | Br | Wales rocks.     | D lp Eng. bot. 1588        |
| 14571 <i>bulbiferum</i> <i>W.</i>       | bulbiferous                        | ✓ Δ or      | 1  | jl.au | Br | N. Amer. 1638.   | D lp                       |
| 14572 <i>fragile</i> <i>W.</i>          | brittle                            | ✓ Δ el      | 2  | jn.au | Br | Britain walls.   | D lp Eng. bot. 1587        |
| 14573 <i>regium</i> <i>W.</i>           | lacinated                          | ✓ Δ el      | 1  | jn    | Br | Britain al.roc.  | D lp Eng. bot. 163         |
| 14574 <i>rhaeticum</i> <i>W.</i>        | stone                              | ✓ Δ el      | 1  | jn.jl | Br | Britain rocks.   | D lp                       |
| 14575 <i>irriguum</i> <i>E. B.</i>      | brook                              | ✓ Δ or      | 1  | jn.jl | Br | Britain w.sh.pl. | D lp                       |
| 14576 <i>acutum</i> <i>W.</i>           | dwarf                              | ✓ Δ or      | 2  | au    | Br | Madeira 1779.    | D lp                       |
| 14577 <i>trifoliatum</i> <i>W.</i>      | three-leaved                       | ✓ Δ or      | 1  | ap.au | Br | W. Indies 1769.  | D lp Jac. ic. 3. t. 638    |
| 14578 <i>Lonchitis</i> <i>W.</i>        | rough Alpine                       | ✓ Δ or      | 2  | my.au | Br | Britain al.roc.  | D lp Eng. bot. 797         |
| 14579 <i>auriculatum</i> <i>W.</i>      | eared                              | ✓ Δ or      | 4  | jl    | Pr | Jamaica 1793.    | D lp                       |
| 14580 <i>exaltatum</i> <i>W.</i>        | lofty                              | ✓ Δ or      | 2  | au    | Br | E. Indies 1793.  | D lp Schk. fil. t. 32. b.  |
| 14581 <i>unitum</i> <i>W.</i>           | smooth                             | ✓ Δ or      | 2  | au    | Br | E. Indies 1793.  | D lp                       |
| 14582 <i>propinquum</i> <i>Kaulf.</i>   | pubescent                          | ✓ Δ or      | 2  | au    | Br | E. Indies 1793.  | D lp                       |
| 14583 <i>patens</i> <i>W.</i>           | downy                              | ✓ Δ or      | 2  | jl.s  | Br | Jamaica 1784.    | D lp Schk. fil. t. 334     |
| 14584 <i>noveboracense</i> <i>W.</i>    | river-side                         | ✓ Δ or      | 1  | jl    | Br | N. Amer. 1812.   | D lp Schk. fil. t. 46      |
| 14585 <i>Oreopteris</i> <i>W.</i>       | Heath                              | ✓ Δ or      | 3  | jl    | Br | Britain          | D lp Eng. bot. 1019        |
| 14586 <i>Thelypteris</i> <i>W.</i>      | Lady-fern                          | ✓ Δ or      | 1  | jl.au | Br | Britain mar.     | D lp Eng. bot. 1018        |
| 14587 <i>cristatum</i> <i>W.</i>        | lesser-crested                     | ✓ Δ or      | 1  | jn.au | Br | England bog.h.   | D lp Eng. bot. 2125        |
| 14588 <i>aculeatum</i> <i>W.</i>        | com.-prickly                       | ✓ Δ or      | 2  | jn.au | Br | Britain sh.pl.   | D lp Eng. bot. 1562        |
| 14589 <i>marginale</i> <i>W.</i>        | marginal-flow.                     | ✓ Δ or      | 2  | jn.s  | Br | N. Amer. 1772.   | D lp Schk. fil. t. 45. b.  |
| 14590 <i>Filix-mas</i> <i>W.</i>        | Male-fern                          | ✓ Δ w       | 3  | jn.au | Br | Britain sh.pl.   | D lp Eng. bot. 1488        |
| 14591 <i>lobatum</i> <i>W.</i>          | close-leaved                       | ✓ Δ or      | 2  | jn.au | Br | England sh.pl.   | D lp Eng. bot. 1563        |



History, Use, Propagation, Culture,

2194. *Adiantum*. From *ἀδιαντος*, dry. In vain you plunge the Adiantum in water, says Pliny, it always remains dry. The prettiest of all ferns, on account of the delicate slender stalks on which the pinnae are balanced in the air; one species on this account is called *Capillus Veneris*, or in English, Maiden's Hair.

2195. *Cheilanthes*. From *χελίος*, a lip, and *ανθος*, a flower, in allusion to the lip-like form of the indusium. Pretty plants, formerly referred to *Pteris*.

2196. *Davallia*. Named by Sir James Smith, after his friend M. Davall, a Swiss botanist, who sent him large collections of plants. *D. canariensis* is popularly called the hare's-foot fern, on account of the peculiar form of its rootstock, which curves over the side of the pot in which it grows, and, being covered with close brown hairs, resembles very perfectly the foot of a hare.

2197. *Dicksonia*. In honor of the late Mr. James Dickson, a celebrated British cryptogamic botanist. A noble genus containing several arborescent species, among which the tree-fern of St. Helena is placed. This plant is often brought in a living state to this country, but the mode of cultivating it being unknown, it rarely survives more than a few months.

2198. *Balanium*. A genus of Madeira ferns, divided from *Dicksonia* by Kaulfuss, on account of its transverse two-valved indusium; and named from *βαλαντιος*, a purse, on account of the form of the indusium.

- 14560 Fronds simple reniform-orbicular crenate, Both diameters equal  
 14561 Frond digitate, Branches pinnate, Pinnæ linear-oblong obtuse nearly halved crenate, Stalk smooth  
 14562 Fronds pinnate : pinnæ ovate acuminate cuneate at base toothed at end, Sori continuous upon each edge  
 14563 Frond pedate, Leaflets pinnate, Pinnæ rhomboid-oblong somewhat lunate cut-lobed  
 14564 Fronds bipinnate : pinnules trapezoid-obl. blunt, Sori oblong at the end of the upper edge, Stalk villous  
 14565 Fronds bipinnate : pinnules rhomboid oval serrated at end, Sorus lin. solitary on upper edge, Stalk hairy  
 14566 Fronds supradecompos. : pinnules trapezoid acum. cut crenate towards end of upper edge, Sori on crenatures  
 14567 Frond alternately decomposed : pinnules stalked cuneiform lobed  
 14568 Fronds supradecomposed : pinnules rhomboid blunt cut lobed on upper edge, Lobes toothl. bearing sori  
 14569 Fronds pinn. or bipinn. : pinnæ obl. lanc. halved truncate at base serrul. Sori on upper edge, Stalk smooth  
 14560 Fronds bipinnate, Lower pinnæ bipinnate : pinnules ovate-ellipt. obtuse obsolete subcordate crenulate  
 14561 Fronds bipinn. hairy on each side : pinnules pinnatif. ; segments obl. blunt entire, Stalk and rachis hairy  
 14562 Fronds bipinnate smooth : pinnules obl. lanc. obtuse pinnatifid cut ; segments subbifid, Stalk paleaceous  
 14563 Fronds tripinnate somewhat villous, Leaflets orbicular very small  
 14564 Fronds bipinnate alternate, Leaflets lanceolate pinnatifid, Sori linear oblong  
 14565 Fronds 3-parted alternately decomposed : segments lanceolate ; those bearing sori obovate  
 14566 Fronds supradecomposed villous, Leaflets nearly entire, Stem arboreous  
 14567 Fronds tripinnate : pinnæ tapered ; pinnules oblong blunt pinnatifid, Segments blunt toothed  
 14568 Fronds bipinnate : pinnæ pinnatifid ; segments toothed, Rachis somewhat hairy  
 14569 Fronds tripinnate smooth : pinnules ovate oblong cuneate cut-toothed

- 14570 Fronds pinnate : pinnæ ovate-oblong pinnatifid ; segments oblong blunt toothletted  
 14571 Fronds pinnate remotish : pinnules oblong serrated bulb-bearing beneath ; lower pinnatifid  
 14572 Fronds bipinnate : pinnules oblong blunt cut-serrated, Serratures blunt toothletted, Rachis winged  
 14573 Fronds bipinn. : pinnules ov. obl. lobed pinnatif. ; segm. linear-oblong blunt nearly entire, Rachis winged  
 14574 Fronds bipinn. : pinnules lanceolate acuminate pinnatifid ; segments linear acute serrated, Rachis lateral  
 14575 Frond lanceolate pinnate : pinnæ deeply pinnatifid cut toothed, Rachis quadrangular, Sori lateral  
 14576 Fronds tripinnate : pinnules pinnatifid ; segments linear toothed at end  
 14577 Fronds simple cordate 3-lobed or ternate : middle large ; lateral auricled at base  
 14578 Fronds pinnate : pinnæ ciliate serrate, Stalk strigose  
 14579 Fronds pinnate : pinnæ falcate lanceolate serrate truncate at base auricled above [marginal  
 14580 Fronds pinn. : pinnæ lanc. subfalcate cordate at base gibb. and somew. serrul. on upper edge, Sori solitary  
 14581 Fronds pinnate : pinnæ ensiform serrated, Serratures half ovate ovate nerved  
 14582 Fronds pinn. : pinnæ ensiform attenuated at end downy ben. cut. pinnatif. Sori almost marginal contiguous  
 14583 Fronds pinn. : pinnæ pinnatif. ; segm. lanc. ac. Lowest of last pinnæ longest pinnatif. cut, Veins hairy ben.  
 14584 Pinnæ pinnatifid somewhat linear ; pinnules oblong nearly entire, Sori in rows near the edge of pinnæ  
 14585 Fronds pinnate : pinnæ lanceolate glabrous resinous glandulose beneath pinnatifid ; the segm. lanceolate  
 obtuse entire, lowermost ones longer, Sori marginal  
 14586 Fronds pinn. : pinnæ lin.-lanc. pinnatif. glab. ; segm. ov. ac. ent. Sori marginal contigu. at length confluent  
 14587 Fronds pinnate : pinnæ subcordate oblong pinnatifid ; segments oblong obtuse dentato-serr. Stalk chaffy  
 14588 Fronds bipinnate : pinnules rigid ovate sublunate acum. aristate oblique and cuneate at base and recur. ;  
 the margins faintly serrated spinulose with a tooth near the base on upper side, Stalk and rachis chaffy  
 14589 Fronds bipinnate : pinnules oblong obtuse decurrent crenate. Crenatures of base deepest, Sori marginal  
 14590 Fronds bipinn. : pinnules obl. obt. serrat. mutic. Sori near the central nerve, Stalk and rachis chaffy  
 14591 Fronds bipinnate : pinnules scarcely rigid ovate rather obt. aristate truncate at base which has a lobe on  
 the upper margin shortly petiolate ; the margin deeply serrated and spinulose, Stalk and rachis chaffy



and Miscellaneous Particulars.

2199. *Aspidium*. From *æscis*, a little buckler, on account of the form of the indusia. *Fougère*, Fr., *Johannis wurzel*, Ger., *Feli Maschia*, Ital., and *Polypodio Helecho Masculino*, Span. The male fern is common to Europe, in shady places and woods. The root consists of many matted fibres, forming a turfy or caespitose head, of the thickness of the finger, blackish and scaly. It has been celebrated from time immemorial as a specific for worms. It appears to have been used as such by Theophrastus, Dioscorides, and Galen ; but seems to have been neglected by the moderns, with the exception of empiric practitioners, until the publication of Madame Nufer's specific for the tape-worm by the French government again brought it into notice. According to her plan of administering it, from one to three drachms of the powdered root were directed to be taken in a large cupful of water in the morning, while the patient was in bed ; and two hours afterwards, a strong cathartic of calomel and gamboge, proportioned to the age and strength of the patient, was given ; and if necessary, the further operation was promoted by a dose of purging salts ; nothing but broth being taken till the worms came away. If this, however, did not happen on the same day, the process was ordered to be repeated on the next day. In the present state of medical science, oil of turpentine is considered a certain specific for expelling tænia. (*Thom. Lond. Disp.* 186.)

*Aspidium* Baromez is the famous Scythian lamb, of which so many fables have been related. Although it

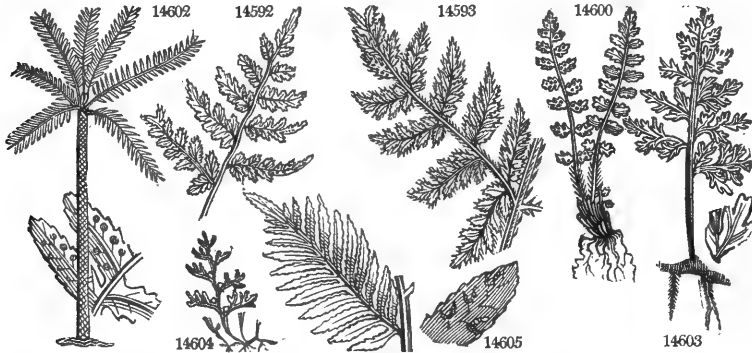
|                                    |                                   |        |    |       |    |           |         |      |                       |
|------------------------------------|-----------------------------------|--------|----|-------|----|-----------|---------|------|-----------------------|
| 14592 spinulosum <i>W.</i>         | crested-prickly                   | ♂ Δ or | 1  | jn.au | Br | Britain   | mar.    | D lp | Eng. bot. 1460        |
| 14593 dilatatum <i>W.</i>          | great-crested                     | ♂ Δ or | 2  | jn.au | Br | Britain   | w.sh.p. | D lp | Eng. bot. 1461        |
| 14594 elongatum <i>W.</i>          | cut-leaved                        | ♂ Δ or | 2  | jl.au | Br | Madeira   | 1779.   | D lp |                       |
| 14595 villosum <i>W.</i>           | villous                           | ♂ Δ or | 3  | jl    | Br | W. Indies | 1793.   | D lp | Schk. fil. t. 46. b.  |
| 14596 mollis <i>W.</i>             | soft                              | ♂ Δ or | 2  | aus   | Br | Caraccas  | 1824.   | D lp | Jacq. ic. t. 640      |
| 14597 acrostichoides <i>W.</i>     | Acrostichum-like                  | ♂ Δ or | 1½ | jl.au | Br | N. Amer.  | ...     | D lp | Schk. crypt. t. 30    |
| 14598 intermedium <i>W.</i>        | intermediate                      | ♂ Δ or | 2  | jn.s  | Br | N. Amer.  | 1823.   | D lp |                       |
| 14599 asplenoides <i>W.</i>        | Asplenium-like                    | ♂ Δ or | 1½ | jn.s  | Br | N. Amer.  | 1823.   | D lp | Schk. crypt. t. 78    |
| 2200. WOOD'SIA. <i>R. Br.</i>      | WOODSIA.                          |        |    |       |    |           |         |      | Sp. 2-4.              |
| 14600 hyperborea <i>R. Br.</i>     | hairy Alpine                      | ♂ Δ el | ½  | jl.s  | Br | Scotland  | al.roc. | D lp | Eng. bot. 2023        |
| 14601 livensis <i>R. Br.</i>       | rock                              | ♂ Δ el | ½  | jn.jl | Br | N. Amer.  | 1812.   | D lp | Schk. fil. t. 19      |
| 2201. CYATHEA. <i>A. Sm.</i>       | CYATHEA.                          |        |    |       |    |           |         |      | Sp. 1-22.             |
| 14602 arborea <i>W.</i>            | tree                              | ♂ □ or | 15 | ...   | Br | W. Indies | 1793.   | D lp | Plum. fil. 1. t. 1, 2 |
| 2202. TRICHOMANES. <i>L.</i>       | TRICHOMANES.                      |        |    |       |    |           |         |      | Sp. 1-40.             |
| 14603 brevisetum <i>H. K.</i>      | short-styled                      | ♂ Δ el | ½  | my.jn | Br | Britain   | moi.ro. | D lp | Eng. bot. 1417        |
|                                    | <i>Hymenophyllum atatum</i> E. B. |        |    |       |    |           |         |      |                       |
| 2203. HYMENOPHYLLUM. <i>A. Sm.</i> | FILMY-LEAF.                       |        |    |       |    |           |         |      | Sp. 1-38.             |
| 14604 tunbridgensis <i>W.</i>      | Tunbridge                         | ♂ Δ el | ½  | my.jn | Br | Britain   | moi.ro. | D lp | Eng. bot. 162         |

OSMUNDACEÆ.

|                                |                  |        |   |       |    |           |         |       |                         |
|--------------------------------|------------------|--------|---|-------|----|-----------|---------|-------|-------------------------|
| 2204. TO'DEA. <i>W.</i>        | TODEA.           |        |   |       |    |           |         |       | Sp. 1.                  |
| 14605 africana <i>W.</i>       | African          | ♂ Δ or | 2 | my.au | Br | C. G. H.  | 1805.   | D lp  | Schk. fil. t. 147       |
| 2205. OSMUNDA. <i>L.</i>       | OSMUNDA.         |        |   |       |    |           |         |       | Sp. 5-8.                |
| 14606 cinnamomea <i>Ph.</i>    | woolly           | ♂ Δ or | 2 | jn    | Br | N. Amer.  | 1772.   | D lp  | Schk. fil. t. 146       |
| 14607 regalis <i>W.</i>        | Flowering-Fern   | ♂ Δ or | 2 | jl.au | Br | Britain   | sha.bo. | D lp  | Eng. bot. 209           |
| 14608 Claytoniana <i>W.</i>    | Clayton's        | ♂ Δ or | 2 | au    | Br | N. Amer.  | 1772.   | D lp  |                         |
| 14609 interrupta <i>W.</i>     | interrupted      | ♂ Δ or | 2 | jn.jl | Br | N. Amer.  | ...     | D lp  | Schk. fil. t. 144       |
| 14610 spectabilis <i>W.</i>    | showy            | ♂ Δ el | 2 | jl    | Br | N. Amer.  | 1811.   | D lp  | Plu.alm.t.184.f.4       |
| 2206. LYGO'DIUM. <i>Suz.</i>   | SNAKE'S-TONGUE.  |        |   |       |    |           |         |       | Sp. 3-18.               |
| 14611 scandens <i>Suz.</i>     | climbing         | ♂ Δ el | 3 | my.s  | Br | E. Indies | 1793.   | D lp  | Bot. cab. 742           |
| 14612 circinatum <i>Suz.</i>   | circinate        | ♂ Δ el | 3 | au    | Br | E. Indies | 1823.   | D lp  | Rum. amb. 6. t. 33      |
| 14613 palmatum <i>Suz.</i>     | palmate          | ♂ Δ el | 3 | aus   | Br | N. Amer.  | ...     | D lp  | Ac. E. 1802. t. 1. f. 2 |
| 2207. ANEMIA. <i>Suz.</i>      | ANEMIA.          |        |   |       |    |           |         |       | Sp. 2-19.               |
| 14614 hirsuta <i>Suz.</i>      | hairy            | ♂ Δ or | 3 | ...   | Br | Jamaica   | 1794.   | D lp  | Plum. fil. t. 162       |
| 14615 adiantifolia <i>Suz.</i> | Maiden-hair-lyd. | ♂ Δ or | 3 | aus   | Br | W. Indies | 1793.   | D p.l |                         |

OPHIOLLOSSEÆ.

|                               |                  |        |   |       |    |          |         |       |                   |
|-------------------------------|------------------|--------|---|-------|----|----------|---------|-------|-------------------|
| 2208. BOTRYCHIUM. <i>Suz.</i> | MOONWORT.        |        |   |       |    |          |         |       | Sp. 5-10.         |
| 14616 Lunaria <i>W.</i>       | common           | ♂ Δ cu | ½ | my.jn | Br | Britain  | hil.pa. | D p.l | Eng. bot. 318     |
| 14617 fumaroides <i>W.</i>    | Fumitory-leav.   | ♂ Δ cu | ½ | jl.au | Br | Carolina | 1806.   | D p.l | Schk. fil. t. 157 |
| 14618 dissectum <i>W.</i>     | cut-leaved       | ♂ Δ cu | ½ | jl    | Br | N. Amer. | 1806.   | D p.l | Schk. fil. t. 158 |
| 14619 virginicum <i>W.</i>    | Rattlesnake Fern | ♂ Δ cu | 1 | au    | Br | N. Amer. | 1790.   | D p.l | Schk. fil. t. 156 |
| 14620 obliquum <i>W.</i>      | oblique          | ♂ Δ cu | ½ | au    | Br | N. Amer. | 1821.   | D p.l |                   |



History, Use, Propagation, Culture,

is often brought in a fresh state to the markets of Macao, as an article of medicine, no plants have ever reached this country alive. Its name has arisen from the resemblance which its brown hairy rootstalk bears to a little rufous dog couching; and the belief in its animal nature has been confirmed by the color of the juice, which is of a rich blood color, and soon becoming thick by exposure to the air. It is needless to add, that the stories about no plant being able to grow near it are mere fables. Kæmpfer says, that *borannek* is the name which the people on the borders of the Caspian Sea give to a kind of sheep of that country.

2200. *Woodsia*. Small ferns formerly referred to *Polypodium*, *Aspidium*, and *Nephrodium*, by various writers; and distinguished from all these by Mr. Brown, who named the genus after Mr. Joseph Woods, an ingenious British botanist.

2201. *Cyathea*. From *κυσσος*, a cup; on account of the cup-shaped form of the indusia. A fine tropical genus of ferns, which does not appear to have been well understood by its author, who confounds it with little British plants referred by all other botanists to *Aspidium*. Nearly all the species are arborescent, and arrive at the greatest height of which ferns are susceptible. *C. glauca* forms a lofty tree in the Island of Bourbon, and *C. speciosa* and *excelsa* are not less than twenty-four feet in height.

2202. *Trichomanes*. From *τριχος*, hair, and *μανια*, excess. The Greeks gave this name to the plant now called *Asplenium trichomanoides*, on account of its fine shining stems, which resemble hairs. Elegant plants with almost transparent foliage.

14592 Frond somew. bipinn. : pinnules decurrent ellipt. pinnatifid serrul. spiny, Rachis smooth, Nerves flexuose  
 14593 Fronds bipinnate : pinnules oblong distinct inciso-pinnatifid ; segments mucronato-serrate, Stalk chaffy  
 14594 Fronds bipinnate : pinnæ pinnated bipinnatifid below ; pinnules lanc. blunt, Segments ovate toothletted  
 14595 Fronds 3-pinnate : pinnules oblong blunt hairy above, toothed, Stalk and rachis bristly chaffy  
 14596 Fronds pinnate : pinnæ lanc. hairy on each side pinnatifid ; segm. oblong blunt entire, lowest nearly equal  
 14597 Fronds pinn. : pinnæ altern. subsess. pinnatif. auric. at base on upp. edge, Upp. pinnæ bear. sori, Stalk  
 14598 Fronds bipinnate : pinnules lin. pinnatifid cut ; segm. mucronate serrate at end, Stalk chaffy [chaffy  
 14599 Fronds bipinn. : pinnules lin. lanc. cut serr. Serrat. 2 or 3 toothed : those at end most ac. Sori obl. lunate

14600 Frond lanceolate pinnate : pinnæ cordate pinnatifid hairy on each side, Lobes rounded repand  
 14601 Fronds bipinnatifid : pinnæ oblong blunt ; lower repand, upper entire

14602 Fronds bipinnate : pinnules lanceolate serrate sharpish ; upper confluent, Stalk smooth, Stem arboreous

14603 Frond tripinnatifid lobed smooth : segments linear entire, Stalk winged, Columella included

14604 Frond alternately bipinnatifid : segments and invol. serrated, Sori solitary axillary

OSMUNDACEÆ.

14605 The only species

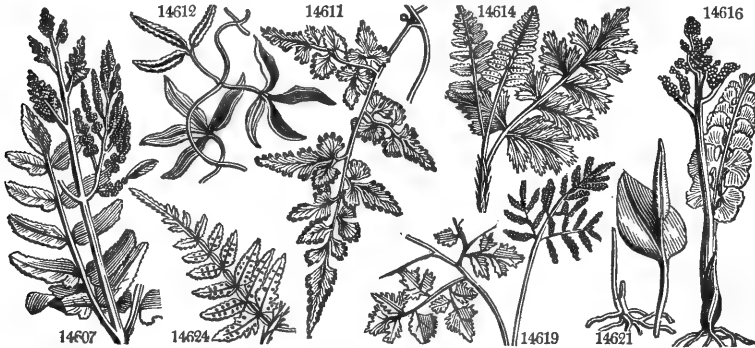
14606 Fronds pinnat. : ster. bipinnatif. ; segm. ov. obl. obt. entire, Stalk woolly, Fertile fronds bipinnate woolly  
 14607 Frond bipinnate bearing the spike at end : pinnules cordate-lanceolate smooth  
 14608 Fronds bipinnatifid rusty with down contracted and fertile at the end  
 14609 Fronds bipinnatifid entire smooth interrupted in the middle by 3 pair of fertile pinnated racemes  
 14610 Fronds bipinn. : pinnules lanc. sharply serrat. cune. at base ; all altern. A fert. bipinn. panic. at end of frond

14611 Stem flexuose round, Fronds conjugate pinnate, Leaflets bearing spikes on each edge  
 14612 Stem flexuose climbing, Fronds conjugate 3-4-lobed palmate, Lobes lanceolate acute entire  
 14615 Stem flexuose climbing, Fronds conjugate cord. 5-lobed palmate, Lobes lanc. ent. obt. obscurely sinuated

14614 Frond bipinnatifid hirsute : segments cuneate lined blunt and serrated at end  
 14615 Frond 3-pinnatifid triangular : segm. ovate acute toothletted at end, beneath and the rachis downy

OPHIOGLOSSEÆ.

14616 Scape with a simple frond above, Frond pinnate : pinnæ lunate entire  
 14617 Scape none, Fronds radical 3-parted bipinnate : pinnules lunate crenate  
 14618 Scape with a simple frond at bottom, Frond 3-parted bipinnatifid : segm. linear 2-parted 2-toothed at end  
 14619 Scape frondose in midd. Frond subtern. 3-parted bipinnatifid, Leaflets cut pinnatif. Segm. obtuse 3-toothed  
 14620 Scape with a simple frond at bottom, Frond mostly bitern. Leaflets obl. lanc. serrul. unequally cord, at base



and Miscellaneous Particulars.

2203. *Hymenophyllum*. From ἵμνον, a membrane, and πολλόν, a leaf, in allusion to the tenuity of the foliage. This and the last are the most elegant of all ferns ; they generally grow in damp shady places among moss, and have hitherto refused cultivation under any plan which has been devised.

2204. *Tokea*. Named after Tode, an experienced mycologist, author of *Fungi Mecklenburgensis*. Mr. Brown unites this genus to *Osmunda*, but Kaulfuss keeps them distinct.

2205. *Osmunda*. A word said to be of northern origin, and to have received its name on account of its potential qualities in medicine. *Osmunder* was one of the names of Thor, a Celtic divinity, and *mund*, in Anglo-Saxon, is expressive of force or power. These are noble species of hardy ferns. *O. regalis* is the finest of all our native species.

2206. *Lygodium*. From λυγός, a band. The species are elegant twining plants, which bind together the grass or small shrubs near which they chance to grow. *L. palmatum*, although a North American plant, must have the protection of a good frame.

2207. *Anemia*. From ἀνεμῖστος, naked ; in allusion to the naked spikes of inflorescence ; whence some authors write the word *Ancimia*.

2208. *Botrychium*. Derived from βότερος, a bunch, on account of the bunch-like form of its fructification. *Botrychium virginicum* is the largest of the American kinds, and is called the rattle-snake fern, from the circumstance of its generally growing where these venomous reptiles are usually found.



|       |                       |                 |          |         |    |                       |                   |
|-------|-----------------------|-----------------|----------|---------|----|-----------------------|-------------------|
| 2209. | OPHIOGLOSSUM. L.      | ADDER'S-TONGUE. | Sp. 3-9. |         |    |                       |                   |
| 14621 | vulgatum <i>W.</i>    | common          | ♂ Δ cu   | ♂ my.jn | Br | Britain m.me. D p.l   | Eng. bot. 108     |
| 14622 | reticulatum <i>W.</i> | netted          | ♀ ♂ pr   | ♂ my.jn | Br | W. Indies 1793. D p.l | Plum. fil. t. 164 |
| 14623 | bulbosum <i>W.</i>    | bulbous         | ♂ Δ pr   | ♂ jl.au | Br | N. Amer. ... D lp     |                   |
| 2210. | MARANTHIA. Swz.       | MARANTHIA.      | Sp. 1-6. |         |    |                       |                   |
| 14624 | alata <i>W.</i>       | winged          | ♀ ♂ or   | ♂ au    | Br | Jamaica 1793. D lp    | Sm. ined. t. 46   |

*History, Use, Propagation, Culture.*

2209. *Ophioglossum*. From *οφις*, a serpent, and *γλωσση*, a tongue. The little green narrow-pointed leaves, seated on a narrow stalk or neck, and peeping up from among the grass, may be not unaptly compared to a snake's tongue.

14621 Frond ovate veinless

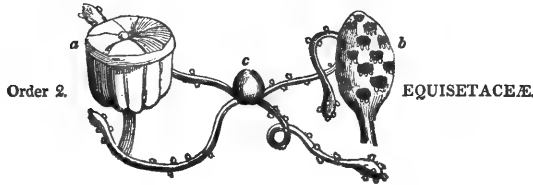
14622 Spike cauline, Frond cordate acute reticulated

14623 Spike cauline, Frond subcordate ovate obtuse, Root bulbous

14624 Fronds bipinnate: pinnules acutely serrate, Rachis scaly: partial winged

*and Miscellaneous Particulars.*

2210. *Marattia*. In honor of J. F. Maratti, a writer upon ferns. He lived at Vallombrosa, in Tuscany. Kaulfuss considers this, *Danæa*, and *Angiopteris* as constituting a particular tribe, which he calls *Marattiacea*, but of which he has not given the characters.

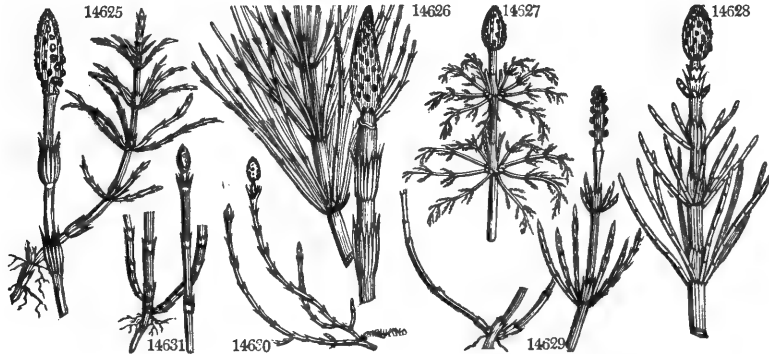


*Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7-elongated involucre containing the seeds. Branches whorled, rigid.*

This order contains one genus only, which is among the most puzzling of all the anomalous formations which are so frequently met with among the lower orders of vegetation. Both the stems and branches are regularly articulated, and arise from a tubular sheath. There are no leaves, and the reproductive organs are arranged in a terminal spike (b), on all sides of which are inserted many peltate scales (a) with several sides or angles. Several wedge-shaped hollow bodies project from the surface of these scales, and bursting inwardly, discharge their contents, which are not yet well understood. They consist of a number of green roundish bodies, surrounded by minute granules, and furnished at the base with four elastic filaments (c), thickened at their apex. By some observers the granules have been considered pollen, the filaments stamens, and the green bodies ovaries; by others the granules have been called naked seeds; by Kaulfuss the wedge-shaped hollow bodies are considered capules, and the green bodies, seeds. It is probable that none of these theories are true.

2209. *Equisetum*. Character the same as of the order.

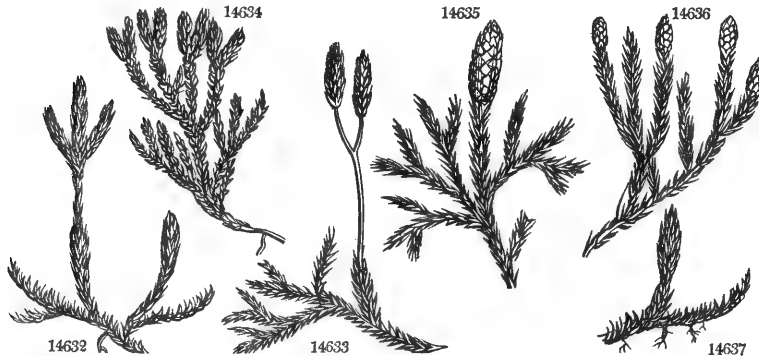
|                            |              |      |       |           |    |          |               |                |
|----------------------------|--------------|------|-------|-----------|----|----------|---------------|----------------|
| 2211. <i>EQUISETUM</i> L.  | HORSE-TAIL   |      |       | Sp. 7-18. |    |          |               |                |
| 14625 <i>arvense</i> W.    | corn         | Δ w  | 1/2   | mr.ap     | Br | Britain  | moi.fi. D p.l | Eng. bot. 2020 |
| 14626 <i>fluviatile</i> W. | great-water  | Δ w  | 6     | ap.my     | Br | Britain  | wat.pl. D p.l | Eng bot. 2022  |
| 14627 <i>sylvaticum</i> W. | wood         | Δ w  | 1     | ap.my     | Br | Britain  | m.s.pl. D p.l | Eng. bot. 1874 |
| 14628 <i>limosum</i> W.    | smooth naked | Δ w  | 2     | jn.jl     | Br | Britain  | wat.pl. D p.l | Eng. bot. 929  |
| 14629 <i>palustre</i> W.   | marsh        | Δ w  | 1 1/2 | jn.jl     | Br | Britain  | bog.pl. D p.l | Eng. bot. 2021 |
| 14630 <i>variegatum</i> W. | variegated   | Δ or | 1     | jn.jl     | Br | Scotland | sc.sh. D p.l  | Eng. bot. 1987 |
| 14631 <i>hyemale</i> W.    | Dutch Rush   | Δ ec | 1 1/2 | jl.au     | Br | Britain  | moi.w. D p.l  | Eng. bot. 915  |



*History, Use, Propagation, Culture,*

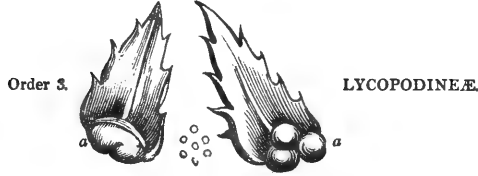
2211. *Equisetum*. Literally, horse-hair, from *equus*, a horse, and *seta*, hair; so called, in allusion to the fine branches of all the species. The first five species are noxious weeds on deep loamy soil, especially such as has been gained from rivers or lakes. *E. fluviatile* rises three or four feet high, the thickness of a finger, with numerous branchlets or leaves proceeding from the whorls; according to Haller, this species was eaten by the common people among the Romans. Linnæus affirms, that rein-deer, who refuse hay, will, however, eat this;

- 14625 Ster. stems decumb. with simp. branches, which are rough. tetragon. : fertile ones erect simp. their sheaths cylind. inciso-dentate  
 14626 Sterile stems with very numerous simple branches, which are roughish octagonal: fertile ones simple; the sheaths infundibuliform laciniato-dentate, their teeth setaceous  
 14627 Sterile and fertile stems with their branches comp. roughish deflexed 4-sided, Branchlets subtriquetrous  
 14628 Stems branch. upw with branches about 12 in a whorl simple pentagon. smooth, Spike or catkin terminal  
 14629 Stems branched glabrous sulcate, Branches simple pentagonal, Spike terminal  
 14630 Stems naked very rough branched at base, Sheaths black with white membran. lanc. teeth, Spike terminal  
 14631 Stems simple erect very rough bearing spikes at the extremity, Sheaths whitish black at base and summits, Teeth aristate deciduous



*and Miscellaneous Particulars.*

that it is cut as fodder for kine, but that it is not so acceptable to horses. *E. hyemale* is the best species for polishing wood and metal, and is imported from Holland for that purpose under the name of Dutch rushes. It is much used by whitesmiths, cabinet-makers, and comb-makers, and formerly it was in demand for scouring pewter and wooden things in the kitchen.



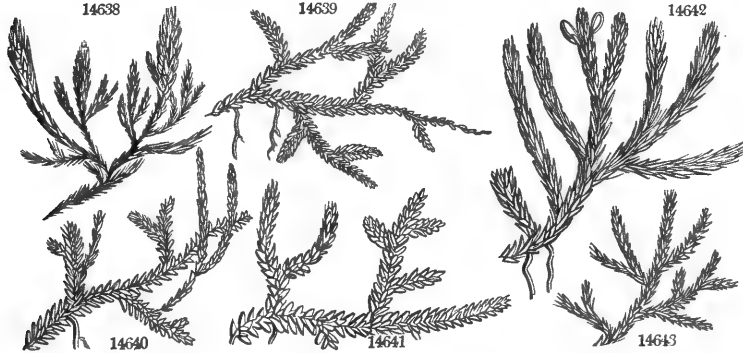
Reproductive organs axillary, sometimes apparently spiked. Thecae? of two kinds, the one containing minute granules, the other larger bodies. Stems covered with many small leaves.

THE reproductive organs of these plants are always axillary, the apparently spiked arrangement which they occasionally present being caused by the partial abortion of the leaves, at the base of which they are seated. The thecae (a) ? the nature of which is very doubtful, and which have accordingly been called by different writers capsules, conceptacula, and cocci, are formed of from one to three valves, and of a similar number of cells, and contain either a mass of minute powdery granules, or some corpuscles of a larger size. The nature and properties of both these are uncertain. Decandolle imagines that one may be the means of fertilizing the other.

2210. *Lycopodium*. Thecae reniform, 1-celled, 2-valved, with many sporules. Sporules very minute, powdery.

2211. *Psilotum*. Thecae 8-coccos, 3-celled; cells opening upwards, half 2-valved.

| 2212. LYCOPODIUM. L. CLUB-MOSS. |                 | Sp. 15—114. |      |          |    |              |                                      |
|---------------------------------|-----------------|-------------|------|----------|----|--------------|--------------------------------------|
| 14632 clavatum W.               | common          | 2           | △ cu | ½ jl.au  | Br | Britain      | hea. D p.l Eng. bot. 224             |
| 14633 complanatum W.            | Arbor-vitæ-lvd. | 2           | △ cu | ¾ jl.au  | Br | N. Amer.     | 1770. D p.l Fl. dan. 78              |
| 14634 alpinum W.                | Savin-leaved    | 2           | △ cu | ¼ au     | Br | Britain      | al.bogs. D p.l Eng. bot. 234         |
| 14635 dendroideum W.            | fan interrupted | 2           | △ cu | ¾ jl     | Br | N. Amer.     | 1770. D p.l Hook. ex. fl. 7          |
| 14636 annotinum W.              |                 | 2           | △ cu | ¾ jn.au  | Br | Britain      | al.hea. D p.l Eng. bot. 1727         |
| 14637 inundatum W.              | marsh           | 2           | △ cu | ¼ jn.jl  | Br | Britain      | tur.bo. D p.l Eng. bot. 239          |
| 14638 Selaginoides W.           | prickly         | 2           | △ cu | ¼ au     | Br | Britain      | w.al.h. D p.l Eng. bot. 1148         |
| 14639 ornithopodioides W.       | Bird's-claw     | 2           | △ cu | ¼ jn.au  | Br | .....        | 1812. D p.l Dill. M. t. 66. f. 1. B. |
| 14640 helveticum W.             | Swiss           | 2           | △ cu | 1 in ... | Br | Switzerl.    | 1779. D p.l Dill. M. t. 64. f. 2     |
| 14641 denticulatum W.           | toothed         | 2           | △ cu | 1 in jl  | Br | Switzerl.    | 1779. D p.l Dill. M. t. 66. f. 1. A. |
| 14642 Selágo W.                 | Fir             | 2           | △ cu | ¼ au     | Br | Britain      | w.al.h. D p.l Eng. bot. 233          |
| 14643 rupéstre W.               | rock            | 2           | △ cu | ¼ au     | Br | N. Amer. ... | D p.l Schk. fil. t. 165              |
| 14644 lucidulum W.              | glittering      | 2           | △ cu | ¼ au     | Br | N. Amer.     | 1823. D p.l Schk. fil. t. 159        |
| 14645 apódum W.                 | stemless        | 2           | △ cu | ¼ au     | Br | N. Amer.     | 1819. D p.l Dill. mus. t. 64. f. 3   |
| 14646 alopecuroides W.          | Walking Fern    | 2           | △ cu | ¼ au     | Br | N. Amer.     | 1821. D p.l Dill. mus. t. 62. f. 6   |
| 2213. PSILOTUM. Suzz. PSILOTUM. |                 | Sp. 1—3.    |      |          |    |              |                                      |
| 14647 triquetrum Suzz.          | triangular      | 2           | △ cu | ¾ jl.au  | Br | W. Indies    | 1793. D p.l Schk. fil. t. 165. b.    |

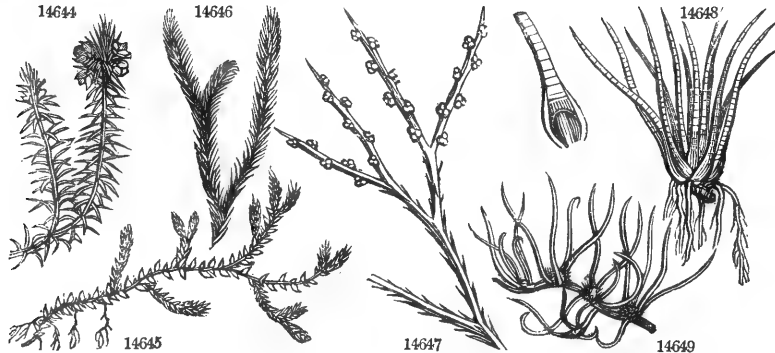


History, Use, Propagation, Culture,

2212. *Lycopodium*. From *lykos*, a wolf, and *pus*, a foot; on account, as Dalechamp assures us, of the resemblance the roots bear to a wolf's foot. *Selago* is an ancient word applied to some succulent plant, and derived, according to De Theis, from the Celtic *sel*, sight, and *jach*, salutary, as being useful for complaints in the eyes. From the same root *sel*, was formed *selma*, the name of Fingal's hall, which in modern language would be called *Belle-vue*. The species are neat little evergreen moss-like herbaceous plants, some of which are found in all parts of the world. *L. helveticum* is a pretty prostrate plant, with small bright green leaves; for the beauty of which it is often cultivated in hothouses on the edge of the aquarium, or in pots set in pans of water. *L. Phlegmaria* is a fine species found in various parts of the East Indies, but hitherto a stranger to our gardens. It is a parasite upon the trunks of trees, whence it hangs down in tufts from six inches to a

- 14632 Stem creeping, Branches ascending, Leaves scattered incurved and hair-pointed, Spikes geminate cylindrical pedunculate : their scales ovate acuminate eroso-dentate  
 14633 Stem erect, Branches altern. dichotom. Leaves bifarious connate spreading at end, Spikes 4 round cylind.  
 14634 Stems prostrate, Branches dichotomous and fasciculated, Leaves quadrifarious oblong convex acute appressed, Spikes terminal solitary sessile short cylindrical  
 14635 Stem erect, Branches alternate compact dichotomous spreading, Spikes solitary terminal sessile  
 14636 Stem creeping, Branches ascending dichotomously branched, Branchlets simple, Leaves in 5 rows linear lanceolate mucronate serrulate patent, Spikes oblongo-cylindrical solitary sessile terminal  
 14637 Stem creeping, Branches simple solitary erect with a single sessile leafy spike at its extremity, Leaves linear scattered acute entire curved upwards  
 14638 Stem creep. Branches ascend. simple, Lvs. scattered lanc. subpatent ciliato-denticul. Spikes term. solitary  
 14639 Leaves bifarious spreading ovate acute : of the surface distichous ciliated flat, Spikes roundish sessile  
 14640 Lvs. bifar. 3-cord. blunt : of surface altern. distichous ovate-obl. blunt, Spikes stalked term. mostly in pairs  
 14641 Lvs. bifarious ovate subcord. acute toothletted : of surface altern. ovate acute, Spikes terminal short sessile  
 14642 Stems dichotomously branched erect fastigiate, Leaves scattered in 8 rows linear-lanceolate acuminate entire imbricated rigid, Capsules scattered not spiked  
 14643 Stem creeping branched, Leaves scatt. imbric. ciliated with a hair at end, Spikes solitary sessile terminal  
 14644 Leaves in 8 rows linear-lanceolate toothletted acute spreading reflexed, Stem ascending bifid  
 14645 Lvs. bifarious roundish ovate acute flat toothl. Stem branched rooting at base, Spikes term. sess. subsolit.  
 14646 Branches nearly simple long ascend. with one spike at top, Lvs. lin.-subul. toothed at base, Spike sess. leafy

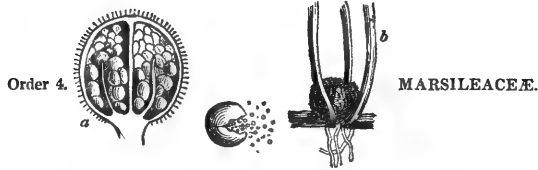
14647 Stem dichotomous, Branches 3-cornered



and Miscellaneous Particulars.

foot in length. L. Selago is used in Skye, and some other places, to fix colours in dyeing, instead of alum. The Highlanders employ it in infusion as an emetic and cathartic ; but it operates violently, and, unless taken in a small dose, brings on giddiness and convulsions. Linnæus says, the Swedes use a decoction of it to destroy lice on swine and other animals. All the species may be cultivated in a light peaty soil, but they require an abundance of moisture.

2213. *Psilotum*. From  $\psi\iota\lambda\omicron\varsigma$ , naked. This is a little bushy evergreen herbaceous plant of no beauty. Its branches are 3-cornered, and altogether destitute of leaves. The thecae appear from the little indentations of the branches, and are of a whitish-yellow color. It is easily cultivated in a little peat and sand, but it has no merit except as an object of curiosity.



Order 4.

MARSILEACEÆ.

*Reproductive organs radical, uniform. Sporules contained in roundish one or many-celled indehiscent heads. Plants simple, aquatic.*

VERY few plants are found in this order. Their vegetation is various; they are at most a few inches high, and are more or less aquatic. In *Isoetes* the leaves resemble those of a young rush. The organs of reproduction are always near the root, and are variable, and their nature is by no means understood. In *Pilularia* (a) it consists of a roundish head, divided internally into 1-4-cells, each cell containing small bodies of two kinds. In *Isoetes* (b) the fructification is even less known and understood.

2214. *Isoetes*. Head membranous, not opening, immersed in the base of the frond, 1-celled. Sporules angular, inserted upon many filiform receptacles.

2215. *Pilularia*. Heads imbricated, solitary, nearly sessile, globose, coriaceous, 4-celled. Cells containing two kinds of bodies.

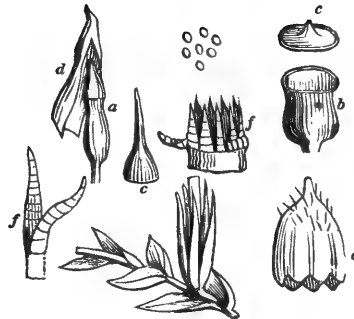
|                      |              |        |          |         |               |                |
|----------------------|--------------|--------|----------|---------|---------------|----------------|
| 2214. ISOETES, L.    | QUILLWORT.   | ≅ Δ cu | Sp. 1-2. | Britain | al.lak. D p.1 | Eng. bot. 1084 |
| 14648 lacustris W.   | marsh        |        | ‡ my.o   | Br      |               |                |
| 2215. PILULARIA, L.  | PILLWORT.    | ⊖ Δ cu | Sp. 1.   | Britain | moi.h. D p.1  | Eng. bot. 521  |
| 14649 globulifera W. | Pepper-grass |        | ‡ ju.s   | Br      |               |                |

*History, Use, Propagation, Culture,*

2214. *Isoetes*. From *isos*, equal, and *eros*, the year; a plant which remains the same through all the seasons. A very curious little submersed aquatic, which grows at the bottom of some of the Scotch lakes. The leaves are long and cylindrical, whence the English name Quill-wort.



Order 5.



MUSCI.

*Reproductive organs of 2 kinds. Theca many-seeded, solitary, furnished with an operculum and columella. Plants leafy.*

Mosses are distinguished from all other similar plants, by the peculiar nature of the reproductive organs, which are of two kinds. The principal and the most obvious is a theca (a, b), which is furnished with an operculum or lid (c), by means of which the sporules are retained in the theca, and a columella, or central axis, to which they are attached. The other consist of minute spherical pedicellated organs, concealed in the axils of some of the leaves, and called anthers by Hedwig. The theca is either entire, or split into four valves, as in *Andreaea*; when in a very young state it is enclosed in an indusium, which is torn asunder as the theca is elongated, and being carried up with it, remains upon the summit of the theca in the form of a little extinguisher called

14648 Fronds subulate half-cylindrical, Heads roundish 2-celled

14649 Filiform branched creeping, Heads brown

*and Miscellaneous Particulars.*

2215. *Pitularia*. From *pitula*, a pill. The little heads in which the reproductive organs are enclosed resemble pills. An obscure little plant found creeping among grass in meadows in many parts of England, and especially in damp places which are overflowed during winter.

*calyptra* (*d*); if the calyptra is slit up one side it is called *dimidiate* (*d*), if divided at the base into many short clefts, it is termed *mitriform* (*e*). The orifice of the theca, when the operculum is removed, is either covered by a simple membrane, or by various processes called the *peristome* (*f*), either annular, or in the form of teeth, and arranged in a single or double row. These processes vary in number, and in the manner of their division; from such differences excellent characters for the genera have been obtained.

The minute attention which mosses have received in modern times has brought their arrangement to a degree of perfection unknown in other Cryptogamic orders. This has been effected by the labor of Hooker, Greville, and Brown in our own country, and of Hedwig, Swartz, Bridel, Schwaegrichen, Palisot de Beauvois, Nees von Esenbeck, and Hornschuch abroad. The arrangement of the two last authors is chiefly adopted here from their excellent *Bryologia Germanica*.

With this order, the alteration in the form of our page, of which we have already spoken, commences. The columns indicating the *habit*, *habitation in the garden*, *propagation*, and *soil*, are necessarily omitted; and their place is supplied by a more extended *popular character*, and more detailed references to plates. The heights indicated are to be understood as in inches, and not as feet; and the colors as the general color of the plant. In the figures it has been also found necessary to represent the plants in many cases much magnified; whenever this has taken place, the figures which are larger than nature are distinguished by a \* affixed to their number. The popular synonyms of this and the succeeding orders have been rendered as complete as possible, especially with reference to Sowerby's English Botany, to which valuable work this will be a complete modern index even in Cryptogamia.

TRIBE I. EVAGINULATI.

*Theca entirely sessile; its receptacle stalked, and without perichætal leaves.*

2216. *Sphagnum*. Receptacle of theca stalked. Peduncle resembling a fruitstalk. Theca sessile on the receptacle. Mouth naked.

TRIBE II. VAGINULATI OLOCARPI.

*Theca more or less stalked: with perichætal leaves; not valvular.*

A. *Theca terminal.*

\* *Theca indehiscent.*

2217. *Phascum*. Theca entire, adnate with the persistent lid. Calyptra shorter than the theca.



**\*\* Theca dehiscens. Peristome absent.**

2218. *Schistostega*. Fruitstalks terminal; mouth of theca naked. Lid lacinated, with deciduous segments.  
 2219. *Gymnostomum*. Fruitstalk terminal. Calyptra dimidiate. Mouth of theca naked.

**\*\*\* Theca dehiscens. Peristome present.**  
 † Peristome single.

2220. *Hymenostomum*. Fruitstalk terminal. Peristome destitute of teeth, but having an inner horizontal membrane perforated in the middle.  
 2221. *Tetraphis*. Fruitstalk terminal. Peristome of 4 erect teeth.  
 2222. *Encalypta*. Fruitstalk terminal. Peristome single of 16 teeth. Calyptra cylindrico-campanulate, wholly concealing the nature of the theca.  
 2223. *Grimmia*. Fruitstalk terminal. Peristome single, of 16 entire or perforated rarely cleft teeth. Calyptra mitriform.  
 2224. *Weisia*. Fruitstalk terminal. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.  
 2225. *Dicranum*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.  
 2226. *Trichostomum*. Fruitstalk terminal. Peristome single, of 16 equal teeth divided to the base, or 32 in pairs. Calyptra mitriform.  
 2227. *Cinclidotus*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth anastomosing at their base. Calyptra mitriform.  
 2228. *Tortula*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth, nearly free, or more or less united by a tubiform membrane. Calyptra dimidiate.  
 2229. *Pterogonium*. Fruitstalk lateral. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.  
 2230. *Didymodon*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.  
 2231. *Splachnum*. Fruitstalk terminal. Peristome single, of 8 geminate teeth. Theca with an evident apophysis. Columella exerted, capitate. Calyptra mitriform.  
 2232. *Conostomum*. Fruitstalk terminal. Peristome simple; teeth solitary, entire, separate at base, 16 in number, united at the tips.

†† Peristome double.

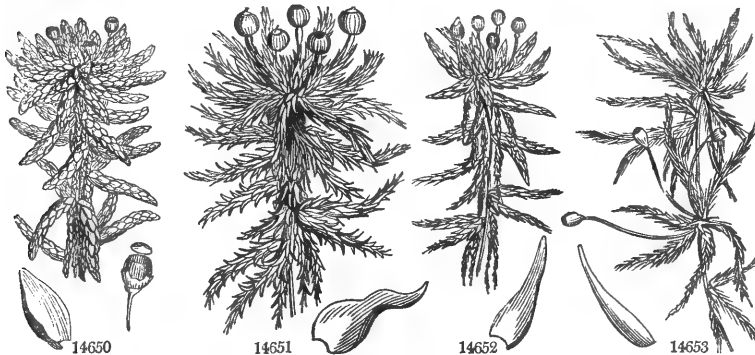
2233. *Orthotrichum*. Fruitstalk terminal. Peristome mostly double; outer one of 16 teeth, approaching in pairs; inner one of 8-16 ciliary processes or none. Calyptra mitriform. Columella capitate.  
 2234. *Zygodon*. Fruitstalk terminal. Peristome double or simple; teeth in pairs. Calyptra cucullate.  
 2235. *Diphyscium*. Fruitstalk terminal. Peristome always double; outer with 16 teeth: teeth obscure. Theca subsessile.

**EVAGINULATI.**

| Systematic Name and Authority. | English Name. | Popular Character. | Length in inches. | Time of flowering, or when most conspicuous. | Color of the Plant. | Locality. | Reference to Figures. |
|--------------------------------|---------------|--------------------|-------------------|--|---------------------|-----------|-----------------------|
| 2216. SPHAGNUM. L.             | SPHAGNUM.     |                    |                   | Sp. 4—11.                                    |                     |           |                       |
| 14650 obtusifolium Ehr.        | blunt-leaved  | aquatic            | 7                 | all months                                   | Y.G                 | bogs      | Musc. brit. t.4       |
| α vulgaris Hooker              | common        | aquatic            | 7                 | all months                                   | Y.G                 | bogs      | Eng. bot. t. 1405     |
| S. latifolium E. B.            |               |                    |                   |  |                     |           |                       |
| β minus Hooker                 | small         | aquatic            | 3                 | all months                                   | Y.G                 | bogs      | Schwagr. sup. t.3     |
| γ fluitans Turner              | floating      | aquatic            | 24                | all months                                   | Y.G                 | bogs      |                       |
| 14651 squarrosum Web.          | squarrose     | aquatic            | 7                 | all months                                   | Y.G                 | bogs      | Musc. brit. t.4       |
| 14652 acutifolium Ehr.         | sharp-leaved  | aquatic            | 6                 | all months                                   | Y.G                 | bogs      | Musc. brit. t.4       |
| 14653 cuspidatum Ehr.          | cuspidate     | aquatic            | 6                 | all months                                   | Y.G                 | bogs      | Musc. brit. t.4       |

**VAGINULATI OLOCARPI.**

|                           |          |          |     |            |  |                   |                 |
|---------------------------|----------|----------|-----|------------|--|-------------------|-----------------|
| 2217. PHASCUM. L.         | PHASCUM. |          |     | Sp. 11—39. |  |                   |                 |
| 14654 serratum Schreb.    | serrated | solitary | 1/2 | spring     |  | Pa. G shady banks | Musc. brit. t.5 |
| stoloniferum E. B. t.2106 |          |          |     |            |  |                   |                 |



*History, Use, Propagation, Culture,*

2216. *Sphagnum* A name employed by Pliny to distinguish some kind of moss that grew upon trees. In this genus the theca is sessile, being entirely destitute of a real fruitstalk. That which appears like one is the footstalk of the receptacle, which in most of the *Sphagna* is so much lengthened out as greatly to exceed the perichaetal leaves. All the species agree in the peculiar structure of the leaves, of which the reticulation is

2236. *Buxbaumia*. Fruitstalk terminal. Stem none. Theca oblique, gibbous. Peristome double: outer one of many filiform, torulose processes; inner one of a conical plicate membrane. Calyptra mitriform.  
 2237. *Funaria*. Fruitstalk terminal. Peristome double, oblique; outer and inner ones each of 16 teeth, opposite to each other.  
 2238. *Bartramia*. Fruitstalk terminal. Theca subglobose. Peristome double: outer one of 16 teeth; inner one of a membrane cleft into 16 bifid segments. Calyptra dimidiate.  
 2239. *Pohlia*. Fruitstalk terminal. Peristome double: teeth separate acute; membrane with 16 processes, which are entire at the end without cilia.  
 2240. *Bryum*. Fruitstalk terminal. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 equal segments, with filiform processes often placed between them. Calyptra dimidiate.  
 2241. *Polytrichum*. Fruitstalk terminal. Peristome double: outer one of 32 or 64 equidistant incurved teeth; inner one of a dense horizontal membrane connected with the outer teeth. Calyptra dimidiate.

B. *Theca lateral.*

2242. *Anictangium*. Fruitstalk lateral. Calyptra mitriform. Mouth of theca naked.  
 2243. *Fissidens*. Fruitstalk lateral. Peristome simple. Calyptra smooth. Teeth bifid.  
 2244. *Leucodon*. Fruitstalk lateral. Peristome simple, with bifid processes.  
 2245. *Fontinalis*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of 16 ciliary processes formed by transverse bars into a reticulated cone. Calyptra mitriform.  
 2246. *Anomodon*. Fruitstalk lateral. Peristome double: the first of 16 teeth; the second of 16 ciliary processes arising from the teeth. Calyptra dimidiate.  
 2247. *Neckera*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of 16 ciliary processes, connected only at the base by a short membrane. Calyptra dimidiate.  
 2248. *Daltonia*. Fruitstalk lateral. Peristome double: membrane figured, with 16 cilia and reflexed teeth.  
 2249. *Hookeria*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 entire segments. Calyptra mitriform.  
 2250. *Leskea*. Fruitstalk lateral. Peristome double. Membrane with 16 entire processes. Teeth erect or reflexed. Calyptra cucullate.  
 2251. *Hypnum*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of a membrane cut into 16 equal segments, with filiform processes often between them. Calyptra dimidiate.

TRIBE III. VAGINULATI SCHISTOCARPI.

*Theca more or less stalked, with perichætal leaves, valvular.*

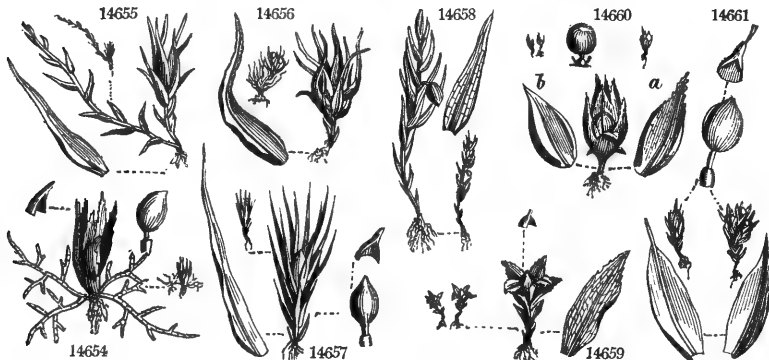
2252. *Andreaea*. Theca 4-valved: valves cohering at apex, and adnate with the persistent lid.

E VAGINULATI.

- 14650 Branches tumid, Leaves ovate obtuse  
 α Stems loosely tufted, Leaves closely imbricated  
 β Stems densely tufted, Leaves closely imbricated  
 γ Stems much lengthened, Leaves scattered remote  
 14651 Branches attenuated at their extremities, Leaves ovato-acuminate squarrose recurved  
 14652 Branches attenuated, Leaves ovate-lanceolate crowded  
 14653 Branches attenuated, Leaves lanceolato-subulate lax

VAGINULATI OLOCARPI.

- \* Shoots creeping, leafless, articulated, branched.  
 14654 Shoots branched conferva-like, Perichætal leaves lanceolate serrated nerveless

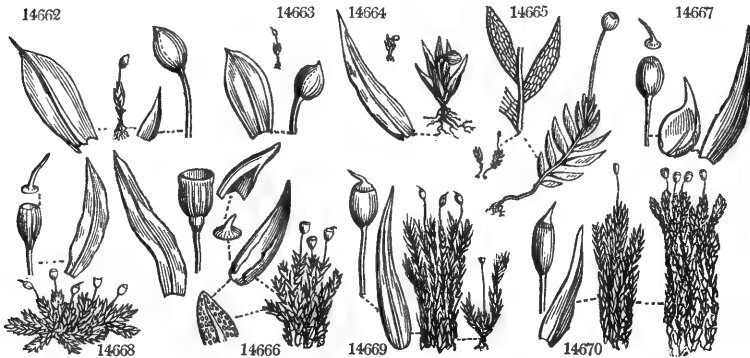


and Miscellaneous Particulars.

large, and the interstices or areolæ oblong, interrupted by transverse lines. The leaves are always destitute of a nerve, and are of a singularly whitish color.

2217. *Phascum*. One of the ancient Greek names of the moss was φασκον. This genus contains species

|       |  |                 |                |                     |      |                 |                   |
|-------|--|-----------------|----------------|---------------------|------|-----------------|-------------------|
| 14655 | <i>alternifolium</i> Dicks.                  | alternate-leav. | solitary       | 1/3 spring          | Pa.G | moist banks     | Musc. brit. t.5   |
| 14656 | <i>crispum</i> Hedw.                         | crisp           | solitary       | 1/4 spring          | Pa.G | banks and fl.   | Musc. brit. t.5   |
|       | <i>multiceps</i> Sadeb. E. B. 618            |                 |                |                     |      |                 |                   |
| 14657 | <i>subulatum</i> Linn.                       | subulate        | small patches  | 1/3 spring          | L.G  | dry banks       | Musc. brit. t.5   |
| 14658 | <i>axillare</i> Dicks.                       | axillary        | lax. sol.      | 1/3 spr. and sum.   | Y.G  | moist banks     | Musc. brit. t.5   |
|       | <i>strictum</i> E. B. t. 2093                |                 |                |                     |      |                 |                   |
| 14659 | <i>patens</i> Hedw.                          | spreading       | solitary       | 1/3 spr. and sum.   | Pa.G | clay fields     | Musc. brit. t.5   |
| 14660 | <i>maticum</i> Schreb.                       | pointless       | solitary       | 1/3 spr. and sum.   | Bt.G | moist banks     | Musc. brit. t.5   |
|       | <i>α majus</i> Hooker                        | large           | solitary       | 1/3 spr. and sum.   | Bt.G | moist banks     | Eng. bot. t. 2027 |
|       | <i>β minus</i> Hooker                        | small           | solitary       | 1/3 spr. and sum.   | Bt.G | sea coast       | Musc. brit. t.5   |
| 14661 | <i>cuspidatum</i> Schreb.                    | cuspidate       | solitary       | 1/3 spr. and sum.   | Gr   | hed. moi. ba.   | Musc. brit. t.5   |
|       | <i>α apiculatum</i> Hooker                   | pointed         | solitary       | 1/3 spr. and sum.   | Gsh  | hed. moi. ba.   | Eng. bot. t. 2025 |
|       | <i>Schreberianum</i> E. B. t. 2026           |                 |                |                     |      |                 |                   |
|       | <i>curvicaulum</i> E. B. t. 2259             |                 |                |                     |      |                 |                   |
|       | <i>β piliferum</i>                           | pubescent       | solitary       | 1/3 spr. and sum.   | Ho   | sandy downs     | Eng. bot. t. 1888 |
| 14662 | <i>bryoides</i> Dicks.                       | Bryum-like      | solitary       | 1/3 spr. and sum.   | G    | banks and fl.   | Musc. brit. t.5   |
| 14663 | <i>rectum</i> Withering                      | upright         | solitary       | 1/3 spr. and sum.   | L.G  | moist banks     | Musc. brit. t.5   |
| 14664 | <i>curvicollum</i> Hedw.                     | bent-necked     | solitary       | 1/3 spr. and sum.   | L.G  | moist banks     | Musc. brit. t.5   |
|       |  |                 |                |                     |      |                 |                   |
| 2218. | SCHISTOSTE/GA. Mohr.                         | SCHISTOSTE/GA.  |                | Sp. 1.              |      |                 |                   |
| 14665 | <i>pennata</i> Hooker                        | feathery        | solitary       | 1/4 spring          | L.G  | banks, Dev.     | Musc. brit. t.8   |
|       | <i>Gymnostomum pennatum</i> E.B. t. 2219     |                 |                |                     |      |                 |                   |
|       |  |                 |                |                     |      |                 |                   |
| 2219. | GYMNO'STOMUM. Hedw.                          | GYMNO'STOMUM.   |                | Sp. 13—47.          |      |                 |                   |
| 14666 | <i>lapponicum</i> Hedw.                      | Lapland         | dense tufts    | 1 spring            | D.G  | alpine rocks    | Musc. brit. t.6   |
| 14667 | <i>aestivum</i> Hedw.                        | summer          | thick tufts    | 1 1/2 spring        | Bt.G | wet rocks       | Musc. brit. t.6   |
|       | <i>luteolum</i> E. B. t. 2201                |                 |                |                     |      |                 |                   |
| 14668 | <i>viridis'simum</i> E. B.                   | very green      | tufts          | 2/3 summer          | Bt.G | trees & rocks   | Musc. brit. t.6   |
|       | <i>Grim'mia Forstéri</i> E. B. 2225          |                 |                |                     |      |                 |                   |
| 14669 | <i>curvirostrum</i> Hedw.                    | bent-pointed    | tufts          | 1 1/2 spring        | Pa.G | moist rocks     | Musc. brit. t.6   |
|       | <i>stelligerum</i> E. B. t. 2202             |                 |                |                     |      |                 |                   |
| 14670 | <i>rupes'tre</i> Schwagr.                    | rock            | large tufts    | 1 1/2 spr. and sum. | D.G  | moi. mou. ro.   | Schwæg.sup.t.11   |
|       | <i>aeruginosum</i> E. B. t. 2200             |                 |                |                     |      |                 |                   |
|       |  |                 |                |                     |      |                 |                   |
| 14671 | <i>Griffith'sianum</i> E. B.                 | Griffith's      | little spots   | 1/3 summer          | Pa.G | mountains       | Musc. brit. t.7   |
| 14672 | <i>ovatum</i> Hedw.                          | ovate           | broad patches  | 1/3 all months      | Gr   | ba. & wa.tops   | Musc. brit. t.7   |
|       | <i>α vulgare</i> Hooker                      | common          | broad patches  | 1/3 all months      | Gr   | ba. & wa.tops   | Eng. bot. t. 1889 |
|       | <i>β gracile</i> Hooker                      | slender         | broad patches  | 1/3 all months      | Gr   | ba. & wa.tops   |                   |
| 14673 | <i>truncatulum</i> Hoffm.                    | truncate        | patches        | 1/3 all months      | Bt.G | fields & ban.   | Musc. brit. t.7   |
|       | <i>intermedium</i> E. B. t. 1976             |                 |                |                     |      |                 |                   |
| 14674 | <i>Heimii</i> Hedw.                          | Heim's          | small patches  | 1 summer            | Rsh  | marit. banks    | Musc. brit. t.7   |
|       | <i>obtusum</i> E. B. t. 1407                 |                 |                |                     |      |                 |                   |
| 14675 | <i>conicum</i> Schwagr.                      | conical         | little spots   | 1/3 summer          | Pa.G | fields, S.Irel. | Musc. brit. t.7   |
| 14676 | <i>fasciculare</i> Hedw.                     | bundled         | patches        | 1/3 summer          | Y.G  | clayey banks    | Musc. brit. t.7   |
| 14677 | <i>pyriforme</i> Hedw.                       | pyriform        | dense patches  | 2/3 summer          | Bt.G | moist places    | Musc. brit. t.7   |
| 14678 | <i>tenue</i> Hedw.                           | slender         | little patches | 1 1/2 spring        | Bt.G | sandst. rocks   | Musc. brit. t.7   |
|       | <i>paucifolium</i> E. B. t. 2506             |                 |                |                     |      |                 |                   |
| 14679 | <i>Donnianum</i> Smith                       | Donn's          | solitary       | 1/3 spring          | Pa.G | Scotch rocks    | Musc. brit. t.7   |
|       |  |                 |                |                     |      |                 |                   |
| 2220. | HYMENO'STOMUM. R. Brown.                     | HYMENO'STOMUM.  |                | Sp. 1.              |      |                 |                   |
| 14680 | <i>microstomum</i> R. Br.                    | small-mouthed   | little-patches | 1/3 spring          | Pa.G | banks           | Musc. brit. t.7   |
|       | <i>Gymnostomum microstomum</i> E. B. t. 2215 |                 |                |                     |      |                 |                   |
|       |  |                 |                |                     |      |                 |                   |
| 2221. | TETRAPHIS. Hedw.                             | TETRAPHIS.      |                | Sp. 2—5.            |      |                 |                   |
| 14681 | <i>pellucida</i> Hedw.                       | pellucid        | wide tufts     | 1 all months        | Pa.G | dry banks       | Musc. brit. t.8   |
| 14682 | <i>Browniana</i> Greville                    | Brown's         | solitary       | 1/3 all months      | Ol.G | roofs of caves  | Musc. brit. t.8   |
|       | <i>ovata</i> Hooker                          |                 |                |                     |      |                 |                   |
|       | <i>Grim'mia Browniana</i> E. B. t. 1422      |                 |                |                     |      |                 |                   |



History, Use, Propagation, Culture.

which are not only amongst the minute of mosses, and often scarcely discernible to the naked eye, but also extremely dissimilar in appearance to each other.

2218. *Schistostega*. From *σχιζω*, to split, and *σενν*, a covering, in allusion to the singular character of the lid splitting at the margin. The only known station for this minute moss is said by Dr. Hooker, from whose *Muscologia Britannica*, many of the remarks in this work upon the genera of mosses are borrowed, to be in the road from Zele to South Tawton church, near Okehampton, Devonshire.

2219. *Gymnostomum*. From *γυμνος*, naked, and *στομα*, the mouth, in allusion to the processes called teeth, from the orifice of the theca. Very minute plants, many of which are barely distinguishable by the naked eye.

**\*\* Creeping shoots none.**

- 14655 Leaves entire lanceolato-subulate, Innovations elongated  
 14656 Leaves lanceolato-subulate flexuose crisped when dry  
 14657 Leaves subulato-setaceous straight : their nerve disappearing below the point  
 14658 Leaves lanceolato-subulate straight : their nerve disappearing below the point, Fruit at length lateral  
 14659 Leaves patent narrow-ovate serrated : their nerve disappearing below the point  
 14660 Leaves ovato-rotundate acuminate concave connivent : the nerve reaching to the point  
    $\alpha$  Leaves sharply serrated at point  
    $\beta$  Leaves entire  
 14661 Leaves ovato-acuminate erect : their nerve reaching to the point  
    $\alpha$  Leaves apiculate  
    $\beta$  Leaves hair-pointed  
 14662 Leaves ovate apiculate, Thecæ elliptical  
 14663 Leaves ovate with a short point, Thecæ globose, Fruitstalk nearly erect  
 14664 Leaves narrow-ovate acuminate, Thecæ globose, Fruitstalk curved

14665 The only species

**\* Stem long, branched.**

- 14666 Leaves linear lanceolate crisped when dry : perichætial broadly ovate, Thecæ turbinate striated  
 14667 Lvs. lanc. twist. when dry : the perichætial ones broadly ovate ; their marg. involute, Thecæ obl. smooth  
 14668 Leaves broadly lanceolate, Thecæ ovate, Lid obliquely rostrate  
 14669 Leaves subulate, Thecæ turbinate ovate, Lid obliquely rostrate  
 14670 Lvs. lin. subul. spreading flexuose twisted when dry, Thecæ ovate, Lid conical rost. shorter than thecæ

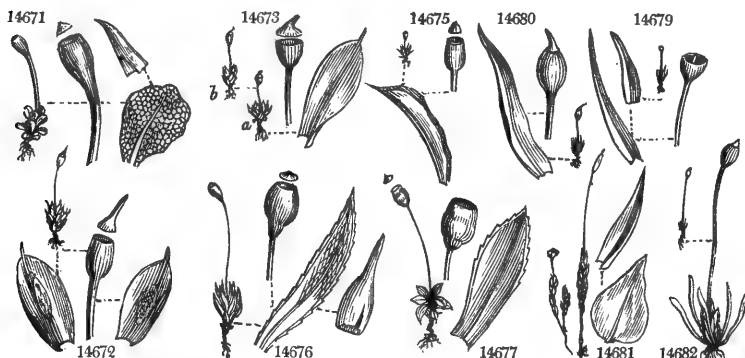
**\*\* Stems short simple.**

- 14671 Lvs. obov.-rotund. reticul. : their nerve disappear. below summit, Fruitstalk carnosè thick, Lid hemispher.  
 14672 Lvs. ovate erect concave piliferous : their nerve furnished with a granuliferous membrane, Lid rostrate  
    $\alpha$  Thecæ ovate  
    $\beta$  Thecæ oblong  
 14673 Leaves ovate apiculate patent nearly plane, Lid obliquely rostrate  
 14674 Leaves lanceolate serrated at the point, Thecæ ovato-oblong, Lid obliquely rostrate  
 14675 Leaves oblongo-obovate apiculate, Thecæ ovate, Lid conical obtuse  
 14676 Leaves oblongo-acum. nearly plane subserrated margined, Thecæ pyriform, Lid plane submammillate  
 14677 Leaves ovato-acum. concave serrated not margined, Thecæ roundish obovate, Lid convex shortly rost.  
 14678 Stem scarcely any, Outer leaves very short ovate lanceolate : inner ones linear lanceolate ; all erect obtuse with a strong nerve disappearing below the summit, Thecæ oblong  
 14679 Stem very short, Leaves subulate straight, Thecæ turbinate

[subulate incurved

14680 Lvs. broadly subul. : marg. invol. above flexuose crisped when dry, Thecæ ellipt. contracted at mouth, Lid

- 14681 Stems elongated, Leaves ovato-acuminate : those of the perichætium lanceolate, Thecæ cylindrical  
 14682 Stems very short, Lvs. few lin. slightly incrassated upw. : those of perichætium ovate obtuse, Thecæ ovate

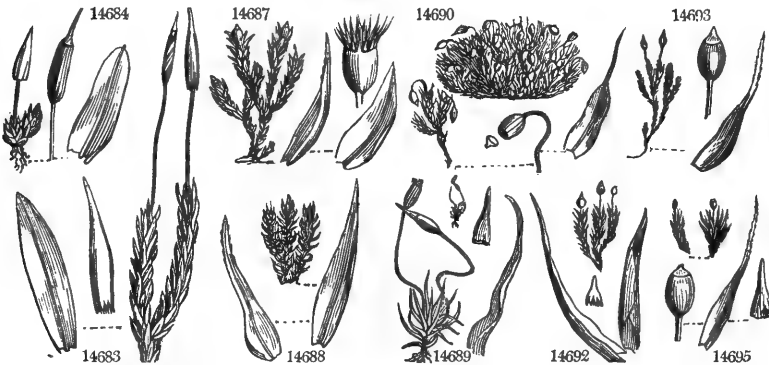


**and Miscellaneous Particulars.**

2420. *Hymenostomum*. From *μυσσιν*, a membrane, and *στομα*, a mouth. This genus differs from the last in having a membrane stretched across the orifice of the theca, a character first discovered by Mr. Brown. Minute plants, with the habit of *Gymnostomum*.

2321. *Tetraphis*. The peculiar character of this genus is to have four teeth (*τετρα*, four). The lid in the only known species of this genus is remarkably thin and scarious in texture, and the teeth are reticulated, not striated as in most mosses. The calyptra is striated or furrowed ; the leaves are rigid.

|                             |   |    |               |      |               |                   |
|-----------------------------|---|----|---------------|------|---------------|-------------------|
| 2222. ENCALYP'TA. Hedw.     | ENCALYP'TA.                                 |    | Sp. 4-7.      |      |               |                   |
| 14683 streptocárpa Hedw.    | twisted-fruited tufts                       | 1½ | all months    | Bt.G | moist rocks   | Musc. brit. t.13  |
| 14684 vulgáris Hedw.        | common wide patches                         | ½  | all months    | DI.G | wall tops     | Musc. brit. t.13  |
|                             | <i>Bryum extinctórium</i> E. B. t. 558      |    |               |      |               |                   |
| 14685 ciliáta Hedw.         | ciliated tufts                              | ½  | spring        | Pa.G | mountains     | Musc. brit. t.13  |
| α cóncolor Hooker           | whole-colored tufts                         | ½  | spring        | Pa.G | mountains     | Eng. bot. t. 1418 |
| β alpína Hooker             | alpine tufts                                | ½  | spring        | Pa.G | Scotch alps   | Eng. bot. t. 1419 |
| 14686 rhapto cárpa Schwæg.  | straight-fruit. tufted                      | ¾  | all months    | D.G  | Scot. mount.  | Gre.cryp.fl.t.163 |
| 2223. GRIM'MIA. Hedw.       | GRIMMIA.                                    |    | Sp. 9-29.     |      |               |                   |
| 14687 apocárpa Hedw.        | alpine dense tufts                          | 1½ | all months    | D.OI | rocks & trees | Musc. brit. t.13  |
| α nigro-virídís Hooker      | dark-green tufts                            | 1½ | all seasons   | D.OI | rocks & trees | Eng. bot. t. 1134 |
| β stric'ta Turner           | loose tufts                                 | 3  | all seasons   | Ruf  | mountains     | Tu.mu.hi. t.2.f.1 |
| 14688 marítima Turn.        | sea-coast tufted                            | ¾  | spr. and aut. | Br.G | marinerocks   | Musc. brit. t.13  |
| 14689 saxícola Hooker       | rock cushion                                | ½  | summer        | Bt.G | rocks         | Musc. brit. t.13  |
| 14690 pulvináta E. B.       | tufted                                      | ¾  | all seasons   | Br.G | house-tops    | Musc. brit. t.13  |
| 14691 leucophá'a Grv.       | mottled broad tufts                         | ½  | all seasons   | D.OI | subalp. rocks | Wer. trans.4. t.6 |
| 14692 Daviésii Turn.        | Welsh little patches                        | ½  | spring        | Br.G | marif. rocks  | Musc. brit. t.13  |
|                             | <i>Encalyp'ta Daviésii</i> E. B. t. 1281    |    |               |      |               |                   |
| 14693 ováta Web. & Mohr.    | ovate tufts                                 | ¾  | spr. and sum. | D.G  | alpine rocks  | Musc. brit. t.13  |
|                             | <i>Dicranum ováte</i> E. B. t. 2165         |    |               |      |               |                   |
| 14694 trichophýlla Grvillé  | hair-leaved tufts                           | ¾  | summer        | Hoá  | stone w., Sc. |                   |
| 14695 Doniána Smíth         | Don's little tufts                          | ½  | spring        | D.G  | loose stones  | Musc. brit. t.13  |
| 2224. WEIS'SIA. Hedw.       | WEISSIA.                                    |    | Sp. 19-54.    |      |               |                   |
| 14696 splanchnóides Schwæg. | Splanchnu.-like broad tufts                 | 3  | summer        | D.G  | Scotch bogs   | Gre. cryp.fl.145  |
|                             | <i>Grim'mia splanchnóides</i> E. B. t. 2164 |    |               |      |               |                   |
|                             | <i>Splanchnum lingulátum</i> E. B. t. 2095  |    |               |      |               |                   |
| 14697 Templetoni Hooker     | Irish little patches                        | ½  | spring        | L.G  | banks, Irel.  | Musc. brit. t.14  |
|                             | <i>Funária Templetoni</i> E. B. t. 2524     |    |               |      |               |                   |
| 14698 núda Hooker           | naked little patches                        | ½  | summer        | L.G  | clayey soil   | Musc. brit. t.14  |
|                             | <i>Grim'mia núda</i> E. B. t. 1421          |    |               |      |               |                   |
| 14699 nigrita Hedw.         | dark-colored tufts                          | ¾  | summer        | Br.G | mount. ban.   | Musc. brit. t.14  |
|                             | <i>Grim'mia nigrita</i> E. B. t. 1825       |    |               |      |               |                   |
| 14700 latifólia Schwæg.     | broad-leaved tufted                         | ½  | autumn        | Pa.G | Scot. mount.  | Gre. cryp.fl.149  |
| 14701 Starkeána Hedw.       | Starke's little patches                     | ½  | spring        | D.G  | banks and fi. | Musc. brit. t.14  |
|                             | <i>Grim'mia Starkeána</i> E. B. t. 1490     |    |               |      |               |                   |
| 14702 affínis Hooker        | kindred subsolitary                         | 1½ | spring        | Pa.G | fields        | Musc. brit. t.14  |
| 14703 lanceoláta Hook.      | lanceolate subsolitary                      | ½  | summer        | L.G  | moist banks   | Musc. brit. t.14  |
|                             | <i>Grim'mia lanceoláta</i> E. B. t. 1408    |    |               |      |               |                   |
| 14704 striáta Hooker        | striated round tufts                        | ½  | spring        | Bt.G | alpine banks  | Musc. brit. t.15  |
| α minor Hook.               | small round tufts                           | ½  | spring        | Bt.G | alpine banks  | Hed.sp.mus.t.13   |
| β májor Hook.               | large round tufts                           | ½  | spring        | Bt.G | alpine banks  | Schwæg.sup.t.19   |
| 14705 trichódes Hooker      | hairy minute patch.                         | ½  | spring        | Bt.G | granite roc.  | Musc. brit. t.15  |
|                             | <i>Grim'mia trichódes</i> E. B. t. 2563     |    |               |      |               |                   |
| 14706 cirráta Hedw.         | cirrhate tufts                              | ½  | summer        | L.G  | decay. wood   | Musc. brit. t.15  |
|                             | <i>Grim'mia cirráta</i> E. B. t. 2356       |    |               |      |               |                   |
|                             | <i>Grim'mia Dicksóni</i> E. B. t. 1420      |    |               |      |               |                   |
| 14707 curviróstra Hook.     | bent-beaked tufts                           | 1  | all seasons   | R.G  | roc. and ban. | Musc. brit. t.14  |
|                             | <i>Grim'mia recurviróstra</i> E. B. t. 1438 |    |               |      |               |                   |
| 14708 cris'pula Hedw.       | crisp dense tufts                           | ½  | sum. and aut. | D.G  | rooks         | Musc. brit. t.15  |
|                             | <i>Grim'mia cris'pula</i> E. B. t. 2263     |    |               |      |               |                   |
| 14709 controvérsa Hedw.     | disputed dense patches                      | ½  | all seasons   | Bt.G | banks         | Musc. brit. t.15  |
|                             | <i>Grim'mia controvérsa</i> E. B. t. 1367   |    |               |      |               |                   |
| 14710 calcárea Hedw.        | chalk subsolitary                           | ½  | spring        | OI.G | chalk cliffs  | Musc. brit. t.15  |
|                             | <i>Bryum calcáreum</i> E. B. t. 191         |    |               |      |               |                   |
| 14711 recurváta Hooker      | recurved solitary                           | 1½ | spring        | L.G  | rocks         | Musc. brit. t.15  |
|                             | <i>Grim'mia recurváta</i> E. B. t. 1489     |    |               |      |               |                   |



History, Use, Propagation, Culture,

2222. *Encalypta*. From *ev*, within, and *καλυπτω*, a covering or extinguisher, on account of the unusual size of the calyptra, which entirely encloses the thesa; a character by which the genus may be distinguished at first sight. Small plants, forming imperfect tufts of green among moist rocks, or on mud-capped walls.

2223. *Grimmia*. Named in honor of I. F. C. Grimm, a German botanist, who published a Flora of Eisenach.

[Calyptra toothed at the base

- 14683 Stems elong. Lvs. elliptico-lanc. somew. obt. : nerve not produced beyond summ. Theca cylind. spir. striat.  
 14684 Stems short, Leaves oblongo-elliptical obtuse : their nerve produced a little beyond the summits, Theca cylindrical smooth, Calypt. entire at the base  
 14685 Stems short, Lvs. obl. acum. : nerve produced considerably bey. summ. Theca cylind. Calyp. tooth. at Theca  
 α Leaves apiculate : their points of the same color, Theca smooth  
 β Leaves much acuminate : their points diaphanous, Theca smooth  
 14686 Leaves oblong acute : nerve as long or longer than the leaves, Theca straight striated

\* *Fruitstalks scarcely any.*

- 14687 Stems branched, Leaves ovato-lanceolate recurvo-patent : their margins reflexed; the perichætial ones having their nerve disappearing immediately below their summits, Theca ovate sess. Lid shortly rost.  
 α Leaves broad dark-green  
 β Stem long, Leaves narrow and rufous [running beyond summits, Theca ov. sess. Lid shortly rost.

- 14688 Stems short pulvin. Lvs. lanc. acum. nearly erect crisp. when dry : marg. recurv. ; perich. ones with nerve  
 \*\* *Fruitstalks longer than leaves.*  
 14689 Stem scarcely any, Lvs. lin.-subulate crisped when dry, Theca ovate, Fruitst. geniculate, Lid rost. strait  
 14690 Stems short pulvinata, Leaves narrow elliptical : their margins recurved ; points diaphanous piliform, Theca ovate striated, Fruitstalks curved, Lid conical acuminate

- 14691 Stem rather short, Lvs. ov. with long white pilifer. points, Footst. very short, Theca ov. Lid obscurely rost.  
 14692 Stems short, Leaves lanceolate acuminate carin. entire much crisped when dry : their margins recurved ; those of the perichætium broad and convol. Theca turbinata, Lid rostrate  
 14693 Stems slightly branched, Leaves lanceolate-subulate gradually produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome often perfora. and split, Lid rost.  
 14694 Lvs. lanc. subul. carin. recurv. at edge with a hair-like point, Seta curv. and flex. Theca ov. ellipt. Lid rost.  
 14695 Stems short, Leaves lanceolate-subulate produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome quite entire, Lid shortly rostrate

\* *Theca with an apophysis.*

- 14696 Lvs. lingul. rounded at top : nerve disappear. before summ. Theca obov. Apophy. obcon. Lid convex acum.

- 14697 Leaves ovato-lanceolate acute, Theca (with the apophysis) narrowly pyriform, Lid nearly plane

\*\* *Theca destitute of an apophysis.*

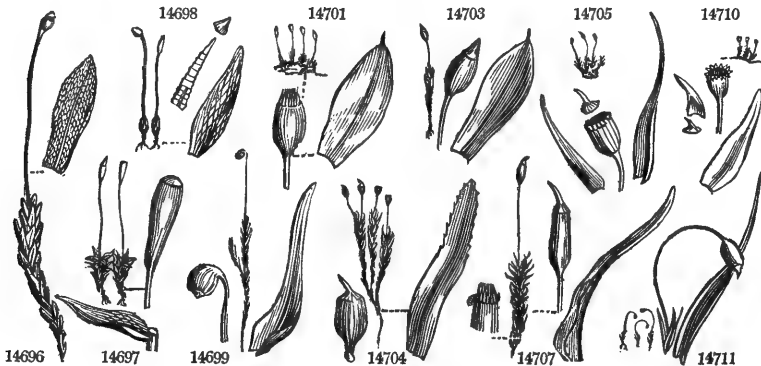
1. *Leaves ovate or lanceolate.*

- 14698 Stems scarcely any, Leaves ovato-lanceolate nerveless, Theca ovate gibbous on one side cernuous  
 14699 Stems elongat. Lvs. lanc. acum. Theca obovate cernuous gibbous sulcate, Lid hemispheric. obtusely point. [erect-cernuous, Lid rostrate  
 14700 Stem simple short, Leaves broad and bluntly ov. with a short point imbric. Nerve shorter than leaf, Theca  
 14701 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conical, Teeth of perist. subul. acute  
 14702 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conic. Teeth of perist. subulate acute  
 14703 Stems somew. elongat. Lvs. ov. with an excurr. nerve almost piliferous, Theca ovate, Lid obliquely rostrate

2. *Leaves linear or subulate.*

- 14704 Leaves linear denticul. crisped when dry, Theca ovato-turbinata sulcate erect, Lid obliquely subulate  
 α Leaves linear-subulate subserrulate  
 β Leaves broad-linear denticulate  
 14705 Stems scarcely any, Leaves subulato-setaceous entire, Theca ovate striated, Lid rostrate  
 14706 Leaves broadly subulate crisped when dry : their margins recurved, Theca ovate, Lid rostrate

- 14707 Leaves linear-subulate, Theca ovate cylindraceous, Lid rostrate  
 14708 Stems divid. Lvs. from a broad base lanc.-subul. crisp. when dry : marg. incurv. Theca ov. ellipt. Lid rostrate  
 14709 Stems nearly simple, Lvs. lin.-subul. crisp. when dry : their marg. incurv. Theca ovato-ellipt. Lid rostrate  
 14710 Stems scarcely any, Lvs. from a broad base lin. obt. thick with a very broad nerve, Theca turbin. Lid rost.  
 14711 Stems scarcely any, Leaves subulate, Theca broadly ovate, Fruitstalks curved, Lid rostrate

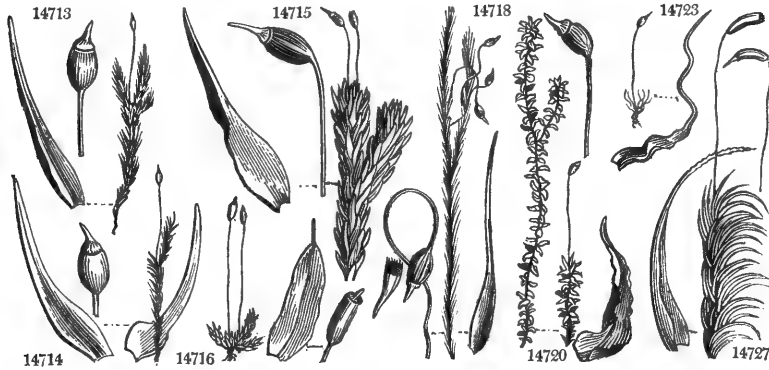


and Miscellaneous Particulars.

Plants growing in roundish tufts, and nearly related to *Trichostomum*. *G. pulvinata* is the moss which forms those little cushion-like dark brownish green lumps which are so commonly spotted over the tops of old walls and houses.

2224. *Weissia*. In honor of J. W. Weiss, a German cryptogamic botanist. There was also a John

|   |  |   |   |   |                                    |  |   |
|---|--|---|---|---|------------------------------------|--|---|
| 14712   | <i>pusilla</i> Hedw.<br><i>Grimmia pusilla</i> E. B. t. 2551   | dwarf   | dense patches   | 1/3 spring  | Bt.G                               | calcar. rocks  | Musc. brit. t.15  |
| 14713   | <i>verticillata</i> Schwagr.<br><i>Grimmia verticillata</i> E. B. t. 1258  | whorled   | tufts   | 2/3 summer  | Bt.G                               | moist rocks  | Musc. brit. t.15  |
| 14714   | <i>acuta</i> Hedw.<br><i>Grimmia acuta</i> E. B. t. 1644   | acute   | tufts   | 1 sum. and aut.   | Ol.G                               | moist rocks  | Musc. brit. t.15  |
| 9225. DICRANUM. Hedw. DICRANUM. Sp. 23—47.        |  |   |   |   |                                    |  |   |
| 14715   | <i>glaucum</i> Hedw.   | glaucous  | broad tufts   | 4 autumn  | W.G                                | moors  | Musc. brit. t.16  |
| 14716   | <i>latifolium</i> Hedw.<br><i>Trichostomum piliferum</i> E. B. 2536  | broad-leaved                                      | subsolitary   | 2/3 spring  | Bt.G                               | moun. banks  | Musc. brit. t.16  |
| 14717   | <i>longifolium</i> Hedw.   | long-leaved                                       | dense tufts   | 3 win. and spr.   | Bt.G                               | wet rocks  | Musc. brit. t.16  |
| 14718   | <i>hexuosum</i> Hedw.  | flexuose  | loose tufts   | 3 win. and spr.   | D.G                                | peat bogs  | Musc. brit. t.16  |
| 14719   | <i>flavescens</i> Smith  | yellowish   | tufts   | 3 win. and spr.   | Y.G                                | river banks  | Musc. brit. t.17  |
| 14720   | <i>squarrosum</i> Schrad.  | squarrose   | large masses  | 3 summer  | Y                                  | wet san. pl.   | Musc. brit. t.17  |
| 14721   | <i>pellucidum</i> Swz.   | pellucid  | tufts   | 1 1/2 spr. and sum.   | D.G                                | wet san. pl.   | Musc. brit. t.17  |
| 14722   | <i>epurium</i> Hedw.   | spurious  | dense masses  | 4 summer  | Bt.G                               | bogs   | Musc. brit. t.17  |
| 14723   | <i>crispum</i> Hedw.   | crisp   | loose patches   | 2/3 all months  | Bt.G                               | moist banks  | Musc. brit. t.17  |
| 14724   | <i>Scottianum</i> Turn.<br><i>Flagellare</i> E. B. t. 1977   | Scott's   | large masses  | 2 1/2 sum. and aut.   | Bt.G                               | mount. rocks   | Musc. brit. t.18  |
| 14725   | <i>polycarpon</i> Ehr.<br><i>Brunfelsia</i> E. B. t. 2509  | prolific  | round tufts   | 2/3 all seasons   | Bt.G                               | rocks  | Musc. brit. t.18  |
| 14726   | <i>undulatum</i> Ehr.  | wave-leaved                                       | tufts   | 2 1/2 summer  | Bt.G                               | woods & roc.   | Musc. brit. t.18  |
| 14727   | <i>scoparium</i> Hedw.<br><i>a majus</i> Hooker<br><i>β fuscescens</i> Turner  | rock<br>large<br>brownish                         | patches<br>patches<br>tufts   | 3 win. and spr.<br>3 win. and spr.<br>2 spring                            | Dp.G<br>Dp.G<br>Brsh               | woods & ban.<br>woods & ban.<br>heathy plac.                               | Musc. brit. t.18<br>Eng. bot. t. 354<br>Eng. bot. t. 1597   |
| 14728   | <i>virium</i> Hedw.<br><i>α viride</i> Hooker<br><i>callistomum</i> Smith Fl. Brit.<br><i>β rufescens</i><br><i>γ luridum</i> Hooker | various<br>green<br>callistomum<br>brown<br>lurid | loose patches<br>loose patches<br>dense tufts<br>large patches<br>loose patches | 2/3 spring<br>2/3 spring<br>2/3 spr. and sum.<br>2/3 spring<br>2/3 spring | D.G<br>D.G<br>Bt.G<br>Bt.G<br>Bt.G | moist banks<br>moist banks<br>crev. of rocks<br>moist banks<br>moist banks | Musc. brit. t.17<br>Eng. bot. t. 1215<br>Eng. bot. t. 1216<br>Grev. cryp. fl. 188<br>Musc. brit. t. 18<br>Musc. brit. t. 18 |
| 14729   | <i>fulvillum</i> Smith   | tawny   | dense tufts   | 2/3 spring  | Bt.G                               | moist banks  | Musc. brit. t.18  |
| 14730   | <i>heteromallum</i> Hedw.  | interrupted                                       | large patches   | 2/3 spring  | Bt.G                               | moist banks  | Musc. brit. t.18  |
| 14731   | <i>subulatum</i> Hedw.   | subulate  | loose patches   | 2/3 spring  | Bt.G                               | moist banks  | Musc. brit. t.18  |
| 14732   | <i>cerviculatum</i> Hedw.<br><i>pustillum</i> E. B. t. 2491<br><i>uncinatum</i> E. B. t. 2261  | hooked  | small spots   | 2/3 spring  | Str                                | bogs   | Musc. brit. t.16  |
| 14733   | <i>virens</i> Hedw.  | green   | tufts   | 1 1/2 all seasons   | Bt.G                               | mount. mar.  | Musc. brit. t.17  |
| 14734   | <i>strumiferum</i> Smith   | thick-necked                                      | tufts   | 1 all seasons   | Bt.G                               | mount. mar.  | Musc. brit. t.17  |
| 14735   | <i>falcatum</i> Hedw.  | falcate   | large patches   | 2 spr. and aut.   | Bt.G                               | alpine rocks   | Hoo. mus. br. t. 17   |
| 14736   | <i>Schreberianum</i> Hedw.   | Schreber's  | tufted  | 1/2 spring  | Bt.G                               | moi. pl., Scot.  | Grev. cryp. fl. 116   |
| 14737   | <i>Starkii</i> Web. & Mohr.  | Starke's  | tufts   | 1 spring  | Bt.G                               | alpine rocks   | Musc. brit. t.17  |
| 9226. TRICHOSTOMUM. Hedw. TRICHOSTOMUM. Sp. 9—18. |  |   |   |   |                                    |  |   |
| 14738   | <i>patesns</i> Schwagr.<br><i>Dicranum patesns</i> E. B. t. 1990<br><i>Tr. obtusum</i> Fl. Brit.                                     | spreading   | deep patches  | 6 all seasons   | Ho                                 | mountains  | Musc. brit. t.19  |
| 14739   | <i>lanuginosum</i> Hedw.   | woolly  | deep tufts  | 4 all seasons   | Ho                                 | stonymount.  | Musc. brit. t.19  |
| 14740   | <i>canescens</i> Hedw.<br><i>T. ericoides</i> E. B. t. 1931  | hoary   | tufted creep.   | 1 1/2 all seasons   | Y.G                                | heaths   | Musc. brit. t.19  |
| 14741   | <i>heterostichum</i> Hedw.   | branched  | broad tufts   | 1 all seasons   | Ho                                 | ston. on mo.   | Musc. brit. t.19  |
| 14742   | <i>microcarpon</i> Hedw.   | small-fruited                                     | deep patches  | 2 all seasons   | Ol                                 | rocks  | Musc. brit. t.19  |



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Christopher Weiss, who published, in 1712, a Dissertation on the pomegranate. These plants are chiefly found in wet places, most frequently in alpine countries; in habit they resemble Gymnostomum.

9225. *Dicranum*. Named by Hedwig, from *δικραιος*, forked, in allusion to the division of the teeth. This is one of the finest genera of mosses, containing many species which form broad masses of turfy vegetation, giving a decided character to the face of the earth where they grow. Like most of the genera of this order,

- 14712 Stems scarcely any, Leaves subulate, Theca ovate, Fruitstalks always erect, Lid rostrate  
 14713 Stems branched, Leaves broadly subulate nearly flat rather flaccid, Theca ovate, Lid rostrate  
 14714 Stems branched, Leaves subulate-setaceous subsecund rigid canaliculate, Theca turbinate, Lid rostrate

\* *Theca without a struma.*

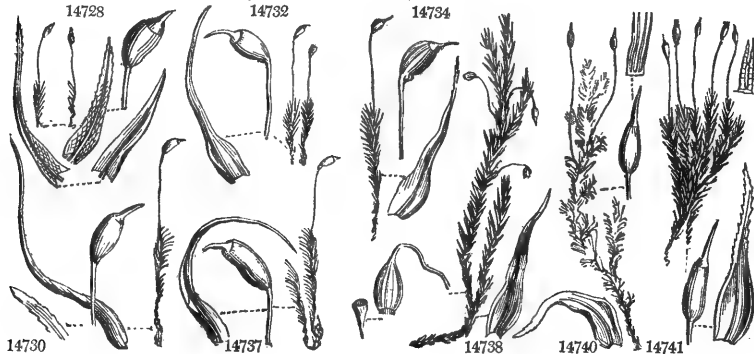
- 14715 Stems branched fastigiate, Lvs. erecto-patent ov. lanc. straight nerveless ent. Theca ov. cern. Lid rostrate  
 14716 Stems short, Leaves oblong concave entire apiculate or piliferous, Theca erect ovato-oblong, Lid rostrate  
 14717 Stems elongat. Lvs. very long subul.-setace. falcato-secund serrul. : nerve very broad, [nearly erect, Lid rostrate  
 14718 Stems nearly simple rigid, Leaves lanceolato-subulate acuminate straight : their nerve very broad, Fruitstalks flexuose, Theca ovate striated, Lid rostrate  
 14719 Stems branched, Lvs. long lanc. serrul. point. in all directions crisp. when dry, Theca obl. erect, Lid rost.  
 14720 Stems somewhat branched, Leaves from a broad sheathing base lanceolate obtuse recurved and patent directed to every side crisped when dry, Theca ovate subcernuous, Lid rostrate  
 14721 Stems branched, Leaves lanceolate : their margins slightly undulated serrated rather obtuse pointing in all directions, Theca ovate subcernuous, Lid rostrate  
 14722 Stems elongated, Leaves fasciculate concave erecto-patent directed to every side ovate : the superior ones lanceolate serrulate, Theca oblong curved, Lid rostrate  
 14723 Stems short, Leaves from a sheathing base setaceous nearly distichous flexuoso-recurved crisped when dry, Theca erect ovate, Lid with a long beak  
 14724 Stems branched, Leaves erecto-patent directed to every side subulate : their margins plane subserrated crisped when dry, Theca ovate cylindraceous nearly erect, Lid with a long beak  
 14725 Stems branched, Lvs. patent directed to every side lanceolate-subulate : their margins recurved flexuose subserrulate crisped when dry, Theca obovate subcernuous, Lid rostrate  
 14726 Stems elongated, Leaves nearly plane lanceolate attenuate serrulate at the points transversely undul. Theca cylindrac. cernuous, Lid with a long beak  
 14727 Stems elongated, Lvs. narr. subul. canalicul. sec. Theca cylindrac. arched cernuous, Lid with a long beak  
     α Leaves falcato secund  
     β Leaves subsecund narrow crisped when dry  
 14728 Stems short, Leaves narrow hastato-lanceolate, Theca ovate, Lid rostrate  
     α Leaves pointing all ways lanceolate green, Theca subcernuous  
     β Leaves subsecund lanceolate subulate reddish, Theca erect  
     γ Leaves subsecund subulate lurid, Theca subcernuous [stalk, Lid short rostrate  
 14729 Stem near. simp. Lvs. very long subul. setae. : nerve obsolete. percurr. Theca obov. erect striat. with a short  
 14730 Stems branched, Leaves subul. falcato-secund nearly ent. Theca ovate subcernuous, Lid with a long beak  
 14731 Stems branch. Lvs. from a broad sheath. base subul. setace. sec. ent. Theca ov. subcern. Lid with long beak

\*\* *Theca with a struma.*

- 14732 Stems short, Lvs. lanc. subul. ent. subsec. : nerve very broad, Theca ovate subcern. strumose, Lid rost.  
     [stems, Theca furrowed oblongo-ovate subcern. strum. Lid rost  
 14733 Stems elongat. Lvs. from a broad sheath. base subul. ent. : marg. plane crisp. when dry pointing in all direc-  
 14734 Stems elongated, Leaves from a broad sheathing base subulate entire : their margins plane crisped when dry pointing in all directions, Theca furrowed oblongo-ovate subcernuose strumose, Lid rostrate  
 14735 Stems nearly simple, Lvs. long lanc.-subul. falcato-secund nearly ent. Theca ov. subcern. strum. Lid rost.  
 14736 Stem erect simple, Lvs. spread. long subul. dilated and amplexic. at base, Theca ov. cernu. strum. Lid rost.  
 14737 Stems somew. branch. Lvs. lanc. subul. falcato-secund entire, Theca oblongo-ov. suberect strum. Lid rost.

- 14738 Stems elongat. Lvs. lanc. acuminate carinated : margins recurv. Theca ovate, Fruitst. curved, Lid conic.

- 14739 Stems elongated subpinnate, Leaves lanceolato-subulate acuminate : their long diaphanous points serrat. ; margins recurved, Theca ovate, Fruitstalk short on lateral branches, Lid rostrate  
 14740 Stems elongated irregularly branched, Leaves ovato-lanceolate : their diaphanous acuminate points slightly serrated, Theca ovate, Teeth of the peristome very long and flif. Lid subulate  
 14741 Stems elongated branched, Leaves ovato-lanceolate : their diaphanous acuminate points slightly serrat. Theca oblong, Teeth of the peristome rather short, Lid rostrate  
 14742 Stems elongated branched, Leaves lanceolate : their diaphanous acuminate points slightly serrated, Theca oblong, Teeth of the peristome rather short, Lid rostrate



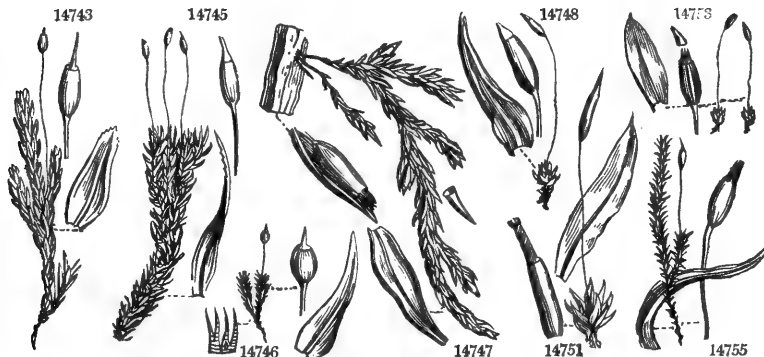
and Miscellaneous Particulars.

there are species included in this which vary considerably from the common appearance of the group. The most distinct of these forms is, however, removed, after the example of the German muscologists, to *Fissidens*; which see.

2223. *Trichostomum*. From *ἄειστος*, hair, and *στόμα*, a mouth; the divisions of the mouth of the theca being very fine. The species are for the most part dark green mountain plants, with hair-pointed leaves,



|       |   |                |               |    |               |       |                 |                   |
|-------|---|----------------|---------------|----|---------------|-------|-----------------|-------------------|
| 14743 | <i>aciculáre Beauv.</i>                       | needle-pointed | loose tufts   | 1½ | summer        | O.L.G | wet rocks       | Musc. brit. t.19  |
|       | <i>Dicranum aciculáre</i> E. B. t. 1978       |                |               |    |               |       |                 |                   |
| 14744 | <i>fasciculáre Schrad.</i>                    | bundled        | broad patches | 2  | all seasons   | Y.G   | moun. rocks     | Musc. brit. t.19  |
| 14745 | <i>polyphýllum Schweg.</i>                    | many-leaved    | round tufts   | ¾  | summer        | Bt.G  | moun. rocks     | Musc. brit. t.19  |
|       | <i>Dicranum polyphýllum</i> E. B. t. 1217     |                |               |    |               |       |                 |                   |
|       | <i>Tr. cirratum</i> Fl. Brit.                 |                |               |    |               |       |                 |                   |
| 14746 | <i>ellipticum Hook.</i>                       | elliptical     | little tufts  | ¾  | spr. and sum. | Bt.G  | moun. rocks     | Musc. brit. t.19  |
|       | <i>Dicranum ellipticum</i> E. B. t. 1901      |                |               |    |               |       |                 |                   |
| 2227. | <b>CINCLIDOTUS.</b>                           |                |               |    |               |       |                 |                   |
| 14747 | <i>fontinaloides Beauv.</i>                   | water          | floating      | 5  | summer        | D.Ol  | in streams      | Musc. brit. t. 11 |
|       | <i>Fontinalis minor</i> E. B. t. 557          |                |               |    |               |       |                 |                   |
| 2228. | <b>TORTULA.</b>                               |                |               |    |               |       |                 |                   |
| 14748 | <i>rigida Swz.</i>                            | rigid          | small patches | ¾  | all seasons   | D.G   | rocks & walls   | Musc. brit. t.12  |
| 14749 | <i>murális Hedw.</i>                          | wall           | tufts         | 1  | all seasons   | D.G   | everywhere      | Musc. brit. t.12  |
| 14750 | <i>ruarális Ehr.</i>                          | country        | deep patches  | 2  | all seasons   | D.G   | trees & ban.    | Musc. brit. t.12  |
| 14751 | <i>subuláta Hedw.</i>                         | subulate       | thick tufts   | 1½ | all seasons   | Y.G   | banks           | Musc. brit. t.12  |
| 14752 | <i>cuneifolia Roth.</i>                       | wedge-leaved   | solitary      | ½  | spring        | Y.G   | banks           | Musc. brit. t.12  |
| 14753 | <i>stelláta Smith.</i>                        | stellate       | solitary      | ½  | spring        | Y.G   | riv. sides, Sc. | Musc. brit. t.12  |
| 14754 | <i>tortuósa Hedw.</i>                         | tortuous       | broad masses  | 1½ | spr. and sum. | L.G   | limest. rocks   | Musc. brit. t.12  |
| 14755 | <i>fállax Swz.</i>                            | deceitful      | tufts         | 1½ | all seasons   | L.G   | everywhere      | Musc. brit. t.12  |
|       | <i>T. unguiculáta</i> E. B. t. 2316           |                |               |    |               |       |                 |                   |
|       | <i>T. imberbis</i> E. B. t. 2329              |                |               |    |               |       |                 |                   |
| 14756 | <i>revolúta Brid.</i>                         | revolute       | tufts         | ½  | spring        | L.G   | banks           | Musc. brit. t.12  |
|       | <i>T. nervósa</i> E. B. t. 2383               |                |               |    |               |       |                 |                   |
| 14757 | <i>unguiculáta Hooker</i>                     | unguiculate    | tufts         | ½  | spring        | Dp.G  | ban. & hedg.    | Musc. brit. t.12  |
|       | <i>T. mucronuláta</i> E. B. t. 1299           |                |               |    |               |       |                 |                   |
|       | <i>T. aristáta</i> E. B. t. 2392              |                |               |    |               |       |                 |                   |
|       | <i>T. barbáta</i> E. B. t. 2391               |                |               |    |               |       |                 |                   |
|       | <i>T. húmílis</i> E. B. t. 1663               |                |               |    |               |       |                 |                   |
|       | <i>T. apiculáta</i> E. B. t. 2494             |                |               |    |               |       |                 |                   |
| 14758 | <i>convolúta Swz.</i>                         | convolute      | loose patches | ¾  | spring        | Y.G   | moist banks     | Musc. brit. t.12  |
| 2229. | <b>PTEROGONIUM.</b>                           |                |               |    |               |       |                 |                   |
| 14759 | <i>Smith'ii Swz.</i>                          | Smith's        | creeping      | 3  | all seasons   | Bt.G  | trees, S. Eng.  | Musc. brit. t.14  |
| 14760 | <i>gráclie Swz.</i>                           | slender        | creeping      | 1½ | all seasons   | Bt.G  | subalp. rocks   | Musc. brit. t.14  |
| 14761 | <i>filifórme Hedw.</i>                        | filiform       | creeping      | 1½ | all seasons   | Bt.G  | mountains       | Musc. brit. t.14  |
|       | <i>P. cespitosum</i> E. B. t. 2526            |                |               |    |               |       |                 |                   |
| 2230. | <b>DIDYMODON.</b>                             |                |               |    |               |       |                 |                   |
| 14762 | <i>purpúreum Hedw.</i>                        | purple         | large patches | ½  | all seasons   | Rsh   | moist rocks     | Musc. brit. t.20  |
|       | <i>Brigam bipartitum</i> E. B. t. 2357        |                |               |    |               |       |                 |                   |
|       | <i>Dicranum strictum</i> E. B. t. 2294        |                |               |    |               |       |                 |                   |
|       | <i>Dicranum Cel'sii</i> E. B. t. 2414         |                |               |    |               |       |                 |                   |
|       | <i>Trichostomum papillosum</i> E. B. t. 2533  |                |               |    |               |       |                 |                   |
| 14763 | <i>inclinátum Swz.</i>                        | inclining      | spots         | ¾  | spring        | L.G   | moun. rocks     | Musc. brit. t.20  |
|       | <i>Grimmia inclináta</i> E. B. t. 1824        |                |               |    |               |       |                 |                   |
| 14764 | <i>nervósum Hook.</i>                         | nerved         | loose patches | ½  | spring        | Dp.G  | dry banks       | Musc. brit. t.20  |
|       | <i>Grimmia atrovirens</i> E. B. t. 2015       |                |               |    |               |       |                 |                   |
| 14765 | <i>flexifólium Hook.</i>                      | bent-leaved    | loose tufts   | ¾  | spr. and sum. | Bt.G  | banks           | Musc. brit. t.20  |
|       | <i>Trichostomum flexifólium</i> E. B. t. 2490 |                |               |    |               |       |                 |                   |
| 14766 | <i>rigidulum Hedw.</i>                        | rigid          | tufts         | ¾  | spr. and sum. | Br    | walls & roc.    | Musc. brit. t.20  |
|       | <i>Trichostomum rigidulum</i> E. B. t. 2178   |                |               |    |               |       |                 |                   |
| 14767 | <i>trifríurium Swz.</i>                       | three-rowed    | tufted        | ¾  | spr. and sum. | Bt.G  | moist banks     | Musc. brit. t.20  |
|       | <i>Trichostomum trifríurium</i> E. B. t. 1707 |                |               |    |               |       |                 |                   |
|       | <i>Trichostomum tinoides</i> E. B. t. 2295    |                |               |    |               |       |                 |                   |



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which give them the appearance of being hoary. The genus is nearly related to Grimmia both in natural and essential characters.

2227. *Cinclidotus*. So called from *κινκλιδωτες*, grated, in allusion to the peculiar netted manner in which the ciliae of the peristome are united in parcels. A plant from four to six inches long, growing on stones and wood in streams of water, in many places exceedingly common. Its general appearance is that of *Trichostomum*, whilst the peristome more resembles that of a *Tortula*.

2228. *Tortula*. From *torqueo*, to twist, in allusion to the singular manner in which the teeth of the peristome are twisted together. Small plants, frequently forming thick tufts, and common in almost all situations from

14743 Stems elongat. branch. Lvs. lanc. obt. serrulat. at points : nerve vanish. before summ. Theca obl. Lid rost.

14744 Stems elongat. branch. Lvs. lanc. ent. : summ. never diaphan. ; margins recurv. Theca ovato-obl. Lid rost.

14745 Stems branch. Lvs. lanc.-subul. : marg. recurv.serrat.above very much crisp. when dry, Theca obl. Lid rost.

14746 Stems short nearly simple, Lvs. lanc. acum. straight : nerve broad ; margins plane, Theca ellipt. Lid rost.

14747 The only species

14748 Stems scarcely any, Lvs. patent obl. rigid : marg. much inflex. Nerve broad, Theca obl. Lid conic. acum.

14749 Stems short, Leaves patent linear-oblong : their margins recurved, Nerve produced beyond the leaf into

a white hair-like point, Theca oblong, Lid conical acuminate

14750 Stems elongated, Leaves oblong carinated patent and recurved, Nerve terminating in a long generally

diaphanous serrated point, Theca oblong, Lid subulate, Teeth of the peristome united below in a tube

14751 Stems very short, Leaves oblongo-lanceolate acuminate : the nerve excurrent often forming an apiculus,

Theca cylindrical, Lid conico-subul. Teeth of the peristome united nearly to the apex into a long tube

14752 Stems scarcely any, Lvs. broadly obov. conc. Nerve terminating beyond top of leaf in a rather long and

frequently serrulated point, Theca oblong, Lid shortly rost. Teeth of the peristome united at the base

14753 Stems scarcely any, Leaves ovate concave, Nerve running beyond points, Theca ovate striated, Lid rost

14754 Stems elongat. branch. Lvs. lin.-subul. carinate undulate much twisted when dry, Theca cylind. Lid rost.

14755 Stems elongat. branch. Lvs. lanc. subul. pat. or recurv. : marg. refl. Theca obl. Lid rost. nearly as long as theca

14756 Stems short, Leaves lanceolate acum. : the margins of those of the stem remarkably revolute ; perichætal

leaves sheathing, their sides involute, Theca oblong, Lid rostrate shorter than the theca

14757 Stems branched, Leaves linear-lanceolate obtuse : their nerve produced into an apiculus ; the marg. nearly

plane, Theca oblong, Lid rostrate nearly as long as the theca

14758 Stems short, Lvs. obl. rather obt. : nerve not protruded ; perichæt. remarkably convol. Theca obl. Lid rost.

[above half-way up, Fruitstalks very short, Lid rostrate

14759 Stems much branch. Branches pinn. Lvs. lingul. obt. ent. crisp. when dry : marg. recurv. ; nerve reaching

14760 Branches fascioled curved, Leaves broadly ovate acute concave : their margins plane ; summits serrated,

faintly 2-nerved at the base, Lid conical

14761 Stems irregularly branched curved, Leaves ovate subacuminated concave : their margins recurv. serrated ;

nerve single or forked : shoots faint, Lid conical

14762 Stems scarcely branched, Leaves lanceolate acuminate carinate : their margins recurved entire, Theca

ovato-cylindraceous oblique subtrunose furrowed when dry, Lid conical

14763 Leaves bifarious from a sheathing base subulate, Theca ovate inclined, Lid conical

14764 Leaves obovate shortly apiculate : their nerve incrassated above, Theca ovate erect, Lid shortly rostrate

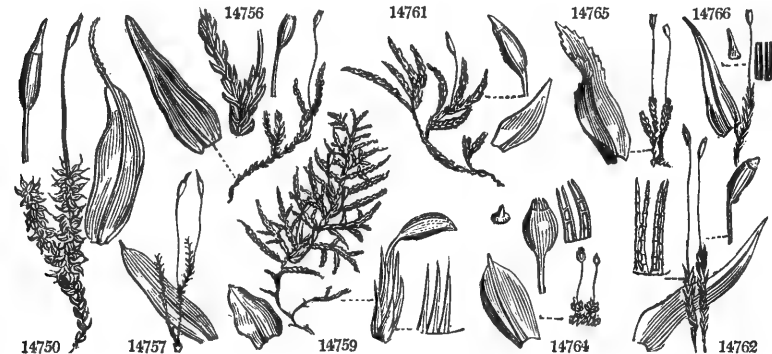
14765 Stems more or less elongat. Lvs. oblon.-ov. flexu. strongly serrat. at point, Theca erect cylindrac. Lid rost.

14766 Leaves closely imbricated on all sides lanceolate much acum. carinate with the rigid nerve running

beyond the point, Theca oblongo-ovate erect, Lid rostrate

14767 Leaves rather distant somewhat trifarious lanc. rather obtuse carinated with the nerve scarcely reaching

to the point, Theca oblongo-ovate erect, Lid rostrate



and Miscellaneous Particulars.

the banks of the sea-shore to the limits of perpetual snow. The character from which the genus has received

its designation, will always indicate the species with perfect truth.

2229. *Pterogonium*. A name altered by Swartz from the *Pterigynandrum* of Hedwig, which was contrived

to express that the male and female flowers of this genus of mosses are both present on a pinnated stem. An

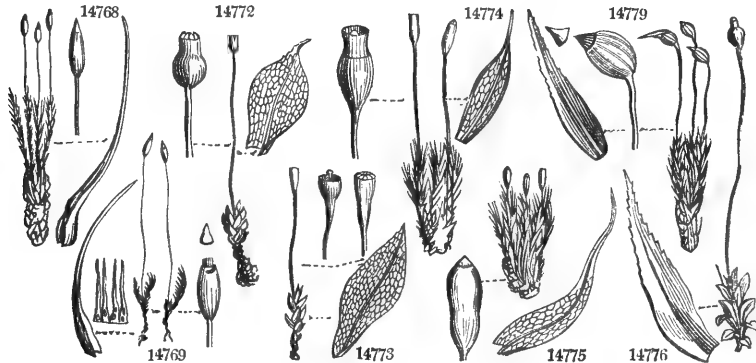
elegant collection of species, generally found in subalpine countries, where they enliven the trunks of trees and

rocks with their bright green trailing entangled stems, which have altogether the habit of *Hypnum*. P.

Smithii has only been found in this country upon trees in the southern counties, especially in Devonshire.

2230. *Didymodon*. So called, by Hedwig, from *didymos*, double, and *odus*, a tooth, in reference to the geminate

|   |   |                 |                |    |               |                     |                   |
|---|---|-----------------|----------------|----|---------------|---------------------|-------------------|
| 14768   | <i>capillaceum</i> Schrad.                    | hairy           | dense tufts    | 4  | all seasons   | Bt.G moun. banks    | Musc. brit. t. 20 |
|   | <i>Trichostomum capillaceum</i> E. B. t. 1152 |                 |                |    |               |                     |                   |
| 14769   | <i>heteromallum</i> Hook.                     | variable        | patches        | ½  | spring        | Y.G mountains       | Musc. brit. t. 20 |
|   | <i>Grimmia heteromalla</i> E. B. t. 1899      |                 |                |    |               |                     |                   |
| 14770   | <i>obscurum</i> Kaulf.                        | obscure         | broad tufts    | 1  | spr. and sum. | L.G alpine rocks    | Gre.v. crypt. 193 |
| 14771   | <i>glaucescens</i> Greville                   | glaucous        | closely tufted | 1  | sum. and win. | Gl Scot. moun.      | Gre.v. crypt. 127 |
| 2231. SPLACHNUM. L. SPLACHNUM. <i>Sp. 7—19.</i>           |   |                 |                |    |               |                     |                   |
| 14772   | <i>sphaericum</i> Linn.                       | spherical       | solitary       | 2  | summer        | Pa.G dung. of ani.  | Musc. brit. t. 9  |
|   | <i>ovatum</i> E. B. t. 1590                   |                 |                |    |               |                     |                   |
|   | <i>rugosum</i> E. B. t. 2094                  |                 |                |    |               |                     |                   |
| 14773   | <i>tenue</i> Dicks.                           | slender         | subsolitary    | 1½ | summer        | Pa.G Scot. moun.    | Musc. brit. t. 9  |
|   | <i>Grimmia splachnoides</i> Fl. Brit.         |                 |                |    |               |                     |                   |
| 14774   | <i>mnioides</i> Linn.                         | clustered       | tufts          | 2  | all seasons   | Bt.G mountains      | Musc. brit. t. 9  |
|   | <i>minus</i> Hooker                           | small           | tufts          | 1½ | all seasons   | D.G mountains       | He.sti.cry.2 t.11 |
|   | <i>β majus</i> Hooker                         | large           | tufts          | 2  | all seasons   | Pa.G mountains      | He.sti.cry.2 t.38 |
|   | <i>fastigiatum</i> E. B. t. 785               |                 |                |    |               |                     |                   |
| 14775   | <i>angustatum</i> Linn.                       | narrowed        | tufts          | ½  | spring        | Pa.G cow-dung       | Musc. brit. t. 9  |
| 14776   | <i>ampullaceum</i> Linn.                      | bottle-headed   | solitary       | 3  | sum. and aut. | Pa.G bog            | Musc. brit. t. 9  |
|   | <i>Turneri</i> E. B. t. 1116                  |                 |                |    |               |                     |                   |
| 14777   | <i>vasculosum</i> Hedw.                       | vascular        | tufts          | 2  | spring        | Pa.G mountains      | Gre.v. crypt. t.1 |
|   | <i>rugosum</i> E. B. t. 2094?                 |                 |                |    |               |                     |                   |
| 14778   | <i>Frölichianum</i> Hedw.                     | Frölich's       | little tufts   | 1½ | summer        | Pa.G mountains      | Musc. brit. t. 9  |
|   | <i>reticulatum</i> E. B. t. 2507              |                 |                |    |               |                     |                   |
| 2232. CONOSTOMUM. Swz. CONOSTOMUM. <i>Sp. 1—4.</i>        |   |                 |                |    |               |                     |                   |
| 14779   | <i>boreale</i> Swz.                           | northern        | small tufts    | 1  | summer        | Bt.G moun., Scot.   | Musc. brit. t. 10 |
|   | <i>Grimmia conostoma</i> E. B. t. 1135        |                 |                |    |               |                     |                   |
| 2233. ORTHOTRICHUM. Hedw. ORTHOTRICHUM. <i>Sp. 13—49.</i> |   |                 |                |    |               |                     |                   |
| 14780   | <i>Drummondii</i> Hooker                      | Drummond's      | creeping       | 1½ | summer        | Drk trun. of trees  | Gre.v. crypt. 11½ |
| 14781   | <i>anomalum</i> Hedw.                         | anomalous       | broad tufts    | ¾  | all seasons   | D.Ol rocks & walls  | Musc. brit. t. 21 |
| 14782   | <i>cupulatum</i> Hoffm.                       | naked           | tufted         | 1  | all seasons   | D.Ol wo. & stones   | Musc. brit. t. 21 |
|   | <i>nudum</i> E. B. t. 1325                    |                 |                |    |               |                     |                   |
|   | <i>anomalum</i> E. B. t. 1423                 |                 |                |    |               |                     |                   |
| 14783   | <i>crispum</i> Hedw.                          | crisp           | round tufts    | 1  | summer        | Bt.G trees & ston.  | Musc. brit. t. 21 |
| 14784   | <i>Ludwigii</i> Bridel                        | Ludwig's        | creep., branc. | 3  | sum. and aut. | Pa.G smth. branc.   | Gre.v. crypt. 133 |
| 14785   | <i>rupicola</i> Funck                         | rock            | branched, lax  | 1  | may to july   | Br rocks & walls    | Gre.v. crypt. 105 |
| 14786   | <i>Hutchinsiae</i> Smith                      | Miss Hutchins's | tufts          | 1  | spring        | Br.G rocks          | Musc. brit. t. 21 |
| 14787   | <i>affine</i> Schrad.                         | akin            | tufts          | 1½ | spring        | Pa.G trun. of trees | Musc. brit. t. 21 |
|   | <i>α majus</i> Hook.                          | large           | tufts          | 1½ | spring        | Pa.G trun. of trees | Eng. bot. t. 2168 |
|   | <i>β patulum</i> E. B.                        | dwarf           | tufts          | ½  | spring        | Pa.G trun. of trees | Eng. bot. t. 2168 |
| 14788   | <i>diaphanum</i> Schrad.                      | transparent     | tufts          | ½  | spr. and sum. | Hoa trees & walls   | Musc. brit. t. 21 |
|   | <i>aristatum</i> Turn. hib. t. 9. f. 2        |                 |                |    |               |                     |                   |
| 14789   | <i>pulchellum</i> Smith                       | pretty          | tufts          | ½  | all seasons   | L.G trun. of trees  | Musc. brit. t. 21 |
| 14790   | <i>rivulare</i> Turn.                         | rivulet         | floating       | 2  | all seasons   | Ol.G roc. in strea. | Musc. brit. t. 21 |
| 14791   | <i>striatum</i> Hedw.                         | striated        | tufts          | 2  | all seasons   | Bt.G trees          | Musc. brit. t. 21 |
| 14792   | <i>Lyellii</i> Hook.                          | Lyell's         | branched       | 3  | all seasons   | Y.G trees           | Musc. brit. t. 22 |



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arrangement of the teeth of the theca. In natural habit, the plants of this genus approach on the one hand to *Weissia*, and on the other to *Dicranum*. With the former, Dr. Hooker observes that two species are liable to be confounded, viz. *Didymodon inclinatum*, and *D. heteromallum*, each of which has but sixteen teeth, and their approximation in pairs is with difficulty discoverable. *D. inclinatum* is a very rare plant, having been scarcely found any where in this country, except upon the mountains of *Cunnamara*, in Ireland.

2231. *Splachnum*. *Σπλαγχνον* was one of the Greek names of moss. Generally elegant little plants, with theca of exquisitely beautiful forms. The annual species are usually found growing upon dung, while the perennial are found in more permanent situations. They are in all cases of rare occurrence. *S. Frölichianum* was found on the summit of *Ben High*, in the *Scotch Highlands*.

2232. *Conostomum*. From *κωνος*, a cone, and *στομα*, a mouth, the teeth of the theca being always united at

- 14768 Stems elongated, Leaves nearly distichous subulato-setaceous, Theca erect ovato-cylindrace. Lid conical  
 14769 Stems rather short, Leaves subsecund subulate, Theca ovate cylindraceous, Lid conical  
 14770 Leaves lanceolate subulate tortuose when dry, Nerve strong, Theca suberect ovate, Lid obliquely rostrate  
 14771 Stem branched erect, Leaves lanc. acum. spreading, Nerve reaching apex, Theca oblong with a short lid  
 14772 Leaves obovato-rotundate acuminate slightly serrated, Apophysis ovate globose wider than the theca  
 14773 Leaves obovato-acuminate serrated, Apophysis obconical narrower than the theca, Columella exerted  
 14774 Leaves ovato-lanceolate much acuminat. concave entire, Apophysis obovate nearly as narrow as the theca  
      $\alpha$  Deeper color with shorter stems  
      $\beta$  Paler color with longer stems  
 14775 Lvs. ovato-lanc. much acuminat. serrat. Apophy. obov. somew. narrow. than theca, Fruit. scarcely longer  
 14776 Leaves ovato-lanceolate acuminated serrated, Apophysis inversely flagon-shaped twice as wide as theca [than the leaves  
 14777 Lvs. rhombo-rotund. obt. : the nerve disappearing before point, Apophysis globose much wider than theca  
 14778 Lvs. ov. rounded at points : nerve disappear. before summ. Apophysis obovate much narrower than theca  
 14779 Stems rather short, Leaves lanceolate acuminated carinated slightly toothed

\* *Peristome without ciliary processes.*

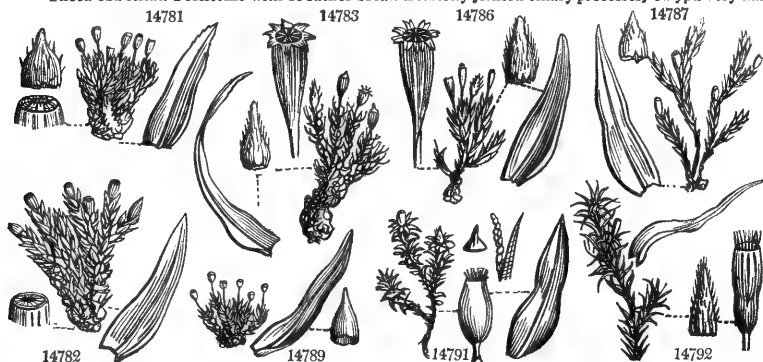
- 14780 Lvs. obl. lanc. slightly curl. Theca clav. furrow. Lid with a long beak. Teeth 16 simple, Calyptra very hairy  
 14781 Leaves lanceolate erecto-patent, Fruitstalks exerted, Peristome of 8 double teeth, Calyptra slightly pilose  
 14782 Leaves lanc. erecto-patent, Theca nearly sessile, Peristome of 16 double teeth, Calyptra slightly pilose

\*\* *Peristome with 8 ciliary processes.*

- 14783 Leaves lanceolato-subulate much crisped when dry, Fruitstalk much exerted, Theca striated, Peristome with 8 ciliary processes, Calyptra very pilose  
 14784 Leaves erect spreading narrow-lanceolate crisp when dry, Theca pyriform smooth plaited and contracted at orifice, Calyptra very hairy  
 14785 Lvs. erect rigid broad-lanc. Theca somew. immersed striat. toward mouth, Teeth 16, Calyptra very hairy  
 14786 Leaves lanceolate erect and nearly straight when dry, Fruitstalks much exerted, Theca striated, Perist. with 8 ciliary processes, Calyptra very pilose  
 14787 Leaves patent broadly lanceolate, Theca sessile, Peristome with 8 ciliary processes, Calyptra subpilose

\*\*\* *Peristome with 16 ciliary processes.*

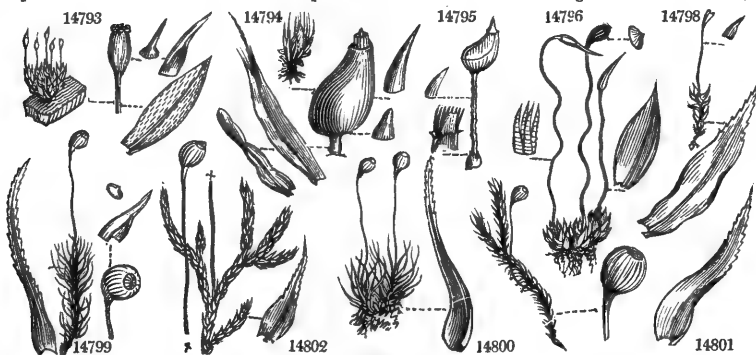
- 14788 Stems short, Lvs. lanc. acum. : points diaphan. Theca sess. Perist. with 16 ciliary process. Calypt. subpilose  
 14789 Stems short, Lvs. pat. narr. lanc. crisp when dry, Footst. exerted, Perist. with 16 slender ciliary processes, Calyptra subpilose  
 14790 Stems elongated much branched, Leaves broadly lanceolate obtuse, Theca sessile, Peristome with 16 slender ciliary processes, Calyptra smooth  
 14791 Stems elongated branched, Leaves lanceolate-patent slightly twisted when dry, Theca sess. ovate smooth, Peristome with 16 torulose ciliary processes, Calyptra subpilose  
 14792 Stems elongated much branched, Leaves long linear lanceolate recurvo-patent much crisped when dry, Theca obl. striat. Peristome with 16 rather broad distinctly jointed ciliary processes, Calypt. very hairy



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the points. A curious genus, first established by Swartz, in Schrader's Journal. The British species approaches in habit to *Bartramia fontana*. It is quite an alpine plant, not growing in Switzerland at a lower elevation than 7 or 8000 feet. With us it inhabits the summits of the highest Scotch mountains, particularly in the Breadalbane district.  
 2233. *Orthotrichum*. From *ae3ae*, straight, and *Se4e r4yxos*, hair, on account of the straight, not twisted direction of the teeth of the peristome. No genus can be more natural than this, notwithstanding some variations in the peristome of some of the species from the ordinary structure. Thus *O. decipiens* and *anomalum* have no ciliary processes; and *O. striatum* has them of a peculiar shape and beaded appearance. Many of the plants referred to this genus are common occupants of the aged trunks of trees, where they vegetate among the soft earth which collects in the clefts of the dead bark. *O. Lyellii*, which is the finest of our species, is only found on trees in the New Forest.

|                                 |  |               |                             |                             |                |                   |                             |
|---------------------------------|--|---------------|-----------------------------|-----------------------------|----------------|-------------------|-----------------------------|
| 2234. ZYGODON. <i>Hook.</i>     | ZYGODON.                               |               | Sp. 1.                      |                             |                |                   |                             |
| 14793 conoideum <i>Hooker</i>   | conical                                | small tufts   | $\frac{1}{2}$ spring        | Pa. G                       | trun. of trees | Musc. brit. t. 21 |                             |
|                                 | <i>Mnium conoideum</i> E. B. t. 1239   |               |                             |                             |                |                   |                             |
| 2235. DIPHYSCIUM. <i>Mohr.</i>  | DIPHYSCIUM.                            |               | Sp. 1.                      |                             |                |                   |                             |
| 14794 foliosum <i>Mohr.</i>     | leafy                                  | matt. patches | $\frac{1}{2}$ spring        | D. G                        | woods          | Musc. brit. t. 8  |                             |
|                                 | <i>Buxbaumia foliosa</i> E. B. t. 329  |               |                             |                             |                |                   |                             |
| 2236. BUXBAUMIA. <i>L.</i>      | BUXBAUMIA.                             |               | Sp. 1.                      |                             |                |                   |                             |
| 14795 aphylla <i>L.</i>         | leafless                               | solitary      | 1 summer                    | Br                          | Fir-woods      | Musc. brit. t. 22 |                             |
| 2237. FUNARIA. <i>Hedw.</i>     | FUNARIA.                               |               | Sp. 3.                      |                             |                |                   |                             |
| 14796 hygrometrica <i>Hedw.</i> | Hygrometrical                          | tufts         | $\frac{1}{2}$ winter        | Pa. G                       | everywhere     | Musc. brit. t. 20 |                             |
| 14797 Mühlenbergii <i>Turn.</i> | Mühlenberg's                           | tufts         | $\frac{1}{2}$ spring        | Pa. G                       | rocks          | Musc. brit. t. 20 |                             |
| 14798 hibernica <i>Hook.</i>    | Irish                                  | tufts         | $\frac{1}{2}$ spring        | Pa. G                       | cottage roofs  | Musc. brit. t. 20 |                             |
| 2238. BARTRAMIA. <i>Hedw.</i>   | BARTRAMIA.                             |               | Sp. 6—11.                   |                             |                |                   |                             |
| 14799 pomiformis <i>Hedw.</i>   | apple-fruited                          | tufts         | 2 summer                    | Bt. G                       | heaths         | Musc. brit. t. 23 |                             |
|                                 | <i>minor</i> <i>Hooker</i>             | small         | tufts                       | 1 $\frac{1}{2}$ summer      | Bt. G          | heaths            | Eng. bot. 998               |
|                                 | $\beta$ major <i>Hooker</i>            | large         | tufts                       | 2 summer                    | Bt. G          | alp. heaths       | E. b. 1526. <i>B. cris.</i> |
| 14800 ithyphylla <i>Brid.</i>   | stiff-leaved                           | tufts         | 1 summer                    | Bt. G                       | dry banks      | Musc. brit. t. 23 |                             |
| 14801 gracilis <i>Flerke</i>    | slender                                | deep patches  | 3 summer                    | Dp. G                       | alpine rocks   | Musc. brit. t. 23 |                             |
| 14802 fontana <i>Swz.</i>       | fountain                               | thin tufts    | 3 summer                    | Bt. G                       | wet places     | Musc. brit. t. 23 |                             |
|                                 | $\alpha$ major <i>Hooker</i>           | large         | thin tufts                  | 6 summer                    | Bt. G          | wet places        | Dill. mus. t. 44. f. 2      |
|                                 | <i>Bryum fontanum</i> E. B. t. 390     |               |                             |                             |                |                   |                             |
|                                 | $\beta$ marchica <i>Swz.</i>           | dwarf         | tufts                       | 1 summer                    | Bt. G          | wet places        | Eng. bot. t. 2074           |
| 14803 Halleriána <i>Hedw.</i>   | Haller's                               | deep patches  | 6 sum. and aut.             | Bt. G                       | moun. rocks    | Musc. brit. t. 23 |                             |
| 14804 arcuata <i>Brid.</i>      | arcuate                                | loose tufts   | 4 sum. and aut.             | Bt. G                       | mountains      | Musc. brit. t. 23 |                             |
| 2239. POHLIA. <i>Hedw.</i>      | POHLIA.                                |               | Sp. 4—13.                   |                             |                |                   |                             |
| 14805 inclinata <i>Schwagr.</i> | inclined                               | thin tufts    | 2 summer                    | Pa. G                       | wet sandy pl.  | Musc. brit. t. 29 |                             |
|                                 | <i>Bryum turbidatum</i> E. B. 1572     |               |                             |                             |                |                   |                             |
|                                 | <i>Bryum nigricans</i> E. B. 1528      |               |                             |                             |                |                   |                             |
| 14806 elongata <i>Hedw.</i>     | long                                   | subsultory    | 1 $\frac{1}{2}$ summer      | Bt. G                       | mountains      | Musc. brit. t. 30 |                             |
|                                 | <i>Bryum elongatum</i> E. B. t. 1663   |               |                             |                             |                |                   |                             |
| 14807 caespitica <i>Schw.</i>   | tufted                                 | patches       | 1 $\frac{1}{2}$ all seasons | Bt. G                       | everywhere     | Musc. brit. t. 29 |                             |
|                                 | $\alpha$ major <i>Hooker</i>           | large         | patches                     | 1 $\frac{1}{2}$ all seasons | Bt. G          | everywhere        | Eng. bot. t. 1904           |
|                                 | $\beta$ minor <i>Hooker</i>            | small         | patches                     | 1 all seasons               | Bt. G          | everywhere        | Eng. bot. t. 1601           |
|                                 | <i>Br. bicolor</i> Eng. Bot.           |               |                             |                             |                |                   |                             |
| 14808 ventricosa <i>Schw.</i>   | ventricose                             | deep tufts    | 4 spr. and sum.             | Br                          | mar. ground    | Musc. brit. t. 30 |                             |
|                                 | <i>Bryum ventricosum</i> E. B. t. 2270 |               |                             |                             |                |                   |                             |
|                                 | <i>Bryum bimum</i> E. B. t. 1518       |               |                             |                             |                |                   |                             |
|                                 | <i>Bryum cubitale</i> E. B. t. 2554    |               |                             |                             |                |                   |                             |
| 2240. BRYUM. <i>Hedw.</i>       | BRYUM.                                 |               | Sp. 22—43.                  |                             |                |                   |                             |
| 14809 androgynum <i>Hedw.</i>   | androgynous                            | patches       | 1 spring                    | Y. G                        | wo. and ban.   | Musc. brit. t. 28 |                             |
|                                 | <i>Mnium androgynum</i> E. B. t. 1238  |               |                             |                             |                |                   |                             |
| 14810 palustre <i>Swartz.</i>   | marsh                                  | deep tufts    | 4 sum. and aut.             | Pa. G                       | bogs           | Musc. brit. t. 28 |                             |



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2234. *Zygodon*. From *zygos*, a yoke, and *odus*, a tooth, and so called, we presume, in allusion to the yoking together by pairs of the outer teeth; but the name is unexplained by its authors. A singular plant, which was referred to *Bryum* by Dickinson, and to *Mnium* by Smith. The stems grow in a tufted manner like *Gymnostomum viridissimum*, but rarely exceed half an inch in length. The peristome is double; the outer consisting of sixteen short obtuse teeth approaching in pairs, which at length become recurved; inner of as many alternate cilia lying horizontally over the mouth of the theca.

2235. *Diphyscium*. From *dis*, twice, and *phoxion*, a vesicle, in allusion to the double nature of the shell of the theca. A little plant found in woods, and on rocks in alpine situations. The stems are exceedingly short, and grow in densely matted patches. The theca is large, ovate, gibbous, and oblique. Dr. Hooker denies the existence of a double peristome, while Hornschuch asserts its presence.

2236. *Buxbaumia*. A very singular plant, destitute of apparent leaves, and resembling a minute fungus rather than a moss. It was named in honor of John Christian Buxbaum, a German botanist, who published, in 1728, an account of the plants of Asia Minor in five centurie figures of little merit. This plant was originally discovered in the vicinity of Astrachan, afterwards in a fir-wood near Norwich, and lately in two stations in Scotland. Its minute size and want of foliage may have caused it to be overlooked.

2237. *Funaria*. From *funis*, a rope, in allusion to the twisted nature of the strongly hygrometrical fruit-stalk. This genus, though sufficiently characterized by the interior teeth or cilia being oblique and placed

14793 The only species

14794 The only species

14795 The only species

14796 Leaves very concave ovate apiculate entire, Nerve excurrent, Fruitstalk curved flexuose  
 14797 Stems short, Lvs. conc. ov. suddenly acuminat. serrat. : the nerve disappear. below point, Fruitst. straight  
 14798 Stems elongat. Lvs. plane ov.-lanc. gradually acuminat. serrat. Nerve disappear. bel. point, Fruitst. straight

\* Fruitstalks long, not curved.

14799 Leaves patent subulate strongly serrated : the nerve reaching to the summit twisted when dry  
 α Leaves flexuose  
 β Leaves crisp [into the substance of the leaf straight when dry, Fruitstalks much elongated  
 14800 Stems short, Leaves rigid erecto-patent subulate-setaceous almost entire : the nerve half-way up passing  
 14801 Stems elongated, Leaves recurvo-patent lanc. canaliculate serrat. Fruitstalks lateral from innovations  
 14802 Stems fastig. Lvs. closely imbricat. rig. erect broadly ovate or lanc. acuminat. nearly plane serr. Fruitst. lat.  
 α Leaves broad ovate acuminate [from innovations

\*\* Fruitstalks very short, curved.

14803 Stems much elongat. prolifer. Lvs. long subul. flexu. serrat. above, Fruitst. lat. from innov. very short curv.  
 14804 Stems much elongated proliferous, Leaves horizontally patent ovato-lanceol. acuminate serrat. striated,  
 Fruitstalks very short arcuate at length lateral, Theca smooth

14805 Stems short branched with innovations, Leaves ovate acuminate nearly entire : the margins slightly recurved ; the nerve running beyond the points, Theca elong-pyrif. pendulous

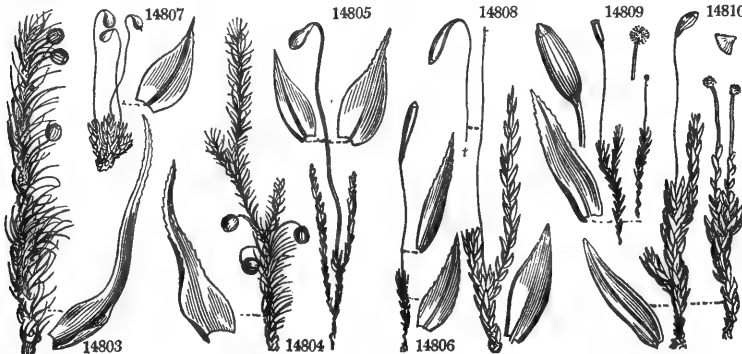
14806 Stems short, Lvs. erect elong.-lanc. acuminat. serrat. Nerve reaching to point, Theca elongato-elev. inclined  
 14807 Stems short, Leaves ovate acuminate entire or very obscurely serrated at the points : the marg. slightly recurved ; the nerve reaching to or beyond the point, Theca between ovate and pyriform pendulous

14808 Stems elongated branched with innovations, Leaves oblong acuminate scarcely serrul. : margins recurved nerve reaching beyond the point, Theca oblongo-obovate pendulous

\* Theca sulcated.

14809 Stems nearly simple, Lvs. lanc. serrat. : their marg. recurv. Theca nearly erect cylind. sulcat. Lid conical

14810 Stems much branch. Lvs. lanc. obt. ent. : their margins revolute, Theca ovate oblique sulcat. Lid conical



and Miscellaneous Particulars.

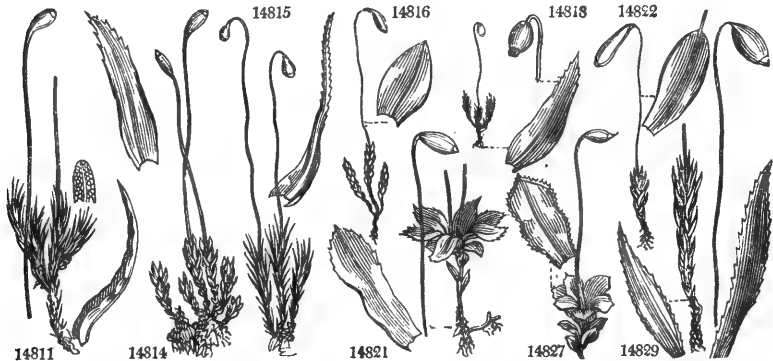
opposite to those of the outer, is further remarkable in these teeth lying horizontally over the mouth of the theca. In the male flowers of Hedwig, the succulent filaments are remarkable; clavate, jointed, pellucid, the joints containing greenish granules. *Funaria hibernica* has been found only on the roof of a thatched cottage at Blarney, near Cork, Ireland. The long flexuose fruitstalk of *F. hygrometrica*, one of the commonest of mosses in almost every situation, possesses strong hygrometrical qualities.

2238. *Bartramia*. So called in honor of John Bartram, an Anglo-American, to whose researches in North America the gardens of Europe owe many of their finest trees. He had a son William, who published in 1773, an account of a journey in the interior of North America. This is an elegant genus of mosses, remarkable for their fine capillary light green leaves, and spherical capsules. The genus approaches nearly to *Bryum*, but differs in almost every species having a spherical capsule; and the sixteen broad segments of the inner peristome, instead of being entire or only perforated, are cleft like the teeth of a *Dicranum*.

2239. *Pohlia*. Named in honor of I. E. Pohl, a German botanist. Small plants, often referred to *Bryum*, with which they entirely agree in habit.

2240. *Bryum*. One of the ancient Greek names of moss. These are all dwarf plants producing capsules in abundance, and generally found growing in wet places. In *B. palustre* are found terminal caputular bodies, which much resemble what are called the anthers of *B. androgynum*; but in *B. palustre* they are considered gemmae, and arise not only from the main stems, but also from the innovations. *B. triquetrum* has only been

|                                       |                    |                |            |               |      |                |                     |
|---------------------------------------|--------------------|----------------|------------|---------------|------|----------------|---------------------|
| 14811 <i>trichódes</i> L.             | hair-pointed       | patches        | 4          | summer        | Y.G  | highl. moun.   | Musc. brit. t. 28   |
| 14812 <i>demissum</i> Hooker.         | dwarf              | small tufts    | ½          | july, august  | Y.G  | Scot. moun.    | Grev. crypt. fl. 92 |
| 14813 <i>triquetrum</i> Turn.         | three-cornered     | loose patches  | 9          | july, august  | L.G  | bor. of lakes  | Musc. brit. t. 28   |
| 14814 <i>dealbátum</i> Dicks.         | whitened           | patches        | 1½         | summer        | Cæs. | mount. bogs    | Musc. brit. t. 28   |
| 14815 <i>pyrifor'me</i> Suz.          | pyriform           | patches        | 2          | summer        | Y.G  | rocks          | Musc. brit. t. 28   |
| <i>B. aurcum</i> E. B. t. 389         |                    |                |            |               |      |                |                     |
| 14816 <i>iuláceum</i> Schrad.         | iuliform           | patches        | 1½         | summer        | Y.C  | mountains      | Musc. brit. t. 28   |
| 14817 <i>crádum</i> Hud.              | simple             | tufts          | 1½         | summer        | Bt.G | rocks          | Musc. brit. t. 28   |
| 14818 <i>car'neum</i> L.              | carneous           | patches        | ½          | summer        | L.G  | banks          | Musc. brit. t. 29   |
| 14819 <i>argen'teum</i> L.            | silvery            | patches        | ½          | spring        | Gl.  | on ground      | Musc. brit. t. 29   |
| 14820 <i>Ziéerii</i> Dicks.           | Zier's             | patches        | ½          | spring        | Gl.  | mountains      | Musc. brit. t. 29   |
| 14821 <i>róseum</i> Schreb.           | rose-colored       | tufts          | 5          | summer        | Pk   | heaths         | Musc. brit. t. 29   |
| 14822 <i>capilláre</i> L.             | capillary          | patches        | 1          | summer        | Bt.G | heaths         | Musc. brit. t. 29   |
| <i>B. stellare</i> E. B. 2434         |                    |                |            |               |      |                |                     |
| 14823 <i>nútans</i> Schreb.           | nodding            | little patches | 3          | summer        | Bt.G | walls & hea.   | Musc. brit. t. 29   |
| <i>Brýum compactum</i> E. B. t. 1527? |                    |                |            |               |      |                |                     |
| 14824 <i>alpinum</i> L.               | alpine             | tufts          | 2          | summer        | Pu   | subalp. rocks  | Musc. brit. t. 28   |
| 14825 <i>punctátum</i> Schreb.        | dotted             | solitary       | 3          | sum. and aut. | L.G  | mar. places    | Musc. brit. t. 30   |
| 14826 <i>ligulátum</i> Schreb.        | ligulate           | solitary       | 4          | sum. and aut. | L.G  | moist banks    | Musc. brit. t. 30   |
| 14827 <i>rostrátum</i> Schrad.        | rostrate           | solitary       | 5          | summer        | L.G  | subalp.coun.   | Musc. brit. t. 30   |
| 14828 <i>marginátum</i> Dicks.        | edged              | tufts          | 2          | summer        | Y.G  | shady banks    | Musc. brit. t. 31   |
| 14829 <i>hórnum</i> Schreb.           | lurid              | deep tufts     | 5          | summer        | Y.G  | mar. places    | Musc. brit. t. 31   |
| 14830 <i>cuspidátum</i> Schreb.       | cuspidate          | subsolitary    | 2          | summer        | L.G  | wo. & walls    | Musc. brit. t. 31   |
| 2941. POLYTRICHUM. L. POLYTRICHUM.    |                    |                | Sp. 10—22. |               |      |                |                     |
| 14831 <i>undulátum</i> Hedw.          | wave-leaved        | solitary       | 4          | autumn        | Ol.G | moist banks    | Musc. brit. t.10    |
| 14832 <i>hercýnicum</i> Hedw          | Hercynian          | solitary       | 3          | autumn        | Ol.G | mountains      | Musc. brit. t.10    |
| 14833 <i>pilliferum</i> Schreb.       | hair-pointed       | solitary       | 3          | autumn        | Ol.G | heaths         | Musc. brit. t.10    |
| 14834 <i>juniperinum</i> Willd.       | juniper            | solitary       | 4          | autumn        | Ol.G | heaths         | Musc. brit. t.10    |
| <i>P. strictum</i> E. B. 2435         |                    |                |            |               |      |                |                     |
| 14835 <i>septentrionále</i> Suz.      | northern           | solitary       | 3          | autumn        | Ol.G | Scot. moun.    | Musc. brit. t.10    |
| <i>P. sexanguláre</i> E. B. 1906      |                    |                |            |               |      |                |                     |
| 14836 <i>commúne</i> L.               | common             | broad masses   | 9          | all seasons   | Ol.G | heaths         | Musc. brit. t.10    |
| <i>a. yuccafólium</i> Ehr.            | <i>Aloe-leaved</i> | broad masses   | 9          | all seasons   | Ol.G | heaths         | Eng. bot. t. 1197   |
| <i>β attenuátum</i> Menz.             | <i>narrowed</i>    | broad masses   | 4          | all seasons   | Ol.G | heaths         | Eng. bot. t. 1198   |
| <i>P. gracíle</i> E. B. t. 1827       |                    |                |            |               |      |                |                     |
| 14837 <i>alpinum</i> L.               | alpine             | patches        | 4          | summer        | Ol.G | alp. regions   | Musc. brit. t.11    |
| 14838 <i>urnígerum</i> Menz.          | urn-bearing        | scattered      | 4          | summer        | Gl.  | sides of stre. | Musc. brit. t.11    |
| 14839 <i>aloídes</i> Hedw.            | stiff-leaved       | scattered      | 1½         | autumn        | Br.G | heaths         | Musc. brit. t.11    |
| <i>a. májor</i> Hooker                | <i>large</i>       | scattered      | 1½         | autumn        | Br.G | heaths         | Eng. bot. t. 1649   |
| <i>P. rubéllum</i> E. B. t. 1939      | <i>Dickson's</i>   | scattered      | 1          | autumn        | Br.G | heaths         | Eng bot. t. 1605    |



History, Use, Propagation, Culture,

found in Great Britain upon the borders of some lake in the north of Ireland. By Mohr it is considered a distinct genus, and called *Diplocomium*.

**\*\* Theca destitute of furrows.**

**A. Exterior peristome shorter than interior.**

- 14811 Stems somew. branch. Lvs. lin. obt. ent. reticulat. Theca obovate recurved subcernu. Fruitstalk very long  
 14812 Stems branched, Leaves ovate cuspidate reticulat shorter than nerve, Theca curved pyriform pendulous  
 14813 Stem elongat. branch. Lvs. lanc. carin. ac. serrated reticulat. Theca pyrif. erecto-cernu. Fruitst. very long  
 14814 Stems short, Leaves lanceolate acute plane serrated at the points reticulat, Theca pyriform nearly erect

**B. Peristomes equal.**

**§ 1. Leaves without a thickened margin.**

- 14815 Stems slightly branched, Leaves subul.-setaceous flexuose serrated: nerve very broad, Theca pyrif. pendul.  
 14816 Stems branched, Leaves closely imbricated broadly ovate concave entire obtuse : nerve running nearly to the point, Theca obovato-cylindraceous pendulous  
 14817 Stems simple, Leaves rigid lanceolate: the upper ones the narrowest and longest ; all of them plane serrul. nerve disappearing below the summit, Theca oblong-subpyriform cernuous  
 14818 Stems simple, Lvs. lanc. reticulat. slightly serrul. at point : nerve disappear. bel. summ. Theca obov. pendul.  
 14819 Stems branched, Leaves closely imbricated broadly ovate suddenly and sharply acuminate subserrulate very concave, nerve disappearing below the point, Theca ovato-pyriform pendulous  
 14820 Stems branch. Leaves closely imbricated more or less broadly ovate acuminate very concave reticulat entire : nerve running nearly to the point, Theca clavate cernuous  
 14821 Lvs. obovato-spathulate acute serrated undul. : nerve running to the point, Theca oblongo-ovate pendul.  
 14822 Stems short, Leaves obovate twisted when dry entire: their nerve produced into a hair-like point; their margins slightly thickened, Theca oblong pendulous  
 14823 Stems short, Lvs. erect lanc. acuminate serrated above : nerve reach. to point, Theca oblon.pyrif. pendul.  
 14824 Stems rig. elongat. branch. Lvs. closely imbricat. erect lanc. somew. obt. subserrul. at apex : marg. revolute; nerve reaching to the points, Theca oblongo-ovate pendulous

**§ 2. Leaves with a thickened margin.**

- 14825 Stems elongated, Leaves obovato-rotundate very obtuse reticulat: their margins thickened entire; nerve disappearing below the point, Theca ovate pendulous, Lid shortly rostrate  
 14826 Stems elongated, Leaves undul. ligul. reticulat: their margins thickened denticul; nerve reaching a little beyond the point, Theca ovate pendulous, Lid conical  
 14827 Stems elongated, Leaves broadly ovate reticulat: their margins thickened denticul; the nerve reaching a little beyond the point, Theca ovate pendulous, Lid rostrate  
 14828 Stems elongated, Leaves ovate acute reticulat: their margins thickened serrated; nerve reaching a little beyond the point, Theca ovate pendulous, Lid shortly rostrate  
 14829 Stems elongated, Leaves lanceolate acute reticulat: their margins thickened denticul; nerve generally disappearing below the summit, Theca oblongo-ovate pendulous, Lid hemisph. mucronulate  
 14830 Stems elongated, Leaves obovate acute reticulat: their margins thickened denticul above; nerve running beyond the point, Theca ovate pendulous, Lid conico-hemispheric. obtuse

**\* Calyptra naked.**

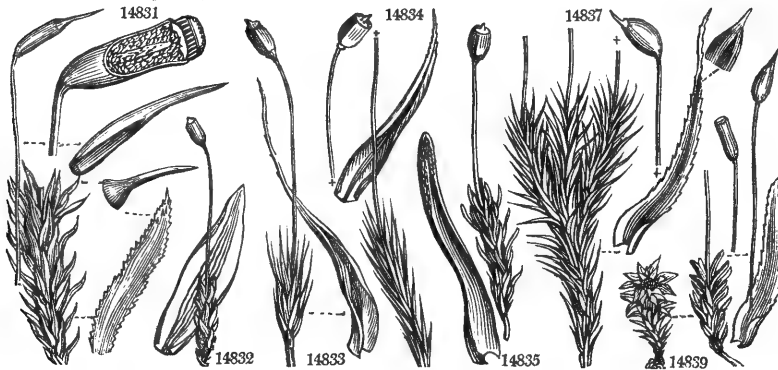
- 14831 Lvs. lanc. undul. : their margins plane denticulat. ; their nerve winged, Theca cylind. curved, Lid subul.  
 14832 Lvs. lanc. rig. ent. : their sides invol. ; their nerve broad impress. with furr. Theca obl. suber. Lid conical

**\*\* Calyptra hairy.**

- 14833 Leaves lanceolate-subulate : their margins involute ent. terminating in a pellucid hair-like point, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical  
 14834 Leaves lanceolate-subulate : their margins involute entire; their points acumin. colored subserrated, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical  
 14835 Leaves lineari-subul. obtuse : their margins especially towards the top invol. subserrulate, Theca ovate subangulate furnished with a minute apophysis, Lid conical acuminate  
 14836 Stems elongated, Leaves patent lineari-subulate : their margins plane serrated as well as the points of the keels, Theca erect ovate quadrangular with an evident apophysis  
 α Leaves with their margins of the same color  
 β Leaves shorter with their margins pellucid

- 14837 Stems elongated branched, Leaves patent subulato-lanceolate : the margins plane serrated as well as the points of the keels, Theca subovate with an indistinct apophysis  
 14838 Stems elongated branched, Leaves erecto-patent lanceolate acute: their margins plane serrated, Theca erect cylindrical destitute of an apophysis  
 14839 Stems short, Leaves linear-lanceolate obtuse: their margins plane serrated principally at the extremity and at the summit of the keels, Theca nearly erect cylindrical without an apophysis  
 α Fruitstalks 2 inches long, Stems simple

β Fruitstalks very short, Stems branched

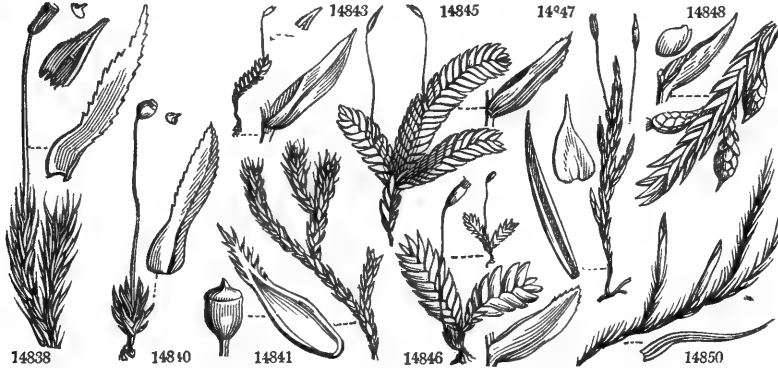


and Miscellaneous Particulars.

2241. *Polytrichum*. From *σολος*, many, and *σειξ τερχος*, hair, on account of the numerous hairs of the calyptra. Easily distinguished by the rigidity of the leaves and the square form of the theca, which is gene-



|       |  |                |                |                   |               |       |                |                            |
|-------|--|----------------|----------------|-------------------|---------------|-------|----------------|----------------------------|
| 14840 | <i>nánium Hedw.</i>                        | dwarf          | scattered      | 1                 | autumn        | Br.G  | moist banks    | Musc. brit. t.11           |
|       | <i>P. subrotundum E. B. t. 1624</i>        |                |                |                   |               |       |                |                            |
| 2242. | ANICTANGIUM. <i>Hedw.</i>                  | ANICTANGIUM.   |                | <i>Sp. 2.</i>     |               |       |                |                            |
| 14841 | <i>ciliatum Hedw.</i>                      | ciliated       | depress. tufts | 1                 | summer        | Hoa.  | rocks          | Musc. brit. t. 6           |
|       | <i>Gymnostomum ciliatum E. B. t. 1179</i>  | beardless      |                |                   |               |       |                |                            |
| 14842 | <i>imbérbe Hooker</i>                      |                | depress. tufts | 1                 | summer        | Pa.G  | Irish moun.    | Musc. brit. t. 6           |
|       | <i>Gymnostomum imbérbe E. B. t. 2237</i>   |                |                |                   |               |       |                |                            |
| 2243. | FISSIDENS. <i>Hedw.</i>                    | FISSIDENS.     |                | <i>Sp. 4—11.</i>  |               |       |                |                            |
| 14843 | <i>bryoides Hedw.</i>                      | Bryum-like     | patches        | $\frac{1}{2}$     | spring        | Pa.G  | moist banks    | Musc. brit. t. 16          |
|       | <i>Dicranum bryoides E. B. t. 625</i>      |                |                |                   |               |       |                |                            |
|       | <i>Dicranum viridulum E. B. t. 1368</i>    |                |                |                   |               |       |                |                            |
|       | <i>Dicranum osmundioides E. B. t. 1662</i> |                |                |                   |               |       |                |                            |
| 14844 | <i>incúrvus Schwægr.</i>                   | incurved       | patches        | $\frac{1}{2}$     | spring        | L.G   | moist banks    | Schw. suppl.t.49           |
|       | <i>Dicranum tamarindifolium Turner</i>     |                |                |                   |               |       |                |                            |
| 14845 | <i>adiantoides Hedw.</i>                   | Maidenha.-lv.  | patches        | 2                 | summer        | L.G   | wet pastures   | Musc. brit. t.16           |
|       | <i>Hypnum adiantoides E. B. t. 264</i>     |                |                |                   |               |       |                |                            |
| 14846 | <i>taxifolius Hedw.</i>                    | Yew-leaved     | tufts          | $\frac{3}{4}$     | summer        | L.G   | moist banks    | Musc. brit. t.16           |
|       | <i>Hypnum taxifolium E. B. t. 416</i>      |                |                |                   |               |       |                |                            |
| 2244. | LEUCODON. <i>Schwægr.</i>                  | LEUCODON.      |                | <i>Sp. 1—17.</i>  |               |       |                |                            |
| 14847 | <i>sciuroides Schwægr.</i>                 | Squirrel-tail  | creeping       | 3                 | summer        | D.G   | trun. of trees | Musc. brit.t. 20           |
|       | <i>Dicranum sciuroides E. B. t. 1903</i>   |                |                |                   |               |       |                |                            |
| 2245. | FONTINALIS. <i>L.</i>                      | FONTINALIS.    |                | <i>Sp. 3—9.</i>   |               |       |                |                            |
| 14848 | <i>antipyretica L.</i>                     | nervelless     | floating       | 12                | summer        | DI.G  | ivers          | Musc. brit. t. 22          |
| 14849 | <i>squamósa L.</i>                         | scaly          | floating       | 6                 | summer        | OL.G  | rivulets       | Musc. brit. t. 22          |
| 14850 | <i>capillacea Dicks.</i>                   | capillary      | floating       | 6                 | summer        | Br.G  | alp. rivulets  | Musc. brit. t. 22          |
| 2246. | ANOMODON. <i>Hooker.</i>                   | ANOMODON.      |                | <i>Sp. 2—8.</i>   |               |       |                |                            |
| 14851 | <i>curtipéndulum Hook.</i>                 | dark green     | pinnate        | 8                 | summer        | D.Ol  | roc. & trees   | Musc. brit. t. 22          |
|       | <i>Neckera curtipéndula E. B. t. 1444</i>  |                |                |                   |               |       |                |                            |
| 14852 | <i>viticolósum Hook.</i>                   | pale green     | creeping       | 6                 | spring        | Y.G   | trees & roc.   | Musc. brit. t. 22          |
|       | <i>Hypnum viticolósum E. B. t. 265</i>     |                |                |                   |               |       |                |                            |
| 2247. | NECKERA. <i>Hedw.</i>                      | NECKERA.       |                | <i>Sp. 3—24.</i>  |               |       |                |                            |
| 14853 | <i>púmila Hedw.</i>                        | pigmy          | creeping       | 2                 | spring        | Pa.G  | woods          | Eng. bot. t. 1443          |
| 14854 | <i>crispa Hedw.</i>                        | crisp          | creeping       | 6                 | summer        | Bt.G  | trees & roc.   | E. b. t. 616. <i>Hypn.</i> |
| 14855 | <i>pennáta Hedw.</i>                       | feathered      | flat-branched  | 3                 | spr. and sum. | BI. G | trun. of trees | Gre.sc.cry. t. 109         |
| 2248. | DALTONIA. <i>Hooker.</i>                   | DALTONIA.      |                | <i>Sp. 2—5.</i>   |               |       |                |                            |
| 14856 | <i>splachnoides Hooker</i>                 | long stalked   | tufts          | $\frac{1}{2}$     | summer        | L.G   | Irish moun.    | Musc. brit. t. 22          |
|       | <i>Neckera splachnoides E. B. t. 2564</i>  |                |                |                   |               |       |                |                            |
| 14857 | <i>heteromálla Hooker</i>                  | short-stalked  | tufts          | $\frac{1}{2}$     | summer        | L.G   | trun. of trees | Musc. brit. t. 22          |
|       | <i>Neckera heteromálla E. B. t. 1180</i>   |                |                |                   |               |       |                |                            |
| 2249. | HOOKE'RIA. <i>Smith.</i>                   | HOOKE'RIA.     |                | <i>Sp. 2—27.</i>  |               |       |                |                            |
| 14858 | <i>lúcens Smith</i>                        | shining        | procumbent     | 3                 | summer        | Pa.G  | moist banks    | Musc. brit. t. 27          |
| 14859 | <i>late-virens Hook.</i>                   | bright-green   | procumbent     | 3                 | summer        | Bt.G  | Irish bog      | Musc. brit. t. 27          |
| 2250. | LESKEA. <i>Ehrhart.</i>                    | LESKEA.        |                | <i>Sp. 10—43.</i> |               |       |                |                            |
| 14860 | <i>trichomanoides Hedw.</i>                | scymitar-shap. | entangled      | 2                 | spring        | Y.G   | trun. of trees | Eng. bot. t. 1493          |
| 14861 | <i>complanáta Hedw.</i>                    | flattened      | entangled      | 4                 | spring        | Y.G   | trun. of trees | Eng. bot. t. 1492          |



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rally covered by a very hairy calyptra : this organ is in some species smooth, by which character they have been distinguished by the accurate Ehrhart, under the name of Catharina; but Dr. Hooker is of opinion that the genus is not tenable.

2242. *Anictangium.* From *ανικτες*, open, and *αγγις*, a vase, on account of the open nature of the theca, which is not enclosed by a peristome. The only British species are two plants with nerveless leaves, and the habit of *Trichostomum*.

2243. *Fissidens.* From *fissus*, split, and *dens*, a tooth, in allusion to the structure of the peristome. Plants generally referred to *Dicranum* by British botanists, but differing from that genus entirely in habit, and sufficiently in characters. Dr. Hooker remarks, that the structure of their leaves is highly curious, and totally unlike that of any other plant with which he is acquainted. Besides being vertical, their upper half (taking the nerve for the line of separation) is, from the base beyond the middle, composed of two equal lamellæ, the lower part of which embraces the stem, and the rest very often embraces a portion of the leaf placed immediately above it.

2244. *Leucodon.* Named from *λευκος*, white, and *οδον*, a tooth, from the color of the peristome. The only British species has occasionally been thrown among the *Dicrana*, *Trichostoma*, and *Pterogonia*; from any of which, an attentive consideration of the lateral fruit, deeply divided teeth, and dimidiate calyptra, will keep its genus distinct. The stems are long, and creeping over the bark of trees.

2245. *Fontinalis.* From *fons*, a fountain, in allusion to the places where it grows. *F. antipyretica* is a common plant, floating in large masses in rivers and pools of water. The specific name was given it because

14840 Stems short, Lvs. lin. lanc. : marg. serrat. principally at extrem. as well as summit of keels, Theca nearly erect subglobose [erect subglobose]

14841 Leaves ovate much lengthened out and diaphan. at points : those of perichætium lacinated at extremity

14842 Leaves ovato-acuminate colored at the points : those of the perichætium serrated at the extremity

14843 Fruitstalks terminal, Perichætial leaves resembling the cauline ones

14844 Like the last, but theca drooping

14845 Fruitstalks lateral, Perichætial leaves ovate slightly convolute pointed

14846 Fruitstalks radicular, Perichætial leaves ovate sheathing involute pointed

14847 Leaves closely imbricated ovate-cordate acuminate striated, Theca oblong

14848 Leaves nerveless for the most part complicato-carinate

14849 Leaves nerveless plane or very slightly concave

14850 Leaves furnished with a nerve slightly concave

14851 Lvs. ov. acum. serrul. : the nerve disappear. below point, Fruitst. twice as long as perichætium, Theca ov

14852 Leaves ovato lanceolate obtuse entire : the nerve reaching to the point, Fruitst. very long, Theca cylind.

14853 Lvs. ovato-acum. slightly conc. : marg. recurv. Fruitst. scarcely longer than perichæt. lvs. Theca oblon.-ov.

14854 Leaves oblong acuminate transversely rugose, Fruitstalks much exerted, Theca ovate

14855 Lvs. bifar. ov. lanc. transversely undul. serrul. at point, Theca ovate subsess. shorter than perichætial lvs.

14856 Leaves oblongo-lanceolate, Fruitstalks long, Calyptra fimbriated at the base

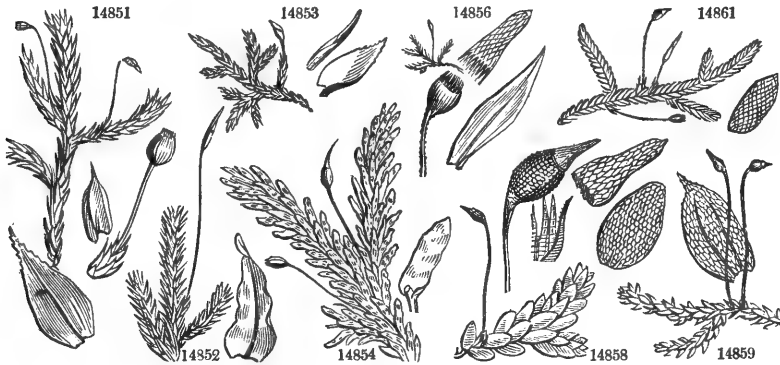
14857 Leaves broadly ovate acute, Theca sessile impressed, Calyptra nearly entire

14858 Leaves broadly ovate entire obtuse nerveless

14859 Lvs. ov. acum. marg. very obscure. serrat. at extrem. with 2 nerves nearly reach. their whole length

14860 Lvs. broadly scymitar-shaped serrat. at point : nerve reach. to middle of leaf, Theca ovate erect, Lid rod.

14861 Leaves oblong apiculate entire nerveless, Theca ovate erect, Lid rostrate



and Miscellaneous Particulars.

it is employed by the Swedes to fill up the spaces between the chimney and the walls, and thus, by excluding the air, to prevent the action of fire.

2246. *Anomodon*. So called by the authors of Muscologia Britannica, on account of the peculiar nature of the peristome, which has narrow fringed processes arising from the very same range, and from between the teeth; *anomos*, irregular, and *odus*, a tooth. The stems are dark, almost blackish green, long, cylindrical, and straggling. It is not uncommon on the wilds of Dartmoor.

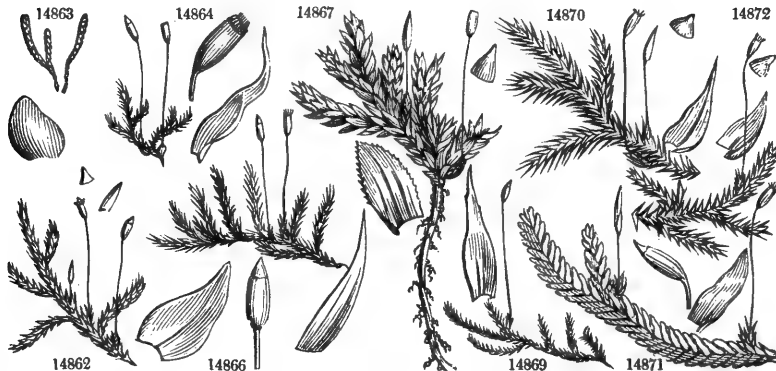
2247. *Neckera*. Named after N. J. Necker, a German botanist, who published in 1791, his Elements of Botany, a work which contained more useful information than many of his detractors have been pleased to allow. Beautiful mosses, found in woods and upon trees and rocks. *N. crispata* has more the appearance of some fine tropical moss, than of those of our own country, where it is far from uncommon in mountainous districts, frequently covering a great extent of surface upon the trunks of old forest-trees.

2248. *Daltonia*. Named in honor of the Rev. James Dalton, a skilful English muscologist. The mitriform calyptra separates this from *Neckera*. *D. splachnoides* has only been found by the side of a streamlet on the Secawn mountain, near Dublin, where it grows sparingly in pale green tufts.

2249. *Hookeria*. This beautiful Hypnum-like genus was named by Sir James Edward Smith, in honor of Dr. William Jackson Hooker, F. R. S., &c. professor of botany in the university of Glasgow, one of the most distinguished of modern cryptogamic botanists, and a gentleman whose public reputation is only exceeded by his private excellence. The *Hookera* of Salisbury, must give way to this on every account. *H. læte-virens* has hitherto been discovered only in a bog near Cork.

2250. *Leskea*. N. G. Leske was an obscure German botanist, of whom little is known, except that he gave

|       |   |                 |                |    |               |      |                |                   |
|-------|---|-----------------|----------------|----|---------------|------|----------------|-------------------|
| 14862 | <i>polycarpa Ehr.</i><br><i>Hypnum medium</i> E. B.                                   | many-fruited    | entangled      | 3  | spring        | Lur. | trun. of trees | Eng. bot. t. 1274 |
|       | <i>Hypnum inundatum</i> E. B. t. 1922   |                 |                |    |               |      |                |                   |
| 14863 | <i>lulæa Mohr.</i><br><i>Pterogonium ? rotundifolium</i> E. B.                        | round-leaved    | prostrate      | 3  | spring        | Y.G  | ground         | Eng. bot. t. 2325 |
| 14864 | <i>pulchella Hedw.</i>  | pretty          | dense tufts    | ½  | spr. and sum. | Bt.G | moist banks    | Eng. bot. t. 2006 |
| 14865 | <i>rufescens Schwæg.</i>  | rufous          | creeping       | 4  | spr. and sum. | Rsh  | moun. rocks    | Eng. bot. t. 2296 |
| 14866 | <i>sericea Hedw.</i>  | silky           | entangled      | 3  | spr. and sum. | Y.G  | roc. & trees   | Eng. bot. t. 1445 |
| 14867 | <i>dendroides Hedw.</i>   | tree-like       | erect          | 3  | spr. and sum. | Y.G  | wo. and bogs   | Eng. bot. t. 1565 |
| 14868 | <i>incurvata Hedw.</i>  | incurved        | procumbent     | 3  | spr. and sum. | D.G  | trees & rocks  | Eng. bot. t. 2422 |
|       | <i>Hypnum atrovirens</i> E. B.  |                 |                |    |               |      |                |                   |
|       | <i>Hypnum attenuatum</i> E. B. t. 2420  |                 |                |    |               |      |                |                   |
| 14869 | <i>polyantha Hedw.</i>  | many-flowered   | creep. tangled | 3  | summer        | Y.G  | trun. of trees | Gre.cryp.f.t.151  |
| 2251. | HYPNUM. L.  |                 |                |    |               |      | Sp. 53—119.    |                   |
| 14870 | <i>riparium L.</i>  | water           | loose patches  | 4  | sum. and aut. | Bt.G | ban. of dicit. | Eng. bot. t. 2060 |
| 14871 | <i>undulatum L.</i>   | wavy            | lax masses     | 6  | sum. and aut. | W.G  | heathy plac.   | Eng. bot. t. 1181 |
| 14872 | <i>denticulatum L.</i>  | toothletted     | prostrate      | 1½ | sum. and aut. | Bt.G | roots of trees | Eng. bot. t. 1260 |
|       | <i>α angustifolium Hook.</i>  | narrow-leaved   | prostrate      | 1½ | sum. and aut. | Bt.G | roots of trees | Hed.sti.cr.4.t.31 |
|       | <i>β obtusifolium Hook.</i>   | blunt-leaved    | prostrate      | 1½ | sum. and aut. | Bt.G | mountains      | Eng. bot. t. 1446 |
| 14873 | <i>tenellum Dicks.</i>  | delicate        | dense patches  | 1  | spring        | Dp.G | roc. & old w.  | Eng. bot. t. 1859 |
| 14874 | <i>sæpens L.</i><br><i>subtile</i> E. B. t. 2496                                      | creeping        | patches        | 1  | spring        | Bt.G | roots of trees | Eng. bot. t. 1037 |
| 14875 | <i>populeum Hedw.</i>   | matted          | entang. patch. | 2  | spring        | D.G  | trees & ston.  | Tur.mus.hi. t.16  |
|       | <i>implexum</i> E. B. t. 1584   |                 |                |    |               |      |                |                   |
| 14876 | <i>reflexum Weber &amp; Mohr</i>  | reflexed        | loose masses   | 2  | spring        | D.G  | mountains      |                   |
| 14877 | <i>molle Dicks.</i>   | soft            | much tufted    | 3  | sum. and aut. | Lur. | alp. rivulets  | Eng. bot. t. 1992 |
| 14878 | <i>Schrebéri Willd.</i>   | Schreber's      | lax tufts      | 9  | summer        | Rsh  | wo. and ban.   | Eng. bot. t. 1621 |
| 14879 | <i>catenulatum Schwæg.</i>  | chained         | close tufts    | 2  | spr. and sum. | D.G  | wet rocks      | Brid. mus.t.5.f.4 |
| 14880 | <i>stramineum Dicks.</i>  | straw-colored   | loose patches  | 1½ | summer        | Pa.G | wet places     | Eng. bot. t. 2405 |
| 14881 | <i>murale Hedw.</i><br><i>confertum</i> E. B. t. 1038                                 | wall            | patches        | 1½ | all seasons   | L.G  | walls & ston.  | Dil.mu. t.41.f.52 |
| 14882 | <i>purum L.</i><br><i>ilicébrum</i> E. B. t. 2189                                     | pure            | broad masses   | 7  | spring        |      | wo. and ban.   | Eng. bot. t. 1599 |
| 14883 | <i>fluitans L.</i>  | floating        | aquatic        | 6  | spr. and sum. | Var. | pools & stre.  | Eng. bot. t. 1448 |
| 14884 | <i>plumosum L.</i><br><i>alpinum</i> E. B. t. 1496                                    | feathered       | dense mat      | 4  | spr. and sum. | Y.G  | moist rocks    | Eng. bot. t. 2071 |
| 14885 | <i>salebrissum Hoffm.</i>   | smth.-stk. shi. | decumb. bran.  | 4  | summer        | Bt.G | roc. & groun.  | Grev.cryp.f.194   |
| 14886 | <i>lutescens Huds.</i>  | yellowish       | patches        | 3  | summer        | Y.G  | trun. of trees | Eng. bot. t. 1301 |
| 14887 | <i>nitens Schreb.</i>   | shining         | branched       | 3  | summer        | Go.Y | bogs           | Eng. bot. t. 1646 |
| 14888 | <i>albicans Neck.</i>   | whitened        | patches        | 2  | spring        | W.G  | hea. & bogs    | Eng. bot. t. 1300 |
| 14889 | <i>alopecurum L.</i>  | fox-tail        | loose masses   | 3  | spr. and sum. | D.G  | moist woods    | Eng. bot. t. 1182 |
| 14890 | <i>curvatum Swz.</i>  | curved          | lax tufts      | 3  | spr. and sum. | Bt.G | trees & roc.   | Eng. bot. t. 1566 |
| 14891 | <i>spléndens Hedw.</i>  | glittering      | lax tufts      | 9  | all masses    | Y.G  | hea. & banks   | Eng. bot. t. 1424 |
| 14892 | <i>proliferum L.</i><br><i>recognitum</i> E. B. t. 1495                               | proliferous     | loose patches  | 6  | all masses    | Du.G | wo. and ban.   | Eng. bot. t. 1494 |
| 14893 | <i>prælongum L.</i><br><i>Stokésii</i> E. B. t. 2036<br><i>Swartzii</i> E. B. t. 2334 | very long       | loose tufts    | 6  | all masses    | Du.G | woods          | Eng. bot. t. 2035 |



History, Use, Propagation, Culture,

occasion to Hedwig to name this genus after him. It has entirely the habit of the next, with which it is frequently united.

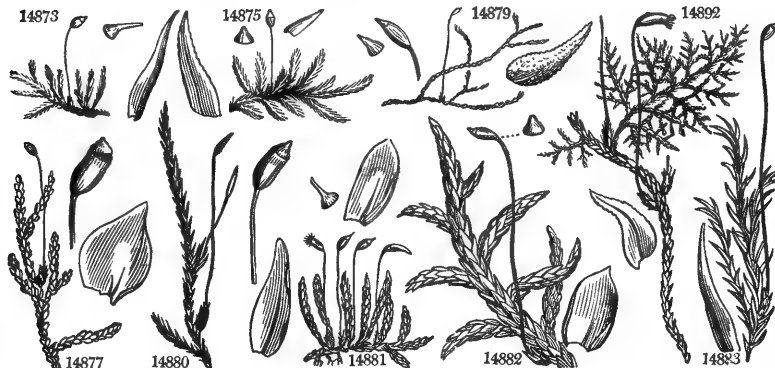
- 14862 Leaves ovate obtuse concave entire : nerve reaching to the summit, Theca cylind. nearly erect, Lid conical
- 14865 Leaves closely imbricated rotundato-ovate obtuse very concave ventricose nerveless, Theca ov. nearly erect
- 14864 Leaves loosely imbricated : the upper ones subsecund ; all of them lanceolate acuminate entire nerveless, Theca ovato-cylindrical nearly erect, Lid conical.
- 14865 Lvs. erecto-pat. lanc. acuminat. ent. striat. faintly 2-nerved at base, Theca ovate nearly erect, Lid conical
- 14866 Leaves erecto-patent lanceolate acuminat entire striated ; nerve running to three fourths of the length, Theca ovate cylindrical erect, Lid conical
- 14867 Stems erect below simple and naked fasciated above, Leaves ovate more or less lanceolate striated serrat. at the point : nerve reaching nearly to the summit, Theca erect ovate cylindrical, Lid rostrate
- 14868 Stems variously branched procumbent, Lvs. all of them slightly secund broadly ovate with an attenuated obtuse point : nerve running nearly to the summit, Theca ovate cernuous, Lid conical
- 14869 Leaves 1-sided imbricated erect spreading ovate lanceolate acum. entire obscurely 2 nerved at base, Fruitst. numerous, Theca erect ovate, Lid acutely conical

\* *Stems plane.*

- 14870 Lvs. ov.-lanc. acuminat. ent. : the nerve reaching nearly to summit, Theca oblong cernuous, Lid conical
- 14871 Lvs. ov. ac. transversely undulat. with two faint nerves at base, Theca obl. furrow. arcuato cern. Lid rostr.
- 14872 Leaves ovate sometimes approaching to lanceolate more or less acuminat having two short nerves at the base, Theca oblongo-cylindrical inclined, Lid conical
- α Leaves ovate lanceolate distant quite plane
- β Leaves ovate more or less obtuse slightly concave

\*\* *Leaves spreading on all sides of the stem.*

- 14873 Lvs. fascicul. erect lanceolato-subul. ent. : nerve reaching to summit, Theca ovate cernuous, Lid rostrate
- 14874 Leaves ovato-lanceolate rather obtuse patent entire : their nerve for the most part reaching to the summit, Theca cylindrical curved cernuous, Lid conical
- 14875 Leaves lanceolate acuminat serrated : margin slightly reflexed : nerve reaching to the point, Theca ovate nearly erect, Fruitstalks rough, Lid conical
- 14876 Leaves cordato-acuminate serrated : their nerve reaching to the point ; their margin slightly reflexed, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14877 Leaves loosely imbricated rotundato-ovate obtuse concave entire faintly two-nerved at the base or with one short nerve, Theca ovate cernuous, Lid conical
- 14878 Leaves closely imbricated nearly erect elliptical apiculate concave entire faintly two-nerved at the base, Theca ovate cernuous, Lid conical
- 14879 Leaves subpatent ovate subacuminat papillose on the back and margin with a very short nerve, Theca ovate inclined, Lid conical acuminat
- 14880 Leaves loosely imbricated erecto-patent oblongo-ovate obtuse entire : their nerve reaching half way, Theca oblongo-ovate curved cernuous, Lid conical
- 14881 Leaves nearly erect imbricated oval with a very short point concave entire : nerve reaching about half way up, Theca ovate cernuous, Lid rostrate
- 14882 Leaves closely imbricated oval with a very short point very concave : their nerve reaching half way up, Theca ovate cernuous, Lid conical
- 14883 Leaves loosely imbricated, the upper ones falcate secund ; all of them lanceol.-subul. scarcely serrated at their points : their nerve reaching more than half way, Theca ovate obl. curved cernuous, Lid conical
- 14884 Leaves erecto-patent : the upper ones sometimes secund ; all of them ovato-lanceolate acuminat sub-serrated : the nerve reaching above half way, Theca ovate cernuous, Lid conical
- 14885 Lvs. nearly erect lanc. acum. serrul. tow. end : nerve disappear. beyond end, Theca cern. Lid acute conical
- 14886 Leaves erecto-patent narrow lanceolate acuminat entire striated : nerve disappearing below the point, Theca ovate cernuous, Fruitstalks rough, Lid conico-acuminat
- 14887 Leaves erecto-patent narrow lanceolate acuminat nearly entire striated : nerve running nearly to the summit, Theca oblongo-ovate curved cernuous, Fruitstalks smooth, Lid conical
- 14888 Leaves erecto-patent ovato-lanceolate acuminat striated entire : nerve reaching half way up, Theca ovate cernuous, Fruitstalks smooth, Lid conical
- 14889 Stems erect below simple and naked, fasciated above, Leaves concave ovate ellipt. acute serrated : nerve running nearly to the point ; marg. reflexed, Theca ovate cernuous, Lid rostrate
- 14890 Branches fasciated curved, Leaves ovato-elliptical concave serrated at the points : nerve disappearing beyond the middle, Theca ovate erect, Lid rostrate
- 14891 Stems tripinnate, Leaves ovate with a suddenly acuminat serrated point concave faintly two-nerved at the base : margin below recurved, Theca ovate cernuous, Lid rostrate
- 14892 Stems tripinnate, Leaves serrated papillose on the back : the cauline ones cordato-acuminate striated with a nerve running nearly to the point ; those of the branches more ov. with a sing. or double nerve at base
- 14893 Stems subbipinnate, Leaves distantly placed patent cordate or ovate acuminat serrated : nerve disappearing below the summit, Theca ovate cernuous, Lid rostrate

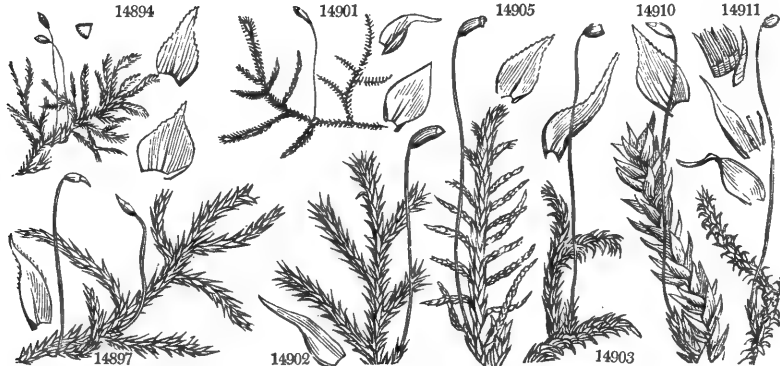
and *Miscellaneous Particulars*

2251. *Hypnum*. One of the names of moss among the Greeks was ἵπνον. This is the most extensive genus among mosses, and is readily known by its prostrate bipinnate bright green branches, which form thick mat-

|       |   |                      |                |    |               |      |                  |                   |                      |
|-------|---|----------------------|----------------|----|---------------|------|------------------|-------------------|----------------------|
| 14894 | <i>flagellare</i> <i>Dicks.</i>         | shady                | broad patches  | 6  | summer        | Bt.G | alpine rocks     | E.b.t.2565        | <i>H.umbratum</i>    |
| 14895 | <i>abietinum</i> <i>L.</i>              | fir-leaved           | straggling     | 6  | summer        | D.G  | mountains        | Eng. bot. t. 2037 |                      |
| 14896 | <i>Blandóvii</i> <i>Web.</i>            | Blandoff's           | broad masses   | 5  | spr. and sum. | Bt.G | alpine rocks     |                   |                      |
| 14897 | <i>piliferum</i> <i>Schreb.</i>         | hair-pointed         | straggling     | 7  | summer        | D.G  | wo. & banks      | Eng. bot. t. 1516 |                      |
| 14898 | <i>rutábulum</i> <i>L.</i>              | poker                | dense mats     | 3  | all seasons   | Bt.G | everywhere       | E.b.t.1647        | <i>H.brevirostre</i> |
|       | <i>crenidatum</i> <i>E. B. t. 1261</i>  |                      |                |    |               |      |                  |                   |                      |
| 14899 | <i>velutinum</i> <i>L.</i>              | velvety              | dense patches  | 1½ | all seasons   | Y.G  | hedge banks      | Eng. bot. t. 1568 |                      |
|       | <i>intricatum</i> <i>E. B. t. 2421</i>  |                      |                |    |               |      |                  |                   |                      |
| 14900 | <i>Hallérii</i> <i>L.</i>               | Haller's             | creep. dense   | 2  | summer        | Y.Br | Scotch rocks     | Grev.cryp.f.174   |                      |
| 14901 | <i>dimorphum</i> <i>Brid.</i>           | two-formed           | lax procumb.   | 3  | summer        | Pa.G | shady places     | Grev.cryp.f.160   |                      |
| 14902 | <i>stellatum</i> <i>Schreb.</i>         | stellate             | broad tufts    | 3  | spr. and sum. | Y.Br | marshes          | Eng. bot. t. 1302 |                      |
|       | <i>β squarrosulum</i> <i>E. B.</i>      | <i>squarrose</i>     | patches        | 1½ | spr. and sum. | Dp.G | stone walls      | Eng. bot. t. 1709 |                      |
| 14903 | <i>lœrum</i> <i>L.</i>                  |                      | broad masses   | 9  | spring        | Bt.G | wo. and hea.     | Eng. bot. t. 2072 |                      |
| 14904 | <i>ruscifolium</i> <i>Neck.</i>         | stiff-leaved         | floating       | 6  | spr. and sum. | D.Ol | in rivulets      | Eng. bot. t. 1275 |                      |
| 14905 | <i>striatum</i> <i>Schreb.</i>          | striated             | loose tufts    | 6  | spring        | Bt.G | woods            | Eng. bot. t. 1648 |                      |
| 14906 | <i>confertum</i> <i>Dicks.</i>          | compact              | small patches  | 1½ | spring        | Pa.G | trun. of trees   | Eng. bot. t. 2407 |                      |
|       | <i>H. serrulatum</i> <i>E. B. 1262</i>  |                      |                |    |               |      |                  |                   |                      |
| 14907 | <i>cuspidatum</i> <i>L.</i>             | cuspidate            | loose tufts    | 5  | summer        | Y.G  | bogs             | Eng. bot. t. 1425 |                      |
| 14908 | <i>cordifolium</i> <i>Hedw.</i>         | heart-leaved         | loose tufts    | 4  | summer        | Pa.G | bogs             | Eng. bot. t. 1447 |                      |
| 14909 | <i>polymorphum</i> <i>Hedw.</i>         | variable             | latt. patches  | 5  | win. and spr. | Bt.G | limest. rocks    | Hed.sp.mus.t.66   |                      |
| 14910 | <i>triquetrum</i> <i>L.</i>             | three-cornered       | branch. tufts  | 9  | all seasons   | Y.G  | wo. and ban.     | Eng. bot. t. 1622 |                      |
| 14911 | <i>squarrosulum</i> <i>L.</i>           | squarrose            | patches        | 7  | all seasons   | Bt.G | wo. and hea.     | Eng. bot. t. 1953 |                      |
| 14912 | <i>filicinum</i> <i>L.</i>              | fern-leaved          | small masses   | 3  | spr. and sum. | Rsh. | bogs             | Eng. bot. t. 1570 |                      |
|       | <i>dübium</i> <i>E. B. 2126</i>         |                      |                |    |               |      |                  |                   |                      |
|       | <i>fållax</i> <i>E. B.</i>              |                      |                |    |               |      |                  |                   |                      |
| 14913 | <i>palustre</i> <i>L.</i>               | marsh                | creeping tufts | 2  | spring        | Li.G | ban. of stre.    | Eng. bot. t. 1665 |                      |
|       | <i>fluviatile</i> <i>E. B. t. 1303</i>  |                      |                |    |               |      |                  |                   |                      |
|       | <i>adnatum</i> <i>E. B. t. 2406</i>     |                      |                |    |               |      |                  |                   |                      |
| 14914 | <i>adnuncum</i> <i>L.</i>               | hooked               | broad patches  | 3  | spr. and sum. | Var. | bogs             | E.b.t.2073        | <i>H.revolvens</i>   |
|       | <i>β rugosum</i> <i>E. B.</i>           | <i>rugose</i>        | broad patches  | 3  | spr. and sum. | Var  | bogs             | Eng. bot. t. 2250 |                      |
| 14915 | <i>uncinatum</i> <i>Hedw.</i>           | uncinate             | thick patches  | 3  | spr. and sum. | Y.G  | moist banks      | Eng. bot. t. 1600 |                      |
| 14916 | <i>rugulosum</i> <i>Web.</i>            | wrinkled             | dense tufts    | 3  | spr. and sum. | Y.G  | heath. places    | Musc. brit. t. 26 |                      |
| 14917 | <i>commutatum</i> <i>Hedw.</i>          | changed              | droop. masses  | 9  | all seasons   | Dp.G | margin. of stre. | Eng. bot. t. 1569 |                      |
| 14918 | <i>scorpioides</i> <i>L.</i>            | creeping             | dense masses   | 9  | summer        | Rah. | wet bogs         | Eng. bot. t. 1039 |                      |
| 14919 | <i>silesianum</i> <i>Beaw.</i>          | Silesian             | broad patches  | 7  | summer        | Bt.G | mountains        | Eng. bot. t. 2016 |                      |
| 14920 | <i>compressiforme</i> <i>L.</i>         | Cypress-leaved       | thick mass     | 4  | all seasons   | Bt.G | trees & rocks    | Eng. bot. t. 1860 |                      |
|       | <i>nigroviride</i> <i>E. B. t. 1620</i> |                      |                |    |               |      |                  |                   |                      |
|       | <i>β polyanthos</i> <i>E. B.</i>        | <i>many-flowered</i> | thick mass     | 4  | all seasons   | Bt.G | woods            | Eng. bot. t. 1664 |                      |
| 14921 | <i>crista castrénsis</i> <i>L.</i>      | crested              | lax tufts      | 6  | summer        | Bt.G | woods            | Eng. bot. t. 2108 |                      |
| 14922 | <i>molluscum</i> <i>Hedw.</i>           | soft                 | entangl. tufts | 2  | summer        | Y.G  | rocks            | Eng. bot. t. 1327 |                      |

VAGINULATI SCHISTOCARPI.

|       |                                |                 |              |               |      |               |                  |  |  |
|-------|--------------------------------|-----------------|--------------|---------------|------|---------------|------------------|--|--|
| 2252. | <i>ANDREÆ</i> 'A. <i>Hedw.</i> | <i>ANDREÆA.</i> |              | <i>Sp. 4.</i> |      |               |                  |  |  |
| 14923 | <i>alpina</i> <i>Hedw.</i>     | alpine          | loose tufts  | summer        | D.Br | rocks         | Musc. brit. t. 8 |  |  |
| 14924 | <i>rupëstris</i> <i>Hedw.</i>  | rock            | dense tufts  | ½ summer      | D.Br | rocks & ston. | Musc. brit. t. 8 |  |  |
| 14925 | <i>Róthii</i> <i>Mohr.</i>     | Roth's          | dense tufts  | ¾ summer      | D.Br | rocks & ston. | Musc. brit. t. 8 |  |  |
| 14926 | <i>nivalis</i> <i>Hooker</i>   | snow            | deep patches | 1½ summer     | D.Br | mountains     | Musc. brit. t. 8 |  |  |



History, Use, Propagation, Culture,

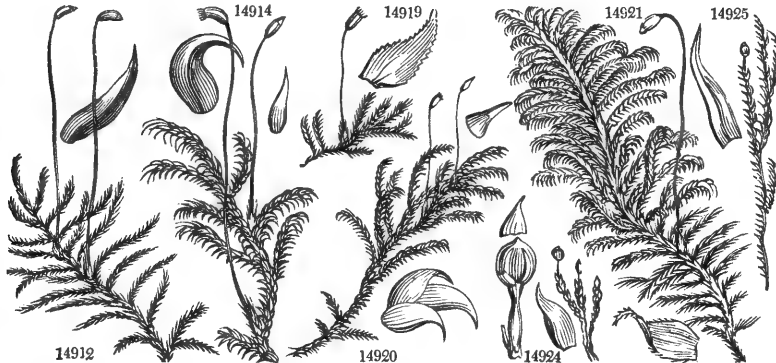
like covering to the surface on which they grow. *H. crista-castrénsis* is at once the most beautiful and most rare of British species

2252. *Andreæa*. Named by Hedwig, in honor of J. G. R. André, a German botanist, author of Letters upon Switzerland. There was also a Portuguese *Andreas de Castro*, who published in 1636, a work upon plants. He was physician to one of the dukes of Braganza. There was besides a celebrated physician of antiquity

- 14894 Stems pinnate (or irregularly bipinnate), Leaves thickly set cordato-acuminate serrated very faintly two-nerved at the base, Theca oblong cernuous, Lid conical
- 14895 Stems pinnate, Leaves serrated papillose on the back: the margins reflex.; nerve running nearly to the point; the cauline ones cordato-acuminate: those of branches cord. ac. Theca cylind. inclined, Lid rost.
- 14896 Stems pinn. Lvs. serrated smooth on the back: marg. reflexed; cauline ones cordato-acuminate with a short nerve, those of branches ovate acum. with nerve disappear. bey. midd. Theca cylind. inclin. Lid conical
- 14897 Stems somewhat pinnate, Leaves ovate with a long narrow acumination serrated: nerve disappearing below the middle, Theca ovate cernuous, Lid rostrate
- 14898 Stems variously branched, Leaves patent ovate acuminated serrated at the points striated: their nerve reaching half way, Theca ovate cernuous, Fruitstalk rough, Lid conical
- 14899 Stems variously branched, Leaves erecto-patent ovate often approaching to lanceolate acuminat. serrated striated: nerve reaching half way, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14900 Stems pinn. Branches short erect. Lvs. all recurv. cord. acum. obsol. 2-nerv. at base, Lid obtusely conical
- 14901 Stems somewhat pinnate, Leaves serrulate two-nerved at base: primary cordate acuminate; of branches broad ovate, Theca ovate cernuous, Lid conical
- 14902 Leaves loosely set squarrose cord. much acuminated ent. nervel. Theca oblongo-ov. curv. cern. Lid conic.
- 14903 Leaves recurved squarrose lanceolate much acuminated concave serrated striated faintly two-nerved at the base, Theca globoso-ovate cernuous, Lid conical
- 14904 Leaves loosely imbricated spreading broadly ovate acute serrated concave with a nerve nearly as far as the middle, Theca ovate cernuous, Lid rostrate
- 14905 Lvs. spread. cord.-acum. serrat. striat.: nerve reach. beyond midd. Theca obl. ovate cernu. Fruitst. smooth
- 14906 Lvs. erect. spread. ov. acum. concave serrat.: their nerve reach. half way, Theca ov. cernu. Fruitst. smooth
- 14907 Leaves loosely set ovate concave nerveless entire: lower squarrose; upper imbricated in a cuspidate point Theca oblong curv cernuous
- 14908 Lvs. loosely set squarr. cord.-ov. obt. concave ent.: nerve running nearly to point, Theca obl. curv. cernu.
- 14909 Lvs. loosely set squarr. cord. much acum. entire: nerve disappear. half way up, Theca obl. ov. curv. cernu.
- 14910 Lvs. squarr. cordato-acum. serrat. faintly striated with two nerves at base, Theca globoso-ov. Lid conical
- 14911 Leaves squarrose widely cordate very much acuminated and recurved serrated faintly two-nerved at the base, Theca ovato-globose cernuous, Lid conical
- \*\*\* Leaves secund.
- 14912 Stems subpinnate, Leaves especially the upper ones falcato-secund broadly ovate acuminated serrated; their nerve reaching to the point, Theca oblongo-ovate curved cernuous, Lid conical
- 14913 Leaves secund ovate somewhat acuminate concave entire: margins incurved above; nerve short often forked sometimes obsolete, Theca oblongo-ovate cernuous, Lid conical
- 14914 Leaves falcato-secund lanceolato-subulate concave or almost semicylind. entire: the nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- β Leaves wider less falcate
- 14915 Lvs. falcato-secund lanceolato-subul. serrat. striat.: nerve disappearing below point, Theca cylind. curv.
- 14916 Lvs. sec. ovato-lanc. serrat. nearly plane crisp. transverse. when dry: marg. recurv.; nerve reach. half way
- 14917 Stems pinnated, Leaves falcato-secund cordate very much acuminated serrated: their margins reflexed; nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- 14918 Leaves secund broadly ovate ventricose obtuse ent. nervel. Theca oblongo-ovate curv. cernu. Lid conical
- 14919 Leaves loosely imbricated secund narrow-lanceolate acuminated serrated nerveless or very obscurely two-nerved, Theca subcylindrical erecto-cernuous, Lid conical obtuse
- 14920 Leaves closely imbricated more or less falcato-secund lanceolate acuminated entire, except at the points, which are usually serrated very faintly two-nerved at base, Theca cylind. erecto-cernuous, Lid conical
- 14921 Stems closely pectinated, Leaves falcato-secund ovato-lanceolate acuminated serrulate striated faintly two-nerved at the base, Theca oblongo-ovate curved cernuous, Lid conical
- 14922 Stems pectinated, Leaves falcate secund cordate acuminated serrated not striated faintly two-nerved at base, Theca oblong ovate curved cernuous, Lid conical

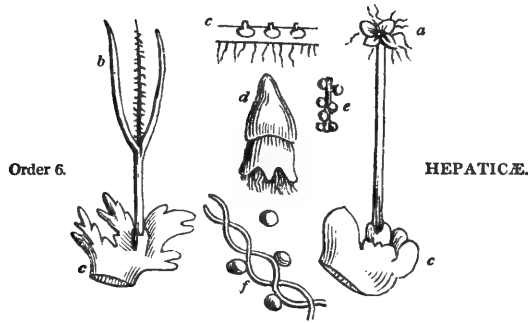
VAGINULATI SCHISTOCARPI.

- 14923 Stems branched, Leaves obovate suddenly acuminate straight imbricated the stem on every side
- 14924 Stems branched, Leaves ovate gradually acuminated: the upper ones falcate
- 14925 Stems almost simp. Lvs. lanc. subul. falcate secund fragile: perichetial obl. nervel.; their marg. involute
- 14926 Stems slightly branched, Leaves loosely imbricated lanc. subfalcate secund: perichetial similar to cauline



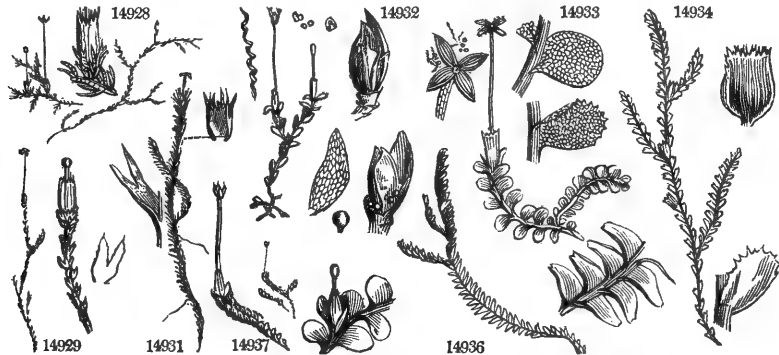
and Miscellaneous Particulars.

named Andreas, who was cited honorably by Pliny. This remarkable genus differs from all other mosses, in having a theca which splits into four valves, cohering at their ends by means of the persistent lid; it agrees with Sphagnum in having no fruitstalk, but in its room an elongated receptacle, and appears to be a transition from Musci to Hepaticae. This is, however, only apparent. All the species are natives of rocks or mountains, and are remarkable for their nearly black or dark brown color.



Reproductive organs of two kinds. 1. Theca without an operculum, either naked or sessile, or furnished with a veil through which they are more or less protruded. Sporules naked (e), or mixed with spiral threads (f). 2. Minute roundish or oblong bodies variously situated. Plants frondose of a cellulose structure not submersed. This order is distinguished from Algae, with which it was formerly united, by the nature of the theca (a, b), and of the foliaceous frond (c) which is never submersed, and which bears a greater affinity to that of Musci. From

|  |                |                 |                  |       |                                  |
|--|----------------|-----------------|------------------|-------|----------------------------------|
| 2253. JUNGERMANNIA. L. JUNGERMANNIA. Sp. 81—159. |                |                 |                  |       |                                  |
| 14927 trichophylla Wahl.                         | hair-leaved    | loose tufts     | 1½ summer        | Br    | turfy heaths Hook. jung. t. 7    |
| 14928 setacea E. B.                              | setaceous      | dense tufts     | 2 spring         | Pa.G  | bogs H.ju. t.8. sup. t.1         |
| 14929 julifolia Hook.                            | creeping       | dense patches   | ½ summer         | Pa.Ol | mountains Hook. jung. t. 2       |
| 14930 laxifolia Hook.                            | loose-leaved   | cush.-like pat. | ½ spr. and sum.  | Pa.G  | mountains Hook. jung. t.59       |
| 14931 juniperina Hook.                           | rigid          | crowded tufts   | 3 summer         | R.Br  | mountains Hook. jung. t. 4       |
| 14932 Hookeri E. B.                              | Hooker's       | small patches   | ½ wint. and spr. | G     | ditches Hook. jung. t.54         |
| 14933 asplenioides Hook.                         | Asplenium-like | loose patches   | 3 all seasons    | Ol.G  | moist woods Hook. jung. t.13     |
| 14934 spinulosa Hook.                            | spinulose      | crowded tufts   | 3 all seasons    | Y.G   | mountains Hook. jung. t.14       |
| 14935 decipiens Hook.                            | deceitful      | dense tufts     | 1 autumn         | Ol.G  | Irish heaths Hook. jung. t.50    |
| 14936 Doniana Hook.                              | Don's          | entangl. tufts  | 2½ september     | P.Br  | Scot. mount. Hook. jung. t.39    |
| 14937 pumila Hook.                               | dwarf          | small patches   | ½ wint. and spr. | Ol    | rocks Hook. jung. t.17           |
| 14938 lanceolata Hook.                           | lanceolate     | dense clusters  | ½ autumn         | Pa.G  | damp woods Hook. jung. t.18      |
| 14939 cordifolia Hook.                           | heart-leaved   | dense tufts     | 2 august         | D.Ol  | mountains Hook. jung. t.32       |
| 14940 Sphagni Hook.                              | Sphagnum       | entangl. patc.  | 3 autumn         | Y.G   | marshy plac. H.ju. t.33. su. t.2 |
| 14941 crenulata Hook.                            | crenulate      | matted patch.   | ¾ oct., novemb.  | R.G   | bogs Hook. jung. t.37            |
| 14942 sphaerocarpha Hook.                        | round-fruited  | dense tufts     | ½ early spring   | Pa.G  | Irish bogs Hook. jung. t.74      |
| 14943 hyalina Hook.                              | transparent    | broad tufts     | 1 early spring   | D.G   | bogs Hook. jung. t.63            |
| 14944 compressa Hook.                            | compressed     | dense tufts     | 4 june           | Pu    | rivulets, Irel. Hook. jung. t.58 |
| 14946 emarginata Hook.                           | emarginate     | large patches   | ½ may, june      | Br    | wet pl. on m. Hook. jung. t.27   |
| 14946 concinnata Hook.                           | notched        | thick tufts     | ½ may, june      | Sil   | wet pl. on m. Hook. jung. t. 3   |
| 14947 orcadensis Hook.                           | Orcaides       | loose patches   | 1 may, june      | Bt.G  | mountains Hook. jung. t.71       |
| 14948 inflata Hook.                              | inflated       | dense patches   | ½ jan. to july   | Ol.G  | boggy places Hook. jung. t.38    |
| 14949 excisa Hook.                               | bitten         | scatter. patch. | ½ spring         | D.G   | shady woods Hook. jung. t. 9     |
| 14950 ventricosa Hook.                           | ventricose     | dense patches   | ½ aug., novem.   | Pa.G  | woods Hook. jung. t.28           |



History, Use, Propagation, Culture, 2258. *Jungermannia*. Named by Rupprius, to perpetuate the memory of Louis Jungermann, a German

these Hepaticæ differ in being destitute of an operculum or lid to the theca, and, with the exception of *Marchantia* (*d*) and *Jungermannia*, of a calyptra. The order is composed of seven genera, all very different from each other, and forming an assemblage which is only natural in regard to the organs of vegetation. It does not appear possible to reconcile those of reproduction. The herbage consists of a variously dilated frond lying flat upon the substance on which it grows, generally naked, but in many *Jungermannias* covered with small leaves, which are often divided, but never really nerved, so that, in fact, they should rather be considered dilations of the frond: the substance is generally loosely cellular, sometimes compact, as in *Marchantia*, in which Hooker asserts that pores of the epidermis exist.

- 2253. *Jungermannia*. Theca 4-valved, supported on a peduncle longer than the calyx. Valves free.
- 2254. *Marchantia*. Theca on the under surface of a common peltate pedunculate receptacle. Anthers imbedded in the disk of distinct peltate pedunculate or sessile receptacles.
- 2255. *Riccia*. Theca spherical, immersed in the frond (not opening), crowned with the style, which is alone protruded.
- 2256. *Anthoceros*. Theca stalked, linear, 2-valved, with a central columella to which the sporules are attached.
- 2257. *Targionia*. Perianth? globose, arising from the underside of the extremity of the frond, at length opening vertically into 2-valves. Theca globose, nearly sessile, included in the perianth, opening irregularly at the extremity, and filled with spiral filaments.
- 2258. *Sphaerocarpus*. Thecae minute, spherical, seated upon obpyriform receptacles, and filled with minute sporules unmingled with filaments.

A. Leafy.

† *Stipules none.*

\* *Leaves inserted many ways.*

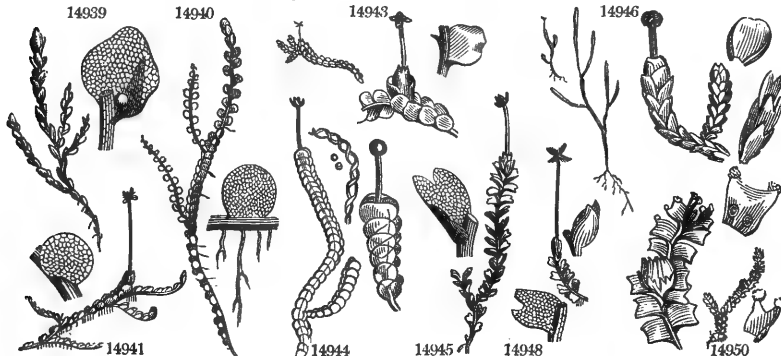
- 14927 Stem creep. irregul. branch. Lvs. imbricated on all sides setace. joint. straight, Fr. term. : mouth contract.
- 14928 Stem creep. pinnated. branch. Lvs. imbricat. on all sides setace. joint. incurv. Fr. term. : mouth expanded
- 14929 Leaves quadrifarious ovate closely imbricated erect acutely bifid, Theca terminal plaited at end
- 14930 Stem erect nearly simple filif. Lvs. dist. quadrifar. ov. somew. keel. acutely bif. Fr. term. Cal. somew. plait.
- 14931 Lvs. quadrifarious falcato-secund lin.-lanc. bipart. : segments straight acum. Fr. terminal, Cal. ovate leafy
- 14932 Leaves imbricated on all sides ovate or oblong-ovate here and there lobed and angled, Fr. term. Cal. none

\*\* *Leaves bifarious.*  
a *Leaves undivided.*

- 14933 Leaves obovate roundish ciliate toothed subrecurved, Fruit term. and lateral, Cal. obl. compressed oblique
- 14934 Lvs. obl. recurv. with margin on one side and apex dentato-spinul. Fr. lat. and axill. Cal. round. compr.
- 14935 Stem erect flexuose nearly simple. Lower leaves smaller ovate entire : upper rounded-ovate or nearly square, with one or more spiniform teeth
- 14936 Stem erect nearly simple filiform flexuose, Leaves closely imbricated nearly horizontal oblong ovate concave 2-toothed at end falcate 1-sided
- 14937 Leaves elliptical ovate, Fruit terminal, Cal. oblong ovate acuminate : mouth contracted denticulated
- 14938 Leaves spreading ovate-rounded, Fruit terminal, Cal. oblong cylindrical depressed and flat at the extremity : mouth much contracted cut and toothed
- 14939 Lvs. erect concave cord. circumvol. Fr. term. and axill. Cal. obl. ov. subuplicate : mouth minute toothed
- 14940 Lvs. orbicul. Fr. upon short prop. branches, Cal. obl. attenuat. at each extrem. : mouth contracted toothed
- 14941 Lvs. orbicular margin. Fruit term. Cal. obov. compressed longitudin. quadrang. : mouth contract. toothed
- 14942 Stem ascending simple, Leaves orbicular, Fruit terminal, Cal. obl. ovate cylind. quadri. Theca spherical
- 14943 Stem ascending flexuose dichotomous, Leaves rounded somewhat wavy, Fruit terminal, Cal. ovate angul. with a contracted 4-toothed orifice
- 14944 Stem erect divided, Leaves orbicular : upper reniform appressed, Fruit terminal, Cal. immersed oblong fleshy with an open 4-toothed orifice

b *Leaves emarginate or bifid : segments equal.*

- 14945 Leaves loosely imbric. spreading obovate emarginate, Fruit term. Cal. ovate toothed immersed in lvs.
- 14946 Leaves very closely imbricated erect concave ovate obtuse emarginate, Fruit terminal, Cal. O
- 14947 Leaves closely imbric. erect or spreading cordate ovate plane notched at extremity : their marg. recurv.
- 14948 Lvs. roundish concave acutely bifid : segm. straight obt. Fruit term. Cal. obpyrif. ; mouth contract tooth.
- 14949 Leaves spreading subquadrate deeply emarginate, Fruit terminal, Cal. oblong : mouth plaited toothed
- 14950 Leaves spreading subquadrate obtusely and broadly emarginate : their sides incurved, Fruit terminal, Cal. oblong : mouth contracted plaited toothed

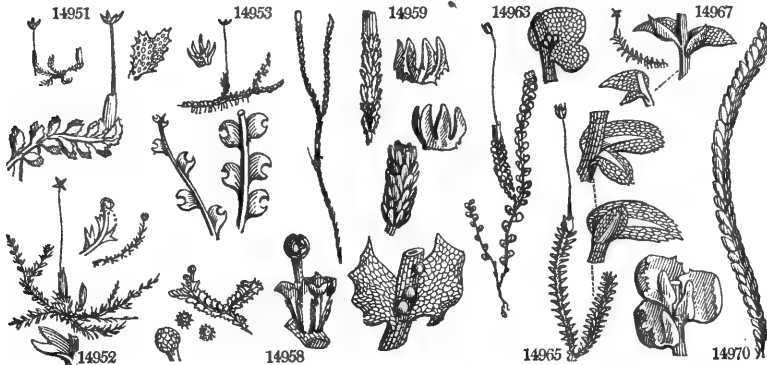


and Miscellaneous Particulars.

botanist, who was born in 1572, and died in 1653, after having published a catalogue of the plants of the neigh-



|                                    |                |                  |                               |                     |                      |
|------------------------------------|----------------|------------------|-------------------------------|---------------------|----------------------|
| 14951 <i>Turneri</i> Hook.         | Turner's       | small patches    | $\frac{1}{2}$ march           | Pa.G Irish rivul.   | Hook. jung. t.29     |
| 14952 <i>bicuspidata</i> Hook.     | two-pointed    | large tufts      | 1 march, april                | Pa.G damp banks     | Hook. jung. t.11     |
| 14953 <i>byssaeca</i> Hook.        | Byssus-like    | dense tufts      | $\frac{1}{2}$ march, april    | D.Ol heaths         | Hook. jung. t.12     |
| 14954 <i>connivens</i> Hook.       | connivent      | loose patches    | $\frac{1}{2}$ april, may      | Y.G wet places      | Hook. jung. t.15     |
| 14955 <i>curvifolia</i> Hook.      | curve-leaved   | small patches    | $\frac{1}{2}$ april, may      | Dp.P mountains      | Hook. jung. t.16     |
| 14956 <i>capitata</i> Hook.        | capitate       | very smll. pat.  | $\frac{1}{2}$ septem., jan.   | Pa.G bogs           | Hook. jung. t.80     |
| 14957 <i>incisa</i> Hook.          | cut            | smll.dense pat.  | $\frac{1}{2}$ july            | Pa.G heaths         | Hook. jung. t.10     |
| 14958 <i>pusilla</i> Hook.         | dwarf          | sol. or thk.pat. | $\frac{1}{2}$ october, may    | Bt.G moist banks    | Hook. jung. t.69     |
| 14959 <i>setiformis</i> Hook.      | bristly        | dense tufts      | 2 spring                      | G.Br mountains      | Hook. jung. t.20     |
| 14960 <i>memorosa</i> Hook.        | grove          | matted tufts     | 2 $\frac{1}{2}$ july, october | Pu woods            | Hook. jung. t.21     |
| 14961 <i>planifolia</i> Hook.      | flat-leaved    | crowded patc.    | 2 .....                       | Din.Br mountains    | Hook. jung. t.67     |
| 14962 <i>umbrösa</i> Hook.         | shady          | dense tufts      | $\frac{1}{2}$ march, april    | G.Br shady places   | Hook. jung. t.24     |
| 14963 <i>undulata</i> Hook.        | wavy           | large tufts      | 3 may, june                   | Bt.G wet places     | Hook. jung. t.22     |
| 14964 <i>respinata</i> Hook.       | respiniate     | very smll. tufts | $\frac{1}{2}$ may, june       | Br.G heaths         | Hook. jung. t.23     |
| 14965 <i>albicans</i> Hook.        | whitish        | broad tufts      | 1 $\frac{1}{2}$ april, july   | Pa.G hedge banks    | Hook. jung. t.25     |
| 14966 <i>obtusifolia</i> Hook.     | blunt-leaved   | little tufts     | $\frac{1}{2}$ march, april    | Pa.G damp places    | Hook. jung. t.26     |
| 14967 <i>Dicksöni</i> Hook.        | Dickson's      | dens. mat. tuf.  | $\frac{1}{2}$ august          | Ol.Br mountains     | Hook. jung. t.48     |
| 14968 <i>minuta</i> Hook.          | minute         | loose patches    | $\frac{1}{2}$ spr. and sum.   | Ol.Br mountains     | Hook. jung. t.44     |
| 14969 <i>exsecta</i> Hook.         | scooped out    | small patches    | $\frac{1}{2}$ summer          | Pa.G heaths         | Hook. jung. t.19     |
| 14970 <i>cochleariformis</i> Hook. | cup-shaped     | large patches    | 4 summer                      | R.Br mount. bogs    | Hook. jung. t.68     |
| 14971 <i>complanata</i> Hook.      | flattened      | cush.-like pat.  | 1 $\frac{1}{2}$ summer        | Pa.G trun. of trees | Hook. jung. t.81     |
| 14972 <i>anomala</i> Hook.         | anomalous      | loose patches    | 2 oct., novem.                | Br.G bogs           | Hook. jung. t.34     |
| 14973 <i>Taylori</i> Hook.         | Taylor's       | large patches    | 3 summer                      | Pk mountains        | Hook. jung. t.57     |
| 14974 <i>scalaris</i> Hook.        | scaly          | broad patches    | $\frac{1}{2}$ summer          | Pa.G loamy soil     | Hook. jung. t.61     |
| 14975 <i>polyanthos</i> Hook.      | many-capuled   | loose patches    | 1 $\frac{1}{2}$ april, may    | Pa.G wet places     | Hook. jung. t.62     |
| 14976 <i>cuneifolia</i> Hook.      | wedge-leaved   | parasitical      | $\frac{1}{2}$ summer          | Br inland           | Hook. jung. t.64     |
| 14977 <i>viticulosa</i> Hook.      | wiry           | loose patches    | 1 $\frac{1}{2}$ spring        | Y.Br ear. damp pl.  | Hook. jung. t.60     |
| 14978 <i>trichomanis</i> Hook.     | twisted        | large patches    | 1 $\frac{1}{2}$ summer        | Bt.G moist places   | Hook. jung. t.79     |
| 14979 <i>bidentata</i> Hook.       | two-toothed    | crowded patc.    | 1 $\frac{1}{2}$ oct., novem.  | Pa.G moist places   | Hook. jung. t.30     |
| 14980 <i>heterophylla</i> Hook.    | various-leaved | small tufts      | $\frac{1}{2}$ april, novem.   | Pa.G stems of trees | Hook. jung. t.31     |
| 14981 <i>stipulacea</i> Hook.      | large-stipuled | cush.-like tuf.  | $\frac{1}{2}$ summer          | Pa.Ol shady places  | Hook. jung. t.41     |
| 14982 <i>Francisci</i> Hook.       | Francis's      | crowded patc.    | $\frac{1}{2}$ april, july     | Pk moist places     | Hook. jung. t.49     |
| 14983 <i>barbata</i> Hook.         | bearded        | crowded patc.    | 1 $\frac{1}{2}$ spring        | Ba.G woods & hea.   | Hook. jung. t.70     |
| 14984 <i>albescens</i> Hook.       | whitened       | loose patches    | $\frac{1}{2}$ summer          | Pa.G Ben Nevis      | H.jun. t.72. su. t.4 |
| 14985 <i>reptans</i> Hook.         | creeping       | dense tufts      | 1 summer                      | Pa.G woods          | Hook. jung. t.75     |
| 14986 <i>trilobata</i> Hook.       | three-lobed    | large patches    | 3 summer                      | Ol.G rocks          | Hook. jung. t.76     |
| 14987 <i>platyphylla</i> Hook.     | broad-leaved   | wide patches     | 2 march, aug.                 | Br.G old walls      | H.jun. t.40. su. t.3 |
| 14988 <i>laevigata</i> Hook.       | polished       | loose tufts      | 2 $\frac{1}{2}$ summer        | Br.Ol woods         | Hook. jung. t.35     |
| 14989 <i>ciliaris</i> Hook.        | ciliated       | dense patches    | 2 spr. and sum.               | R.Br rocks & hea.   | Hook. jung. t.65     |
| 14990 <i>Woodsi</i> Hook.          | Woods's        | crowded tufts    | 5 spr. and sum.               | R.Br Irish mount.   | Hook. jung. t.66     |
| 14991 <i>toimentella</i> Hook.     | downy          | broad patches    | 3 march, oct.                 | Pa.G moist places   | Hook. jung. t.36     |
| 14992 <i>Mackaii</i> Hook.         | Mackay's       | dense patches    | 1 febr., novem.               | Bk.G trees & rocks  | Hook. jung. t.53     |



*History, Use, Propagation, Culture.*

bourhood of Altdorf, and a work called *Cornucopia Floræ Giessensis*. A genus of obscure plants, forming by their creeping stems little patches upon trees or rocks, or on the earth in damp places. The British

14951 Stem procumbent flexuose branched in a starry manner, Leaves broad-ovate acutely 2-parted : segments folded together with spiny teeth, Fruit terminal

14952 Lvs. subquad. acutely bifid : segm. acute straight ent. Fruit terminal, Cal. obl. plaited : mouth toothed

14953 Leaves subquadrate obtusely bifid : segments acute, Fruit terminal, Cal. oblong plaited : mouth toothed

14954 Lvs. orbicul. concave at extrem. lunul. emarg. Fruit term. upon short prop. central branches. Cal. obl. ov.

14955 Lvs. round. very conc. bif. : segm. long acum. incurv. Fr. term. upon short prop. branch. Cal. obl. subplicate

*c* Leaves 3-4-fid : segments equal.

14956 Stem prost. nearly simp. Lvs. round. square : lower bifid ; upp. 3-4-fid, Fr. term. Cal. obl. ov. somew. plait.

14957 Leaves subquadrate waved subtrifid ; segm. equal here and there toothed, Fruit terminal, Cal. obovate

14958 Leaves spreading horizontally quadrate waved obtusely bitricrenate, Fruit terminal, Cal. campanulate,

Theca spherical bursting irregularly

14959 Leaves bifarious closely imbricated erect quadrate quadrifid : their inferior angles here and there spinul. toothed, Fruit terminal and lateral, Cal. oblong plicate : the mouth open

*d* Leaves bifid : segments unequal folded together.

14960 Lvs. unequally 2-lobed 3-bifid tooth. cili. Lobes fold. together : lower ones larger obov. ; upp. subcord. obt.

14961 Stem erect nearly simple, Leaves unequally 2-lobed as deep as base : tooth ciliated, Lobes folded together

14962 Lvs. uneq. 2-lob. Lobes folded together serrated at extrem. acute : lower ones larger ov. ; upp. round. ov.

14963 Leaves unequally 2-lobed wavy entire, Lobes roundish folded together ; lower ones largest, Fruit term.,

Cal. oblong incurved compressed

14964 Leaves roundish nearly equally 2-lobed entire, Lobes folded together, Fr. term. Cal. obl. incurv. compres.

14965 Leaves unequally 2-lobed folded together with a pellucid line in the middle serrated at the extremity,

Fruit terminal, Cal. obovate cylindrical

14966 Lvs. unequally 2-lobed folded together obtuse entire, Fruit term. Cal. obov. : mouth contracted toothed

14967 Lvs. unequally 2-lobed folded together narr. ov. acute, Fr. term. Cal. ov. plaited : mouth contract. toothed

14968 Leaves horizontally spreading somewhat folded together : upper equally, lower unequally 2-lobed, All

the lobes rather acute, Cal. obovate

14969 Stem prostrate nearly simple, Leaves unequally 2-lobed, Lobes folded together : lower larger ovate

concave acute ; upper minute tooth-like

14970 Leaves imbricated on the upper side unequally 2-lobed folded together : upper lobes the larger convex bifid

and toothed at the extremity

14971 Lvs. distich. imbricat. above uneq. 2-lobed : upp. lobes larger orbicul. ; lower ov. appres. flat, Cal. truncat.

†† Furnished with stipules.

*\* Leaves entire or rarely emarginate.*

14972 Leaves orbicular and ovate acuminate, Stipules broadly subulate.

14973 Lvs. all rounded, Stip. broadly subul. Fruit term. Cal. ovate compressed at the extremity truncate 2-lipped

14974 Lvs. round concave entire and emarg. Stipules broadly subul. Fruit terminal, Cal. immersed in the leaves

14975 Lvs. horizontal rounded quad. plane ent. and emarg. Stip. obl. bifid, Fr. upon very short proper branches

14976 Stem creeping simple, Lvs. rather rem. cuneiform ent. or bluntly emarg. at end, Stip. minute ovate bifid

14977 Leaves horizontal plane ovate entire, Stipules broadly ovate toothed lanc. Fr. lat. Cal. subterr. obl. fleshy

14978 Leaves horizontal convex ovate ent. Stipules round lunate-emarg. Fruit lat. Cal. subterr. obl. fleshy hairy

*\*\* Leaves 2 or 3 cleft : segments equal.*

14979 Leaves broadly ovate decurrent bifid at the apex : segm. very acute entire, Stipules bitrifid and lacinate

14980 Stem creeping branched, Leaves round-ovate decurrent rarely acutely often obtusely emarginate or entire,

Stipules bitrifid, Fruit terminal, Cal. ovate

14981 Leaves round acutely emarginate : segments acute straight, Stipules large ovate acuminate with a single

tooth at the base on each side

14982 Stem nearly erect simple or branched, Leaves ovate concave acutely emarginate, Stipules minute ovate

bifid, Fruit terminal, Cal. oblong cylindrical little plaited

14983 Leaves rounded quadrate 3-4-fid, Stipules lanceolate acutely bifid : their margins lacerated

14984 Lvs. very concave nearly hemispherical emarg. Stip. ovate lanc. obtuse, Fruit term. upon short branches

14985 Leaves imbricated above subquadrate incurved acutely 4-toothed, Stip. broadly quad. 4-tooth. Fr. radical

14986 Lvs. imbricat. above ov. convex obtusely trident. Stip. broadly subquad. cren. Fr. from lower part of stem

*\*\* Leaves bifid : segments unequal folded together.*

*a* Lower segments or smaller ones flat.

14987 Lvs. unequal. lob. : upper lobes round. ov. nearly ent. ; lower and stip. ligulate quite entire, Fruit lateral

14988 Lvs. unequal. 2-lobed spinul.-toothed : upper lobes roundish ov. ; lower ligul. Stip. obl. quad. spiny toothed

14989 Leaves very convex unequally 2-lobed : lobes and lobules ovate bipart. fringed with long and slender cilia

14990 Stem procumbent bitripinnate, Leaves very convex unequally 2-lobed : upper lobes 2-parted spiny toothed ;

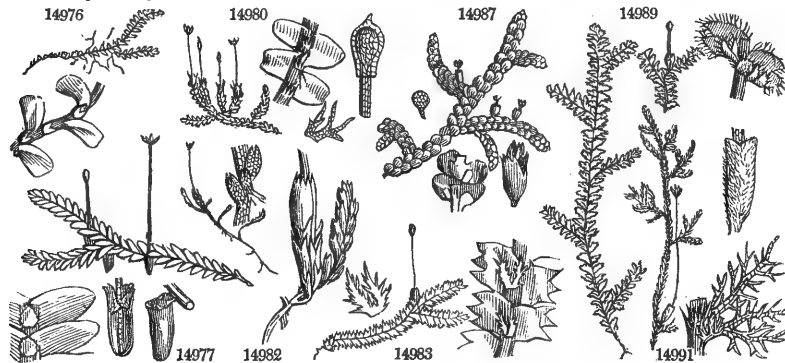
lower very minute oblong entire

14991 Leaves nearly flat unequally 2-lobed cut into numerous capillary segments : upper lobes 2-partite ; lower minute, Stipules subquadrate lacinate

*b* Lower segments or smaller ones involute.

14992 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes rounded ; lower minute invol.

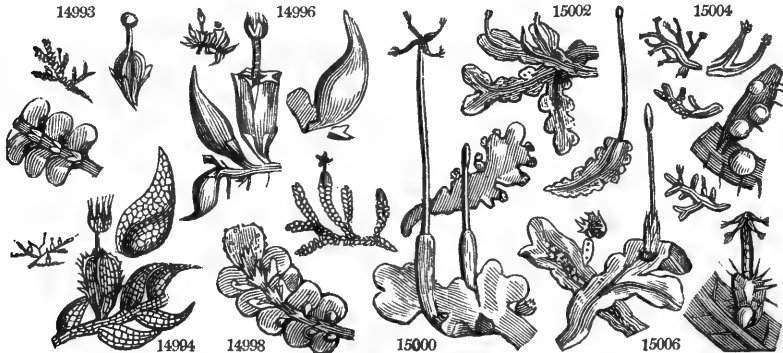
Stipules large rounded obovate



*and Miscellaneous Particulars.*

species have been admirably illustrated by Hooker, to whose Monograph no other botanical work can be compared.

|                                  |                       |                  |                  |       |                |                             |
|----------------------------------|-----------------------|------------------|------------------|-------|----------------|-----------------------------|
| 14993 <i>serpyllifolia</i> Hook. | thyme-leaved          | imbric. masses   | ‡ april, june    | Pa. G | trun. of trees | Hook. jung. t. 42           |
| 14994 <i>hamatifolia</i> Hook.   | hook-leaved           | very small. pat. | ‡ spring         | G     | rocks          | Hook. jung. t. 51           |
| 14995 <i>minutissima</i> Hook.   | very minute           | little patches   | ‡ april, may     | Y. G  | bark of trees  | Hook. jung. t. 52           |
| 14996 <i>calyptrifolia</i> Hook. | calyptra-leav.        | little tufts     | ‡ summer         | Pa. G | on Ulex nan.   | Hook. jung. t. 43           |
| 14997 <i>Hutchinsiae</i> Hook.   | Miss Hutchins's       | loose patches    | 1 summer         | D. OI | damp pl., Ir.  | Hook. jung. t. 1            |
| 14998 <i>dilatata</i> Hook.      | dilated               | round patches    | ‡ winter         | Br. P | trun. of trees | Hook. jung. t. 5            |
| 14999 <i>Tamarisci</i> Hook.     | Tamarisk              | large patches    | 3 april, sept.   | Br. G | on the earth   | Hook. jung. t. 6            |
| 15000 <i>pinguis</i> Hook.       | fat                   | loose patches    | 2 summer         | Pa. G | moist sha. pl. | Hook. jung. t. 46           |
| 15001 <i>multifida</i> Hook.     | many-cut              | crowded tufts    | 1 spring         | Pa. G | moist pl. hea. | Hook. jung. t. 45           |
| 15002 <i>Blásia</i> Hook.        | Blasia                | patches          | 1 spring         | D. G  | moist heaths   | II. jun. t. 82, 83, 84      |
| 15003 <i>epiphylla</i> Hook.     | epiphyllous           | large patches    | 3 spr. and aut.  | Pa. G | moist hedges   | Hook. jung. t. 47           |
| 15004 <i>furcata</i> Hook.       | forked                | large patches    | ‡ oct., march    | Pa. G | trun. of trees | Ho. jung. t. 55, 56         |
| 15005 <i>pubescens</i> Hook.     | downy                 | patches          | 1 spring         | GI    | rocks          | Hook. jung. t. 73           |
| 15006 <i>Lyellii</i> Hook.       | Mr. Lyell's           | loose patches    | 1 may            | Pa. G | bogs           | Hook. jung. t. 77           |
| 15007 <i>hibernica</i> Hook.     | Irish                 | loose patches    | 1 april          | Pa. G | shores of Ir.  | H. ju. t. 78. a. t. 4. f. 1 |
| 2254. <i>MARCHANTIA</i> Mich.    | <i>MARCHANTIA</i> .   |                  | Sp. 4-7.         |       |                |                             |
| 15008 <i>polymorpha</i> E. B.    | variable              | broad patches    | 2 winter         | D. G  | moist rocks    | Eng. bot. t. 210            |
| 15009 <i>hemisphaerica</i> E. B. | hemispherical         | broad patches    | 1‡ winter        | D. G  | moist rocks    | Eng. bot. t. 503            |
| 15010 <i>conica</i> E. B.        | conical               | broad patches    | 2 winter         | D. G  | shady banks    | Eng. bot. t. 504            |
| 15011 <i>androgyna</i> E. B.     | androgynous           | broad patches    | 1‡ winter        | Pa. G | wet rocks      | Eng. bot. t. 2545           |
| 2255. <i>RICCIA</i> E. B.        | <i>RICCIA</i> .       |                  | Sp. 4.           |       |                |                             |
| 15012 <i>glauca</i> E. B.        | glaucous              | patches          | ‡ spring         | GI    | rocks          | Eng. bot. t. 2546           |
| 15013 <i>nátans</i> E. B.        | swimming              | floating         | ‡ spring         | G     | ditches        | Eng. bot. t. 252            |
| 15014 <i>fluitans</i> E. B.      | floating              | floating         | ‡ spring         | Pa. G | ditches        | Eng. bot. t. 251            |
| 15015 <i>spúria</i> Dicks.       | spurious              | patches          | ‡ spring         | Pa. G | mount. mar.    | Dick. cr. t. 11. f. 16      |
| 2256. <i>ANTHOCEROS</i> E. B.    | <i>ANTHOCEROS</i> .   |                  | Sp. 3-5.         |       |                |                             |
| 15016 <i>multifidus</i> Dicks.   | multifid              | patches          | ‡ summer         | G     | crev. in roc.  | Dill. mus. t. 68. f. 4      |
| 15017 <i>punctatus</i> E. B.     | dotted                | patches          | 1‡ spring        | Pa. G | damp places    | Eng. bot. t. 1537           |
| 15018 <i>maior</i> E. B.         | large                 | broad patches    | ‡ spring         | D. G  | damp places    | Eng. bot. t. 1538           |
| 2257. <i>TARGIONIA</i> E. B.     | <i>TARGIONIA</i> .    |                  | Sp. 1-3.         |       |                |                             |
| 15019 <i>hypophylla</i> E. B.    | flat-leaved           | broad patches    | ‡ wint. and spr. | D. G  | wet places     | Eng. bot. t. 287            |
| 2258. <i>SPHÆROCARPUS</i> E. B.  | <i>SPHÆROCARPUS</i> . |                  | Sp. 1-4.         |       |                |                             |
| 15020 <i>terrestris</i> E. B.    | earth                 | spots            | ‡ winter         | Bt. G | damp places    | Eng. bot. t. 299            |



*History, Use, Propagation, Culture,*

2254. *Marchantia*. Named by Nicholas Marchant, in honor of his father John Marchant, the first botanist whom the Academy of Sciences of Paris admitted among its members, in 1666. Soft-leaved creeping plants, with green cellular fleshy fronds spreading over the surface of the ground in wet places. M. hemisphaerica and polymorpha are often the pest of the florist, whose flower pots are overrun by them, and continually disfigured.

2255. *Riccia*. Pietro Francisco Ricci, was a Florentine botanist, who left some of his works to the academy of Florence. Little, generally floating, simple plants, of the nature of which very little is known. Only one kind has been observed in fructification, and that is of a very ambiguous character. The theca, or the organs so called, are little round bodies immersed in a cavity of the frond, and containing minute spores.

2256. *Anthoceros*. From *ανθος*, a flower, and *κερας*, a horn, on account of the horn-like form of the theca, which old botanists considered to be the flower. Minute frondose plants, with a linear 2-valved theca, containing a columella to which the spores are attached. In habit they resemble Jungernannia.

- 14993 Lvs. unequal 2-lobed : upper lobes rounded ; lower minute invol. Stip. roundish acutely bifid. Fruit lateral  
 14994 Lvs. unequally 2-lobed : upper lobes ovate-acum. mostly curved at extremity ; lower ovate acutely bifid  
 14995 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes hemispherical ; lower minute almost obsolete, Stipules ovate rounded bifid, Fruit lateral  
 14996 Stem creeping branched, Leaves unequally 2-lobed : upper lobes larger calyptriform ; lower bluntly square circumvolute, Fruit lateral

c Lower segments or smaller ones saccate.

- 14997 Stem creeping branched, Leaves unequally 2-lobed : upper lobes ovate spiny-serrated : lower minute saccate generally 1-toothed at base, Fruit lateral  
 14998 Lvs. unequally 2-lobed : upper lobes ovate rounded ; lower rounded saccate, Stip. rounded flat emarginate  
 14999 Lvs. unequally 2-lobed : upper lobes ovate roundish ; lower minute obov. saccate, Stip. subquadrate emarg.

§ 2. Frondose.

† Nerveless.

- 15000 Frond obl. decumb. nervl. fleshy nearly plane above : swell. ben. ; irregularly branch. The margin sinuated  
 15001 Frond lin. nerveless fleshy compressed branched in a pinnated manner, Fruit marginal, Cal. very short

†† Nerved.

- 15002 Frond obl. submemb. dichot. costate having scattered scales on the underside, Cal. and calyptra within frond  
 15003 Frond obl. submembranous irregularly divided oboletely ribbed : the margin entire or lobed and sinuated, Fruit from upper part of frond near the apex  
 15004 Frond lin. dichotomous membranous costate glabr. above : more or less hairy beneath and on the margin, Fruit from the lower surface of the nerve  
 15005 Frond lin. dichotomous membranous costate pubescent in every part [Of the fronds  
 15006 Frond obl. somew. branch. memb. costate : the margin nearly entire, Fruit arising from the superior surface  
 15007 Frond obl. dichotomous membranous costate with the margin entire, Fruit arising from the upper surface of the frond

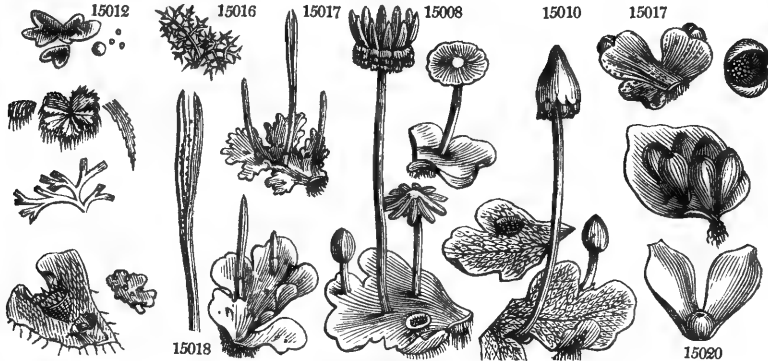
- 15008 Recept. of thecæ deeply cut in a stellated manner into about ten narr. segm. : that of the anthers pedunculat.  
 15009 Recept. of thecæ hemispherical cloven into about 5 oval segments  
 15010 Recept. of thecæ entire conical ovate somewhat angular : that of the anthers sessile  
 15011 Recept. of thecæ hemispherical half 4-cleft of 4 cells

- 15012 Frond small obl. somew. divid. : the segments 2-lobed at the end fleshy glaucous dotted on the surface  
 15013 Frond triangular cordate covered with long linear lanceolate segments on one side  
 15014 Frond membranous dichotomous, Lobes retuse  
 15015 Fronds membranous lobed pellucid, Theca beneath the sinuses of the lobes solit. exerted turbinate tooth.

- 15016 Fronds bipinnatifid linear  
 15017 Fronds multifid lobed sinuated, Theca subulate half bifid  
 15018 Fronds lobed rounded flat, Theca short

- 15019 Frond flat imbricated lobed, Lobes rounded retuse

- 15020 Frond simple ovate, Thecæ pyriform clustered at the base of frond

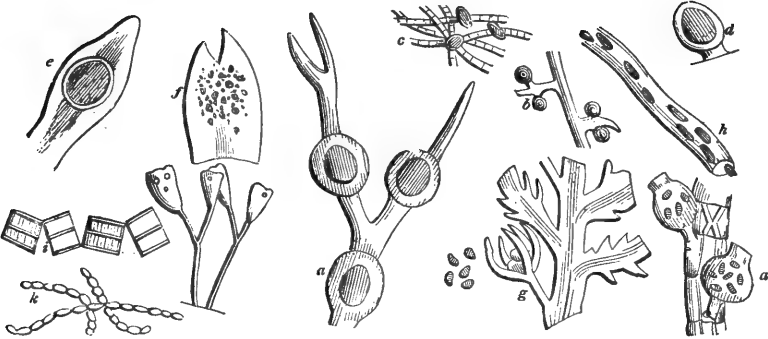


and Miscellaneous Particulars.

2257. *Targionia*. So called in remembrance of John Anthony Targioni, a meritorious Florentine botanist, who published in 1734 a work for the purpose of shewing the importance of botanical lectures, with reference to a course of studies in medicine. There was also another Florentine physician called John Targioni Tozzetti, after whom Tozzettia has been named. This genus consists of only one species, which is frondose and lobed. The theca is concealed and almost sessile within the involucre, globose, bursting at the apex, and discharging its sporules mixed with spiral filaments. This genus is very near *Jungermannia*.

2258. *Sphaerocarpus*. From *sphaera*, a globe, and *carpos*, fruit, in allusion to the form of the fruit. The plant consists of a roundish delicate membranous frond, bearing on its disk a cluster of obpyriform receptacles, each of which has a globose transparent finely membranous seed-vessel, filled with minute sporules unmixt with elastic filaments.

## Order 7. ALGÆ.



Reproductive organs of two kinds. 1. *Thecæ* or tubercles variously situated. 2. Sporules or granules naked or immersed in the frond. Plants always aquatic and submersed.

This order is constituted of the sea-weeds of our ocean, and of the floating scum-like substances of our ditches and rivers. Little is known of the functions which what are called their reproductive organs perform. The nature and structure of those organs are so various as to render it improbable that they should all be destined for the same purposes. The bodies which are called sporules are variously situated; now filling distinct thecæ (a), or even tubercles (b), which are either free (b, c, d), or imbedded in the substance of the frond (e, f); now appearing to be naked and surrounded by an involucre (g); now scattered or arranged in some determinate manner in the interior of the frond. (h) The fronds are either cylindrical (h), or plane (i), sometimes little more than a mere membrane, sometimes hard and horny, and extended to the length of many feet. Many are articulated (i, k): their line of separation is then called a joint, and the space between two joints an articulation.

Professor Agardh, of Lund, one of the most celebrated of modern cryptogamists, and whose disposition of Algæ is adopted here, in his latest work, called *Systema Algarum*, published at Lund, in 1824, defines the order thus:

“Aquatic plants destitute of cotyledons and of sexual organs; gelatinous, membranous, or coriaceous; filamentous, lamiose, or even leafy; in color green, purple, or olivaceous; jointed or continuous; bearing sporidia” (little transparent bodies containing sporules), “either included in pericarps or scattered over the surface.”

The Algæ form one of the three forms of the lowest order of vegetation, Lichens and Fungi the two other. Of the former, many are considered by some botanists to be animalcula, and others, to be the young seedling plants of mosses.

## TRIBE I. DIATOMÆ.

*Bodies of various forms, flat and crystalline, and separating into fragments.*

2259. *Achnanthes*. Frond stalked, vexilliform. *Marine*.  
 2260. *Diatoma*. Filaments jointed, hyaline, rigid, simple, united in pairs longitudinally, at length separating into articulations cohering by their alternate angles.  
 2261. *Fragillaria*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.  
 2262. *Meloseira*. Filaments jointed, contracted at the joints, very fragile, and easily separating.  
 2263. *Desmidiium*. Filaments transversely and densely striated, mucous, flexible, green, half separated into articulations, and in that state pinnatifid.  
 2264. *Schizonema*. Filaments bead-like, composed of narrower cohering filaments inclosing elliptical granules, into which they are finally dissolved. *Marine*.

## TRIBE II. NOSTOCHINÆ.

*Individuals numerous, globular or filiform, suspended in a gelatine of a definite form.*

2265. *Palmella*. Minute or small, somewhat diaphanous gelatinous plants, filled with solitary granules unmixed with filaments.  
 2266. *Echinella*. A roundish gelatine crammed with elliptical radiant corpuscles. *Marshy*.  
 2267. *Alcyonidium*. A spongy fleshy lobed frond filled with granules. *Marine*.  
 2268. *Nostoc*. Plants roundish or shapeless, gelatinous. Substance composed of curved moniliform simple filaments, lying irregularly in a gelatinous nidus.  
 2269. *Corynephora*. A gelatinous roundish puckered frond filled with jointed filaments, bearing here and there clavate processes.  
 2270. *Bivularia*. A gelatinous subglobose frond filled with filaments, radiating from a common centre, continuous, placed on a globe, and marked with annulations inside.  
 2271. *Chetophora*. Plant elongated or globose gelatinous. Substance composed of branched articulated filaments.  
 2272. *Scythymenia*. A coriaceous tough stratum, formed of fibres and granules mingled together.

## TRIBE III. CONFERVOIDÆ.

*Filaments jointed either externally or internally, separate, and not combined in any definite form.*

2273. *Byssocladium*. Filaments like cobwebs, scattered externally with sporidia. *Slightly inundated*.  
 2274. *Mycinema*. Filaments membranous, opaque, tenacious, colored (usually tawny). *Slightly inundated*.  
 2275. *Chroolepus*. Filaments rigid, nearly solid, opaque, crumbling into powder, torulose. *On rocks or bark*.  
 2276. *Trentepohlia*. Filaments flexible, colored, bearing capsules, which generally proceed from the last articulation, which is inflated. *Inundated or fluviatile*.  
 2277. *Scytonema*. Plant not gelatinous, coriaceous. Filaments short, forming dark dense tufts, beaded internally, or filled with annular transverse bodies. *On rocks or inundated, rarely marine*.  
 2278. *Stigonema*. Filaments continuous, coriaceous, naked, marked inside with dots disposed in rings. *On rocks*.  
 2279. *Protonema*. Filaments somewhat jointed, rooting very minute.  
 2280. *Hygrocrocis*. Filaments hyaline, arachnoid, obsolete articulated, floating in a shapeless gelatine or in a colored membrane.  
 2281. *Leptomitus*. Filaments hyaline or slightly colored, arachnoid, obsolete articulated, separate, erect, not entangled.

2282. *Mesogloia*. Frond filiform, cylindrical, gelatinous, with compact somewhat moniliform branches radiating from a medullary pith, and bearing capsules.
2283. *Batrachospermum*. Frond filiform, gelatinous, sending out from the primary filament moniliform gemmiferous branches.
2284. *Draparnaldia*. Filaments green, jointed, very gelatinous. Ramuli penicillate fascicled. Fructification a granular mass in the articulations of the main filaments.
2285. *Oscillatoria*. Plants gelatinous. Filaments simple, continuous, membranaceous, filled internally with transverse parallel striæ.
2286. *Calothrix*. Filaments destitute of a mucous matrix, stiffish, straight, motionless, with a continuous tube annulated inside.
2287. *Lengbøya*. Filaments without a mucous matrix, freely floating, flexible, motionless, with a continuous tube annulated inside.
2288. *Bangia*. Filaments capillary, mostly simple, tubular, continuous. Fructification; granules disposed in regular transverse series or strata.
2289. *Zygnema*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
2290. *Mougeotia*. Filaments articulated, connected like a net, with irregularly placed granules, and theca attached to the angles of the meshes.
2291. *Hydrodictyon*. Filaments articulated, connected like a net. Articulations viviparous, including young individuals.
2292. *Conferva*. Filaments uniform, jointed, membranaceous, simple or branched, mostly green. Fructification, granules scattered in the articulations. *Salt and fresh water.*
2293. *Bubochæte*. First filament articulated, sending out from the apex of the articulations an accessory branchlet. Theca alternating with the accessory branches. *Marshy.*
2294. *Nitella*. Filaments consisting of a single tube, membranous, jointed, with whorled branches. Organs of fructification twofold and separate; first nucules spirally striated, without bractes, and not crowned; second, colored globules. *Sea and marshes.*
2295. *Chara*. Filaments spirally striated, jointed, with whorled branches. Organs of fructification twofold, and close together; first, nucules spirally striated, furnished with bractæ, and crowned; second, colored globules. *Sea and marshes.*
2296. *Ceramium*. Filaments jointed, subdichotomous, red, articulations veined or diaphanous. Fructification; capsules with an involucre of short ramuli. *Marine.*
2297. *Griffithsia*. Filaments jointed, rose red, branched. Articulations marked with one broad tube-like line, the joints pellucid. Fructification; pedunculated capsules on the ramuli. *Marine.*
2298. *Chaetospora*. Filaments obsolete articulated, rosy, covered by axillary articulated fruit-bearing branches, which either include in the middle a globe of spores, or change to a lanceolate receptacle covered with setæ, among which the spores nestle. *Marine.*
2299. *Polysiphonia*. Filaments jointed, longitudinally striated, with internal parallel tubes. Fructification; double ovate capsules, and granules in swollen branchlets. *Marine.*
2300. *Rytidophæza*. Frond flattened, distichous, transversely striated, becoming black when dry, with incurved ramenta. Fruit twofold; first, spherical capsules with pyriform spordia; and second, lanceolate pods with roundish spordia. *Marine.*
2301. *Ectocarpus*. Filaments jointed, much branched, fuscous. Fructification; lanceolate pods or ovate capsules solitary or racemose. *Marine.*
2302. *Sphacellaria*. Filaments jointed, branched, olivaceous, distichous or dichotomous; apex of the branches sphacellate or hyaline, abrupt. Fructification; granules in the sphacellated apex, or capsules. *Marine.*
2303. *Cladostephus*. Plant olivaceous. Main filaments opaque, inarticulate; branches jointed, mostly whorled with ramuli. Fructification; capsules. *Marine.*

## TRIBE IV. ULVACEÆ.

*Frond membranous, continuous, tubular or flattened, never ribbed, herbaceous, or very rarely purple. Fruit a heap of spores, either naked, or forming scattered granules covered by coniocystas.*

2304. *Vaucheria*. Filaments dichotomous or irregularly branched, somewhat rigid. Fructification; a granulated mass within the frond, and external dark vesicles variously situated.
2305. *Codium*. Frond spongy, of a determinate figure formed of filaments densely packed, which are tubular and continuous, and colored by a granular green powder. Coniocystas clustered at the surface of the frond.
2306. *Bryopsis*. Root minutely scutate. Filaments tubular, continuous, aggregated, branched, pinnate, or imbricated upwards with branchlets. Fructification a dark internal granular mass.
2307. *Solenia*. Frond tubular, membranous, with a striated areolated surface. Spordia very minute and compact.
2308. *Ulva*. Root scutate. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification naked immersed; granules distributed in fours throughout the frond.
2309. *Porphyræ*. Frond flat, purple, with the membrane of equal texture. Fruit twofold; first, sori of oval spordia collected in a disorderly manner; second, two parallel lines marked on each side by a globule.

## TRIBE V. FLORIDEÆ.

*Frond coriaceous or rarely membranous, flat or filiform, continuous, purple or pink. Spordia purple, included in capsules or clustered in sori.*

2310. *Polyides*. Frond filiform, fastigate, cartilaginous, softish, composed of radiating fibres. Fruit, spongy warts composed of fibres supporting spordia.
2311. *Pilota*. Root scutate. Fronds compressed or plane, pinnate. Fructification; a cluster of naked granules surrounded by a linear cleft involucre.
2312. *Rhodomela*. Frond either flat or foliaceous, and somewhat ribbed or filiform. Fruit twofold; first, lomenta filled longitudinally with globules of sporaceous matter; second, capsules with a few pyriform spordia sessile in the capsule (blackish when dry).
2313. *Chondria*. Frond continuous, gelatinoso-cartilaginous. Fructification double; naked granules immersed in the substance of the ramuli and external tubercles.
2314. *Spheroococcus*. Root scutate. Frond submembranaceous or cartilaginous. Fructification uniform; tubercles or capsules.
2315. *Halymenia*. Frond flat or tubular, somewhat membranous. Fruit, dot-like tubercles half immersed in the lamina of the frond.
2316. *Bonnemaïsonia*. Frond filiform, compressed, pectinate, ciliated. Fruit, capsules with pyriform spordia fastened together in a chain-like manner.
2317. *Delesseria*. Root scutate. Frond plane, membranaceous, with or without ribs. Fructification double, tubercles and clusters of naked immersed granules.

## TRIBE VI. FUCOIDEÆ.

*Frond coriaceous, rarely membranous, continuous, olive-green, flat or filiform. Spordia black, included in capsules, which are either ovate, and surrounded by a hyaline border, and nestling in a peculiar receptacle, or pyriform, and immersed in the frond.*

2318. *Lemanea*. Frond filiform, torulose, tubular. Chains of sporæ adhering to the inner surface of the filament, pencilled-moniliform. *In fresh water.*

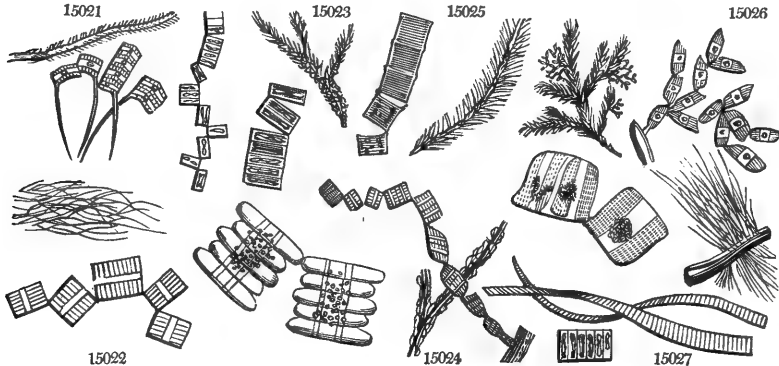
2319. *Chordaria*. Root scutate. Frond filiform of an olive color and cartilaginous substance. Fructification; clavate, pyriform, concentric filaments constituting the whole frond.  
 2320. *Scytosiphon*. Root scutate. Frond filiform, tubular, subcoriaceous. Fructification; naked pyriform granules covering the whole frond.  
 2321. *Sporochneus*. Root mostly scutate. Frond plane, with distichous branches, bearing, in most instances, delicate pencil-like deciduous tufts of confervoid filaments. ("Receptacles composed of concentric, clavate, articulated corpuscles.")  
 2322. *Haliseris*. Frond flat, linear, ribbed, membranous. Capsules heaped in sori.  
 2323. *Encetium*. Frond tubular or bladderly, dotted. Fruit, the tips of the frond filled with a black sporaceous matter.  
 2324. *Zonaria*. Root downy. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification, adnate tubercles collected into parallel lines on the frond.

DIATOMEÆ.

|   |           |       |                 |                                       |
|---|-----------|-------|-----------------|---------------------------------------|
| 2259. ACHNANTHES. Ag. ACHNANTHES.                   | Sp. 1—2.  |       |                 |                                       |
| 15021 longipes Ag. long-stalked fine down           | ½ july    | Gsh   | dit., sea coast | E. b. t. 2488. <i>Conf stipitata</i>  |
| 2260. DIATOMA. Ag. DIATOMA.                         | Sp. 5—16. |       |                 |                                       |
| 15022 focculosum Ag. floccose fine film             | ½ sum.    | Y.Br  | ditches         | E. bot. t. 1761. <i>Conferva</i>      |
| 15023 marinum Ag. marine little tufts               | ½ febr.   | Y.G   | ocean           | E. b. t. 1883. <i>Conf. tenuif.</i>   |
| 15024 Biddulphi anum Ag. Miss Biddulph's short down | ½ nov. d. | G     | sea coast       | E. bot. t. 1762. <i>Conferva</i>      |
| 15025 striatulum Ag. striated short down            | ½ april   | G     | ocean           | E. bot. t. 1928. <i>Conferva</i>      |
| 15026 obliquatum Ag. oblique minute branc.          | ½ sum.    | Lt.Br | ocean           | E. bot. t. 1869. <i>Conferva</i>      |
| 2261. FRAGILLARIA. Ag. FRAGILLARIA.                 | Sp. 2—3.  |       |                 |                                       |
| 15027 pectinialis Ag. silvery loose tufts           | ½ march   | Y.G   | on wat. plan.   | E. bot. t. 1611. <i>Conferva</i>      |
| 15028 hymalis Ag. winter dense fl. tufts            | 3 april   | O.Br  | rivulets        | Lyngb. phyt. dan. t. 63               |
| 2262. MELOSEIRA. Ag. MELOSEIRA.                     | Sp. 3—5.  |       |                 |                                       |
| 15029 nummuloides Ag. necklace down-like            | ½ march   | Ysh   | salt marshes    | Eng. bot. t. 2287                     |
| 15030 lineata Ag. striated short down               | ½ march   | Ysh   | rivulets        | Dil. con. 24. t. B. <i>Conferva</i>   |
| 15031 discigera Ag. cup-bearing short down          | ½ sum.    | Brsh  | lvs. of aquat.  | Di. co. 25. t. B. C. <i>nummul.</i>   |
| 2263. DESMIDIUM. Ag. DESMIDIUM.                     | Sp. 1—2.  |       |                 |                                       |
| 15032 Swartzii Ag. pinnatifid loose masses          | ½ sum.    | G     | still waters    | E. b. t. 2464. <i>Con. dissiliens</i> |
| 2264. SCHIZONEMA. Ag. SCHIZONEMA.                   | Sp. 5—9.  |       |                 |                                       |
| 15033 Smithii Ag. Smith's slipp. threads            | ½ sum.    | Brsh  | sea coast       | E. b. t. 2101. <i>Conf. foetida</i>   |
| 15034 lacustris Ag. lake slipp. threads             | sum.      | Brsh  | lakes           |                                       |
| 15035 Dillwynii Ag. Dillwyn's entangl. tufts        | ½ sp. su. | O.L.G | sea coast       | Di. co. t. 104. <i>Conf. foetida</i>  |
| 15036 apiculatum Ag. pointed lax tufts              | sum.      | Y.G   | sea in basins   | Grev. crypt. t. 30                    |
| 15037 dichotomum Grev. dichotomous erect tufts      | sum.      | Y.G   | sea in basins   |                                       |

NOSTOCHINÆ.

|  |            |      |              |                                |
|--|------------|------|--------------|--------------------------------|
| 2265. PALMELLA. Ag. PALMELLA.          | Sp. 6—12.  |      |              |                                |
| 15038 protuberans Ag. lobed mass       | ½ sp. aut. | G    | rocks        | Eng. bot. t. 2583. <i>Ulva</i> |
| 15039 botryoides Ag. bunched thin skin | aut.       | G    | damp places  |                                |
| 15040 adnata Ag. adnate gregarious     | aut.       | Y.Br | mount. rocks | Lyngb. phyt. dan. t. 69        |



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2259. *Achnanthes*. From *αχνη*, the froth of the ocean, and *ανθος*, a flower. Marine productions, separating into fragments, but by degrees. In the middle of each articulation are one or two crystalline points.  
 2260. *Diatoma*. From *διατομη*, incision, in allusion to the curious manner in which the filaments are divided into joints cohering alternately by their angles.  
 2261. *Fragillaria*. So named on account of their fragile nature, which is more remarkable than that of other *Conferva*. The filaments when complete are flat and composed of little fragments glued together crosswise. These are very narrow, and when once separated do not cohere again.  
 2262. *Meloseira*. From *μελος*, a membrane, and *σειρα*, a chain, with reference to the form of the filaments. This genus differs from the last, as *Conferva* from *Oscillatoria*.  
 2263. *Desmidium*. From *δεσμος*, a bond, in allusion to the singular manner in which the parts cohere when in a state of dissolution. At that period the articulations become half separated one from the other in such a way as to represent a pinnatifid appearance.  
 2264. *Schizonema*. From *σχιζω*, to divide, and *νημα*, a filament; the filaments are finally divided into compound granules. These plants have entirely the habit and flexible substance of *Conferva*. When fresh they are sparkling and brown, when dry olive-green, and very shining. They are composed of many filiform individuals, which include nearly the same corpuscles as are visible in the foreign genera *Frustulia* and *Meridion*.

2325. *Laminaria*. Root fibrous. Stipes dilated into a plane frond. Fructification, naked granules immersed and forming irregular groups in the frond.

2326. *Lichina*. Fronds minute, tufted, greenish-black when growing. Fructification solitary tubercles with a pore, at length scutelliform.

2327. *Furcellaria*. Frond cylindrical. Fructification concealed in the swollen extremities of the frond, capsules in the centre, and pyriforme granules in the circumference.

2328. *Fucus*. Root scutate. Frond plane or compressed, (rarely filiform) dichotomous. Fructification, tubercles contained in a common mucose receptacle, and filled with sporules and filaments.

2329. *Cystoseira*. Root scutate. Stipes cylindrical. Lower leaves plane, upper ones filiform, furnished with pinnate vesicles. Fructification, tubercles in common receptacles, the receptacles with several locuments.

### DIATOMEÆ.

15021 Articulations with one dot, Stem long

15022 Filaments striated, Articulations nearly equal in diameter with parallel striae

15023 Articulations half as long again as wide granular transversely

15024 Filaments greenish, Articulations square striated

15025 Filaments arcuate transversely striated, Articulations nearly square with pellucid joints

15026 Articulations half as long again as wide oblique marked with a pellucid transverse band and a dot

15027 Filaments tapering very rigid with parallel transverse dense striae

15028 Filaments tapering orange-colored, Articulations twice as short as their diameter

15029 Filaments unequal containing nearly circular moniliform globules in rows

15030 Joints contract. Articulations transversely striat. with 1 or 2 very fine lines about 3 times as long as wide

15031 Articulations shorter than broad finally changed into somewhat oval close moniliform heaps

15032 Filaments after copulation pinnatifid traversed by a longitudinal green streak, Articulations 2-toothed

15033 Filaments somewhat branched caespitose acute, Granules parallel clustered

15034 Filam. somew. branched caespitose acute, Granules clustered appressed, Membrane of filam. inconspicuous

15035 Filaments densely branched virgate, Granules elliptical

15036 Filaments minute continuous erect branched containing cylindrical oblong scattered granules

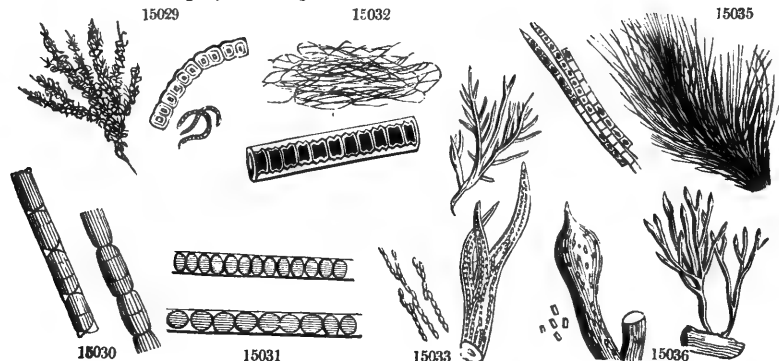
15037 Filaments slender erect dichotomous, Branches swollen here and there into roundish knobs: interior gelatinous with numerous cylindrical oblong granules

### NOSTOCHINÆ.

15038 Frond thick angular-lobed, Granules elliptical

15039 Fronds aggregate minute globose, Granules globose

15040 Frond deformed rugose, Granules globose brown



### and Miscellaneous Particulars.

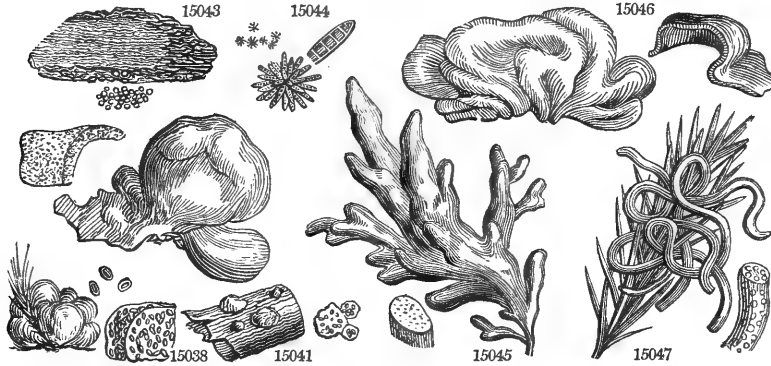
2325. *Palmella*. Apparently a diminutive of *Palma*, a little palm; but the application of the name is not obvious in that sense. The plants are found in marshy or inundated places, and consist of globules nesting in a gelatine; in which respect the genus differs from *Protococcus*, the Red Snow plant. It is supposed that many of the species are only the ova of animalcules.

The Red Snow plant, which, as we have just said, is nearly related to this genus, has not hitherto been noticed in this country, but as it has been found in many countries similar to our own regions of snow, it is so probable that it exists in Great Britain, that we insert some particulars of it here, especially as it may be considered to have been introduced at least in 1819, by Captain Ross's expedition to the North Pole. When viewed under the highest powers of a simple microscope, it appears to consist of globules containing a red fluid. We select the following observations upon its history, from a communication made to the *News of Literature and Science*, on the twenty-first of January, 1826.

"Our scientific readers will remember the interest which was excited on the subject of this natural production, upon the return of Captain Ross from his Polar expedition, some years since. At that time it was examined by three of the most acute observers in this country, especially of microscopical objects, Wollaston, Brown, and Bauer, who all formed a similar conclusion in one respect, that it was of vegetable origin, but were of different opinions as to its precise nature: Dr. Wollaston supposing it to be the seed of a moss; Mr. Brown, a substance belonging to Algae, and nearly related to *Tremella cruenta*, a common British plant; and Mr.



|                                |                                     |              |     |          |       |              |                                    |
|--------------------------------|-------------------------------------|--------------|-----|----------|-------|--------------|------------------------------------|
| 15041 rósea <i>Lyngb.</i>      | rosy                                | gregarious   | ... | sum.     | Pk    | on lichens   | Greiv. crypt. t. 51                |
| 15042 montána <i>Ag.</i>       | mountain                            | leaf-like    | 1½  | sum.     | R. G  | alpine rocks | Eng. bot. t. 2195. <i>Urua</i>     |
| 15043 crúenta <i>Ag.</i>       | bloody                              | thin crust   | ... | all sea. | R. B  | shady places | E. bot. t. 1800. <i>Tremella</i>   |
| 2266. ECHINEL'LA. <i>Ag.</i>   | ECHINELLA.                          |              |     |          |       |              |                                    |
| 15044 articuláta <i>Ag.</i>    | jointed                             | thin film    | ... | jn. jl   | G     | lakes        | E. b. t. 1378. <i>C.echinulata</i> |
| 2267. ALCYONIDIUM. <i>Ag.</i>  | ALCYONIDIUM.                        |              |     |          |       |              |                                    |
| 15045 díspánum <i>Ag.</i>      | transparent                         | fleshy mass  | 6   | sum.     | Y     | ocean        | Eng. bot. t. 263. <i>Urua</i>      |
| 15046 flavéscens <i>Ag.</i>    | yellowish                           | fleshy mass  | 3   | sum.     | Y     | ocean        | Fl. dan. t. 1245. <i>Urua</i>      |
| 15047 defráctum <i>Ag.</i>     | broken                              | vermicular   | 4   | sum.     | Y. Pk | ocean        | Eng. bot. t. 1626. <i>Urua</i>     |
| 2268. NOS'TOC. <i>Ag.</i>      | NOSTOC.                             |              |     |          |       |              |                                    |
| 15048 commúne <i>Ag.</i>       | common                              | lobed mass   | 2   | sum.     | Ol. G | damp places  | E. bot. t. 461. <i>Tremella</i>    |
| 15049 prunifórme <i>Ag.</i>    | plum-shaped                         | little balls | ½   | sum.     | Ol. G | lakes        |                                    |
| 15050 sphæ'ricum <i>Ag.</i>    | spherical                           | little balls | ½   | sum.     | Ol. G | still waters |                                    |
| 15051 verrucósum <i>Ag.</i>    | warted                              | gregarious   | 1   | april    | Ol. G | rocks        |                                    |
| 2269. CORYNE'PHORA. <i>Ag.</i> | CORYNEPHORA.                        |              |     |          |       |              |                                    |
| 15052 marina <i>Ag.</i>        | marine                              | lobed mass   | 1½  | aug.     | Br    | sea shore    | Eng. bot. t. 1956                  |
|                                | <i>Rivularia tuberiformis</i> E. B. |              |     |          |       |              |                                    |
| 2270. RIVULÁ'RIA. <i>Ag.</i>   | RIVULARIA.                          |              |     |          |       |              |                                    |
| 15053 átra <i>Ag.</i>          | dark                                | minute dots  | 1½  | oct.     | D. G  | sea plants   | Eng. bot. t. 1798                  |
| 15054 angulósa <i>Ag.</i>      | angular                             | little balls | ½   | sum.     | Di. G | ditches      | Eng. bot. t. 968                   |
| 15055 calcárea E. B.           | calcareous                          | confu. mass. | 1½  | all sea. | G     | lakes & mar. | Eng. bot. t. 1799                  |
|                                | <i>Linckia dura</i> Lyngb.          |              |     |          |       |              |                                    |
| 2271. CHÆTO'PHORA. <i>Ag.</i>  | CHÆTOPHORA.                         |              |     |          |       |              |                                    |
| 15056 tuberculósa <i>Ag.</i>   | warty                               | balls        | ½   | sept.    | G     | ditches      | E. bot. t. 2366. <i>Rivularia</i>  |
| 15057 endiviæfolia <i>Ag.</i>  | endive-leaved                       | branched     | 2   | sum.     | G     | still waters | Lyngb. phyt. dan. t. 65            |
|                                | <i>β crassa</i> <i>Ag.</i>          | thick-leaved | 2   | sum.     | G     | lakes        | E. b. t. 967. <i>U.incrassata</i>  |
| 2272. SCYTHYME'NIA. <i>Ag.</i> | SCYTHYMENIA.                        |              |     |          |       |              |                                    |
| 15058 rupéstris <i>Ag.</i>     | rock                                | broad mass   | 24  | sum.     | Br    | rocks        | Eng. bot. t. 2194                  |



History, Use, Propagation, Culture,

Bauer referring it to a genus of Fungi, called Uredo. We have lately seen a curious paper upon this subject, by Professor Agardh, of Lund, whose opinions upon all matters connected with the lower orders of vegetation demand deep attention.

"That snow occasionally assumed a red color, had long been a fact of which there could be no doubt; and that water was also under particular circumstances stained with red, we have the popular traditions of showers of blood, and water changed to blood, to attest. In the year 1608, a shower of blood fell near Aix, in France, which was examined by Peirese, and found to be caused by insects; and to the same cause was undoubtedly to be ascribed the bloody rain that fell at Schonen, in 1711, which the learned Bishop Swedberg looked upon as a supernatural phenomenon, and a direct sign of the anger of the Divinity. The red pools which are occasionally met with, even in this country, are generally stained by the presence of an immense number of animalcules, called *Daphnia Pulex*, or *Cyclops quadricornis*. The red stains sometimes seen upon the seashore are occasioned by a particular sort of Fucus. Professor Agardh proceeds to observe, that the red snow is very common in all the alpine districts of Europe; where it is probably, for the most part, of the same nature as that brought from the North Pole by Captain Ross. Saussure saw it in abundance upon Mount Brevern, in Switzerland, and elsewhere; Ramond found it on the Pyrenees, and Sommerfeldt in Norway. In March, 1808, the whole country about Cadore, Belluno, and Feltri, was in a single night covered to the depth of twenty centimetres with a rose-colored snow; at the same time a similar shower was witnessed on the mountains of Valteelin, Brescia, Carinthia, and Tyrol. But the most remarkable red-snow shower was that which fell on the night between the 14th and 15th of March, 1823, in Calabria Abruzzo, in Tuscany, and at Bologna, and upon the whole chain of the Appennines. We may add, that both snow and ice were seen stained with red, green, and blue, by the late expedition under Baron Wrangel to the Frozen Ocean.

"With this information before him, Professor Agardh proceeds to consider the nature of this remarkable substance, which he concludes, with Brown, to be referable to the lowest order of Algae, and to stand as a distinct genus, which he calls *Protococcus*, upon the very limits of the animal and vegetable kingdoms. Saussure, indeed, from finding that the red snow of the Alps gave out, when burnt, a smell like that of plants, concluded that it was of vegetable origin; but he supposed it to consist of the farina of some plant, although he could neither account for its having ascended to such elevated regions, nor mention a plant whose farina was of that color.

"Besides the plant called *Palmella cruenta*, which is similar in its structure to the red-snow plant, other low vegetable productions have been noticed by different authors, as possessing a similar color. Such are the *Leparia Kerresina*, which, by the way, is considered only a particular state of the red-snow plant itself, and the *Byssus cobaltinea*. These are always found in situations in which they are exposed to the intense action of light, such as vast plains of snow, or masses of glittering limestone. Whence it is inferred, that the color of the red snow is attributable to the action of light, modified in some mysterious manner, by the nature of the body on which it strikes. In confirmation of which hypothesis it is remarked, that when the *Leparia*

- 15041 Minute roundish soft rose-colored containing extremely minute sporules  
 15042 Frond deformed rugose, Granules ovate red  
 15043 Frond crust-like crimson

15044 Corpuscles radiant lanceolate jointed

- 15045 Branches elongated  
 15046 Branches short obtuse  
 15047 Frond filiform simple

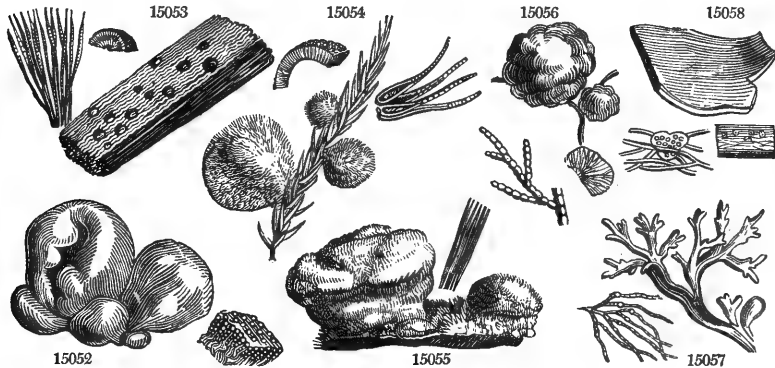
- 15048 Frond expanded deformed plaited wavy  
 15049 Frond globose watery inside, Integument coriaceous very smooth  
 15050 Frond globose solid smooth  
 15051 Frond bladdery subcoriaceous hollow plaited smooth

15052 The only species

- 15053 Frond hemispherical hard, Filaments very dense branched by apposition  
 15054 Frond globose hollow, Filaments simple  
 15055 Filaments intermingled with calcareous particles hard and crustaceous when dry

- 15056 Frond tubercular hollow, Filaments distributed in many little orbs  
 15057 Frond linear flattish dichotomous at base much pinnated at end  
 β Branches very short

15058 The only species



and Miscellaneous Particulars.

*Kermesina* is found under stems, stones, or in crevices of limestone, where light can scarcely gain admittance, its color gradually passes from red to green.

"The only difficulty in the way of this explanation of its nature is in the statements of so many observers, that the red snow falls from the air. But Professor Agardh shrewdly remarks, that all the persons agree that it fell in the night, *which is as much as to say, that no one saw it fall.* He is of opinion that the Protococcus, or Red Snow, is called into existence by the vivifying power of the sun's light, after its warmth has caused the snow to dissolve, and accompanied by that incomprehensible power in white snow, of producing a color; and, moreover, that it first attracts the eye when there is a considerable quantity, in the same way that we do not see the color of drops of water till they have accumulated in the ocean."

2266. *Echinella*. From *echinus*, an hedgehog, in allusion to the bristly appearance presented by its radiant particles. Many naturalists believe the bodies referred to this genus to be animalcula.

2267. *Alcyonidium*. So called, from *αλκυονες*, the foam of the sea, among which the plants referred to this genus are naturally produced. This also is supposed to be the nidus of animalcula. Lamouroux who originally fixed it here, afterwards referred it to Zoophytes; in which last opinion Gaillon agrees with him, declaring that he has actually seen the animalcula nesting in it. D'Orbigny and Ellis consider it the ova of a testaceous animal.

2268. *Nostoc*. A name first used by Paracelsus, without an explanation of its meaning. Agardh thinks this singular substance changes into the genus *Collema* among the Lichens.

2269. *Corymephora*. From *κorymbos*, a club, and *φερον*, to bear, in allusion to the clavate filaments which are found on different parts of it. The species are found in the ocean."

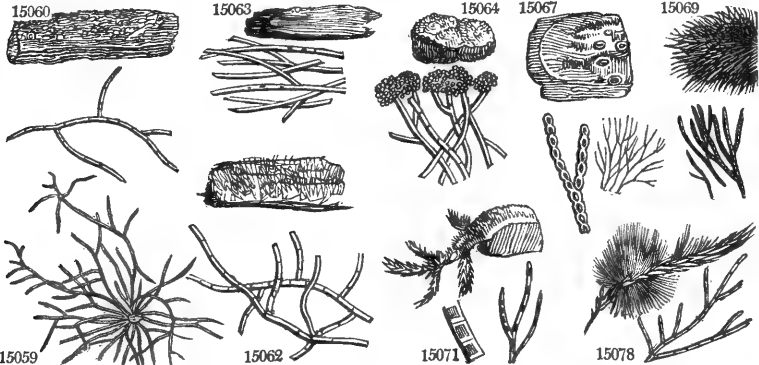
2270. *Rivularia*. So named on account of the places in which the species grow. They have a globose frond, of a gelatinous but toughish texture. Their color is dark-green, and not as in the next genus, pale-green. The filaments are very singular, seated on a globule, simple, cylindrical, and terminated by a very fine point; they are densely compact, continuous, and filled with a green annular matter.

2271. *Chatophora*. From *καθηρ*, a bristle, and *φορε*, to bear; the filaments are terminated by a bristle-like point. This genus is chiefly distinguished from *Conkeryoides* by its gelatine. The color is bright green, and the texture softer than in the preceding. The manner of propagation, which has been noticed in so small a number of Algae, has been observed by Agardh in two species of this genus. In *Chatophora pisiformis* little hard crystalline corpuscles, like grains of sand, may be seen, which separate from the mother plant and produce young filaments. But in *C. clavata*, the points of the filaments fall off and sink to the bottom of the water, where they unite by three, four, five, or by a greater number at a time, in a common point, which is first green, afterwards blackish, and apparently inorganic. From this beginning new individuals arise.

2272. *Scythymenia*. Derivation unknown. A very singular plant, formerly referred to Ulva. It has the habit of a fungus, and grows upon damp walls. It is supposed to be most nearly related to *Palmella*.

CONFERVOIDEÆ.

|   |               |               |                  |          |        |  |
|---|---------------|---------------|------------------|----------|--------|--|
| 2273. <i>BYSSOCLADIUM</i> <i>Ag.</i> <i>BYSSOCLADIUM.</i> |               |               | <i>Sp.</i> 1-3.  |          |        |  |
| 15059 fenestrale <i>Ag.</i>                               | window        | fine tuft     | ½                | all sea. | G      | on windows Dillw. conf. t. 94                        |
| 2274. <i>MYCINEMA</i> <i>Ag.</i> <i>MYCINEMA.</i>         |               |               | <i>Sp.</i> 5-6.  |          |        |  |
| 15060 arachnoideum <i>Ag.</i>                             | cobweb        | patch         | ½                | all sea. | Pa. G  | dead trees Dillw. conf. t. C. <i>Conferva</i>        |
| 15061 fulvum <i>Ag.</i>                                   | tawny         | down-like     | ½                | aut.     | Br     | rotten wood  |
| 15062 rubiginosum <i>Ag.</i>                              | rusty         | patch         | ½                | all sea. | Rust   | rotten wood Dillw. conf. t. 63. <i>Conf.</i>         |
| 15063 phosphoricum <i>Ag.</i>                             | phosphoric    | patches       | ½                | all sea. | Y      | rotten wood Dillw. conf. t. 83. <i>Conf.</i>         |
| 15064 pulvereum <i>Ag.</i>                                | powdery       | thin crust    | ½                | all sea. | G      | rotten wood Dillw. conf. t. 78. t. D. <i>Conf.</i>   |
| 2275. <i>CHROOLEPUS</i> <i>Ag.</i> <i>CHROOLEPUS.</i>     |               |               | <i>Sp.</i> 5-6.  |          |        |  |
| 15065 Jolithus <i>Ag.</i>                                 | purple        | patches       | ½                | all sea. | Pu     | rocks Fl. dan. t. 899. f. 1                          |
| 15066 odoratus <i>Ag.</i>                                 | sweet-scented | patches       | ½                | wint.    | Br     | trees Lyngb. hydrop. dan. t. 57                      |
| 15067 lichenicola <i>Ag.</i>                              | Lichen        | down          | ½                | sum.     | R. O   | on lichens Eng. bot. t. 1609                         |
| 15068 rubicundus <i>Ag.</i>                               | pink          | patches       | ½                | sum.     | R. Br  | bark of ap. tr.                                      |
| 15069 ebeneus <i>Ag.</i>                                  | ebony         | patches       | ½                | all sea. | Bk     | rocks E. b. t. 702. <i>Byssus nigra</i>              |
| 2276. <i>TRENTEPOLIA</i> <i>Ag.</i> <i>TRENTEPOLIA.</i>   |               |               | <i>Sp.</i> 3-4.  |          |        |  |
| 15070 purpurea <i>Ag.</i>                                 | purple        | patches       | ½                | all sea. | Pu     | sea coa., roc.                                       |
| 15071 aurea <i>Ag.</i>                                    | golden        | patches       | ½                | all sea. | Y      | roc. & sub. w. Eng. bot. t. 192. <i>Byssus</i>       |
| β ilicicola <i>Ag.</i>                                    | Holly         | branch, patc. | ½                | spring   | Y      | holly bark En. bot. t. 1639. <i>Conferva</i>         |
| 15072 pulchella <i>Ag.</i>                                | pretty        | downy tufts   | ½                | spring   | R. Br  | on <i>Conferva</i> Eng. bot. t. 2585. <i>C. nana</i> |
| β chalybea <i>Ag.</i>                                     | iron          | tufts         | ½                | sept.    | D. OI  | fresh water Eng. bot. t. 1996                        |
| 2277. <i>SCYTONEMA</i> <i>Ag.</i> <i>SCYTONEMA.</i>       |               |               | <i>Sp.</i> 5-17. |          |        |  |
| 15073 compactum <i>Ag.</i>                                | compact       | tufts         | 1                | sum.     | Bksh   | mountains Lyngb. hydrop. dan. t. 23                  |
| 15074 byssodeum <i>Ag.</i>                                | byssus-like   | tufts         | 1                | sum.     | B. G   | rocks Dillen. t. 1. f. 18                            |
| 15075 myochrous <i>Ag.</i>                                | mouse-skin    | slimy coat    | 1                | sum.     | D. Br  | rocks  |
| β ocellatum <i>Ag.</i>                                    | mottled       | slimy coat    | 1                | sum.     | D. Br  | aquat. plants Eng. bot. t. 2530                      |
| γ inundatum <i>Ag.</i>                                    | inundated     | slimy coat    | 1                | sum.     | D. Br  | inund. places Eng. bot. t. 1555                      |
| 15076 Bångii <i>Lyngb.</i>                                | spiral        | compact tufts | 1                | sum.     | E. Rug | subalp. banks Lyngb. hydrop. dan. t. 23              |
| 15077 Sowerbyanum <i>Ag.</i>                              | Sowerby's     | short down    | ½                | sum.     | OI. Br | ocean E. b. t. 2219. <i>C. mirabilis</i>             |
| 15078 comoides <i>Ag.</i>                                 | tufted        | broad patches | ½                | oct.     | Ra. br | ocean Eng. bot. t. 1700. <i>Conf.</i>                |
| 2278. <i>STIGONEMA</i> <i>Ag.</i> <i>STIGONEMA.</i>       |               |               | <i>Sp.</i> 1-3.  |          |        |  |
| 15079 atrovirens <i>Ag.</i>                               | dark green    | bushy tufts   | ½                | sum.     | Bk. G  | rocks Dillw. conf. t. 23. <i>Conf.</i>               |
| 2279. <i>PROTONEMA</i> <i>Ag.</i> <i>PROTONEMA.</i>       |               |               | <i>Sp.</i> 7-10. |          |        |  |
| 15080 repens <i>Ag.</i>                                   | creeping      | patches       | ½                | sum.     | G      | pots in hoth.  |
| 15081 umbrösium <i>Ag.</i>                                | shady         | patches       | ½                | sum.     | G      | on the earth Dillw. conf. t. 61. <i>Conf.</i>        |
| 15082 velutinum <i>Ag.</i>                                | velvety       | patches       | ½                | nov.     | G      | on the earth Dillw. conf. t. 77. <i>Conf.</i>        |
| 15083 fragrans <i>Ag.</i>                                 | fragrant      | patches       | ½                | nov.     | G      | on the earth Eng. bot. t. 1536. <i>Conf.</i>         |
| 15084 cryptatum <i>Ag.</i>                                | vault         | patches       | ½                | sum.     | G      | caverns Eng. bot. t. 2588. <i>Conf.</i>              |
| 15085 Orthotrichi <i>Ag.</i>                              | Orthotrichum  | dense tufts   | ½                | sum.     | Br     | on Orthotr. E. b. t. 1638. <i>C. muscicola</i>       |
| 15086 muscicola <i>Ag.</i>                                | moss          | minute down   | ½                | april    | Br     | on mosses E. b. t. 1701. <i>Con. castanea</i>        |
| 2280. <i>HYGROCROCIS</i> <i>Ag.</i> <i>HYGROCROCIS.</i>   |               |               | <i>Sp.</i> 7-9.  |          |        |  |
| 15087 barytica <i>Ag.</i>                                 | Barytes       | fine tufts    | ½                | all sea. | Tr     | sol. of mur. B.                                      |
| 15088 atramenti <i>Ag.</i>                                | ink           | fine tufts    | ½                | all sea. | Wsh    | surf. of ink Lyngb. hydroph. t. 57                   |
| 15089 typhloderma <i>Ag.</i>                              | Gum Arabic    | fine tufts    | ½                | all sea. | OI     | in sol. g. arab. Dillw. conf. t. 83. <i>Conf.</i>    |
| 15090 pallida <i>Ag.</i>                                  | pallid        | fine tufts    | ½                | all sea. | Y      | sol. of ochre Dillw. conf. t. 78. <i>Conf.</i>       |
| 15091 Roseæ <i>Ag.</i>                                    | Rose-water    | fine tufts    | ½                | all sea. | Tr     | rose water   |
| 15092 sanguinea <i>Ag.</i>                                | blood-colored | fine tufts    | ½                | all sea. | C      | isinglass size                                       |
| 15093 vini <i>Ag.</i>                                     | Wine          | fine tufts    | ½                | all sea. | Y      | in Mad. wine   |
| 2281. <i>LEPTOMITUS</i> <i>Ag.</i> <i>LEPTOMITUS.</i>     |               |               | <i>Sp.</i> 4-15. |          |        |  |
| 15094 minutissimus <i>Ag.</i>                             | very minute   | little tufts  | ½                | all sea. | Tr     | on mar. algæ   |
| 15095 lacteus <i>Ag.</i>                                  | milkly        | patches       | ½                | wint.    | Tr     | pools Dillw. conf. t. 79. <i>Conf.</i>               |



History, Use, Propagation, Culture,

2273. *Byssocladium*. From *byssus*, a kind of fungus, and *κλαδος*, a branch; the filamentous branches of this plant being very similar to those of *Byssus*. These plants grow in places occasionally overflowed with water.

2274. *Mycinema*. From *μυκός*, a kind of minute fungus, and *νημα*, a thread; in allusion to the resemblance of the filaments to those of some Fungl.

2275. *Chroolepus*. So called on account of the change which is undergone by the exterior membrane which changes to powder; from *χρῶμα*, skin, and *λεπω*, to decorticate.

2276. *Trentepohlia*. So named, in honor of an obscure German botanist. This is an ill-defined genus, which is much in need of reformation.

2277. *Scytonema*. From *σκῆνος*, leather, and *νημα*, a filament; in allusion to the coriaceous nature of the filamentous frond. The species grow chiefly on stones in inundated places, and are rarely found in salt water.

CONFERVOIDÆ.

15059 Filaments appressed very minute short radiant cobweb-like branched sinuous wavy

15060 Filam. thin entangled in a cobweb-like membr. Branches scatter. rem. simp. Articulat. of various lengths  
 15061 Filam. decumb. long membran. equal branched entangled in a soft layer, Articulat. thrice as long as broad  
 15062 Filaments much branched rigid erect entangled in a nearly solid mass, Articulat. 4 times as long as broad  
 15063 Filam. branch. ascend. very short entangled in a dense unif. crust, Articulat. about  $\frac{1}{2}$  as long again as broad  
 15064 Filam. branch. dichotom. creeping very minute having caps. at end and ærugin. Dissepiments nearly obsol.

15065 Filaments cæspitose erect very short dichotomous, Articulations half as long again as broad  
 15066 Filaments cæspitose branched short erect, Branches spreading stiffish, Articulations as broad as long  
 15067 Filaments erect fascicled alternately branched rigid, Articulations tumid as broad as long  
 15068 Filam. cæspit. rig. short ascend. curved densely branched, Artic. as broad as long by a line except granules  
 15069 Filaments cæspitose branched erect rigid somewhat cartilaginous obtuse, Articulations as broad as long

15070 Filam. dichotomous cæspitose entangled very minute, Artic. about twice as long as broad  
 15071 Filam. flexu. collect. in a dense soft cushion-like tuft, Branch. long spread. rig. Artic. twice as long as broad  
 β Much smaller, Articulations as broad as long  
 15072 Filaments virgate cæspitose, Branches straight, Artic. twice as long as broad, Theca: racemose

15073 Filaments decumbent rigid flexuose branched entangled in a crustaceous layer, Branches appressed  
 15074 Filaments simple erect very short flexuose-crisp entangled in a black layer  
 15075 Tuft with olive-yellow filaments, Branches double 1-sided

15076 Filaments simple erect flexuose spirally twisted into pointed masses greenish above brownish below  
 15077 Tuft loose, Filaments netted branched, Branches divaricating  
 15078 Tuft loose, Filaments flexuose, Branches solitary remote ascending

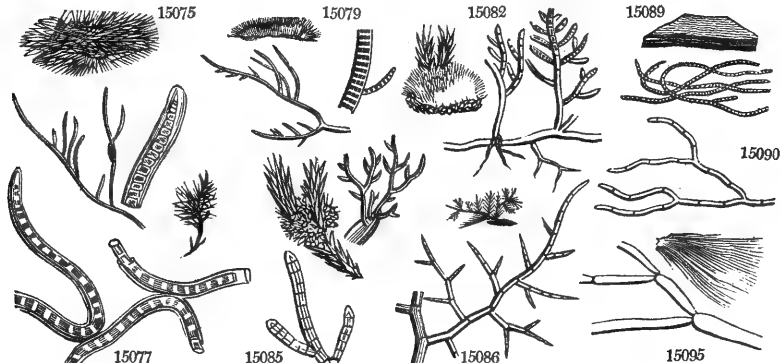
15079 Filaments rigid branched, Branches slender, Granules disposed in rings

15080 Runner creeping transparent emitting round green erect branches, Artic. cylindrical, Joints obsolete  
 15081 Layer velvety, Filaments erect obtuse clustered brittle, Articulations gibbous  
 15082 Layer velvety, Runner creeping roofing sending out erect obtuse branches, Artic. cylind Joints obsolete  
 15083 Layer velvety, Filaments erect blunt rigid, Branches alternate, Articulations oval twice as long as broad  
 15084 Filaments dichotomous, Branches divaricating acuminate, Artic. thrice as long as broad  
 15085 Filaments olivaceous branched blunt erect in a cushion-like tuft, Artic. about as broad as long  
 15086 Filaments branched, Branches alternate divaricating subulate, Artic. three times as long as broad

15087 Tuft globose, Filaments very fine like cobweb hyaline much entangled without joints wavy branched  
 15088 Filam. dichot. branch. very min. decumb. very densely entang. in a whit. layer, Artic. twice as long as broad  
 15089 Filam. somewhat branched densely entangled in an olive-green pellicle, Artic. as broad as long  
 15090 Filam. dichot. curved flexuose entangled in a coriaceous gelatin. pellicle, Axillæ round, Artic. very long  
 15091 Filam. hyal. somew. branch. entang. cobw.-like entang. in a pucker. cloud-like membr. or a comp. gelatine  
 15092 Filam. branched densely entangled in a gelatin. pellicle, Branches divaric. Artic. half as long again as broad  
 15093 Filaments hyaline entangled branched, Branches tapered acute, Artic. as long as broad

\* Growing on vegetables.

15094 Filam. somew. branched minute hyaline, Branches scattered forked bluntish, Joints obsol. Artic. various  
 15095 Filam. at every joint branched and clustered in a shapeless gelatinous mass, Articulations very long



and Miscellaneous Particulars.

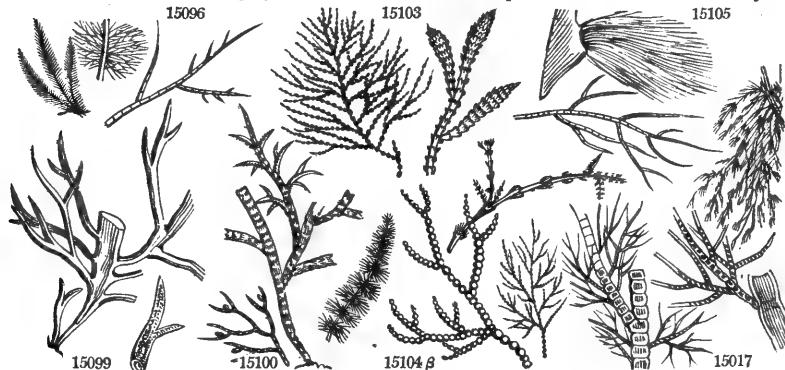
2278. *Stigonema*. So named in allusion to the regular annular dots of the filaments; from *στίγων*, dotted, and *νημα*, a thread. This genus is similar in habit to the Lichens. The color is opaque and brown; the filaments are branched with spines, and marked internally with distinct dots.

2279. *Protonema*. It is uncertain whether this genus is not rather the young state of germinating mosses; it is named in allusion to the simplicity of its structure, from *πρωτος*, first, or primary, and *νημα*, a thread.

2280. *Hygrocrocis*. From *ὕγρος*, any thing belonging to water, and *κροκίσις*, a little tuft. These plants are found in chemical solutions of vegetable matter, as in ink, &c.

2281. *Leptomitus*. Substances floating in the water, and produced by animal matter in a state of decay. They consist of exceedingly fine intertangled filaments, whence the name, *λεπτος*, slender, and *μίτος*, a thread.

|                                    |                                     |                |                        |        |                |                                      |
|------------------------------------|-------------------------------------|----------------|------------------------|--------|----------------|--------------------------------------|
| 15096 nánus <i>Ag.</i>             | dwarf                               | like down      | $\frac{1}{3}$ aut.     | G      | rotten algæ    | Dillw. conf. t. 30. <i>Conf.</i>     |
| 15097 clavátus <i>Ag.</i>          | clavate                             | minute         | $\frac{1}{3}$ aut.     | Tr     | dead fishes    | Lyngb. hydroph. t. 22                |
| 2282. MESOGLOIA. <i>Ag.</i>        | MESOGLOIA.                          |                |                        |        |                |                                      |
| 15098 multifida <i>Ag.</i>         | multifid                            | tufts          | 3 aut.                 | R      | Germ. ocean    | Lyn. hy. t. 1689. <i>Chordar.</i>    |
| 15099 Hudsóni <i>Ag.</i>           | Hudson's                            | branched       | 6 aut.                 | R      | ocean          | E. b. t. 1827. <i>Ulva rubra</i>     |
| 15100 coccinea <i>Ag.</i>          | scarlet                             | bushy          | 4 sum.                 | R      | ocean          | Eng. bot. t. 2466                    |
|                                    | <i>Rivularia verticillata</i> E. B. |                |                        |        |                |                                      |
| 15101 capilláris <i>Ag.</i>        | capillary                           | tufts          | 3 sum.                 | R      | ocean          | Lyngb. hydroph. t. 12                |
| 15102 vermiculáris <i>Ag.</i>      | vermicular                          | bushy          | 5 august               | Brsh   | ocean          | Lyngb. hydroph. t. 65                |
|                                    | $\beta$ coriácea <i>Ag.</i>         | leathery       | 5 august               | Brsh   | ocean          | Eng. bot. t. 1819                    |
|                                    | <i>Rivularia vermiculata</i> E. B.  |                |                        |        |                |                                      |
| 2283. BATRACHOSPERMUM. <i>Ag.</i>  | BATRACHOSPERMUM.                    |                |                        |        |                |                                      |
| 15103 vágunn <i>Ag.</i>            | turfy                               | fine tufts     | $\frac{1}{2}$ may      | Bsh    | ditches        | Lyngb. hydroph. t. 64                |
| $\beta$ tenuis/simum <i>Ag.</i>    | very slender                        | fine tufts     | $\frac{1}{2}$ may      | D.OI   | ditches        | E. bot. t. 690. <i>Conf. atra</i>    |
| 15104 monilifórme <i>Ag.</i>       | necklace                            | fine tufts     | $\frac{1}{2}$ sum.     | G      | fresh waters   |                                      |
| $\alpha$ stagnále <i>Ag.</i>       | pool                                | fine tufts     | 1 sum.                 | G      | pools          | Dillenius, t. 7. f. 44               |
| $\beta$ simpliciús <i>Ag.</i>      | simple                              | fine tufts     | 1 sum.                 | B      | pools          | Dillenius, t. 7. f. 45               |
| $\gamma$ purpuráscentis <i>Ag.</i> | purple                              | fine tufts     | 1 sum.                 | Pk     | sea shore      | Dillenius, t. 7. f. 40               |
| $\delta$ détérsum <i>Ag.</i>       | knoted                              | fine tufts     | 1 sum.                 | D.OI   | pools          | Dill. con. t. 11. <i>Conf. atra</i>  |
| 2284. DRAPARNALDIA. <i>Ag.</i>     | DRAPARNALDIA.                       |                |                        |        |                |                                      |
| 15105 ténuis <i>Ag.</i>            | fine                                | fine tufts     | $\frac{3}{4}$ all sea. | DI. G  | pools          | Dill. con. t. 67. <i>C. protensa</i> |
| 15106 plumósa <i>Ag.</i>           | feathery                            | broad tufts    | 6 sum.                 | Bt. G  | rivulets       | E. bot. t. 2087. <i>C. tubrica</i>   |
| 15107 glomeráta <i>Ag.</i>         | heaped                              | gelatin. tufts | 4 sp. su.              | Bt. G  | pools          | E. b. t. 1746. <i>C. mutabilis</i>   |
| 2285. OSCILLATORIA. <i>Ag.</i>     | OSCILLATORIA.                       |                |                        |        |                |                                      |
| 15108 tenuíssima <i>Ag.</i>        | very fine                           | patches        | $\frac{1}{2}$ sum.     | Pa. G  | warm springs   | Eng. bot. t. 2584. <i>Conf.</i>      |
| 15109 autumnális <i>Ag.</i>        | autumnal                            | slimy mass.    | $\frac{1}{2}$ sum.     | OL. G  | on the earth   |                                      |
| $\beta$ vagináda <i>Ag.</i>        | sheathed                            | slimy mass.    | $\frac{1}{2}$ sum.     | OL. G  | on the earth   | Dillw. conf. t. 99                   |
| 15110 nígra <i>Ag.</i>             | black                               | floating tufts | $\frac{1}{2}$ sum.     | D. G   | still waters   | Dill. co. t. 64. <i>O. fontinali</i> |
| 15111 Córium <i>Ag.</i>            | leather-like                        | broad layer    | $\frac{1}{2}$ spring   | Ysh    | rocks in wat.  |                                      |
| 15112 subfúscá <i>Ag.</i>          | brownish                            | tufts          | 1 all sea.             | Br. V  | stones in riv. |                                      |
| 15113 spléndida <i>Grév.</i>       | splendid                            | thin masses    | $\frac{1}{2}$ all sea. | Pa. B  | wat. in both.  |                                      |
| 15114 ténuis <i>Ag.</i>            | fine                                | slippery layer | $\frac{1}{2}$ spring   | Pa. G  | still waters   | Dill. conf. t. 20. <i>C. himosa</i>  |
| 15115 himósa <i>Ag.</i>            | mud                                 | floating mass. | 6 all sea.             | Ærug   | mud bot. po.   | Fl. dan. t. 1549. f. 2               |
| 15116 cyána <i>Ag.</i>             | blue                                | thin film      | ... all sea.           | B      | church walls   | E. bot. t. 2578. <i>Conferva</i>     |
| 15117 decórticans <i>Ag.</i>       | unbarking                           | thin flakes    | $\frac{1}{2}$ march    | B. G   | damp wood      | Dillw. conf. t. 26                   |
| 15118 ochrácea <i>Lyngb.</i>       | ochre-colored                       | gelat. masses  | $\frac{1}{2}$ all sea. | Och    | pools          | Dill. conf. t. 62. <i>Conferva</i>   |
| 2286. CALOTHRIX. <i>Ag.</i>        | CALOTHRIX.                          |                |                        |        |                |                                      |
| 15119 nívea <i>Ag.</i>             | snowy                               | fine tufts     | $\frac{1}{2}$ all sea. | Pa. Y  | sulph. sprin.  | Dill. conf. t. C. <i>Conferva</i>    |
| 15120 confervícola <i>Ag.</i>      | conferva                            | minute tufts   | $\frac{1}{2}$ sum.     | Gla    | marine algæ    | E. bot. t. 2576. <i>Conferva</i>     |
| 15121 scopulórum <i>Ag.</i>        | rock                                | patches        | $\frac{1}{2}$ sum.     | Pa. G  | marine algæ    | E. bot. t. 2171. <i>Conferva</i>     |
| 15122 fasciculáta <i>Ag.</i>       | fasciated                           | tufts          | $\frac{1}{2}$ sum.     | Y. G   | roc. on sea c. | Dillw. conf.                         |
| 15123 mirábilis <i>Ag.</i>         | wonderful                           | little patches | $\frac{1}{2}$ sum.     | Ærug   | on H. fluitans | Dill. conf. t. 96. <i>Conferva</i>   |
| 15124 distórta <i>Ag.</i>          | distorted                           | floating patc. | $\frac{1}{2}$ sum.     | B. G   | lakes          | E. bot. t. 2577. <i>Conferva</i>     |
| 15125 lanáta <i>Ag.</i>            | woolly                              | floating patc. | $\frac{1}{2}$ sum.     | G      | springs on st. |                                      |
| $\beta$ fuscéscentis <i>Ag.</i>    | fulvous                             | floating patc. | $\frac{1}{2}$ sum.     | Taw    | pools          | E. bot. t. 2577. fig. sinistr.       |
| 2287. LYNGBYA. <i>Ag.</i>          | LYNGBYA.                            |                |                        |        |                |                                      |
| 15126 murális <i>Ag.</i>           | wall                                | patch          | $\frac{1}{3}$ all sea. | G      | damp earth     | Eng. bot. t. 1554                    |
| 2288. BANGIA. <i>Ag.</i>           | BANGIA.                             |                |                        |        |                |                                      |
| 15127 lamináris <i>Ag.</i>         | Laminaria.                          | broad tufts    | $\frac{1}{2}$ sum.     | G      | on L. escul.   | Lyngb. hydroph. dan. t. 24           |
| 15128 atropurpúrea <i>Ag.</i>      | dark-purple                         | silky tufts    | 2 sum.                 | D. Pu  | marine rocks   | Dill. con. t. 103. <i>Conferva</i>   |
| $\beta$ fúscu-purpúrea <i>Ag.</i>  | brown-purple                        | silky tufts    | 2 sum.                 | Br. pu | sea coast      | Dill. conf. t. 22. <i>Conferva</i>   |



History, Use, Propagation, Culture,

2282. *Mesogloia*. From *μῆσος*, the middle, and *γλαῖος*, viscid: the spines of little branches radiating from a common centre, and forming what appears to be a solid mass. These plants were formerly referred to *Chastophora*, from which they differ in the want of any fixed gelatine.

2283. *Batrachospermum*. From *βατραχίον*, a frog, and *σπέρμα*. So called in allusion to the places in which the species grow; they are mostly found in marshes, less frequently in the sea.

2284. *Draparnaldia*. James Philip Ralph Draparnaud, was a French botanist, who wrote some memoirs on the subject of botany in the beginning of this century. He is also known for his acquaintance with fresh-water *Conferva*.

2285. *Oscillatoria*. The singular motion of these curious plants has suggested their generic name. The oscillation of the filaments seems almost of an animal nature, although it frequently arises from mechanical

15096 Filam. branched very minute, Branches and branchlets acuminate, Joints pellucid, Artic. cylindrical

\*\* Growing on animals.

15097 Filaments simple hyaline clavate at end

15098 Frond dichotomous, Axillæ rounded: upper spreading

15099 Frond virgate with all the branches divaricating

15100 Frond somewhat moniliform virgate filiform, Branches scattered obtuse spreading

15101 Frond much branched, Branchlets tapering at each end divaricating

15102 Frond yellowish-brown, Branches divaricating

15103 Frond dichotomous cylindrical equal, Branches thickened at end

β Frond setaceous minute

15104 Frond moniliform much-branched, Branches rather acute, Cauline whorls nearly distinct globose

α Filaments thick, Whorls of stem confluent: those of the branches distinct

β Thinner bluish with distant whorls

15105 Branches simple clustered, First filament nearly homogeneous

15106 Pencils of branches lanceolate acute erect

15107 Pencils of branches ovate blunt spreading

15108 Filaments hyaline very fine tufted entangled in nearly parallel lines

15109 Filaments rigid straight entangled in a gelatinous black layer which has short rays

β Filaments twisted in bundles

15110 Filaments rigid straight entangled in a gelatinous black layer with long rays

15111 Filaments stiffish curved entangled in a compact somewhat coriaceous layer

15112 Filaments transparent rigid straight entangled in a compact brownish-violet layer with short rays

15113 Filaments very minute densely entangled: transverse striae wholly invisible

15114 Filaments stiffish straight entangled in a gelatinous green layer with short rays

15115 Filaments rigid rapidly oscillating straight entangled in a gelatinous layer with long rays

15116 Filaments covered with a deciduous crust entangled in a blue layer

15117 Filaments very slender flexuose densely interwoven into thin masses

15118 Filaments very slender simple greenish lying in a thick very tender fragile ochraceous stratum

15119 Filaments very fine rigid snow-white packed in a dull-yellow tuft

15120 Filaments glaucous erect minute subulate fascicled at base separate at end

15121 Filaments curved-wavy erect minute entangled in a dense layer

15122 Filaments stiffish erect acuminate simple at the beginning finally branched

15123 Filaments curved variously united entangled in a lax globule

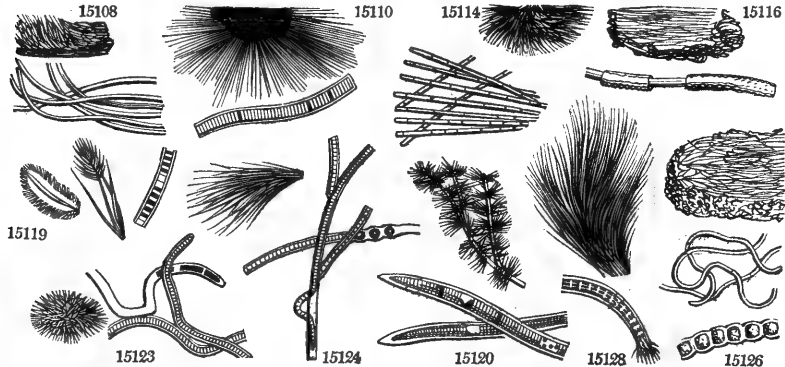
15124 Filaments mucous stiffish erect branched tufted

15125 Filaments stiffish erect branched packed in a dark-green tuft

15126 Filaments stiffish curved wavy thickish with lax rings

15127 Filaments tufted fastigiate equal, Bands approximating in pairs many-dotted

15128 Filaments dark-purple straight, Bands 5-dotted



and Miscellaneous Particulars.

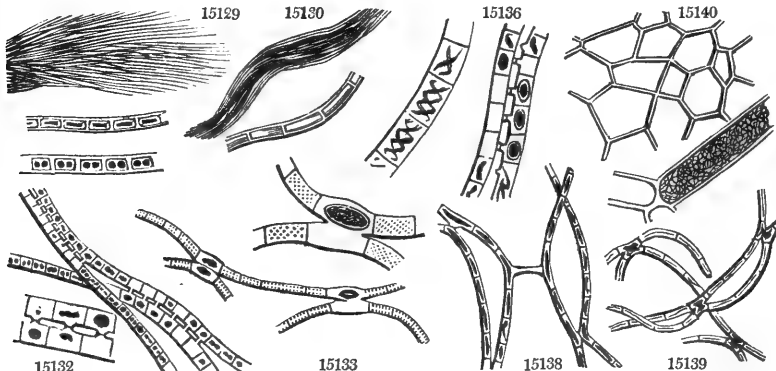
causes, as from the elasticity of the filaments, from the motion of minute animalcula. Agardh, however, declares that *O. curviceps* has naturally the motion of an animal, but of a creeping not oscillatory nature.

2286. *Calothrix*. From *καλος*, beautiful, and *τριξ*, hair, in allusion to the beauty of the entangled filaments; the latter appear as if branched, by the singular juxta-position of small filaments.

2287. *Lyngbya*. H. C. Lyngbye, a Danish botanist, is the author of an excellent work on Algae, which he calls *Hydrophytologie Danica* Tentamen, published at Copenhagen, in 1819, in one volume quarto. This genus differs from *Oscillatoria* in the absence of a mucous matrix, and from *Calothrix* in being curved and quite distinct. In habit it approaches *Conferva*.

2288. *Bangia*. So called in honor of Christian Frederick Bang, the author of a dissertation upon the plants of sacred history, published in 1767.

|  |               |                |             |        |                |                                       |
|--|---------------|----------------|-------------|--------|----------------|---------------------------------------|
| 2289. ZYGNE'MA. Ag. ZYGNE'MA.            |               |                | Sp. 9-21.   |        |                |                                       |
| 15129 cruciatum Ag.                      | crossed       | entangl. mass. | ½ april     | Y.G    | ditches        | E. b. t. 2463. <i>C. bipunctata</i>   |
| 15134 longi-articulatum Ag. long jointed |               | entangl. mass. | ½ april     | Y.G    | ditches        | Dillw. conf. t. 2. f. A               |
| γ brevi-articulatum Ag. short jointed    |               | entangl. mass. | ½ april     | Ysh    | rivulets       | Dillw. conf. t. 2. f. B               |
| 15130 decussatum Ag.                     | decussate     | floating tufts | 1½ sum.     | G      | ditches        | Dillw. conf. No. 39                   |
| 15131 bicolor Ag.                        | two-colored   | floating tufts | 3 sum.      | G      | sto. in rivul. | E. b. t. 2238. <i>Conferva</i>        |
| 15132 pectinatum Ag.                     | pectinate     | patches        | 1½ march    | G      | rivulets       | E. b. t. 2463. f. B. <i>Conferva</i>  |
| 15133 curvatum Ag.                       | curved        | patches        | 1½ march    | G      | rivulets       | E. b. t. 2463. A. <i>C. stictica</i>  |
| 15134 quininum Ag.                       | quinate       | large masses   | ½ sp. su.   | Dl.G   | still waters   | Vauch. conf. t. 5. f. 1               |
| 15135 decimum Ag.                        | decimate      | large masses   | ½ sum.      | Bt.G   | still waters   | Diec. t. 4. f. A. B. <i>C. nitida</i> |
| 15136 nitidum Ag.                        | shining       | float. patches | 2 sum.      | Bt.G   | ditches        | E. b. t. 1656. <i>C. spiralis</i>     |
| 15137 punctatum Ag.                      | dotted        | floating cloud | ½ sum.      | Bt.G   | pools          | Dill. conf. t. 51. <i>Conferva</i>    |
| 2290. MOUGEOT'IA. Ag. MOUGEOTIA.         |               |                | Sp. 2-6.    |        |                |                                       |
| 15138 genifixa Ag.                       | knee-jointed  | entangl. mass. | ½ april     | Y.G    | ditches        | Dill. conf. t. 6. <i>Conferva</i>     |
| 15139 cærulescens Ag.                    | blueish       | pale patches   | 1½ july     | Pu.B   | ditches        | E. b. t. 2457. <i>Conferva</i>        |
| 2291. HYDRODICTYON. Ag. HYDRODICTYON.    |               |                | Sp. 1-2.    |        |                |                                       |
| 15140 utriculatum Ag.                    | bladdery      | floating web   | 6 jn. sep.  | G      | riv. & lakes   | E. b. t. 1687. <i>C. reticulata</i>   |
| 2292. CONFERVA Ag. CONFERVA.             |               |                | Sp. 52-130. |        |                |                                       |
| 15141 ericetorum Roth.                   | heath         | fine web       | ½ sp. su.   | Br. pu | dry bogs       | E. b. t. 1553. <i>Conferva</i>        |
| 15142 alpina Bory                        | alpine        | fine web       | ½ sp. su.   | Br     | mountains      | Lyngb. hydrop. dan. t. 47             |
| 15143 fasciata Dillw.                    | banded        | fine web       | ½ april     | Pu. br | dit. on carr.  | Dill. conf. t. B. <i>Conferva</i>     |
| 15144 bombycina Ag.                      | silky         | floating cloud | ¾ sum.      | G      | pools & dit.   | Dill. con. t. 60. <i>C. sordida</i>   |
| 15145 floccosa Ag.                       | floccose      | float. masses  | 1½ spring   | G      | ditches        | E. b. t. 2303. <i>C. sordida</i>      |
| 15146 mucosa Mert.                       | mucous        | float. masses  | 1½ spring   | G      | bogs           | Dill. conf. t. B. <i>Conferva</i>     |
| 15147 zonata Web. & Mohr                 | zoned         | long tuft      | 3 all sea.  | G      | sto. in rivul. | Dill. conf. t. 47. <i>C. lucensis</i> |
| 15148 dissiliens Dillw.                  | elastic       | floating tufts | 3 sum.      | G      | ditches        | Eng. bot. t. 2461                     |
| 15149 implexa Dillw.                     | entangled     | broad mat      | 3 sum.      | G      | sea-shore      | E. b. t. 2309. <i>C. implexa</i>      |
| 15150 tumidula E. B.                     | tumid         | fine film      | 1 march     | G      | pools          | E. b. t. 1670. <i>C. inflata</i>      |
| 15151 vesicata Ag.                       | blistered     | float. masses  | 6 march     | G      | ditches        | E. b. t. 2304. <i>C. alternata</i>    |
| β fuscescens Ag.                         | brownish      | float. masses  | 6 march     | G      | ditches        | Dillw. conf. t. B.                    |
| 15152 rivularis L.                       | rivulet       | long tufts     | 24 sp. su.  | G      | rivers         | Eng. bot. t. 1654                     |
| β anglica Ag.                            | English       | long tufts     | 24 sp. su.  | G      | ditches        | Dillw. conf. t. 79                    |
| 15153 capillaris Ag.                     | capillary     | long tufts     | ½ sp. su.   | G      | ditches        | Dillenius, t. 5. f. 25. B.            |
| 15154 linum Roth.                        | Flax          | long tufts     | ½ sp. su.   | G      | ocean          | Lyngb. hydroph. t. 50                 |
| 15155 intricata Grev.                    | matted        | small tufts    | 2½ spring   | G      | sea shore      | Eng. bot. t. 2220                     |
| 15156 tortuosa Dillw.                    | tortuous      | crisp masses   | 1 april     | G      | sea shore      | Dillw. conf. t. 9                     |
| 15157 crassa Ag.                         | thick         | crisp masses   | 4 sum.      | G      | salt marshes   | Dillw. conf. t. 8                     |
| 15158 melagonium Web.                    | black-jointed | tufts          | 4 sum.      | G      | ocean          | Dillw. conf. t. B.                    |
| 15159 ærea Dillw.                        | verdigrase    | long tufts     | 6 all sea.  | G      | ocean          | Dillw. conf. t. 80                    |
| 15160 Youngiana Dillw.                   | Young's       | minute tufts   | ½ sum.      | G      | sea shore      | Dillw. conf. t. 102                   |
| 15161 hormoides Lyngb.                   | pencilled     | minute tufts   | ½ sum.      | G      | sea shore      | Lyngb. hydroph. t. 49                 |
| 15162 collabens Ag.                      | slippery      | floating tufts | 4 sum.      | G      | Germ. ocean    | Eng. bot. t. 1929. <i>C. ærea</i>     |
| 15163 flacca Dillw.                      | flaccid       | tufts          | 2 all sea.  | G      | ocean          | Dill. con. t. C. <i>C. flaccida</i>   |
| 15164 isogona E. B.                      | equal-jointed | float. patches | 1 spring    | G      | on F. vesicul. | E. b. t. 1930. <i>C. youngiana</i>    |
| 15165 fucorum Roth.                      | Fucus         | tufts          | ½ sum.      | Brsh   | on Fuci        | Dill. con. t. C. <i>C. flaccida</i>   |
| 15166 flaccida Lyngb.                    | drooping      | tufts          | ½ may       | Brsh   | on Fuci        | Eng. bot. t. 2310                     |
| 15167 ferruginea Roth.                   | rusty         | tufts          | 1 all sea.  | Rus.   | on Fuci        | Dill. con. t. 66. <i>C. fucicola</i>  |
| 15168 curta Dillw.                       | cropped       | minute tufts   | ½ sum.      | Ol. Br | on Fuci        | Dillw. conf. t. 76                    |
| 15169 carnea Dillw.                      | pink          | tufts          | 1½ aut.     | Pk     | on Algæ        | Dillw. conf. t. 84                    |
| 15170 æruginosa Huds.                    | copperas      | tufts          | 1½ sum.     | Bt. G  | sea shore      | Dillw. conf. t. E.                    |
| 15171 Bröwnii Dillw.                     | Brown's       | patches        | ½ spring    | G      | Irish caverns  | Dillw. conf. t. D.                    |



History, Use, Propagation, Culture,

2289. *Zygnema*. From *ζυγος*, a yoke, and *μαζα*, a filament; in reference to the singular manner in which the filaments are jointed together in pairs.

2290. *Mougeotia*. Named in honor of J. B. Mougeot, the coadjutor of Nestler, in the publication of their useful work, the *Stirpes Cryptogamæ Vogeso-Rhenanæ*, which, we believe, is still continued.

\* Two dotted.

- 15129 Articulations twice as long as broad, Stellæ roundish, Fruit spherical  
 β Articulations thrice as long with two approximated stellæ in the middle  
 γ Articulations about as long as broad  
 15130 Artic. 4 times as long as broad: in fruit convolute, Sporeaceous matter continuous obscure on each side  
 15131 Articulations about as broad as long, Stellæ transversely linear-oblong parallel, Rays obsolete  
 15132 Filam. adnate, Artic. half as long again as broad, Stellæ transversely obl. pectinated, Fruit spherical  
 \*\* Marked with spires.  
 15133 Filam. equal curved and flexuose conjugate at angles and twice as long as broad, Spires simple  
 15134 Filam. equal, Spires simple contracted in beginning, at length arcuate, Artic. 3 times as long as broad  
 15135 Artic. 4 times as long as broad: in fruit elliptical, Spires cruciate lax, Crosses about 4, Fruit elliptical  
 15136 Articulations about as broad as long, Spires cruciate thin contracted, Fruit elliptical  
 15137 Filaments simple slippy very fine, Dissepiments obscure, Articulations shortish cylindrical  
  
 15138 Filaments knee-jointed, Articulations six times as long as broad  
 15139 Filaments purple-blue, Sporidia of the crosses of the filaments green

15140 Spots 5-cornered

A. Simple.

1. Floating, arachnoid, colored.

- 15141 Filaments simple creeping entangled in a brownish purple layer, Joints half as long again as broad  
 15142 Filaments simple very fine adnate straight brown, Articulations four times as long as broad  
 15143 Filam. simple fine mucous, Articulations about as long as broad marked in the middle with a narrow band  
  
 2. Floating, arachnoid, mucous, green.  
 15144 Filaments arachnoid simple very long in an uniform puckered layer, Artic. thrice as long as broad: when young dotted in the middle  
 15145 Filam. arach. simp. very muc. entang. in a puckered layer, Artic. about as long as broad or  $\frac{2}{3}$  as long again  
 15146 Filam. simple mucous slippery capillary, when dry traversed by a longitudinal band, Artic. as long as broad  
 15147 Filaments simple fine gelatinous tapered marked by a transverse band, Artic. about as long as broad  
 15148 Filaments simple very fine gelatinous equal, Articulations twice as long as broad  
 15149 Filaments simple fine curled entangled smooth, Artic. half as long again as broad

3. Capillary or setaceous. Articulations filled with globose granules, when dry alternately compressed.

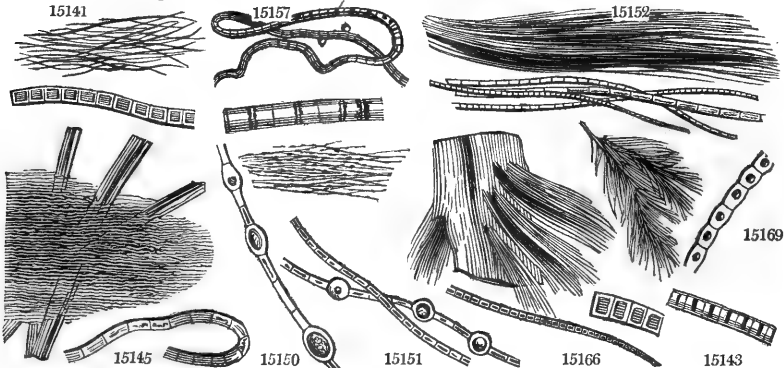
- 15150 Filaments simple fine, Artic. 3 times as long as broad inflated elliptical  
 15151 Filaments simple fine, Artic. half as long again as broad with globular inflations at intervals  
  
 15152 Filam. simp. capill. very long straight equal, Artic. grain-bear. 2 or 4 times as long as broad shin, when dry  
 γ Artic. half as long again as broad  
 15153 Filam. simple variously bent and loosely entangled, Artic. about as long as broad, Granules scattered  
 15154 Filam. simple filiform rigid crisp loosely entangled, when dry variegated, Artic. turgid dotted  
 15155 Filam. simple very short and minute entangled tortuous, Artic. twice as long as broad  
 15156 Filam. simple stiffish curled entangled fine, Artic. 3 times as long as broad [moniliform  
 15157 Filam. simple filif. rigid crisp loosely entang. when dry variegated, Artic. about as long as broad, when dry  
 15158 Filam. simple thicker than a bristle adnate straight rigid erect, Artic. elliptical when dry  
 15159 Filam. simple thicker than a bristle adnate rigid erect, Artic. cylindrical 3 times as long as broad  
 15160 Filam. simple very fine adnate stiffish curved, Artic. about as long as broad somewhat moniliform  
 15161 Filam. simple very fine adnate straight pendulous, Artic. about as long as broad moniliform  
 15162 Filam. simple fine adnate mucous, Artic. as long as broad and variable, Interstices pellucid  
 15163 Filam. simple very fine, Artic. rather shorter than broad, Joints pellucid  
 15164 Filam. simple very fine adnate mucous straight, Artic. as long as broad, Interstices pellucid  
 15165 Filaments simple straight minute, Articulations oval half as long again as broad  
 15166 Filaments simple very fine adnate rigid tapered, Lower artic. shorter than broad: upper as long as broad

4. Adnate, pencilled, fastigate, colored.

- 15167 Filaments simple rigid fastigate, Artic. twice as long as broad  
 15168 Filaments simple fasciated rigid short attenuated at each end, Artic. somewhat longer than broad  
 15169 Filam. simple fine short, Artic. torose about 3 times as long as broad, Sap contained in a central globule

B. Branched.

- 15170 Filam. branched flexuose short, Branches scattered spreading blunt, Artic. half as long again as broad  
 15171 Filam. branched densely tufted rigid short, Branches 1-sided, Artic. generally thickest at the end about 3 times as long as broad

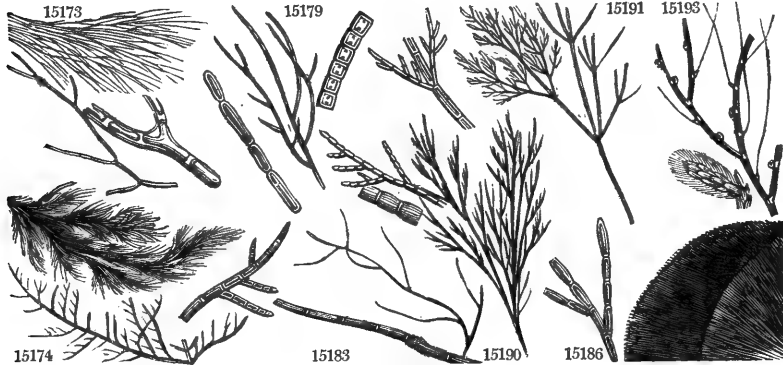


and Miscellaneous Particulars.

2291. *Hydrodictyon*. From *ὕδωρ*, water, and *δικτυον*, a net; water-net; so named on account of its singular reticulated structure.  
 2292. *Conferva*. A syncope of the Latin *conferruminare*, to consolidate. Plants of this kind were formerly



|                            |                 |                  |    |            |       |                 |                              |
|----------------------------|-----------------|------------------|----|------------|-------|-----------------|------------------------------|
| 15179 stellaris Fl. Dan.   | starry          | floating tufts   | 2  | sum.       | G     | ina.of.wa.ves.  | Fl. Danica, t. 690. f. 1     |
| 15173 riparia Dillw.       | bank            | floating tufts   | 3  | sum.       | G     | salt ditches    | Eng. bot. t. 2100            |
| 15174 glomerata L.         | clustered       | bushy tufts      | 1  | sum.       | Bt.G  | riv. on stones  | E.b.t. 1854. C. latevirens   |
| 15176 crispata Roth.       | curled          | patches          | 2  | sp. su.    | G     | lakes           | Eng. bot. t. 2350            |
| 15176 fracta Dillw.        | broken          | large tufts      | 6  | sp. su.    | G     | pools           | Eng. bot. t. 2338            |
| 15177 patens Ag.           | spreading       | large tufts      | 1  | sum.       | G     | ditches         |                              |
| β proliferata Ag.          | proliferous     | large tufts      | 1  | sum.       | G     | ditches         | Dil.con.t.10. C. flexuosa    |
| 15178 congregata Ag.       | heaped          | tufts            | 1  | sum.       | G     | roc. sea coa.   | Ly.hy.d.t.56. C. uncialis    |
| 15179 lanosa Ag.           | woolly          | tufts            | 1  | sum.       | G     | on Algae        | Dillw. conf. t. E.           |
| 15180 flavescens Dillw.    | yellowish       | tufts            | 6  | sum.       | Y.G   | salt ditches    | Eng. bot. t. 2068            |
| 15181 sericea Huds.        | silken          | shining tufts    | 3  | sum.       | Y.G   | sea shore       |                              |
| 15182 refracta Roth.       | whitish         | crisp ent. tufts | 4  | jn. jl.    | Pa.G  | ocean           | E. h. t. 2327. C. albida     |
| 15183 aspera Ag.           | rough           | tufts            | 2  | all sea.   | G     | ocean           | Dil.con.t.E. C. nigricans    |
| 15184 heterochlora Ag.     | dense           | tufts            | 2  | all sea.   | D.G   | ocean           |                              |
| 15185 rupestrus L.         | rock            | dense tufts      | 4  | sum.       | Gl.   | ocean           | Eng. bot. t. 1699            |
| 15186 agoropha L.          | Vegetable Balls | soft ball        | 3  | sum.       | G     | lakes           | Eng. bot. t. 1377            |
| 15187 arcata E. B.         | close           | floating tuft    | 3  | sum.       | Tran. | ocean           | Eng. bot. t. 2098            |
| 15188 Vaucheriaeformis Ag. | mucous          | branched         | 1  | sum.       | G     | ocean           | Dillw.conf.t.E. C. arcta     |
| 15189 catenata L.          | chain-like      | patches          | 1  | sum.       | Br    | ocean           | Dillenius, t. 5. f. 27       |
| 15190 Hutchinsiae Dillw.   | Miss Hutchins's | dense tufts      | 4  | sum.       | Gl.   | ocean           | Dillw. conf. t. 109          |
| 15191 pellucida Huds.      | pellucid        | finely branch.   | 5  | august     | Pa.G  | ocean           | Eng. bot. t. 1716            |
| 15192 distans Ag.          | distant         | loose bundles    | 6  | aut.       | Pa.G  | ocean           | Dill.conf.t. 21. C. diffusus |
| 2293. BULBOCHETE Ag.       | BULBOCHETE.     |                  |    | Sp. 1.     |       |                 |                              |
| 15193 setigera Ag.         | setigerous      | delicate tufts   | 6  | aut.       | DI.G  | lakes & riv.    | Dil.conf.t.59. C. vivipara   |
| 2294. NITELLA Ag.          | NITELLA.        |                  |    | Sp. 5-11.  |       |                 |                              |
| 15194 translucens Ag.      | transparent     | branched         | 2  | sum.       | Y.OI  | pools           | Eng. bot. t. 1855. Chara     |
| 15195 flexilis Ag.         | flexible        | branched         | 1  | sum.       | Y.OI  | pon. & rivul.   |                              |
| 15196 opaca Ag.            | opaque          | branched         | 1  | jl. aug.   | Y.OI  | pools           | E.b.t.1070. Chara flexilis   |
| 15197 nidifica Ag.         | nest-like       | branched         | 1  | jl. aug.   | Y.OI  | pools           | Eng. b. t. 1703. Chara       |
| 15198 gracilis Ag.         | slender         | much branch.     | 2  | sept.      | Y.OI  | pools           | Eng. b. t. 2140. Chara       |
| 2295. CHARA L.             | CHARA.          |                  |    | Sp. 2-16.  |       |                 |                              |
| 15199 hispida L.           | hispid          | branched         | 1  | jl. aug.   | Y.G   | ponds           | Eng. bot. t. 465             |
| 15200 vulgaris L.          | common          | branched         | 1  | july       | Y.G   | ponds           | Eng. bot. t. 336             |
| 2296. CERAMIUM Ag.         | CERAMIUM.       |                  |    | Sp. 21-38. |       |                 |                              |
| 15201 lanuginosum Ag.      | woolly          | fine down        | 1  | all sea.   | Br    | on Algae        | Dill.conf.t.45. Conferva     |
| 15202 floridulum Ag.       | flowering       | little tufts     | 1  | all sea.   | Pa.G  | roc. sea shore. | Dillw. conf. t. F            |
| 15203 repens Ag.           | creeping        | short down       | 1  | july       | Pk    | on large Alg.   | E. b. t. 1608. Conferva      |
| 15204 plumosa Ag.          | feather         | fine tufts       | 1  | sum.       | R     | on large Alg.   | Dillw. conf. t. f            |
| 15205 Daviesii Ag.         | Davies's        | small tufts      | 1  | july       | R     | sea shore       | Eng. bot. t. 2329            |
| 15206 Rothii Ag.           | Roth's          | broad tufts      | 1  | sum.       | Vi    | sea shore. roc. | Eng. bot. t. 1702            |
| 15207 diaphanum Ag.        | diaphanous      | diffuse          | 5  | sum.       | Var.  | ocean           | Eng. bot. t. 1742            |
| β pilosum Ag.              | hairy           | diffuse          | 5  | sum.       | Var.  | ocean           | E. b. t. 2428. Conferva      |
| 15208 rubrum Ag.           | red             | solitary weak    | 10 | sum.       | Pu    | ocean           | E. b. t. 1166. Conferva      |
| 15209 tetragonum Ag.       | square          | tufts            | 3  | sum.       | R     | ocean           | Eng. bot. t. 1690            |
| 15210 pedicellatum Ag.     | stalked         | dense tufts      | 4  | sum.       | Or    | sea shore       | Dillw. conf. t. 108          |
| 15211 Hookeri Ag.          | Hooker's        | fine tufts       | 1  | sum.       | Pa.br | sea shore       | Dill. conf. t. 106           |
| 15212 arbuscula Ag.        | little tree     | bushy tufts      | 3  | all sea.   | D.R   | sea shore       | Eng. bot. t. 1916            |



History, Use, Propagation, Culture,

held to be efficacious in healing fractured limbs. Pliny declares, he was witness to a cure of this kind. Some of the species of this genus are believed to be merely the young of mosses.

2293. *Bulbochete*. From *βολβος*, a club, and *χαίτη*, a bristle, in reference to the bristly end of the primary filaments.

2294. *Nitella*. From *niteo*, to shine. A genus separated by Agardh from *Chara*, because the stem is composed of a simple tube, and not of one spirally striated. The plants have the habit of *Chara*.

2295. *Chara*. The origin of this word is unknown. It first occurs in *Cæsar's Commentaries*, where it is mentioned as the name of a plant, the root of which was used by the Roman soldiers as food. That plant could have had no relation to the plant of the moderns. Various opinions have been held with regard to the station of this genus. Linnæus referred it to the perfect plants, and he has been followed by many botanists. Dr. Hooker and Mr. Lindley, in the former's *Flora Scotica*, formed it into a particular order, placed between *Algæ* and *Hepaticæ*; and with this opinion Dr. Greville coincides. But Professor Agardh thinks it cannot even be separated from true *Algæ*, in the midst of which he has placed it. The nature of the fructification is so paradoxical, that it is scarcely possible to trace an analogy between it and the fructification of any other plant.

- 15172 Filam. branched very minute equal parallelly exerted from an orbicular base  
 15173 Filam. branched remotely capillary very long, Branches short divaricating, Artic. twice as long as broad  
 15174 Filam. branched capillary, Branches alternate: those at the end clustered one-sided erect, Artic. cylind. about twice as long as broad  
 15175 Filam. branch. Branches altern. rem. Artic. cylind. 6-10 times as long as broad alternately compr. when dry  
 15176 Filam. branch. capill. Branch. divaricat. 1-sid.: upp. numer. somew. recurv. Artic. 4 times as long as broad  
 15177 Filam. branched capillary, Branches spreading somewhat alternate, Artic. 3 times as long as broad  
 8 Artic. elliptical proliferous, Pullulating filaments very fine

*C. Heaped.*

- 15178 Tufts fascic. clav. form. a hemisphere, Filam. intric. branch. Branch. ascend. Artic. about as long as broad  
 15179 Filaments tufted, Branchlets long remote, Artic. oblong oval 3 times as long as broad  
 15180 Filaments much branch. capillary, Branches spreading somew. alternate, Artic. 6 times as long as broad  
 15181 Filaments much branch. capillary dichotom. at base, trichotom. in middle, Artic. 5 times as long as broad  
 15182 Filam. much branch. capill. Branches divaricat. somew. recurv. very numer. Artic. twice as long as broad  
 15183 Filam. dichotom. setac. rigid finally becoming blackish, Branch. erect rem. Artic. 3 times as long as broad  
 15184 Filaments opposite much branched: first branches blackish; second greenish [as broad  
 15185 Filam. much bran. setac. when dry dot. with black, Bran. erect, Joints pelluc. Artic. cylind. 3 times as long  
 15186 Filam. from a common centre forming a globe rigid branched obtuse, Artic. 5 times as long as broad  
 15187 Filam. branch. straight virg. capil. Branch. erect somew. hyal. and thicken. at end, Artic. of various lengths  
 15188 Filam. branched straight virgate capillary mucous, Branches erect when dry black at the ends  
 15189 Filam. more than bristly trichotom. shin. when dry dott. with black at joints, Artic. 3 times as long as broad  
 15190 Filam. much branch. flexuose somew. cartilaginous fragile, Branches and branchl. scatter. Artic. torulose  
 15191 Filam. much branched straight rigid, Branches generally in threes obtuse, Artic. very long  
 15192 Filam. setac. dichotom. flexuose, Branch. rem. Branchl. short blunt, Artic. cylind. 4 times as long as broad

15193 The only species

- 15194 Stem long, Branchlets blunt, Nucules nearly naked in heaps at the joints of the stem  
 15195 Stem trichotomous pellucid, Branchlets forked, Nucules axillary solitary  
 15196 Stem 2-3-chotomous opaque, Branchlets forkéd or with broken joints, Globules solitary  
 15197 Fruit branches filiform with other long jointed ones between, Nucules clustered axillary  
 15198 Stem slender long, Branches acute forked, Fruit solitary

- 15199 Stem twisted furrowed strigose, Strigæ reflexed, Bractes aculeate  
 15200 Stem twisted ash-colored, Branches not jointed, Bractes linear twin thrice as long as nucule

1. *Filaments short, fastigiata.*

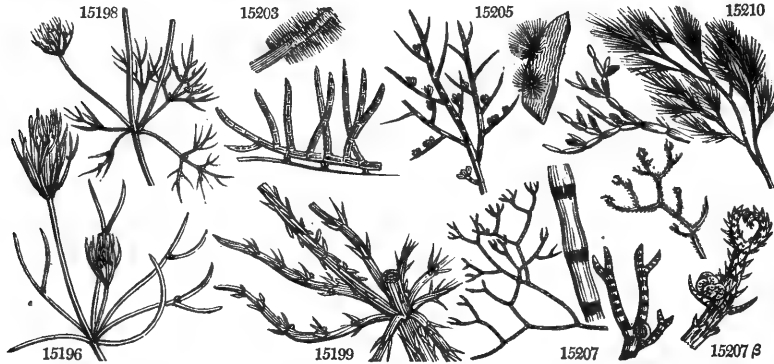
- 15201 Filam. somew. branch. minute ferrug. Branch. scatter. blunt, Artic. pelluc. in mid. 3 times as long as broad  
 15202 Filam. branched fine tufted, Branches scattered simple remote, Artic. 3 times as long as broad  
 15203 Filam. creeping rooting densely entangl. much branch. Joints somew. contract. Artic. narrowest in middle  
 15204 Filam. creeping minute branched, Branches erect naked at base pinnat. upw. Artic. twice as long as broad  
 15205 Filam. much branch. fastig. short, Branch. erect acute, Artic. thrice as long as broad, Caps. lateral clustered  
 15206 Filam. short caspitose pulvinata, Branches and branchlets fastigate erect, Artic. twice as long as broad

2. *Filaments dichotomous, Branchlets forked, Joints obscure, Thecæ involucred.*

- 15207 Filam. dichotom. much branched somewhat membranous variegated with purple and hyal. Joints elevated  
 β Joints hairy  
 15208 Filam. dichotom. much branched somewhat cartilaginous, Branchlets forked, Artic. ovate opaque

3. *Branches furnished with branchlets, which are more or less dense and shortened.*

- 15209 Filam. branched virgate, Primary articulation twice as long as broad  
 15210 Filam. setaceous dichotomous, Artic. thickened upwards about 5 times as long as broad  
 15211 Filam. much branch.: prim. thick and contiguous, Altern. pinnules with artic. half as long again as broad  
 15212 Filam. much branched: primary without joints, Artic. as long as broad

*and Miscellaneous Particulars.*

Greville observes, "This is a most curious tribe of plants, whose structure, I am convinced, is by no means well understood. At present, I have only minutely examined the fruit of *C. vulgaris*. Under a high power of the microscope, the globule is found to consist of seven triangular scales, which in maturity separate from each other, and produce the dehiscence of the globule. Each of these scales has a vacant portion in its centre, but the margin, which has a fluted appearance under a small magnifier, consists of a number of parallel, linear-oblong, hyaline, hollow tubes, placed at small intervals from each other, those forming the angles of the scale being branched. Within these tubes are a profusion of orange, globular, minute bodies (exactly similar to the sporules of many cryptogamic plants), arranged in no order, and escaping on the least injury to the tubes. It is these little bodies which give the orange color to the globule. Within the globule is a mass of elastic white filaments, much convoluted, and distinctly either jointed or transversely rugose."

The calcareous matter of the stem and branches is not an adventitious incrustation, but is the result of some peculiar economy in the plant itself, as it evidently originates from within, and is covered with the cuticle. It is supposed to be analogous to the siliceous deposit beneath the cuticle of *Equisetum*.

2236. *Ceramium*. So called from *κεραμειος*, a little measure, in reference to the appearance of the capsules. All the species are found in the sea, and among the substances cast up upon the shore.

|       |                             |                |                  |    |            |        |             |                                      |
|-------|-----------------------------|----------------|------------------|----|------------|--------|-------------|--------------------------------------|
| 15213 | <i>corymbosum Ag.</i>       | corymbose      | little tufts     | 1½ | July       | R      | sea shore   | Eng. bot. t. 2352                    |
| 15214 | <i>roseum Ag.</i>           | rosy           | finely branch.   | 1½ | sum.       | R      | ocean       | Dillw. conf. t. 17                   |
| 15215 | <i>thujoides Ag.</i>        | Arbor-Vitæ     | finely branch.   | 6  | July       | R      | ocean       | E. b. t. 2405. <i>C. purpuras.</i>   |
| 15216 | <i>vesicolor Ag.</i>        | changeable     | fine tufts       | 3  | sum.       | Pu. R  | on Fuci     | Eng. bot. t. 966. <i>C. rosea</i>    |
| 15217 | <i>Borreri Ag.</i>          | Borrer's       | little patches   | 1½ | Oct.       | Or. R  | ocean       | Eng. bot. t. 1741                    |
| 15218 | <i>tétricum Ag.</i>         | liver          | tufts            | 6  | spring     | DL. pu | sea shore   | Eng. bot. t. 1915                    |
| 15219 | <i>interrúptum Ag.</i>      | interrupted    | little tufts     | ½  | July       | DL. pu | sea shore   | Eng. bot. t. 1838                    |
| 15220 | <i>Turneri Ag.</i>          | Turner's       | delicate bran.   | 2  | sp. su.    | Pk     | sea shore   | Eng. bot. t. 2339                    |
| 15221 | <i>plámula Ag.</i>          | feather-like   | delicate bran.   | 2  | sp. su.    | Pk     | sea shore   | E. bot. t. 1637. <i>C. Turneri</i>   |
| 2297. | GRIFFITH'SIA. <i>Ag.</i>    | GRIFFITHSIA.   |                  |    | Sp. 5-7.   |        |             |                                      |
| 15222 | <i>multífida Ag.</i>        | multifid       | fine tufts       | 3  | July       | R      | sea shore   | E. bot. t. 1816. <i>Conferva</i>     |
| 15223 | <i>equisétifolia Ag.</i>    | equisetum-lv'd | sponge-lik. tuf. | 6  | sum.       | R      | sea shore   | Eng. bot. t. 1479                    |
| 15224 | <i>setácea Ag.</i>          | bristly        | lax tufts        | 4  | all sea.   | R      | sea shore   | Eng. bot. t. 1689                    |
| 15225 | <i>barbáta Ag.</i>          | bearded        | flocculent       | 1½ | July       | C      | sea shore   | Eng. bot. t. 1814                    |
| 15226 | <i>corállina Ag.</i>        | coralline      | branch. tufts    | 3  | July       | Or. R  | sea shore   | Eng. bot. t. 1815                    |
| 2298. | CHÆTOSPO'RA. <i>Ag.</i>     | CHÆTOSPO'RA.   |                  |    | Sp. 1.     |        |             |                                      |
| 15227 | <i>Wig'gii Ag.</i>          | Wigg's         | finely branch.   | 5  | sum.       | R. Br  | sea shore   | Eng. bot. t. 1165. <i>Fucus</i>      |
| 2299. | POLYSIPHON'IA. <i>Grœv.</i> | POLYSIPHON'IA. |                  |    | Sp. 18-49. |        |             |                                      |
| 15228 | <i>parasítica Ag.</i>       | parasitical    | small patches    | 1½ | sum.       | R. Br  | on Fuci     | E. bot. t. 1429. <i>Conferva</i>     |
| 15229 | <i>spinulósa Grœv.</i>      | rough-stemm.   | small patches    | 1½ | sum.       | R. Br  | sea shore   | Grœv. crypt. 90                      |
| 15230 | <i>coccínea Ag.</i>         | scarlet        | bushy tufts      | 4  | all sea.   | S      | ocean       | E. bot. t. 1055. <i>Conferva</i>     |
| 15231 | <i>divaricáta Ag.</i>       | divaricating   | tufts            | 3  | sum.       | R      | ocean       | Lyngb. hydroph. t. 34                |
| 15232 | <i>grácilis Ag.</i>         | slender        | long tufts       | 4  | all sea.   | Pu     | ocean       | Dill. conf. t. 40. <i>C. stricta</i> |
| 15233 | <i>violácea Ag.</i>         | violet         | little bushes    | 9  | sum.       | Vi     | ocean       | Lyngb. hydroph. dan. t. 35           |
|       | <i>β májor Ag.</i>          | large          | bushy tufts      | 6  | sum.       | D. Pu  | sea shore   | Eng. bot. t. 2340. <i>C. nigra</i>   |
| 15234 | <i>nigréscens Ag.</i>       | blackish       | fine tufts       | 6  | sum.       | D. Pu  | ocean       | E. bot. t. 1717. <i>Conferva</i>     |
|       | <i>β pectináta Ag.</i>      | pectinate      | little tufts     | 1½ | sum.       | D. Pu  | ocean       | E. bot. t. 1239. <i>C. fibrata</i>   |
| 15235 | <i>urceoláta Ag.</i>        | urceolate      | long branches    | 8  | all sea.   | R. Br  | ocean       | Dill. con. t. G. <i>Conferva</i>     |
| 15236 | <i>elongáta Ag.</i>         | elongated      | shrubby          | 8  | all sea.   | R. Br  | ocean       | Dill. con. t. 33. <i>Conferva</i>    |
| 15237 | <i>alochróa Ag.</i>         | various        | small tufts      | 1½ | all sea.   | Vi     | ocean       | Dill. con. t. G. <i>C. fibrata</i>   |
| 15238 | <i>Brodie'i Ag.</i>         | Brodie's       | large tufts      | 15 | all sea.   | D. R   | ocean       | Dill. con. t. 107. <i>Conferva</i>   |
| 15239 | <i>atorrubéscens Ag.</i>    | dark red       | long tufts       | 6  | sum.       | BL. R  | marine roc. | Dill. con. t. 70. <i>Conferva</i>    |
| 15240 | <i>fastigiáta Ag.</i>       | fastigiate     | little bushes    | 2  | sum.       | D. Br  | ocean       | E. b. t. 1764. <i>C. polymorp.</i>   |
| 15241 | <i>bádia Ag.</i>            | brown          | fine tufts       | 3  | sum.       | D. Br  | ocean       | Dill. con. t. G. <i>Conferva</i>     |
| 15242 | <i>recúrva Ag.</i>          | recurved       | fine tufts       | 3  | sum.       | D. Br  | sea shore   | Dill. con. t. G. <i>C. patens</i>    |
| 15243 | <i>byssoides Ag.</i>        | byssus-like    | slender tufts    | 6  | spring     | R      | sea shore   | Eng. bot. t. 597. <i>Conferva</i>    |
| 15244 | <i>fruticulósa Ag.</i>      | shrubby        | finely branch.   | 4  | sum.       | Br     | ocean       | Eng. bot. t. 1686. <i>Fucus</i>      |
| 15245 | <i>filamentósa Ag.</i>      | filamentous    | branch. tufts    | 4  | march      | R      | ocean       | E. b. t. 2312. <i>C. Griffith.</i>   |
| 2300. | RYTIPHLE'A. <i>Ag.</i>      | RYTIPHLE'A.    |                  |    | Sp. 1-3.   |        |             |                                      |
| 15246 | <i>tinctória Ag.</i>        | dyer's         | masses           | 6  | all sea.   | OL. G  | ocean       | Turn. fuci. t. 224. <i>Fucus</i>     |
| 2301. | ECTO CAR'PUS. <i>Ag.</i>    | ECTO CAR'PUS.  |                  |    | Sp. 4-8.   |        |             |                                      |
| 15247 | <i>siticulósus Ag.</i>      | podded         | bushy            | 6  | spring     | D. G   | ocean       | Dillw. conf. t. E. <i>Conf.</i>      |
|       | <i>β atrovirens Ag.</i>     | dark-green     | bushy            | 6  | spring     | Rus.   | ocean       | E. b. t. 2319. <i>C. siticulosa</i>  |
|       | <i>γ ferruginus Ag.</i>     | ferruginous    | bushy            | 6  | spring     | Rus.   | ocean       | E. b. t. 2280. <i>Clitoralis</i>     |
| 15248 | <i>brachiátus Ag.</i>       | brachiate      | floating tufts   | 3  | April      | Fa. br | ocean       | E. bot. t. 2371. <i>Conferva</i>     |
| 15249 | <i>granulósus Ag.</i>       | granular       | flocculent       | 3  | July       | OL. G  | on Fuci     | E. bot. t. 2351. <i>Conferva</i>     |
| 15250 | <i>tomentósus Ag.</i>       | downy          | fine down        | ½  | July       | OL. G  | ocean       | Dillw. conf. t. 56. <i>Conf.</i>     |



History, Use, Propagation, Culture.

2297. *Griffithsia*. Named after Mrs. Griffiths, of Devonshire, whose many discoveries in marine vegetation truly entitle her to this distinction: the highest which one botanist can bestow upon another.

2228. *Chaetospora*. From *χαιτωσ*, a bristle, and *σπορα*, a spore; the latter are placed upon fine capillary divisions of the filaments.

2299. *Polysiphonia*. From *πολος*, many, and *σιφων*, a siphon, in reference to the numerous little canals by which the colored matter is carried from one end of the plant to the other. Agardh calls these plants by

4. *Branches pinnulate, Pinnule alternate.*

- 15213 Filam. branch. Branches virg. surmount. by short corymbose fastig. branchl. Artic. 3 times as long as broad  
 15214 Filam. branched, Branchlets alternate rigid spreading subulate, Artic. 3 times as long as broad  
 15245 Filam. branched, Branchlets scattered decompound-pinnate, Artic. 3 times as long as broad  
 15216 Filam. branched, Branchlets scattered virgate, Artic. 3 times as long as broad  
 15217 Filam. virgate with many simple or multifid pencilled ramuli, Artic. 3 times as long as broad  
 15218 Primary filaments downy, Branches straight decompound pinnate, Artic. 3 times as long as broad  
 15219 Filam. much branch. Artic. 4 times as long as broad by degrees becoming thickened, Caps. stalked ellipt.

5. *Filaments pinnated, Pinnæ opposite.*

- 15220 Filam. pinnated, Pinnæ opposite nearly simple, Artic. many times longer than broad  
 15221 Filam. with irregular branches, having at each joint short slender opposite spreading recurved branchlets

1. *Branches fascicled.*

- 15222 Filam. branched, Branchlets subternate distant short multifid, Artic. much longer than broad [broad  
 15223 Filam. branch. cover. all over with somew. whorl. imbricat. short multif. branchl. Artic. much longer than

2. *Dichotomous, chained.*

- 15224 Filam. dichotom. straight, Branches erect long, Articulations cylindrical about 5 times as long as broad  
 15225 Filam. dichotom. Fibres multifid very fine, Articulations thickened upwards about 5 times as long as broad  
 15226 Filaments dichotomous slippery, Articulations thickened 2-4 times as long as broad

15227 The only species

a. *Purple or scarlet, flat, somewhat pinnated.*

- 15228 Filaments bipinnate veiny rigid, Pinnæ and pinnules alternate, Articulations rather shorter than long  
 15229 Dark-red, Branches divaricate rigid, Articulations 3-tubed as long as broad, Stem rough with tubercles  
 15230 Filam. very much branch. Primary not jointed, Branches decomp.-pinn. Pinnules heterogen. multif. fascic.

b. *Creeping, Branches divaricating, often one-sided.*

- 15231 Filaments entangled with scattered branches, Branches divaricating, Articulations twice as long as broad

c. *Purple, whole-colored, adhering to paper.*

- 15232 Filaments nearly equal branched virgate, Branches erect, Lower articulations 5 times as long as broad

d. *Pencilled, black above, generally rose-colored above, adhering to paper.*

- 15233 Filam. much branched diffuse, Branches virgate spread. Lower artic. obsol. Artic. much longer than broad

- 15234 Filaments much branched at end diffuse, Lower articulations very short when dry nodulose: upper about

as long as broad with 3 veins

## β Filaments short somewhat pectinated, Branches nearly simple

- 15235 Filaments much branched diffuse, Branchlets spreading short, Articulations half as long again as broad  
 15236 Filam. dichotom. pencilled much branched, Articulations shorter than long netted vein: lower obsolete  
 15237 Filam. much branched diffuse, Lower artic. 5-veined 4 times as long as broad: upp. 3-veined twice as long  
 15238 First filament not jointed spirally veiny, Articulations as long as broad, Capsules axillary  
 15239 Filaments branched veiny, Branches long, Artic. of stem long, of the branches thrice as short

e. *Black or blackish-brown when dry, rigid, scarcely adhering to paper.*

- 15340 Filam. dichotomous nearly equal fastigiatae, Artic. shorter than broad with a black point in the middle  
 15241 Filaments dichotomous irregularly branched at end, Branches and branchlets very straight: upper artic.  
 3 times as long as broad

- 15242 Filam. much branched long diff. Branchl. short spread squarr. recurved, Lower artic. long: upper short

f. *Branchlets lateral, short, fascicled.*

- 15243 Filaments decompound pinnated, Branchlets very short and fine, Articulations 3 times as long as broad  
 15244 Filaments branched virgate, Branch. alternately pinnated, Branchlets short multifid, Theca sessile ovate  
 15245 Filam. much branched covered with heterogeneous hair-like simple branchlets, Artic. very short obsolete

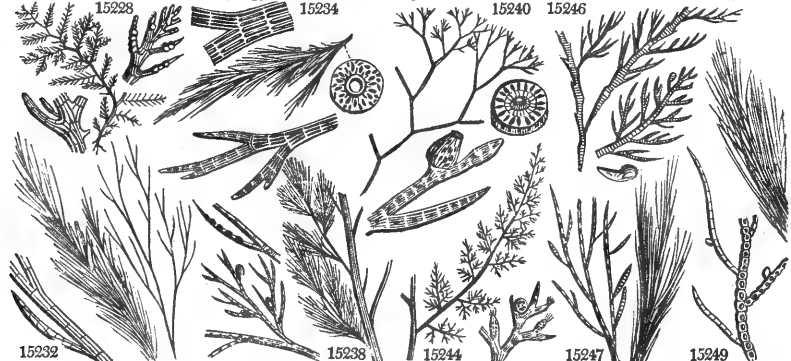
15246 Frond somewhat cartilaginous compressed transversely rugose bipinnated, Pinnules in fruit incurved

15247 Filam. nearly separate, Branches erect subulate, Artic. rather longer than broad, Pods linear subulate

15248 Filam. much branched very fine, Branches and branchlets opposite spreading attenuated acute, Artic  
 half as long again as broad

15249 Filam. much branch. Branches scatt. spread. taper. ac.: at tips hyal. Artic. as long as broad finally tumid

15250 Frond rope-like somew. spongy divid. into branches, Filam. densely entang. Artic. 4 times as long as broad

and *Miscellaneous Particulars.*

Hutchinsias, not being aware that the name of Miss Hutchins had previously been applied to a genus of Cruciferae, by Mr. Brown. The species of this genus are, perhaps, the most beautiful of all the tribes of Conferva.

2300. *Rythiphæa*. So called, it is presumed, from *ρυτίς*, a wrinkle, and *πλάσιον*, to be filled with any thing. The filaments are essentially characterized by their numerous transverse rugosities.

2301. *Ectocarpus*. From *εξωτός*, outside, and *καρπός*, fruit, because the thecae are not included in the substance of the frond, as in the next genus, but placed on the outside. Marine plants.

|  |             |               |                    |                   |
|--|-------------|---------------|--------------------|-------------------|
| 2302. SPHACELLARIA. <i>Ag.</i> SPHACELLARIA. |             | Sp. 6—14.     |                    |                   |
| 15251 <i>racemosa</i> <i>Grev.</i>           | racemose    | tufts         | 1 febr.            | Ol.G sea shore    |
| 15252 <i>cirrhosa</i> <i>Ag.</i>             | cirrhous    | dense tufts   | 1 sum.             | Ol.G ocean        |
| 15253 <i>radicans</i> <i>Ag.</i>             | rooting     | fine tufts    | $\frac{2}{3}$ sum. | Br.Ol marine roc. |
|  |             |               |                    |                   |
| 15254 <i>plumosa</i> <i>Ag.</i>              | plumose     | flaccid       | 3 spring           | G.Br ocean        |
| 15255 <i>Mertensii</i> <i>Ag.</i>            | Mertens's   | elegant tufts | 4 sum.             | Ol.Br sea shore   |
| 15256 <i>scoparia</i> <i>Ag.</i>             | rock        | dense tuft    | 3 sum.             | Br ocean          |
|  |             |               |                    |                   |
| 2303. CLADOSTEPHUS. <i>Ag.</i> CLADOSTEPHUS. |             | Sp. 2—7.      |                    |                   |
| 15257 <i>spongiosus</i> <i>Ag.</i>           | spongy      | rigid tuft    | 3 sum.             | G ocean           |
| 15258 <i>myriophyllum</i> <i>Ag.</i>         | many-leaved | rigid tuft    | 5 sum.             | G ocean           |

Dillw. conf. t. 86. *Conf.*  
Dillw. conf. t. C. *Conf.*  
E. bot. t. 2330. *C. pinnata*  
E. bot. t. 999. *Conferva*  
E. bot. t. 1552. *Conferva*

E. b. t. 2427. f. 1. *Conferva*  
E. b. t. 1718. *C. verticillata*

ULVACEÆ.

|   |              |                 |                       |                    |
|---|--------------|-----------------|-----------------------|--------------------|
| 2304. VAUCHERIA. <i>Ag.</i> VAUCHERIA.  |              | Sp. 6—29.       |                       |                    |
| 15259 <i>dichotoma</i> <i>Ag.</i>       | dichotomous  | large tufts     | 12 sum.               | D.G ditches        |
| <i>β submarina</i> <i>Ag.</i>           | submarine    | large tufts     | 12 sum.               | D.G submar. dicit. |
| 15260 <i>Dillwynii</i> <i>Ag.</i>       | Dillwyn's    | thin mat        | 1 sp. su.             | D.G on the earth   |
| 15261 <i>radicata</i> <i>Ag.</i>        | rooting      | patches         | $\frac{1}{2}$ sept.   | D.G dry ditches    |
| 15262 <i>geminata</i> <i>Ag.</i>        | double       | large masses    | 6 sum.                | D.G still waters   |
| 15263 <i>racemosa</i> <i>Ag.</i>        | racemose     | large masses    | 4 su. au.             | D.G ditches        |
| 15264 <i>multicapsularis</i> <i>Ag.</i> | many-fruited | patches         | $\frac{7}{8}$ su. au. | D.G dry banks      |
|   |              |                 |                       |                    |
| 2305. CODIUM. <i>Ag.</i> CODIUM.        |              | Sp. 2—7.        |                       |                    |
| 15255 <i>tomentosum</i> <i>Ag.</i>      | downy        | coralloid       | 6 june                | G ocean            |
| 15256 <i>Bur'sa</i> <i>Ag.</i>          | purse        | spongy mass     | 3 all sea.            | G ocean            |
|   |              |                 |                       |                    |
| 2306. BRYOPSIS. <i>Ag.</i> BRYOPSIS.    |              | Sp. 1—7.        |                       |                    |
| 15267 <i>plumosa</i> <i>Ag.</i>         | feathery     | fine tufts      | 2 sept.               | Dp.G ocean         |
|   |              |                 |                       |                    |
| 2307. SOLENIA. <i>Ag.</i> SOLENIA.      |              | Sp. 4—18.       |                       |                    |
| 15268 <i>intestinalis</i> <i>Ag.</i>    | intestinal   | simple          | 24 sum.               | G ditches          |
| <i>β maxima</i> <i>Ag.</i>              | very large   | simple          | 24 sum.               | G ditches          |
| 15269 <i>Lin'za</i> <i>Ag.</i>          | crisp        | simple          | 18 sum.               | G ocean            |
| <i>β lanceolata</i> <i>Ag.</i>          | lanceolate   | simple          | 18 sum.               | G ocean            |
| 15270 <i>compressa</i> <i>Ag.</i>       | compressed   | simple          | 12 sum.               | G ocean            |
| <i>β crinita</i> <i>Ag.</i>             | crinite      | compound        | 12 sum.               | G ocean            |
| 15271 <i>clathrata</i> <i>Ag.</i>       | grated       | branched        | 3 sum.                | Ysh fresh water    |
| <i>β uncinata</i> <i>Ag.</i>            | hooked       | irregul. branc. | 3 sum.                | Ysh ocean          |
|   |              |                 |                       |                    |
| 2308. ULVA. <i>L.</i> ULVA.             |              | Sp. 3—12.       |                       |                    |
| 15272 <i>lactuca</i> <i>L.</i>          | Green Laver  | soft leaves     | 12 su. au.            | G ocean            |
| 15273 <i>bullosa</i> <i>Roth.</i>       | puckered     | soft leaves     | 6 su. au.             | G ditches          |
| 15274 <i>crispa</i> <i>Lightf.</i>      | crisp        | broad mass      | $\frac{1}{2}$ sum.    | G on the earth     |
|   |              |                 |                       |                    |
| 2309. PORPHYRA. <i>Ag.</i> PORPHYRA.    |              | Sp. 2—3.        |                       |                    |
| 15275 <i>laciniata</i> <i>Ag.</i>       | torn         | soft leaves     | 2 sum.                | Pu sea shore       |
| 15276 <i>purpurea</i> <i>Ag.</i>        | purple       | soft leaves     | 2 sum.                | Pu sea shore       |

E. bot. t. 932. *Conferva*  
Lyng. hydrog. dan. t. 20  
Dill. conf. t. 16. *C. frigidula*  
E. b. t. 324. *Trem. granul.*  
Eng. bot. t. 1766  
Lyng. hydrog. dan. t. 23  
Dill. conf. t. 71. *Conferva*

Eng. bot. t. 712. *Fucus*  
Eng. bot. t. 2183. *Fucus*

E. b. t. 2375. *Ulv. plumosa*

Dillenius, t. 9. f. 7  
Dillenius, t. 9. f. 6  
Dillenius, t. 9. f. 5  
Eng. bot. t. 1739. *Ulva*  
Dillenius, t. 2. f. 7  
Dil. con. t. F. C. *paradoxa*  
E. b. t. 2137. *Ulv. ramul.*

Eng. bot. 1551  
Eng. bot. 2320

Lightf. fl. scot. t. 33

FLORIDEÆ.

|                                      |           |            |           |             |
|--------------------------------------|-----------|------------|-----------|-------------|
| 2310. POLYIDES. <i>Ag.</i> POLYIDES. |           | Sp. 1.     |           |             |
| 15277 <i>lumbricalis</i> <i>Ag.</i>  | Worm-like | coralloid  | 6 nov.    | Br ocean    |
|                                      |           |            |           |             |
| 2311. PTILOTA. <i>Ag.</i> PTILOTA.   |           | Sp. 1—4.   |           |             |
| 15278 <i>plumosa</i> <i>Ag.</i>      | feathery  | fine tufts | 4 su. au. | R ocean     |
| <i>β tenuis'sima</i> <i>Ag.</i>      | delicate  | fine tufts | 4         | R sea shore |

E. b. t. 1738. *Fuc. rotund.*

Eng. bot. t. 1308. *Fucus*



History, Use, Propagation, Culture,

2302. *Sphacellaria*. This name has been suggested by the *sphacelated* appearance of the truncated extremities of the shoots, in which the reproductive organs are immersed.

2303. *Cladostephus*. From *κλαδος*, a branch, and *στος*, a crown, in allusion to the manner in which the first stem is crowned as it were by the little compound whorled branches.

2304. *Vaucheria*. So named, in honor of M. Vaucher, of Geneva, an indefatigable collector of submersed Algae.

2305. *Codium*. From *κωδιον*, a skin, with reference to the appearance of the second species.

2306. *Bryopsis*. The filaments of this genus form little pinnated or imbricated branches, resembling bits of moss; whence the name has been formed, from *βρυον*, a moss, and *οψις*, resemblance.

- 15251 Filam. twice or thrice dichotom. Artic. as long as broad, Tubercles ovate racemose on branched peduncles  
 15252 Filam. much branched fine striated, Branches alternate somew. pinnated, Articulations as long as broad  
 15253 Filaments branched rooting straight rigid, Branches scattered simple erect obtuse tapering at the base, Artic. about twice as broad as long  
 15254 Primary filaments branched not jointed surrounded by pectinated spreading branchlets  
 15255 Filaments bipinnate very fine, Pinnæ and pinnules opposite, Artic. very short, Theca ovate stalked  
 15256 Stem covered with confervoid filam. Branches somew. bipinnate, Pinnæ pectinate, Altern. pinnules subul.

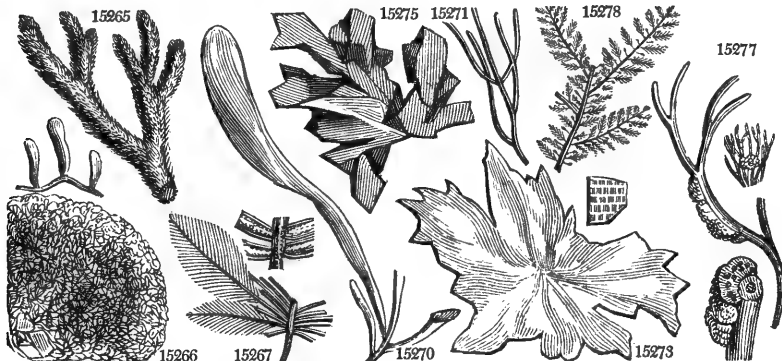
- 15257 Setæ simple densely imbricated  
 15258 Setæ incurved forked or crested imbricated

## ULVACEÆ.

- 15259 Filaments setaceous dichotomous fastigate, Thecæ globose sessile solitary  
 β Filaments finer, Thecæ lanceolate and ovate  
 15260 Filaments flexuose, Thecæ sessile lateral globose  
 15261 Filaments descending rooting, Thecæ solitary terminal globose  
 15262 Filaments dichotomous, Thecæ obovate stalked opposite on a common cornute pedic  
 15263 Filaments branched cæspitose, Thecæ racemose  
 15264 Filaments branched creeping, Branches erect nearly simple, Thecæ heaped towards the tips  
  
 15265 Frond dichotomous fastigate cylindrical  
 15266 Frond globose hollow  
  
 15267 Filam. branched naked below, pinnated in the middle, Branchlets opp. nearly simple approximating  
  
 15268 Frond tubular inflated simple  
  
 15269 Frond lanceolate ensiform much tapered at each end wavy crisp  
  
 15270 Frond tubular lined clathrate branched filiform compressed, Branches simple tapering at base  
  
 15271 Frond tubular irregularly clathrate filiform, Branches tapered  
  
 15272 Fronds obovate or lanceolate flat wavy lacinate-crisp  
 15273 Frond obovate slippery sinuous blistered finally expanded  
 15274 Fronds blistered plaited-crisp rugose heaped in an expanded layer  
  
 15275 Frond flat with numerous dilated segments  
 15276 Frond flat ovate lanceolate flat wavy crisp at the edge

## FLORIDEÆ.

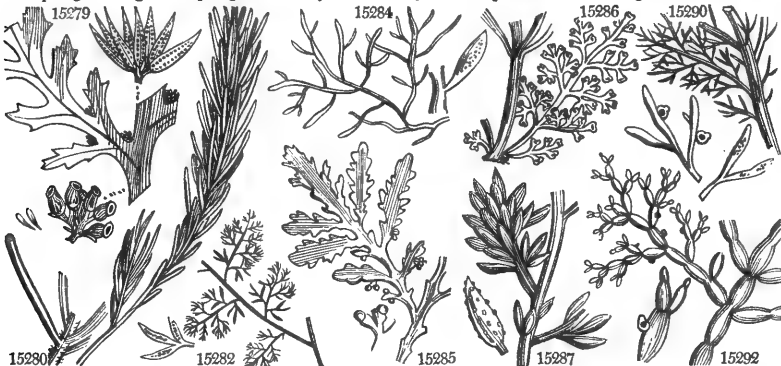
- 15277 The only species  
 15278 Jugament filiform compressed, Pinnules opposite pectinate-cut



## and Miscellaneous Particulars.

2307. *Solenia*. So called, from *σωλην*, a tube, in allusion to the tubular nature of the frond.  
 2308. *Uva*. This was the common name applied by the Latins to all kinds of marine plants. The word is said to have been derived from the Celtic *u*, water. The green laver which, stewed with lemon juice, is so much esteemed in England, is the *U. lactuca*.  
 2309. *Porphyra*. This genus has received its name from *πορφυρα*, purple, on account of its being remarkable among Ulvaceæ for possessing that color.  
 2310. *Polyides*. From *πολυιδης*, multifarious, in allusion to the diversity of appearance of the single species.  
 2311. *Ptilota*. Named in allusion to the form of the frond: from *πτελωτος*, pennated.

|       |                           |            |                          |                |                |            |         |             |
|-------|---------------------------|------------|--------------------------|----------------|----------------|------------|---------|-------------|
| 9212  | <b>RHODOMELA.</b>         | <i>Ag.</i> | <b>RHODOMELA.</b>        |                | <i>Sp.</i>     | 5—21.      |         |             |
| 15279 | <i>dentata Ag.</i>        |            | oothed                   | flat branched  | 4              | sum.       | Ol.Br   | sea shore   |
| 15280 | <i>lycopodioides Ag.</i>  |            | lycopodium-like          | coralloid      | 6              | sum.       | Ol.Br   | ocean       |
| 15281 | <i>subfusa Ag.</i>        |            | brownish                 | finely branch. | 6              | sum.       | Ol.Br   | ocean       |
| 15282 | <i>scorpioides Ag.</i>    |            | amphibious               | feathery       | 4              | sum.       | R.Pu    | ocean       |
| 15283 | <i>pinastroides Ag.</i>   |            | Pine-like                | acicular       | 3              | sum.       | Br      | ocean       |
| 9213  | <b>CHONDRIA.</b>          | <i>Ag.</i> | <b>CHONDRIA.</b>         |                |                | <i>Sp.</i> | 9—38.   |             |
| 15284 | <i>pusilla Hook.</i>      |            | dwarf                    | entangled      | $\frac{1}{2}$  | sum.       | Psh     | marine roc. |
| 15285 | <i>pinnatifida Ag.</i>    |            | Pepper dulse             | bushy          | 6              | sum.       | Psh     | ocean       |
| 15286 | <i>obtusa Ag.</i>         |            | blunt                    | bushy          | 4              | sum.       | Y.Pk    | ocean       |
| 15287 | <i>ovalis Ag.</i>         |            | oval                     | rigid branch.  | 4              | sum.       | Br      | ocean       |
| 15288 | <i>dasyphylla Ag.</i>     |            | thick-leaved             | Sedum-like     | 4              | all sea.   | Pu      | ocean       |
| 15289 | <i>tenuissima Ag.</i>     |            | slender                  | asparagoid     | 6              | all sea.   | Pa.Ol   | ocean       |
| 15290 | <i>clavellosa Ag.</i>     |            | clavellate               | gelatinous     | 9              | jl. aug.   | Pa.pk   | ocean       |
| 15291 | <i>Kaliformis Ag.</i>     |            | Kaliform                 | coralloid      | 5              | June       | DI.P    | ocean       |
| 15292 | <i>articulata Ag.</i>     |            | jointed                  | much brach.    | 6              | sum.       | R.Pk    | ocean       |
| 2314. | <b>SPHEROCOC'CUS.</b>     | <i>Ag.</i> | <b>SPHEROCOC'CUS.</b>    |                |                | <i>Sp.</i> | 17—193. |             |
| 15293 | <i>ruber Ag.</i>          |            | red                      | tufts          | 4              | wint.      | Psh     | ocean       |
| 15294 | <i>Brodia'i Ag.</i>       |            | Brodie's                 | proliferous    | 4              | su. au.    | Psh     | ocean       |
| 15295 | <i>membranifolius Ag.</i> |            | membranous               | branched       | 6              | oc. jan.   | R.Pu    | ocean       |
| 15296 | <i>palmetta Ag.</i>       |            | Palmetto                 | flat branched  | 3              | sum.       | DI.P    | sea shore   |
| 15297 | <i>crispus Ag.</i>        |            | crisp                    | branched       | 4              | s. my.     | R.Br    | ocean       |
| 15298 | <i>mammillosus Ag.</i>    |            | teated                   | branched       | 4              | all sea.   | R.Br    | ocean       |
| 15299 | <i>ciliatus Ag.</i>       |            | ciliated                 | flat lobed     | 6              | wint.      | R.Br    | ocean       |
|       | <i>β palmatus Ag.</i>     |            | <i>palmtated</i>         | flat lobed     | 6              | wint.      | R.Br    | sea shore   |
|       | <i>γ Jubatus Ag.</i>      |            | <i>maned</i>             | finely cut     | 6              | wint.      | R.Br    | sea shore   |
|       | <i>δ angustus Ag.</i>     |            | <i>narrow</i>            | finely cut     | 6              | wint.      | R.Br    | sea shore   |
|       | <i>ε spinosus Ag.</i>     |            | <i>spiny</i>             | finely cut     | 6              | wint.      | R.Br    | sea shore   |
| 15300 | <i>gigartinus Ag.</i>     |            | branched                 | coralloid      | 3              | all sea.   | R.Br    | sea shore   |
| 15301 | <i>corneus Ag.</i>        |            | corneous                 | finely pinnat. | 3              | sum.       | dp.pk   | ocean       |
|       | <i>β pinnatus Ag.</i>     |            | <i>pinnated</i>          | finely pinnat. | 3              | sum.       | dp.pk   | sea shore   |
|       | <i>γ pulchellus Ag.</i>   |            | <i>pretty</i>            | finely pinnat. | 3              | sum.       | dp.pk   | sea shore   |
|       | <i>δ Nereidus Ag.</i>     |            | <i>graceful</i>          | finely pinnat. | 3              | sum.       | dp.pk   | sea shore   |
|       | <i>ε clavifer Ag.</i>     |            | <i>club-bearing</i>      | finely pinnat. | 3              | sum.       | dp.pk   | sea shore   |
| 15302 | <i>cartilagineus Ag.</i>  |            | cartilaginous            | finely pinnat. | 8              | all sea.   | dI.Br   | ocean       |
| 15303 | <i>coronopifolius Ag.</i> |            | buckshorn-lvd.           | rigid bushy    | 6              | sum.       | DI.P    | ocean       |
| 15304 | <i>laciniatus Ag.</i>     |            | jagged                   | flat lobed     | 3              | f. may     | Pk      | ocean       |
| 15305 | <i>bifidus Ag.</i>        |            | bifid                    | bushy lobed    | 2              | f. may     | pu.pk   | sea shore   |
| 15306 | <i>cristatus Ag.</i>      |            | crested                  | small tuft     | $1\frac{1}{2}$ | sum.       | Pk      | ocean       |
| 15307 | <i>confervoides Ag.</i>   |            | conferva-like            | much branch.   | 6              | aut.wi.    | Ol.G    | ocean       |
| 15308 | <i>plicatus Ag.</i>       |            | plaited                  | coarse bush    | 3              | all sea.   | Ol.Br   | ocean       |
| 15309 | <i>purpurascens Ag.</i>   |            | purplish                 | thinly branc.  | 6              | all sea.   | Pa.Y    | ocean       |
| 2315. | <b>HALYME'NIA.</b>        | <i>Ag.</i> | <b>DULSE.</b>            |                |                | <i>Sp.</i> | 7—21.   |             |
| 15310 | <i>reniformis Ag.</i>     |            | reniform                 | broad leaves   | 8              | aut.       | R.      | sea shore   |
| 15311 | <i>edulis Ag.</i>         |            | true                     | broad leaves   | 8              | aut.       | DI.R    | ocean       |
|       | <i>β media Ag.</i>        |            | <i>intermediate</i>      | broad leaves   | 8              | aut.       | R.      | sea shore   |
| 15312 | <i>palmata Ag.</i>        |            | common                   | broad leaves   | 8              | oc. ap.    | ph.R    | ocean       |
|       | <i>β marginifera Ag.</i>  |            | <i>margined</i>          | broad leaves   | 8              | wint.      | Pu      | ocean       |
|       | <i>γ sarniensis Ag.</i>   |            | <i>Guernsey</i>          | broad leaves   | 8              | wint.      | Pu      | sea shore   |
| 15313 | <i>ligulata Ag.</i>       |            | strap-shaped             | lobed fronds   | 4              | wint.      | Pu      | ocean       |
| 15314 | <i>furcellata Ag.</i>     |            | forked                   | much lobed     | 3              | wint.      | Pu      | ocean       |
| 15315 | <i>opuntia Ag.</i>        |            | Indian Fig               | matted         | 1              | sp. aut.   | Pa.pu   | ocean       |
| 15316 | <i>purpurascens Ag.</i>   |            | purple                   | much branch.   | 6              | sum.       | Psh     | ocean       |
| 2316. | <b>BONNEMAI'SON'NIA.</b>  | <i>Ag.</i> | <b>BONNEMAI'SON'NIA.</b> |                |                | <i>Sp.</i> | 1—3.    |             |
| 15317 | <i>asparagoidea Ag.</i>   |            | Asparag.-like            | finely branch. | 4              | jl. to n.  | DI.pu   | sea shore   |



History, Use, Propagation, Culture,

2312. *Rhodomela.* From *rhodos*, red, and *melos*, a limb; in allusion to the color of the fronds.  
 2313. *Chondria.* The fronds of this genus are particularly cartilaginous, on which account its name has been formed from *χονδρος*, cartilage. *C. pinnatifida* is eaten in Scotland; it has a pungent flavor.  
 2314. *Sphaerococcus.* From *sphaera*, an orb, and *κοκκος*, fruit. The thecae of the genus are round, and contain a globose nucleus full of round sporida.

15279 Frond flat obsoletely ribb. alternately bipinnatifid, Pinnæ linear cuneate, Pinnules cut, Thecæ urceolate  
 15280 Stem filiform covered with setaceous densely imbricated ramenta  
 15281 Frond filiform much branched, Branchlets setaceous subulate pinnate fascicled  
 15282 Frond filiform attenuate flexuose branched, Branches bipinnate : upper involute  
 15283 Frond filiform equal, Ramenta simple about one-sided clustered involute

15284 Frond compres. filif. somew. contract. here and there, Fructif. either min. tuberc. or scatter. spor. in ramuli  
 15285 Frond compressed 2-3-pinnate, Pinnæ alternate, Pinnules obtuse callous  
 15286 Frond round filiform many-times pinnated, Pinnæ opposite cylindrical clavate short horizontal  
 15287 Stem roundish filiform dichotomous, Ramenta elliptical scattered much attenuated at base  
 15288 Stem round filiform much branched, Ramenta clavate much attenuated at base  
 15289 Stem round filiform irregularly branched, Ramenta setaceous much tapered at base  
 15290 Stem filiform much pinnated, Ramenta linear-lanceolate distichous tapering at base  
 15291 Frond filiform contracted in joints tubular, Branches whorled  
 15292 Frond filiform chain-like in joints tubular, Branches fastigiate dichotomous and whorled

15293 Stem scarcely any, Laminae chained obsoletely ribbed cuneate 2-forked or lanceolate, Thecæ rugose sessile in the disk of the frond  
 15294 Stem filiform somewhat dichotomous, Branches terminating in oblong 2-forked somewhat proliferous laminae, Thecæ spherical subulate terminal  
 15295 Stem filiform dichotom. Branches expanded in cuneiform multifid laminae, Thecæ stalked ovate cauline  
 15296 Stem filif. nearly simple expanded into a cuneif. palm. laminae : segm. ligulate, Thecæ hemisph. sess. in disk  
 15297 Frond flat dichotomous, Segments linear-cuneiform, Thecæ hemispherical sess. on the disk of the frond  
 15298 Frond somew. channel. dichotom. Segm. lin. cuneif. Thecæ spheric. scatter. on short stalks on disk of frond  
 15299 Frond membran. leathery flat somew. lanc. somew. branched ciliat. Ciliæ subulate bearing thecæ at end

15300 Frond cartilagin. compressed lin. somew. dichotom. Segm. ciliated, Ciliæ bear. thecæ either at sides or ends  
 15301 Frond cartilagin. corneous distich. branched, Segm. compressed flat linear bipinn. Pinnæ opp. spread. obt.

15302 Frond cartilagin. filif. compress. decomp. pinnated, Pinnæ horizontal altern. Pinnules bearing thecæ at end  
 15303 Frond cartilaginous much branched dichotomous pinnated, Segments tapered at base : lower compressed 2-edged ; the last furcate acute  
 15304 Frond cartilaginous membranaceous dichotomous or palmate, Segments obtuse somewhat proliferous, Theca immersed in minute unequal processes  
 15305 Frond membranous dichotomous, Theca spherical marginal sessile  
 15306 Frond membranous dichotomous, Segm. linear : upper palmate crested entire, Theca margin. immersed  
 15307 Frond cartilagin. round filif. Branch. long simp. surround. by little branch. Theca hemispher. sess. scatter.  
 15308 Frond filif. corneous rigid equal with entang. branches, Branches horizontal 1-sided cluster. forked at end  
 15309 Fronds filif. much branched. Branchl. setaceous tapered at each end setac. Theca spheric. attach. to branchl.

15310 Stem filiform dilated into a cartilaginous reniform or orbicular entire frond  
 15311 Frond fleshy flat simple cuneiform tapered at base into the footstalk rounded at end  
 15312 Frond coriaceous flat palmate entire, Segments cuneate oblong nearly simple

15313 Frond membranous tubular flat dichotomous, Axillæ rounded, Segments linear narrow by degrees sending out from the margin many simple ramenta  
 15314 Frond gelatinous coriaceous dichotomous, Segments filiform : end membranous dilated elliptical lanceol.  
 15315 Frond filiform with contracted articulations  
 15316 Frond subgelatinous filiform, Branches remote long, Sporules naked in the substance of the branches

15317 Frond filiform compressed much branched, Branchlets setaceous distichous simple pectinate on each side



and Miscellaneous Particulars.

2315. *Halymenia*. From *λαγος*, the sea, and *θυμης*, a membrane. Marine plants with flat or tubular membranous fronds. *H. edulis* is the true Dulse, and *H. palmata* the common Dulse, both of which are eaten in Scotland.

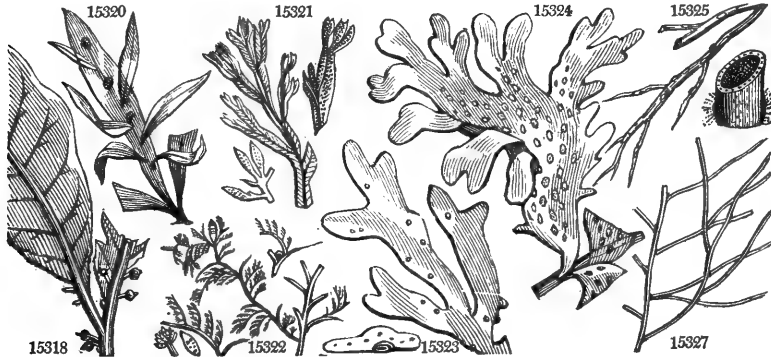
2316. *Bonnemaisonia*. So called in honor of M. Bonnemaison, a French cryptogamic botanist, who particularly attended to Confervæ.



|   |                            |  |
|---|----------------------------|--|
| 2917. <i>DELESSERIA</i> . <i>Ag.</i> <b>DELESSERIA.</b> | <i>Sp.</i> 7—24.           |  |
| 15318 <i>sanguinea</i> <i>Ag.</i>                       | blood-colored bushy        | 6 ja. my. Fl. Pk ocean Eng. bot. t. 1041. <i>Fucus</i>     |
| 15319 <i>ruscifolia</i> <i>Ag.</i>                      | ruscus-leaved flat lobed   | 4 ja. feb. RI. pu ocean Eng. bot. t. 1395. <i>Fucus</i>    |
| 15320 <i>hypoglossum</i> <i>Ag.</i>                     | proliferous tufts          | 3 jn. sep. RI. pk ocean Eng. bot. t. 1396. <i>Fucus</i>    |
| 15321 <i>alata</i> <i>Ag.</i>                           | winged finely branch.      | 6 jan. au. dp. pk ocean Eng. bot. t. 1387. <i>Fucus</i>    |
| <i>β dilatata</i> <i>Ag.</i>                            | dilated finely branch.     | 6 jan. au. dp. pk sea shore                                |
| <i>γ angustissima</i> <i>Ag.</i>                        | very narrow finely branch. | 6 jan. au. dp. pk sea shore                                |
| 15322 <i>plocamium</i> <i>Ag.</i>                       | scarlet finely branch.     | 4 su. aut. dp. pk ocean E. b. t. 1242. <i>F. coccineus</i> |
| 15323 <i>lacerata</i> <i>Ag.</i>                        | tear nearly simple         | 6 jl. oct. Pa. R ocean Eng. bot. t. 1387. <i>Fucus</i>     |
| 15324 <i>punctata</i> <i>Ag.</i>                        | dotted very tender         | 4 sum. Bt. pk sea shore                                    |

FUCOLIDEÆ.

|   |                              |   |
|---|------------------------------|---|
| 2318. <i>LEMANEA</i> . <i>Ag.</i> <b>LEMANEA.</b>         | <i>Sp.</i> 2—5.              |   |
| 15325 <i>fluviatilis</i> <i>Ag.</i>                       | fluviatile lax tufts         | 6 sum. DL G stones in riv. E. bot. t. 1763. <i>Conserva</i> |
| <i>β media</i> <i>Ag.</i>                                 | intermediate lax tufts       | 6 sum. DL G rivers Act. holm. 1814. t. 2. f. 1              |
| 15326 <i>torulosa</i> <i>Ag.</i>                          | torulose tufts               | 4 aut. DL G rivers  |
| 2319. <i>CHORDARIA</i> . <i>Ag.</i> <b>CHORDARIA.</b>     | <i>Sp.</i> 1—5.              |   |
| 15327 <i>flagelliformis</i> <i>Ag.</i>                    | flagelliform long masses     | 24 sum. OLG ocean Eng. bot. t. 1222. <i>Fucus</i>           |
| 2320. <i>SCYTOSIPHON</i> . <i>Ag.</i> <b>SCYTOSIPHON.</b> | <i>Sp.</i> 2.                |   |
| 15328 <i>filum</i> <i>Ag.</i>                             | cord simple                  | 240 sum. Br. Ol ocean Turn. fuci, t. 86. <i>Fucus</i>       |
| <i>β Thrix</i> <i>Ag.</i>                                 | hair simple                  | 24 sum. Br. Ol ocean Stackh. fuci, t. 12. <i>Fucus</i>      |
| <i>γ tomentosus</i> <i>Ag.</i>                            | downy simple                 | 60 sum. Br. Ol sea shore Lyng. hydroph. dan. t. 19          |
| <i>δ fistulosus</i> <i>Ag.</i>                            | fistular simple              | 120 sum. Br. Ol ocean Eng. bot. t. 642. <i>Ulva</i>         |
| 15329 <i>faniculaceus</i> <i>Ag.</i>                      | fennel-leaved                | Tu. fuci, t. 234. <i>F. subtilis</i>                        |
| 2321. <i>SPOROCHNUS</i> . <i>Ag.</i> <b>SPOROCHNUS.</b>   | <i>Sp.</i> 6—14.             |   |
| 15330 <i>pedunculatus</i> <i>Ag.</i>                      | stalked downy                | 6 sum. Lt. G sea shore Eng. bot. t. 545. <i>Fucus</i>       |
| 15331 <i>aculeatus</i> <i>Ag.</i>                         | aculeate much branch.        | 24 sp. su. OLG ocean Turn. fuci, t. 187. <i>Fucus</i>       |
| 15332 <i>viridis</i> <i>Ag.</i>                           | green very finely br.        | 18 sum. OLG ocean Eng. bot. t. 1639. <i>Fucus</i>           |
| 15333 <i>villosus</i> <i>Ag.</i>                          | villous downy                | 6 sum. Pa. Y sea shore Eng. bot. t. 546. <i>Conserva</i>    |
| 15334 <i>rhizodes</i> <i>Ag.</i>                          | warted smth. branch.         | 2 sum. Y. Br ocean Lyngb. hydroph. dan. t. 13               |
| <i>β major</i> <i>Ag.</i>                                 | large smth. branch.          | 3 sum. Y. Br ocean E. b. t. 1688. <i>C. verrucosa</i>       |
| 15335 <i>ligulatus</i> <i>Ag.</i>                         | ligulate much branch.        | 48 sum. OLG ocean Eng. bot. t. 1636. <i>Fucus</i>           |
| 2322. <i>HALISERIS</i> . <i>Ag.</i> <b>HALISERIS.</b>     | <i>Sp.</i> 1—5.              |   |
| 15336 <i>polypodioides</i> <i>Ag.</i>                     | polypodi.-like fiat branched | 6 all sea. OLG ocean E. b. t. 1758. <i>F. membran.</i>      |
| 2323. <i>ENCOELIUM</i> . <i>Ag.</i> <b>ENCOELIUM.</b>     | <i>Sp.</i> 1—4.              |   |
| 15337 <i>bullosum</i> <i>Ag.</i>                          | blistered simple tubul.      | 6 sum. OLG sea coast E. b. t. 2570. <i>U. Turneri</i>       |
| 2324. <i>ZONARIA</i> . <i>Ag.</i> <b>ZONARIA.</b>         | <i>Sp.</i> 3—34.             |   |
| 15338 <i>pavonia</i> <i>Ag.</i>                           | Turkey feath. fiat lobed     | 3 sum. Br. G ocean Eng. bot. t. 1276. <i>Ulva</i>           |
| 15339 <i>dichotoma</i> <i>Ag.</i>                         | dichotomous branched         | 4 sum. OLG ocean Eng. bot. t. 774. <i>Ulva</i>              |
| 15340 <i>multifida</i> <i>Ag.</i>                         | multifid fiat cut            | 3 aug. Pa. Ol ocean Eng. bot. t. 1913. <i>Ulva</i>          |
| 2325. <i>LAMINARIA</i> . <i>Ag.</i> <b>LAMINARIA.</b>     | <i>Sp.</i> 6—25.             |   |
| 15341 <i>agarum</i> <i>Ag.</i>                            | perforated large masses      | 60 sum. Br ocean Turn. fuci, t. 75. <i>Fucus</i>            |
| 15342 <i>esculenta</i> <i>Ag.</i>                         | esculent large masses        | 60 sum. Br ocean Eng. bot. t. 1759. <i>Fucus</i>            |
| 15343 <i>digitata</i> <i>Ag.</i>                          | digitate large masses        | 60 all sea. OLG ocean Eng. bot. t. 2274. <i>Fucus</i>       |
| 15344 <i>bulbosa</i> <i>Ag.</i>                           | bulbous large masses         | 60 all sea. OL Br ocean Eng. bot. t. 1760. <i>Fucus</i>     |
| 15345 <i>saccharina</i> <i>Ag.</i>                        | saccharine large masses      | 48 all sea. OLG ocean Turn. fuci, t. 163. <i>Fucus</i>      |
| <i>β bullata</i> <i>Ag.</i>                               | blistered large masses       | 48 all sea. OLG ocean E. b. t. 1376. <i>F. sacchari.</i>    |
| 15346 <i>phyllitis</i> <i>Ag.</i>                         | tender simple                | 12 sum. Bt. G ocean Eng. bot. t. 1331. <i>Fucus</i>         |



History, Use, Propagation, Culture.

2317. *Delesseria*. The most beautiful of the *Fucus* tribe, so named in honor of M. Benjamin Delessert, a distinguished French patron of botany; and now holding the same station among the scientific men of Paris, as was lately occupied in London by Sir Joseph Banks.

2318. *Lemanea*. Named in honor of M. Leman, a French botanist, who possessed a considerable knowledge of Algae. This genus is the puzzle of writers upon Algae. It differs from all the *Nostochinae* in its substance, being in no way gelatinous, and in its compound structure, and separate fruit; from *Conferoides* it is distinguished by its continuous frond, olivaceous color, and leathery texture. To *Fucoides* it most nearly related in color, substance, and structure, but it is akin to no other genus, and its habits are entirely different from those of *Fucoides*; the species being all found floating in fresh water.

2319. *Chordaria*. So called from the cord-like appearance of the species.

2320. *Scytosiphon*. The fronds of this genus are tubular and coriaceous; whence the name has been contrived, from *σκυρος*, leather, and *σιφων*, a siphon.

- 15318 Stem distinct, Leaves ovate stalked entire costate, Nerves transverse parallel  
 15319 Stem winged, Leaves linear oblong subsessile proliferous from the costa, Veins diaphanous nearly parallel  
 15320 Stem winged, Leaves linear-lanceolate costate veinless proliferous from the midrib netted  
 15321 Frond ribbed obsolete nerved linear dichotomous alternately pinnatifid towards end, Pinnæ rather lingul.

- 15322 Frond pinnated dichotomous much branched, Last branches falcate inwards and pectinate  
 15323 Frond very fine linear irregularly split entire at end, Segments rounded at end not veined, Sori marginal  
 15324 Frond very thin veinless roundish irregularly split at the end, Sori on the disk of the frond

## FUCOIDEÆ.

- 15325 Filaments simple papillose, Papillæ usually ternate, Articulations 5 times as long as broad  
 ♂ Branched torulose in a moniliform manner here and there  
 15326 Filaments simple moniliform incurved 1-colored

15327 Frond much branched, Branchlets virgate somewhat distichous spreading at base

15328 Frond quite simple

15329 Frond setaceous branched in an irregular manner

- 15330 Recept. elliptical lateral as long as peduncle  
 15331 Branches spiny alternate  
 15332 Frond many times pinnated, Pinnæ opposite capillary  
 15333 Frond many times pinnated nodose, Pinnæ opposite, Nodi villous  
 15334 Frond irregularly branched, torulose and rugose in every direction

15335 Frond flat membranous scarcely nerved bipinnate, Pinnæ and pinnules opp. lin.-lanc. tapering at base

15336 Frond linear dichotomous entire, Sori heaped about the costa

15337 Frond inflated clavate

- 15338 Fronds reniform flabelliform smooth membranous, Zones concentric  
 15339 Dichotomous entire, Segments erect linear rounded blunt, Thecæ scattered on the disk  
 15340 Frond dichotomous entire, Segments long slender acute

- 15341 Stalk running through the lamina which is riddled with holes  
 15342 Stalk winged with pinnæ and running through the ensiform lamina  
 15343 Stalk round expanded into a roundish digitate split entire lamina  
 15344 Root inflated-bulbous, Stalk flat expanded into a digitate split entire lamina  
 15345 Stalk compressed expanded into an entire linear-oblong lamina

15346 Stalk compressed expanded into a thin linear-lanceolate entire lamina



## and Miscellaneous Particulars.

2321. *Sporochnus*. The meaning of this word is not explained. The genus is remarkable for the nature of the reproductive organs, which consist of a minute receptacle formed by some clavate corpuscles, which are jointed and arranged in a concentrical manner, and crowned with tufts of hair.

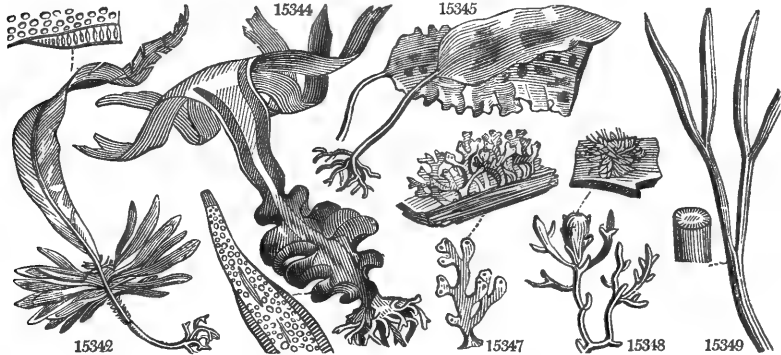
2322. *Haitseris*. This name literally signifies sea-cabbage; from *άλς*, the sea, and *σεις*, a sort of cabbage. The broad membranous fronds are not unlike the leaves of cabbage.

2323. *Encelium*. From *εν*, within, and *καλος*, hollow. The fronds are all tubular and bladderly.

2324. *Zonaria*. Beautiful marine plants marked with transverse zones of lines, in which the organs of reproduction are supposed to exist.

2325. *Laminaria*. The reproductive organs of this genus are situated in the form of large sori upon the lamina of the frond. *L. esculenta* is eaten in Scotland, where it is called *Badderlocks*. From *L. saccharina*, when dried in the sun, exudes a dry white sweetish substance, which is eaten as sugar by the poor inhabitants of Iceland. *L. buccinalis* furnishes the singular vegetable production called the sea-trumpet.

|                                |                     |                |               |         |        |                 |                      |                                    |
|--------------------------------|---------------------|----------------|---------------|---------|--------|-----------------|----------------------|------------------------------------|
| 2326. LICHINA. Ag.             | LICHINA.            |                | Sp. 2.        |         |        |                 |                      |                                    |
| 15347 pygmaea Ag.              | pygmy               | small patches  | $\frac{1}{2}$ | sum.    | G. Bl  | roc. on se. co. | Eng. bot. t. 1332.   | <i>Fucus</i>                       |
| 15348 confinis Ag.             | allied              | small patches  | $\frac{1}{4}$ | sum.    | G. Bl  | roc. on se. co. | Eng. bot. t. 2575.   | <i>Lichen</i>                      |
| 2327. FURCELLARIA. Ag.         | FURCELLARIA.        |                | Sp. 1.        |         |        |                 |                      |                                    |
| 15349 fastigiata Ag.           | fastigiata          | much branch.   | 9             | aut.sp. | R. Ol  | ocean           |                      | E. b. t. 824. <i>F. lumbicalis</i> |
| 2328. FUCUS. L.                | FUCUS.              |                | Sp. 8—18.     |         |        |                 |                      |                                    |
| 15350 nodosus L.               | knotty              | leathery bran. | 36            | dec.    | Ol. G  | ocean           | Eng. bot. t. 570     |                                    |
| 15347 <i>Mackii</i> Turn.      | <i>Mackay's</i>     | leathery bran. | 24            | dec.    | D. Br  | ocean           | Eng. bot. t. 1927    |                                    |
| 15351 vesiculosus L.           | bladdery            | loose masses   | 24            | sp. su. | Ol. G  | ocean           | Eng. bot. t. 1056    |                                    |
| 15352 <i>longifructus</i> Ag.  | <i>long-fruited</i> | loose masses   | 24            | sp. su. | Ol. G  | ocean           |                      |                                    |
| 15353 <i>linearis</i> Ag.      | <i>linear</i>       | loose masses   | 24            | sp. su. | Ol. G  | ocean           |                      |                                    |
| 15352 <i>ceranoides</i> L.     | horn-like           | bushy          | 12            | sp. su. | Ol. G  | ocean           | Esper fuci, t. 146   |                                    |
| 15353 <i>distichus</i> L.      | distichous          | bushy          | 12            | sp. su. | Ol. G  | ocean           | Turner fuci, t. 4    |                                    |
| 15354 <i>serratus</i> L.       | serrated            | masses         | 36            | sp. au. | D. Ol  | ocean           | Eng. bot. t. 1821    |                                    |
| 15355 <i>canaliculatus</i> L.  | channelled          | small masses   | 6             | sp. au. | Y. Ol  | ocean           | Eng. bot. t. 823     |                                    |
| 15356 <i>tuberculatus</i> Esp. | warted              | branch. wart.  | 6             | juve    | Y. Ol  | ocean           | Eng. bot. t. 796     |                                    |
| 15357 <i>loreus</i> L.         | strap-like          | masses         | 36            | sum.    | D. Ol  | ocean           | Eng. bot. t. 569     |                                    |
| 2329. CYSTOSEIRA. Ag.          | CYSTOSEIRA.         |                | Sp. 5—45.     |         |        |                 |                      |                                    |
| 15358 <i>ericoides</i> Ag.     | heath-like          | coralloid      | 6             | su. au. | Ol. Br | ocean           | Eng. bot. t. 1968.   | <i>Fucus</i>                       |
| 15359 <i>barbata</i> Ag.       | bearded             | much branch.   | 6             | su. au. | Ol. Br | ocean           | Eng. bot. t. 2179.   | <i>Fucus</i>                       |
| 15360 <i>discolor</i> Ag.      | variable            | bushy          | 6             | su. wi. | Ol. Br | ocean           | Eng. bot. t. 2131.   | <i>Fucus</i>                       |
| 15361 <i>fibrosa</i> Ag.       | fibrous             | bush. deform.  | 6             | su. wi. | Ol. Br | ocean           | Eng. bot. t. 1969.   | <i>Fucus</i>                       |
| 15362 <i>siliquosa</i> Ag.     | podded              | loose masses   | 24            | au. sp. | D. Ol  | ocean           | Turn. fuci, t. 159.  | <i>Fucus</i>                       |
| 15362 <i>minor</i> Ag.         | small               | loose masses   | 8             | au. sp. | D. Ol  | ocean           | Stackh. fuci, t. 11. | <i>Fucus</i>                       |
| 15362 <i>denudata</i> Ag.      | naked               | loose masses   | 24            | au. sp. | D. Ol  | ocean           |                      |                                    |



History, Use, Propagation, Culture,

2326. *Lichina*. So called in allusion to its supposed convertibility into some one of the Lichen tribe. Sir James Smith has made one species a Lichen and the other a Fucus.

2327. *Furcellaria*. Named on account of the dichotomous forked or *furcellate* arrangement of the fronds.  
 2328. *Fucus*. So called by the Greeks. In Latin, the word signifies paint of any kind; a pigment staining red is afforded by certain species of Fucus. *Fucus vesiculosus* is much employed in the manufacture of kelp. It is common in great variety upon all the sea-coasts of these islands. It is known at first sight by its spherical vesicles filled with air. When the plant is dried, it becomes brittle, and of a dull black color, and sometimes it is covered with a saline efflorescence. Medically it is considered deobstruent, and has been found efficacious in scrofulous swellings. (*Thom. Lond. Disp.* 308.)

15347 Frond flat with spherical tubercles  
 15348 Frond roundish with elliptical tubercles

15349 The only species

15350 Stem compressed here and there inflated with internal vesicles, Receptacles lateral distic. stalk. pyriform

15351 Frond flat ribbed lin. dichotom. entire, Vesicles spherical innate upon frond in pairs, Recept. term. elliptical

15352 Frond lin. costate ent. somew. dichotom. without vesicles, Lateral segm. narrowest multif. fruit-bearing

15353 Frond linear entire dichotomous without vesicles ribbed, Receptacles linear-elliptical

15354 Frond dichotomous ribbed serrated, Recept. solitary flat serrated

15355 Frond linear nerveless channelled dichotomous, Recept. terminal

15356 Frond filiform somewhat dichotomous, Recept. terminal cylindrical

15357 Cup radic. circular plano-convex emitt. from its centre a frond terminat. in a very long dichotom. recept.

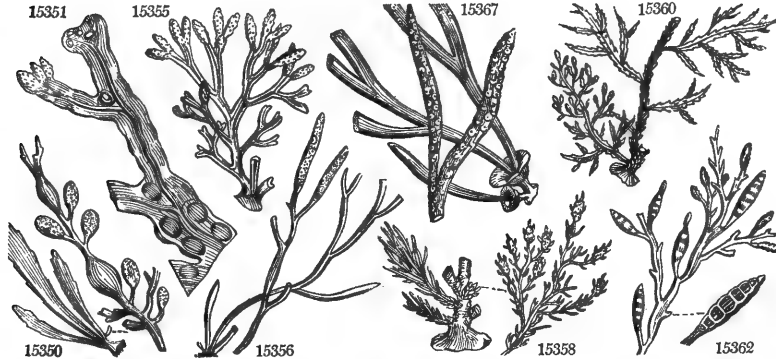
15358 Lvs. densely spiny all over, Vesic. ellipt. somew. term. crown. solit. Recept. warty from inflat. base of spines

15359 Lvs. filiform dichotom. unarmed, Vesicles lanceolate chained, Recept. terminal ovate ellipt. mucronate

15360 Lower leaves thin costate pinnate, Pinnæ lanceolate crenulate, Vesicles lanceolate somewhat solitary

15361 Lvs. unarmed filif. much branched, Vesicles innate ovate-elliptical somew. chained, Recept. filif. terminal

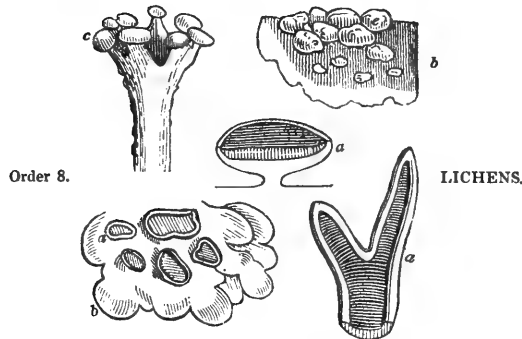
15362 Stem compressed pinnated, Leaves distichous flat linear entire, some bearing vesicles, others receptacles



and Miscellaneous Particulars.

For rural economy, this and other species of *Fucus* are burned for their ashes, which produce the kelp or potash of commerce. On those shores of the sea where these plants do not abound, and where the water is sufficiently saline, the different species of fuci are raised artificially, by depositing stones at regular distances, on which the fuci spring up of themselves, and in four years yield a crop fit for cutting. Those who are interested on this subject will find ample information in the Transactions of the Highland Society of Scotland (vol. viii.), and in Headrick's Survey of Forfarshire. A condensed view of what is known on the subject will be found in the Encyclopædia of Agriculture *in loco*.

2329. *Cystoscira*. From *κυστις*, a bladder, and *σειρα*, a chain. The upper parts of the frond have the appearance of little bladders chained together.



Order 8.

LICHENS.

*Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus or frond, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.*

This, Algæ, and the collateral order Fungi, may be said to exhibit the lowest stage of vegetable development, and to contain the simplest forms of which plants are susceptible. Indeed it seems that each is resolved into the other when in the least stage of composition. Of this order, the lowest tribe, Pseudo-Lichenes, are considered Fungi by some authors, and have been formed into a distinct order by others, under the name of Hypoxyla. Here it seems best to consider them Lichens.

The fructification is usually in the form of shields or cup-like receptacles (a), dispersed over the surface of the frond or thallus (b), and bearing various names according to their nature. *Apothecia* is the common term used to designate the fructification. *Podetia* are the stalk-like processes of the frond (c), which bear the apothecia on their summit. *Scyphæ* are cup-like apothecia. *Cyphellæ* are pale tubercular spots on the under side of the frond. *Lacunæ* are small hollows or pits on the upper surface of the frond. *Soredia* are little heaps of free, pulverulent bodies, mostly of a whitish color, placed on various parts of the frond (e). *Pulvinuli* are spongy, excrecence-like bodies arising from the frond, and often resembling minute trees. *Nucleus proliigerus*, or kernel, is a distinct cartilaginous body coming out entire from the apothecia, and containing sporules. *Lamina proliigera* is a distinct body containing the sporules, separating from the apothecia, often very convex and variable in form, and mostly dissolving into a gelatinous mass. The arrangement of Acharius, which is the most celebrated, is here followed.

#### TRIBE I. IDIOTHALAMI.

*Apothecia differing in color from the rest of the plant, and formed of a distinct substance.*

§ 1. *Apothecia simple, entirely formed of a sub-uniform, pulverulent, or cartilaginous substance. HOMOGENI.*

\* *Apothecia destitute of a raised margin.*

2330. *Spiloma*. Plant crustaceous, spreading, plane, adnate, uniform. Apothecia composed of minute bodies, collected into a compact, homogeneous, subpulverulent, naked, and shapeless colored mass.

2331. *Solorina*. Plant foliaceous, coriaceous, lobed, separate beneath, and veiny or fibrous with down. Recept. adnate, roundish, not edged, covered by a colored membrane, and containing a solid, cellular, bladdery parenchyma.

\*\* *Apothecia with a raised border.*

2332. *Lecidea*. Plant various, crustaceous, spreading, adnate, and uniform or foliaceous. Apothecia scutelliform, sessile, surrounded by a cartilaginous membrane; the disk of the same nature as the raised border.

2333. *Calicium*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia cup-shaped, sessile, or stipitate, cartilaginous, containing a compact pulverulent mass, plane or convex, and forming a naked disk.

2334. *Gyrophora*. Plant foliaceous, coriaceous, or cartilaginous, peltate, mostly monophyllous, free beneath. Apothecia subscutelliform, sessile, or adnate, covered with a black cartilaginous membrane; the disk warty or plaited in circles, and bordered.

§ 2. *Apothecia subsimple, included, formed of a single covering, containing a capsular body or nucleus.*

HETEROGENI.

2335. *Endocarpon*. Plant crustaceous, adnate, of some determinate figure, or foliaceous and peltate. Apothecia globose, concealed in the substance of the plant, surrounded by a thin membrane, furnished with a slightly prominent orifice, and containing a nucleus.

#### TRIBE II. CENOTHALAMI.

*Apothecia partly formed from the substance of the plant.*

§ 1. *Apothecia included in wart-like processes, formed from the substance of the plant. PHYMATOIDEI.*

2336. *Thelotrema*. Plant crustaceous, cartilaginous, plane, spreading, adnate, uniform, with wart-like receptacles, furnished with a wide pore, and bordered. Apothecia included, and containing a nucleus within a double covering.

2337. *Pyrenula*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. wart-like, formed of the thallus, enclosing or surrounding at the base a solitary thalamium, with a simple, thick, papillose perithecium, containing a globose cellular nut.

2338. *Variolaria*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia wart-like, forme from the crust (resembling soredia), submarginate, white, including a naked nucleus.

§ 2. *Apothecia scutelliform, subsessile, the disk of a peculiar color different from the border, which is formed from the crust. DISCOIDEI.*

2339. *Urceolaria*. Plant crustaceous, spreading, adnate, uniform. Apothecia shield-like, the disk concave, colored, immersed in the crust; border formed from the crust, and the same color.

2340. *Lecanora*. Plant crustaceous, spreading, adnate, plane, uniform. Apothecia shield-like, thick, adnate, and sessile, the disk plano-convex, colored; border thickish, somewhat free, formed from the crust, and the same color.

2341. *Parmelia*. Plant foliaceous, between coriaceous and membranaceous, spreading, appressed, orbicular, lobed, and stellate, variously divided, fibrous beneath. Apothecia shield-like, attached by a central point; the disk concave, colored, with a border formed from the crust.

2342. *Borreria*. Plant cartilaginous, branched, and lacinate, the segments free, channelled beneath, and ciliate at the margin. Apothecia shield-like, with a colored disk; the border formed from the frond.

2343. *Cetraria*. Plant cartiligno-membranaceous, ascending or spreading, lobed, smooth, and naked on both sides. Apothecia shield-like, obliquely adnate with the margin, the disk colored, plano-concave; border inflexed, derived from the frond.

2344. *Sticta*. Plant foliaceous, coriaceous-cartilaginous, e spreading, lobed, free and pubescent beneath, with little cavities or hollow spots. Apothecia shield-like, fixed by a central point, the disk colored, plane; border formed from the crust.

2345. *Peltidea*. Plant foliaceous, coriaceous, spreading, subadnate, lobed, with woolly veins beneath. Apothecia orbicular, adnate, on produced portions of the frond, the disk colored; border very thin, formed from the frond.

2346. *Nephroma*. Plant foliaceous, coriaceous, membranous, expanded, lobed, beneath separate, and naked or villous. Recept. resupinate, formed of the ascending lengthened lobes of the thallus. Fertile lamina reniform, entirely attached to the thallus and its lower side, and surrounded by an elevated inflexed margin.

2347. *Rocella*. Plant coriaceous, cartilaginous, branched, lacinated, round or flat, erect or pendulous, woolly inside. Recept. shield-like, thick, growing into the thallus. Fertile lamina forming a disk, plano-convex, colored, and cartilaginous, in the inside hyaline, and of a similar nature, surrounded by a margin, which is elevated, sessile, and as deep as the disk, and which contains a compact black powdery mass, which is hidden within the substance of the thallus.

2348. *Evernia*. Plant branched, lacinate, angular, or compressed, suberect or pendulous, with a central filament within. Apothecia shield-like, sessile, the disk concave, colored; border formed the frond.

§ 3. *Apothecia subglobose, terminating the branches or podetia, or scattered, sessile, and emarginate.*  
CEPHALOIDEI.

\* *Apothecia covered by the mass of the fructification.*

2349. *Cenomyces*. General receptacle subcartilaginous, foliaceous, lacinate, subimbricated, free (rarely adnate, uniform, or wanting). Apothecia on podetia, orbicular, immarginate at length, capituliform, bearing thick colored masses of fructification.

2350. *Beomyces*. Plant crustaceous, spreading, plane, adnate. Apothecia on short, soft, solid, simple podetia, capituliform, solid, immarginate, colored, convex, reflexed at the margin.

2351. *Isidium*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia on very short solid podetia, orbicular, convex, solid, terminal; the disk subimmersed, having a border formed from the substance of the podetia.

2352. *Stereocaulon*. Plant shrubby, cartilaginous, branched. Apothecia turbinate, sessile, solid, plane above, at length subglobose, with a border formed from the frond.

\*\* *Apothecia clothed with the substance of the frond, and containing a pulverulent mass.*

2353. *Sphaerophoron*. Plant cartilaginous, fibrous within, solid, shrubby, branched. Apothecia sessile, terminal, subglobose, bursting irregularly, and containing a black, globular, pulverulent mass.

TRIBE III. HOMOTHALAMI.

*Apothecia entirely formed of the substance of the frond, and of a similar color.*

2354. *Alectoria*. Plant cartilaginous, subfiliform, fibrous, and somewhat fistulose within, branched, prostrate, or pendulous. Apothecia shield-like, thick, sessile, bordered, wholly formed from the frond.

2355. *Ramalina*. Plant cartilaginous, fibrous, and nearly solid within, branched, somewhat shrubby, mostly sorediferous. Apothecia shield-like, thick, subpedicellate and subpetate, plane, bordered, wholly formed from the substance of the frond.

2356. *Cornicularia*. Plant cartilaginous, fibrous, and nearly solid within, branched, shrubby. Apothecia orbicular, terminal, obliquely petate, at length convex, somewhat inflated; the border dentate.

2357. *Uenea*. Plant much branched, filiform, mostly pendulous, furnished within with a bundle of elastic fibres. Apothecia orbicular, terminal, petate, often ciliate at the border.

2358. *Collema*. Plant subgelatinous, homogeneous, crustiform, foliaceous, or somewhat branched, membranaceous or cartilaginous when dry. Apothecia shield-like, bordered, formed from the substance of the frond; the disk sometimes differing in color when dried.

TRIBE IV. ATHALAMI.

*Lichens destitute of apothecia, and whose fructification is unknown.*

2359. *Lepraria*. Whole plant crustaceo-pulverulent, spreading, adnate, uniform. Apothecia unknown.

TRIBE V. PSEUDO-LICHENES.

*Apothecia black, corneous, imbedded in a receptacle. Sporules in slender tubular cells, lying in a pulp, not spontaneously emitted.*

2360. *Opegrapha*. Plant crustaceous, flat, expanded, adnate, uniform. Receptacle oblong and elongated, sessile, covered with a cartilaginous dark membrane, enclosing a solid parenchyma. Disk linear, edged on each side.

2361. *Verrucaria*. Plant crustaceous, plane, expanded, adnate, uniform. Recept. hemispherical, roundish at the base, growing into the thallus, with a double perithecium; exterior somewhat cartilaginous and thick, having above a little pimple or perforation; inner very fine, and membranous. Kernel cellular.

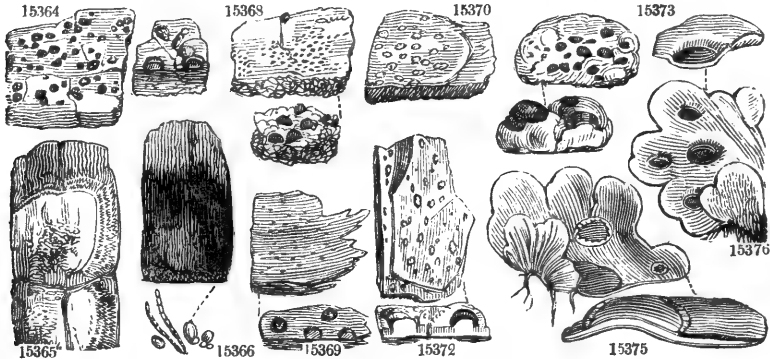
2362. *Porina*. Plant crustaceous, cartilaginous, plano-expanded, adnate, uniform. Recept. wart-like, formed out of the thallus, and not margined. Thalamium imbedded in the substance of the wart, with a simple very thin perithecium, and a colored orifice thicker at the surface of the wart. Kernel roundish, cellular.

2363. *Arthonia*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. innate, sessile, of an irregular roundish figure, without an edge, covered by a somewhat cartilaginous membrane, and containing a solid uniform kernel.

2364. *Graphis*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. long, immersed in the thallus, with a simple cartilaginous perithecium, which forms an edge all round the linear kernel, which is naked at top and bottom, and cellular inside.

IDIOTHALAMI.

|                                 |                     |                 |                    |               |                                     |
|---------------------------------|---------------------|-----------------|--------------------|---------------|-------------------------------------|
| 2330. <i>SPILO'MA</i> Ach.      | <i>SPILOMA</i> .    |                 | <i>Sp.</i> 12—20   |               |                                     |
| 15363 <i>tumidulum</i> Ach.     | tumid               | thin skin       | 4 all sea. O       | bark of trees | Eng. bot. 2151                      |
| 15364 <i>versicolor</i> Ach.    | changeable          | spotted crust   | 3 all sea. Gr      | bark of trees | Eng. bot. 2070                      |
| 15365 <i>microclónum</i> Ach.   | fine-branched       | cloudy          | 1½ all sea. Wsh    | aged oaks     | Eng. bot. 2150                      |
| 15366 <i>melanópum</i> E. B.    | sooty               | sooty spots     | 2 all sea. Bl      | apple trees   | Eng. bot. 2358                      |
| 15367 <i>microscópium</i> E. B. | microscopic         | obl. patches    | 1½ all sea. Sea G  | old boards    | Eng. bot. 2396                      |
| 15368 <i>murále</i> E. B.       | wall                | crust           | 5 all sea. Ysh     | old mortar    | Eng. bot. 2397                      |
| 15369 <i>dispérum</i> E. B.     | scattered           | even crust      | 1 all sea. Gr      | old rails     | Eng. bot. 2398                      |
| 15370 <i>decolórans</i> E. B.   | staining            | lobed patches   | 1½ all sea. Gr     | old wood      | Eng. bot. 2399                      |
| 15371 <i>punctátum</i> E. B.    | dotted              | crust           | 2 all sea. Gr      | old oaks      | Eng. bot. 2472                      |
| 15372 <i>variolósum</i> E. B.   | speckled            | cracked crust   | 2 all sea. Wsh     | old trees     | Eng. bot. 2077                      |
| 15373 <i>aurátum</i> E. B.      | golden              | tumid crowd.    | 1½ all sea. Wsh    | old walls     | Eng. bot. 2078                      |
| 15374 <i>tuberculósum</i> E. B. | warted              | even patch      | 3 all sea. Cæs.    | sandst. rocks | Eng. bot. 2556                      |
| 2331. <i>SOLORI'NA</i> Ach.     | <i>SOLORINA</i> .   |                 | <i>Sp.</i> 2—10.   |               |                                     |
| 15375 <i>crócea</i> Ach.        | yellow              | leafy frond     | 1½ sp. su. OI.G    | tops of mou.  | Eng. bot. t. 498                    |
| 15376 <i>saccáta</i> Ach.       | bagged              | leafy frond     | 2 sum. Grsh        | on the earth  | Eng. bot. t. 288                    |
| 2332. <i>LECIDE'A</i> Ach.      | <i>LECIDEA</i> .    |                 | <i>Sp.</i> 66—183. |               |                                     |
| 15377 <i>atro-cinérea</i> E. B. | dark-grey           | close patches   | 1½ all sea. Bl     | rocks         | Eng. bot. 2096                      |
| 15378 <i>corácina</i> Ach.      | raven               | tessellated     | 2 all sea. Gr.Bl   | graniterocks  | E. b. t. 2335 <i>L. coracinus</i>   |
| 15379 <i>atro-álba</i> Ach.     | black & white       | cracked crust   | 3 all sea. Bl      | rocks         | Eng. bot. t. 2336                   |
| 15380 <i>fusco-átra</i> Ach.    | dark-brown          | thin crust      | 2 all sea. Bl      | rocks         | E. b. t. 1734. <i>L. dendritic.</i> |
| 15381 <i>fumósa</i> Ach.        | smoky               | tessellated     | 3 sum. Br.Gr       | alpine rocks  | E. b. t. 1830. <i>L. cechumen.</i>  |
| 15372 <i>variolósum</i> E. B.   | E. B. 1829.         |                 |                    |               |                                     |
| 15382 <i>lapicida</i> Ach.      | stone-splitting     | broad patches   | 3 all sea. G       | brick walls   | E. bot. 821. <i>L. contiguus</i>    |
| 15383 <i>petræ'a</i> Ach.       | rock                | thin crust      | 1½ all sea. W      | roc. & stones | Eng. bot. 246                       |
| 15384 <i>cónfluens</i> Ach.     | confluent           | tartareous      | 2 aut. Gr.Br       | rocks         | Eng. bot. 1964                      |
| 15385 <i>paraséma</i> Ach.      | black-fruited       | membranous      | 3 aut. Wsh         | bark of trees | Eng. bot. 1450                      |
| 15386 <i>sanguinária</i> Ach.   | red-fruited         | rugose crust    | 2 all sea. Wsh     | rocks         | Eng. bot. 155                       |
| 15387 <i>sabuletórum</i> Ach.   | heath               | thin cuticle    | 1½ all sea. Wsh    | bark of trees |                                     |
| β <i>geochróa</i> Ach.          | earth-skin          | thin cuticle    | 1½ all sea. Gr     | bark of trees | E. b. 1450. <i>L. parasemus</i>     |
| 15388 <i>miscélla</i> Ach.      | mixed               | lobed crust     | 2 all sea. Pa.Ol   | whinst.rocks  | Eng. bot. 1831                      |
| 15389 <i>escharoídes</i> E. B.  | scarred             | granul. crust   | 1½ june D.Br       | earth & rocks | Eng. bot. 1247                      |
| 15390 <i>aromática</i> Ach.     | aromatic            | lobed crust     | 1½ all sea. OI     | old walls     | Eng. bot. 1777                      |
| 15391 <i>doíosa</i> Ach.        | rusty spongy-crust. | broad cuticle   | 4 all sea. Cæs.    | rocks         | Eng. bot. 2581                      |
| 15392 <i>atro-virens</i> Ach.   | dark-green          | thin coat       | 2 all sea. Bl      | rocks         |                                     |
| β <i>geográphica</i> Ach.       | geographical        | figured crust   | 3 all sea. Y.OI    | rocks         | Eng. bot. 245                       |
| 15393 <i>silácea</i> Ach.       | flint               | tessellated     | 2 all sea. Y.R     | rocks         | Eng. bot. 1118                      |
| 15394 <i>Œdéri</i> Ach.         | Œder's              | tessellat.powd. | 2 all sea. Rsh     | rocks         | Eng. bot. 1117                      |



History, Use, Propagation, Culture,

2330. *Spiloma*. This word signifies in Greek, a spreading discoloration of the cuticle, and well expresses the general character of the genus.

## IDIOTHALAMI.

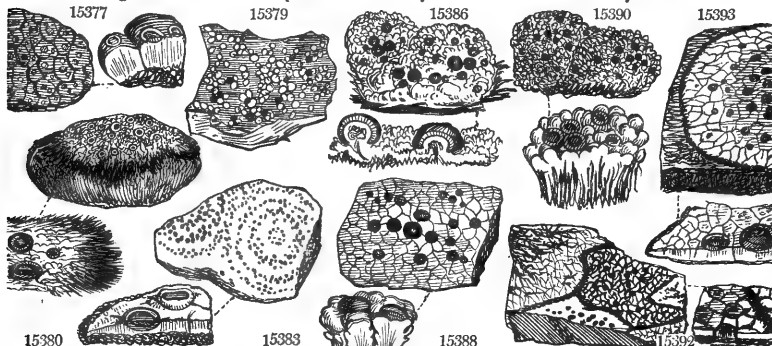
- 15363 Crust somewhat cartilaginous whitish, Apothecia crowded tumid oblong varying in figure roughish reddish at length brownish black and somewhat pruinose  
 15364 Crust somewhat cartilaginous powdery cracked variegated with cinereous and yellow, Apothecia immersed superficial roundish finally confluent  
 15365 Crust very thin glauc. Apothecia burst. forth min. convex cluster, and conflu. somew. branch. dark-color.  
 15366 Crust very thin greyish, Apothecia flat diluted irregular somewhat confluent black  
 15367 Crust spread, widely very thin membran. greyish, Apothecia dot-like very min. black lead-color. when dry  
 15368 Crust obsolete or white, Apothecia very minute black confluent without bristles  
 15369 Crust filmy very thin green. grey, Apothecia mostly dispers. hemispher. sooty: internally yellowish green  
 15370 Crust spreading widely very thin, for the most part membranous greyish white, yellowish green when rubbed, Apothecia minute flat confluent blueish grey  
 15371 Crust thin somew. powd. white, Apoth. scatter. min. dot-like solid black with superf. dark-brown powder  
 15372 Crust tartar. rugg. greyish-white cracked, Apothecia convex round, very black: their centers often decid.  
 15373 Crust tartar. rugged greyish or greenish-white, Apothecia convex rounded black orange-colored within  
 15374 Crust calcareous greenish-white, Apothecia scattered somew. confluent unequal elevated granulat. black

- 15375 Thallus green. (brown when dry) lobed: ben. veiny and of a fine saffron-col. Apothecia somew. tum. brown  
 15376 Thallus lobed grey.-green whiter and fibrous ben. Apothecia at length: sunk into deep pits or hollows brown

† Thallus crustaceous reniform.

\* Apothecia constantly black, naked, (not pruinose).

- 15377 Crust tessellated greyish-black smooth, Apothecia several together depressed brownish-black with a paler border, at length crowded elevated the border being obliterated  
 15378 Crust continued tessellat. greyish-black, Apothecia immersed between the areolæ plane at length convex somewhat angular black of the same color within  
 15379 Crust spreading very thin cracked black with swelling whitish scattered areolæ, Apothecia plane or slightly convex often in the interstices black, of the same color within  
 15380 Crust very thin black cracked and tessellated areolæ chesnut-brown plane margined shining scattered, Apothecia rather convex black margined white within  
 15381 Crust subcartilaginous tessellat. smoothish brownish grey, Apothecia buried in the crust plane margined at length convex clustered and losing their margin black within greyish-black  
 15382 Crust tartareous cracked whitish ash-color, Apothecia within the spaces of the crust depressed flat finally convex somewhat confluent dark with a thin edge  
 15383 Crust thin roundish very finely cracked somewhat powdery white, Apothecia grown into the crust thick protuberant somewhat concentric dark-colored with a tumid elevated contracted margin  
 15384 Crust tartareous somew. spreading tessellated nearly even greyish-brown, Apothecia sessile at length irregular convex subglobose confluent black emarginate within having a thin greyish stratum ben. disk  
 15385 Crust thin submembranaceous greyish-white bordered with black at length spreading somew. granulated, Apothecia nearly plane sessile margined black blackish within  
 15386 Crust rugose and warty greyish-white, Apothecia at length convex hemispherical somew. tuberculated black horny and black within having beneath a powdery bright red stratum  
 15387 Crust scattered granular irregularly lobed cinereous whitish, Apothecia clustered convex sessile plano-convex hemispherical somewhat confluent dark powdery inside  
 β Crust scattered granular somewhat cohering white caesious or cinereous brown, Apothecia hemispherical somewhat globose often clustered shining  
 15388 Crust tartareous broken into cracks with wart-like smooth cracked cinereous areolæ, Apothecia deeply immersed convex aggregate scarcely edged dark-colored  
 15389 Crust tartareous brownish ash-colored composed of granulated warts, Tubercles convex irregular black with an obsolete black border  
 15390 Crust somewhat cartilaginous scaly granular glaucous cinereous, Granules flattish crenulated, Apothecia sessile plano-concave edged finally wavy  
 15391 Crust rugose somewhat granular ferruginous ash-colored, Apothecia superficial flat edged finally flexuose and convex, Edge finally obliterated  
 15392 Crust spreading thin black scattered with plareish subcontiguous bright-yellow areolæ, Apothecia plane or slightly concave black of the same color within  
 β Areolæ bright-yellow plane angular black between and with a black margin  
 15393 Crust tartareous tessellated yellowish-red, Apothecia sessile plane at length convex irregular confluent black internally cernuous and black  
 15394 Crust granulated and tessellated somewhat pulverulent ochraceous red, Apothecia minute elevated with the margin tumid: the disk depressed black nearly of the same color internally

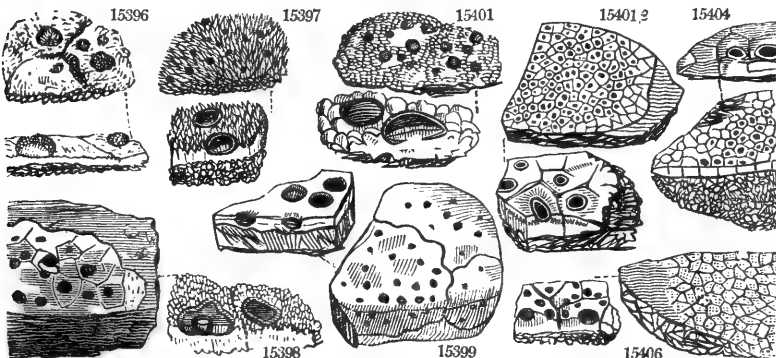


## and Miscellaneous Particulars.

2331. *Solorina*. From *σολος*, solid, and *εινος*, a skin, in allusion to the firm texture of the fond.  
 2332. *Lecidea*. An unexplained name contrived by Acharius for the Lichenes tuberculati of Linnæus, whose shields have no border from the substance of the frond or crust.



|       |                                      |                    |                  |             |       |                |                                     |
|-------|--------------------------------------|--------------------|------------------|-------------|-------|----------------|-------------------------------------|
| 15395 | <i>alba Ach.</i>                     | white              | membranous       | 3 aut.      | W     | bark of trees  | E. bot. 1349. <i>Lepraria</i>       |
| 15396 | <i>citrinella Ach.</i>               | lemon-peel-crust.  | cracked coat     | 3 spring    | Y.G   | sand. ground   | Eng. bot. 1877                      |
| 15397 | <i>uliginosa Ach.</i>                | marsh              | whole colored    | 3 spring    | Bl    | sandy heaths   | Eng. bot. 1466                      |
| 15398 | <i>scabrōsa Ach.</i>                 | rugged-shield.     | lobed patches    | 2 all sea.  | Pa.G  | tiled roofs    | Eng. bot. 1878                      |
| 15399 | <i>immersa Ach.</i>                  | immersed           | even crust       | 4 all sea.  | Pa.Y  | calcar. rocks  | Eng. bot. 193                       |
| 15400 | <i>rivulosa Ach.</i>                 | rivulet            | broad incrust.   | 6 all sea.  | Br.OI | rocks          | Eng. bot. 1737                      |
| 15401 | <i>albo-cærulēscens Ach.</i>         | whitish-blue       | tartare. crust   | 3 sum.      | Wsh   | Scotch alps    | E. b. t. 2344. <i>L. pruinosa</i>   |
|       | β <i>turgida Ach.</i>                | <i>turgid</i>      | sinuated crust   | 3 sum.      | W     | stone walls    | E. b. t. 820. <i>L. multipunct.</i> |
| 15402 | <i>abietina Ach.</i>                 | pine-tree          | pruinose         | 2 all sea.  | Gl    | trunks, Abies  |                                     |
| 15403 | <i>speirea Ach.</i>                  | wavy               | sinuated crust   | 4 spring    | W.Y   | flint. pebbles | Eng. bot. 1864                      |
| 15404 | <i>epiglia Ach.</i>                  | thick              | tartare. crust   | 2 sum.      | W     | Scotch alps    | Eng. bot. 1137                      |
| 15405 | <i>corticola Ach.</i>                | black & white bark | small verruc.    | 1 aut.      | Cæs.  | old trees      | Eng. bot. 1892                      |
| 15406 | <i>conspurcata E. B.</i>             | dusty              | rimose crust     | 1½ aut.     | Cæs.  | old walls      | Eng. bot. 964                       |
| 15407 | <i>Lightfootii Ach.</i>              | Lightfoot's        | sinuat. patch.   | ¾ all sea.  | Pa.G  | smooth bark    | Eng. bot. 1451                      |
| 15408 | <i>quérnea Ach.</i>                  | oak                | thin crust       | 3 all sea.  | Y.G   | clefts of bark | Eng. bot. 485                       |
| 15409 | <i>viridescens Ach.</i>              | greenish           | thin crust       | 1½ all sea. | Pa.G  | dead trees     |                                     |
| 15410 | <i>incana Ach.</i>                   | hoary              | leprous          | 2 aut.      | Gl    | trun. of trees | Eng. bot. t. 1683                   |
| 15411 | <i>sulphurea Ach.</i>                | sulphur            | cracked crust    | 2 aut.      | Sul.  | rocks          | Eng. bot. t. 1186                   |
| 15412 | <i>orosthea Ach.</i>                 | downy              | toment. crust    | 3 all sea.  | Lt.G  | trees & pales  | Eng. bot. t. 1549                   |
| 15413 | <i>decolorans Ach.</i>               | discoloring        | granular         | 2 sum.      | Grsh  | on earth       |                                     |
|       | β <i>granulosa Ach.</i>              | <i>granular</i>    | granular         | 2 sum.      | Grsh  | on earth       | E. b. t. 1185. <i>L. quadricol.</i> |
|       | <i>Lichen escharoides E. B. 1247</i> |                    |                  |             |       |                |                                     |
| 15414 | <i>anomala Ach.</i>                  | anomalous          | spotted patch.   | 3 aut.      | Pa.OI | on earth       | E. b. t. 2155. <i>L. cyrtellus</i>  |
| 15415 | <i>rupēstris Ach.</i>                | rock               | tartareous       | 2 sum.      | Grsh  | rocks          | Eng. bot. 2345                      |
|       | <i>Lichen calvus E. B. 948</i>       |                    |                  |             |       |                |                                     |
| 15416 | <i>lutēola Ach.</i>                  | yellowish          | thin crust       | 3 all sea.  | Wsh   | bark of trees  | Eng. bot. 845. <i>L. vernalis</i>   |
| 15417 | <i>carneola Ach.</i>                 | horny-cupped       | papillose crust  | 3 all sea.  | Wsh   | on oaks        | Eng. bot. 965. <i>L. corneus</i>    |
|       | β <i>arceutina Ach.</i>              | <i>Griffithian</i> | smooth coat      | 2 all sea.  | W.Br  | bark of trees  | E. bot. 1735. <i>L. Griffithii</i>  |
| 15418 | <i>fusco-lutea Ach.</i>              | yellow-brown       | thin crust       | 3 sum.      | Grsh  | mountains      | Eng. bot. 1007                      |
| 15419 | <i>cinereo-fusca Ach.</i>            | cinereo-brown      | cracked crust    | 3 all sea.  | Grsh  | trun. of trees |                                     |
| 15420 | <i>anthracina Ach.</i>               | dark               | scaly crust      | 2 sum.      | D.Br  | rocks & trees  | E. bot. t. 432. <i>L. byssinus</i>  |
| 15421 | <i>cæsio-rufa Ach.</i>               | bluish-brown       | tessellat. crust | 3 sum.      | D.Gr  | rocks & trees  | E. b. 1670. <i>L. ferrugineus</i>   |
| 15422 | <i>icmadophila Ach.</i>              | Heath              | leprous crust    | 2 all sea.  | G.W   | on ear. in he. | E. b. t. 372. <i>L. ericetorum</i>  |
| 15423 | <i>marmorea Ach.</i>                 | marbled            | thin crust       | 3 all sea.  | Gr.W  | bark of trees  | Eng. bot. t. 739                    |
| 15424 | <i>alabastrina Ach.</i>              | Alabaaster         | thin crust       | 2 sum.      | Gr.W  | Scotland       | E. bot. t. 1651. <i>L. rosellus</i> |
| 15425 | <i>melizea Ach.</i>                  | yellow-shield.     | cracked crust    | 1½ spring   | Y.OI  | moss, trunks   | Eng. bot. 1263. <i>L. luteus</i>    |
| 15426 | <i>Ehrhartiana Ach.</i>              | Ehrhart's          | cartilag. crust  | 2 all sea.  | Gsh   | rocks          | Eng. bot. 1136                      |
| 15427 | <i>polytropa Ach.</i>                | variable           | tessellated      | 2 all sea.  | Pale  | rocks          | Eng. bot. 1264                      |



- 15395 Crust membranaceous white with a greyish or whitish-grey powdery substance scattered over it in small clusters, Apothecia minute appressed plane black
- 15396 Crust leprosus granul. powdery green.-yell. Apothecia sess. margin. finally convex dark : of same col. inside
- 15397 Crust granular somewhat gelatinous greenish-brown, Apothecia appressed margined finally hemispherical clustered dark : of the same color inside
- 15398 Crust globose warted powdery cinereous yellowish, Apothecia convex scabrous

**\*\* Apothecia black, naked : when moistened becoming-red or brown.**

- 15399 Crust thin whitish, Apothecia plano-convex immersed in the stone margined dark : disk pruinose ; when moistened crimson, white inside
- 15400 Crust cracked into areolae brownish ash-color edged with dark lines, Apothecia sessile flat becoming convex edged irregular black

**\*\*\* Apothecia black with a grey bloom.**

- 15401 Crust tartareous contiguous even at length somewhat tessellated and whitish, Apothecia sessile and elevated plane black with a grey bloom and a black smooth border
- β Crust of a regular figure contiguous whitish casious, Apothecia immersed : disk depressed hollowish
- 15402 Crust spreading very thin smooth glaucous : fructification subsessile plane black with a grey bloom ; the border raised and swelling
- 15403 Crust tartareous contiguous very white, Apothecia sessile thick black powdery margined becoming convex with an ash-colored layer under the disk
- 15404 Crust tartareous defined tessellated white areolae swelling, Apothecia sessile hemispherical with a grey bloom black within with a thin persistent margin
- 15405 Crust somewhat tartareous granular areolated uneven very white, Apothecia minute somew. immersed casious becoming subglobose not margined dark cinereous inside
- 15406 Crust thick greyish-white cracked rugose at length mealy very white within, Apothecia numerous scattered minute : at first prominent and pale-brown ; then concave and black

**\*\*\*\* Apothecia black-brown, brownish, or deadened by some other color.**

- 15407 Crust somewhat effuse granular cinereous greenish, Apothecia appressed flat dark-brown : inside dirty-white with a thin flexuose edge paler than the disk
- 15408 Crust lep. granul. pale yellow.-brown, Apoth. somew. immers. becom. conv. not margin. brown and black
- 15409 Crust thin granulat. somew. farin. green or green.-brown : fructific. conv. rug. irregul. confu. black.-brown
- 15410 Crust spread. leproso-farin. soft uneven glauc. green, Apothecia scatter. sess. brown with marg. ent. paler
- 15411 Crust tartareous cracked and broken uneven smoothish pale sulphur-color, Apothecia adnate plane scarcely margined brown and scarcely paler in the margin, at length irregular and convex
- 15412 Crust cracked areolated uneven somewhat powdery sulphureous, Apothecia minute sessile convex not margined whole-colored becoming hemispherical
- 15413 Crust granulated greyish-white, Granules becoming pulverulent, Apothecia nearly plane red flesh-colored livid or brown with the elevated margin paler, at length flexuose

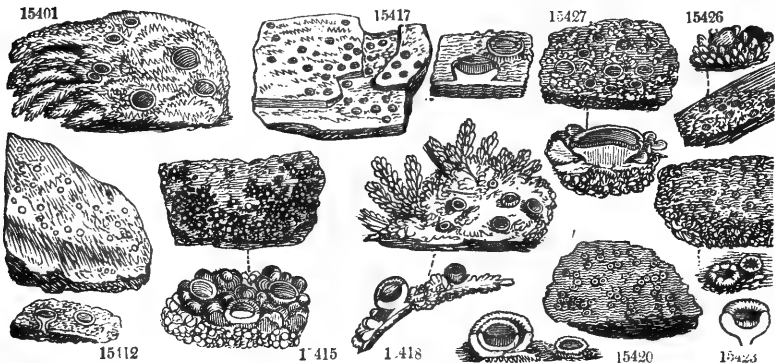
- 15414 Crust firmer granulat. and subpapill. Apothecia at length hemispheric. rug. brown.-black and black confu.
- 15415 Crust thin tartareous contiguous greyish-white, Apothecia immersed plane margined, at length convex : the margin persistent glabrous reddish-brown ; of the same color within
- 15416 Crust thin whit. cover. with somew. globul. pale gran. at length grey. Apoth. sess. becom. conv. yellow.-brown
- 15417 Crust thin membranous hoary finally granular powdery, Apothecia sessile concave thick tumid brown flesh-colored with an edge of the same color
- β Crust very thin naked whitish, Apothecia flattish scarcely margined waxy purple brown and black
- 15418 Crust spreading very thin membranaceous white or greyish somew. shining subgranulose, Apothecia plane yellow-brown, at length red-brown with the margin paler elevated, at length flexuose
- 15419 Crust thin somewhat cracked uneven greyish-white : fructification plane, at length angular and irregular yellowish or reddish-brown ; the border narrow persistent
- 15420 Crust spreading somewhat scaly uneven roughish darkish-brown, Apothecia minute plane reddish yellow with the margin paler, at length somewhat convex and brownish

**\*\*\*\*\* Apothecia dark-red, or whitish flesh-color.**

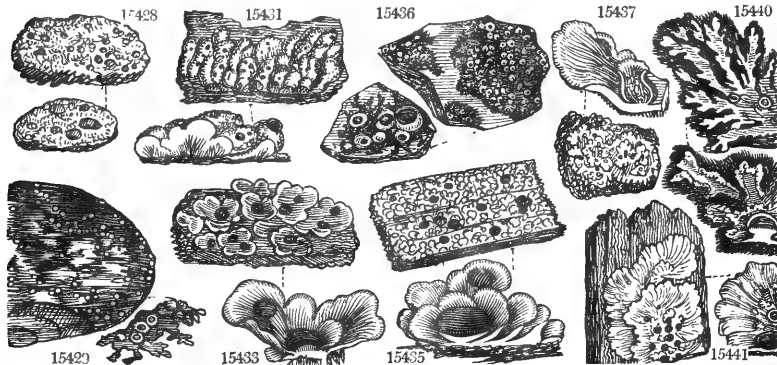
- 15421 Crust tessellated rugose darkish-grey, Apothecia plane rusty orange : the margin sometimes crenulate, at length convex with the margin obsolete blackish-red
- 15422 Crust leprose uneven somewhat granulated greenish-white, Apothecia nearly sessile plane flesh-colored, at length waved roughish in the disk : margin scarcely any
- 15423 Crust thin grey.-white, Apothecia somew. glob. at length urceol. white : disk flesh-color. ; marg. tum. ent.
- 15424 Crust thin smoothish minutely granulated greyish-white, Apothecia slightly convex entire whitish rose-color paler at the margin

**\*\*\*\*\* Apothecia pale, yellowish, waven or orange-colored.**

- 15425 Crust thin white powdery, Apothecia plano-convex smooth edged pale-yellow
- 15426 Crust cartilaginous cracked rugoso-plicate granulated white or greenish, Apothecia nearly sessile plane at length slightly convex waved unequal clustered pale yellowish
- 15427 Crust subtartareous tessellated pale, Apothecia nearly plane with the margin lobed waved clustered, at length subglobose destitute of margin yellowish flesh-color



|       |                                  |                |                  |    |          |       |                   |                                   |
|-------|----------------------------------|----------------|------------------|----|----------|-------|-------------------|-----------------------------------|
| 15428 | <i>lúcida Ach.</i>               | shining        | soft crust       | 2  | sum.     | G.Y   | rocks             | Eng. bot. 1550                    |
| 15429 | <i>atro-fláva Ach.</i>           | black & yellow | ragged crust     | 2  | all sea. | Br    | expos. flints     | Eng. bot. 9009                    |
| 15430 | <i>luteo-álba Ach.</i>           | yellow-white   | smooth crust     | 1½ | all sea. | W     | rocks             | Eng. bot. 1426                    |
| 15431 | <i>cándida Ach.</i>              | hoary          | sinuous          | 3  | all sea. | Wsh   | old walls         | Eng. bot. 1138                    |
| 15432 | <i>vesiculáris Ach.</i>          | blistered      | imbricated       | 3  | sum.     | Br.BI | Highl. rocks      | E.b.1139. <i>L.cæruleo-nig.</i>   |
| 15433 | <i>lúrida Ach.</i>               | lurid          | imbricated       | 3  | sum.     | G.Br  | Scotch alps       | Eng. bot. 1329                    |
| 15434 | <i>atro-rúfa Ach.</i>            | red-brown      | imbricated       | 4  | sum.     | Br    | red san. gro.     | Eng. bot. 1102                    |
| 15435 | <i>scaláris Ach.</i>             | scaly          | imbricated       | 3  | aut.wi.  | Pa OI | rocks & earth     | Eng. bot. 1501                    |
| 15436 | <i>verruculósa E. B.</i>         | warted         | irregul. patch.  | 1  | aut.wi.  | Bl    | hard rocks        | Eng. bot. 2317                    |
| 15437 | <i>rubifórmis Ach.</i>           | blackberry     | patches          | ¾  | wint.    | Pa.G  | turfy earth       | Eng. bot. 2112                    |
| 15438 | <i>decepiens Ach.</i>            | deceitful      | imbricated       | 2  | spring   | F     | earth             | Eng. bot. 370                     |
| 15439 | <i>pholidióta Ach.</i>           | scaly          | leafy crust      | 4  | spring   | Cas.  | quartz. rocks     | E. b. 1955. <i>L. glebulosus</i>  |
| 15440 | <i>microphýlla Ach.</i>          | small-leaved   | broken patch.    | 2  | spring   | Gr.G  | trees             | Eng. bot. 2128                    |
| 15441 | <i>canéscens Ach.</i>            | hoary          | round. patch.    | 1½ | spring   | W     | bark of trees     | Eng. bot. 582                     |
| 15442 | <i>dædálea E. B.</i>             | intricate      | leafy lobed      | ¾  | spring   | Y.G   | rocks             | Eng. bot. 2129                    |
| 2333. | <i>CALICIUM Ach. CALICIUM.</i>   |                |                  |    |          |       | <i>Sp. 17—29.</i> |                                   |
| 15443 | <i>ligilláre Ach.</i>            | rail           | soft crust       | 2  | aut.     | Gl.   | trees             | Eng. bot. 1530                    |
| 15444 | <i>stigonéllum Ach.</i>          | black sessile  | pimpled          | 3  | aut.     | Pa.OI | on Lichens        | Eng. bot. 2520. <i>C. sessile</i> |
| 15445 | <i>microcéphalum Ach.</i>        | small-headed   | cloudy streaks   | ¾  | dec.     | OLG   | oak rails         | Eng. bot. 1865                    |
| 15446 | <i>claviculáre Ach.</i>          | club-headed    | granul. crust    | ¾  | aut.     | Grsh  | naked wood        |                                   |
| 15447 | <i>sphærocéphalum Ach.</i>       | pin-headed     | thin crust       | ½  | spring   | Grsh  | old pales         | Eng. bot. 414                     |
| 15448 | <i>hyperéllum Ach.</i>           | convex         | irregular coat   | 2  | spring   | Bt.G  | old oak           | Eng. bot. 1832                    |
| 15449 | <i>chrysocéphalum Ach.</i>       | yellow-head.   | patches          | 3  | aut.     | Lem   | trun. of trees    | Eng. bot. 2501                    |
| 15450 | <i>trabinéllum Ach.</i>          | brown          | dense granul.    | 4  | aut.     | Br.OI | boards            | Eng. bot. 1540                    |
| 15451 | <i>cantheréllum Ach.</i>         | cinnamon       | obscure crust    | ½  | aut.     | Wsh   | decay. wood       | Eng. bot. 2557                    |
| 15452 | <i>capitellátum Ach.</i>         | sulphureous    | regular patch.   | ½  | july     | G.Y   | sandy soil        | Eng. bot. 1539                    |
| 15453 | <i>aciculáre Ach.</i>            | acicular       | irreg. incrust.  | 3  | sum.     | OI    | Scotch firs       | Eng. bot. 2385                    |
| 15454 | <i>ferrugineum E. B.</i>         | rusty          | lobed crust      | 4  | aut.     | Pa.OI | pales             | Eng. bot. 2473                    |
| 15455 | <i>in'quinans E. B.</i>          | sooty-knobbed  | tessellat. crust | 4  | wint.    | W.Br  | dead wood         | Eng. bot. 810                     |
| 15456 | <i>róscidum E. B.</i>            | grained        | mealy coat       | 4  | all sea. | G     | old boards        | Eng. bot. 1464                    |
| 15457 | <i>débile E. B.</i>              | weak           | close-set patc.  | ½  | aut.     | Br    | old timber        | Eng. bot. 2462                    |
| 15458 | <i>æruginosum E. B.</i>          | verdigrase     | granular         | 1½ | wint.    | DLG   | old boards        | Eng. bot. 2502                    |
| 15459 | <i>cúrtum E. B.</i>              | short-stalked  | crowd. patch.    | 1½ | wint.    | DLG   | decay. wood       | Eng. bot. 2503                    |
| 2334. | <i>GYROPHORA Ach. GYROPHORA.</i> |                |                  |    |          |       | <i>Sp. 8—19.</i>  |                                   |
| 15460 | <i>glábra Ach.</i>               | smooth         | leafy thallus    | 2  | sum.     | D OI  | rocks             |                                   |
|       | <i>β polyphýlla Wahl.</i>        | many-leaved    | leafy thallus    | 2  | sum.     | D.OI  | rocks             | Eng. bot. t. 1282                 |
| 15461 | <i>proboscídea Ach.</i>          | snouted        | netted frond     | 3  | spring   | Smo.  | rocks             | Eng. bot. t. 2483                 |
|       | <i>β arc'tica Ach.</i>           | arctic         | smooth lobed     | 1½ | wint.    | Br    | rocks             | Eng. bot. 2485                    |
| 15462 | <i>cylíndrica Ach.</i>           | cylindrical    | folded frond     | 2  | spring   | Gr.OI | rocks             | Eng. bot. 522                     |



History, Use, Propagation, Culture,

2333. *Calicium.* From *καλικιον*, a little cup, well expressing the appearance of the organs of reproduction. All the species form grey, white, or yellow patches, of various extent, on old wrought wood, or boards exposed to the weather.

2334. *Gyrophora.* So named, from *γυρος*, a circle, and *φερον*, in allusion to the concentric circles, more or less

- 15428 Crust thin leprose powdery soft pale green.-yellow, Apothecia slightly convex pale yellowish : marg. obool.  
 15429 Crust thin effuse somew. granul. black, Apothecia min. cluster. flat yellow, with an elevat. ent. paler marg.  
 15430 Crust thin smooth. white, Apoth. crowd. at length convex hemispher. margin. orange-color. white within  
 †† *Thallus crustaceous, of a regular figure or leaf.* LEPIDOMA.  
 15431 Crust somewhat imbricated white hoary, Lobes crenate reflexed tumid, Apothecia appressed black glaucous ; edge finally wavy  
 15432 Crust somewhat imbricated brownish-black covered with a greyish powder, Lobes entire swelling, Apothecia black naked, at length hemispherical with the margin obsolete  
 15433 Crust imbricat. green.-brown, Lobes round. cren. paler ben. Apothecia plane, at length somew. conv. black  
 15434 Crust somewhat contiguous lobed areolate and imbricated cinereous brownish-lurid, Lobes becoming flexuose cut-crenate, Apothecia appressed not edged flattish finally confluent  
 15435 Crust imbricated pale olive-green, Lobes distinct reniform nearly erect beneath and the margin powdery, Apothecia plane margined glaucous black  
 15436 Crust indeterminate very thin fibrous black with white convex crowded smooth warts, Apothecia solitary in each wart depressed coal-black with a border of the same color  
 15437 Crust somewhat imbricated, Lobes rounded crenate livid-brownish white beneath surrounding the apothecia, which are hemispherical clustered reddish not margined  
 15438 Crust subimbricated, Lobes distinct subpeltate roundish flesh-colored and red brown whitish beneath, Apothecia in their border convex and subglobose black : margin obsolete  
 15439 Crust imbricated glaucous white, Lobes minute orbicled convex, Apothecia convex rufous brown becoming blackish : margin thin entire  
 15440 Thallus slightly imbricated fragmentary grey.-green on a dense black fibrous cushion : its segm. somewhat linear lobed crenate and granular at the margin, Apothecia scattered tawny paler at the marg. at length convex brown obliterating the margin  
 15441 Crust orbicul. rugose plait. hoary lobed-plait. in circumfer. Apothecia central plano-convex dark-colored  
 15442 Closely imbricated radiated membranous very smooth brownish-grey pale with black fibres below : its segments linear obtuse undulated, Apothecia black with a black border of their own substance  
 15443 Crust areolated-warted smoothish wavy, Apothecia sessile dark opaque, Disk flat tumid at edge  
 15444 Crust somewhat contiguous unequal whitish or none, Apothecia sessile subglobose dark smooth : disk dot-like becoming flattish with a thin shining margin  
 15445 Crust somewhat tartareous contiguous wrinkled olive-green, Apothecia roundish dark shining : disk depressed opaque, and stalks short whole-colored  
 15446 Crust effused greyish somewhat pulverulent : fructification subglobose, at length flattened greyish-black with a cylindrical thickish-black peduncle  
 15447 Crust very thin grey. smooth, Apothecia subglob. : disk dark-brown ; margin greyish, Stripes filif. black  
 15448 Crust cartilaginous areolate rugose smooth yellow-green, Apothecia lentiform ferruginous powdery, Stems short cylindrical dark-pitch color thicker at base  
 15449 Crust lemon-yellow granulated and conglomerated : fructification subtrubinate ; disk brown convex, the border yellow and pulverulent, Peduncle filiform blackish and shining at the base  
 15450 Crust thin white ash-color. Apothe. becom. lentif. : disk black.-brown ciner. pruin. with a yell.-green marg.  
 15451 Crust thin whitish powdery, Apothecia lentiform : disk flesh-colored becoming brown powdered, Stalks filiform naked pale becoming brownish or black  
 15452 Crust effuse powdery greenish-yellow, Apothecia globose, and stalks filif. very long flexuose yellow.-green  
 15453 Crust leprose powdery pale yellowish-green, Apothecia hemispherical globose and stalks tapering upwards straight powdered with fulvous  
 15454 Crust thin granulated tartareous rusty white, Apothecia on short stalks thick black often compound with a pale rusty disk  
 15455 Crust white granulat. Tuber. a little prominent round flat. gray.-black powdery with a smooth black edge  
 15456 Crust granulated smooth greyish-white, Tubercles scattered roundish black polished wrinkled irregular without a border mostly sessile  
 15457 Crust membran. very thin white, Tuber. black convex with recurv. marg. on long slend. wavy black stalks  
 15458 Crust thin tartareous somewhat granulated of a verdigrase-grey, Apothecia on slender black stalks black hemispherical with a convex brownish-black disk  
 15459 Crust filmy very thin whitish, Apothecia on thickish black stalks obovate or hemispherical black with black prominent loose powder  
 15460 Thallus smooth blackish-green : ben. smooth black and naked, Apothecia at length conv. rough and plait.  
 β Thallus of many lvs. or lobes variously fold. black.-green quite black ben. on each side naked and smooth.  
 15461 Thallus membranaceous with elevated reticulations, at length of a smoky ash-color rough smoother paler and subfibrillose beneath, Apothecia turbinata, at length convex variously plaited  
 β Thallus thick hard with elevated dots rugose olive-brown becoming black naked smooth pale-yellow beneath, Apothecia globose  
 15462 Thallus somewhat naked dark greenish-grey folded and lobed strongly ciliated beneath smooth pale with branching fibres, Apothecia elevated nearly plane with concentric and plaited lines



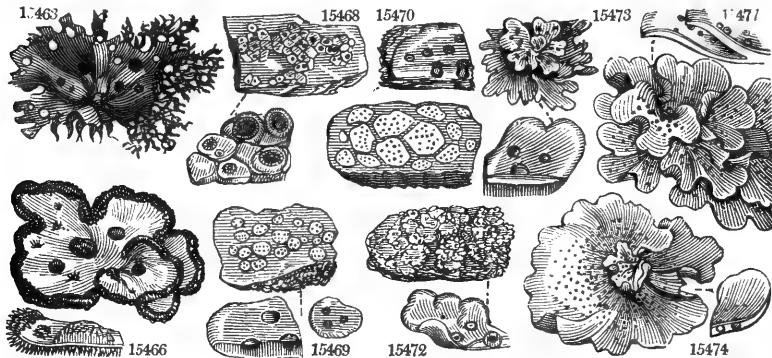
and Miscellaneous Particulars.

complicated, observable in the disk of the receptacles of the shields. The species grow chiefly upon exposed alpine rocks, chiefly on granite or volcanic stones. The vitrified forts in the Highlands of Scotland produce some of them.

|                                    |                     |                  |                   |          |       |              |                                     |
|------------------------------------|---------------------|------------------|-------------------|----------|-------|--------------|-------------------------------------|
| 15463 <i>erósa Ach.</i>            | knawed              | ragged           | 3                 | all sea. | Ol.Br | rocks        | Eng. bot. 2066                      |
| 15464 <i>deústa Ach.</i>           | scorched            | rough leafy      | 3                 | all sea. | Ol.Br | rocks        | Eng. bot. 2483                      |
| 15465 <i>pustuláta Ach.</i>        | pimpled             | blister'dfrond   | 2                 | spring   | Cin.G | rocks        | Eng. bot. 1283                      |
| 15466 <i>pellíta Ach.</i>          | furred              | sinuated         | 2                 | all sca. | G.Br  | rocks        | Eng. bot. 931                       |
| 15467 <i>murína Ach.</i>           | mouse-skin          | irregular lob.   | 1                 | all sea. | Br    | rocks        | Eng. bot. 2486                      |
| 2335. <i>ENDOCARPON. Ach.</i>      | <i>ENDOCARPON.</i>  |                  | <i>Sp. 10—22.</i> |          |       |              |                                     |
| 15468 <i>sinópicum Ach.</i>        | cracked             | tessellat. mass. | 1                 | sum.     | Or    | schist       | Eng. bot. 177                       |
| 15469 <i>smarágdulum Ach.</i>      | yellow              | little patches   | $\frac{2}{3}$     | sum.     | Y.G   | rocks        | Eng. bot. 1512                      |
| 15470 <i>tephroides Ach.</i>       | brownish            | little patches   | 1                 | sum.     | Gl.   | earth        | Eng. bot. 2013                      |
| <i>Lichen fuscellus E. B. 1500</i> |                     |                  |                   |          |       |              |                                     |
| 15471 <i>Hedwigii Ach.</i>         |                     | crowd. patch.    | $\frac{1}{2}$     | sum.     | Ol    | on the earth | E. b. t. 595. <i>L. trapezifor.</i> |
| $\beta$ <i>lach'neum Ach.</i>      | <i>black-wooded</i> | crowd. patch.    | $\frac{1}{2}$     | sum.     | D.G   | on the earth | Eng. bot. 1698                      |
| 15472 <i>pállidum Ach.</i>         | pallid              | finely lobed     | $\frac{2}{3}$     | all sea. | Fa.Ol | rocks        | Eng. bot. 2541                      |
| 15473 <i>parasiticum Ach.</i>      | parasitical         | round. patch.    | $\frac{1}{2}$     | sum.     | Cop.  | on Lichens   | Eng. bot. 1866                      |
| 15474 <i>miniátum Ach.</i>         | vermilioned         | thick crust      | 1                 | all sea. | Grsh  | rocks        | Eng. bot. 593                       |
| 15475 <i>leptophýllum Ach.</i>     | fine-leaved         | round patches    | $\frac{2}{3}$     | spring   | Br    | rocks        | Eng. bot. 2012                      |
| 15476 <i>complicátum Ach.</i>      | entangled           | coriaceous       | $\frac{2}{3}$     | all sea. | Grsh  | rocks        | E. b. 593 f. 2. <i>L. amphibius</i> |
| 15477 <i>Webéri Ach.</i>           | Weber's             | cartilaginous    |                   | win.sp.  | G.Br  | wet rocks    | E. bot. 594. <i>L. aquaticus</i>    |

CÆNOTHALAMI.

|                                  |                     |               |                  |          |       |               |                                   |
|----------------------------------|---------------------|---------------|------------------|----------|-------|---------------|-----------------------------------|
| 2336. <i>THELOTREMA. Ach.</i>    | <i>THELOTREMA.</i>  |               | <i>Sp. 5—19.</i> |          |       |               |                                   |
| 15478 <i>lepadinum Ach.</i>      | enclosed            | smooth crust  | 1 $\frac{1}{2}$  | all sea. | Wsh   | holly bark    | Eng. bot. 678. <i>L. inclusus</i> |
| 15479 <i>exanthematicum Ach.</i> | pallid              | tartareous    | 2                | all sea. | Grsh  | calcar. rocks | Eng. bot. 1184                    |
| 15480 <i>variolarioídes Ach.</i> | Variolaria-like     | tessellated   | 2                | all sea. | Pa.Ol | bar. of trees |                                   |
| $\beta$ <i>agele'um Ach.</i>     | <i>inelegant</i>    | tessellated   | 2                | all sea. | Pa.Ol | bar. of trees | Eng. bot. 1730                    |
| 15481 <i>melaleúcum E. B.</i>    | brownish            | obscure crust | 3                | all sea. | Y     | young oaks    | Eng. bot. 2461                    |
| 15482 <i>hyménium E. B.</i>      | wrinkled            | granular      | 4                | all sea. | G     | old oaks      | Eng. bot. 1731                    |
| 2337. <i>PYRE'NULA. Ach.</i>     | <i>PYRE'NULA.</i>   |               | <i>Sp. 4—34.</i> |          |       |               |                                   |
| 15483 <i>nítida Ach.</i>         | shining             | cartilaginous | 1 $\frac{1}{2}$  | all sea. |       | bar. of beech | Weig. obs. t. 2. f. 14            |
| 15484 <i>nigréscens Ach.</i>     | blackish            | tartareous    | 1 $\frac{1}{2}$  | all sea. | Br.Bi | rocks         | E. b. 1499. <i>Ver. umbrina</i>   |
| 15485 <i>tesselláta Ach.</i>     | tessellated         | circular dots | 2                | all sea. | Ol.G  | slate rocks   | E. b. 2455. <i>L. viridulus</i>   |
| 15486 <i>umbonáta Ach.</i>       | nipple shielded     | even coat     | 1 $\frac{1}{2}$  | all sea. | Br    | rocks         | E. b. 2153. <i>L. thelostomus</i> |
| 2338. <i>VARIOLA'RIA. Ach.</i>   | <i>VARIOLA'RIA.</i> |               | <i>Sp. 9—46.</i> |          |       |               |                                   |
| 15487 <i>veláta Ach.</i>         | veiled              | sinuous surf. | 1 $\frac{1}{2}$  | aut.     | Gl.   | ash trees     | Eng. bot. 2062                    |
| 15488 <i>mutipúncta Ach.</i>     | much dotted         | granular      | 2                | win.     | Gl.   | beech trees   | Eng. bot. 2061                    |
| 15489 <i>globulifera Ach.</i>    | globuliferous       | uneven crust  | 1 $\frac{1}{2}$  | all sea. | Grsh  | trees & rocks | Eng. bot. 2008                    |



History, Use, Propagation, Culture,

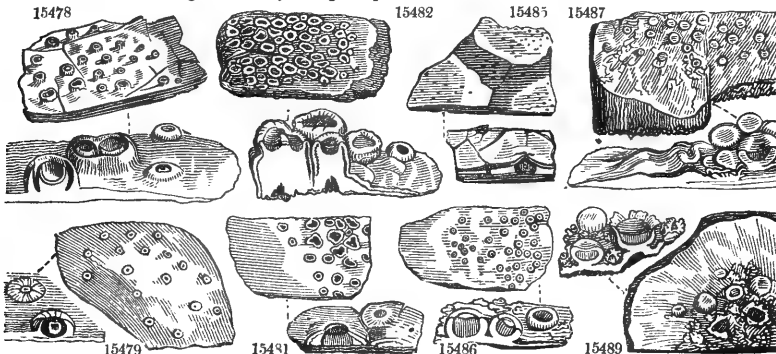
2335. *Endocarpon.* From *ενδον*, within, and *καρπος*, fruit, because the receptacles of the sporules are deeply imbedded in the substance of the frond. The species form small roundish or angular plants, commonly closely sessile upon earth or stone; of a grey or olive hue; their fructification appearing like little black dots on the surface.

2336. *Thelotrema.* From *θηλε*, a nipple, and *τρημα*, an orifice. The protruberances of the thallus are perforated. This genus has been reduced to *Endocarpon* by Sir James Smith.

- 15463 Thallus rugged olivaceous brown, its circumference perforated and laciniated dark-grey : beneath glabrous somewhat granulated and fibrous, Apothecia somewhat convex variously plaited  
 15464 Thallus roughish olivaceous brown with a brown scattered dust smooth beneath with pits and reticulations naked of the same color, Apothecia plane with circular plaits, at length convex  
 15465 Thallus blistered and warty greenish ash-color ben. deeply pitted smooth palish-brown naked, Apothecia few plane margined : disk somewhat even papillose and plaited  
 15466 Thallus smooth sinuato-lobate of a greenish coppery-brown : beneath black with dense pulvinate fibres, Apothecia sessile, at length somewhat globose variously plaited intricate  
 15467 Thallus very rig. mouse-col. ben. black-brown rough with elevated. paler spots, Apoth. conv. various. plait.
- 15468 Thallus crustaceous cracked into areolæ figured somewhat lobed greenish rubiginous depressed at the circumference, Orifices depressed black  
 15469 Thallus crustaceo-cartilaginous somewhat foliaceous minute subpeltate appressed plane roundish entire yellow-green, Orifices of the apothecia depressed reddish-brown  
 15470 Thallus crustaceous submembranaceous spreading and subfoliaceous contiguous wavy cracked glaucous ash-col. irregul. lob. and crenat. at marg. ben. black somew. spongy, Orifi. elevat. conv. black perforat.  
 15471 Plant subcartilaginous roundish or somewhat angular lobed of an olive-green : beneath pale at margin ; the rest blackish and fibrillose, Orifice of the fructification subprominent dark-brown  
 β Lobes of thallus aggregat. somew. imbricat. : margin elevated repand-lobed wavy with black wool beneath  
 15472 Thallus coriaceus membranous pallid leafy greenish crenate-lobed becoming irregularly ragged, Orifices hemispherical pale with a black dot  
 15473 Thallus coriaceus convex rounded lobed copper-colored, at length rugged black and shaggy beneath, Orifices scattered sunk minute coal black, at length convex  
 15474 Thallus thick crustaceo-cartilaginous foliaceous orbicular peltate greyish spread at marg. somewhat lobed and waved beneath smooth, at length rugose and tawny, Orifices minute slightly prominent brownish  
 15475 Thallus cartilaginous foliaceous orbicular peltate brown or greyish : the border spread and wavy smooth naked rough and black beneath, Orifices of the apothecia very minute slightly prominent black  
 15476 Thallus coriaceo-cartilaginous lobed greyish : beneath brownish-black ; the lobes nearly erect rounded plicate and convolute, Orifices of the apothecia numerous convex black  
 15477 Thallus cartilagineo-coriaceous lobed greenish-brown olivaceous : beneath rather tawny or blackish on both sides smooth ; the lobes laciniated wavy plaited and crisped crowd. Orifices rather convex black

CENOTHALAMI.

- 15478 Crust smooth whitish, Warts of the apothecia smooth somewhat cone-shaped with the margin of the aperture thin simple somewhat inflexed and contracted covered at bottom with a membrane which bursts  
 15479 Crust subtartareous thin contiguous greyish, Warts of the apothecia convex half immersed whiter, Orifices much contracted radiated with fissures concealing the flesh-colored apothecia  
 15480 Crust nearly regular smooth rugulose cinereous, Warts of apothecia clustered irregular whitish with a large black aperture and a thick somewhat angular lacerated edge  
 β Crust white powdery with granul. and min. soredia, Warts of apothecia appres. few and immers. in crust  
 15481 Crustaceous cream-colored with scattered rather convex warts opening by an irregular inflexed orifice, Apothecia immersed depressed brown  
 15482 Crust cartilaginous uneven somewhat polished greenish-grey, at length extremely tumid and uneven, Apothecia elevated crowded hollow very irregular  
 15483 Crust cartilaginous membranous polished pale brownish cinereous, Warts of apothecia closed closing surrounding the upper projecting part of the thalamium  
 15484 Crust tartareous somewhat tessellated unequal brownish-black, Warts of the apothecia spreading at the base depressed somewhat rugose surrounding the greater part of the prominent apothecia  
 15485 Crust tartareous unequal cracked into areolæ cinereous yellowish, Warts of apothecia enlarged at their base depressed closed clustered about the edged orifice  
 15486 Crust tartareous finely cracked cinereous rufous, Warts of apothecia smooth reddish depressed above forming a margin to the papilla-like prominent orifice  
 15487 Crust determined somewhat cartilaginous smooth very white plaited in rays, Warts of apothecia polished compressed tumid : kernel covered with a thin powdery skin  
 15488 Crust subcartilaginous cracked into areolæ granular cinereous, Warts of apothecia convex clustered granular : kernel lentiform enclosed  
 15489 Crust subcartilaginous greyish uneven with granules and soredia scattered in an irregular manner, Warts of fructificat. subglob. smooth, at length depressed above and soredifer. and contain. a concave nucleus

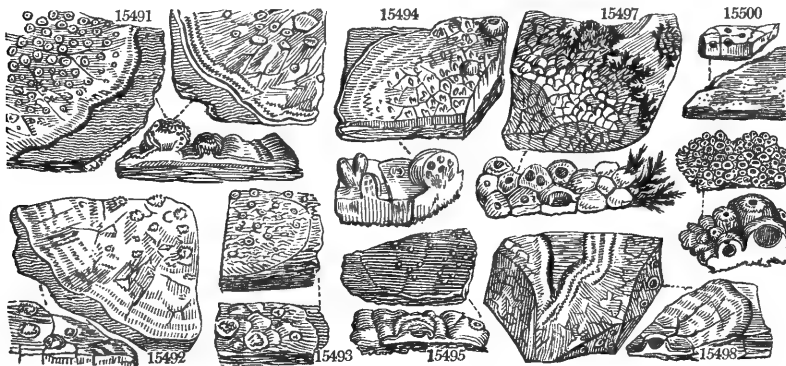


and Miscellaneous Particulars.

2337. *Pyrenulæ*. A diminutive of *pyrenæ*, a kernel; in allusion to the manner in which the receptacle is enclosed in the thalamium, as a kernel within its shell. Crustaceous plants, found chiefly upon the bark of trees.

2338. *Variolaria*. The shields of these plants resemble the eruptive spots of the variolæ or measles. The whole genus was referred by Linnæus to his *Lichen fagineus* and *lacteus*. The species are of a crustaceous nature, found upon the trunks of trees, rocks, walls, or the ground.

|       |                            |                  |                  |    |          |       |                |                                   |
|-------|----------------------------|------------------|------------------|----|----------|-------|----------------|-----------------------------------|
| 15490 | <i>communis</i> Ach.       | common           | radiated         | 1½ | all sea. | DI.W  | trees          |                                   |
|       | β <i>aspergilla</i> Ach.   | <i>sprinkled</i> | radiated         | 1½ | all sea. | Y.OI  | rails          | Eng. bot. 2401                    |
| 15491 | <i>amara</i> Ach.          | bitter           | cracked crust    | 2  | all sea. | Grsh  | bark of trees  | Eng. b. 1713. <i>L. fagineus</i>  |
|       | β <i>discoides</i> Ach.    | <i>discoid</i>   | pulverulent      | 2  | all sea. | W     | bark of trees  | Eng. bot. 1714                    |
| 15492 | <i>lacteæ</i> Ach.         | milky            | tartar. crack.   | 1½ | wint.    | W     | rocks          | Eng. bot. 2410                    |
| 15493 | <i>griseo-virens</i> E. B. | greyish green    | tubercular       | 1½ | aut.     | D.OI  | smooth bark    | Eng. bot. 2400                    |
| 15494 | <i>dealbata</i> E. B.      | whitened         | cracked crust    | 3  | all sea. | L. Br | hard rocks     | Eng. bot. 2519                    |
| 15495 | <i>cinerea</i> E. B.       | cinereous        | tubercular       | 2  | all sea. | OI.G  | whinstone      | Eng. bot. 2411                    |
| 2339. | URCEOLARIA. Ach.           | URCEOLARIA.      |                  |    |          |       |                | Sp. 6—23.                         |
| 15496 | <i>Acharii</i> Ach.        | Acharius's       | cracked crust    | 2  | all sea. | Pa.R  | rocks          | Eng. bot. 1087                    |
|       | β <i>cyrtaspis</i> Ach.    | red              | tessellat. crust | 2  | all sea. | Rsh   | rocks          | Eng. b. 450. <i>L. punctatus</i>  |
| 15497 | <i>gibbosa</i> Ach.        | gibbous          | fringed patch.   | 3  | all sea. | Br    | flints         | Eng. b. 1732. <i>L. fibrosus</i>  |
| 15498 | <i>cinerea</i> Ach.        | cinereous        | concent. zones   | 3  | all sea. | G.Br  | flints         | Eng. bot. 1751                    |
| 15499 | <i>scruposa</i> Ach.       | rock             | solid crust      | 1  | all sea. | Grsh  | rocks          | Eng. bot. 266                     |
| 15500 | <i>Gágii</i> E. B.         | Gage's           | obscure crust    | 1½ | all sea. | Pa.Y  | rocks          | Eng. bot. 2580                    |
| 15501 | <i>calcarea</i> Ach.       | calcareous       | crowd. warts     | 1½ | all sea. | W     | roc. & stones  |                                   |
|       | β <i>Hoffmanni</i> Ach.    | Hoffmann's       | sinuous pat.:    | 1½ | all sea. | Cæs.  | roc. & stones  | Eng. bot. 1940                    |
| 2340. | LECANORA. Ach.             | LECANORA.        |                  |    |          |       |                | Sp. 46—79.                        |
| 15502 | <i>atra</i> Ach.           | dark             | granulated       | 1½ | all sea. | Grsh  | bark of trees  | Eng. bot. 949                     |
| 15503 | <i>argopholis</i> Ach.     | pallid           | warted crust     | 2  | sum.     | Pale  | rocks          |                                   |
| 15504 | <i>oculata</i> Ach.        | mottled          | smooth. crust    | 2  | spring   | W     | roc. & earth   | Eng. bot. 1833                    |
| 15505 | <i>coarctata</i> Ach.      | contracted       | broad patches    | 4  | all sea. | Br    | brick walls    | Eng. bot. 534                     |
| 15506 | <i>pericléa</i> Ach.       | rough            | little spots     | ½  | all sea. | Wsh   | old posts      | Eng. bot. 1850                    |
|       | β <i>exigua</i> Ach.       | diminutive       | little spots     | ½  | all sea. | Br    | old pales      | Eng. bot. 1849                    |
| 15507 | <i>sophodes</i> Ach.       | obscure          | mealy crust      | 1½ | aut.     | G     | on trees       | Eng. bot. 1791                    |
| 15508 | <i>subfusca</i> Ach.       | brownish         | cartilaginous    | 2  | all sea. | Grsh  | trun. of trees | Eng. bot. 2109                    |
| 15509 | <i>ventosa</i> Ach.        | exposed          | warted           | 2  | all sea. | Y.G   | rocks          | Eng. bot. 906                     |
| 15510 | <i>frustulosa</i> Ach.     | broken           | tartareous       | ¾  | all sea. | Var.  | rocks          | Eng. bot. 2273                    |
| 15511 | <i>effusa</i> Ach.         | scattered        | thin coat        | 3  | aut.     | G     | bark of firs   | Eng. bot. 1863                    |
| 15512 | <i>chloroleuca</i> Ach     | whitish green    | Leprous          | 1½ | sum.     | W     | mountains      | Eng. bot. 1373                    |
| 15513 | <i>vária</i> Ach.          | variab. shield.  | crowded          | ¾  | all sea. | Lt.G  | old walls      | Eng. bot. 1686                    |
| 15514 | <i>apocræ's</i> Ach.       | leprous          | cloudy crust     | 1½ | wint.    | Lt.G  | old posts      | Eng. b. 2075. <i>Sp. Vitiligo</i> |



History, Use, Propagation, Culture.

2339. *Urceolaria*. From *urceolus*, a little pitcher, with reference to the form of the shields, which are sunken in the crust. Natives of hard stones occasionally inundated, or upon naked exposed rocks; occasionally upon the trunks of trees. The crust of *U. esculenta*, a native of Tartary, is eatable.

2340. *Lecanora*. An unexplained name. *Lecanora perellus* affords a purple dye, and is called in the south of France, where it is employed in lieu of the *L. tartarea*, *Perelle d'Auvergne*, whence the specific name, as Smith

- 15490 Crust cartilaginous polished whitish becoming unequal and ash-colored scattered with white soredia having no margin, Warts of apothecia spheroidal powdery  
 β Crust tartareous cartilaginous determined glaucous with a polished radiated cracked circumference, Soredia scattered superficial flat not margined
- 15491 Crust rugose cracked uneven subpulverulent white or greyish, Warts of the apothecia appressed plano-concave margined bearing soredia of the same color as the crust  
 β Crust pulverulent white, at length greyish naked, Soredia crowded, at length spreading waved plano-concave with the margin raised swollen
- 15492 Crust tartareous distinctly bordered cracked smooth white: the circumference somewhat zoned crenatolobate, Warts of the apothecia crowded margined very white and pulverulent
- 15493 Crust elliptical thin slightly tartareous rugged grey scarcely limited, Apothecia rounded with a narrow border, Powder greenish
- 15494 Crust tartareous thickish greyish-white cracked tumid papillary and rugged obscurely zoned at the circumference, Apothecia orbicular prominent white
- 15495 Crust orbicular tartareous thin ash-colored cracked: its circumference indeterminate, Apothecia orbicular very small white with an elevated margin and flesh-colored disk
- 15496 Crust with a rather decided edge smooth with narrow cracks pale brick-colored: disk redd.; marg. tum.  
 β Crust bordered smooth tessellated reddish, at length white, Apothecia becoming elevated with the disk rather convex reddish-brown reaching the margin of the crust
- 15497 Crust papillose warted polished white ash-color: disk concave black immersed in the tip of the warts, Border contracted protuberant crenated entire
- 15498 Crust cracked areolate warted cinereous bordered with black: disk somewhat concave dark immersed among the warts becoming elevated, Border thickish projecting
- 15499 Crust rugose-plateate granulated white or greyish: fructification urceolate; the disk black, the border swelling inflexed ebrugose covering the disk
- 15500 Crust continued calcareous smooth brownish-white irregularly cracked when dry, Apothecia very minute blackish sunk in the crust
- 15501 Crust determined finely cracked somewhat powdery very white becoming cinereous: disk minute concave black powdered with white, Border prominent discoid thin  
 β Crust thin cracked into areolæ equal dull ash-colored, Fertile areolæ raised in the middle whitish lead-color: disk somewhat concave dark cæsious powdery

† *Thallus adnate uniform. RINODINA.*  
 \* *Disk of apothecia constantly dark and black.*

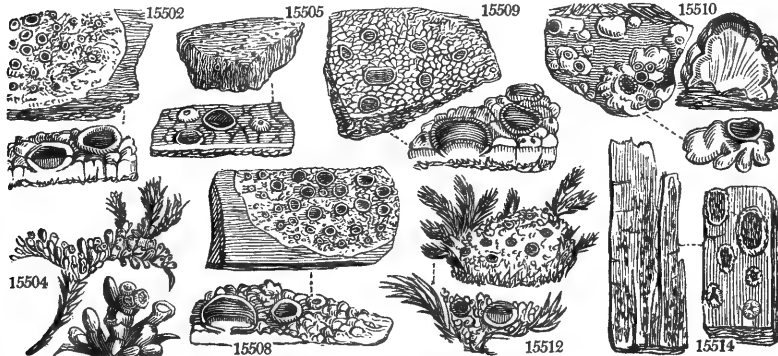
- 15502 Crust with a somewhat decided edge granulated and cracked greyish-white, Disk of the apothecia plane at length swelling and black: the margin free raised, at length waved and crenulate
- 15503 Crust smooth uneven warted pale, Warts at length subimbricated somewhat lobed and deformed, Disk of the fructification concave brownish-black: the border sharp granulate contracted
- 15504 Crust glab. papill. and branch. white, Apothecia sess. scattered: disk slightly concave black; marg. tumid
- 15505 Crust effuse thin cracked rugose unequal cinereous, Disk of apothecia somewhat immersed finally elevated flat dark with an elevated inflexed powdery border
- 15506 Crust thin somewhat leprous and dispersed whitish, Disk of apothecia plano-convex dark dotted rough. Border obscure powdery  
 β Crust uneq. obscure. ciner. black. Apothecia min. aggreg. flat with a white cren. border and brown. edge

\*\* *Disk of apothecia black, naked, brownish when moistened.*

- 15507 Crust verrucose-granular from cinereous brownish-green, Apothecia heaped with a flat coarse dark disk brown when moistened, Border tumid inflexed entire

\*\*\* *Disk of apothecia black, brown, brownish, or clouded with other colors, naked.*

- 15508 Crust cartilaginous smooth, at length granulated unequal white or greyish, Disk of the apothecia plano-convex brown or almost black: margin tumid entire, at length waved and crenate
- 15509 Crust tessellated with tumid warts yellow green or grey, Apothecia appressed, at length irregular with the disk plane or swelling red brown, at length rising above the entire margin
- 15510 Crust tartareous very much cracked variegated with black and white (yellowish-white in dispersed tumid warts), Apothecia pale-brown, at length convex dark-brown: margin white
- 15511 Crust effuse thin powdery cinereous arguginous, Apothecia minute appressed: disk flat becoming convex pale-brown, Border thin obscure
- 15512 Crust thin leprose white, Apothecia crowded elevated: disk plane olive; the margin waved
- 15513 Crust unequal granular somewhat warted pale-green, Apothecia clustered: disk flat pale-brown and variegated, Border raised inflexed finally crenulate
- 15514 Crust effuse very thin polished whitish sometimes bearing soredia, Apothecia sessile; disk flattish pale livid-brown, Border pale becoming crenulate



and Miscellaneous Particulars.

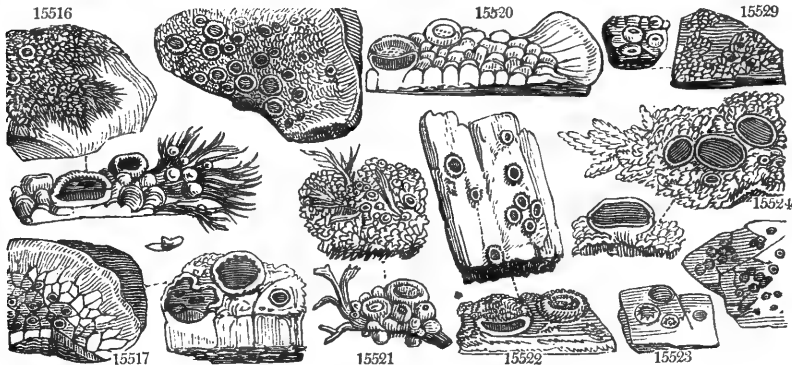
tells us, though generally spelled *Parellus*. *L. Turneri* is probably only a variety growing upon the bark of trees.

*Lecanora candelaria* derives its name from the circumstance of the Swedes employing it to stain the candles that are used in their religious ceremonies.

*Lecanora tartarea* is the famous Cudbear (so called after a Mr. Cuthbert, who first brought it into use)



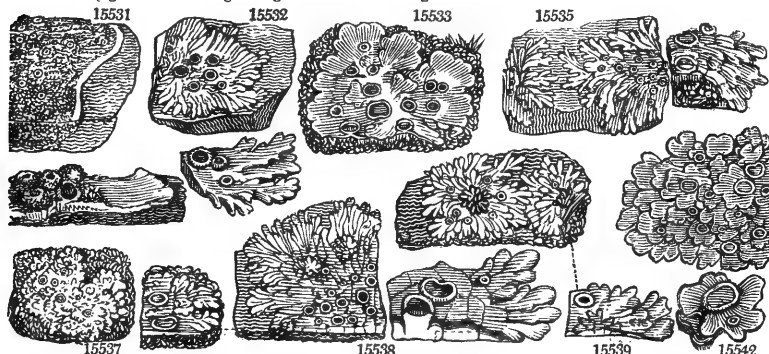
|       |  |                   |               |                |          |        |                |                    |                        |
|-------|--|-------------------|---------------|----------------|----------|--------|----------------|--------------------|------------------------|
| 15515 | <i>rubricósa Ach.</i>                    | red shielded      | round patch.  | 1              | all sea. | Grey   | old walls      | E.b.1040.          | <i>L. caesio-rufus</i> |
| 15516 | <i>tuberculósa Ach.</i>                  | warted            | warted fring. | 3              | all sea. | D.OI   | rocks          | Eng. bot.          | 1733                   |
| 15517 | <i>glaucóma Ach.</i>                     | glaucous          | tessellated   | 2              | all sea. | D.OI   | rocks          | Eng. bot.          | 2156                   |
| 15518 | <i>Hagéni Ach.</i>                       | Hagen's           | spotted       | $\frac{1}{2}$  | wint.    | D.OI   | bark of trees  | Hagen. hist. lich. | t.1.f.5                |
|       | <i><math>\beta</math> crenuláta Ach.</i> | <i>crenulated</i> | small spots   | $\frac{1}{2}$  | wint.    | DI.G   | limest. rocks  | Eng. bot.          | 930                    |
| 15519 | <i>albélla E. B.</i>                     | cream-colored     | obscure crust | $1\frac{1}{2}$ | wint.    | Wsh    | smooth bark    | Eng. bot.          | 2154                   |
| 15520 | <i>parélla Ach.</i>                      | equal             | warted        | 2              | all sea. | W      | rocks          | Eng. bot.          | 727                    |
| 15521 | <i>upsaliénsis Ach.</i>                  | Upsal             | membranous    | 2              | all sea. | GI.W   | rocks          | Eng. bot.          | 1634                   |
| 15522 | <i>Turnéri Ach.</i>                      | Turner's          | mealy crust   | 3              | aut.     | DI.G   | old trees      | Eng. bot.          | 857                    |
| 15523 | <i>carneo-lútea Ach.</i>                 | yell.-flesh-col.  | cracked crust | 1              | sum.     | Wsh    | trun. of elms  | Eng. bot.          | 2010                   |
|       | <i>15524 tartárea Ach.</i>               | Cudbear           | tartareous    | 2              | all sea. | Grsh   | rocks          | Eng. bot.          | 156                    |
|       | <i><math>\beta</math> Frígida Ach.</i>   | <i>northern</i>   | thin crust    | 2              | aut.     | GI.    | earth          | Eng. bot.          | 1879                   |
|       | <i>15525 cerína Ach.</i>                 | waxen             | oblong patch  | 2              | wint.    | G      | trun. of trees | Eng. bot.          | 627                    |
|       | <i>15526 Stónei Ach.</i>                 | Stone's           | oblong patch  | $1\frac{1}{2}$ | wint.    | G      | trun. of trees |                    |                        |
| 15527 | <i>vitellína Ach.</i>                    | yolk of egg       | granular      | $1\frac{1}{2}$ | all sea. | Y      | pales          | Eng. bot.          | 1792                   |
| 15528 | <i>salicina Ach.</i>                     | Willow            | granular      | $1\frac{1}{2}$ | spring   | Br     | on trees       | Eng. bot.          | 1305                   |
| 15529 | <i>erythrélla Ach.</i>                   | reddish           | crack. rugose | 2              | all sea. | Gsh    | stone walls    | Eng. bot.          | 1993                   |
| 15530 | <i>rúbra Ach.</i>                        | red               | membranous    | $1\frac{1}{2}$ | sum.     | W      | trun. of trees | Eng. bot. t.2218.  | <i>L. Utmi</i>         |
| 15531 | <i>hæmatom'ma Ach.</i>                   | bloody spotted    | powdery       | 2              | sum.     | Wsh    | rocks          | Eng. bot.          | 486                    |
|       | <i><math>\beta</math> porphýria Ach.</i> | <i>smooth</i>     | thin crust    | 2              | sum.     | GI.    | rocks          | Eng. b.223.        | <i>L. coccineus</i>    |
| 15532 | <i>epigéa Ach.</i>                       | earth             | plaited       | $1\frac{1}{2}$ | all sea. | W      | earth          | E. b. 1778.        | <i>L. candicans</i>    |
| 15533 | <i>lentígera Ach.</i>                    | white             | round. patch. | $1\frac{1}{2}$ | all sea. | Wsh    | dry heaths     | Eng. bot.          | 871                    |
| 15534 | <i>saxícola Ach.</i>                     | rock              | scaly crust   | 2              | all sea. | Pa.G   | roc. & walls   | Eng. bot.          | 1695                   |
| 15535 | <i>murórum Ach.</i>                      | wall              | cracked crust | $1\frac{1}{2}$ | all sea. | Y.Or   | rocks          | Eng. bot.          | 2157                   |
| 15536 | <i>élegans Ach.</i>                      | elegant           | imbricated    | 1              | all sea. | Tawn.  | rocks          | Eng. bot.          | 2181                   |
| 15537 | <i>ful'gens Ach.</i>                     | refulgent         | small patches | $\frac{1}{2}$  | sum.     | Y      | rocks          | Eng. bot.          | 1667                   |
| 15538 | <i>circináta Ach.</i>                    | circled           | cracked crust | $\frac{1}{2}$  | aut.     | Grsh   | flat stones    | Eng. bot.          | 1941                   |
| 15539 | <i>gélida Ach.</i>                       | frozen            | cracked crust | 1              | all sea. | R.Gr   | rocks          | Eng. bot.          | 699                    |
| 15540 | <i>galáctina Ach.</i>                    | milky             | rugose crust  | $1\frac{1}{2}$ | all sea. | Wsh    | roc. & walls   |                    |                        |
| 15541 | <i>cervína Ach.</i>                      | grey              | lobed scales  | $\frac{1}{2}$  | sum.     | Ciner. | roc. & stones  | E.b.t.9011.        | <i>L. squamulo.</i>    |
| 15542 | <i>crássa Ach.</i>                       | thick             | scaly crust   | $\frac{2}{3}$  | sum.     | Gsh    | earth on roc.  | Eng. bot.          | 1893                   |



*History, Use, Propagation, Culture,*

employed to produce a purple for dyeing woollen yarn; and no where, perhaps, used to so great an extent as in the manufactory of Mr. Mackintosh, at Glasgow. The manufacturers import it largely from Norway, where

- 15515 Crust cracked and areolate somewhat granular whitish, Disk of apothecia rufous becoming brown, Border white or yellowish becoming flexuose
- \*\*\*\* Disk of apothecia black, caesious, glaucous, or variously colored, always pruinose.
- 15516 Crust greenish ash-color with roundish warts, Circumference fibrous, Apothecia mixed: disk concave becoming flat blackish-glaucous; border elevated thick
- 15517 Crust tartareous tessellated even greyish-white, Apothecia immersed in the crust: the disk plane, at length convex subglobose glaucous and powdery; margin entire afterwards obliterated
- 15518 Crust cartilaginous membranous whitish ash-color, Apothecia clustered minute: disk flat becoming convex variegated with brown and black; border entire naked persistent  
 β Crust becoming unequal somewhat granular ash-colored or blackish, Apothecia much clustered: disk flat brown and black; border crenulate powdery
- 15519 Crust thin leprous continuous cream-colored somewhat polished, Apothecia sessile whitish-buff uneven with a thin white wavy border
- \*\*\*\*\* Disk of apothecia somewhat flesh-colored, pale, testaceous, waxen, or orange-colored.
- 15520 Crust granulated or somewhat warted white, Apothecia thick crowded by pressure angular: the disk concave, and as well as the tumid entire margin of the same color as the crust
- 15521 Crust very thin membranaceous smooth glaucous white bearing awl-shaped bristles, Disk of the apothecia at length spreading plane pale-yellowish
- 15522 Crust leprous granular powdery whitish-grey, Apothecia scattered thick powdery: disk concave pale flesh-colored; border tumid entire and flexuose
- 15523 Crust thin polish, hoary, Apothecia somew. inn.: disk flat fleshy-yell.; border thin somew. inflex. crenat.
- 15524 Crust tartareous with clustered granules greyish white, Apothecia scattered: disk plano-convex a little wrinkled flesh-color; the margin inflexed, at length waved  
 β Crust thin glaucous white running out into papillæ and spinuliferous branches [becoming black
- 15525 Crust granul. ciner. Disk of apothecia flat convex yellowish wax-colored; border elevated inflexed hoary
- 15526 Crust leprous-tartareous granular powdery dirty-white, Apothecia scattered: disk waxen covered by the powdery inflexed border becoming convex and dilated
- 15527 Crust granulated bright-yellow, Apothecia crowded: the disk plane of the color as the crust, at length convex deeper colored and powdery; the margin elevated thin, at length waved pulverulent
- 15528 Crust granular unequal dirty-yellow, Disk of apothecia flat becoming convex somewhat orange-colored; border thin crenulate becoming entire and flexuose
- 15529 Crust cracked subrugose greenish-yellow, Apothecia at length subglobose deep orange shining when the entire margin becomes obliterated
- \*\*\*\*\* Disk of apothecia red, scarlet, or purple, and sanguine.
- 15530 Crust submembranaceous smooth, at length unequal pulverul. and granular white, Apothecia crowded: the disk concave red; margin tumid inflexed crenulate
- 15531 Crust tartareous pulverulent whitish, Apothecia imbedded scattered subconfluent: the disk scarlet rather convex; the margin sometimes obliterated  
 β Crust tartar. granul. powd. whit. Apothecia sess.: disk flat deep sanguine; bord. elevat. thick rug. persist
- †† *Thallus adnate, radiate, stellate, and lobed in the circumference.* PLACODIUM.
- 15532 Crust plaited and wrinkled white: the circumference smooth lobed, Disk of the apothecia at length rather convex brownish-black: the margin thin entire
- 15533 Crust somewhat imbricated white, Lobes somewhat concave flexuose cut-crenate, Disk of apothecia flat yellowish-brown: border elevated tumid
- 15534 Crust subimbricated scaly somew. rugose uneven pallid-green radiated and lobed in the circumference: fructification extremely crowded; the disk plane yellowish-brown or subochraceous with a border, at length crenate waved
- 15535 Crust plaited and lobed cracked bright-yellow orange pulverulent: the circumference plicate and rayed; segm. lin. convex cut, Apothecia crowd.: disk at length convex of a deeper orange; marg. ent. waved
- 15536 Crust somew. imbricated plaited and rugose tawny orange naked, Lobes lin. lanc. waved convex somew. distant radiating, Disk of the apothecia concave of the same color with the crust marg. somew. inflex. ent.
- 15537 Crust somew. contiguous pale yellow with a plaited lobed edge, Lobes flexuose flat, Apothecia scattered, Disk very red plano-convex.
- 15538 Crust cracked greyish plaited and rayed in the circumference lin.-lacinate, Apothecia much crowded at at length angular: disk plane brownish black even with the margin of the crust
- 15539 Crust cracked pale reddish grey the circumference rayed and lobed having brown warts in the centre cracked and rayed: disk of the apothecia depressed reddish brown thick elevated entire
- 15540 Crust subimbricat. rugulose whitish lobed and cren. at the circumference: fructification crowd. angular; the disk plane brownish flesh-color pruinose with a raised and at length crenate flexuose border
- ††† *Thallus imbricated throughout.*
- 15541 Crust with lobed scales of a brownish ash-color: disk of the apothecia immersed nearly plane blackish brown with the margin at length prominent
- 15542 Crust scaly greenish, Lobes imbricated inciso-crenate waved irregular, Disk of the apothecia slightly swelling brownish orange margin thin entire at length obliterated



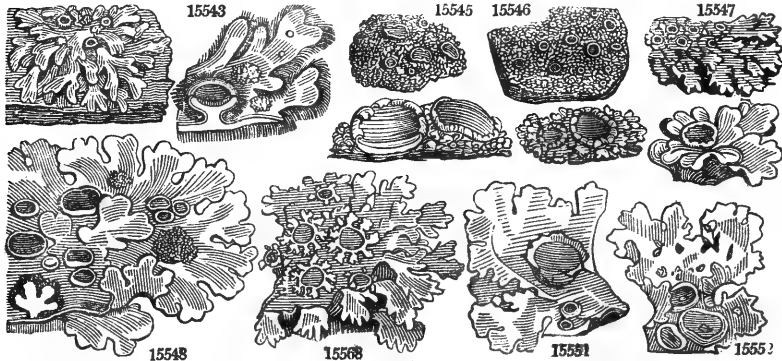
and Miscellaneous Particulars.

it grows more abundantly than with us; yet, in the Highland districts, many an industrious peasant gets a living by scraping this Lichen with an iron hoop, and sending it to the Glasgow market. When I was in the

|       |                         |               |                |   |          |       |               |                   |
|-------|-------------------------|---------------|----------------|---|----------|-------|---------------|-------------------|
| 15543 | <i>viridula Ach.</i>    | greenish      | multifid patc. | 1 | all sea. | Bt.G  | trees & pales | Eng. bot. 1696    |
| 15544 | <i>candelária Ach.</i>  | Candle-dyeing | scaly crust    | 1 | all sea. | Y     | trees & pales | Eng. bot. 1794    |
|       | <i>β polycarpa Ach.</i> | many-shielded | toothed lobed  | ½ | all sea. | Gr.Y  | old posts     | Eng. bot. t. 1795 |
| 15545 | <i>hypnórum Ach.</i>    | Hypnum        | scaly crust    | 1 | wint.    | Gr.Br | woods         | Eng. bot. t. 740  |
| 15546 | <i>brun'nea Ach.</i>    | brown         | lobed crust    | 1 | spring   | Ci.Br | on the grou.  | Eng. bot. t. 1246 |
| 15547 | Hookéri                 | Hooker's      | imbricated     | 1 | spring   | Grsh  | wet rocks     | Eng. bot. 2283    |

2341. PARME'LIA. Ach. PARMELIA.

|       |                         |                 |                 |    |          |        |                |                   |
|-------|-------------------------|-----------------|-----------------|----|----------|--------|----------------|-------------------|
| 15548 | <i>glomulífera Ach.</i> | warted          | round patch.    | 1½ | spring   | Gl     | trun. of trees | Eng. bot. t. 293  |
| 15549 | <i>caperáta Ach.</i>    | wrinkled        | round patch.    | ¾  | spring   | Y.G    | trun. of trees | Eng. bot. t. 654  |
| 15550 | <i>scúrtea Ach.</i>     | leathery        | lobed patches   | 1½ | all sea. | Br     | trees & pales  | Eng. bot. 2065    |
| 15551 | <i>perláta Ach.</i>     | grey            | round patch.    | 2  | all sea. | Grsh   | trun. of trees | Eng. bot. 341     |
| 15552 | <i>perforáta Ach.</i>   | perforated      | crisp patches   | 3  | all sea. | Y.G    | old trees      | Eng. bot. 2423    |
| 15553 | <i>herbácea Ach.</i>    | herbaceous      | round patch.    | 1½ | all sea. | Bt.G   | trun. of trees | Eng. bot. 294     |
| 15554 | <i>corrugáta Ach.</i>   | rugose          | imbricated      | 3  | all sea. | D.G    | on trees       | Eng. bot. 1652    |
| 15555 | <i>olivácea Ach.</i>    | olive           | round patch.    | 2  | all sea. | Ol.Br  | rocks & trees  | Eng. bot. 2180    |
| 15556 | <i>parietína Ach.</i>   | wall            | round patch.    | 2  | all sea. | Bt.Y   | trees & walls  | Eng. bot. 194     |
| 15557 | <i>elaeína Ach.</i>     | orbicular olive | small patches   | ½  | all sea. | Ol     | bark of trees  | Eng. bot. 2158    |
| 15558 | <i>pitýrea Ach.</i>     | scurfy          | flat-warted     | 1½ | july     | Gl     | walls          | Eng. bot. 2064    |
| 15559 | <i>clementiána Ach.</i> | Clementi's      | flat radiated   | 1½ | all sea. | W.Gr   | trees          | Eng. bot. 1779    |
| 15560 | <i>tiliácea Ach.</i>    | Linden          | flat imbricat.  | 6  | sum.     | G      | rocks          | Eng. bot. 700     |
| 15561 | <i>Borréri Ach.</i>     | Borrer's        | foliaceous      | 4  | aut.     | Ol.G   | trun. of trees | Eng. bot. 1780    |
| 15562 | <i>lanuginósa Ach.</i>  | woolly          | round patch.    | 3  | all sea. | Y.W    | rocks          |                   |
| 15563 | <i>plúmbea Ach.</i>     | leaden          | round patch.    | 2  | aut.     | Bl.Gr  | trun. of trees | Eng. bot. t. 353  |
| 15564 | <i>rubiginósa Ach.</i>  | rusty           | round patch.    | 3  | sum.     | Br.Gr  | trun. of trees | Eng. bot. t. 983  |
| 15565 | <i>omphalódes Ach.</i>  | navel           | shining dott.   | 4  | all sea. | Fu.Br  | rocks          | Eng. bot. t. 604  |
| 15566 | <i>saxátilis Ach.</i>   | rock            | rough & pitt.   | 2½ | all sea. | Grsh   | stones         | Eng. bot. t. 603  |
| 15567 | <i>fahlúnésia Ach.</i>  | Iron mine       | smth. thallus   | 3  | all sea. | Pitch. | rocks          | Eng. bot. t. 653  |
| 15568 | <i>stýgia Ach.</i>      | pitchy          | starry          | 2  | sum.     | Bl     | mountains      | Eng. bot. t. 2048 |
| 15569 | <i>áquila Ach.</i>      | lacerated       | multifid lobes  | 4  | sum.     | Br     | rocks          | Eng. bot. t. 982  |
| 15570 | <i>encaústa Ach.</i>    | griesly         | stellated dott. | 3  | sum.     | Pa.Gr  | rocks          | Eng. bot. t. 2049 |
| 15571 | <i>recúrva Ach.</i>     | recurved        | warted          | 2  | sum.     | Pa.G   | rocks          | Eng. bot. t. 1375 |



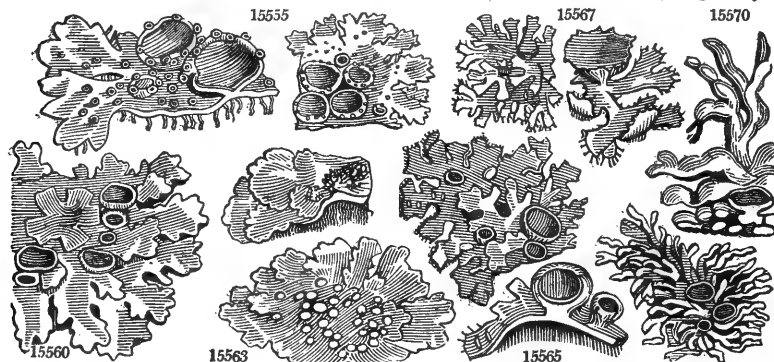
History, Use, Propagation, Culture,

neighbourhood of Fort Augustus, in 1807, a person could earn fourteen shillings per week at this work, selling the material at three shillings and fourpence the stone of twenty-two pounds. The fructified specimens are reckoned the best.

- 15543 Crust somewhat scaly greenish ash-colored becoming powdery, Lobes repand cut wavy with irregular margins, Disk of apothecia flat brownish black
- 15544 Crust scaly yellow, Lobes very much crowded cut and lacinated imbricated their margins minutely granular, Apothecia nearly of the same color as the crust margin elevated entire  
 $\beta$  Crust formed of lobes with many crowded teeth and segments greyish yellow, Apothecia crowded waved: disk plane dilated of the same color as the crust at length fulvous and the margin crenulate
- 15545 Crust scaly greenish-brown, Lobes minute somew. rounded with margin granular and crenulat. Apothecia submembran.: the disk concave at length dilated plane reddish brown the marg. elevated inflex. crenate
- 15546 Crust imbricated greyish lobed and granulated ash-colored brown, Apothecia imbedded in the crust crowded irregular: disk rather convex red-brown the margin elevated crenulate persistent
- 15547 Crust imbricated greyish, Lobes minute appressed blunt, Disk of the apothecia plane black margin elevated and crenate

† All the divisions of the thallus equal at end.

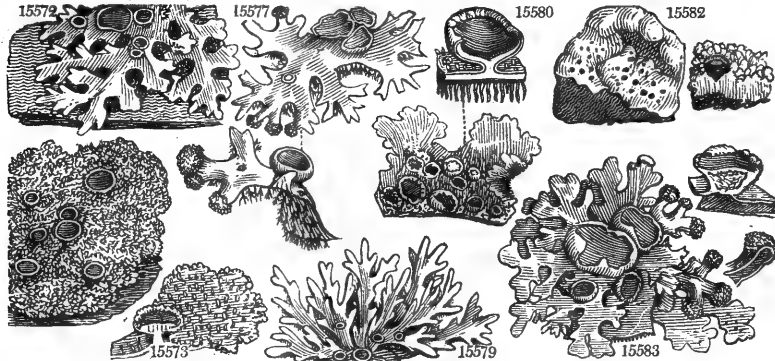
- 15548 Thallus cartilaginous rigid orbicular livid and glaucous smooth bearing dark green scattered tufted excrescences: tawny beneath and downy, the lobes waved and lacinated angular, Apothecia reddish brown rugose at the margin
- 15549 Thallus orbicular pale yellowish green rugose at length granulated black and hispid beneath the lobes waved lacinated round, nearly entire, Apoth. scatter, brown their margin incurv. entire at length pulverulent
- 15550 Thallus roundish subcoriaceous white smooth finely dotted with black: hispid beneath, Lobes longish sinuate-crenate cut, Apothecia rufous brown
- 15551 Thallus orbicular greyish white smooth blackish brown and hairy beneath, Lobes rounded cut plane their margin waved entire, Apothecia brown their margin thin entire
- 15552 Thallus orbicular glaucous green naked with black fibres on the under side, Lobes rounded cut flat somewhat plaited at the edge, Apothecia rufous
- 15553 Thallus orbicular membranaceous bright green above, beneath pale brown almost white and downy, Lobes waved and cut, the segments rounded subcrenate, Apothecia red, the margin inflex. rugose and crenate
- 15554 Thallus orbicular membranaceous finely rugose glaucous green, beneath blackish brown fibrous, Lobes cut rounded lax plaited entire
- 15555 Thallus orbicular olive brown rugged with elevated points paler beneath and fibrous, Lobes radiating appressed plane, plaited rounded and crenate, Apothecia dark-brown: the margin crenulate
- 15556 Thallus orbicular bright yellow: beneath paler and fibrillose; the lobes radiating appressed plane dilated round, crenate and crisped at the extremity, Apoth. of the same colour as the crust their margin entire
- 15557 Thallus orbicular somewhat membranous contiguous plaited umber-olive colored cut crenate in the circumference with flat somewhat truncate lobules
- 15558 Thallus orbicular cinereous powdery: beneath white with black fibres, Central segments plaited eroded crisp powdery at edge, Apothecia concave blackish brown
- 15559 Thallus orbicular white hoary granular powdery: beneath of the same color with obsolete blackish fibres, Segments of the circumference flat cut crenate, Apothecia appressed flat brownish black
- 15560 Thallus orbicular membranous glaucous ash-colored: blackish brown beneath, Lobes sinuate-cut; the end ones rounded crenate, Apothecia brownish with an entire edge
- 15561 Thallus orbicul. cinereous, Soredia grey margined, beneath brownish spongy and fibrous, Lobes concrete plaited: those of the circumference rounded cut crenate, Apothecia red with a tumid edge
- 15562 Thallus orbicular yellowish white pulverulent greyish black and downy beneath, Lobes imbricated plane rounded slightly crenate, Apothecia reddish (of the same color as crust) their margin pulverulent
- 15563 Thallus orbicul. blueish-grey, beneath having a very thick spongy down, Lobes of circumference rounded and crenate, Apothec. scattered at length convex rusty-brown, their margin of same color and entire
- 15564 Thall. orbic. brownish-grey, ben. having a blueish-grey spongy down, Lobes of circumf. obtusely notched elevated pale, Apothecia plane crowded central reddish-brown with tumid incurv. crenul. whit. margins
- 15565 Thallus orbicular dark purplish-brown shining dotted with black, beneath black and fibrillose: the segments sinuato-multifid linear plane truncated crenate in the circumference, Apothecia dark-brown, the margin slightly crenulate
- 15566 Thallus orbicul. greyish rough and pitted beneath black and fibrillose: the segments imbricated sinuated plane subtetuse, Apothecia bright chesnut-brown, their margin subcrenulate
- 15567 Thallus orbicular pitchy-brown smooth beneath black and scarcely fibrillose: the segm. sinuated multifid divergent plane or slightly grooved margins elevat. lacerat. Apothec. dark-brown, margin granulated
- 15568 Thallus stellated shining pitchy-black, beneath black and almost naked: the segments nearly linear multifid and somewhat palmate convex, the margins and extremity recurved, Apothec. of the same color at length black with the margin crenated
- 15569 Thallus orbic. tawny-brown paler beneath with blackish fibres: the segment multipartite nearly lin. convex, those of the circumfer. dilated nearly plane and crenate, Apothecia dark-brown, their margin crenated
- 15570 Thallus stellat. pale-grey, beneath black uneq. naked: the segments often uniting convex and almost round. lin. multifid roughish dotted with black, Apothecia reddish-brown, their margin somewhat crenulate
- 15571 Thallus stellat. pale-greenish bear. powdery warts, beneath black with spongy fibres: segments of circumference multifid very narrow convex and almost rounded, Apothecia reddish-brown, marg. nearly ent.



and Miscellaneous Particulars.

2941. *Parmelia*. Named from  $\rho\alpha\rho\mu\mu$ , a sort of small shield, and  $\omega\lambda\eta\sigma$  to enclose. On the thallus of these plants scattered powdery warts are commonly found. These Hedwig has determined to be anthers, apparently for no other reason than that they are powdery, and that he could fix the title to nothing better.

|                           |                 |               |    |                |                |                   |
|---------------------------|-----------------|---------------|----|----------------|----------------|-------------------|
| 15572 sinuosa Ach.        | sinuous         | starry        | 2  | all sea. Pa.Y  | moorstones     | Eng. bot. t. 2050 |
| 15573 aleurites Ach.      | rugose          | round patch.  | 3  | aut.wi. Pa.Gr  | trun. of trees | Eng. bot. t. 858  |
| 15574 ambigua Ach.        | ambiguous       | starry warted | 2  | aut.wi. Pa.G   | trun. of trees |                   |
| 15575 conspersa Ach.      | sprinkled       | smth. dotted  | 1½ | all sea. Y     | rocks          | Eng bot. t. 2097  |
| 15576 speciosa Ach.       | shewy           | starry glabr. | 2  | spring G.W     | woods          | Eng. bot. t. 1979 |
| 15577 lævigata Ach.       | polished        | starry        | 3  | spring Grsh    | on trees       | Eng. bot. t. 1852 |
| 15578 pulverulenta Ach.   | powdery         | pruinose mul. | 2  | spring Dp.G    | trun. of trees | Eng. bot. t. 2063 |
| 15579 stellaris Ach.      | stellate        | rugged frond  | 2  | spring Grsh    | trun. of trees | Eng. bot. t. 1697 |
| 15580 cæsia Ach.          | cæsious         | sorediferous  | ¾  | all sea. Grsh  | roc. & stones  | Eng. bot. t. 1052 |
| β dubia Ach.              | dubious         | granular      | ½  | spring Pa.Br   | boards         | Eng. bot. 2547    |
| 15581 cycloselia Ach.     | circular        | round patch.  | 1  | all sea. Li.Gr | trees & pales  | Eng. bot. 1942    |
| 15582 diacapsis E. B.     | twofold-shield. | tumid crust   | 1½ | all sea. Wash  | stones         | Eng. bot. 1954    |
| 15583 physodes Ach.       | bladdery        | multif. smth. | 2  | all sea. Wash  | rocks          | Eng. bot. t. 126  |
| 15584 diatrypa Ach.       | warted          | multif. smth. | 2  | all sea. Gr.G  | wet rocks      | Eng. bot. t. 1248 |
| 2342. BORRE'RA. Ach.      | BORRERA.        |               |    | Sp. 7-23.      |                |                   |
| 15585 tenella Ach.        | slender         | branch. segm. | 1½ | all sea. Gl.   | bran. of trees | Eng. bot. 1351    |
| 15586 leucomela Ach.      | black & white   | dense tufts   | 1½ | feb. Wash      | on the earth   | Eng. bot. 2548    |
| 15587 furfuracea Ach.     | mealy           | farinaceous   | 1½ | all sea. G.Gr  | trun. of trees | Eng. bot. 964     |
| 15588 chrysophthalma Ach. | yellow-eyed     | bushy         | 1  | all sea. Or    | apple trees    | Eng. bot. 1088    |
| 15589 flavicans Ach.      | yellowish       | branched      | 1  | all sea. Y     | trun. of trees | Eng. bot. 2113    |
| 15590 ciliaris Ach.       | ciliated        | bushy         | 1½ | all sea. Gl.   | trun. of trees | Eng. bot. 1352    |
| 15591 atlantica Ach.      | Barbary         | bushy tufts   | 1½ | april G.Ol     | elms           | Eng. bot. 1715    |
| 2343. CETRA'RIA. Ach.     | CETRARIA.       |               |    | Sp. 5-14.      |                |                   |
| 15592 juniperina Ach.     | juniper         | bushy         | 1½ | all sea. Pa.Y  | trun. of trees |                   |
| β pinastri Ach.           | Pinaster        | bushy         | 1½ | all sea. Pa.Y  | trun. of trees | Eng. bot. t. 2111 |
| 15593 sepincola Ach.      | hedge           | bushy waved   | 1½ | all sea. Ol.Br | ston. & trees  | Eng. bot. t. 2386 |
| 15594 glauca Ach.         | glaucous        | bushy shining | 2  | all sea. Gl.   | on the grou.   | Eng. bot. t. 1606 |
| β fátax Ach.              | falacious       | bushy shining | 1½ | all sea. W     | on the grou.   | Eng. bot. t. 2373 |

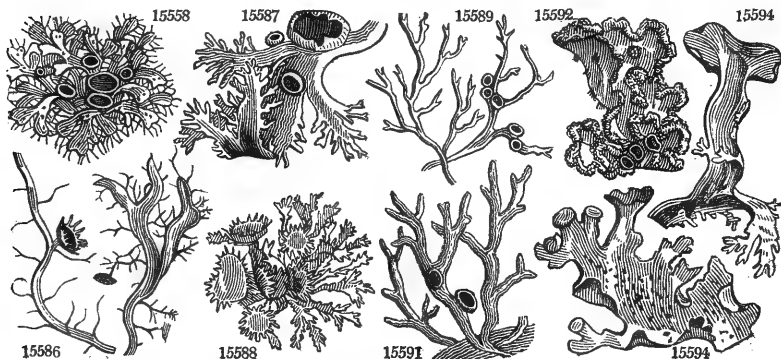


History, Use, Propagation, Culture,

2342. *Borrera*. Dedicated by Acharius, to Mr. William Borrer, F. L. S., one of our most eminent British cryptogamic botanists. This genus is very natural in habit, including the Linnæan genus *Lichen* and its allies.

2343. *Cetraria*. An unexplained name. *C. islandica* is common in Iceland and in the north of Germany, and is also found in the mountains of Asturias. It grows to the height of two or three inches only, and has a rugged bushy aspect. In Iceland and Lapland it is used as an article of diet; being boiled in broth or milk, after being freed from its bitter by repeated maceration in water, or dried and made into bread. It has of late years been brought in considerable quantities to this country for medicinal purposes. The dried plant differs very little from its appearance in a recent state. Medicinally it is tonic and demulcent; it has also been found useful in debilities after acute diseases, and in emaciations, particularly those arising from the great discharge

- 15572 Thallus stellat. pale-yellowish-grey smooth, black and fibrous beneath: segments broadly lin. sinuato-pinnatifid, their sinuses broad and circular, Apothecia nearly plane dark-brown, their margin thin entire
- 15573 Thallus orbicular continuous rugose pale-grey pulverulent, beneath of the same color with blackish fibres: segments in the circumference distinct plane rounded waved inciso-crenate, Apothecia plane reddish-brown, their margin at length crenulate and pulverulent
- 15574 Thallus stellated pale-yellow green smooth bearing powdery warts, beneath brownish-black and fibrillose: the segments linear appressed plane dichotomous somewhat truncated, Apothecia subcentral small nearly plane brown, their margin entire
- 15575 Thallus orbicul. greenish-yell. smooth with blackish dots, brown and fibrillose beneath: segments sinuato-lobate rounded crenate nearly plane, Apothecia central chesnut-brown with the margin nearly entire
- 15576 Thallus stellated glabrous greenish-white, beneath snowy-white with greyish fibres: the segments imbricated linear plane cut and branched crenate, their extremities ascending and powdery, Apothecia central brown with a tumid singularly rough and crenate border
- 15577 Thallus stell. smooth greyish-white, beneath black and fibrillose: segm. multif. lin. broader upwards cut divaricated acute in the circumference frequently bearing powdery warts, Apothecia concave chesnut color with the margin entire
- 15578 Thallus stellated deep glaucous green casious and pruinose when dry, beneath black and downy and hispid: the segment linear multifid in the circumference plane appress. waved retuse at the extremities, Apothecia glaucous black, the margin entire and waved at length leafy
- 15579 Thallus stellat. at length rugged and granulat. greyish-green, beneath with grey fibres: the segm. sublin. rather convex cut multifid, Apothecia glauc. black, their margin entire, at length waved and crenate
- 15580 Scellate greyish-white and glaucous sorediferous, ash-colored beneath with black fibres: segments linear cut but plane at extremities; fructification subconcave black with a subinflexed border  
 α Thallus stellate cinereous: segments branched separate recurved at edge roundish, some broader than the rest and powdery at the edge
- 15581 Orbicular greenish-grey, fibrous and black beneath, Lacinae imbricated nearly plane multif. erosa-crenate somewhat ciliate: the margin sometimes raised; fructification very dark, the border raised entire
- 15582 Crust blueish-white tartareous minutely undulated, Apothecia clustered somewhat sunk: disk flat black or brown; margin thick externally black
- 15583 Thallus substellated glaucous white; beneath brownish black; the segm. sinuato-multifid convex glabrous inflated and ascending at the extremity, Apothecia red brown, their margin entire
- 15584 Thallus substellate greyish-green: beneath rugose blackish and white; segments sinuato-multifid nearly plane smooth bearing powdery warts and perforated; the extrem. inflated, Apoth. redd.: marg. entire
- 15585 Thallus greyish-white naked on both sides and of the same col. substellat.: segm. pinnatif. ascend. dilat. arched and ciliated at the extremity, Apothecia scattered: disk plane casious black; its marg. entire
- 15586 Thallus palish: segments erect linear multifid attenuated ciliated: beneath very white powdery and channelled, Apothecia with a flat black casious disk
- 15587 Thallus greenish-grey farinaceous: the segments linear attenuated branched grooved naked rugose and blackish beneath, Apothecia somewhat marginal cup-shaped with their margin thin inflexed
- 15588 Thallus yellow naked and of the same color on both sides: segments linear flattish pinnatifid branched fibrous at end, Apothecia somewhat terminal with an orange-colored disk
- 15589 Thallus yellow naked: segments dichotomously branched slightly compressed atten. divaricated complicated, Apothecia scattered: their disk plane orange-red; their margin entire naked
- 15590 Thallus greenish: segments linear branched attenuated ciliated at end whitish and channelled beneath, Apothecia somewhat terminal: disk concave becoming flat with a fringed border
- 15591 Thallus pale rufous downy: segm. divaricating tortuous linear tapering channelled on the under surface, Apothecia scattered: disk flattish brownish-black with a thin entire border.
- 15592 Thallus pale-yellow very yellow beneath: the segments plane ascending erose crenate and crisped, Apothecia elevated: their disk brown; the margin crenulated  
 β Thallus with segm. depressed: the lobes rounded crenate; margins crisped pulverulent and very yellow
- 15593 Thallus olive-brown paler beneath; the segments plane ascending lobed waved subcrenate, Apothecia elevated of the same color: their margin rugose and crenulate
- 15594 Thallus glaucous somewhat shining sinuated and lobed brown beneath: the segments cut and jagged curled ascending, Apothecia elevated chesnut-brown: their margin wrinkled  
 β Thallus white on each side or with occasional black spots beneath

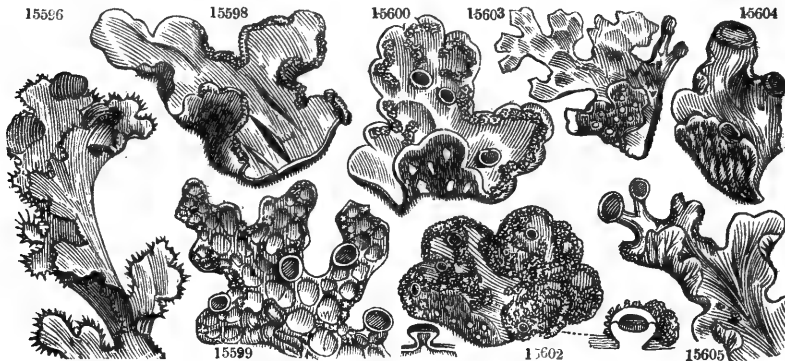


and Miscellaneous Particulars.

of ulcers; and diarrhoeas, dysentery, and hooping cough. Its virtues, however, have been greatly overrated. (*Thom. Lond. Disp.* 365.)

Though plentiful with us, it is scarcely sufficiently so to form an article of commerce. A great proportion of what comes to our shops, where it is in great request as a medicine in coughs, consumptions, &c. is procured from Norway or from Iceland. Immense quantities are gathered in the latter country, not only for sale, but for home consumption, as an article of common food. The bitter and purgative quality being extracted by steeping in water, the lichen is dried, reduced to powder, and made into a cake, or boiled and eaten with milk; and eaten with thankfulness, too, by the poor natives, who confess "that a beautiful Providence sends them bread out of the very stones." An ample account of the nutritive qualities of this plant may be found in the Memoir of Professor Proust, inserted in the *Journal de Physique*, for August, 1806.

|                         |                              |                |    |                 |                |                         |
|-------------------------|------------------------------|----------------|----|-----------------|----------------|-------------------------|
| 15595 nivális Ach.      | snow                         | bushy tufts    | 2  | all sea. Sul.   | rocks          | Eng. bot. t. 1994       |
| 15596 islándica Ach.    | Iceland Moss                 | bushy          | 2  | all sea. Ol.Br  | rocky places   | Eng. bot. t. 1330       |
| 2344. STICTA Ach.       | STICTA.                      |                |    | Sp. 7—13.       |                |                         |
| 15597 crocáta Ach.      | orange                       | yellow warts   | 3  | all sea. Gl.Br  | rocks          | Eng. bot. 2110          |
| 15598 auráta Ach.       | golden                       | foliaceous     | 6  | all sea. Br     | trun. of trees | Eng. bot. 2359          |
| 15599 pulmonácea Ach.   | liverwort                    | reticulated    | 2  | all sea. Oliva. | trun. of trees | Eng. bot. 573           |
| 15600 scrobiculáta Ach. | pitted                       | roundish pat.  | 3  | all sea. Grsh   | trun. of trees | Eng. bot. 497           |
| 15601 limbáta Ach.      | bordered                     | smooth lobed   | 4  | all sea. Gl.Br  | rocks          | Eng. bot. 1104          |
| 15602 fuliginósa Ach.   | smutty                       | round patch.   | 3  | all sea. Lu.gr  | moist rocks    | Eng. bot. 1103          |
| 15603 sylvática Ach.    | wood                         | pitted fronds  | 3  | all sea. Ru.Br  | shady woods    | Eng. bot. 2298          |
| 2345. PELTIDEA Ach.     | PELTIDEA.                    |                |    | Sp. 9—21.       |                |                         |
| 15604 venósa Ach.       | veiny                        | much veined    | 2  | sum. Gsh        | on the earth   | Eng. bot. 887           |
| 15605 scutáta Ach.      | shielded                     | crisp          | 1½ | all sea. Cin.   | bark of trees  | Eng. bot. 1834          |
| 15606 horizontális Ach. | horizontal                   | shining, cren. | 2  | all sea. Br.G   | shady rocks    | Eng. bot. 888           |
| 15607 apthósa Ach.      | Thrush                       | warted         | 2  | aut. G          | among moss     | Eng. bot. 1119          |
| 15608 rufescens E. B.   | brownish                     | incurved       | 2  | all sea. R.Br   | on the earth   | Eng. bot. 2300          |
| 15609 canína Ach.       | dog                          | broad-lobed    | 2  | all sea. Grsh   | on the earth   | Eng. bot. 2299          |
| 15610 membranácea Ach.  | membranous                   | broad-lobed    | 1½ | all sea. Grsh   | thatch         |                         |
| 15611 epúria E. B.      | imperfectly veined           | lobed frond    | 1½ | july Ol.Br      | thatch         | Eng. bot. 1542          |
| 15612 polydactyla Ach.  | multifid                     | smooth-hood.   | 1½ | july Gl.        | on the earth   | Jacq. coll. t. 14. f. 2 |
| 2346. NEPHROMA Ach.     | NEPHROMA.                    |                |    | Sp. 2—8.        |                |                         |
| 15613 resupináta Ach.   | resupinate                   | short-lobed    | 3  | all sea. Gr.Br  | among moss     | Eng. bot. t. 305        |
| 15614 párilis Ach.      | chocolate                    | foliaceous     | 3  | all sea. Br     | stone quart.   | Eng. bot. 2360          |
| 2347. ROCCELIA Ach.     | ORCHALL.                     |                |    | Sp. 2—7.        |                |                         |
| 15615 tinctória Ach.    | Stag's Horn                  | true dyer's    | 1½ | all sea. Y.Br   | marit. rocks   | Eng. bot. 211           |
| 15616 fucifórmis Ach.   | flat-leaved                  | bushy tufts    | 4  | all sea. Gl.    | graniterocks   | Eng. bot. 728           |
| 2348. EVERNIA Ach.      | EVERNIA.                     |                |    | Sp. 1—6.        |                |                         |
| 15617 prunástri Ach.    | Stag's Horn                  | multif. segm.  | 2  | all sea. G.W    | heaths         | Eng. bot. t. 859        |
|                         | L. stictoceros E. B. t. 1353 |                |    |                 |                |                         |
| 2349. CENOMYCE Ach.     | CENOMYCE.                    |                |    | Sp. 20—43.      |                |                         |
| 15618 papillária Ach.   | pimpled                      | granul. crust  | ½  | wint. Grsh      | damp earth     | Eng. bot. 907           |



History, Use, Propagation, Culture,

2344. *Sticta*. From *σικτος*, dotted, on account of the numerous little pits on the under surface of the fronds. One of the most handsome genera of Lichens, growing almost wholly upon trees. *Sticta pulmonacea* is supposed to possess the same qualities as the famous Iceland moss, *Cetraria islandica*.

2345. *Peltidea*. So called in allusion to the form of the shields, from *πλῆγμα*, a target. *Peltidea apthosa*, a large handsome species, has its name from the circumstance related by Linnæus, that the Swedish peasants boil it in milk as a cure for the apthas, or thrush, in children.

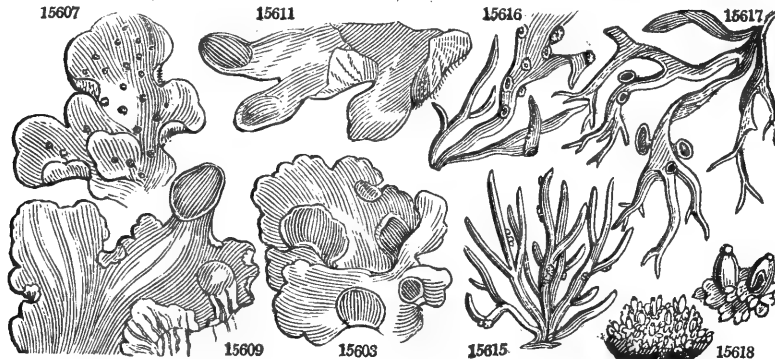
2346. *Nephroma*. From *νεφες*, a kidney; the apothecia are of a reniform figure. *N. polaris* is remarkable for being common to both the arctic and antarctic circles.

2347. *Roccella*. This is a slight alteration of the Portuguese *Roccha*, signifying a rock, in allusion to the

- 15595 Thallus sulphur-colored orange at the base pitted and reticulated erect nearly plane lacinated : its segm. multifid crisped crenato-dentate and often warted at points, Apothecia plane flesh-col. : marg. crenulat.
- 15596 Thallus olive-brown paler beneath : the segments erect sublinear multifid channelled smooth dentato-ciliate ; fert. branches spreading, Apothecia appressed plane of the same color : margins elevated entire
- 15597 Thallus dark glaucous brown pitted with broad rounded spreading entire lobes, having bright lemon-colored powdery spots upon the margin and on the elevated parts between the pits : downy and tawny beneath with min. lemon-colored little hollows, Apothecia scattered black.-brown : their margin entire
- 15598 Thallus glaucous shining very broad woolly beneath, Soredia minute yellow : segments rounded sinuated cut ; margin wavy crisp inflexed yellow-powdery
- 15599 Thallus olivaceous pitted and reticulated downy beneath with smooth prominences : the segm. sinuato-lobate truncate. Apothecia submarginal plane reddish : their margin rugose
- 15600 Thallus suborbicular glaucous greyish-green very broad some, pitted and having mealy warts : beneath downy tawny with white naked spots ; the segments rounded and lobed irregular, Apothecia scattered nearly plane reddish-brown : their margin somewhat crenate
- 15601 Thallus orbicular glaucous brown roundly lobed smooth grey and powdery at the margin : downy beneath with white hollow spots, Apothecia brown
- 15602 Thallus orbicular dark lurid-grey rough with brown granules : beneath grey.-brown with white concave spots ; the segments roundly lobed nearly entire, Apothecia scattered dark-brown : their marg. entire
- 15603 Thallus wide rusty brown naked and pitted : brown and downy beneath with small pale excavations ; segments lobed and obtusely cut unequal, Apothecia marginal dark-brown
- 15604 Thallus greenish ash-color white beneath having dark brown prominent branched veins, Lobes rounded cut somewhat entire, Apothecia marginal plane rounded swelling brown scarcely crenulate at the margin
- 15605 Thallus ash-colored whitish and veiny beneath : the lobes rounded sinuated and cut crenate and crisped ; fertile lobules very short, Apothecia orbicular ascending nearly plane brown somewhat entire
- 15606 Thallus glaucous and brownish green lobed cren. and shining pale ben. with numerous brown branching reticulated veins : fertile lobules abbreviated, Apothecia terminal plane horizontal transversely oblong reddish brown with a nearly entire margin
- 15607 Thallus green smooth roundly lobed sprinkled with brown warts whitish beneath with brown branching veins : fertile lobules very long contracted in the middle their sides reflexed, Apothecia terminal large ascending red brown with a lacerated margin
- 15608 Thallus coriaceous concave even dark reddish-brown pale downy with obsolete veins beneath, Lobes rounded with numerous fruit-bearing processes
- 15609 Thallus greyish green with broad rounded lobes white beneath with brownish branching veins : fertile lobules rather long with their sides reflexed, Apothecia terminal nearly erect revolute reddish-brown with a subcrenulated border
- 15610 Thallus thin membranous somewhat downy with rounded lobes beneath whitish and netted with veins of the same color, Fertile lobes short, Apothecia minute
- 15611 Leathery ash-colored and even above : whitish smooth with indistinct pale veins beneath, Apothecia ascending roundish dark reddish brown
- 15612 Thallus glaucous green naked glabrous with brown reticulated veins beneath : fertile lobules very numerous elongate and as well as the brown terminal, Apothecia cucullato-revolute
- 15613 Thallus greyish brown pale pubescent and granulated beneath : fertile lobules very short, Apothecia large numerous reddish
- 15614 Thallus livid brown beneath naked wrinkled blackish, Fertile lobes short, Face of the apothecia brownish
- 15615 Thallus rounded glaucous green somew. branched nearly erect, Apothecia scattered elevated : disk flat caesious pruinose as broad as the border
- 15616 Thallus flat cinereous greenish with dichotomous divisions, Segments attenuated, Apothecia marginal
- 15617 Thallus greenish white segments dichotomous multifid ascending linear-attenuate plane pitted grooved and white beneath, Apothecia bright brown concave

† *Thallus subrustaceus uniform. Podetia hollow. PYCNOTHELIA.*

- 15618 Subcrustaceous uniform granulated greyish, Podetia ventricose glabrous white simple or branched, the branches very short confluent and subfastigiata, Fructification minute reddish-brown



and Miscellaneous Particulars.

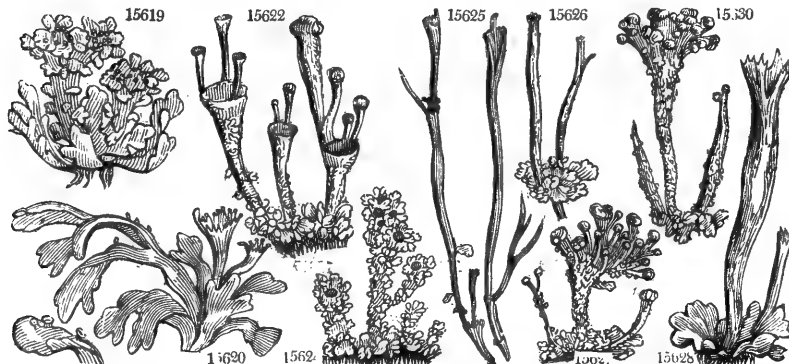
places where this plant is commonly found. This plant is the Orcharl or Argol of the dyers, so celebrated for yielding a fine purple color, for which Cudbear is but a poor substitute.

2348. *Evernia*. *Evernia* signifies tall, or well branched. The name has been well contrived to express the habit of the species, which all form bushy, erect, or pendulous tufts.

2349. *Cenomyce*. From *κενός*, empty, and *μυκη*, a minute fungus, alluding to the hollowness of the little fungus-like receptacles. *Cenomyce rangerferina* : this is the Lichen which, for the greater part of the year, and especially in winter, is the support of the vast herds of rein-deer, in which consists all the wealth of the Laplanders. No vegetable, Linnaeus tells us, grows throughout Lapland in such abundance as this, especially in woods of scattered pines, where, for very many miles together, the surface of the sterile soil is covered with it as with



|       |                                    |                        |                 |                         |        |                |                                     |
|-------|------------------------------------|------------------------|-----------------|-------------------------|--------|----------------|-------------------------------------|
| 15619 | <i>alcicornis Ach.</i>             | buckshorn              | tufts           | $\frac{1}{2}$ wint.     | Gl.    | heaths         | Eng. bot. t. 1392                   |
| 15620 | <i>endiviatfolia Ach.</i>          | endive-leaved          | multifid tufts  | $\frac{2}{3}$ wint.     | Y.G    | dry places     | Eng. bot. t. 2361                   |
| 15621 | <i>cervicornis Ach.</i>            | Stag's Horn            | multifid tufts  | $1\frac{1}{2}$ wint.    | Gl.    | Pentlan.hills  | Eng. bot. t. 2574                   |
| 15622 | <i>pyxidata Ach.</i>               | cupped                 | tufts           | $\frac{2}{3}$ spring    | Gl.    | banks          | Eng. bot. t. 1393                   |
| 15623 | <i>fimbriata Ach.</i>              | fringed                | coralloid tufts | $1\frac{1}{2}$ spring   | Gl.    | moors & hea.   | Eng. bot. t. 2138                   |
|       | $\beta$ <i>radiata Ach.</i>        | <i>radiated</i>        | coralloid tufts | 2 spring                | Gl.    | on the grou.   | Eng. bot. 1835                      |
|       | $\gamma$ <i>cornuta Ach.</i>       | <i>cornute</i>         | coralloid tufts | $1\frac{1}{2}$ spring   | Gl.    | moors & hea.   | Eng. bot. 1836                      |
| 15624 | <i>gonorega Ach.</i>               | degenerating           | tufts           | 1 sum.                  | Cin.   | mountains      |                                     |
|       | $\beta$ <i>anomæa Ach.</i>         | variable               | brittle tufts   | 1 spring                | Cin.   | hills          | Eng. bot. 1867                      |
| 15625 | <i>emocyna Ach.</i>                | leafy                  | fine tufts      | $\frac{2}{3}$ spring    | Gr     | hea. & moun.   |                                     |
|       | $\beta$ <i>gracilis Ach.</i>       | <i>slender</i>         | fine tufts      | $\frac{2}{3}$ spring    | Gr     | hea. & moun.   | Eng. bot. 1284                      |
| 15626 | <i>bacillaris Ach.</i>             | rod-like               | branched        | 2 all sea.              | Wsh    | woods          | E. b. t. 2028. <i>L. filiformis</i> |
| 15627 | <i>digitata Ach.</i>               | fingered               | powdery         | $1\frac{1}{2}$ all sea. | Y.G    | woods          | Eng. bot. 2439                      |
| 15628 | <i>deformis Ach.</i>               | deformed               | branch. tufts   | 3 all sea.              | Sul.   | roots of trees | Eng. bot. 1394                      |
| 15629 | <i>coccifera Ach.</i>              | coccus-bearing         | long tufts      | 3 wint.                 | Gr.G   | moors & hea.   | Eng. bot. 2051                      |
|       | $\beta$ <i>cornucopioides Ach.</i> | <i>cornucopia-like</i> | short tufts     | $1\frac{1}{2}$ wint.    | Gr.G   | moors & hea.   |                                     |
| 15630 | <i>bellidiflora Ach.</i>           | daisy-flowered         | stiff scaly     | 2 wint.                 | Fale   | lofty mount.   | Eng. bot. 1894                      |
| 15631 | <i>sparassa Ach.</i>               | ventricose             | branch. tufts   | 2 all sea.              | Gl.    | in woods       | Eng. bot. 2362                      |
| 15632 | <i>delicata Ach.</i>               | delicate               | mealy patch     | $\frac{1}{2}$ wint.     | G      | rotten rails   | Eng. bot. 2052                      |
| 15633 | <i>racemosa Ach.</i>               | racemose               | loosely bran.   | $1\frac{1}{2}$ all sea. | Gsh    | heaths         | Dill. musc. t. 16. f. 25            |
| 15634 | <i>furecata Ach.</i>               | forked                 | smooth tufts    | $2\frac{1}{2}$ all sea. | Liv.br | woods          | Dil. musc. t. 16. f. 27. A. D       |
|       | $\beta$ <i>subulata Ach.</i>       | <i>subulate</i>        | slightly bran.  | 2 all sea.              | Liv.br | woods          | Dil. musc. t. 16. f. 21. A. B       |
| 15635 | <i>unciatis Ach.</i>               | stiff                  | rigid smooth    | $1\frac{1}{2}$ wint.    | Pa.G   | moors          | Eng. bot. t. 174                    |
| 15636 | <i>rangiferina Ach.</i>            | rein-deer              | much bran.      | 2 all sea.              | Hoa.   | woods          | Eng. bot. t. 173                    |
|       | $\beta$ <i>pungens Ach.</i>        | <i>pungent</i>         | branched tuft   | 2 all sea.              | Gr     | commons        | Eng. bot. 2444                      |
| 15637 | <i>vermicularis Ach.</i>           | vermicular             | little tufts    | 1 sum.                  | W      | high mount.    | Eng. bot. t. 2029                   |



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snow. On the destruction of forests by fire, when no other plant will find nutriment, this Lichen springs up and flourishes, and, after a few years, acquires its greatest size. Here the rein-deer are pastured, and whatever may be the depth of snow during the long winters of that climate, they have the power of penetrating it, and

†† *Thallus foliaceous. Podetia fistular dilated upwards and fertile, or sterile and subulate. Apothecia closed with a membrane. SCYPHOPODIA.*  
\* *Apothecia fuscous or pallid.*

15619 *Thallus foliaceous very pale glaucous green the segments subpalmated ascending obtuse and incurved. Podetia elongated turbinate all cup-bearing smooth the cups regular crenate with the margin at length leafy and proliferous, Apothecia brown*

15620 *Thallus foliaceous large glaucous yellow green white beneath the segments multifid waved crenate crisped, Podetia turbinate elongate mostly simple, Apothecia marginal reddish-brown*

15621 *Thallus foliaceous glaucous green: segments erect multifid narrow repando-subdentate, Podetia cylindrical short glabrous dingy at length black all of them cup-bearing: cups small regular dilated entire nearly plane proliferous from the centre, Apothecia marginal sessile brownish-black*

15622 *Thallus foliaceous: segments crenulated ascending, Podetia all turbinate elongate cup-shaped glabrous at length granulat. warty rough grey. green: cups regular: the margin at length prolifer. Apoth. brown*

15623 *Thallus foliaceous: the segments small crenate, Podetia elongate cylindrical cup-bearing sometimes subulate slightly pulverul. white: cups regular their margins ent. and crenat. at length prolifer. Apoth. brown*  
β *Podetia elongated powdery white, Scyphæ radiant at edge*

γ *Podetia elongate subulate simple or branched pulverulent white sterile or with reddish apothecia*  
15624 *Thallus foliaceous. Segments broadish crenulate cut, Podetia longish smooth somewhat wartyed glaucous or whitish green, Apothecia irregular torn into rays proliferous at edge*

β *Thallus foliaceous ash-colored brittle: segments imbricated minute crenate, Podetia cylindrical rough and foliaceous: cups turbinate closed at length dilated and radiated, Apothecia marginal sessile or stalked brownish-black*

15625 *Thallus foliaceous, Segments small crenate, Podetia long subulate sterile and fertile smooth livid-brown, Apothecia cup-shaped toothed at edge occasionally proliferous*

β *Thallus foliaceous very minute, Podetia elongate subulate sterile and cup-bearing smth. greenish brown: cups toothed at the margin at length proliferous, Apothecia brown*

\*\* *Apothecia scarlet or deep red.*

15626 *Thallus foliaceous small: segm. inciso-lobate crenate, Podetia cylindr. simple and somew. branch. at the extremity greenish white granulated rarely cup-bear. ; cups narr. at length radiat. Apoth. minute scarlet*

15627 *Thallus foliaceous small: segments expanded rounded crenate beneath as well as on the cylindrical yellow green cup-bearing, Podetia pulverulent: cups narrow small at length large with the often branched numerous digitate or rayed proliferations tipped with the bright scarlet apothecia*

15628 *Thallus foliaceous minute: segments broadish cut crenate naked beneath, Podetia long thick subventricose sulphur-colored slightly pulverulent cup-bearing: cups narrow crenato-dentate at length dilated and jagged, Apothecia sessile and pedunculate scarlet*

15629 *Thallus foliaceous minute: segm. rounded crenate nak. beneath, Podetia elongated turbinate naked nearly pale yellow or greyish green all cup-bearing, cups with their margins spreading fertile, Apothecia large at length stalked scarlet*

β *Pode. rather short cup-bearing: cups dilat. crisp. and foliac. term. by the scarlet stalk. Apoth. at leng. prolif.*  
15630 *Thallus foliaceous minute: the segm. inciso-crenate naked beneath, Podetia elongate cylindr. rigid glabr. foliaceo-squamosae pale all cup-bear.: cups narr. their margins fertile and prolifer. Apoth. crowd. scarlet*

††† *Thallus foliaceous. Podetia fistular dilated upwards and fertile. Apothecia pervious. SCHASMARIA.*

15631 *Thallus foliac. minute lobed and crenated, Podetia elongated branch. subventr. granulat. rough with leafy scales cup-bearing: cups irregular pervious dentato-radiate proliferous, Apothecia stalked pale brown*

†††† *Thallus foliaceous. Podetia somewhat fistular, cylindrical, simple, split at end or digitate. Rays all fertile. HELIOPEDIA.*

15632 *Thallus foliaceous with minute granular lobes, Podetia smooth granular pallid divided at end: divisions very short, Apothecia clustered brownish black*

††††† *Thallus foliaceous, scarcely any. Podetia cartilaginous, rigid, fistular, all tapering subulate branched. Axillæ generally bored through. CLADONIA.*

15633 *Podetia elongated smooth at length scaly greenish white inflated curved branched, Branches lax subscend their extremities divergent spinulose, Apothecia pale brown*

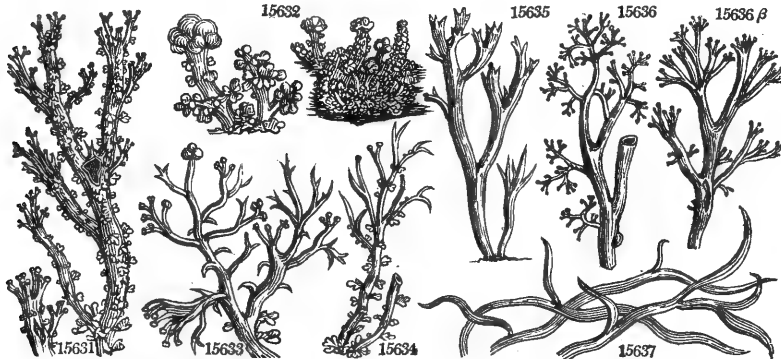
15634 *Podetia elongated smooth livid brown dichotomous, Axils not perforated, Branches narr. subulate curved the extremities forked divergent: fertile ones with brown apothecia*

β *Podetia elong. slender sparingly branch. Branches nearly erect: fertile bran. with brown capitate apoth.*  
15635 *Podetia elongate glabr. pale dichotomous: the axils perforated open; extremities of the branches patent short acute and rigid, Apothecia small terminal brown*

15636 *Podetia elongate cylindr. erect roughish hoary branched: axils often perforated, Branches scattered very much divided spreading the ultimate ones subradiate or drooping, Apothecia subglobose clustered brown*

β *Podetia cinereous dichotomously branched rigid forming a cushion-like tuft, Axillæ not bored through, End of branches mucronate diverging brownish*

†††††† *Thallus none. Podetia soft, subsolid, subulate, somewhat branched. Axillæ not bored through. CERANIA.*  
15637 *Podetia subulate nearly simple smooth very white subfistulose flexuose prostrate*



and Miscellaneous Particulars.

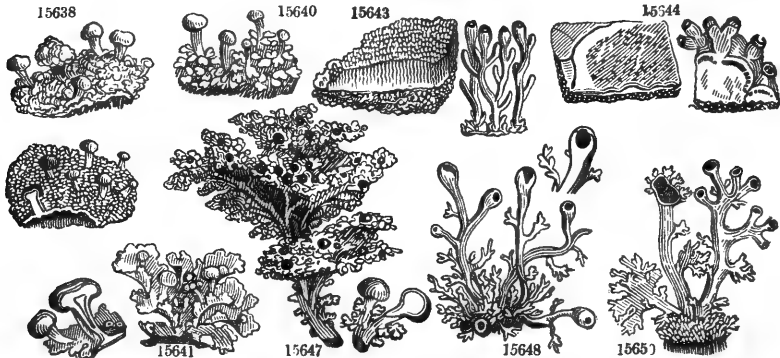
obtaining their necessary food. Linnæus has given a beautiful description of this Lichen, and of the animals whose support it is, in the *Flora Laponica*, p. 332.

*C. pyxidata* is sometimes employed by the poor in the cure of the whooping-cough.

|  |              |               |    |          |           |                |                                     |
|--|--------------|---------------|----|----------|-----------|----------------|-------------------------------------|
| 2350. <i>BEO'MYCES</i> . Ach. <b>BEO'MYCES</b> .         |              |               |    |          | Sp. 4—10. |                |                                     |
| 15638 <i>roseus</i> Ach.                                 | rosy         | granulated    | ½  | sum.     | Gsh       |                | Eng. bot. t. 374                    |
| 15639 <i>rufus</i> Ach.                                  | rufous       | powdery       | ½  | sum.     | Gsh       |                | E. bot. t. 373. <i>L. byssoides</i> |
| 15640 <i>microphyllus</i> E. B.                          | small-leaved | imbric. patch | 3  | wint.    | D.G       | wet heaths     | Eng. bot. 1782                      |
| 15641 <i>cæspititius</i> E. B.                           | turfy        | leafy tuft    | 3  | aut.     | Pa.G      | oaks           | Eng. bot. 1796                      |
| 2351. <i>ISI'DIUM</i> . Ach. <b>ISIDIUM</b> .            |              |               |    |          | Sp. 5—11. |                |                                     |
| 15642 <i>microsticticum</i> Hoo.                         | small        | tartareous    | ½  | aut.     | Brsh      | rocks          | Eng. bot. 2243                      |
| 15643 <i>corallinum</i> Ach.                             | coralloid    | crowded pate. | ½  | aut.     | Grsh      | rocks          | Eng. bot. 1541                      |
| 15644 <i>Westrin'gii</i> Ach.                            | Westring's   | cracked crust | ½  | aut.     | Grsh      | rocks          | Eng. bot. 2204                      |
| 15645 <i>phymatodes</i> Ach.                             | bladdery     | powderycrust  | 3  | wint.    | Pa.Su.    | stems, old tr. |                                     |
| β <i>phragmæ'um</i> Ach.                                 | buff         | powderycrust  | 3  | wint.    | Y.Ol      | stems, old tr. | E. b. 1529. <i>Lepr. lutescens</i>  |
| 15646 <i>coccodes</i> Ach.                               | cracked      | powderycrust  | 2  | aut.     | Pa.Ol     | park pales     | Eng. bot. 1511                      |
| · 2352. <i>STEREOCAULON</i> . Ach. <b>STEREOCAULON</b> . |              |               |    |          | Sp. 1—6.  |                |                                     |
| 15647 <i>paschale</i> Ach.                               | Easter       | branch tufts  | 2  | all sea. | Grsh      | mountains      | Eng. bot. 222                       |
| 2353. <i>SPHÆROPHORON</i> . Ach. <b>SPHÆROPHORON</b> .   |              |               |    |          | Sp. 3—14. |                |                                     |
| 15648 <i>coralloides</i> Ach.                            | coralloid    | bushy         | 1½ | all sea. | Pa.Br     | rocks          | Eng. bot. t. 115                    |
| 15649 <i>fragile</i> Ach.                                | brittle      | bushy         | 1  | all sea. | Grsh      | rocks          | Eng. bot. t. 2374                   |
| 15650 <i>compressum</i> Ach.                             | compressed   | bushy         | 1  | all sea. | Wsh       | rocks          | E. bot. t. 114. <i>L. fragilis</i>  |

HOMOTHALAMI.

|  |                   |              |    |          |           |                |                                    |
|--|-------------------|--------------|----|----------|-----------|----------------|------------------------------------|
| 2354. <i>ALECTORIA</i> . Ach. <b>ALECTORIA</b> .       |                   |              |    |          | Sp. 2—7.  |                |                                    |
| 15651 <i>jubata</i> Ach.                               | mane-like         | long tufts   | 3  | wint.    | Br        | on fir trees   | Eng. bot. t. 1880                  |
| β <i>chalybiformis</i> Ach.                            |                   | long tufts   | 3  | wint.    | Gr.Bl     | on fir trees   |                                    |
| 15652 <i>sarmentosa</i> Ach.                           | sarmentose        | much branch. | 2½ | wint.    | Pa.Y      | mountains      | Eng. bot. t. 2040                  |
| 2355. <i>RAMALINA</i> . Ach. <b>RAMALINA</b> .         |                   |              |    |          | Sp. 5—19. |                |                                    |
| 15653 <i>fraxinea</i> Ach.                             | ashen             | loose tufts  | 2  | all sea. | Grsh      | bran. of trees | Eng. bot. t. 1781                  |
| 15654 <i>fastigiata</i> Ach.                           | clustered         | loose tufts  | 2  | all sea. | Gl.       | rocks & trees  | Eng. bot. t. 890                   |
| β <i>calicaris</i> Ach.                                | <i>calyx-like</i> | loose tufts  | 1½ | all sea. | Gl.       | rocks & trees  |                                    |
| 15655 <i>scopulorum</i> Ach.                           | ivory             | loose tufts  | 1½ | all sea. | Y.Gr      | marinerocks    | Eng. bot. t. 688                   |
| 15656 <i>farinacea</i> Ach.                            | mealy             | bushy tufts  | 2  | all sea. | Grsh      | trun. of trees | Eng. bot. t. 889                   |
| 15657 <i>pollinaria</i> Ach.                           | powdery           | bushy patch  | 3  | all sea. | Bt.G      | old oaks       | Eng. bot. 1607                     |
| 2356. <i>CORNICULARIA</i> . Ach. <b>CORNICULARIA</b> . |                   |              |    |          | Sp. 7—16. |                |                                    |
| 15658 <i>trisétis</i> Ach.                             | dingy             | shrubby      | 1½ | all sea. | Dp.Br     | alpine rocks   | Eng. bot. t. 720                   |
| 15659 <i>aculeata</i> Ach.                             | prickly           | shrubby      | 1  | all sea. | Ches.     | Highl. mou.    |                                    |
| β <i>spadicea</i> Ach.                                 | brown             | shrubby      | 1  | all sea. | Ches.     | Highl. mou.    | E. bot. t. 452. <i>L. hispidus</i> |
| 15660 <i>bicolor</i> Ach.                              | two-colored       | shrubby      | 1  | all sea. | Bl        | Highl. mou.    | Eng. bot. t. 1853                  |
| 15661 <i>ochroleuca</i> Ach.                           | pale-yellow       | shrubby      | 1½ | all sea. | Pa.Y      | Highl. mou.    | Eng. bot. t. 2374                  |



History, Use, Propagation, Culture,

2350. *Beomyces*. From *βαιος*, small, and *μυκης*, a fungus, a name well applied to this genus, which much resembles some minute kinds of *Agaricus* or *Helveia*.

2351. *Isidium*. From *ισος*, equal, in allusion, we presume, to the small difference which exists in size between the podetia and the substance of the frond.

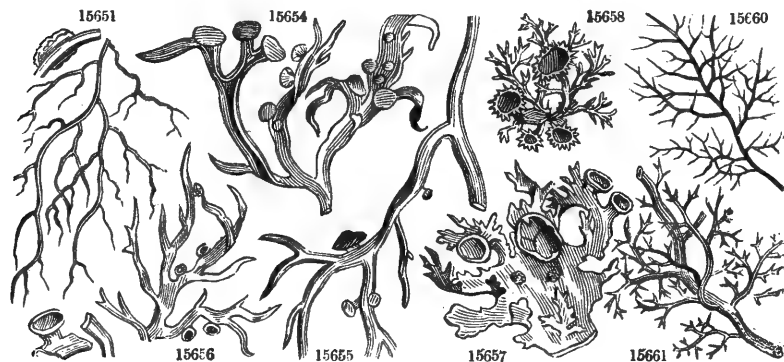
2352. *Stereocaulon*. From *στερος*, hard, and *καυλον*, a stem, a name well adapted to express the peculiarities of this genus. Its firm branching frond is fitted to occupying the interstices of crumbling granite, and the cells of volcanic scoria. It is the first of its tribe which clothes the lava of volcanoes in a state of decay.

2353. *Sphaerophoron*. From *σφαιρα*, a globe, and *φορον*, to bear, in reference to the globular fructification. The most elegant genus of Lichens, at once known by its branched bushy smooth habit, like that of a coralline.

- 15638 Crust unif. granulat. greenish white, Podetia very short cylindr. Apoth. subglob. wrinkl. pale flesh-color  
 15639 Crust uniform rugose granulat. and pulverulent greenish white, Podetia very short somewhat compressed, Apothecia flatish at the top sometimes conglomerate reddish brown  
 15640 Leaves minute somewhat imbricated rounded nearly entire, Podetia simple tubular smooth  
 15641 Thallus clustered ascending leafy pinnatif. cut and crisped : bright green above ; white beneath, Tubercles from the disk of leaves convex reddish brown  
 15642 Crust tartareous cracked smoothish nearly even of a brownish cream-color thinner towards the edges, Podetia scattered short hemispherical simple of the same color as the crust, Apothecia brownish  
 15643 Crust tartareous greyish white, Podetia at length elongat. round. simple or branch.  
 15644 Crust tartareous thin unequal cracked and greyish, Podetia subglobose at length cylindrical simple and branched, Apothecia dark-brown  
 15645 Crust cracked areolate warty a little powdery unequal pale sulphur-color, Podetia becoming cylindrical simple and branched, Apothecia yellowish brown  
 β Crust powdery sulphureous-green, Podetia roundish of the same color, Apothecia pale yellow  
 15646 Crust somewhat cracked powdery and hoary, Podetia subglobose papillæform very close together, Apothecia brown hoary  
 15647 Thallus greyish branch. and rough with granulat. excrescences, Branches crowded and very much divided, Apothecia scattered and terminal at length convex conglomerate blackish brown  
 15648 Thallus palish-brown, Branches lateral elongate lax divaricat. and forked acumi. Apoth. subglobose smth.  
 15649 Thallus greyish branched, Branches dichotomous short crowded fastigiate naked rounded rather obtuse, Apothecia gibboso-turbinate somewhat warted  
 15650 Thallus whit branch. Branc. compress. ramulose subfibrill. naked, Apoth. subglob. depress. and smth. above

## HOMOTHALAMI.

- 15651 Thallus rounded somewhat shining livid-brown very much branched, Branches filiform compressed at the axils, Apothecia of the same color, at length convex entire at the margin  
 β Thallus and subsimple branches flexuose or tortuose complicated rather rigid greyish-black decumbent  
 15652 Thallus roundish angular somewhat pitted dichotomous pale-yellowish : the extremities much branched lax and slender, Apothecia rather concave livid pruinose, at length flattened  
 15653 Thallus plane linear lacinated greyish-white glabrous but rugose and pitted subreticulated : the ultimate branches attenuated, Apothecia mostly marginal plane pale flesh-colored  
 15654 Thallus compressed glabrous pitted branched glauc. white, Branches thickened and fastigiata upwards, Apothecia numerous terminal peltate subsessile white  
 β Thallus and branches elongated, Branchlets cylindrical attenuated pitted and channelled, Apothecia subterminal appendiculated beneath  
 15655 Thallus compressed glabrous somewhat pitted branched yellowish-grey, Branches linear attenuated, Apothecia scattered on short stalks of the same color as the thallus  
 15656 Thallus compressed glabrous somewhat pitted bearing powdery warts rigid branched greyish or greenish-white, Branches linear attenuated, Apothecia scattered on short stalks plane somewhat margin. whitish  
 15657 Thallus flat somewhat membranous smooth a little pitted white torn, occasionally powdery with dilated fat soredia, Apothecia nearly terminal very large  
 15658 Thallus deep pitchy-brown rounded or subcompressed smoothish distichously dichotomous, Branches fastigiate black above, Apothecia plano-convex blackish-brown somew. margined entire and toothed  
 15659 Thallus glabrous chestnut-brown round. angular pitted and subcompressed naked, Branches and branchl. divaricated flexuose aculeated, Apothecia reddish-brown : the circumference somewhat toothed  
 β Thallus glabrous chestnut-colored plano-compressed somewhat pitted with the margins denticulate, Branches and branchlets short patent attenuated, Apothecia spinose-radiate reddish-brown  
 15660 Thallus black rounded capill. suberect branched, Branches fine short. scatter. pat. : extrem. curved grey.  
 15661 Thallus glabrous pale yellowish-white roundish suberect branched, Branches short attenuated blackish at the points, Apothecia brownish pale in the circumference



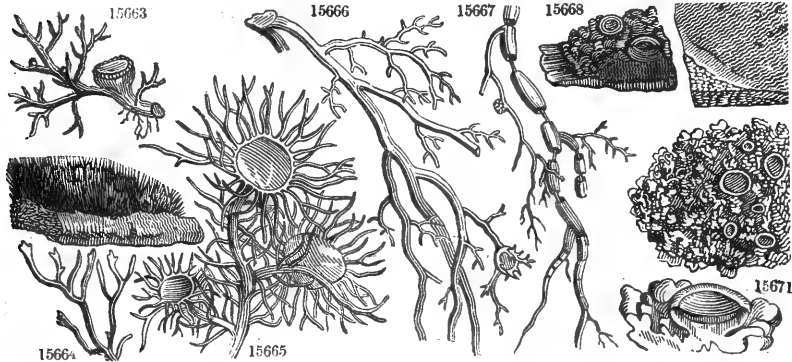
## and Miscellaneous Particulars.

2354. *Alectoria*, seems to derive its name from *αλεκτρον*, unmarried, because nothing has been made out respecting the male flowers. *A. usneoides* is a species which grow on trees in warm countries, such as Asia, Africa, and America, hanging down in branches from six to eighteen inches long : it was used by the Arabian Physicians as a cordial, and also for the purpose of procuring sleep. *A. fubata* occasionally supplies the reindeer with food ; for which purpose the Laplanders cut down the trees, that the Lichen may be devoured from the topmost branches.

2355. *Ramalina*. This name does not appear to have any obvious meaning. The species are little bushy tufts generally covered with soredia. They are found in all parts of the world upon trees and rocks ; but chiefly upon the former.

2356. *Cornicularia*. So called in allusion to the multitude of little horn-like divisions into which the thallus is divided. Crustaceous branched tufts, with a solid axis.

|                           |             |                |                |                      |        |                |                         |
|---------------------------|-------------|----------------|----------------|----------------------|--------|----------------|-------------------------|
| 15662 lanáta Ach.         | woolly      | shrubby        | $\frac{2}{3}$  | all sea.             | Gr. Bl | rocks          | Eng. bot. t. 846        |
| 15663 pubescens Ach.      | pubescent   | entangl. tufts | 3              | aut.                 | Bl     | rocks          | Eng. bot. t. 2318       |
| 15664 heteromálla E. B.   | variable    | rough patch    | 3              | aut.                 | Bl     | bark of trees  | Eng. bot. 2246          |
| 2357. US'NEA. Ach.        | USNEA.      |                |                |                      |        |                |                         |
| 15665 florida Ach.        | flowering   | erect          | $2\frac{1}{2}$ | Sp. 3-10.<br>wint.   | Gsh    | old trees      | Eng. bot. t. 872        |
| 15666 plicáta Ach.        | plaited     | pendulous      | 4              | wint.                | Gsh    | old trees      | Eng. bot. t. 257        |
| $\beta$ háirta Ach.       | hairy       | nearly erect   | 2              | wint.                | Gsh    | old trees      | Eng. bot. t. 1354       |
| 15667 barbáta Ach.        | bearded     | pendulous      | 4              | wint.                | Gsh    | old trees      | Eng. bot. t. 258. f. 2  |
| $\beta$ articuláta Ach.   | jointed     | pendulous      | 4              | wint.                | Gsh    | old trees      | Eng. bot. t. 258. f. 1  |
| 2358. COLLEMA. Ach.       | COLLEMA.    |                |                |                      |        |                |                         |
| 15668 nígrum Ach.         | black       | regular patch  | 3              | Sp. 27-41.<br>wet w. | Bl. G  | calcar. rocks  | Eng. bot. 1161          |
| 15669 cheiléum Ach.       | lipped      | round. patch   | $1\frac{1}{2}$ | wet w.               | BLG    | roots of trees |                         |
| 15670 frágrans Ach.       | fragrant    | small patches  | $\frac{1}{2}$  | wet w.               | D. Ol  | trun. of elms  | Eng. bot. 1912          |
| 15671 crispum Ach.        | crisp       | round. patch.  | $\frac{1}{2}$  | wet w.               | Gl.    | on the grou.   | Eng. bot. 834           |
| 15672 ténax Ach.          | tough       | lobed tuft     | 1              | wet w.               | G      | moist places   | Eng. bot. 2349          |
| 15673 plicátile Ach.      | plaited     | lobed tuft     | 1              | wet w.               | OLG    | wet rocks      | Eng. bot. 2348          |
| 15674 fluviále Ach.       | floating    | many-parted    | $\frac{1}{2}$  | wet w.               | Br     | calcar. rocks  | Eng. bot. 2039          |
| 15675 melé'num Ach.       | blackish    | starry         | $\frac{1}{2}$  | wet w.               | Br     |                |                         |
| $\beta$ margínle Ach.     | marginal    | imbric. lobes  | 1              | sum.                 | Ol     | Highlands      | Eng. bot. 1924          |
| 15676 fasciculáre Ach.    | fascicled   | roundish       | 2              | aut. wi.             | Br     | trun. of trees | Eng. bot. 1162          |
| 15677 cretáceum Ach.      | cretaceous  | minute dots    | $1\frac{1}{2}$ | wint.                | Br     | chalk stones   | Eng. bot. 738           |
| 15678 corrugátum Ach.     | wrinkled    | small patches  | $\frac{1}{2}$  | wint.                | D. G   | rocks, sea co. | Dillenius, t. 19. f. 19 |
| 15679 palmátum Ach.       | palmed      | lobed patch    | 1              | spr. su.             | Br     | sand. ground   | Eng. bot. 1635          |
| 15680 granulátum E. B.    | granular    | imbric. patch  | $1\frac{1}{2}$ | wet w.               | Br     | gravel walks   |                         |
| 15681 multipartitum E. B. | many-parted | lobed patch    | 3              | sum.                 | OLG    | rocks & walls  | Eng. bot. 2582          |
| 15682 saturnínium Ach.    | dingy       | leafy          | 2              | all sea.             | Bl. G  | trun. of trees | Eng. bot. 1980          |
| 15683 Burgéssii Ach.      | Burgess's   | leafy          | 2              | all sea.             | Gl.    | trun. of trees | Eng. bot. 300           |
| 15684 nígréscens Ach.     | blackish    | leafy          | 2              | all sea.             | D. G   | trun. of trees | Eng. bot. t. 345        |
| 15685 fláccidum Ach.      | flaccid     | leafy smooth   | 2              | all sea.             | D. G   | Scotland       | Eng. bot. t. 1653       |
| 15686 fúrvum Ach.         | rough       | rugose memb.   | 2              | all sea.             | D. G   | trun. of trees | Eng. bot. t. 1757       |
| 15687 scotínium Ach.      | naked       | flat patches   | $1\frac{1}{2}$ | sum.                 | Ol     | old walls      |                         |
| $\beta$ sinuátum Ach.     | sinuous     | flat patches   | $1\frac{1}{2}$ | sum.                 | Ol     | old walls      | Eng. bot. 772           |



History, Use, Propagation, Culture.

2357. *Usnea*. This word is said to have originated in the Arabic *áchneh* or *áchnén*, which is, according to Golius, the name by which the Arabian physicians designate Lichens in general. Crustaceous branched tufts, usually hanging down from the substances on which they grow.

- 15662 Thallus decumbent rounded smoothish dichotomous greyish-black, Branches and branch. flexuose intricate forked at the extremity, Apothecia somew. margined plane : circumference naked and granulated  
 15663 Thallus decumbent rounded roughish black, Branches intricate capillaceous : the ultimate ones simple, Apothecia of the same color entire in the circumference  
 15664 Minutely shrubby densely tufted erect entangled cylindrical corymbose black with palish notched tips

- 15665 Thallus nearly erect roughish greenish-grey with very numerous fine horizontal fibres, Branches patent subsimple, Apothecia plane very broad whitish ciliated : the ciliae radiating long  
 15666 Thallus pendulous smooth pale, Branches lax much divided subfibrillose : the ultimate ones capillaceous, Apothecia plane broad ciliated, Ciliae slender very long  
 β Thallus nearly erect somewhat shrubby pale greenish-white very much branched subpulverulent and roughish, Branches very much divided flexuose intricate attenuated subfibrillose  
 15667 Thallus pendulous smoothish rounded thickish pale greenish-grey, Branches divergent here and there fibrillose capillary at their extremity articulated below  
 β Thallus glabrous greenish-grey glabrous, Branches elongate dichotomously divided articulated, Articulations swelling distinct : ultimate branches capillary fibrillose

† Thallus crust-like, irregular, or uniform. PLACYNTHIUM.

- 15668 Thallus crustaceous roundish brown-black : lobes of the circumference cut crenate ; central granular a little branched, Apothecia becoming convex black-edged  
 †† Thallus imbricated, plaited, roundish, composed of minute lobes, becoming very turgid when wet. ENCHYLIIUM.  
 15669 Thallus suborbicular imbricated : lobes thick ; all minute rounded crenulated ascending, Apothecia nearly plane aggregated of the same color as the thallus : the margin crenulated subevanescent  
 15670 Thallus roundish : lobes rounded expanded naked thickened at edge crenate ascending, Apothecia scattered minute concave dull yellow-brown : exterior margin tumid and unequal  
 15671 Suborbicular : the central lobes somewhat erect granulated ; those of circumference depressed larger obt. crenulate, Fructification scattered rather concave reddish with a granulated margin  
 15672 Suborbicular imbricated : lobes thickish flat incumbent roundish cut lobed and crenulate, Apothecia scattered immersed in the lobes and concave rufous with an entire edge  
 15673 Suborbicular imbricated : lobes all thick rounded lobed plaited in circles wavy suberect entire, Apothecia scattered concave whole-colored  
 15674 Thallus cushion-like formed of thick close blunt complicated lobes, Apothecia somew. marginal roundish whole-colored : disk urceolate with a double edge  
 15675 Thallus orbicular somewhat stellated imbricated : lobes cut and lacinated ; margins elevat. waved crisp, and crenulate, Apothecia marginal nearly plane of same color as thallus : their margin granulated  
 β Lobes of the thallus deeply lacinated narrow multifid spreading flexuose nearly plane crenate and lobed, Apothecia marginal and scattered dark-brown their margin entire  
 15676 Thallus suborbicular imbricato-plicate : plaits central erect flexuose, Lobes of the circumference rounded inciso-crenate, Apothecia marginal turbinate fasciculate : disk rather convex reddish  
 15677 Thallus lobed stary dark green, Apothecium central elevated brownish pink with a paler entire margin  
 15678 Thallus thick dark-green with elevated intestine-like convolutions

††† Thallus somewhat foliaceus irregular, formed of naked, expanded, thick, turgid, naked lobes. SCYTIINIUM.  
 15679 Thallus subfoliaceous green-brown-glaucous : lobes thick close palmate cut ; segments somewhat linear round, Apothecia rufous brown

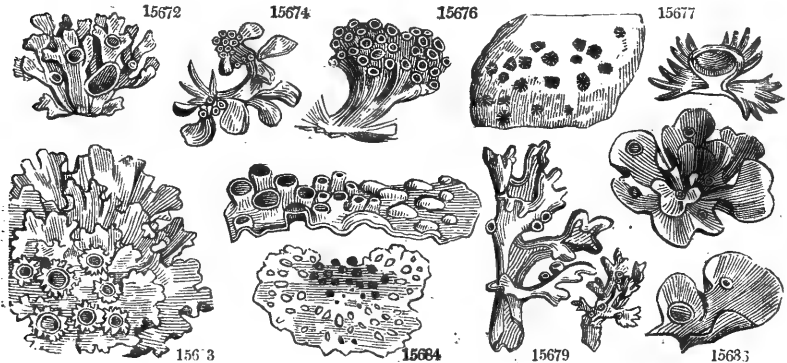
- 15680 Leafy gelatinous fleshy granulated on both sides of a blackish-olive color, its lobes crowded round plaited crisp and cut, Apothecia scattered dark brown  
 15681 Frond radiating fleshy : segments repeatedly forked fan-shaped crenate convex above concave beneath, Shields prominent at length blackish and flat

†††† Thallus foliaceus : lobes rounded, downy or fibrous beneath. MALLOTIUM.

- 15682 Thallus foliaceous blackish-green glaucous and downy beneath, Lobes rounded waved entire, Apothecia scattered elevated plane reddish : their margin entire  
 15683 Thallus foliaceous somew. imbricated glauc. greenish-brown pubescent and somew. spongy beneath, Lobes rounded sinuate crenulat. and crisped, Apoth. depressed planish brown : their margin foliaceous crisped

††††† Thallus foliaceous : lobes somewhat membranous, lax, naked, dark-green. LATHAGRIUM.

- 15684 Thallus foliaceous membranous submono-phyllous orbicular depressed plaited rounded and lobed black-green, Apothecia central crowded at length convex reddish brown their margin entire  
 15685 Thallus foliaceous membranaceous smooth blackish-green : lobes distinct rounded entire lax waved, Apothecia scattered nearly plane reddish : their margin thin entire  
 15686 Thallus foliaceous membranaceous somew. wrinkled complicate blackish-green granulated on both sides : lobes round. unequal waved and crisp. ent. Apoth. scattered plane dark-brown : their margin entire  
 15687 Thallus foliaceous membr. imbr. naked black : lobes small roundish cut nearly entire suberect plaited, Apoth. scattered sessile whole-colored with an entire edge  
 β Lobes sinuate cut crisp toothletted



and Miscellaneous Particulars.

2358. *Collema*. A Greek word signifying a glutinous substance. All the species are gelatinous, and are supposed by Fries to be Algæ in a Licheniform state. *Nostoc caruleum* has been positively stated to be convertible into *Collema limosum*.

|                                |               |                |    |          |       |            |                   |
|--------------------------------|---------------|----------------|----|----------|-------|------------|-------------------|
| 15688 <i>tremelloides Ach.</i> | tremella-like | half transpar. | 1  | spring   | Lead  | rocks      | Eng. bot. t. 1981 |
| 15689 <i>lácercum Ach.</i>     | lacerated     | half transpar. | 1½ | spring   | Gl.   | earth      | Eng. bot. t. 1982 |
| 15690 <i>súbtile Ach.</i>      | subtle        | starry         | 1½ | sum.     | D.G   | earth      | Eng. bot. t. 1008 |
| 15691 <i>tenuíssimum Ach.</i>  | very fine     | flat patch     | 2  | jul. au. | D.OI  | dry banks  | Eng. bot. 1427    |
| 15692 <i>Schradéri Ach.</i>    | Schrader's    | small tufts    | ½  | june     | Y.G   | old walls  | Eng. bot. 2234    |
| 15693 <i>muscicola Ach.</i>    | moss-covering | cushion-like   | ¾  | spring   | Br    | among moss | Eng. bot. 2264    |
| 15694 <i>spongiósum Ach.</i>   | spongy        | large fruit    | 3  | all sea. | Ol.Br | rocks      | Eng. bot. 1374    |

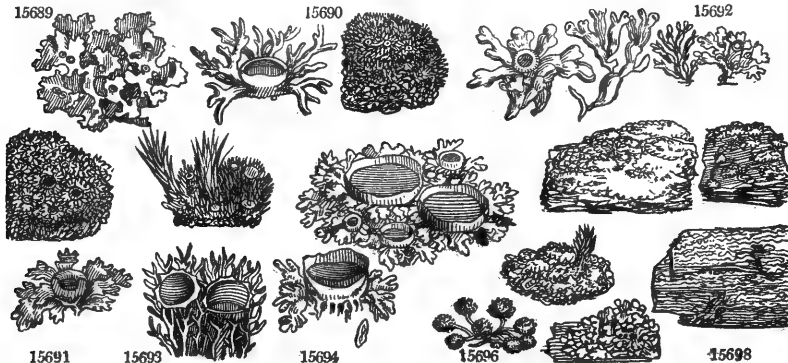
ATHALAMI.

|                             |               |                |   |           |      |           |                |
|-----------------------------|---------------|----------------|---|-----------|------|-----------|----------------|
| 2359. <i>LEPRA'RIA Ach.</i> | LEPRARIA.     |                |   | Sp. 4-13. |      |           |                |
| 15695 <i>chlorína Ach.</i>  | brimstone     | cushion-like   | 2 | wint.     | Sul. | rocks     | Eng. bot. 2038 |
| 15696 <i>háva Ach.</i>      | yellow        | thin coat      | 2 | wint.     | Bt.Y | old pales | Eng. bot. 1350 |
| 15697 <i>ochrácea E. B.</i> | ochre-colored | scatter. warts | ½ | wint.     | G.Y  | old trees | Eng. bot. 2408 |
| 15698 <i>virécens E. B.</i> | greenish      | granular       | ¾ | wint.     | Y.G  | elm trees | Eng. bot. 2149 |

PSEUDO-LICHENES.

|                              |                 |               |    |            |       |                |                                  |
|------------------------------|-----------------|---------------|----|------------|-------|----------------|----------------------------------|
| 2360. <i>OPE'GRAPHA Ach.</i> | OPEGRAPHA.      |               |    | Sp. 10-35. |       |                |                                  |
| 15699 <i>nimbósa Ach.</i>    | cloudy          | variegated    | 1½ | all sea.   | Pa.Y  | old trees      | Eng. bot. 2346                   |
| 15700 <i>venósa E. B.</i>    | veiny           | flat patch    | 1½ | all sea.   | pa.Oc | beeches        | Eng. bot. 2454                   |
| 15701 <i>Persoónii Ach.</i>  | Persoon's       | tartareous    | 2  | all sea.   | Wah   | stones         |                                  |
| <i>β apórea Ach.</i>         | rough           | leprous       | 2  | all sea.   | Wah   | slate & stones |                                  |
| 15702 <i>calcárea Ach.</i>   | limestone       | angular dots  | ½  | all sea.   | Bl    | mort., old w.  | Eng. bot. 1790                   |
| 15703 <i>maculáris Ach.</i>  | spotted         | largish spots | ½  | all sea.   | Brsh  | bark of trees  | E. bot. 2282. <i>O. epiphega</i> |
| 15704 <i>herpética Ach.</i>  | eruptive        | dotted crust  | 1  | all sea.   | Pa.OI | bark of trees  | Eng. bot. 1789                   |
| <i>β disparáta Ach.</i>      | reddish         | mealy crust   | 1  | all sea.   | Pa.OI | bark of trees  | E. bot. 2347. <i>O. rubella</i>  |
| 15705 <i>vulgáta Ach.</i>    | common          | scaly         | 1½ | all sea.   | G.W   | bark of trees  | Eng. bot. 1811                   |
| 15706 <i>epipásta Ach.</i>   | dotted          | smooth skin   | 3  | all sea.   | Gr    | smooth bark    | Eng. bot. 1823                   |
| <i>β microscópica Ach.</i>   | microscopical   | smooth skin   | 3  | all sea.   | OI    | smooth bark    | Eng. bot. 1911                   |
| 15707 <i>stenocárpa Ach.</i> | narrow-fruited  | smooth patch. | 1½ | all sea.   | OI    | smooth bark    |                                  |
| <i>β denigráta Ach.</i>      | black           | smooth patch. | 1½ | all sea.   | Pa.G  | smooth bark    | Eng. bot. 1758                   |
| 15708 <i>nótha Ach.</i>      | spurious        | dotted crust  | 3  | all sea.   | Wah   | old trees      | Eng. bot. 1896                   |
| <i>β díáphora Ach.</i>       | various-fruited | dotted crust  | 3  | all sea.   | Gr    | trun. of trees | Eng. bot. 2280                   |

|                               |             |               |   |            |    |       |                   |
|-------------------------------|-------------|---------------|---|------------|----|-------|-------------------|
| 2361. <i>VERRUCA'RIA Ach.</i> | VERRUCARIA. |               |   | Sp. 11-56. |    |       |                   |
| 15709 <i>maúra Ach.</i>       | blackmoor   | cracked crust | 2 | aut.       | Bl | rocks | Eng. bot. t. 2456 |



History, Use, Propagation, Culture,

2359. *Lepraria.* Because the plants upon which these substances grow have the appearance of being diseased with leprosy.  
 2360. *Opegrapha.* From *opa*, a chink, and *grapha*, to write. The shields or apothecia are cracks upon the surface of the thallus resembling Hebrew or oriental characters upon a pale ground.

- ++++ *Thallus foliaceous* : lobes rounded, membranous, thin, naked, cinereous, glaucous, somewhat transparent. Apothecia slightly eaked. LEPROGIUM.
- 15688 *Thallus foliaceous membranaceous* thin subdiaphanous lead-color obsoletely rugose and dotted : lobes rounded somewhat cut, Apothecia scattered subpedicellate plane reddish-brown : their margin pale
- 15689 *Thallus nearly erect foliac. membr. subdiaphan. subrugose* with obscure reticulations glauc : lobes small subimbr. cut and laciniat. and somew. fringed, Apoth. scattered rather concave red : their margins pale
- +++++ *Thallus very finely laciniated and branched.*
- 15690 *Thallus substellate* : the segments very narrow linear appressed very much branched obtuse, Apothecia central nearly plane of the same color as the crust : their margin thin entire
- 15691 *Thallus subimbricated* : segm. minute linear multifid unequal granular acute much clustered, Apothecia scattered fleshy rufous margined
- 15692 *Thallus subscapitose* : segm. linear flat irregularly subdivided rugose obtuse ; margins repand obsoletely crenated, Apothecia scattered of the same color
- 15693 *Thallus pulvinate brown, Branches rounded nearly erect flexuose uneven subfastigiate rather obtuse, Apothecia nearly terminal plane brown margined*
- 15694 *Thallus dull-green* : segm. aggregate branched granular cylindrical obtuse, Apothecia scattered concave brown : externally spongy and pale with an erect thin margin

ATHALAMI.

- 15695 Crust thick pulvin. bright sulphur-color composed of a dust-like substance collect. into somew. hairy glob.
- 15696 Crust spreading equal thin somewhat cracked bright-yellow composed of subglobose granules
- 15697 Crust not discernible, Fructification of an ochrey-yellow collected into thin scattered patches
- 15698 Crustac. granulated continuous somewhat gelatin. : greyish dull-green when dry ; bright-green when wet

PSEUDO-LICHENES.

- † *Disk of apothecia very narrow, crack-like, somewhat covered in by the conniving tumid margins.* HYSTERINA.
- 15699 Crust somew. cracked unequal very white, Apothecia clustered minute oval-oblong turgid : disk closed
- 15700 Crust tartareous determined reddish-white, Clefts immersed convex without any elevated border repeatedly branched curved parallel and equidistant
- 15701 Crust tartareous smoothish coherent uneven whitish, Apothecia innate oblong : disk resembling a cleft, at length rugose waved plaited dissimilar rather confluent with the disk irregular somewhat dehiscent
- β Crust tartareous or leprouse uneven pulverulent, Apothecia roundish dissimilar waved plaited tortuose and variously expanded in the disk
- 15702 Crust tartareous powdery very white, Apothecia longish straight swelling opaque collected in a stellate manner : disk like a crack
- 15703 Crust very thin brownish-black, Apothecia minute much crowded roundish elliptical, at length rugose irregular : disk very narrow
- 15704 Crust somewhat membranous very finely cracked rugose roughish cinereous-brown, Apothecia minute innate clustered convex elliptical oblong straight with a crack-like disk
- β Crust membranous smoothish pale-olive or green and rufous-brown, Apothecia variable roundish oblong straight and curved
- 15705 Crust between cartilaginous and membranaceous somewhat scaly smoothish greyish-white, Apothecia sessile long or roundish waved somewhat shining with the disk very narrow
- 15706 Crust very thin of a regular figure polished cinereous, Apothecia innate minute convex rugulose opaque various : smaller dot-like ; longer very slender flexuose somewhat branched
- β Crust very thin shin. pale-olive, Apothecia subellipt. simp. somew. parallel becoming stellate and angular
- 15707 Crust membranous polished somewhat bordered whitish, Apothecia sessile various : the smaller globose or oblong ; larger very long narrow roundish flexuose
- β Crust regular membranous whitish, Apothecia sessile close together somewhat shining longish flexuose simple and branched : disk somewhat channelled
- ++ *Disk of apothecia concave, channelled, or flat, appearing between the separated margins.* ALEXORINA.
- 15708 Crust cartilagin. lep. white, Apothecia scatter. sess. round, and oval deform. : disk flat becoming convex
- β Crust cartilaginous membranous dirty-white ash-color, Apothecia variable sessile oblong and tapering at each end opaque : disk flat
- +++ *Thallus cartilaginous, membranous, contiguous, polished.* LICOPHLEA.
- 15709 Crust very thin smooth much cracked very black, Apothecia very minute subglobose immersed : the extremity prominent umbilicated ; nucleus blackish

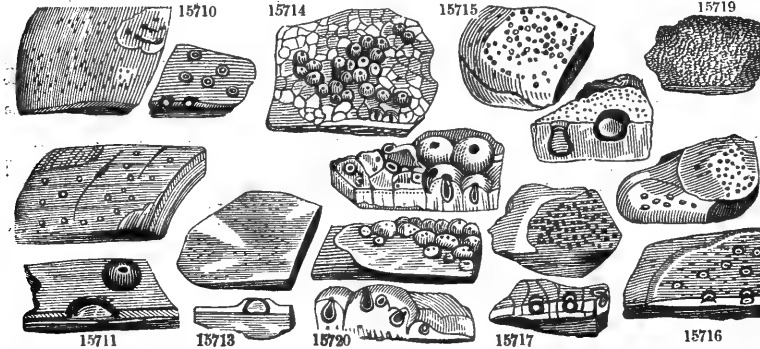


and Miscellaneous Particulars.

2361. *Verrucaria*. Thus called, from *verruca*, a wart, on account of the verrucose nature of the shields. Schrader says, this genus differs from the similar *Eudocarpon* in having the shields always closed, while the latter explodes its contents by a small but distinct orifice.



|                         |               |                |    |                |                 |                                    |
|-------------------------|---------------|----------------|----|----------------|-----------------|------------------------------------|
| 15710 punctifórmis Ach. | dot-like      | thin coat      | 2  | all sea. Br    | sm. ash bark    | Eng. bot. 2412                     |
| 15711 analépta Ach.     | little-dotted | thin coat      | 3  | all sea. Br    | sm. oak bark    | Eng. bot. 1848                     |
| 15712 epidérmidis Ach.  | Epidermis     | thin coat      | 1  | all sea. W     | birch bark      |                                    |
| 15713 stigmatélla Ach.  | cinereous     | thin coat      | 3  | all sea. Pa.Br | smooth bark     | Eng. bot. 1891                     |
| 15714 ceuthocárpa Ach.  | cracked       | tessellated    | 4  | all sea. Pa.Ol | slate rocks     | Eng. bot. 2372                     |
| 15715 Schradéri Ach.    | Schrader's    | dotted crust   | 4  | all sea. Wsh   | calca. stones   | Eng. bot. 1711                     |
| 15716 Harrimánni Ach.   | Harrimann's   | small patches  | 1  | all sea. Br.Ol | hard rocks      | Eng. bot. 2539                     |
| 15717 plúmbea Ach.      | lead-colored  | lobed patches  | 1½ | all sea. Ol    | limest. rocks   | Eng. bot. 2540                     |
| 15718 striátula Ach.    | striated      | cloudy spots   | ¾  | all sea. Pa.G  | flints          |                                    |
| β acrotélla Ach.        | düny          | cloudy spots   | ¾  | all sea. Pa.G  | flints          | Eng. bot. 1712                     |
| 15719 epigéa Ach.       | ground        | mealy tessell. | 1½ | all sea. G     | dry banks       | E. b. 1681. <i>L. terrestris</i> . |
| 2362. PORI'NA. Ach.     | PORINA.       |                |    |                |                 |                                    |
| 15720 pertúsa Ach.      | bored         | crust          | ½  | aut. Cin.      | bark of trees   | Eng. bot. 677                      |
| 2363. ARTHO'NIA. Ach.   | ARTHONIA.     |                |    |                |                 |                                    |
| 15721 impolíta E. B.    | dull          | spotted patch. | ½  | all sea. Rsh   | trun. of trees  | Eng. bot. 981                      |
| 15722 Swartzíána Ach.   | Swartz's      | cracked crust  | 1½ | all sea. Wsh   | smooth bark     | Eng. bot. 2079                     |
| 15723 astroídea Ach.    | astroid       | membranous     | ½  | all sea. Cin.  | smooth bark     | Eng. bot. 1847                     |
| 15724 obscúra Ach.      | obscure       | warty          | 3  | all sea. D.Ol  | bar. of old tr. | Eng. bot. 1752                     |
| 15725 líncea Ach.       | speckled      | broad masses   | 3  | all sea. Wsh   | bar. of old tr. | Eng. bot. 809                      |
| 2364. GRA'PHIS. Ach.    | GRAPHIS.      |                |    |                |                 |                                    |
| 15726 scripta Ach.      | written       | shining crust  | 1½ | all sea. Grsh  | smooth bark     | Eng. bot. 1813                     |
| β pulverulénta Ach.     | powdery       | thin crust     | 2  | all sea. Pa.Y  | trees           | Eng. bot. 1754                     |
| γ Cerasi Ach.           | Cherry-tree   | thin crust     | 3  | all sea. Y     | old cher. tre.  | Eng. bot. 2301                     |
| 15727 dendrítica Ach.   | Tree-like     | smooth patch.  | 1½ | all sea. Y     | smooth bark     | Eng. bot. 1756                     |
| 15728 serpentiná Ach.   | serpentine    | even crust     | 3  | all sea. Pa.Ol | smooth bark     | Eng. bot. 1755                     |
| 15729 Lyélli Ach.       | Lyell's       | cracked crust  | 4  | all sea. Pa.Ol | rugged bark     | Eng. bot. 1876                     |
| 15730 élegans Ach.      | elegant       | uneven crust   | 3  | all sea. Pa.Y  | smooth bark     | Eng. bot. 1812                     |

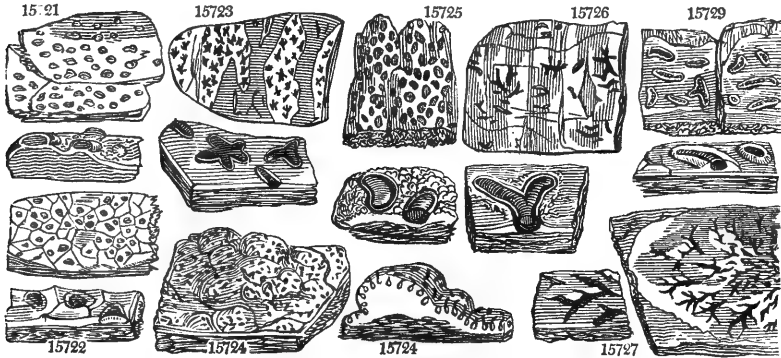


History, Use, Propagation, Culture,

2362. *Porina*. From *περινοσ*, any thing that crumbles away, a name applied in consequence of the nature of the crust of these plants, which, indeed, is common to them with other Lichens.

2363. *Arthonia*. A name, the meaning of which is unexplained. The species are similar in habit to *Spiloma* and *Opegrapha*.

- 15710 Crust very thin determined polished brown. Apothecia min. hemisph. glob. without orifices : kernel white  
 15711 Crust membranous determined shining somewhat olive-colored, Apothecia subsessile scattered hemispherical conoid papillose : kernel compressed somewhat membranous white  
 15712 Crust exceedingly thin spreading quite white, Fructification minute roundish subelliptical, Tubercles semi-immersed : the inter white  
 15713 Crust thin cartilaginous membranous polished becoming cracked whitish, Apothecia minute hemispherical clustered subconfluent with scarcely any orifice  
 †† *Thallus nearly solid, somewhat gelatinous.* BLENNORINA.  
 15714 Crust somewhat gelatinous roundish broken dark crenate cut radiated in the circumference, Apothecia subglobose immersed papillose at end  
 ††† *Thallus subtartareous, crustaceous, contiguous, cracked into areolæ, or powdery.* LITHOCIA.  
 15715 Crust tartar. contig. whitish, Apothecia minute clustered immersed subglobose dirty transparent inside  
 15716 Crust tartareous contiguous bordered finely dotted mouse-color, Apothecia minute subglobose immersed with a prominent papilla : dirty-white inside  
 15717 Crust tartareous contiguous finely cracked subrugose lead-color, Apothecia subglobose innate finely becoming depressed and scutelliform  
 15718 Crust with the figure of a tree greenish-black bordered, Areolæ nearly separate somewhat branched radiating, Apothecia conoid becoming concave above  
 β Areolæ of the crust dispersed deformed brownish-black  
 †††† *Thallus soft, cottony, somewhat spongy, or thin and arachnoid.* INODERMA.  
 15719 Thallus thin somew. fibrous uneq. pale-yell. Apothecia minute globose immersed with a prominent orifice  
 15720 Crust equal polished whitish ash-colored, Warts of apothecia subglobose, Orifices several depressed black  
 15721 Crust white powdery and cracked, Tubercles numerous depressed oblong irregular obtuse yellowish-brown clothed with deciduous mealliness  
 15722 Crust cartilagin. membr. white, Apoth. sess. broad. tum. round. rep. irreg. and conf. dark with elevat. dots  
 15723 Crust membr. pale cinereous and glaucescent, Apoth. flatten. upon the crust plane angular substell. black  
 15724 Crust membr. somew. olive-col. Apoth. min. flat concav. somew. membr. oval-ellipt. and renif. wrink. dark  
 15725 Crust thin subtartareous equal somewhat cracked white, Apoth. clustered flat somewhat immersed round oblong and curved black casious  
 15726 Crust membranac. smooth somew. shining white or greyish-brown bordered with black, Apothecia half immersed naked flexu. simple or branch. : disk very narr. marg. formed of the thallus raised membranac.  
 ♂ Crust effuse membr. whitish, Apoth. emerging flexuose with a channelled dehiscent casious disk with an elevated tumid margin  
 γ Crust very thin hoary glaucous shining, Apothecia emerging straight long nearly simple acuminate somewhat parallel : disk channelled  
 15727 Crust somewhat cartilaginous unequal very white, Apothecia immersed flexuose branched black : branches divergent forked acute, Disk broad flat naked  
 15728 Crust cartilaginous membranous unequal rugulose of a regular figure white and cinereous, Apothecia immersed long clustered flexuose nearly simple and branched  
 15729 Crust membranous polished pale-olive, Apothecia clustered nearly simple curved turgid obtuse : disk broad convex cinereous pruinose with a thick powdery white margin  
 15730 Crust orbicular granular smooth white, Apothecia immersed scattered short straight nearly simple : margin of the perithecium with a longitudinal furrow



and Miscellaneous Particulars.

2364. *Graphis*. From γράφω, to write. The apothecia are extremely similar in form to the characters of some strange language. It is very near *Opegrapha* from which it does not at all differ in habit.



*Reproductive organs uniform. Sporules (e) arranged in tubular cells (f) placed in some parts of the external surface. Substance various (g), mostly thick and fleshy, sometimes vesicular. Frond none*

In speaking of the eighth order, Lichens, it has been observed, that they, Algæ and Fungi, might be considered collateral. But perhaps Fungi should be estimated as still lower in the scale of creation than Lichens. From some passages in the writings of a celebrated Swedish author upon Fungi, Mr. Fries, whose mode of arrangement is almost entirely adopted here, it would seem as if he considered the three orders to consist of the same beings altered by the material on which they grow, and organized according to the different elements upon which they depend for support. Algæ, he observes, which are much extended in their native element, water, when exposed to the air, contract and become Lichens. Thus *Nostoc muscorum* becomes *Collema limosum*, &c.; and Sir James Smith has even decided, that *Lichina pygmaea* when growing under water is an Alga, and when above water a Lichen. But the differences between Fungi and Algæ, or Lichens, are greater, and arise out of their essence; that of Fungi being always reproductive, of Algæ primitive. In Algæ, the thallus is the most essential part, and the reproductive organs of secondary importance; in Fungi, the whole plant is generally a mass of reproductive matter, and the thallus always accidental. Fungi always grow upon dead vegetable matter; Lichens always upon living vegetation. The bark which, when living, bears Lichens, produces Fungi as soon as it begins to decay: and even on the same half-dead branch, the living side will be found occupied by Lichens, and the dead by minute Fungi. The lowest Fungi are considered by Fries, to bear the same relation to plants as Entozoa to animals; for which reason, he is of opinion, that all infusorial plants are Fungi, and not Algæ. But this may be doubted. The number of Fungi which may be conceived to exist is incalculable. Multitudes have been discovered by the researches of modern observers, and multitudes still remain to be detected, especially in extra-European countries. In Sweden, in the small space of a square furlong, where the number of Phanogamous plants was 420, and of Lichens and Algæ 430, Fries discovered more than 2000 species of Fungi.

The most celebrated writers on Fungi are Micheli, Schæffer, Bulliard, Bolton, Sowerby, and Greville, for figures; and Persoon, Link, Nees von Esenbeck, Fries, and Greville, as systematists.

Link defines the essence of a Fungus to be sporules disposed in a series, in elongated tubular cells; the cells situated in some part of the external surface. The part in which the reproductive organs are placed is called the *hymenium (a)*, the hollow base from which the stem or *stipes (a)* arises is named the *volva (b)* or *wrapper*; the upper part is the cap or *pileus (c)*, which is provided on the inferior surface with thin radiating expansions, which are termed gills or *lamellæ*, among which the sporules are situated. Many Agarics have a delicate fringe connecting the margin of the pileus at a certain age with the stem; this is called the veil (*d*), and is either general (*universale*), when adnate with the surface of the pileus, but becoming obsolete with age; or it is partial when it extends only from the margin of the pileus to the stipes. The *annulus (d)* is a kind of veil, which is sometimes fixed to the stem, at others free and capable of being moved upwards and downwards. The Peridium, Perithecium, or Perisporium, are different names for the envelope immediately enwrapping the sporules.

#### TRIBE I. HYMENOMYCETES.

*Hymenium naked.*

#### Class I. HYMENINI v. AGARICINÆ.

*Hymenium distinct. Receptacle long or expanded, superior.*

#### Division I. Pileati.

*Receptacle dilated, occasionally branched, having a tendency to an orbicular form. Hymenium inferior. Ascii fixed.*

2365. *Agaricus.* Hymenium in lamellæ. Lamellæ simple, parallel.

\* *Stem central, with a veil. Gills unchangeable. Sporidia white.*

- § 1. *Amanita.* Veil double, universal separate, partial annular somewhat persistent.
- § 2. *Lepiota.* Veil simple, universal, concrete, annular, somewhat persistent.

#### Observations.

Tribe I. *Hymenomyces.* This tribe is readily distinguished from the others by its hymenium containing sporules within the surface, and not naked; from the *Pyrenomyces* by the want of a perithecium and a reproductive nucleus; from *Gasteromyces* by the want of a peridium inclosing the sporules, which constitute the mass of the fungus, and from the *Hypomyces* and *Coniomyces* by the sporidia not being exposed.

Division I. *Pileati.* This constitutes the most extensive division in Fungi, and includes almost every thing which was known to the ancients. Dioscorides mentions one or two species distinctly, comprehending the remainder among his eatable and unwholesome kinds. Pliny talks of the very numerous kinds of fungi, but describes very few. C. Bauhin knew about sixty, which he chiefly obtained from Clusius; Tournefort had two genera and eighty-seven species; Micheli six genera and about 800 species; Linnæus three genera and fifty species; Persoon, in his Synopsis, mentions nine genera and 683 species; finally, Fries describes more than a 1000 species arranged under many genera and subgenera.

The species are widely scattered over all Europe, but the extra European fungi, with the exception of those

- { 3. *Armillaria*. Veil simple, partial, separate, annular, somewhat persistent.  
 { 4. *Limacium*. Veil very fugacious, viscid. Lamellæ adnate, decurrent.  
 { 5. *Trichotoma*. Veil very fugacious, flocculose, marginal. Lamellæ emarginate or rounded.  
     \*\* *Stem central, naked. Gills unchangeable. Sporidia white.*  
 { 6. *Russula*. Pileus fleshy, becoming depressed. Lamellæ equal, juiceless.  
 { 7. *Galerohæus*. Pileus fleshy, becoming depressed. Lamellæ unequal, milky.  
 { 8. *Clitocybe*. Pileus fleshy, when young convex. Lamellæ unequal, juiceless.  
 { 9. *Collybia*. Pileus fleshy-membranous, flattish. *Small, dry.*  
 { 10. *Mycena*. Pileus membranous, campanulate. *Slender. Stipes hollow.*  
 { 11. *Omphalia*. Pileus membranous or fleshy-membranous, when young umbilicated.  
     \*\*\* *Stem out of the centre, none. Gills unchangeable. Sporidia white.*  
 { 12. *Pleurotus*. Pileus out of the centre or lateral.  
     \*\*\*\* *Stem always central. Veil 0. Gills changing color. Sporidia rose-colored.*  
 { 13. *Moucerom*. Pileus fleshy, becoming depressed. Lamellæ long, decurrent. *Odor of new flour.*  
 { 14. *Clitopilus*. Pileus fleshy, convex.  
 { 15. *Leptonia*. Pileus fleshy, membranous, from convex becoming plane. *Small.*  
 { 16. *Nolanea*. Pileus membranous, campanulate. *Slender. Stipes hollow.*  
 { 17. *Eccitia*. Pileus umbilicate. *Lamellæ adnate.*  
 \*\*\*\*\* *Stem always central. Veil like cobweb. Gills changing color, becoming dry. Sporidia ochre-colored.*  
 { 18. *Telamonia*. Veil annular, woven, somewhat persistent. Lamellæ distant.  
 { 19. *Inoloma*. Veil fugacious. Lamellæ emarginate. Stipes bulbous. *Color something of violet.*  
 { 20. *Dermocybe*. Veil fugacious. Lamellæ closely packed. Stipes equal.  
     \*\*\*\*\* *Veil distinct, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.*  
 { 21. *Pholota*. Veil dry, annular.  
 { 22. *Mycacium*. Veil viscid, fugacious. Lamellæ affixed.  
 { 23. *Hébloma*. Veil marginal, fugacious. Lamellæ emarginate.  
 \*\*\*\*\* *Veil very fugacious or spurious, not like a cobweb. Gills discolored, somewhat persistent. Sporidia ferruginous.*  
 { 24. *Flammula*. Pileus fleshy, convex, smooth, somewhat viscid. *Lamellæ not emarginate.*  
 { 25. *Inocybe*. Veil formed of the longitudinal fibres of the fleshy convex pileus. *Lamellæ whitish.*  
 { 26. *Naucoria*. Pileus fleshy, membranous, flattish, squamulose. *Small. Lamellæ cinnamon-colored*  
 { 27. *Galera*. Pileus membranous, campanulate. *Slender. Stipes hollow.*  
 { 28. *Tapinea*. Pileus umbilicate, villous at edge.  
 { 29. *Crepidotus*. Pileus out of the centre or sessile.  
     \*\*\*\*\* *Veil present, not unlike a cobweb. Gills becoming discolored, cloudy, dissolving. Sporidia brownish-purple.*  
 { 30. *Volvaria*. Veil universal, separate. *A volva.*  
 { 31. *Psalliota*. Veil annular.  
 { 32. *Hypoholoma*. Veil marginal, fugacious. Lamellæ emarginate. *Stipes bulbous.*  
 { 33. *Psilocybe*. Veil very fugacious. Pileus somewhat fleshy, and stipes equal, tenacious.  
 { 34. *Psatyra*. Pileus somewhat membranous, and stipes brittle.  
 { 35. *Coprinarius*. Lamellæ with a tendency to deliquesce. Veil partial. *Sporidia black.*  
 2366. *Coprinus*. Hymenium in lamellæ, which finally become deliquescent. Asci separate with sporidia in four rows.  
 2367. *Gomphus*. Hymenium in lamellæ, which are long branched and decurrent. Pileus turbinate, umbonate.  
 2368. *Cantharellus*. Hymenium veined. Veins dichotomous, subparallel, sometimes anastomosing.  
 2369. *Merulius*. Hymenium veined. Veins flexuose, or forming very irregular pores. Plants sessile, resupinate or effused.  
 2370. *Schizophyllum*. Hymenium in lamellæ. Lamellæ bifid, lengthwise revolute.  
 2371. *Dædalea*. Hymenium sinuous, composed of anastomosing lamellæ or flexuose elongated pores.  
 2372. *Polyporus*. Hymenium porous, not separable from the substance of the pileus nor the pores from each other. Pores sometimes lacerating in age. Pileus very rarely with a central stipes.  
     { 1. *Favolus*. Pores ample, with four or six angles resembling an honeycomb.  
     { 2. *Microporus*. Pores minute, roundish.  
     { 3. *Polysticta*. Dots superficial only.  
 2373. *Boletus*. Hymenium tubular. Tubes separable from the pileus and from each other. Pileus always with a central stipes.  
 2374. *Fistulina*. Hymenium tubular. Tubes loose, the young ones closed.  
 2375. *Hydnum*. Hymenium subulate. Subulæ loose.  
 2376. *Sistotrema*. Pileus carnose, irregularly stipitate. Hymenium composed of dentate, interrupted lamellæ.  
 2377. *Phlebia*. Hymenium rugose, formed of long or confluent papillæ.  
 2378. *Thelephora*. Plant with very few exceptions more or less adnate, thin, coriaceous, very rarely infundibuliform. Hymenium covering the outer surface.  
     2. *Phylacteria*. Sporidia four in a row. *Resupinate and growing on the earth.*  
     3. *Himantia*. Effuse resupinate, when young byssoid. Sporidia few, innate in the hymenium, which is smooth and naked in the middle.  
     4. *Leicostroma*. Resupinate, somewhat contiguous, smooth, or with spuricous papillæ. Asci none.

## Observations.

on the coasts of Barbary, and a few from North America, are almost universally distinct from the European kinds. They are found growing on the earth, or in decayed wood, or similar substances; never upon rocks. Those which have been described as natives of vaults and places underground, are believed to be mere monstrous formations. They are in greatest perfection in warm rainy weather, being chiefly the creations of summer and autumn; a few only appear in the spring, and scarcely any in the winter. The duration of the pileate fungi is often only ephemeral; some last from a week to a fortnight; and a few for a longer time. The *Dædaleæ* and *Polypori* are often called perennial, but it is the opinion of Fries, that their substance decays, and is only covered yearly by a fresh layer of pores. The roots of many of those which grow upon trees is perennial; of others merely annual.

When crude they are mostly poisonous, with a mucilaginous taste, which is often acrid, but they become less dangerous by cooking. The dangerous qualities of some of the kinds is attributable to the larvæ with which they are infested.

Division II. *Clavati*.

*Receptacle long, simple, or branched, with a tendency to a cylindrical form, not margined. Hymenium superior. Asci fixed.*

\* *Hymenium occupying the whole surface. Asci distinct. No distinct stem.*

2379. *Clavaria*. Plant carnose, cylindrical, simple or branched. Hymenium smooth, occupying almost the whole surface, confluent with the stipes.

2380. *Calocera*. Plant branched or simple, cylindrical, homogeneous, corneous, gelatinous, viscid. *Growing on wood.*

\*\* *Hymenium only occupying the end. Asci long. Head separate from stem, simple.*

2381. *Geoglossum*. Hymenium short, club-shaped, mostly compressed, stipitate. Stipes elongated, smooth or hairy. Plants black or dull green.

2382. *Spatularia*. Hymenium club-shaped, separate, compressed, running down the stipes on each side, bearing the asci at the upper end.

2383. *Mitula*. Hymenium clavate, ovate, closely surrounding at the base the stipes, which is distinct.

\*\*\* *Hymenium only occupying the end. Asci obsolete. Head separate from stem.*

2384. *Typhula*. Hymenium thin, subcylindrical, persistent, terminating the capillary stipes.

\*\*\*\* *Hymenium covering the whole surface, but bearing sporules at the end only, without asci.*

2385. *Pistillaria*. Simple, contiguous, linear or clavate. Sporidia emerging at end.

## Class II. UTERINI v. ELVELLACEÆ.

*Hymenium distinct, superior, margined. Receptacle urceolate or reflexed, always inferior.*

Division I. *Mitrati*.

*Receptacle pileiform, bullate, never closed. Hymenium neither margined nor discoid.*

2386. *Morchella*. Pileus lacunose, confluent with the stipes either at the margin or a little above it. Hymenium occupying the whole outer surface.

2387. *Helvella*. Pileus submembranaceous, irregular, smooth on each surface, deflexed at the sides. Hymenium occupying the whole outer surface.

2388. *Verpa*. Pileus conical-deflexed, equal. Hymenium smooth or rugose.

2389. *Leotia*. Pileus ovate-conical or orbicular, wholly occupied by the hymenium, the margin free, but closely embracing the stipes.

Division II. *Cupulati*.

*Receptacle cupulate, equal. Hymenium discoid, when young somewhat closed, surrounded by the margin of the receptacle.*

2390. *Peziza*. Pileus mostly carnose, sessile or stipitate, more or less cup-shaped at length sometimes plane. Hymenium occupying the disk.

§ 1. *Aleuria*. Fleishy, or fleshy-membranous, pruinose or scurfy with flocculent matter, *Usually on earth.*

§ 2. *Lachnea*. Waxy, hairy or villous externally. *Usually on wood.*

§ 3. *Phialea*. Waxy or membranous, rarely gelatinous, smooth, naked. *On wood.*

§ 4. *Helicium*. Planoconvex. *On wood.*

2391. *Ascobolus*. Pileus carnose, cup-shaped or hemispherical. Sporiferous cells in the disk, forming prominent points filled with a fluid intermixed with the eight sporules.

*Observations.*

Division II. *Clavati*. Scarcely any traces of these fungi can be discovered in the writings of the ancients. Clusius described a few. Tournefort confounded them with corals and Lycopodons. Holmskiöld and Persoon are the principal modern writers upon this tribe.

Almost all the species of which there is any certain knowledge are European. The genuine kinds are terrestrial; those which are found upon wood, being transitional to other orders. In vaults or caverns they become unusually developed, and the asci, on account of the excessive supply of moisture, expand and become flocculent. Most are found in the autumn; the branched kinds are often what are termed meteoric, that is to say, spring up suddenly after heavy falls of rain. They seldom last more than fourteen days.

In qualities they are mild, some having a bitter taste, but the greatest number are almost entirely destitute of smell, color, or taste. Many of the large kinds are used in cookery, and are eaten by various herbivorous animals.

Class II. *Uterini*. The natural form of the receptacle is cupulate, but in the most perfect kinds, the cupula is reflexed, and is called a *mitra*; in the least perfect, which are innate in the matrix, the receptacle is almost wholly obliterated. The resupinate *Pileati* are distinguished from these by their immarginate form, and by their asci.

Division I. *Mitrati*. A small division, apparently wholly unknown to the ancients. The species are almost entirely European; a few are found in North America and Siberia. It is probable, however, from the evidence of Loureiro and others, that some peculiar genera and species exist within the tropics. They are generally fond of a humid shady station. None are found in subterraneous places. If an individual is occasionally produced upon wood, it is upon such as is wholly decayed. Many spring up in the autumn and spring; they are rarely meteoric, but some appear in greater abundance in one kind of season than in another. Most of them last for a fortnight, and retain their form when dry.

Their qualities are generally mild, nutritive, and juiceless; one is said to be bitter. They are little infested by larvæ. Several are used as food.

Division II. *Cupulati*. These are included in the Fungoides of the old botanists. The species which are separate from their thallus and much developed, are little changed by the places in which they grow, and are therefore the same in the most remote countries; but the eruptive or innate species, which are more affected by the nature of the substance by which they are fed, are liable to greater changes when their matrix is altered. For it is a general rule, that the more a fungus is innate in the substance which produces it, the more it is not only imperfect, but affected by its situation, and *vice-versâ*. Hence *Cœoma*, which is of a very low order, consists of as many species as the plants upon which it grows, just as a vowel forms as many distinct words as it is combined with distinct consonants.

The *Clavati* and *Pileati*, which chiefly depend upon the access of light, are in perfection from spring to autumn; the *Elvellaceæ* from autumn to spring. The *Cupulati* also depend much upon the operation of light, for in caverns or cellars they remain closed and sphaeria-like. Such is the case with *Peziza cerina*, which in dark places, undergoes many metamorphoses; and *Cenangium* under similar circumstances, when some obstacle is offered to the development of its hymenium, becomes deliquescent. Generally the terrestrial sorts agree in habitude with the preceding divisions; but those which are eruptive are often in perfection for half a year together.

Class III. *Tremellini*. These are nearly akin to the *Pileati* and *Clavati*, especially to *Thlephora* and *Calocera*; and also to *Elvellaceæ*, more particularly to *Hygromitra*, *Peziza*, *Mollisia*, *Bulgaria*, and *Diplotia*, but they are distinguished without difficulty by the characters assigned to them.

Formerly all the genera were confounded under one, along with various species of Lichens and Algæ. These

2392. *Bulgaria*. Cupula closed at first. Asci immersed, with paraphyses, becoming separate and bursting out.  
*Gelatinous*.  
 2393. *Ditola*. Hymenium becoming plaited and deliquescent. Cupula open. Veil universal. *Corky*.  
 2394. *Cenangium*. Hymenium smooth, persistent, rarely deliquescent. Cupula closed, but opening finally.  
*Somewhat coriaceous*.  
 2395. *Stictis*. Hymenium smooth, immersed. Cupula obliterated. *Hymenium persistent*.  
 2396. *Cryptomyces*. Spreading, quite adnate, emerging, nearly plane, carnos. Hymenium covering the whole surface. Thecae erect. Sporida large, oval.

## Class III. TREMELLINI.

*Hymenium confounded with a gelatinous receptacle. Sporida separate. Asci none.*

2397. *Tremella*. Receptacle gelatinous homogeneous, fructifying in all directions, without papillæ. Sporida nearly emerging.  
 { 1. *Coryne*. Fleishy gelatinous, somewhat clavate.  
 { 2. *Phyllopta*. Somewhat cartilaginous, expanded, leafy.  
 2398. *Exidia*. Receptacle gelatinous, homogeneous, covered on the upper surface only by a papillose hymenium. Sporida emitted with elasticity.  
 2399. *Dacrymyces*. Receptacle gelatinous, homogeneous, filled with assurgent flocci, and sporida placed in layers inside. *When young compact, but finally deliquescent*.  
 2400. *Agryum*. Receptacle spherical, smooth, compact, waxy, when humid gelatinous, finally crumbling away in sporida.  
 2401. *Hymenella*. Receptacle flattened, adnate, smooth, like soft leather, very thin, persistent.  
 2402. *Nematelia*. Receptacle gelatinous, surrounding a compact heterogeneous nucleus. Sporida emerging.

## Class IV. SCLEROTIACEÆ.

*Hymenium confounded both with the fleshy receptacle and the sporida. Asci none.*

2403. *Acrospermum*. Elongated, somewhat clavate, with a coat of a similar substance, distinctly fructifying at the end.  
 2404. *Sclerotium*. Subglobose, or without regular form within, homogeneous, vesiculose, carnos, or corneous. Sporules unknown.  
 2405. *Rhizoclonia*. Deformed, united with a similar persistent coat by means of root-like fibres proceeding from all points of its surface.  
 2406. *Periola*. Rootless, fleshy, covered entirely by a villous persistent coat.  
 2407. *Acinula*. Rootless, smooth, with a distinct farinaceous granular coat.  
 2408. *Erysiphe*. Sporangium epiphyllous, very minute, globose, furnished with white radiating subjacent filaments, and containing sporuliferous bodies.

## TRIBE II. GASTEROMYCETES,

*Fungus entirely closed, and bearing sporida in the centre; and so forming an uterus.*

## Class I. ANGIOGASTRES.

*Uterus finally bursting forth, separate from the receptacle. Sporida lodged in the receptacle.*

## Division I. Phalloideæ.

*Receptacle separate, open on account of the bursting of the uterus. Sporida placed in a mucous layer.*

2409. *Phallus*. Stipes issuing from a volva. Pileus furnished with large cells filled with a sporuliferous slimy substance.

*Observations.*

are by modern writers now referred to their proper stations. The genus *Mycoderma* of Persoon, to which are referred those tough skin-like coatings which are found upon vegetable extracts enclosed in bottles, and which is generally placed among Tremellini, is thought by Fries to be not of a vegetable nature.

The species at present known are found in Europe, Asia, and North America, but no material difference seems to be caused in them by their native country. All the species, with one exception, are epiphytes; the most perfect bursting forth from the bark of trees; the least perfect occurring on decorticated wood, the stems of herbs, &c. &c. The more the wood is dried, the nearer the species approach to Lichens; the more it is humid to Algae. They are in perfection in the latter part of autumn, winter, and early spring, but scarcely any are found in the summer. Some live for a month or more; others appear to be perennial. When dry they are not to be recognized; they may nevertheless be preserved, and if moistened, they recover their original appearance. It must be observed, that they are in all cases to be examined in a wet and humid state.

Their qualities are refrigerant, and but little known. They are destitute of smell and taste, for which reason, and on account of their mucilaginous texture, scarcely any species is eatable. Many of the large kinds were formerly used in medicine in cases of ophthalmia, under the name of the "Jew's ear." Vinegar in which they had been steeped was also used as a gargle in tumors of the throat, according to Clusius. *Tremella fimbriata* is said to furnish a dye, and the sporida of *T. mesenterica* to dye yellow. *Dacrymyces destrois* timber.

Class IV. *Sclerotiaceæ*. The affinity of this class is complex; for the lower we descend, the less differences are to be found between natural bodies. Thus Sclerotiacei are not only closely connected with the preceding divisions, but have a more or less obvious relation to all the hymenine and epiphytous classes of other tribes.

Before the time of Tode, a most sagacious observer, who was the first to distinguish the Sclerotia from other fungi, a very few species only were known, which were confounded with *Lycoperdon*, *Sphæria*, *Tuber*, and other genera. He was followed by various other mycologists, and especially by Decandolle, who described thirty-nine species. Tode, Persoon, and Link, have been unable to detect any fructification; Decandolle, Ehrenberg, and Fries, declare that the sporida are scattered through the whole mass of the fungus, and emerge from it like hoar-frost.

Most of the known species are epiphytes, either upon living or recently dead plants. When growing in cellars and subterraneous places they undergo no alteration, but they do not fructify. They flourish most in the winter, late in the autumn, and early in the spring; and are exceedingly common just at the retreat of winter. A very few Spermidia only are found in the summer. Their odor and smell are either inconspicuous or nauseous. None of the species at least are eatable. Those which grow on rotten seeds are exceedingly poisonous. Some feed on the roots of living plants, which they destroy; others infest sickly herbs, whence they are a pest to the farmers.

Tribe II. *Gasteromyces*. These fungi consist of concrete cells; they have a determinate figure and a tendency to a spherical form; at first they are closed, but finally are furnished with an orifice; or burst in an irregular manner, and emit an internal mass of reproductive matter, which either crumbles to pieces or deliquesces. The integument is of various natures, either a volva, a peridium, or perithecium, of a somewhat bladderly texture; and is simple or double, but rarely multiple. They almost all, when young, are flukile or soft, or have some part or another of a fluid nature; afterwards they become indurated and rigid, and assume their true forms.

Class I. *Angiogastres*. These are fungi of remarkable forms, and most unusual mode of fructifying; they were well known to Clusius, not to mention the celebrated Truffie of which Theophrastus had knowledge. They are found in different climates; but the most perfect only in temperate regions. The latter are also

2410. *Balarrea*. Head hemispherical, crumbling to pieces under the vertex into a little tuft of hairs bearing sporules. Stipes smooth. Involucrum triple, flowing with mucilage.

Division II. *Tuberaceæ*.

*Sporangia membranous, scattered in an hymenium which is often grated with veins, and inclosed in the uterus. Sporidia pulpy at first.*

2411. *Tuber*. Uterus closed, marbled with veins inside. Sporangia stalked, scattered among the veins. *Subterraneous.*

2412. *Rhizopogon*. Uterus sessile, bursting with irregularity, with anastomosing veins inside. Sporangia sessile. *Above ground.*

Division III. *Nidulariaceæ*.

*Uterus filled with separate sporangia.*

2413. *Nidularia*. Common peridium simple. Sporangia lenticular, fleshy, with sporidia in heaps in the middle.

2414. *Myriococcum*. Peridium simple, flocculent-furfuraceous, disappearing. Sporangia globose, with sporidia in round heaps.

2415. *Polyangium*. Peridium simple, membranous. Sporangia oblong, filled with a grumous mass.

Division IV. *Carpobolæ*.

*Uterus protruding a solitary separate sporangium.*

2416. *Atractobolus*. Peridium cupulæform, with a lid. Sporangium fusiform, with mucous sporidia.

2417. *Thelebolus*. Peridium sessile, urceolate-ventricose with an entire orifice. Sporangium papillæform, with mucous sporidia.

2418. *Pilobolus*. Stipes or receptacle pellucid, watery. Peridium a roundish vesicle, bursting elastically, placed on the apex of the receptacle.

2419. *Sphærobolus*. Peridium double, both stellate; the inner membranous by inversion throwing out with elasticity a globose sporangium, bearing in the middle heaped sporidia.

Class II. PYRENOZYCETES.

*Uterus genuine, forming the receptacle. Sporidia disposed in asci in regular rows.*

Division I. *Sphæriacei*.

*Perithecium closed, perforated by an orifice, filled by an ascigerous somewhat deliquescent nucleus.*

2420. *Xylaria*. Receptacles stipitate, carmose or suberose. Spherules immersed in the receptacle, and containing a gelatinous sporuliferous mass.

2421. *Stromatosphæria*. Receptacle sessile, free, or bursting from beneath the bark of dead wood. Spherules immersed.

2422. *Cucurbitaria*. Spherules tufted, free, fixed on a receptacle, rarely at first included. Receptacle bursting through the bark.

2423. *Cryptosphæria*. Receptacle O. Spherules scattered or aggregate, lying beneath the epidermis or bark, orifice various more or less exerted.

2424. *Heterosphæria*. (See Notes.)

2425. *Sphæria*. Receptacle O. Spherules sessile on the surface or slightly immersed.

2426. *Lophium*. Perithecium vertical, compressed, dehiscing by a longitudinal somewhat closed cleft. Asci crumbling away.

Division II. *Cytisporæi*.

*Closed, perforated by an orifice. Asci none; sporidia surrounded by a little bag or thin cellule, deliquescent.*

2427. *Sphæronema*. Perithecium opening by a pore, enclosing in a very thin bag some mucous sporidia, which burst forth and become indurated in a globose form. *Naked.*

2428. *Sepalaria*. (See Notes.)

2429. *Cytispora*. Cellular many-celled; cells deformed, membranous, united at ends. Nucleus gelatinous, filled with sporules, propelled through the common elongated orifice.

2430. *Phoma*. Nucleus grumous, enclosed in a tubercle. Sporidia emitted by a simple orifice without regularity.

Division III. *Phacidiacei*.

*Perithecium finally bursting, with an open disk. Asci erect, fixed.*

2431. *Dothidea*. Nucleus inclosing immersed cellules. True perithecium obliterated. Asci erect, remaining for a long time.

2432. *Rhytisma*. Perithecium deformed, bursting into transverse fragments by means of a flexuose crack.

2433. *Phacidium*. Receptacle O. Perithecia sessile, depressed, bursting from the centre towards the circumference in several acute segments. Sporuliferous cells elongated, fixed.

2434. *Hysterium*. Perithecia mostly oblong, black, corneous, bursting by a longitudinal slit. Sporuliferous tubes erect. (Crust none.)

Division IV. *Xylomacei*.

*Asci obsolete. Sporidia innate.*

2435. *Actinothyrium*. Perithecium buckler-like, with radiating fibres covering the fusiform sporidia.

2436. *Leptostroma*. Perithecium uniform, without an orifice, but entirely separating and exposing a very thin disk.

2437. *Xyloma*. Black, corneous. Perithecia single, solitary and minute, or united and confluent, irregularly dehiscent.

*Observations.*

terrestrial; the imperfect kinds being inhabitants either of plants or of the dung of animals. Many are meteoric, flourishing most in "Jove tonante, densisque cadentibus imbris;" others are ephemeral; some exist for a month and more.

The Phalloideæ are generally very fætid, cold, and venomous; one species is accounted in China a vulnerary, and also a food, but of doubtful quality. The old physicians had some peculiar notions about their use in arthritis, &c. but they are not worth repeating. The Tuberaceæ have a peculiar smell, which is often grateful; their taste is irritating; their qualities esculent, nutritive, and aphrodisiacal.

Class II. *Pyrenomyces*. The affinity of this class is very complex, for which reason there is much difference of opinion among authors as to its limits. In fructification it approaches fungi of a higher degree of development; on one hand resembling the Angiogastres, from which it is readily distinguished by its separate receptacle; on the other hand, the Cupulati, whose differences depend upon the definition of their perithecium. In point of vegetation it descends, first, to Sclerotiaceæ, which are entirely different, in the absence of an uterus and nucleus; secondly, to Perisporia, which have no distinct perithecium, and no asci; and thirdly, to several genera of Coniomyces.

2438. *Lastobotrys*. (See Notes.)  
 2439. *Asteroma*. Black, minute, epiphyllous. Receptacle radiate, filamentous, very adnate, at length tubercled here and there.

## Class III. TRICHOSPERMI.

*Uterus genuine, forming a receptacle. Sporidia intermixed with flocci.*

Division I. *Lycoperdineæ*.

*Uterus of a determinate figure, fleshy when young. Flocci copious.*

2440. *Omygena*. Subglobose with a fibrous stipes. Peridium crustaceous, fragile, with interwoven fibres. Sporules naked, compactly clustered.

2441. *Tulostoma*. Globose stipitate. Involucrum none. Peridium opening by a bordered pore in the summit. Sporules scattered in it.

2442. *Scleroderma*. Sporangium globose or prolonged into a stipes. Peridium single, coriaceous, mostly warty, bursting at the apex or subdehiscent. Sporules collected into little contiguous distinct globules mixed with filaments.

2443. *Lycoperdon*. Sporangium globose. Peridium single, membranaceous, scaly, with warts or soft spines bursting irregularly at the apex, and containing a mass of sporules and filaments.

2444. *Bovista*. Sporangium globose. Peridium double; the outer one adnate, cracking, somewhat fugacious; inner one bursting at the apex, and containing a mass of filaments and pedicelated sporules.

2445. *Geastrum*. Globose sessile. Involucrum coriaceous, stellate. Peridium membranous. Sporules on stalks from the first.

Division II. *Trichocistiæ*.

*Uterus regular, when young pulpy. Sporidia having numerous flocci scattered among them.*

2446. *Craterium*. Peridium oblong, stipitate, operculate, containing a cellulose, filamentous, sporuliferous mass.

2447. *Stemonitis*. Cylindrical or subglobose. Peridium fugacious. Filaments forming a reticulated mass, perforated by the stipes to which they are attached. Sporules intermixed.

2448. *Cribroaria*. Globose stipitate. Peridium crumbling to pieces at the summit in cracks.

2449. *Dictydium*. Globose stipitate. Peridium crumbling to pieces entirely or for the most part.

2450. *Arcyria*. Mostly cylindrical. Peridium fugacious, except a small portion at the base. Filaments abundant, reticulated, fixed at the base. Sporules intermixed.

2451. *Leangium*. Minute subglobose. Peridium single, membranaceous, bursting into subregular, persistent, expanding segments. Filaments attached at the base and surrounding a columella.

2452. *Trichia*. Minute subglobose or irregular. Peridium single, membranaceous, bursting. Filaments involute attached at the base, and expanding elastically.

2453. *Diderma*. Minute subglobose. Peridium double; the outer one fragile and fugitive. Sporules mixed with a few filaments and surrounding a roundish columella.

2454. *Physarum*. Sporangium minute, mostly stipitate, subglobose. Peridium single, membranaceous, bursting and deciduous in distinct portions. Sporules mixed with a mass of filaments.

2455. *Leocarpus*. Minute. Peridium single, fragile, bursting, sessile or substipitate, containing a black mass of sporules mixed with a few filaments. Columella 0.

Division III. *Fuliginoides*.

*Uterus somewhat deformed, sessile, when young pulpy. Sporidia separated by flocci.*

2456. *Lycogala*. Sessile globose or subirregular, pulpy when young. Peridium single, fragile, variously dehiscent. Sporules mixed with a few filaments.

2457. *Spumaria*. Form irregular, roundish, effused. Peridium soft, at length membranaceous, fragile. Sporules contained in the folds of branched, elongated, membranaceous, persistent processes.

Division IV. *Liceoides*.

*Flocci obsolete.*

2458. *Dichosporium*. Flattened hemispherical. Peridium membranous, coated with a layer of granules. Sporules in globose masses.

2459. *Licea*. Peridium membranaceous, sessile, fragile, inclosing a pulverulent mass of sporules unmixed with filaments. (No subjacent membrane.)

## Class IV. MUCOROIDES.

*Peridium formed of flocci loosely woven together, vanishing in the middle. Sporidia in heaps.*

2460. *Mucor*. Peridium membranaceous, globose, stipitate, pellucid, at length opaque. Pedicel simple or branched, tubular, articulated.

2461. *Thamnidium*. Stipes branched at base; branches bearing solitary globules at their end. Peridium globose.

2462. *Ascophora*. Peridium membranaceous, stipitate, bursting at length, turned inside out, convex and subsistent. Pedicel simple or branched, tubular, pellucid, articulated.

## Class V. PERISPORIA.

*Perisporium thin, somewhat membranous, bursting. Sporidia immersed, scarcely distinct.*

2463. *Eurotium*. Peridia membranous, subglobose, with an articulated floccose innate receptacle. Sporules naked in masses.

2464. *Amphisporium*. Subglobose. Peridium membranous, thin. Sporules naked of two forms.

*Observations.*

Its extent is very great, ascending from the most simple forms to those which are very compound, but at the same time connected with the former by the most strict natural ties. The true place of the genera in the system has been a subject of doubt. Many authors have taken them for fungi in the most perfect state. Decandolle excludes them from fungi, and, with some analogous Lichens, refers them to a peculiar intermediate family.

They are found in every part of the world in which vegetation exists; for every perfect plant and all its decaying parts nourish Pyrenomyces. The chief families of trees in the European Flora upon which they flourish are Conifera, Amentacea, Rosacea, Ericæ, Rhamnoideæ, Acerinæ, and Tiliacæ, and of herbs, Gramineæ, Umbellifera, and Liliacæ. Many are peculiar to certain species of trees, and others are common to many species. For example, on the *Betula alba* may be found about ten peculiar species, and from forty to fifty which are common to it and other trees. Their qualities are unknown. Many species which are included by Fries under the name of *Ectostroma*, are probably not vegetables, and are here omitted.



## TRIBE III. HYPHOMYCETES.

*Thallus flocculent.*

## Class I. CEPHALOTRICHÆ.

*Receptacle distinct, covered over with flocci, with sporidia scattered among them.*

2465. *Ceratium*. Filaments very short, pellucid, simple, minute, attached to a membranaceous, plicate, simple or branched, filiform receptacle.

2466. *Learia*. Filaments minute and pellucid, attached to an elongated, simple or branched, clavate, carnosose receptacle.

## Class II. STILBOIDEL.

*Fibres grown together upon the receptacle. Sporidia inclosed in a separate naked head.*

2467. *Stilbum*. Minute. Stipes slender, bearing a little round solid head, which is pellucid and semifluid at first, at length more dense and opaque.

## Class III. INOMYCETES.

*Fibres genuine, somewhat separated by divisions. Receptacle none. Upon putrescent organic matter.*

Division I. *Byssacei*.

*Opaque fibres, bearing spore inside, when fertile jointed, when sterile contiguous. Repel moisture.*

2468. *Torula*. Thallus composed of branched, rigid, fragile, moniliform, subopaque filaments, the articulations minute, globose.

2469. *Monilia*. Fibres numerous, erect, opaque, distinctly articulated, permanent. Articulations ovate.

2470. *Racodium*. Thallus composed of branched, decumbent, interwoven, jointless, persistent, subopaque filaments, among which are sometimes granules of moniliform filaments.

2471. *Dematium*. Fibres decumbent or ascending, rigid, opaque, branched, continuous in all directions, permanent.

2472. *Cladosporium*. Thallus composed of erect, rigid, subopaque, jointed, simple or branched, aggregate filaments. Sporules ovate, attached in a series to the filaments, deciduous.

2473. *Helicosporium*. Fibres erect, rigid, nearly simple, opaque. Sporules spiral, remotely jointed, some that are fugacious scattered among them.

2474. *Ozonium*. Thallus composed of decumbent, branched, entangled filaments: primary ones thick, irregular; ultimate ones fine-jointed.

2475. *Rhizomorpha*. Receptacle much branched, elongated, coriaceous or ligneous. Perithecia arising from the branches, mostly clavate, dehiscent at the apex.

Division II. *Mucedines*.

*Flocci pellucid, with dissepiments, bearing spore on the outside.*

2476. *Sepedonium*. Thallus formed of entangled filaments, spreading within putrefying fungi. Sporidia scattered, globose. (Bright yellow.)

2477. *Acremonium*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.

2478. *Sporotrichum*. Thallus minute, tufted or expanded. Sporidia scattered among the branched, tubular jointed filaments.

2479. *Trichothecium*. Filaments minute, branched, forming a tufted thallus. Sporidia scattered, subglobose, didymous.

2480. *Acrosporium*. Thallus composed of minute, tufted, pellucid, moniliform, simple filaments, the uppermost joints (sporidia) separating spontaneously.

2481. *Botrytis*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.

2482. *Aspergillus*. Thallus composed of minute, pellucid, scattered or tufted filaments, apex of the main filament mostly clavate, on which is a head of (often beaded) sporidia.

2483. *Stachylidium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, whorled, with ramuli near the top, among which the sporidia are collected.

2484. *Penicillium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, bearing a terminal pencil-like tuft of erect ramuli, to which the sporidia are attached.

2485. *Trichoderma*. Sporidia collected in the centre, free, the filaments woven into a web-like covering, at length opening at the apex and discharging the globose sporidia.

## Class IV. PHYLLERIACEÆ.

*Fibres spurious, contiguous, bearing spore inside. Receptacle none. On living leaves.*

2486. *Rubigo*. Fibres infundibuliform or clavate, twisted, situated in patches upon sickly leaves.

2487. *Erineum*. Peridia focciform, subdiaphanous, various, subimple, aggregato-caspite, parasitic on living leaves. Sporules sometimes, but rarely evident.

## TRIBE IV. CONIOMYCETES.

*Sporidia naked, without any heterogeneous receptacle.*

## Class I. TUBERCULARIÆ.

*Sporidia naked, simple, scattered over the receptacle.*

2488. *Tubercularia*. Sporangium subglobose, sessile, or somewhat stipitate, carnosose-vesiculose (not gelatinous). Sporidia towards the circumference (color mostly red).

2489. *Fusarium*. Minute, subglobose, naked, almost wholly formed of fusiform, free, jointless sporidia.

2490. *Exosporium*. (See Notes.)

*Observations.*

Tribe III. *Hypomyces*. Distinguished from other tribes by their flocculent thallus. In no other tribe do flocci occur in so perfect a state of development, although they undoubtedly exist as subordinate organs in the Uterini and Hymenomyces.

Class IV. *Phylleriaceæ*. These are perhaps morbid states of the outer integuments of plants. This at least seems obvious in *Phyllerium Rubi*, *Gei*, &c. which are nothing but the hairs of the leaves in a clustered and somewhat altered form. This also may be the reason why there are no sporidia.

Tribe IV. *Coniomyces*. To this are referred those fungi in which the sporidia are of a more obvious nature than the other parts of the plant, and so constitute the essence of the fungus. Hence they are more evolved than in any other class. The receptacle, if present, arises either out of united pedicels, or of united sporidia,

## Class II. ENTOPHYTE.

*Sporidia naked, separate, without a receptacle.*

Division I. *Stilbosporei.*

*Entophytes growing upon dead plants.*

2491. *Fusidium*. Thallus plane, effused. Filaments short, branched. Sporidia fusiform, scattered.  
 2492. *Polythrincium*. (See Notes.)  
 2493. *Stilbospora*. Black. Receptacle O? or a pulverulent mass intermixed with naked sporidia, the whole bursting through the bark in the manner of a Stromatosphæria.  
 2494. *Sporidermium*. (See Notes.)  
 2495. *Nemospora*. Receptacle O. Spherules obvious, or somewhat obsolete, discharging sporuliferous pulp through the bark in the form of tendrils.

Division II. *Hypodermia.*

*Parasites upon living plants.*

2496. *Cylindrosporium*. Very minute, parasitic on the surface of living leaves. Sporidia pellucid, cylindrical, truncate, free, not divided.  
 2497. *Uredo*. Epidermis of the leaf forming a pseudo-peridium. Sporidia 1-celled, free, mostly globose.  
 2498. *Æcidium*. Peridium membranaceous, bursting through the epidermis, and dehiscant at the apex, with a dentate or lacerate orifice.  
 2599. *Puccinia*. Epidermis of the leaf forming a pseudo-peridium. Sporidia fixed by a pedicel, one or many-celled.

*Observations.*

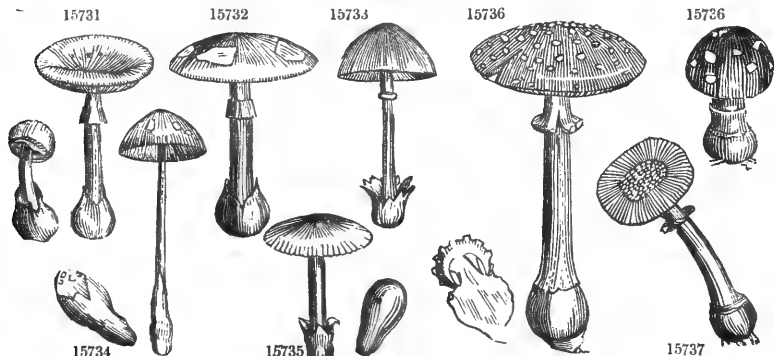
and is homogeneous with the immature sporidia. The thallus is never flocculent. The organs of nutrition and reproduction are the same.

Division II. *Hypodermia*. The genera of this division are furnished with a caliculus, which must not be confounded with the receptacle or thallus, &c. of other tribes, because it does not constitute part of the fungus, but is formed out of the epidermis of the plant on which the fungus grows.

**HYMENOMYCETES.**

Class I. HYMENINI. — Div. I. *Pileati.*

|                           |               |              |              |         |               |                                      |  |
|---------------------------|---------------|--------------|--------------|---------|---------------|--------------------------------------|--|
| 2365. AGARICUS. L.        | AGARIC.       |              |              |         |               |                                      |  |
| § 1. AMANITA. Pers.       |               |              |              |         |               |                                      |  |
| 15731 vërnu8 Bull.        | vernal        | stinking     | 3-6 spr. su. | W       | woo. dam. pl. | Bulliard, t. 108                     |  |
| 15732 phalloides Fries.   | Phallus-like  | scentless    | 4 jul. oct.  | W       | woody places  | Fll. t. 2. 577. <i>bulbosus</i>      |  |
| β verrucosus Fl. Lond.    | warted        | scentless    | 4 jul. oct.  | Y       | woody places  | Fll. t. 312. f. dex. <i>verruc.</i>  |  |
| γ virëscens Fl. Dan.      | greenish      | scentless    | 4 jul. oct.  | Pa. Gr  | woody places  | Flora danica, t. 1246                |  |
| 15733 porphyrius Fries.   | porphyry      | scentless    | 4 jul. oct.  | Livid   | among moss    | Michel. gen. t. 76. f. 3             |  |
| § 2. LEPIDOTA. Pers.      |               |              |              |         |               |                                      |  |
| 15734 vaginatus Bull.     | sheathed      | estable      | 6 aut.       | W       | waste places  | Bulliard, t. 512                     |  |
| α plumbus Schæff.         | lead-colored  | estable      | 6 aut.       | Lead    | waste places  | Schæffer, t. 85, 86                  |  |
| γ hyalinus Schæff.        | transparent   | estable      | 6 sum.       | Ces.    | waste places  | Schæffer, t. 244                     |  |
| δ pulvinatus Bolton       | cushioned     | estable      | 6 sum.       | Br      | waste places  | Bolton, t. 49                        |  |
| ε fulvus Schæff.          | tawny         | estable      | 6 sum.       | Tawn.   | waste places  | Bolt. t. 38. f. 2. <i>trilobatus</i> |  |
| 15735 nivâlis Greu.       | alpine        | delicate     | 5 aug.       | W       | Scotch mou.   | Greville crypt. 1. 18                |  |
| § 3. LEPIDOTA. Pers.      |               |              |              |         |               |                                      |  |
| 15736 muscarius L.        | fly-blown     | poisonous    | 4 au. oc.    | Or. R   | woods         | Greville crypt. 1. 54                |  |
| 15737 pantherinus Dec.    | mottled       | warted       | 3 au. oc.    | Ol      | moun. woods   | Schæff. t. 90. <i>maculatus</i>      |  |
| 15738 rubescens Pers.     | flesh-colored | nauseous     | 3 jul. sep.  | F. Col. | heaths        | Schæff. t. 91. <i>pustulatus</i>     |  |
| 15739 âsper Alb. & Schwe. | rough         | stinking     | 3 jul. oct.  | Rsh     | open woods    | Bull. t. 316. <i>verrucosus</i>      |  |
| § 4. LEPIDOTA. Pers.      |               |              |              |         |               |                                      |  |
| 15740 præcerus Scop.      | gigantic      | esculent     | 10 au. no.   | W. Br   | gardens       | Sowerby, t. 190                      |  |
| 15741 exoriatus Schæff.   | flayed        | esculent     | 7 jul. au.   | Wsh     | fields        | Schæff. t. 18, 19                    |  |
| § 5. LEPIDOTA. Pers.      |               |              |              |         |               |                                      |  |
| 15742 clypeolarius Bull.  | buckler       | insipid      | 2 au. oc.    | Wsh     | beech woods   | Sowerby, t. 14                       |  |
| β setinus Pers.           | spotted       | insipid      | 2 au. oc.    | Wsh     | hot-houses    |                                      |  |
| γ meleagris Sowerb.       | variegated    | insipid      | 2 au. oc.    | Wsh     | pine woods    | Sowerby, t. 171                      |  |
| 15743 cristatus Bolton    | crested       | fœtid        | 1½ au. no.   | Wsh     | grassy places | Greville crypt. 3. 176               |  |
| 15744 illintus Fries      | besmeared     | mucilaginous | 3 jul. oct.  | Wsh     | meadows       | Fl. dan. t. 600                      |  |



*History, Use, Propagation, Culture,*

2365. *Agaricus.* This, the most extensive genus in the vegetable kingdom, derives its name from *Agaria*, a kingdom of Sarmatia. The species are determined upon various principles. Some writers have mixed together species of the most different kinds, as Gleditsch; and a few writers only have really taken pains to ascertain the species. If it is divided into many genera it would be necessary to break up *Boletus* also, which would scarcely be judicious. An accurate and simple mode of division is, however, of the utmost moment, and several methods have been proposed, the greater part of which are artificial, and therefore objectionable; such, for example, as that of Villars, from the magnitude of the species; of Linnaeus, from the color of the pileus; of Haller, from the color of the lamellæ or gills; of Withering, from the nature of the stipes and the color of the lamellæ taken together; or of Otto, from the position of the lamellæ. The divisions of Fries, which are all named as subgenera, depend upon the characters of the veil, the lamellæ, the sporidia, and the pileus. Our notes will follow these in their order of succession.

§ 1. *Amanita.* This name was applied by Galen to some eatable fungus, and has been restored in modern days by Persoon. Most of the species are poisonous. They do not perish quickly, and are found for the most part on damp earth in shady woods, never upon wood or the dung of animals. They are in perfection about the end of summer.

*A. vaginatus* is eaten by the Muscovites; but in the Jena Literary Gazette of 1819, it is declared to be poisonous. *A. ovoideus* is said to be delicious.

*A. muscarius*, or reddish mushroom, has a large pileus, varying much in color, white, red, or crimson, convex, sprinkled with downy warts, which are raised, compact, and angular, or thin, flat, and ragged, turning up with age, from two to seven inches over; flesh white, reddish in decay: gills fixed, white, yellowish with age, mostly uniform, but a shorter one sometimes intervening; the shorter gills varying much in length, but rarely less than one-third the length of the long ones: the stem solid and cylindrical, but the internal substance shrivelling with age leaves irregular hollows; scaly, bulbous at the base, from three to five inches high, and from three quarters to one and a half inch in diameter; ring broad, permanent, and turned down upon the stem. This plant rises out of the ground inclosed within its brown studded wrapper. It is found in pastures. The juice rubbed on the walls and bed-posts destroys bugs; and in the North of Europe, the inhabitants infuse it in

HYMENOMYCETES.

Class I. HYMENINI. — Div. I. *Pileati*.

\* *Volva loose : edge of the cap smooth.* UNWHOLESOME.

- 15731 Cap somewhat scaly : edge smooth, Stipes solid nearly equal, Volva loosely sheathed  
 15732 Cap somewhat scaly : edge smooth, Stipes hollow at top, Volva connate bulbous

- 15733 Cap naked : edge smooth, Stipes somewhat fistular equal, Volva booted

\*\* *Volva loose : edge of the cap striated.* EATABLE.

- 15734 Cap furrowed at edge, Gills white, Stipes fistular tapering nearly naked, Volva sheathing

- 15735 Whole plant white, Cap plane or slightly umbonate : the centre often pale ochraceous ; margin striato-pectinate, Lamella somewhat distant, Stipes solid naked bulbous

\*\*\* *Volva obliterated : edge of the cap striated.* POISONOUS.

- 15736 Margin of the cap striated orange-red shining warty rarely naked, Volva vanishing scaly, Stipes bulbous  
 15737 Cap equally warted : edge striated, Stipes nearly solid equal, Volva booted adnate

\*\*\*\* *Volva obliterated : edge of the cap smooth.* UNWHOLESOME.

- 15738 Warts of cap mealy unequal : edge smooth, Flesh pink, Stipes solid somewhat scaly and bulbous  
 15739 Cap somewhat umbonate rough with acute warts : edge smooth, Stipes solid somew. taper. squarroulose

\* *Veil finally separate, Gills distant.* EATABLE.

- 15740 Large, Cap scaly, Lamella distant white, Stipes very long bulbous, Collar free  
 15741 Skin of cap contiguous, Lamella remote, Stipes equal, Collar free

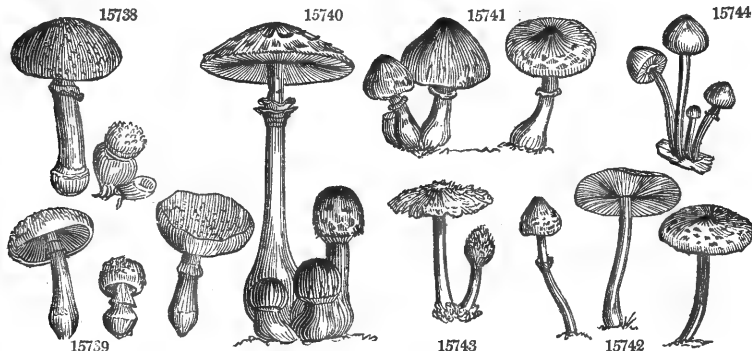
\*\* *Veil fixed, Skin of the cap peeling off, Gills separate.*

- 15742 Inodorous, Cap with the epidermis broken into ferruginous scales, Lamella white numerous, Stipes subsquamose, Collar mostly fugacious

- 15743 Highly odor. Surface of cap white with reddish scales, Lamella distinct, Stipes smooth, Collar fugacious

\*\*\* *Veil fixed, Gills separate, Skin of the cap adhering.*

- 15744 Cap glutinous striated at edge, Lamella loose, Stipes viscid on account of the veil



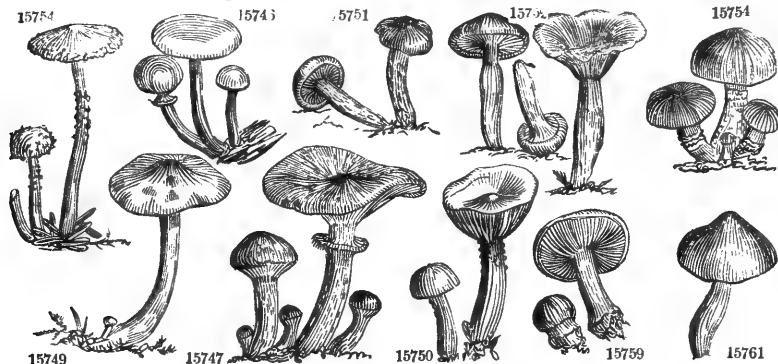
and Miscellaneous Particulars.

milk, and set it in their windows in order to poison the flies who taste it. This is *moucho-more* of the Russians, Kamtchadales, and Koriars, who use it for intoxication. They sometimes eat it dry, and sometimes immerse it in a liquor made with the epibolium; and when they drink this liquor, they are seized with convulsions in all their limbs, followed with that kind of raving which attends a burning fever. They personify this mushroom; and if they are urged by its effects to suicide, or any dreadful crime, they pretend to obey its commands. To fit themselves for premeditated assassination, they recur to the use of the moucho-more. A powder of the root, or of that part of the stem which is covered by the earth, is recommended in epileptic cases, and externally applied for dissipating hard globular swellings, and for healing ulcers. The dose is from half a scruple to one, taken thrice a day in water; but a dram administered once a day in vinegar has been thought more efficacious. *Murray, App. Med. vol. v. p. 560.* Dr. Withering enumerates ten varieties of this species.

§ 2. *Lepiota*. Terrestrial, solitary, persistent, autumnal fungi, none of which are noxious. Named from *Λεπτις*, a thin membranous layer or cuticle. The *A. procerus*, or tall mushroom, is not uncommon on hedge banks and dry pastures, and is sometimes exposed to sale in Covent Garden market. It may be distinguished from the genuine sort by the sponginess of its flesh; and from others by its fine and large horizontal ring. The gills are white, uniform, and fixed to a collar; the pileus is a broad cone, bossed white-brown, and scaly; the stem is scaly, and the ring loose. This plant, when preserved in pickle, is very apt to run into the vinous fermentation.

*A. xerampelinus* is the most splendid of all the agarics. Its gills are fixed, bright golden-yellow, and nearly orange under the edge of the pileus, regularly disposed four in a set; fleshy, brittle, and serrated at the edge with a paler cottony matter: the pileus is a fine lake-red, changing with age to a rich orange and buff, and every intermediate shade of these colors, which render it very beautiful; convex, center bossed, edge turned down, three to four inches in diameter, clothed to the touch; flesh pale-buff: stem solid, nearly cylindrical, but gradually tapering upwards, rich buff, shaded with fine rose-red, three to five inches high, half inch in diameter; flesh pale, buffy, spongy, and elastic. This is common in Italy, and brought to the markets for sale. The ancient Romans esteemed it one of the greatest luxuries for the table. It was made the vehicle for poison to Claudius Cæsar by his wife Agrippina, and has therefore been celebrated by Juvenal and Martial.

|   |                                    |                                  |             |                               |                         |  |  |
|---|------------------------------------|----------------------------------|-------------|-------------------------------|-------------------------|--|--|
| 15745 <i>granulosus</i> Pers.<br><i>A. croceus</i> Sowerb.                            | granular                           | muricated                        | 2           | jl. dec.                      | Y                       | heaths   | Greville crypt. fl. 2. 104   |
| § 3. <i>ARMILLARIA</i> Fries.   |                                    |                                  |             |                               |                         |  |  |
| 15746 <i>mucidus</i> Schrad.  | mucid                              | glutinous                        | 2           | jl. dec.                      | W                       | old trees  | Fl. dan. t. 773. <i>nitidus</i>                                    |
| 15747 <i>melleus</i> Bolton<br>β <i>laricinus</i> Bolton<br>γ <i>elasticus</i> Bolton | honey-like<br>esculent<br>esculent | esculent<br>esculent<br>esculent | 4<br>4<br>4 | au. oc.<br>au. oc.<br>au. oc. | DI. Y<br>DI. Y<br>DI. Y | trun. of trees<br>trun. of trees<br>trun. of trees | Sowerby, t. 101. <i>stipitis</i><br>Bolton, t. 19<br>Bolton, t. 15 |
| § 4. <i>LIMA'CIUM</i> Fries.  |                                    |                                  |             |                               |                         |  |  |
| 15748 <i>chrysodon</i> Batsch   | yellow-toothed                     | noxious                          | §           | sep. oc.                      | Pa. Y                   | beech woods  | Batsch cent. 2. f. 212   |
| 15749 <i>caruosus</i> Sowerb.   | fleshy                             | noxious                          | 5           | sep. oc.                      | Pa. Pk                  | among grass  | Sowerby, t. 246  |
| 15750 <i>eburneus</i> Bull.<br>β <i>nitens</i> With.                                  | ivory<br>shining                   | shining<br>shining               | 4<br>4      | au. no.<br>au. no.            | W<br>W                  | woods<br>woods                                     | Sowerby, t. 71. <i>nitens</i><br>Sowerby, t. 121. <i>coscus</i>    |
| 15751 <i>olivaceo-fulvus</i> Fries  | olive-white                        | viscid                           | 4           | jul. oct.                     | Ol                      | pine woods   | Schæff. t. 312. <i>limacmus</i>                                    |
| 15752 <i>hypothëjus</i> Fries   | slug                               | clustered                        | 4           | oc. dec.                      | Ysh                     | heaths   | Sowerby, t. 8. <i>limacmus</i>                                     |
| 15753 <i>aromaticus</i> Sowerb.   | aromatic                           | glutinous                        | 3           | oc. dec.                      | Pa. Br                  | woods  | Sowerby, t. 144  |
| § 5. <i>TRICHOLO'MA</i> Fries.  |                                    |                                  |             |                               |                         |  |  |
| 15754 <i>albo-brunneus</i> Pers.  | whitish-brown                      | glutinous                        | 3           | au. oc.                       | Br                      | fir leaves   | Schæff. t. 38. <i>striatus</i>                                     |
| 15755 <i>fulvus</i> Dec.  | tawny                              | smells of flour                  | 4           | au. sep.                      | Tawn.                   | thickets   | Schæff. t. 62. <i>incertus</i>                                     |
| 15756 <i>ustalis</i> Fries  | scorched                           | scentless                        | 3           | au. oc.                       | R. Br                   | beech wo.&c.                                       |  |
| 15757 <i>Rússula</i> Schæff.  | rosy                               | delicious                        | 2           | aut.                          | Pk                      | woods  | Schæff. t. 58  |
| 15758 <i>aurantius</i> Schæff.  | orange                             | bitter                           | 3           | aut.                          | Or                      | pine woods   | Schæff. t. 37  |
| 15759 <i>prasinus</i> Schæff.   | pea-green                          | tuberous                         | 3           | aut.                          | Y. G                    | mossy places                                       | Schæff. t. 218   |
| 15760 <i>lucatus</i> Fries  | mild                               | mild                             | 2           | sep. oc.                      | Lurid                   | way sides  |  |
| 15761 <i>luridus</i> Schæff.  | lurid                              | gregarious                       | 2           | sep. oc.                      | DI. R                   | pine woods   | Schæff. t. 69  |
| 15762 <i>equëstris</i> L.   | noble                              | glittering                       | 2           | sep. d.                       | Y. Br                   | way sides  | Schæff. t. 41. <i>aureus</i>                                       |
| 15763 <i>rutilans</i> Schæff.   | glittering                         | glittering                       | 3           | au. oc.                       | Y                       | roots of trees                                     | Sow. t. 81. <i>xerampelinus</i>                                    |
| 15764 <i>vaccinus</i> Schæff.   | cow                                | scaly                            | 3           | oc. dec.                      | Ruf.                    | damp places  | Schæff. t. 25  |
| 15765 <i>myomyces</i> Pers.   | Mouse-mushr.                       | smells of mice                   | 3           | oc. no.                       | Livid                   | plantations  | Sowerby, t. 76. <i>terreus</i>                                     |
| 15766 <i>Columbëta</i> Bauh.  | white-headed                       | white-headed                     | 1½          | au. oc.                       | W                       | sandy places                                       | Bulliard, t. 428. f. 1   |
| 15767 <i>æstivans</i> Fries   | burning                            | very acrid                       | 3           | au. sep.                      | Y                       | among moss   |  |
| 15768 <i>sejunctus</i> Sowerb.  | white and yell.                    | bitter                           | 3           | sep. oc.                      | Pa. Y                   | dry pine wo.                                       | Sowerby, t. 126  |
| 15769 <i>virgatus</i> Fries   | streaked                           | bitter                           | 3           | sept.                         | Gr                      | plantations  |  |
| 15770 <i>decastes</i> Fries   | sinuous                            | stipes naked                     | 3           | au. sep.                      | Cin.                    | beech woods  |  |
| 15771 <i>gambosus</i> Clus.   | cracked                            | smells of flour                  | 2½          | my. jn.                       | Fale                    | chalk. mead.                                       |  |
| 15772 <i>personatus</i> Fries   | violet                             | variable                         | 3           | sep. no.                      | Pu                      | woods  | Sowerb. t. 209. <i>violaceus</i>                                   |
| 15773 <i>nodus</i> Bull.  | naked                              | wavy                             | 2           | sep. no.                      | Vi                      | gardens  | Bulliard, t. 439   |
| 15774 <i>fulvus</i> Schæff.   | white                              | not spotted                      | 3           | sep. no.                      | W                       | woods  | Schæff. t. 256   |
| 15775 <i>splendens</i> With.  | metallic                           | juicy                            | 3           | july                          | Cop.                    | alder stump  |  |
| § 6. <i>RUS'SULA</i> Pers.  |                                    |                                  |             |                               |                         |  |  |
| 15776 <i>alutaceus</i> Pers.  | tanned                             | eatable                          | 2           | au. sep.                      | R                       | shady woods  | Bull. t. 509   |
| β <i>santhëpus</i> Fries  | yellow-stalked                     | eatable                          | 2           | au. sep.                      | R                       | shady woods  |  |
| A. <i>auratus</i> Wither.   |                                    |                                  |             |                               |                         |  |  |
| 15777 <i>luteus</i> Huud.   | yellow                             | brittle                          | 1½          | au. sep.                      | Ysh                     | beech woods  |  |
| 15778 <i>nitidus</i> Pers.  | shining                            | nauseous                         | 1           | au. oc.                       | Rsh                     | woods  | Schæff. t. 254   |



*History, Use, Propagation, Culture,*

Schæffer and Clusius have recited several curious circumstances respecting it. Dr. Withering apprehends that these authors have mistaken the species, and that their account should be transferred to the *A. deliciosus*. The *A. xerampelinus* is eatable, but its taste is not at all agreeable. It is the *A. casareus* of Schæffer, and first found by Dr. Withering's daughter on the red rock plantations at Edgbaston, July 6th, 1791, and afterwards in September 1793; and in July 1792, among moss in the fir plantations at Tottenhall, Staffordshire. Dr. W. enumerates five varieties.

§ 3. *Armillaria*. From *armilla*, a necklace. Autumnal species, of permanent duration, firm, and esculent.

\*\*\*\* *Veil fixed, Cap covered, Gills somewhat united.*

15745 Cap with furfuraceous scales reddish-yellow, Lamella fixed white, Stipes subsolid covered below the veil with squarrose scales

\* *Cæspitose, Cap smooth.*

15746 Somew. cæspit. Cap thin glutin. Lamellæ annex. dist. Stipes bulb. Collar reflex. and then erect furrowed

\*\* *Cæspitose, Cap not smooth.*

15747 Cap dull-yell. rough with black. hairy scales, Lamellæ adnate-decurr. dist. Stipes fibrous, Coll. tum. spread.

\* *Cap smooth, floccose at edge. UNWHOLESOME.*

15748 Cap smooth whitish, Margin and top of stipes yellow-flocculent with crisp lamellæ

15749 Cap smooth whitish-pink: edge involute downy, Lamellæ straight, Stipes thickened upwards scaly

\*\* *Cap smooth, Stalk scaly. EATABLE.*

15750 White, Cap smooth umbon. Lamellæ broad dist. very decur. Stipes white scurfy solid becom. holl. in age

\*\*\* *Cap finally depressed, Stalk spotted.*

15751 Cap umbonate smooth olive-brown, Lamellæ connected white, Stipes solid mottled with brown [yellow

15752 Cap obt. smooth yellow. covered by an olive-colored gluten, Lamellæ distinct and stipes (which is spotted)

15753 Cap smooth cinnamon-col. Lamellæ somewhat decurrent and hollow, Stipes spotted rufous

\* *Cap truly fleshy, somewhat blunt, humid, viscid; with an involute downy edge, Gills white or yellow, emarginate, Stalk clothed, separate from the cap.*

15754 Cap smooth viscid amber-col. Lamellæ annexed white, Stipes solid smooth scaly at end

15755 Cap viscid virgate rufous brown discoidal, Lamellæ annexed yellow, Stipes hollow equal fibrous

15756 Cap smooth viscid red-brown, Lamellæ emarginate white, Stipes equal solid fibrous

15757 Cap somew. depress. visc. granul. and solid stipes eq. scaly at end rose-color. Lam. somew. separate white

15758 Cap somewhat scaly viscid yellow-orange, Lamellæ adnate white, Stipes solid covered with orange scales

15759 Cap scaly viscid yellow-green, Lamellæ separate yellow, Stipes solid thick tuberous

15760 Cap flexuose virgate viscid lurid, Lamellæ emargin. broad and solid, Stipes somew. scaly yellowish-white

15761 Cap flexuose smooth greenish ash-colored, Lamellæ emarginate narrow yellowish, Stipes solid scaly pallid

\*\*\* *Cap always dry, scaly, with the young edge involute, downy, or villous, Gills separate or emarginate, Stalk scaly, separate from cap.*

15762 Cap comp. flexuose somew. scaly yellow-brown, Lamellæ emarg. comp. and solid, Stipes scaly sulphure.

15763 Cap obt. convex deep-yellow more or less covered with crimson red squamulose fibres, Lamellæ rounded numerous yellow, Stipes solid or partly hollow streaked with red

15764 Cap umbon. rufous, Skin torn with hairy scales downy at edge, Lamellæ affixed whit. Stipes holl. fibrous

15765 Firm, Cap dry smooth a little scaly brownish-livid, Lamellæ emarg. somew. dist. whit. Stipes solid uneq.

15766 White, Cap irregular becoming scaly and cracked, Lamellæ emargin. compact, Stipes solid short smooth

\*\*\* *Cap always dry, smooth, but often fibrillose, with a naked edge, Gills separate or emarginate, Stalk solid, smooth, striated, separate from the cap.*

15767 Cap umbonate dry yellow-brown fibrous towards edge, Lamellæ emarg. broad and solid striat. Stipes yell.

15768 Cap somew. umbon. dry yellow streaked with black hairs, Lamellæ emargin. broad and solid, Stipes white

15769 Cap umbonate dry grey streaked with black, Lamellæ emargin. broad hoary, Stipes solid striated whitish

\*\*\* *Cap always dry, smooth, with a thin, floccose, frosted, involute edge, Flesh soft, Gills rounded, clustered, obliterated in front, Stalk united with cap.*

15770 Somew. cæspitose, Pileus smooth unequal cinereous, Lamellæ round. white, Stipes solid powdery at end

15771 Somew. cæspitose, Pileus compact smooth mouse-colored, Lamellæ emarg. and solid downy, Stipes white

15772 Cap somewhat compact smooth with a villous frosted margin, Lamellæ rounded loose and solid somew. bulbous villous, Stem rather violet

15773 Gregarious, Cap thin smooth lilac-brown, Lamellæ rounded pale violet, Stipes solid equal naked

15774 White not spotted, Cap equal smooth, Lamellæ rounded dense, Stipes solid elastic

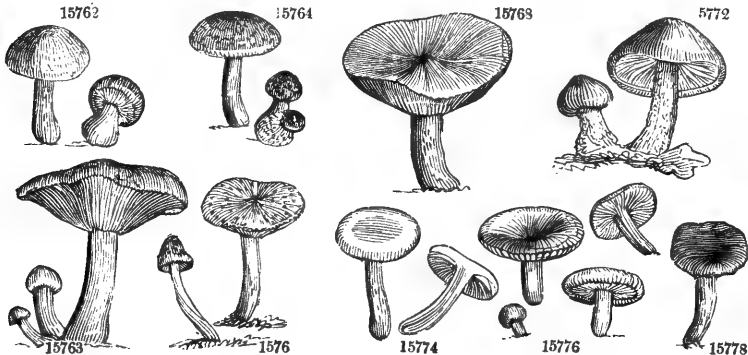
15775 Cap conical shining, Lamellæ loose white, Stipes solid white

\* *Gills all equal, Sporidia yellow.*

15776 Cap somewhat compact: the margin finally furrowed, Lamellæ broad equal tanned.  
β Stipes yellow

15777 Middle-sized, Margin of cap smooth, Lamellæ narrow compact equal: the color of yolk of egg

15778 Cap thin with a sulcate margin, Lamellæ broad subsistant equal yellow



and Miscellaneous Particulars.

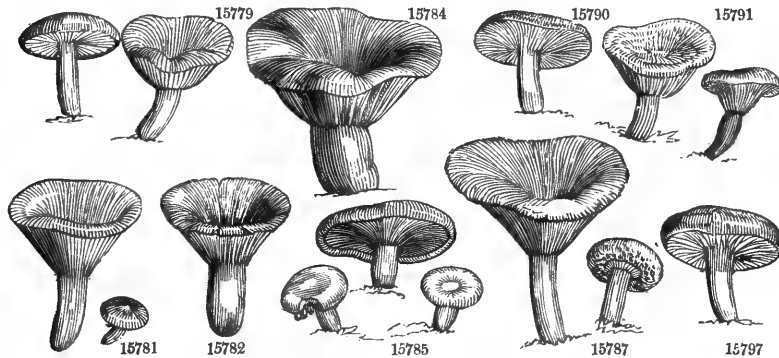
They differ much in habit among each other. The annulus is either superior, that is reflexed from the top of the stipes; or inferior, that is contiguous to the middle; or even proper, being inserted above the middle.

§ 4. *Limacium*. So called from *A. limacinus*, a name which has been indiscriminately applied to almost all the species of this subgenus. They are fungi of a middle size, solitary, terrestrial, autumnal, and permanent.

§ 5. *Trichotoma*. From *Trich*, hair, and *τομα*, a margin. The species are large, robust, and permanent, solitary or gregarious, and terrestrial. Many are eatable; some have an acrid bitter flavor. *A. Russula* is said to be of excellent quality.

|  |                                |                              |        |                      |            |                |   |
|--|--------------------------------|------------------------------|--------|----------------------|------------|----------------|---|
| 15779 eméticus Schæff.<br>β Georgii L.     | emetie<br>St. George's         | acid<br>acid                 | 3<br>3 | sum.<br>sum.         | Rah<br>Y   | woods<br>woods | Sowerby, t. 201. <i>integ.</i><br>Bulliard, t. 509. f. R. |
| 15780 depállens Pers.                      | pallid                         | nauseous                     | 1½     | jul.sep.             | R.Br       | heaths         |   |
| 15781 róber Lam.                           | red                            | very bitter                  | 2      | jul.sep.             | R          | woods          | Bull. t. 42. <i>san vineus</i>                            |
| 15782 fœ'tens Fries                        | stinking                       | rigid                        | 2      | au.sep.              | Y          | woods          | Bulliard, t. 292. <i>piperatus</i>                        |
| 15783 furcátus Fries                       | forked                         | bitterish                    | 2      | au.sep.              | G          | woods          | Bulliard, t. 26. <i>bifidus</i>                           |
| 15784 adátus Pers.<br>β elephantinus Bolt. | scorched<br><i>elephantine</i> | very compact<br>very compact | 2<br>3 | jul.oct.<br>jul.oct. | OI<br>O.Br | woods<br>woods | Bulliard, t. 212. <i>nigricans</i><br>Sowerby, t. 36      |
| § 7. GALARHÆ'US. <i>Fries</i>              |                                |                              |        |                      |            |                |   |
| 15785 controversus Pers.                   | controverted                   | meteoric                     | 2      | sep. oc.             | Var.       | beech woods    | Bulliard, t. 538. <i>acris</i>                            |
| 15786 scrobiculátus Scop.                  | pitted                         | gigantic                     | 4      | au. oc.              | Y          | damp woods     | Schæff. t. 227  |
| 15787 torminósus Schæff.                   | bearded                        | dangerous                    | 2      | jn. oc.              | Pk         | way sides      | Sowerby, t. 103   |
| 15788 necátor Bull.                        | destructive                    | poisonous                    | 1      | au. oc.              | OI.Br      | woods          | Bulliard, t. 14   |
| 15789 cilicitioides Fries                  | downy                          | very downy                   | 3      | sept.                | DI.Pk      | pine woods     |   |
| 15790 lúridus Pers.                        | lurid                          | flattened                    | 1½     | sep. oc.             | Lurid      | heaths         | Sowerb. t. 203. <i>zonarius</i>                           |
| 15791 ácris Bolton                         | hot                            | very acrid                   | 2      | au. no.              | Ciner.     | groves         | Bolton, t. 60   |
| 15792 ávidus Fries                         | moist                          | brittle                      | 1½     | au. oc.              | Li.Pk      | damp groves    |   |
| 15793 viétus Gleditsch                     | variable                       | very acrid                   | 2      | au. no.              | Livid      | woods          |   |
| 15794 hýgynus Fries                        | firm                           | variable                     | 2½     | au. oc.              | Pk         | grassy places  |   |
| 15795 biennius Fries                       | verdigrase                     | very acrid                   | 1½     | jul. oc.             | Gsh        | beech woods    |   |
| 15796 pállidus Pers.                       | pallid                         | gregarious                   | 1½     | au. oc.              | Pa.Y       | beech woods    |   |
| 15797 deliciósus L.                        | delicious                      | eatable                      | 1½     | jul. no.             | Or         | pine woods     | Sowerby, t. 202   |
| 15798 aurantiacus Pers.                    | orange                         | acid                         | 3      | au. oc.              | Or         | woods          | Batarra, t. 16. f.  |
| 15799 mitíssimus Fries                     | mild                           | sweet                        | 3      | au. no.              | Or         | woods          |   |
| 15800 quietus Fries<br>A. serósus Wither.  | serous                         | sweet                        | 3      | aut.                 | Pk         | oak woods      | Fl.dan. t. 1069. <i>rubescens</i>                         |
| 15801 subdulcis Pers.                      | sweetish                       | nauseous                     | 3      | sum.                 | Brsh       | woods          | Sower. t. 204. <i>lactiflorus</i>                         |
| 15802 thejogálus Bull.                     | yellow-milked                  | poisonous                    | 2½     | sep. oc.             | Fulv.      | shady woods    | Bulliard, t. 567. f. A.                                   |
| 15803 Tithymalinus Scop.                   | testaceous                     | very milky                   | 3      | sep. oc.             | Pa.Y       | shady woods    | Bats. cont. f. 60. <i>ichoratus</i>                       |
| 15804 rúfus Scopoli<br>A. rubescens With.  | rufous                         | scentless                    | 2      | jul. oc.             | Br         | pine woods     |   |
| 15805 hélvus Fries                         | intermediate                   | acid                         | 2½     | jul. no.             | R. Oc.     | damp places    |   |
| 15806 glycyósmus Fries                     | sweet-tasted                   | esulent                      | 3      | jul. oc.             | Lurid      | thickets       |   |
| 15807 pírameus Bull.                       | lead-colored                   | insipid                      | 4      | au. sep.             | Lead       | damp places    | Sowerby, t. 245. <i>Listeri</i>                           |
| 15808 pyrogálus Bull.                      | red-milked                     | very acrid                   | 1½     | au. oc.              | Livid      | groves         | Bulliard, t. 529. f. 1                                    |
| 15809 flexuósus Pers.                      | flexuose                       | compact                      | 1      | jul. oc.             | Br         | grassy places  | Bul. t. 559. f. 1. A. <i>axoniens</i>                     |
| 15810 piperátus Scop.                      | peppery                        | eatable                      | 2      | sep. oc.             | W          | woods          | Bolton, t. 21   |
| 15811 velléreus Fries                      | Lister's                       | gregarious                   | 2      | au. no.              | W          | thickets       | Sowerby, t. 104. <i>Listeri</i>                           |
| 15812 dúlcis Hudson                        | sweet                          | gregarious                   | 2      | au. no.              | W          | thickets.      |   |
| 15813 depréssus Wither.                    | depressed                      | variable                     | 2½     | au. oc.              | Pk         | grassy places  |   |

§ 8. CLITO'CYBE. *Fries*  
15814 gigantéus *Leysser.* gigantic very broad 6 sept. Wsh thickets Sowerby, t. 244



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§ 6. *Russula*. So named from the russet color of the original species. The species are all large, or of middle size, rigid, persistent, solitary, terrestrial, chiefly appearing in the autumn.

§ 7. *Galarhæus*. From γαλα, milk, and hæu, to flow; many of the species being lactescent; some are juiceless. These are fungi of the summer and autumn, possessing an aromatic smell and acid flavor. They all grow upon the ground. A. torminosus, in times of scarcity, is eaten by the Russians, mixed with salt, oil, and vinegar. *Buzb.* A. controversus is stated by Persoon to be eatable; but Fries thinks it must be in mistake. A. deliciosus has gills decurrent, flame-colored, narrow, regularly branched; pileus rich, red, brown; flesh nearly flat, but somewhat hollowed at the centre, and the edge turned in from one and a half to three inches over; orange-color; stem orange, solid, tapering downwards, from one to two inches high, and a quarter to three-eighths high: hollow with age. The juice is rich yellow, which soon turns green. It is found in the fir plantations of Scotland, and in those of the barren hills at Barr, in Staffordshire. Dr. Smith also found it at Hillingdon, Middlesex, under some fir trees; it also grows near Guildford. It is much esteemed in Italy, and exposed in the markets, and supposed to have been the A. caesareus mentioned by some authors.

15779 Cap compact somew. depressed in centre with marg. at length sulcate, Lamellæ broad subeq. very white

**\*\* Gills nearly equal, Sporidia white.**

15780 Cap deformed opaque pallid : margin finally striated, Lamellæ distinct whitish, Stipes finally cinereous

**\*\*\* Gills forked, and many of them halved.**

- 15781 Very hot, Cap very red : margin smooth, Lamellæ forked white
- 15782 Acrid stinking, Cap yellow : margin warty furrowed, Lamellæ connected and hollow, Stipes white
- 15783 Scentless, Cap greenish : margin smooth, Lamellæ forked white [thick. Stipes short solid very robust
- 15784 Large, Pileus depress. ash color. olive at length dark and as if burnt : marg. smth. Lam. uneq. dist. white  
 β Cap brownish-yellow, Lamellæ yellowish-white, Stipes solid white

**\* Edge of the cap rolled inwards, downy. HOT. POISONOUS.**

- 15785 White, Pileus villous blood-red variegated downy at edge, Stipes solid
- 15786 Cap yellow without zones : margin bearded, Milk yellowish, Stipes hollow spotted
- 15787 Cap glabr. pale with a yellowish brownish or greyish tinge : marg. toment. Stipes most. holl. in part smth.
- 15788 Cap smooth zoned olive-brown : margin villous, Stipes solid
- 15789 Cap downy dull flesh-colored, Lamellæ yellowish, Stipes rather hollow

**\*\* Cap smooth, viscid, with a naked edge. HOT. EATABLE.**

- 15790 Cap viscid zoned lurid, Lamellæ white, Milk reddish, Stipes hollow
- 15791 Cap viscid not zoned cinereous-sooty, Lamellæ yellow, Milk turning red, Stipes solid
- 15792 Cap viscid not zoned fleshy livid or brownish, Lamellæ white, Milk whitish-lilac, Stipes hollow
- 15793 Cap thin smooth somewhat. viscid not zoned livid pale, Lamellæ and milk whit. Stipes somew. hollow fragile
- 15794 Cap viscid not zoned smooth flesh-colored, Lamellæ and milk white, Stipes hollow spotted
- 15795 Cap viscid somewhat dripping not zoned greenish, Lamellæ and milk white
- 15796 Cap viscid smooth not zoned and stipes (which is short) hollow and firm pallid, Lamellæ and milk white
- 15797 Cap glutinous obscurely zoned dingy-orange or reddish very pale when dried, Lamellæ and juice orange, Stipes becoming hollow glabrous

15798 Cap somew. viscid not zoned orange-colored, Lamellæ compact yellowish, Milk white, Stipes long smooth

**\*\*\* Cap dry, naked at edge, Gills close, when young white, afterwards yellow. EATABLE but ACRID.**

- 15799 Sweet, Cap papillose smooth dry orange-colored, Lamellæ paler, Milk white, Stipes long hollow
- 15800 Sweet, Cap obtuse smooth dry opaque, Lamellæ testaceous rufous, Stipes solid firm brownish

15801 Cap glabrous polished reddish, Lamellæ flesh-colored at length ferruginous, Juice white not changing color, Stipes firm smooth becoming hollow

- 15802 Somewhat acid, Cap dry smooth somewhat zoned rufous brown, Milk yellow, Stipes solid
- 15803 Acrid, Cap dry smooth obsoletely zoned pale-yellow, Lamellæ pale flesh-color, Stipes solid
- 15804 Very acrid, Cap dry umbonate polished reddish-brown, Lamellæ rufous, Milk white, Stipes solid

- 15805 Acrid, Cap bluntnish scaly dry red-ochre-colored, Lamellæ ochraceous, Stipes nearly solid
- 15806 Cap thin scaly dry opaque somewhat lurid
- 15807 Cap large dry zoneless dark fuscous or deep dingy-grey, Lamellæ yellowish rather numerous, Juice white

**\*\*\*\* Cap dry, naked at edge, Gills not altering, Substance compact, tough. VERY ACRID.**

- 15808 Cap dry smooth somewhat zoned livid, Lamellæ distant yellow, Stipes hollow cinereous
- 15809 Cap repand dry smooth, Lamellæ distant pallid, Stipes short pallid. [white very acrid
- 15810 Cap depress. becom. infundibulif. glab. whit. Lamel. very narrow crowded, Stipes solid white thick, Juice
- 15811 White, Cap umbilicate downy rigid, Lamellæ narrow distant, Milk white, Stipes solid thick

15812 All white sweet, Cap convex, Stipes long

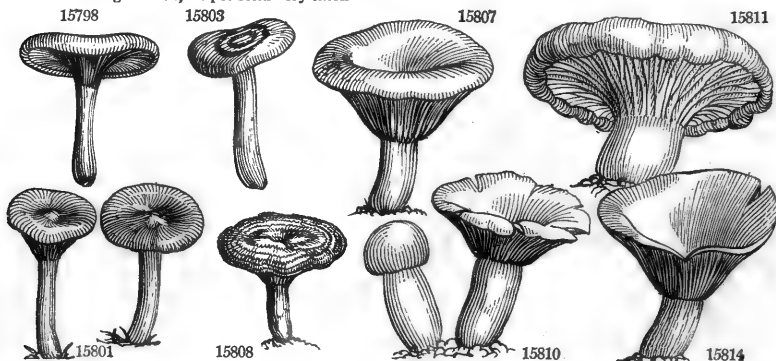
15813 Seems to be a green variety of *A. hygynus*, with a solid stipes

**A. Gills equally narrowed backward, acute.**

**1. Cap dry, smooth, Gills close, decurrent or acutely adnate.**

**\* Cap more or less fleshy ; when young convex-deflexed, when older depressed, Gills truly decurrent.**

15814 Very large whitish or very pale brown, Cap becoming infundibuliform, Lamellæ numerous decurrent becoming reddish, Stipes solid very thick



and Miscellaneous Particulars.

Dr. Withering enumerates three varieties, one of which affords, from every part of it when wounded, a copious discharge of yellow acrid juice. They are gathered in woods and dry pastures in September and October.

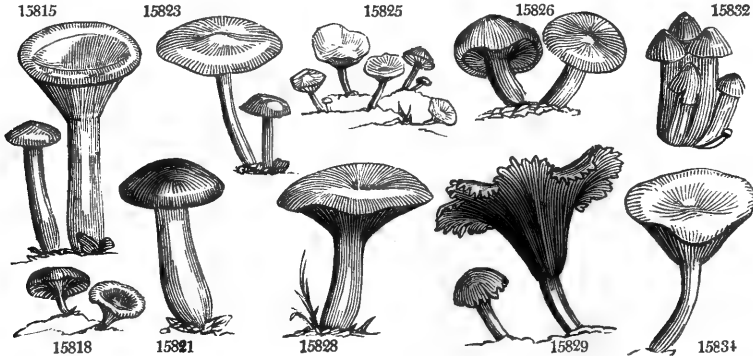
Lösel asserts in his *Flora Prussica*, p. 82, that "the juice of *A. piperatus*, mixed with the syrup of mallows, is a certain cure for calculus, and a powerful diuretic." Almost all the venomous fungi, and especially those of the present group, are said to be the favorite food of the goat, during the rutting season. It is sometimes monstrous and irregular. Withering mentions their attaining the diameter of ten inches. The stipes is not unfrequently thicker than it is long. It has been used in medicine, and thought useful in dissolving calculi ; a property we may safely venture to deny it.

§ 8. *Clitocybe*. From *κλιος*, inclined, and *κυβη*, a head. Most of the species are harmless, and of the larger size. *A. nebularis* is eatable, so also is *A. fusipes*. *A. giganteus* is one of the species which form those circles known by the name of *Fairy-rings*, the origin of which is still as obscure as ever.

*A. arcades* has loose gills, with the part attached to the pieus jutting up very close to the stem, so as to give



|   |                  |            |                   |               |                                  |
|---|------------------|------------|-------------------|---------------|----------------------------------|
| 15815 <i>gilvus Pers.</i><br><i>A. pileolarius Sowerb.</i>              | cinnamon-col.    | gigantic   | 3 au. no. D.I.Y   | among moss.   | Grev. crypt. 1. 41               |
| 15816 <i>flaccidus Sowerb.</i>  | flaccid          | pretty     | 3 sep. oc. W      | woods         | Bolton, t. 185                   |
| 15817 <i>gibbus Pers.</i>   | gibbous          | fragrant   | 2 oct. Br         | plains        | Bulliard, t. 573. 1. 2           |
| 15818 <i>turfosus Sowerb.</i>   | turfy            | scentless  | 1 nov. Br         | turf          | Sowerby, t. 210                  |
| 15819 <i>diatrétus Fries</i>  | perforated       | tough      | 2 sep. no. Pk     | woods         |                                  |
| 15820 <i>nebuláris Batsch</i><br><i>A. cáseus With.</i>                 | clouded          | gregarious | 3 sep. oc. Ciner. | heaths        | Bolton, t. 40. <i>molis</i>      |
| 15821 <i>túrgidus Grev.</i>   | turgid           | solitary   | 2 aut. Sooty      | dry woods     | Grev. crypt. t. 9                |
| 15822 <i>viridis Wither.</i>  | green            | slender    | 2½ aug. G         | woods         | Bolton, t. 12. <i>cáeruleus</i>  |
| 15823 <i>odórus Bull.</i>   | anise-scented    | eatable    | 3 au. no. Ciner.  | woods         | Grev. crypt. 1. 28               |
| 15824 <i>cáncianus Pers.</i>  | hoary            | shaggy     | 1½ au. no. W      | dead leaves   | Bolton, t. 17                    |
| 15825 <i>dealbátus Fries</i><br><i>A. agréstitis Wither. A variety.</i> | whitened         | gregarious | ½ au. no. Wsh     | meadows       | Sowerby, t. 123. 7               |
| 15826 <i>grammopódius Dec.</i>  | stinking         | shaggy     | 3 oct. W          | grassy grov.  | Sower. t. 281. <i>graveolens</i> |
| 15827 <i>millus Sowerb.</i>   | Dog's-collar     | depressed  | 3 jan. Brsh       | woods         | Sowerby, t. 18                   |
| 15828 <i>inornátus Sowerb.</i>  | neat             | pretty     | 2 aut. Liv. G     | upon earth    | Sowerby, t. 342                  |
| 15829 <i>ámbriátus Bolton</i>   | fringed          | gregarious | 1 au. sep. Wsh    | rotten wood   | Bolton, t. 61                    |
| 15830 <i>lignátilis Fries</i>   | wood             | irregular  | 2 au. dec. Wsh    | rotten wood   |                                  |
| 15831 <i>adhésivus Wither.</i>  | sticking         | irregular  | 3 sept. W. Br     | plantations   |                                  |
| 15832 <i>edemátopus Schæff.</i>   | fusiiform        | tufted     | 2 sp. aut. Ruf.   | woods         | Schæff. t. 259                   |
| <i>β coralloides Dicks.</i>   | <i>coralloid</i> | tufted     | 2 sp. aut. Ruf.   | hollow t. ees | Batarrá, t. IX. f. B             |
| 15833 <i>obésus Wither.</i>   | squat            | tufted     | 1½ aug. W. Br     | pastures      |                                  |
| 15834 <i>opácus Wither.</i>   | opaque           | cracking   | 2 au. sep. W      | among grass   | Sowerby, t. 142                  |
| 15835 <i>pistilláris Wither.</i>  | pistillary       | crooked    | ½ aug. Wsh        | among grass   |                                  |
| 15836 <i>camarophýllus Fries</i>  | arched           | brittle    | 4 au. oc. Sooty   | damp woods    | Sowerby, t. 172. <i>elivus</i>   |
| 15837 <i>praténsis Pers.</i><br><i>A. fátuus Wither.</i>                | meadow           | eatable    | 1½ au. no. Ysh    | way sides     | Grev. crypt. 2. 91               |
| <i>β clavafórmis With.</i>  | <i>clavate</i>   | eatable    | 1½ au. no. W      | way sides     | Schæff. t. 307                   |
| <i>γ eríceus With.</i>  | <i>heathy</i>    | eatable    | 1½ sep. no. W     | heaths        | Bull. t. 467. <i>erícetosus</i>  |
| 15838 <i>virgíneus Wulfen</i>   | virgin-white     | eatable    | 2 sep. no. W      | heaths        | Grev. crypt. 3. 166              |
| 15839 <i>psittácinus Schæff.</i>  | parrot-colored   | pretty     | 2 oc. no. Gsh. Y  | meadows       | Grev. crypt. 2. 74               |
| 15840 <i>ceráceus Sowerb.</i>   | waxen            | gregarious | 2½ au. no. Y      | pastures      | Sowerby, t. 20                   |
| 15841 <i>cónicus Schæff.</i>  | conical          | watery     | 4 my. oc. Ysh     | meadows       | Sow. t. 381. <i>aurantiacus</i>  |
| 15842 <i>puncteus Fries</i>   | crimson          | beautiful  | 3 au. oc. Or. R   | among grass   | Bull. t. 202. <i>coccineus</i>   |
| 15843 <i>coccíneus Pers.</i>  | scarlet          | beautiful  | 2 au. oc. Sc      | meadows       | Sowerby, t. 381                  |
| 15844 <i>baccátus Scop.</i>   | varnished        | handsome   | 2 jn. nov. Ros. R | on earth      | Sower. t. 208. <i>farinaceus</i> |
| <i>β améthýstinus Huds. améthýstine</i>                                 |                  | handsome   | 2 jn. nov. Viol.  | shady places  | Sowerby, t. 187                  |
| 15845 <i>ovinus Bull.</i>   | sheep            | mild       | 2 au. oc. Brsh    | meadows       | Bulliard, t. 580                 |
| 15846 <i>sulphúreus Bull.</i>   | sulphureous      | fœtid      | 4 sep. oc. Teat.  | trees & woods | Sowerby, t. 44                   |
| 15847 <i>tórtilis Bolton</i>  | twisted          | distorted  | ½ aut. Br         | gard. mould   | Bolton, t. 41                    |
| 15848 <i>ovális With.</i>   | oval             | satiny     | 2½ sep. oc. R. Br | fir woods     |                                  |



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them almost the appearance of being fixed, watery, brownish-white, two or four in a set, the small ones very minute, and the large ones sometimes splitting at the outer end; not numerous, rather broad for the size of the plant, frequently connected to the pileus by ligaments; pileus pale, buffy-brown, convex, irregular, with a sudden depression of the border at some distance from the centre, often giving the appearance of a large rounded boss in the middle; central color generally deeper; from one to one and three-quarters inch over; and the edge turning up with age; stem solid, white, changing to watery-brown, cylindrical, but thicker and flattened just under the pileus, very tough, mostly crooked, twisted when dry, rarely central, one and half inch high, and thick as a crow-quill. This is the twenty-seventh fungus of Ray's Synopsis, ed. 3. p. 6.; A. pratensis of Hudson, and coriaceus of Lightfoot. There are two varieties; one with cream-colored gills, buff pileus, and mealy stem; and another with yellow-brown, more fleshy, and more regularly convex pileus, found in groves. Mr. Woodward says, that this species has a much higher flavor than the common mushroom, but he suggests,

- 15815 Large, Cap convex umbonate at length infundibuliform smooth firm yellowish-white, Lamellæ numerous decurrent whitish, Stipes straight solid subradicating  
 15816 Cap thin funnel-shaped obt. smooth flaccid, Lamellæ decurr. whit. Stipes solid thickened at base villous  
 15817 Cap umbonate smooth becoming funnel-shaped, Lamel. decurr. white, Stipes solid elastic taper. upwards  
 15818 Cap depressed broad zoned brown irregular, Gills decurrent pallid, Stipes solid  
 15819 Cap flatt. somew. umbilic. smth. a lit. flesh-color. : when dry whit. Lam. decurr. and solid eq. Stipes white

**\*\* Cap closely fleshy, convex, opening out flat, Gills truly decurrent, Stalk strong. EATABLE.**

- 15820 Cap compact smooth cinereous, Lamellæ slightly decurrent compact whitish, Stipes solid tapering up

- 15821 Cap plano-convex very smooth greyish-brown, Lamellæ narrow numerous pale, Stipes hollow stout

**\*\*\* Cap truly but not firmly fleshy, flattish or slightly depressed, Gills adnate, not properly decurrent, Stalk slender.**

- 15822 Cap smooth green, Lamellæ adnate narrow, and stipes (which is solid and smooth) white  
 15823 Fragrant smooth dull bluish-green umbonate convex becoming plane, Lamellæ numer. adnato-decurrent  
 15824 Shining-white, Cap smooth convex then umbonate, Lamel. adnate then decurr. Stipes fistulous smooth  
 15825 Scentless white, Pileus unequal thin smooth, Lamellæ adnate numerous, Stipes solid equal glabrous

- 15826 Cap obsolete umbonate smooth, Lamellæ adnate close white, Stipes solid furrowed smooth  
 15827 Cap somew. umbon. smooth brown. Lamel. affixed with hind end recurv. Stipes solid equal strigose  
 15828 Cap obtuse smooth somewhat repand greenish-livid, Lamellæ adnate, Stipes solid smooth [short  
 15829 Dirty-white, Cap becom. funnel-form. smth. : marg. sinuat. and lob. Lam. adnate very tender, Stipes solid

**\*\*\*\* Tufted, variable, some growing on wood, some on earth.**

- 15830 Cap irregular rather out of centre vill. whit. Lamel. adn. compact white, Stipes solid flexu. vill. at base  
 15831 Cap flat discoid viscid, Lamellæ decurrent and solid tapering, Stipes white  
 15832 Cap conical powdery rufous, Lamellæ decurrent and solid ventricose powdery, Stipes rufous

- 15833 Cap whit.-brown, Stipes solid obconic. scarcely broader at top than bottom, Lamel. decurr. branch. white  
 15834 Cap dead white nearly flat, Lamellæ white numerous, Stipes white with brown pith  
 15835 Whitish, Cap convex, Lamellæ decurrent, Stipes solid subconical

**2. Cap somewhat compact dry, Gills very distant, arcuate, decurrent.**

- 15836 Cap somewhat compact streaked sooty, Lamellæ decurrent white-glaucous, Stipes long stout fibrous  
 15837 Firm, Cap compact convex becoming partially expanded smooth brownish-buff with a pink tinge, Lamellæ decurrent thick, Stipes short solid attenuated below

β All white

γ Cap thinner with a striated margin

- 15838 Viscid, Cap campanul. expand. when humid striated, Lamel. adnate somew. distant, Stipes equal smooth

**3. Cap thin, viscid, wet, Gills variable, Stalk hollow. TERRESTRIAL.**

- 15839 Green chang. to yell. Pileus campanulate spreading, Lamellæ adnate rather distant, Stipes equal smooth  
 15840 Cap nearly plane slimy substrate yellow, Lamellæ adnate decurrent distant, Stipes rather unequal gradually attenuated towards the base

- 15841 Cap conical glutin. mostly yell. or crim. Lamel. crowd. ventric. attenuat. and free, Stipes substrate split.  
 15842 Cap campanul. obt. lob. orange-red, Lamel. affixed ascend. yellow, Stipes thick ventricose white at base  
 15843 Cap conv. expand. visc. becom. depres. Lam. adn. versicolor connect. by decurr. tooth, Stipes compr. scarlet

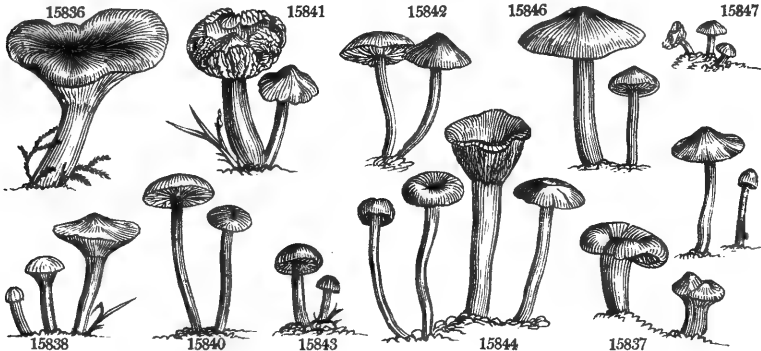
**B. Gills unequal at the back ; that is, toothed ; or arcuate, decurrent, sinuate, emarginate, &c.**

**4. Cap dry, minutely scaly, Gills generally arcuate, decurrent, rarely adnate. FIRM.**

- 15844 Gregarious, Cap scarcely fleshy tough farinaceous with minute scales pale or deep flesh-color : disk depressed in age, Lamellæ distant, Stipes long elastic  
 β Cap convex becoming depressed somewhat squamulose purple, Lamellæ distant thick violet-purple, Stipes purple, hollow when old

- 15845 Cap fleshy plano-convex somew. scaly brown. Lamel. arcuate affix. connect. whit. Stipes solid short firm  
 15846 Cap fleshy somewhat umbonate slightly silky testaceous, Lamellæ arcuate adnate somewhat distant and solid equal. Stem sulphur-colored

- 15847 Lamellæ brown changing to purplish, Cap red-brown convex turning up with age, Stipes brownish  
 15848 Lamellæ brownish-white, Cap cinnamon bossed, Stipes brownish-white cylindrical



*and Miscellaneous Particulars.*

that from its leathery nature it is indigestible, except in the form of powder, in which it is admirable. Dr. Withering, however, observes, that he has seen the pileus and gills of this agaric very brittle and tender when fully saturated with moisture in rainy seasons, and in that state it is sufficiently digestive. Professor Martyn informs us that he has eaten these mushrooms for forty years without injury, and without perceiving that toughness, like leather, of which others have complained, except in very dry weather, or when they are in too advanced a state. They should be gathered young, and early in a morning, and properly dressed. They are found in hedge banks, upland pastures, and sheep commons, particularly in those patches called Fairy rings. Those that are found in woods and hedges are of inferior flavor to such as are gathered in dry pastures, which have a very pleasant smell and luscious flavor, either when stewed alone or in ragouts, &c. This sort makes excellent ketchup, and is much valued in the form of powder. It is in season during September and October, but may be dried so as to be in use for the table all the winter. Mr. Lightfoot supposes that this species is the

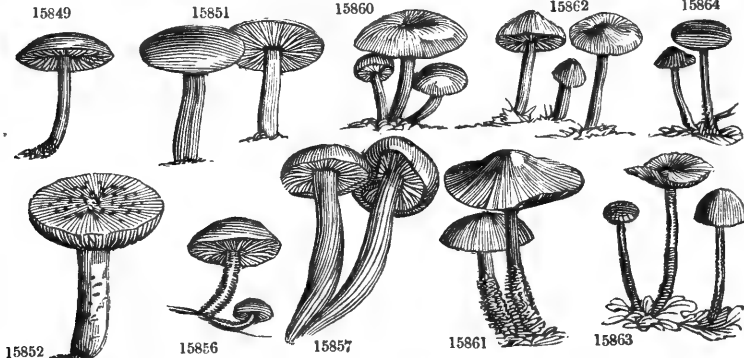
|       |                              |                    |              |       |                 |                |                                       |
|-------|------------------------------|--------------------|--------------|-------|-----------------|----------------|---------------------------------------|
| 15849 | <i>pelicánthinus Fries</i>   | toothlike          | beautiful    | 3     | au. sep. Pu     | roots of trees | Bolt. t. 4. f. 1. <i>denticulatus</i> |
| 15850 | <i>melaleúcus Pers.</i>      | black & white      | elegant      | 3     | au. no. Sooty   | damp places    |                                       |
| 15851 | <i>compréssus With.</i>      | compressed         | pellucid     | 3     | June Br         | among grass    | Sowerby, t. 66                        |
| 15852 | <i>murináceus Bull.</i>      | nitric-acid-scent. | fragile      | 2     | au. oc. Ciner.  | pastures       | Sowerby, t. 106                       |
| 15853 | <i>platyphýllus Pers.</i>    | broad-headed       | large        | 4     | Jul. oc. Wsh    | trun. of trees | Bul. t. 594. <i>grammoceph.</i>       |
| 15854 | <i>radicátus Relh.</i>       | rooting            | gigantic     | 1     | jn. sep. W      | trun. of trees | Gre. crypt. 4. 217                    |
| 15855 | <i>grácilis With.</i>        | slender            | more slender | 1 1/2 | jn. sep. W      | trun. of trees |                                       |
| 15856 | <i>velútipes Fl. Lond.</i>   | velvet-footed      | cæspitose    | 2     | oc. mr. Fulv.   | trees          | Sowerby, t. 384. f. 3                 |
| 15857 | <i>fúsipes Bull.</i>         | thick-footed       | eatable      | 2     | Jul. no. W      | woods          | Sowerby, t. 129. <i>crassipes</i>     |
| 15858 | <i>cónfluens Pers.</i>       | confluent          | cæspitose    | 4     | au. oc. Wsh     | shady woods    |                                       |
| 15859 | <i>collínus Scop.</i>        | hill               | cæspitose    | 4     | sep. oc. Pallid | among grass    | Bul. t. 403. <i>arundinaceus</i>      |
| 15860 | <i>dryóphilus Sowerb.</i>    | oak-loving         | cæspitose    | 2     | oc. no. Wsh     | heaps of lvs.  | Sowerby, t. 127                       |
| 15861 | <i>peronátus Bolton</i>      | woolly             | changeable   | 2 1/2 | Jul. no. Test.  | dead leaves    | Sowerby, t. 57                        |
| 15862 | <i>oréades Bolton</i>        | twisted            | eatable      | 3     | my. no. Pa. Rf. | grassy places  | Sowerby, t. 247. <i>pratensis</i>     |
| 15863 | <i>pérreus Fries</i>         | Garlic-scented     | stinking     | 3     | oc. no. W       | plantations    | Sowerb. t. 81. <i>alliaceus</i>       |
| 15864 | <i>fúaco-purpáreus Pers.</i> | brown-purple       | cæspitose    | 2 1/2 | Jul. sep. D. Pu | beech leaves   | Pers. ic. t. 4. f. 1                  |

§ 9. COLLYBIA. Fries

|       |                          |               |               |       |               |               |                                    |
|-------|--------------------------|---------------|---------------|-------|---------------|---------------|------------------------------------|
| 15865 | <i>scorodónius Fries</i> | Onion-scented | strong smell. | 1 1/2 | au. oc. Wsh   | heaths        | Schæff. t. 99. <i>alliatus</i>     |
| 15866 | <i>cárneus Bull.</i>     | flesh-colored | dwarf         | 1     | au. sep. R    | grassy places | Bull. t. 533. f. 1                 |
|       | <i>punicéus With.</i>    |               |               |       |               |               |                                    |
| 15867 | <i>esculéntus Wulfen</i> | eatable       | esulent       | 1 1/2 | ap. my. Clay  | way sides     | Schæff. t. 59. <i>clavus</i>       |
| 15868 | <i>tuberósus Bull.</i>   | tuberous      | gregarious    | 1/2   | au. no. W     | on fungi      | Gre. crypt. 1. 23                  |
|       | <i>A. alumnus Bolton</i> |               |               |       |               |               |                                    |
| 15869 | <i>racemósus Sowerb.</i> | racemose      | compound      | 1/2   | aut. Gr       | on fungi      | Sowerby, t. 267                    |
| 15870 | <i>clávus Bull.</i>      | club          | gregarious    | 1     | au. oc. Or. R | dead branch.  | Bolton, t. 39. B.                  |
| 15871 | <i>rameális Bull.</i>    | branch-living | gregarious    | 1/2   | all sea. Wsh  | dry branches  | Bolt. t. 39. f. D. <i>candidus</i> |
| 15872 | <i>parásíticus Bull.</i> | parasitical   | meteoric      | 1/2   | au. oc. Gr    | on fungi      | Sowerby, t. 343                    |

|       |                                   |               |            |       |                 |               |                                   |
|-------|-----------------------------------|---------------|------------|-------|-----------------|---------------|-----------------------------------|
| 15873 | <i>Vaillántii Fries</i>           | Vaillant's    | tough      | 1     | au. sep. W      | dead branch.  | Vail. bot. par. t. 11. f. 21-24   |
|       | <i>Merdtius androsáceus With.</i> |               |            |       |                 |               |                                   |
| 15874 | <i>Rótula Scop.</i>               | black-footed  | gregarious | 1     | all sea. W      | woods         | Sowerby, t. 95                    |
| 15875 | <i>androsáceus L.</i>             | Androsea-like | tough      | 1 1/2 | all sea. W. Br  | dead leaves   | Bolton, t. 32                     |
| 15876 | <i>foe'tidus Fries</i>            | stinking      | gregarious | 1     | au. sep. Br     | fallen branc. | Sow. t. 21. <i>Merulius foet.</i> |
| 15877 | <i>pérforans Fries</i>            | boring        | stinking   | 1     | all sea. Pallid | dead fir lvs. | Sower. t. 94. <i>androsaccus</i>  |
| 15878 | <i>epiphýllus Pers.</i>           | shrivelled    | gregarious | 1/2   | sep. d. W       | dead leaves   | Sowerb. t. 93. <i>squamula</i>    |

|       |                      |          |       |     |          |              |                                 |
|-------|----------------------|----------|-------|-----|----------|--------------|---------------------------------|
| 15879 | <i>Hudsóni Pers.</i> | Hudson's | hairy | 1/2 | aut. Wsh | holly leaves | Sowerb. t. 164. <i>villosus</i> |
|-------|----------------------|----------|-------|-----|----------|--------------|---------------------------------|



History, Use, Propagation, Culture,

*mouceron* of the French, who use it in ragouts instead of that, and acknowledge it to be equal in flavor, but more tough. The *mouceron*, however, has a very thick and fleshy pileus; its gills are very narrow and numerous, and fixed to the stem, and the stem is thick and short. Dr. Withering has carefully distinguished several other species from this fairy-ring agaric, or Scotch bonnets, as it is called by Mr. Ray.

5. *Cap smooth, somewhat humid, Gills arcuate at their connection with the edge, reticulated at their union with each other, with appendages at edge.*

15849 Cap convex livid-purple striat. at edge, Lamel. arcu.-annex. purple with black teeth, Stipes fistular equal

6. *Cap thin, dry, Gills emarginate.* BRITTLER.

\* *Cap fleshy, smooth, and stem regular.* TERRESTRIAL.

15350 Cap fleshy soft flat. smooth, Lamel. clustered somew. ventricose white, Stipes somew. holl long and thin

\*\* *Cap somewhat fleshy, and stem, which has no roots, irregular.* TERRESTRIAL.

15851 Cap subcarneous irregular smooth thin fuscous, Lamellæ distant white, Stipes hollow-whitish compressed

15852 Cap fleshy deform. crack. scaly cinereous, Lamel. glued together dist. and deform. holl. Stipes cinereous

\*\*\* *Cap somewhat fleshy, and stem, which has roots, regular.* GROWING ON WOOD.

15853 Cap fleshy flat somew. streaked cinere.-whit. Lamel. very broad dist. and solid equal striat. Stipes white

C. *Gills equal, behind blunt.*

7. *Cap fleshy, glutinous, Gills somewhat united, Stem rooted.*

15854 Cap rugose glutinous tough, Lamellæ white, Stipes tall rigid with a long fusiform root

15855 More slender, Lamellæ sinuated with a decurrent tooth, Stipes very long [blackish towards base

15856 Cap nearly plane brown orange glutin. Lamel. ventric. yellow. Stipes incurv. velvety and redd.-brown or

8. *Cap tough, dry, Gills separate, close, white.*

15857 Gregarious, Cap fleshy loose, Lamel. somew. separate serrat. Stipes hollow ventricose furrow. whit. root.

15858 Confluent cæspitose, Cap somewhat fleshy whitish, Lamellæ loose compact, Stipes fistulous somewhat

15859 Cap somew. fleshy campanul. expanded umbonate pallid, Lamel. loose, Stipes fistulous smooth glabrous

15860 Variable, Cap thin watery smooth plane sometimes depressed, Lamellæ free soft, Stipes hollow splitting becoming thicker towards the base pinkish or yellowish-white more colored at the summit

9. *Cap somewhat leathery, dry, Gills separate, distant, pallid.*

\* *Cap fleshy, Stem solid.*

15861 Cap dry leathery convex at length plane, Lamellæ distant pale-reddish or buffish, Stipes solid clothed

15862 Cap tough subumbonate reddish becoming buffish or very pale opaque, Lamellæ distant whitish, Stipes

solid firm cylindrical thickest under the pileus pale

\*\* *Cap fleshy, Stem fistulous.*

15863 Strong smell. Cap somew. fleshy smth. and lamellæ somew. loose white, Stipes fistular long downy rufous

15864 Cap somewhat fleshy wrinkled dark-purple becom. pale, Lamellæ loose-rufous, Stipes fistular rubiginous

1. *Cap slightly fleshy, smooth, scarcely umbilicate, Gills true, Stem hollow, or somewhat fistulous.*

15865 Strong smell. Cap somew. fleshy, and lamellæ adnate crisp whitish, Stipes fistular short glabrous rufous

15866 Cap somewhat fleshy smooth pinkish-red, Lamellæ attached white, Stipes nearly solid short scaly

15867 Cap somew. fleshy obt. clay-colored, Lamellæ attached lax white, Stipes fistular rooting smooth yellow.

15868 Cap plane or somewhat umbonate, Lamellæ adnate numerous, Stipes subfistulose slightly tomentose at

the base and springing from a reddish tuberous root

15869 Cap membranous papillose grey, Lamellæ white, Stipes racemose

15870 Cap plano-convex reddish-orange, Lamellæ white rather broad fixed, Stipes very slender subsolid whitish

15871 Gregarious, Cap nearly plane white sometimes changing to reddish, Lamellæ adnate white, Stipes short

minutely furfuraceous marked within with a white line

15872 Cap somewhat fleshy convex becoming flat pruinose pale-grey, Lamellæ attached thick distant more

obscure, Stipes fistular villous

2. *Cap thin, membranous, flat, becoming depressed, plaited, rugose, Gills veiny, of the same substance as the cap,*

*Stem horny, black.*

15873 Cap flat plaited, and lamellæ (which are very broad adnate and distant) white, Stipes solid smooth

brownish thicker and paler towards the extremity

15874 Cap conv. umbilic. plicat. Lam. attach. to a collar surround. stipes white, Stipes holl. striate black below

15875 Cap convex plicate white sometimes tinged with brown, Lamellæ simple adnate white, Stipes hollow fur-

rowed very glabrous purplish-brown or black except at the summit

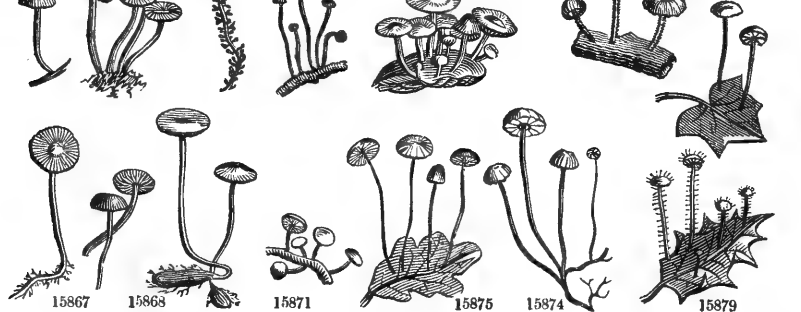
15876 Cap convex umbilicated plicate redd.-brown, Lamel. adnate pale-yellow. Stipes holl. redd.-brown velvety

15877 Cap flat. rugul. pall. Lam. adnate simp. many being halved, Stipes smth. fistular velvety blackish-brown

15878 Cap nearly plane rugose, Lamellæ few adnate resembling white prominent veins, Stipes hollow very

minutely velvety reddish-brown below

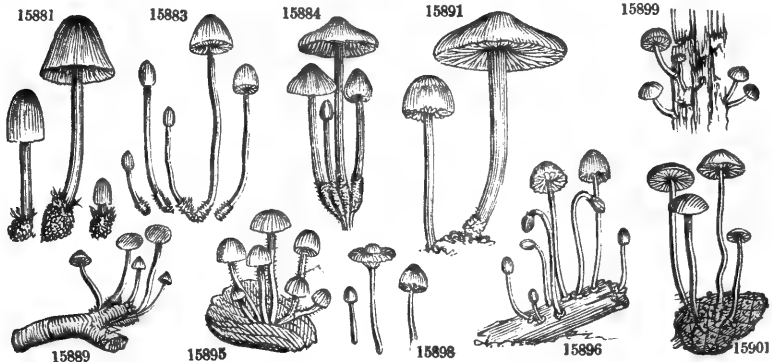
15879 Cap convex-expanded whitish and rufous, Stipes covered with straight red hairs, Lamellæ whitish



and Miscellaneous Particulars.

§ 9. *Collybia*. So called from *κολληβος*, a kind of small money. Small and persistent, gregarious species, growing either on earth or wood. Some of the species may be used as food.

|                       |  |               |                |    |          |        |                |                                    |
|-----------------------|--|---------------|----------------|----|----------|--------|----------------|------------------------------------|
| § 10. MYCENA. Pers.   |  |               |                |    |          |        |                |                                    |
| 15880                 | <i>alliaceus Jacq.</i>   | onion-scented | fetid          | 6  | jl. nov. | W.Br   | dead leaves    | Jacq. austr. t. 82                 |
| 15881                 | <i>atro-álbus Bolton</i>   | black-white   | scentless      | 3  | au. no.  | Blsh   | damp places    | Bolton, t. 137                     |
| 15882                 | <i>alcalinus Fries</i>   | alkaline      | fetid          | 2  | my. oc.  | Cin.   | on earth       | Vaill. par. t. 12. f. 1, 2         |
| 15883                 | <i>galericulátus Scop. várius With. prolíferus Sower. t. 169</i> | various       | scentless      | 3  | my. oc.  | Brsh   | trun. of trees | Sowerby, t. 165                    |
| 15884                 | <i>polygram'mus Dec.</i>   | marked        | cæspitose      | 6  | sep. d.  | Cin.   | dead leaves    | Bull. t. 518. <i>H. fistulosus</i> |
| 15885                 | <i>gálopus Pers.</i>   | white-footed  | scentless      | 4  | au. no.  | D.Gl.  | woods          | Fl. danica, t. 1550. f. 2          |
| 15886                 | <i>hæmátopus Pers.</i>   | red-footed    | cæspitose      | 2  | au. oc.  | Pk     | beech trunks   |                                    |
| 15887                 | <i>crúentus Fries</i>  | bloody        | solitary       | 3  | au. no.  | R      | fir leaves     |                                    |
| 15888                 | <i>élegans Pers.</i>   | elegant       | fennel-scent.  | 2  | au. no.  | Liv.Y  | pine woods     |                                    |
| 15889                 | <i>strobilinus Pers.</i>   | Pine-cone     | gregarious     | 2  | au. no.  | Crim.  | pine woods     | Sower. t. 197. <i>coccineus</i>    |
| 15890                 | <i>róseus Pers.</i>  | rosy          | gregarious     | 2  | au. no.  | Rosy   | pine woods     | Pers. syn. t. 3. f. 5              |
| 15891                 | <i>púrus Pers.</i>   | pure          | gregarious     | 3  | jn. nov. | Rosy   | woods          | Sowerby, t. 72. <i>roseus</i>      |
| 15892                 | <i>Adónis Bull.</i>  | Adonis        | various-color. | 2½ | sep. n.  | Rosy   | woods          | Bulliard, t. 560. f. 2             |
| 15893                 | <i>luteo-álbus Bolton</i>  | yellow-white  | pretty         | 2  | au. sep. | Y      | among moss     | Bolton, t. 38. f. 1                |
| 15894                 | <i>lácteus Pers.</i>   | milky         | gregarious     | 1½ | jl. nov. | W.Y    | heaths         | Sower. t. 385. f. 5. <i>tenuis</i> |
| 15895                 | <i>pílipus Sowerb.</i>   | hairy-footed  | cæspitose      | 2  | aut.     | Pa.Br  | dead           | Agarics Sowerby, t. 249            |
| 15896                 | <i>epip'terýgius Scop.</i>                                       | nodding       | variable       | 1½ | au. no.  | Cin.   | among moss.    | Sowerby, t. 92. <i>nutans</i>      |
| 15897                 | <i>vulgáris Pers.</i>  | common        | gregarious     | 1½ | au. no.  | Cin.   | fir leaves     | Fl. danica, t. 1678. f. 2          |
| 15898                 | <i>pellúcidus Bull.</i>  | transparent   | thick          | 1½ | aut.     | Ruf.   | the ground     | Bulliard, t. 550. f. 2             |
| 15899                 | <i>corticális Bull.</i>  | bark          | delicate       | ½  | oc. feb. | Ruf    | bark of trees  | Sowerby, t. 243                    |
| 15900                 | <i>ptérigenus Fries roséllus With.</i>                           | rosy          | beautiful      | 1¼ | au. oc.  | Rosy   | among moss.    |                                    |
| 15901                 | <i>apínipes Sowerb.</i>  | spiny-footed  | gregarious     | 4  | au. oc.  | Br     | pine cones     | Sowerby, t. 206                    |
| § 11. OMPHALIA. Pers. |  |               |                |    |          |        |                |                                    |
| 15902                 | <i>stellátus Fries</i>   | stellate      | gregarious     | 1  | jl. aug. | W      | hollow trees   | Sower. t. 107. <i>buccinalis</i>   |
| 15903                 | <i>fibula Bull.</i>  | button        | slender        | 1½ | my. oc.  | Or.Y   | among moss     | Sowerby, t. 45                     |
| 15904                 | <i>pyxidátus Bull.</i>   | box-like      | variable       | 2  | my. no.  | Test.  | on earth       | Bulliard, t. 568. f. 2             |
| 15905                 | <i>murális Sow.</i>  | wall          | subregar.      | ½  | aut.     | Br     | among grass    | Sowerby, t. 322                    |
| 15906                 | <i>erícetórum Pers.</i>  | heath         | variable       | 1  | my. no.  | W      | damp heaths    | Bull. t. 276. <i>androsaccus</i>   |
| 15907                 | <i>caulicinális Sower.</i>                                       | thick-stalked | solitary       | 2  | jl. oct. | Ferr.  | pine woods     | Sowerby, t. 163                    |
| 15908                 | <i>epichýsium Pers.</i>  | dirty         | tender         | 1  | jl. oct. | Cin.   | will. trunks   | Pers. ic. pict. t. 13. f. 1        |
| 15909                 | <i>obliquus Pers.</i>  | oblique       | solitary       | 1  | aut.     | Pa.Ci. | on earth       | Pers. ic. pict. t. 13. f. 3        |
| 15910                 | <i>frágrans Sowerby</i>  | fragrant      | anise-scented  | 1½ | aug. d.  | Livid  | among grass    | Sowerby, t. 10                     |
| 15911                 | <i>cæspítus Bolt.</i>  | cæspitose     | pellucid       | 1  | aug. d.  | Y      | peat           | Bolton, t. 41. f. C.               |
| 15912                 | <i>cyathifórmis Bull. A. clavatus Wither.</i>                    | cyathiform    | club-shaped    | 3  | oc. no.  | D.Br   | earth          | Sowerby, t. 363. <i>sordidus</i>   |
| 15913                 | <i>murinus Sowerby</i>   | mouse-scented | solitary       | 2  | sept.    | G      | earth          | Sowerby, t. 162                    |
| 15914                 | <i>tigrínus Bull.</i>  | mottled       | gregarious     | 1½ | my. jn.  | Wsh    | trun. of trees | Sowerby, t. 68                     |



History, Use, Propagation, Culture,

§ 10. *Mycena*. From *mycena*, a kind of small fungus. The species are of the smaller kind, at least they are thin and slender, and tolerably permanent. None of them are fit for food; many are distinguishable by their smell, which is always powerful.

1. *Dry, Cap generally umbonate, not depressed, Gills separate or adnate, not decurrent.*

- \* *Stem rooting, smooth, juiceless, Gills separate, whole-colored.*  
 15880 Cap becoming nearly plane subcoriaceous, Lamellæ free whitish, Stipes tall covered with a sort of bloom dark purplish-brown below velvety at the base  
 15881 Cap smooth blackish, Margin and lamellæ loose whitish, Stipes tumid at base, strigose  
 \*\* *Stem smooth, juiceless, somewhat rooting, Gills adnate, whole-colored.*  
 15882 Cap obtuse striated cinereous, Lamellæ adnate glaucous white, Stipes smooth firm villous at base  
 15883 Cap brown. Lamel. whit. adnate with a decurrent process, Stipes smth. tenacious strig. at base and radicat.

\*\*\* *Stem juiceless, striated, Gills whole-colored.*

- 15884 Cap obscurely striate blue-grey, Lamel. attenuated and subadnate whit. Stipes long rigid striate glister.  
 \*\*\*\* *Stem smooth, milky, somewhat rooting, Gills attenuated, united at the edge.*  
 15885 Cap striated blackish glaucous, Lamellæ affixed white, Stipes filled with white juice  
 15886 Cap fleshy-membranous whitish-red, Lamellæ affixed, and stipes filled with dark-red juice  
 15887 Cap striated reddish-brown, Lamellæ adnate whole-colored at the edge, Stipes filled with red juice

\*\*\*\*\* *Stem smooth, juiceless, somewhat rooting, Gills adnate, discolored at edge.*

- 15888 Cap striated livid-yellow, Lamellæ adnate linear livid : margin yellow, Stipes rigid smooth fibrous at base  
 15889 Bright-red, Cap acutely umbonate with a striate margin, Lamellæ fixed dilute reddish, Stipes firm strigose and pale at the base  
 15890 Cap between fleshy and membranaceous convex pale rose-purple, Lamellæ ventricosæ rather paler than pileus, Stipes smooth villous at the base

\*\*\*\*\* *Stem smooth, juiceless, scarcely rooting, Gills affixed, whole-colored. COLOR PURE*

- 15891 Cap between fleshy and membranous obtuse somewhat rose-colored, Lamellæ round ventricose pallid, Stipes smooth villous at base  
 15892 Cap obtuse smooth, Lamellæ adnate white, Stipes smooth rootless  
 15893 Cap umbonate striated and slender, Stipes yellow, Lamellæ adnate white  
 15894 Cap somew. umbonate striated yellowish-white, Lamel. affixed distinct, and stipes rigid smoothish white

\*\*\*\*\* *Stem juiceless, rootless, but swollen at base into a globe, Cap blunt.*

- 15895 Pale-brown, Cap conical smooth, Lamellæ loose compact, Stipes thickish hairy  
 2. *Cap or stem viscid, Gills adnate or decurrent.*  
 15896 Cap obtuse striated and elongated, Stipes yellow viscid, Lamellæ uncinatæ  
 15897 Cap umbonate becoming depressed striated cinereous, Lamellæ decurrent white, Stipes short firm viscid

3. *Dry, Cap finally depressed, Gills decurrent.*

\* *Firm, persistent, with a firm stem.*

- 15898 Cap somewhat membranous campanulate striated at edge, Lamellæ decurr. very broad, Stipes solid thin  
 \*\* *Delicate, withering, with a capillary stem.*  
 15899 Cap thin hemispher. becom. umbilicat. and striat. Lamel. uncin. decurr. dist. Stipes short incurv. smooth  
 15900 Thin rosy, Cap campanulate smooth, Lamellæ broad distant, Stipes capillary with a strigose bulb

- 15901 Slender, Stipes slender with stiff wool at base, Cap depressed hemispherical

1. *Cap somewhat membranous, Gills decurrent.*

\* *Small, Cap membranous*

- 15902 White, Cap convex smooth, Lamellæ distant, Stipes attached to the base of a convex radiat. membrane  
 15903 Cap convex glabrous orange-yellow, Lamellæ whitish distant, Stipes yellowish  
 15904 Testaceous rufous pallid, Cap funnel-shaped : disk smooth, Lamellæ narrow, Stipes firm  
 15905 Cap convex umbilicat striate, Lamellæ broad pale, Stipes solid short thickish [at the base  
 15906 Cap depress. in centre : marg. turned down striate, Lamel. dist. rather broad white, Stipes short pubesc.  
 15907 Stipes solid thickened at base ferruginous downy

\*\* *Large, Cap somewhat membranous.*

- 15908 Tender cinereous blackish, Cap funnel-shaped striated, Lamel. lin. Stipes somew. solid tough vill. at base  
 15909 Thin pale cinereous, Cap somewhat funnel-shaped smooth oblique, Stipes thick

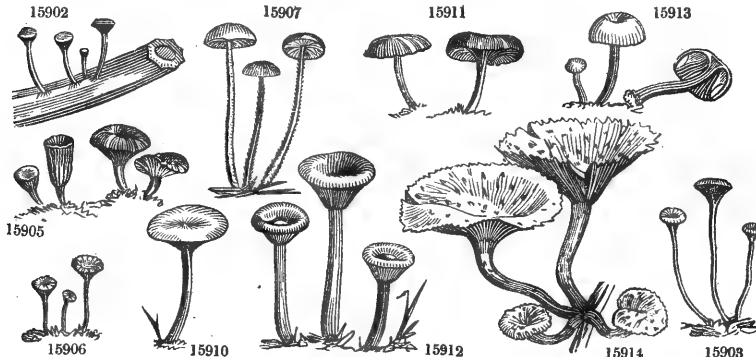
2. *Cap fleshy, membranous, Gills adnate.*

- 15910 Odor. Cap nearly plane pale yellow. or brown-white when dry, Lamel. numer. whit. Stipes holl. white  
 15911 Livid, Cap somewhat membranous plane striated, Lamellæ distant, Stipes fistular [attenuat. above  
 15912 Cap somew. fleshy funn.-shap. smooth dark-brown grey : marg. reflexed, Lamel. dist. grey. Stipes elastic

- 15913 Cap thin campanulate green at centre brown and plaited at margin, Stipes smooth hollow

3. *Cap fleshy, coriaceous, somewhat corky, soft, Gills decurrent.*

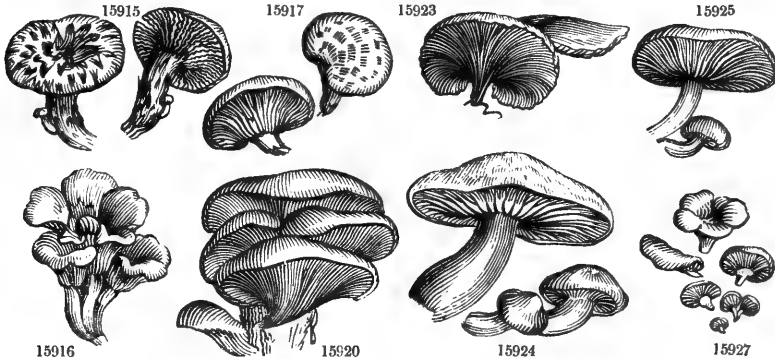
- 15914 Cap regular umbilicat. whitish with black. hairy scales, Lamel. denticul. white, Stipes thin minutely scaly



and Miscellaneous Particulars.

† 11. *Omphalia*. From *ομφαλος*, the navel, in reference to the young form of the pileus. Many of the species are of the smallest size. None are eatable.

|   |                  |             |                   |                |                                    |
|---|------------------|-------------|-------------------|----------------|------------------------------------|
| 15915 lepidus <i>Fries</i>  | scaly            | variable    | 1 my. jn. pa. Oc. | pine trunks    | Schæff. t. 99. <i>squamosus</i>    |
| & monstruosus <i>Fries</i>  | monstrous        | deformed    | 3 my. jn. pa. Oc. | pine trunks    | Sower. t. 332. <i>tubaeformis</i>  |
| 15916 cochleatus <i>Pers.</i>   | cochleate        | cæspitose   | 3 sp. aut. Wsh    | old trunks     | Sower. t. 168. <i>confusus</i>     |
| § 12. PLEUROTUS. <i>Fries.</i>  |                  |             |                   |                |                                    |
| 15917 dryinus <i>Pers.</i>  | oak              | solitary    | 1 au. no. Wsh     | oak trees      | Schæff. t. 233. <i>dimidiatus</i>  |
| 15918 torulosus <i>Pers.</i> knotted very tough 1½ jl. oct. Rh birch trees Nees pilze, f. 178             |                  |             |                   |                |                                    |
| 15919 conchatus <i>Bull.</i>  | shell-shaped     | gregarious  | 1 jl. sep. Cinn.  | birch trees    | Bull. t. 298                       |
| 15920 ostreatus <i>Jacq.</i>  | oyster           | eatable     | ½ sp. aut. Cin.   | trun. of trees | Sowerby, t. 241                    |
| 15921 petaloïdes <i>Bull.</i> petaloid gregarious ½ sep. oc. Brsh beech trees Bulliard, t. 226. 557. f. 2 |                  |             |                   |                |                                    |
| 15922 porrigens <i>Pers.</i>  | pine             | imbricated  | 1 jl. nov. W      | pine trees     |                                    |
| 15923 flabelliformis <i>Bolt.</i>   | flabelliform     | thin        | ½ jl. nov. Pa.Br  | sides of trees | Bolton, t. 157                     |
| 15924 ulmarius <i>Bull.</i> Elm cæspitose 3 oc. dec. Pale trun. of trees Sowerby, t. 67                   |                  |             |                   |                |                                    |
| 15925 palmatus <i>Bull.</i> palmate cæspitose 2 oc. dec. Br oak trees Sowerby, t. 62                      |                  |             |                   |                |                                    |
| 15926 serotinus <i>Pers.</i>  | late             | dwarf       | 1 oc. jan. Ol     | trun. of trees | Bux. cent. 5. t. 2. f. 2           |
| 15927 stipiticus <i>Bull.</i>   | stiptic          | gregarious  | ½ oct. ap. Tann.  | trun. of trees | Sow. t. 109. <i>flabelliformis</i> |
| <i>ficoides</i> With.   |                  |             |                   |                |                                    |
| 15928 nidulans <i>Pers.</i> nestling imbricated 1 oc. dec. Ysh fallen trees                               |                  |             |                   |                |                                    |
| 15929 mastrucatus <i>Fries</i>  | prickly          | imbricated  | 1 sep. n. Gr      | beech trunks   | Sower. t. 99. <i>echinatus</i>     |
| 15930 mollis <i>Pers.</i>   | soft             | gregarious  | ½ sep. n. Y.Br    | beech trunks   | Sowerby, t. 98                     |
| 15931 variabilis <i>Pers.</i>   | variable         | gregarious  | ½ sep. n. W       | beech trunks   | Sowerby, t. 97. <i>niveus</i>      |
| 15932 lateralis <i>Fl. Dan.</i>   | lateral          | imbricated  | 1½ sum. Umb.      | birch trunks   | Fl. danica, t. 1556. f. 2          |
| 15933 tremulus <i>Schæff.</i> tremulous almost sessile ½ au. dec. Gr earth Sowerby, t. 242                |                  |             |                   |                |                                    |
| 15934 septicus <i>Fries</i>   | pubescent        | delicate    | ½ au. oc. W       | decay. trun.   | Sower. t. 321. <i>pubescens</i>    |
| 15935 applicatus <i>Batsch</i>  | cup-shaped       | delicate    | ½ aut. sp. Cin.   | decay. trun.   | Sowerby, t. 301                    |
| § 13. MΟΥCΕΡΟΝ. <i>Bauh.</i>  |                  |             |                   |                |                                    |
| 15936 Prunulus <i>Cæsalp.</i>   | French Mushr.    | esulent     | 1½ jn. oct. W     | woods          | Sower. t. 143. <i>pallidus</i>     |
| § 15. CLITOPILUS. <i>Fries.</i>   |                  |             |                   |                |                                    |
| 15937 hortensis <i>Fries</i>  | garden           | elastic     | 2½ aut. Sooty     | gard. on ear.  |                                    |
| 15938 rhodopilius <i>Fries</i>  | repand           | beautiful   | 3 jl. nov. Livid  | damp places    | Bolton, t. 6. <i>repandus</i>      |
| 15939 fertilis <i>Pers.</i>   | prolific         | gregarious  | 3 aut. P. Lv.     | hedge rows     | Bulliard, t. 534                   |
| 15940 sinuatus <i>Bull.</i>   | burnt sugar-see. | fragrant    | 5 oct. W. Y       | damp woods     | Bulliard, t. 579. f. 1             |
| 15941 maritimus <i>With.</i>  | seashore         | small       | 1 oct. W          | damp woods     |                                    |
| 15942 leoninus <i>Schæff.</i> tawny fragile 3 au. oc. Y beech woods Schæffer, t. 48                       |                  |             |                   |                |                                    |
| 15943 Pluteus <i>Batsch.</i>  | sooty            | variable    | 3 my. no. Sooty   | trun. of trees | Sowerby, t. 108. <i>latus</i>      |
| 15944 phlebophorus <i>Ditt.</i>   | wrinkled         | gregarious  | 4 ju. oct. Ol     | decay. wood    | Gre. crypt. 3. 173                 |
| <i>reticulatus</i> With.  |                  |             |                   |                |                                    |
| § 15. LEPTONIA. <i>Fries.</i>   |                  |             |                   |                |                                    |
| 15945 griseocyaneus <i>Fries</i>  | blue-gray        | solitary    | 1½ au. sep. Lilac | grassy hills   | Bolt. t. 41. <i>purpureus</i>      |
| 15946 chalybeus <i>Pers.</i>  | dove-colored     | pretty      | 2 jl. sep. B      | among grass    | Sow. t. 161. <i>columbarius</i>    |
| § 16. NOLANEA. <i>Fries.</i>  |                  |             |                   |                |                                    |
| 15947 majalis <i>Fries</i>  | early            | cæspitose   | 4 spring Cinn.    | fir woods      | Sow. t. 174. <i>mollisculus</i>    |
| 15948 pasceus <i>Pers.</i>  | meadow           | variable    | 3 jan. d. Sooty   | everywhere     | Bolton, t. 35. <i>assus</i>        |
| § 17. ECCYLIA. <i>Fries.</i>  |                  |             |                   |                |                                    |
| 15949 asprillus <i>Fries</i>  | roughish         | gregarious  | 1½ sum. Gr        | grassy places  |                                    |
| 15950 æquilus <i>Fries</i>  | exposed          | subsolitary | 1 au. sep. Umb.   | river sides    |                                    |
| 15951 politus <i>Fries</i>  | polished         | gregarious  | 3 au. oc. Livid   | among grass    |                                    |
| 15952 carneo-âbus <i>With.</i>  | salmon-color'd   | gregarious  | 1 au. oc. W       | among grass    |                                    |



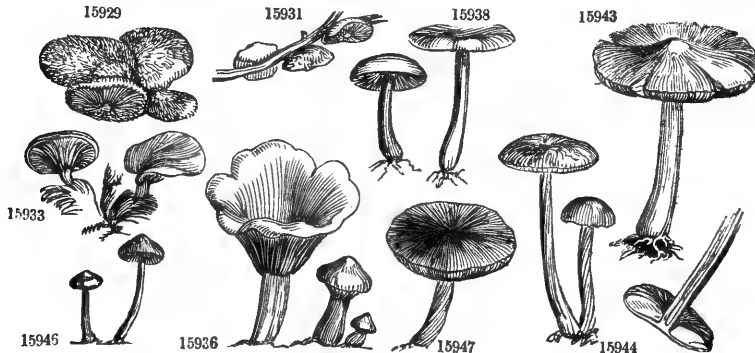
History, Use, Propagation, Culture.

§ 12. *Pleurotus*. From *πλευρον*, the side; the pileus is always inserted out of the centre. A tribe of perennial, innocuous, often eatable fungi; always found upon trees.

§ 13. *Moucceron*. An old French name of certain eatable fungi. This, no doubt, is the origin of our word Mushroom. A. prunulus is said to be one of the very best of mushrooms; it is common in woods, among grass.

§ 14. *Clitopilus*. A name analogous to *Clitocybe*, § 8, as the group is also. Species of the middle size, nearly destitute of smell, mild, but not used as food.

- 15915 Cap compact unequal pale ochraceous, Scales spot-like more opaque, Lamellæ torn, Stipes stout scaly  
 § Stipes long curved, Cap small
- 15916 Cap tough somewhat lobed twisted smooth rufous, Lamellæ toothed pallid, Stipes firm furrowed rufous
1. *Veil universal, Cap compact, horizontal.*
- 15917 Hard, Cap oblique smoothish whitish, Scales brownish, Veil fugacious
2. *Veil none, Cap fleshy, Gills decurrent.*  
 \* *Cap always entire.*
- 15918 Cap tough depressed reddish tan-color, Lamellæ rather crisp paler, Stipes short grey downy  
 \*\* *Cap entire or halved.*
- 15919 Cap tough deformed pink cinnamon-color, Lamel. entire and short irregul. Stipes downy at base and pallid
- 15920 Tufted, Stipes sublateral or none, Cap smooth fleshy pale blueish-grey or brown, Lamellæ whitish often anastomosing at the base  
 \*\*\* *Cap always halved, somewhat ascending.*
- 15921 Ascending, Cap spatulate whitish-brown, Disk and stipes somewhat villous, Lamel. compact lin. white
- 15922 White, Cap ascending sessile ear-like glabrous, Lamellæ narrow linear quite entire
- 15923 Cap flattish smooth pale-brown, Margin and lamellæ crenate, Stipes short or none
3. *Veil none, Cap fleshy, when young horizontal, Gills terminating in a determinate manner.*
- 15924 Cap compact smooth pale whitish, Lamellæ adnate or subdecurrent whitish, Stipes strong ascending increased at the base excentrical
- 15925 Cap smooth rufous, Lamellæ adnate of the same color, Stipes out of the centre smooth whiter
- 15926 Cap comp. somew. visc. olive-green, Lamel. adnate comp. pallid, Stipes short rather on one side sooty scaly
- 15927 Cap coriaceous reniform rather tan-colored, Epidermis separating into scurfy scales, Lamellæ veiny connected, Stipes lateral frosted
4. *Cap fleshy, when young resupinate, Gills running together in a point out of the centre.*
- 15928 Cap fleshy reniform downy yellowish, Lamellæ orange-yellow
- 15929 Cap fleshy scaly mouse-color, Upper stratum gelatinous, Lamellæ greyish-white
- 15930 Cap soft smooth gibbous pale-yellow brown, Lamellæ pale reddish-brown somew. ventricose, Stipes none
- 15931 Cap membranaceous white cottony at first subresupin. at length reflexed, Lamel. whit. afterw. pink-buff
- 15932 Cap fleshy smooth umber-colored: the upper layer gelatinous, Lamellæ pale becoming yellow
5. *Cap membranous, Gills adnate, or running together in one point.*
- 15933 Cap reniform diaphanous, Lamellæ linear, Stipes marginal ascending villous [like Byssus]
- 15934 Cap at first resupinate: afterw. reflex. smooth downy, Lamel. radiat. Stipes thin incurved downy, Roots
- 15935 Cap subsessile: at first resupinate; afterwards reflexed frosted villous at base, Lamellæ lax
- 15936 Cap compact flattish white, Lamellæ white becoming pink
1. *Gills affixed. TERRESTRIAL.*
- 15937 Cap somewhat umbonate sooty black. Lamel. flat decurr. twist. whit. Stipes hollow thickened downwards
- 15938 Cap somewhat umbonate silky livid, Lamellæ adnate whitish rose-colored, Stipes hollow smooth white
- 15939 Cap somew. umbon. smooth livid pale, Lamel. annexed flesh-colored, Stipes solid smooth somew. bulbous
- 15940 Broad, Cap smooth yellowish-white, Lamellæ loosely attached very broad rufous, Stipes solid equal white
- 15941 Small, Cap convex and stipes white, Lamellæ adnate
2. *Gills altogether distinct. UPON WOOD.*
- 15942 Cap somewhat membranaceous smooth yellow, Stipes solid striated
- 15243 Cap fleshy smooth blackish soot-color, Stipes firm with black fibres
- 15944 Cap convex at length plane clear olive or yellowish-brown smooth but minutely rug. as if veined towards the centre, Stipes hollow rather twisted, Lamellæ ventricose
- 15945 Cap scaly grey-lilac colored, Lamellæ loose, Stipes hollow fibrous cæsious
- 15946 Cap somewhat squamose blue, Lamellæ bluish-white adnate at length purple, Stipes solid smooth bluish
- 15947 Cap irregular smooth somew. cinnamon-colored, Lamel. loose toothed rosy, Stipes hollow twisted striated
- 15948 Cap campanul. expanded black. soot-color when dry paler and silky, Lamel. almost loose dirty flesh-col.
- 15949 Cap fibrous scaly livid-grey, Lamel. adnate and fistular, Stipes (which is white with wool at the base) paler
- 15950 Cap squamulose umber-colored, Lamellæ sinuate affixed purplish, Stipes solid short
- 15851 Cap smooth with a striated edge and the fistular equal, Stipes livid, Lamellæ decurrent
- 15952 Lamellæ salmon-colored not numerous, Cap and stem white



and Miscellaneous Particulars.

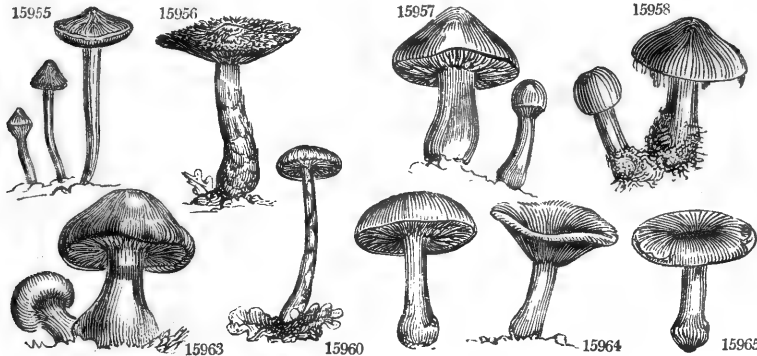
§ 15. *Leptonia*. From *λεπτος*, slender. Small permanent, elegant, scentless, insipid, not used for food. They are in perfection at the end of summer.

§ 16. *Notanea*. From *νότα*, a bell. Terrestrial, various, of a thin watery substance, insipid, not eatable. Easily distinguished by their habit.

§ 17. *Eccilia*. From *εκαταλαο*, to excavate. Small, terrestrial, inodorous, insipid.



|                                 |  |                  |               |             |         |                |   |
|---------------------------------|--|------------------|---------------|-------------|---------|----------------|---|
| § 18. TELAMONIA. <i>Fries.</i>  |  |                  |               |             |         |                |   |
| 15953                           | törvus <i>Fries</i>                                      | tawny            | strong scent. | 4 jul. oc.  | Br      | damp woods     | Bull. t. 600. <i>araneosus</i>  |
| 15954                           | brun'neus <i>Pers.</i><br><i>spongiosus</i> <i>With.</i> | brown            | weak scented  | 4 jl. nov.  | Pa. U.  | pine woods     |   |
| 15955                           | everhiius <i>Fries</i>                                   | dismal           | solitary      | 5 jl. nov.  | Pu. Br  | pine woods     | Sower. t. 125. <i>impuber</i>   |
| 15956                           | sublanatus <i>Sowerb.</i>                                | half-woolly      | radish scent. | 3 au. oc.   | Ol. Br  | woods          | Sowerby, t. 224   |
| 15957                           | bulbosus <i>Sowerb.</i>                                  | bulbous          | radish scent. | 4 au. oc.   | Br      | among grass    | Sowerby, t. 130   |
| § 19. INOLO'MA. <i>Fries.</i>   |  |                  |               |             |         |                |   |
| 15958                           | violaceus <i>L.</i>                                      | violet           | shewy         | 4 au. oc.   | Vi      | groves         | Bolton, t. 52   |
| 15959                           | pholidius <i>Fries</i>                                   | cobwebbed        | solitary      | 4 au. oc.   | Cin.    | woods          | Bul. t. 586. f. 1. <i>psammocephalus</i><br>Sow. t. 384. f. 1. <i>araneosus</i> |
| 15960                           | spilomeus <i>Fr.</i>                                     | spotted          | solitary      | 3 au. sep.  | Pa. Br  | woods          |   |
| 15961                           | scaurus <i>Fries</i>                                     | curved           | soft          | 3 jan. oc.  | Ol      | woods          | Batsch cent. 2. f. 184  |
| 15962                           | callochrous <i>Pers.</i>                                 | fine-skinned     | insipid       | 4 au. oc.   | Psh     | woods          | Bat. cent. 1. f. 74. <i>subpurp.</i>  |
| 15963                           | glaucoopus <i>Schaff.</i>                                | blue-footed      | gregarious    | 3 au. oc.   | Ol      | woods & hea.   | Sowerby, t. 223   |
| 15964                           | varius <i>Schaff.</i>                                    | thick-footed     | variable      | 4 au. oc.   | Y       | everywhere     | Sower. t. 102. <i>turbinatus</i>  |
| 15965                           | turbinatus <i>Bull.</i>                                  | turbinate        | soft          | 4 sep. no.  | Y       | damp woods     | Bulliard, t. 110  |
| § 20. DERMO'CYBE. <i>Fries.</i> |  |                  |               |             |         |                |   |
| 15966                           | sanguineus <i>Wulf.</i>                                  | bloody           | handsome      | 1½ jn. nov. | Crim.   | woods          | Sowerby, t. 43  |
| 15967                           | cinnamomeus <i>L.</i>                                    | cinnamon         | variable      | 3 jn. dec.  | Cinn.   | everywhere     | Sowerby, t. 205   |
| 15968                           | hel'volus <i>Pers.</i>                                   | brownish         | dirty         | 2 jn. dec.  | Cinn.   | woods          | Sow. t. 173. <i>hinulcus</i>  |
| 15969                           | Cucumis <i>Pers.</i>                                     | Cucumber-scented | strong smell. | 3 au. oc.   | Pu. Br  | woods          | Sower. t. 344. <i>fuscipis</i>  |
| 15970                           | Armeniacus <i>Schaff.</i>                                | Apricot-color.   | softish       | 3 jl. nov.  | Pa. Br  | woods          | Schaff. t. 81   |
| 15971                           | castaneus <i>Bull.</i>                                   | Chesnut-color.   | gregarious    | 2 jl. nov.  | Ches.   | woods          | Bulliard, t. 268  |
| 15972                           | hybridus <i>Sowerby</i>                                  | hybrid           | variable      | 2 my. no.   | Or      | fir leaves     | Sowerby, t. 221   |
| 15973                           | testaceus <i>With.</i>                                   | testaceous       | crooked       | 4 sept.     | Y       | plantations    |   |
| 15974                           | flavidus <i>Sowerby</i>                                  | yellowish        | soft          | 2 sept.     | Ysh     | among grass    | Sowerby, t. 366   |
| § 21. PHOLIO'TA. <i>Fries.</i>  |  |                  |               |             |         |                |   |
| 15975                           | aureus <i>Sowerby</i>                                    | golden           | subcaespitose | 6 sep. oc.  | Fulv.   | damp earth     | Sowerby, t. 77  |
| 15976                           | caperatus <i>Pers.</i>                                   | pale             | solitary      | 5 jul. oct. | Lem.    | mount. woo.    | Fl. dan. t. 1675  |
| 15977                           | surirellus <i>Batsch</i>                                 | filamentous      | solitary      | 3 oc. no.   | Y       | old trees      | Schæ. t. 209. <i>filamentosus</i>   |
| 15978                           | squarrosus <i>Pers.</i>                                  | squarrose        | caespitose    | 2 au. dec.  | Ferr.   | roots of trees | Gre. cryp. f. t. 2. <i>hoccosus</i>   |
| 15979                           | flam'mans <i>Batsch</i><br><i>rheoides</i> <i>With.</i>  | flame-colored    | elegant       | 3 jul. oct. | Y       | pine trees     | Batsch cl. f. 30  |
| 15980                           | muricatus <i>Fries</i><br><i>scariosus</i> <i>With.</i>  | muricated        | variable      | 2 jul. oct. | DI. Y   | commons        |   |
|                                 | <i>β inaequalis</i> <i>Batt.</i>                         | unequal          | variable      | 2 jul. oct. | DI. Y   | commons        | Bolt. t. 50. <i>luteus</i>  |
| 15981                           | mutabilis <i>Schaff.</i>                                 | changeable       | eatable       | 3 my. no.   | Pa. Ci. | on trees       | Schaff. t. 9  |
| 15982                           | constrictus <i>With.</i>                                 | contracted       | watery        | ½ sept.     | Y. Br   | rotten wood    |   |



*History, Use, Propagation, Culture,*

§ 18. *Telamonia*. So named on account of their gigantic stature. The species are among *Agarics* what *Ajax Telamoni* was among men. Large, terrestrial, firm species, none of which are eaten. The species of this and the next subgenus are extremely difficult to determine; not only on account of their size, but of their colors, which vary exceedingly at different periods of their growth, as well as according to their situation. Their colors are also intermediate between fulvous, testaceous, cinnamon, &c., which are very difficult to describe. The most constant marks are, first, smell; second, surface of pileus being fibrous or viscid; third, the situation of the lamellæ, whether they are compact or distant; and fourth, their color in the young state, in which it must be observed, that they are always described.

The *A. bulbosus* of Hudson and Ray is referred by Withering to *A. violaceus* of Linnæus; which has fixed purple gills, numerous, eight in a set; long gills, sometimes cloven, and a few of them decurrent; purple pileus, soft, smooth, firm, convex, but centrally depressed with age, and cracking at the edge, which is somewhat turned down, from half an inch to five inches over; stem solid, cylindrical, purple, bulbous at the base, from one to four inches high, and from a quarter to one inch in diameter; and certain like a cobweb. In maturity it plentifully emits a powder of the color of Spanish snuff. It is not uncommon from October to December, in Edgbaston and Barr plantations, in the woods near Bath, and at Powick, near Worcester. With much broiling and duly seasoned, it is esteemed as delicious as an oyster. Another variety, which is the *A. varius* of Bolton, is found on grass-plats and new-mown fields in July. It has chocolate gills, from brown to black,

- 15953 Cap obt. fibrous hoary testac. Lamellæ adn. purple. An annulus sheath. stipes which is violet at upp. end  
 15954 Cap bluntly umbon. somew. fibr. pale umb.-color, Lamel. adnate umb.-col. Stipes somew. bulb. striat. paler  
 15955 Cap somew. fleshy purp.-brown becom. fibrous testac. and hoary, Lamel. violet-pur. Stipes long eq. violet  
 15956 Cap scaly testaceous olive-color, Lamellæ yellowish cinnamon, Stipes bulbous scaly, Veil fuscous  
 15957 Cap obtusely umbon. smth. bright-brown when dry testac. Lamel. cinnam. Long bulb. stipes and veil white

1. *Cap always dry, scaly, or fibrous, obtuse or umbonate, never depressed.*

- 15958 Cap very convex dull or brownish-violet, Lamellæ distant violet, Stipes spongy greyish violet within  
 15959 Cap umbonate squarrose with hairy sooty scales, Lamellæ compact violet becoming clay-colored, Stipes scaly transversely banded with black  
 15960 Cap umbon. smooth. pale-brown, Lamel. compact violet discolor. Stipes taper. varieg. with brown scales

2. *Cap smooth, humid, viscid, always obtuse, finally depressed, Stem blue, becoming white.*

- 15961 Cap equal viscid, Lamellæ compact olive-purple, Stipes attenuated bulbous  
 15962 Cap equal viscid smooth, Lamellæ compact violet-purple, Stipes bulbous becoming white from violet  
 15963 Compact rounded, Cap olivaceous or brownish-grey glutinous while young, Lamellæ reddish-brown tinged with violet, Stipes thick tinged with violet  
 15964 Firm, Cap yellow somew. scaly humid viscid, Lamel. compact serrat. whit.-æscious, Stipes tapering white  
 15965 Cap smooth viscid yellow or tawny, Lamellæ compact quite entire yellowish-cinnamon, Stipes bulb. white

1. *Cap scaly or fibrous, Stem same color as the cap or paler. GROWING ON THE EARTH.*

- 15966 Cap slightly fleshy somew. scaly, and stipes (which is thin and eq.) dull sang. Lamel. affix. more dull-color  
 15967 Cap glabrous subcarose obtusely umbonate cinnamon-color, Lamellæ numerous adnate yellow-cinnamon, Stipes yellowish rarely straight  
 15968 Cap pale reddish-buff umbonate subfarinaceous, Lamellæ cinnamon-color broad numerous, Stipes whitish often with a few remains of the veil attached

\*\* *Cap somewhat fleshy, at first campanulate.*

- 15969 Cap somew. fleshy becom. umbon. smoothish brown-purple, Lamel. affix ventric. ferrugin. Stipes fuscous

2. *Cap smooth, but with a few surface-fibres, Stem white. GROWING ON THE EARTH.*

- 15970 Cap bluntly umbonate pallid, Lamellæ compact cinnamon-colored, Stipes solid tapering upwards white  
 15971 Cap somewhat fleshy convex becoming bluntly umbonate chesnut-colored, Lamellæ affixed compact violet-testaceous, Stipes short firm

3. *Cap smooth, dry, Gills affixed.*

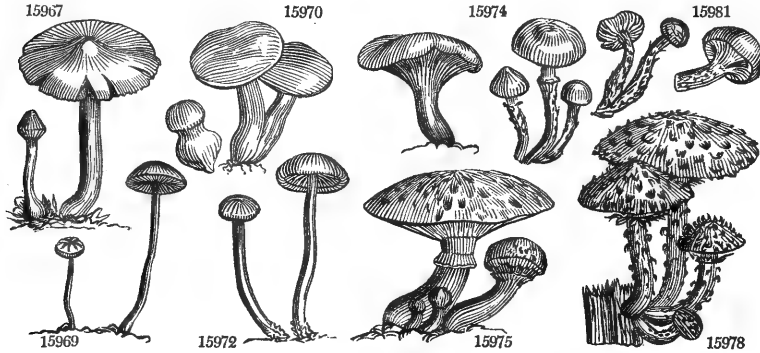
- 15972 Cap convex humid orange-colored or fulvous, Lamellæ yellow, Stipes hollowish  
 15973 Lamellæ brown-yellow, Cap deep-yellow bossed in the centre, Stipes scored yellow thickset downwards  
 15974 Lamellæ reddish-buff, Cap pale-yellow bossed, Stipes pale-yellow

- 15975 Fulvous, Cap fleshy : scales few hairy, Lamellæ annexed, Stipes solid smooth, Annulus small  
 15976 Cap pitted lemon-colored : hairs white ; disk uniform with scatter. scales towards dist. Stipes solid white  
 15977 Compact, Cap yellow : scales scattered appressed, Stipes solid fibrous long-rooted  
 15978 Cap fleshy brownish or reddish-yellow scaly with fasciculat. filam. : scales revol. Stipes squarr. with scales  
 15979 Cap fleshy dry yellow : scales hairy scattered, Lamellæ at first yellow, Stipes equal squarrose

- 15980 Cap slightly fleshy obt. fulvous-yellow vill. with stalked scales, Lamel. adnate : at first yell. Stipes fistul.

- 15981 Cap scarcely fleshed glabrous striate : when moist dull cinnamon-color becoming pale, Lamellæ subde-current numerous reddish-brown, Stipes hollow subincurved

- 15982 Cap yellow-brown bluntly conical, Lamellæ brown, Stipes brown scurfy, Veil permanent



and Miscellaneous Particulars.

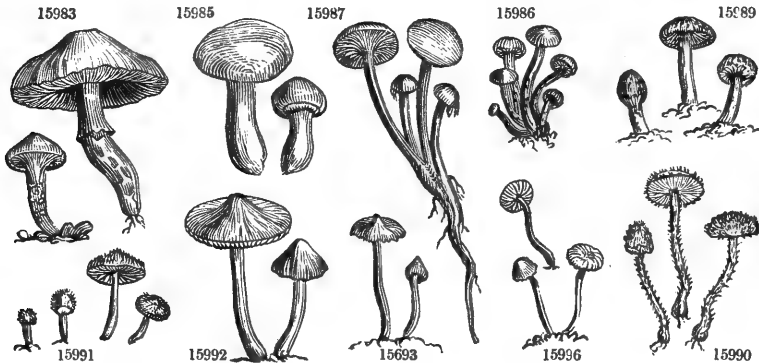
mottled, and in pairs ; pileus mouse-color, conical, and pointed ; stem of the same color, cylindrical, and firm. This, though a common, is a very beautiful species. In a summer morning it is covered with a bloom like that of a plumb, having often a glittering spangled appearance ; its form is regular, and the fringe of the curtain peculiarly delicate. Another variety, with the stem of a dark mulberry color, is found in wet gravel where no grass grows, and sometimes on cow-dung, in which case the stem, under the shelter of long grass, is covered with a white hoariness which is easily rubbed off.

§ 19. *Inoloma*. A name with the same meaning as *Tricholoma*, § 5., to which the species are analogous. They are large, firm, somewhat succulent, autumnal, and terrestrial, but not as far as is known, eatable.

§ 20. *Dermocybe*. From *δερμα*, a skin or membrane, and *κεφαλη*, a head, in allusion to the nature of the pileus. Analogous to *Clitocybe*, § 8. Of middle size, or small ; scarcely eatable. A. cinnamonous has gills, four in a set, broad about the middle, deep tawny red, and fixed by claws ; pileus convex, but bossed, of a rich cinnamon color, from one and a half to three and a half inches diameter ; the stem hollow, cylindrical, silky, shining, two inches high, thick as a goose-quill, of a fine full yellow color. This is a species that is readily distinguished by its cinnamon color. It is found in woods in September and October, and has a good flavor.

§ 21. *Pholiota*. From *φολις*, a scale. Species of various habits. Some are terrestrial, others grow upon wood ; some large, others of a smaller size.

|                                 |                            |               |               |            |                       |                                   |
|---------------------------------|----------------------------|---------------|---------------|------------|-----------------------|-----------------------------------|
| § 22. MYXACIUM. <i>Fries.</i>   |                            |               |               |            |                       |                                   |
| 15983                           | <i>collinitus Sowerby</i>  | besmeared     | solitary      | 5 jl.nov.  | Or woods              | Sowerby, t. 9                     |
| 15984                           | <i>longicaudus Fries</i>   | long-tailed   | membranous    | 4 oct.     | Tann. pine woods      |                                   |
|                                 | <i>aezustus With.</i>      |               |               |            |                       |                                   |
| § 23. HEBELOMA. <i>Fries.</i>   |                            |               |               |            |                       |                                   |
| 15985                           | <i>fastibilis Pers.</i>    | multiform     | stinking      | 2½ jl.nov. | Wsh everywhere        | Schæff. t. 221. <i>gilvus</i>     |
| § 24. FLAMMULA. <i>Fries.</i>   |                            |               |               |            |                       |                                   |
| 15986                           | <i>flavidus Schæff.</i>    | yellowish     | caespitose    | 2 au.no.   | Ysh trun. of trees    | Schæff. t. 35                     |
| 15987                           | <i>inopus Fries</i>        | connate       | subcaespitose | 2 sep.oc.  | Ysh trun. of trees    | Bol. t. 148. <i>radicato-ram.</i> |
|                                 | <i>connatus With.</i>      |               |               |            |                       |                                   |
| 15988                           | <i>spumosus Batt.</i>      | frothy        | gregarious    | 3 au.no.   | Ysh on earth, &c.     | Battarra, t. 22. C.               |
| § 25. INOCYBE. <i>Fries.</i>    |                            |               |               |            |                       |                                   |
| 15989                           | <i>scaber Sowerby</i>      | rough         | solitary      | 1½ aug.    | Sooty pine woods      | Sowerby, t. 207                   |
| 15990                           | <i>plumosus Bolton</i>     | feathery      | solitary      | 4 aut.     | Gr woods              | Bolton, t. 33                     |
| 15991                           | <i>lanuginosus Bull.</i>   | woolly        | solitary      | 3 jul.sep. | Brsh way sides        | Bulliard, t. 370                  |
| 15992                           | <i>rimosus Bull.</i>       | cracked       | variable      | 2 jn.sep.  | Y.Br woods            | Gre. crypt. 3. 128                |
| 15993                           | <i>geophyllus Sowerby</i>  | earth-leaf    | variable      | 2 jul.oct. | Wsh woods             | Sowerby, t. 124                   |
| 15994                           | <i>furfurcosus With.</i>   | scurfy        | watery        | 1 june     | Y.Br hedges           |                                   |
| § 26. NAUCORIA. <i>Fries.</i>   |                            |               |               |            |                       |                                   |
| 15995                           | <i>conspersus Pers.</i>    | sprinkled     | gregarious    | 1½ jn.oct. | Cinn damp woods       | Pera. ic. t. 12. f. 3             |
| 15996                           | <i>furfurcosus Pers.</i>   | mealy         | gregarious    | 2 au.oc.   | Cinn dec. lvs. &c.    | Sch. t. 226. <i>pulverulentus</i> |
|                                 | <i>viridarius With.</i>    |               |               |            |                       |                                   |
| 15997                           | <i>hippopinus With.</i>    | rounded       | crooked       | ½ aut.     | Pa.Br sea. fir cones  |                                   |
| § 27. GALE'RA. <i>Fries.</i>    |                            |               |               |            |                       |                                   |
| 15998                           | <i>colus With.</i>         | campanulate   | brittle       | 6 jl.oct.  | Pa.Br hea. of rubb.   |                                   |
| 15999                           | <i>tener Schæff.</i>       | tender        | brittle       | 4 my.no.   | Y.Br grassy places    | Sowerby, t. 33.                   |
| 16000                           | <i>hypnorum Schrank</i>    | Moss          | small         | 1 jl.nov.  | Ferr. among moss      | Sch. t. 63. <i>campanulatus</i>   |
| 16001                           | <i>atorufus Bolton</i>     | dark-brown    | slender       | 3 aut.     | Br pastures           | Bolton, t. 51. f. 1               |
| 16002                           | <i>nuceus Bolton</i>       | hazel-nut     | slender       | 4 oct.     | Pa.Br fir woods       | Bolton, t. 70                     |
| § 28. TAPINE'A. <i>Fries.</i>   |                            |               |               |            |                       |                                   |
| 16003                           | <i>involutus Batsch</i>    | involute      | compact       | 3 au.no.   | Ferr. woods           | Sower. t. 98. <i>contiguus</i>    |
|                                 | <i>adustus With.</i>       |               |               |            |                       |                                   |
| § 29. CREPIDOTUS. <i>Fries.</i> |                            |               |               |            |                       |                                   |
| 16004                           | <i>aurant-ferrugi. Wi.</i> | orange-brown  | solitary      | 2½ aut.    | Or.Br roots of oaks   |                                   |
| 16005                           | <i>foetidus With.</i>      | fetid         | solitary      | 2 aut.     | Dl.Br old willows     |                                   |
| 16006                           | <i>vulpinus Sow.</i>       | foxy          | gregarious    | 2 aut.     | Tawn hollow trees     | Sowerby, t. 361                   |
| 16007                           | <i>mollis Schæff.</i>      | soft          | solitary      | ½ au.oc.   | pa.Cin trun. of trees | Sowerby, t. 98                    |
| 16008                           | <i>haustellaris Fries</i>  | resupinate    | small         | ½ au.oc.   | Pa.far rotten branc.  |                                   |
|                                 | <i>resupinatus With.</i>   |               |               |            |                       |                                   |
| 16009                           | <i>variabilis Pers.</i>    | variable      | solitary      | ½ aut.     | W rotten trees        | Sowerby, t. 97. <i>niveus</i>     |
| § 30. VOLVU'RIA. <i>Fries.</i>  |                            |               |               |            |                       |                                   |
| 16010                           | <i>bombycinus Schæff.</i>  | silky         | eatable       | 6 jl.aug.  | W trun. of trees      | Schæff. t. 98                     |
| 16011                           | <i>cepæstipes Sow.</i>     | patchy        | tufted        | 4 sum.     | W bark of trees       | Sowerby, t. 2                     |
| § 31. PSALLIO'TA. <i>Fries.</i> |                            |               |               |            |                       |                                   |
| 16012                           | <i>cretaceus Bull.</i>     | chalky Mushr. | eatable       | 3 au.no.   | W meadows             | Bull. t. 374                      |
| 16013                           | <i>campêstris L.</i>       | comm. Mushr.  | eatable       | 2 my.oc.   | Wsh meadows           | Gre. crypt. t. 161                |



History, Use, Propagation, Culture,

§ 22. *Myxaciium*. So called from  $\mu\upsilon\zeta\alpha$ , mucus, on account of the nature of its surface. The species are large, solitary, terrestrial, mucous, inodorous, and not eatable.

§ 23. *Hebeloma*. From  $\eta\beta\eta$ , down, and  $\lambda\omicron\mu\mu\alpha$ , a margin. The only species has a nauseous taste. Its lamellæ are serrated, and distil drops of a peculiar fluid. Its varieties are infinite. Common in woods.

§ 24. *Flammula*. So named in allusion to their color, which is a pale yellow, the color of a weak flame. The species are gregarious, subcaespitose, firm, persistent, rather bitter, and all eatable. A. *socialis* and *ilicinus* are both eaten at Montpellier, where they are known by the names of *Pivoulade d'ouse* and *Frigoule*.

§ 25. *Inocybe*. From  $\iota\alpha$ , fibres, and  $\kappa\omicron\upsilon\beta\eta$ , a head. A tribe which can scarcely be compared to any other. It consists of fungi of middle-size, or smaller, solitary, growing on the ground during the summer, and not known to be poisonous; although, on account of their nauseous odor, they are suspicious.

§ 26. *Naucoria*. Small gregarious epiphytous fungi, growing upon stipules, leaves, wood, and even muddy earth, fragile, and without any smell. Their stature is that of *Collybia*, but their veil is of the same nature as that of *Lepiota*, resembling the kernel of a nut (*naucum*), whence they are named.

15983 Cap fleshy smth. orange-brown, Lamel. pur. : then ferrugin. Stipes part. across into bluish gelatin. scales  
 15984 Cap somewhat fleshy smooth, Lamellæ cinnamon-colored, Stipes long smoothish

15985 Cap somewhat repand opaque, Stipes scaly white, Sporidia clay-color

1. *Cap dry, Gills adnate, Tufted.* GROWING ON WOOD.

15986 Cap smooth yellowish, Lamellæ adnate yellow-ferruginous, Stipes fibrous

15987 Cap smooth yellowish, Lamellæ affixed yellow, Stipes fibrous pallid solid

2. *Cap viscid, Gills adnate, Not tufted.* GROWING UPON BOTH WOOD AND EARTH.

15988 Yellowish, Cap smooth viscid, Lamellæ adnate, Stipes hollow tapering at base

1. *Stem fibrous or scaly with fibres.*

15989 Cap fleshy obtuse scaly brownish-grey, Lamellæ free or nearly so, Stipes solid fibrillose

15990 Cap some. fleshy hemispherical mouse-color, Stipes solid thin long scaly squarr. Lamel. somewhat loose

15991 Cap somewhat fleshy convex scaly-villous, Lamellæ loose and solid : then fibrous, Stipes solid

2. *Stem nearly at the top with white scales.*

15992 Cap dry campanulate at length nearly plane : surface splitting longitudinally pale shining-brown, Stipes solid somewhat tuberosus at the base

15993 Cap conical at length expanded umbonate silky, Lamellæ subadnate, Stipes solid slender sprinkled with white pulverulent particles

15994 Cap yellow-brown scaly, Gills watery white irregular, Stem yellow-brown crooked scored

15995 Cap some. fleshy scurfy scaly rufous cinnam.-color. Lamel. emarg. lin. cinnam.-color. Stipes scaly at end

15996 Cap some. fleshy : then umbilicat. scaly or silky, Lamel. some. decurr. cinnam.-color. Stipes fistul. scurfy

15997 Cap dark-brown convex, Lamellæ light-brown, Stipes light-brown

15998 Cap somewhat membranous smooth pallid, Lamel. somewhat loose saffron-color. Stipes long villous white

15999 Cap obtusely conical stri. when moist : when dry smth. ochrac. Lamel. adnate lin. Stipes long glab. fragile

16000 Minute, Cap campanulate striate : when moist reddish-buff becoming pale, Lamellæ adnate rather broad distant, Stipes somewhat crooked filiform

16001 Cap somewhat conical : when dry elastic, Lamellæ few trifid, Stipes very long and slender

16002 Cap globose chesnut-color lobed and incurved at edge, Lamel. trifid wavy, Stipes slender white fistulous

16003 Compact, Cap depressed ochrey-brown with a tomentose involute margin, Lamellæ mostly dichotomous, Stipes thick often excentrical

16004 Cap convex scaly cracked and irregular, Lamellæ orange-brown, Stipes stout somewhat lateral

16005 Cap conv. viscid becom. wrinkled dull-brown : marg. invol. Lamel. adnate yellow. Stipes hard thick black

16006 Imbricated sessile vilous, Cap fleshy obovate scaly towards the margin

16007 Cap subsessile smooth flaccid pale, Lamellæ watery cinnamon-colored

16008 Cap reniform villous pale tan-color, Lamellæ rounded ferruginous, Stipes lateral tapering upwards white

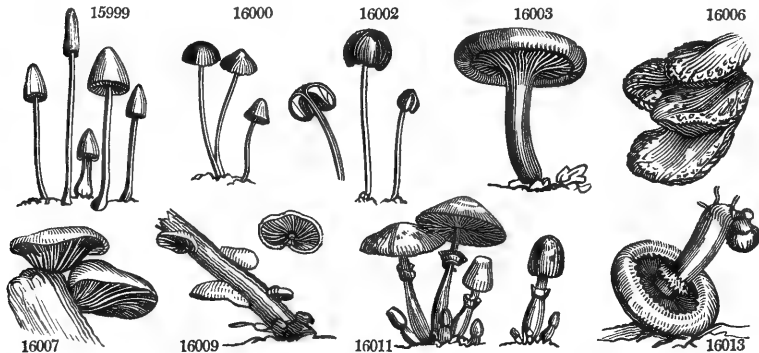
16009 Cap membranous reflexed silky downy white, Lamellæ whitish

16010 Cap silky white, Lamellæ flesh-colored, Stipes solid tapering incurved, Volva lax

16011 Cap campanulate with scattered scales, Stipes hollow ventricose smooth below

16012 White, Cap dry smoothish, Lamellæ loose broadest in front, Stipes hollow smooth, Annulus ascending

16013 Cap white fleshy dry subsquamose or sericeous, Lamellæ free ventricose pink changing to dark-fuscous Stipes solid white with an annular veil



and Miscellaneous Particulars.

§ 27. *Galeria*. From *galea*, a helmet, in reference to the figure of their pileus. The species are slender, fragile, tolerably permanent, mostly growing on the ground, and for the most part choosing humid stations. They have neither smell nor use.

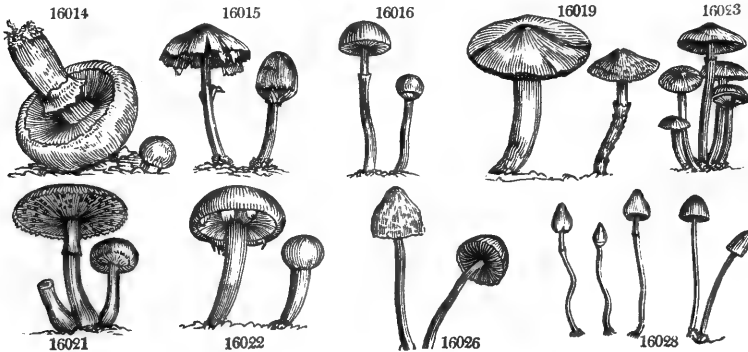
§ 28. *Tapinea*. Fungi of various natures, deriving their name from *ταπεινω*, to depress. Mostly terrestrial and permanent, but scarcely fit for food.

§ 29. *Crepidotus*. These plants form a transition to *Pratella*. They grow on wood or trees, and are hardly eatable. *A. olearius*, a species which grows upon olives in the south of Europe, a poisonous species, exhibits a phosphoric appearance in the night. *A. translucens*, a French species, is eaten by the poor of Montpellier.

§ 30. *Volvaria*. So called from the magnitude of their *volva*. The species grow in fertile manured spots, or on wood, are soft and soon perishable. The larger are fit for food.

§ 31. *Psalliota*. Mostly eatable. Named from *ψαλλιον*, a chain-bit, in the same sense as *Armillaria*. To this place belong the common Mushroom, *A. campestris*, so called from *Mouceron*, the French name of another eatable kind. It is found all over Europe, the north of Asia, and of Africa, and in North America.

|                                       |                   |               |             |        |                |                                     |
|---------------------------------------|-------------------|---------------|-------------|--------|----------------|-------------------------------------|
| 16014 <i>Georgii</i> Sowerby          | St. George's      | eatable       | 4 aut.      | Wsh    | mead. & woo.   | Sowerby, t. 304                     |
| 16015 <i>præcox</i> Pers.             | early             | tufted        | 2½ spr. su. | Ysh    | among grass    |                                     |
| β <i>appendiculatus</i> Sow.          | appendaged        | tufted        | 2½ spr. su. | Ysh    | among grass    | Sowerby, t. 324                     |
| γ <i>delicatus</i> With.              | delicate          | solitary      | 2 spr. su.  | Ysh    | among grass    | Bolt. t. 67. f. 1. <i>durus</i>     |
| 16016 <i>semiglobatus</i> Fatsch      | half-rounded      | gregarious    | 3 my. no.   | Y      | meadows        | Sowerby, t. 243                     |
| 16017 <i>squamosus</i> Pers.          | scaly             | solitary      | 4 sep. no.  | Y      | woods          |                                     |
| 16018 <i>versicolor</i> With.         | changeable-col.   | spongy        | 2 July      | G. Br  | groves         |                                     |
| 16019 <i>eruginosus</i> Flond.        | verdigrase        | pretty        | 1½ au. no.  | Y. G   | woods          | Sowerby, t. 244                     |
| 16020 <i>littoreus</i> With.          | sea-shore         | solitary      | 1 oct.      | Y. Br  | woo. & fields  |                                     |
| § 32. <i>HYPHOLOMA</i> . Fries.       |                   |               |             |        |                |                                     |
| 16021 <i>lachrymabundus</i> Sow.      | weeping           | fragile       | 2 au. no.   | W. Br  | on ground      | Sowerby, t. 41                      |
| 16022 <i>lateritius</i> Schæff.       | one-sided         | cæspitose     | 2 my. oc.   | Fulv.  | trun. of trees | Bolt. t. 5. <i>pomposus</i>         |
| 16023 <i>fascicularis</i> Huds.       | bundled           | cæspitose     | 1½ my. no.  | Ysh    | decay. trees   | Sowerby, t. 285                     |
| § 33. <i>PSILOCYBE</i> . Fries.       |                   |               |             |        |                |                                     |
| 16024 <i>myosotis</i> Fries           | olive             | gregarious    | 3 sep. no.  | G. Ol  | damp places    |                                     |
| 16025 <i>stercorarius</i> Schum.      | adnate            | brittle       | 4 Jul. oct. | Liv. Y | cow dung       |                                     |
| 16026 <i>ericæus</i> Pers.            | heath             | variable      | 4 Jul. oct. | Br     | damp places    | Schæff. t. 210. <i>helveticus</i>   |
| 16027 <i>fusco-purpureus</i> Wi.      | brown-purple      | twisting      | 2 aut.      | Pa. Br | among grass    |                                     |
| 16028 <i>callosus</i> Fries           | callous           | gregarious    | 3 au. no.   | Y      | way sides      | Sow. t. 248. f. 1. <i>semiglob.</i> |
| β <i>variis</i> Bolton                | various           | gregarious    | 3 au. no.   | Livid  | way sides      | Bolton, t. 66. f. 1                 |
| § 34. <i>PSATHYRA</i> . Fries.        |                   |               |             |        |                |                                     |
| 16029 <i>stipatus</i> Pers.           | stalked           | tufted        | 3 Jl. nov.  | Br     | trun. of trees | Bolt. t. 15. <i>concinus</i>        |
| 16030 <i>tentaculum</i> Sower.        | slender           | fragile       | 3½ au. no.  | Brsh   | gardens        | Sowerby, t. 385. f. 1               |
| 16031 <i>cuspidatus</i> Bolton        | cuspidate         | thin          | 4 aut.      | R. Br  | pastures       | Bolton, t. 55                       |
| § 35. <i>COPRINA</i> . Fries.         |                   |               |             |        |                |                                     |
| 16032 <i>semiovatus</i> Sowerby       | half-ovate        | upright       | 6 sum.      | Wsh    | cowdung        | Sowerby, t. 131                     |
| 16033 <i>simipitris</i> Bull.         | shield-headed     | fragile       | 4 au. oct.  | Ciner. | horse dung     | Bolt. t. 57. <i>clypeatus</i>       |
| 16034 <i>papilionæceus</i> Bull.      | butterfly         | unpleasant    | 3 my. no.   | Sooty  | dunghills      | Bulliard, t. 58                     |
| 16035 <i>Boltóni</i> Pers.            | Bolton's          | fragile       | 3 spring    | Y      | dunghills      | Sower, t. 96. <i>flavidus</i>       |
| 16036 <i>titubans</i> Bull.           |                   | delicate      | 3 au. sep.  | Y      | dunghills      | Sowerby, t. 125                     |
| 16037 <i>papyraceus</i> Pers.         | papery            | semitranspar. | 3 aut.      | Wsh    | oak trees      | Bolt. t. 111. <i>membranace.</i>    |
| 16038 <i>disseminatus</i> Pers.       | scattered         | gregarious    | 1 spr. au.  | Ysh    | trun. of trees | Sowerby, t. 166. <i>striatus</i>    |
| 2366. <i>COPRINUS</i> . Link.         | <i>COPRINUS</i> . |               |             |        |                |                                     |
| 16039 <i>comatus</i> Link.            | maned             | gregarious    | 2 au. oct.  | W      | gardens        | Grev. crypt. fl. t. 119             |
| A. <i>cylindricus</i> Sowerby, t. 189 |                   |               |             |        |                |                                     |
| 16040 <i>picæus</i> Fries             | ventricose        | subsultary    | 5 sep. oc.  | Wsh    | shady woods    | Sowerby, t. 170                     |
| 16041 <i>atramentarius</i> Link       | inky              | tufted        | 6 Jn. dec.  | Br     | trun. of trees | Sow. t. 138. A. <i>fimetarius</i>   |



History, Use, Propagation, Culture.

Of all the species of agaric, one only has been selected for cultivation in our gardens, viz. the *A. campestris*, or common mushroom, or champignon. The gills of this species are loose, pinky red, changing to a liver-color, in contact with the stem, but not united to it; very thick set, irregularly disposed, some forked next the stem, some next the edge of the pileus, some at both ends, and in that case generally excluding the intermediate smaller gills. The pileus is white, changing to brown when old, and becoming scurvy; regularly convex, fleshy, flatter with age, from two to four inches, and sometimes nine inches in diameter, and liquefying in decay; the flesh white. The stem is solid, white, cylindrical, from two to three inches high, half an inch in diameter; the curtain white and delicate. When this mushroom first makes its appearance, it is smooth and almost globular; and in this state it is called a button. This species is esteemed the best and most savoury of the genus, and is much in request for the table in England. It is eaten fresh, either stewed or boiled, and preserved either as a pickle, or in powder; and it furnishes the sauce called ketchup. The field plants are better for eating than those raised on artificial beds, their flesh being more tender; and those who are accustomed to them can distinguish them by their smell. But the cultivated ones are more sightly, may be more easily collected in the proper state for eating, and are firmer and better for pickling. The wild mushrooms are found in parks and other pastures, where the turf has not been ploughed up for many years; and the best time for gathering them is August and September. Dr. Withering mentions four varieties.

The *A. Georgii* of Linnæus resembles the former, but is much inferior to it in flavor. Its gills are yellowish white; the pileus yellow, convex, hollow in the centre; the stem yellow, thickish, and smooth; and the juice yellow, which flows plentifully from it when wounded. It is gathered in September in woods and pastures. A variety of this is found on the sea-coast of Cornwall, of a large size, with the button as big as a potatoe;

16014 Cap very fleshy convex white or pale-yellowish mostly smooth, Lamellæ broad whitish at length deep purple-brown, Stipes thick with a persistent collar

16015 Cap fleshy smooth yellowish tan-color, Lamellæ annexed with a decurrent tooth pale-brown, Stipes nearly solid smooth white

16016 Cap hemispher. smooth glutin.redd.-yell. Lamel. adnate mostly horizont. darkly mott. Stipes holl. squam.

16017 Cap somewhat viscid yellow : scales scattered concentrical, Lamellæ adnate blackish, Stipes solid

16018 Cap scaly greenish-brown, Lamellæ decurrent becoming rufous-brown, Stipes solid bulbous [squamoso

16019 Cap fleshy yell. but being cover. with a blue slime appear. green. Lamel. adnate purple-brown, Stipes holl.

16020 Stipes solid white, Annulus persistent, Cap yellow-brown, Lamellæ adnate reddish-grey

16021 Cap fleshy very fibrous pale yellow-brown, Lamellæ dull reddish-brown exuding a thin grey fluid, Stipes hollow fibrillose thickest at the base

16022 Cap fleshy obt. brown-orange, Lamel. slightly green. Stipes filled with a spongy mass stained by the veil

16023 Cap somew. fleshy umbon. ochrace. or redd.-orange, Lamel. green. numer. Stipes holl. rather long slender

16024 Cap convex viscid, Lamellæ adnate whitish-brown, Stipes long fibrous

16025 Cap obtuse smooth viscid livid-yellow, Lamellæ broad decurrent brown, Stipes long naked

16026 Cap convex smooth shining, Lamellæ broad adnate blackish, Stipes long naked

16027 Cap light-brown semiglobular, Lamellæ purplish-brown broad thin, Stipes reddish-brown

16028 Cap conical dry, Lamellæ adnate ascending dark-purple, Stipes tough smooth pale

16029 Cap somew. fleshy smooth fuscous-brown pallid, Lamel. adnate numer. brown. flesh-color. Stipes smooth

16030 Cap somewhat membranous campanulate obtuse, Lamellæ very broad at back adnate cinereous-blackish : margin pink, Stipes thin smooth

16031 Cap cinnamon-color conical, Lamellæ dusky-brown, Stipes brownish cylindrical smooth

16032 Cap somewhat fleshy obtusely campanulate glutinous yellowish or brownish-white, Lamellæ adnate greyish-black, Stipes long white, Veil annular entire

16033 Cap somewhat fleshy campanulate humid cinereous pallid, Lamellæ adnate cinereous-black whole-colored at edge, Stipes long rufous, Annulus ragged

16034 Cap somewhat fleshy campanulate dry blackish soot-colored pallid, Lamellæ adnate cinereous-dark white at edge, Stipes long rufous striated at end

16035 Cap convex somewhat umbonate viscid yellow, Lamellæ annexed pallid, Stipes attenuated smooth yellow

16036 Cap membranaceous plicate viscous yellow, Lamellæ scarcely attached to the stipes pale purplish at length brown flesh-color, Stipes equal shining

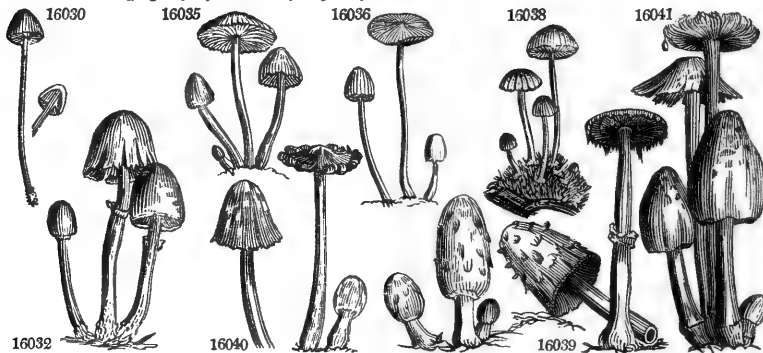
16037 Cap hemispherical smoothish whitish, Lamellæ loose blackish-purple, Stipes naked white

16038 Gregarious small, Cap ovato-campan. plicate, Lamel. subadnate whit. at length grey, Stipes incurv. glab.

16039 Cap somewhat fleshy white scaly, Lamellæ white changing to red-purple and to black, Stipes sub-bulbous, Veil annular moveable

16040 Cap membranous white separating into broad scales, Lamellæ blackish, Stipes bulbous naked

16041 Tufted, Cap somewhat fleshy grey becoming reddish-brown smooth scaly at the apex, Lamel. ventricose white changing to purplish-brown, Stipes equal naked



and Miscellaneous Particulars.

the expanded pileus eighteen inches over, the stem as thick as a man's wrist, the gills very pale, the curtain tough, and thick as leather, and the juice yellowish. A plant of this kind, as Dr. Withering informs us, was gathered on an old hot-bed in a garden in Birmingham, which weighed fourteen pounds.

St. George's day, "A. Georgii derives its name, according to Parkinson, from springing up about the time of St. George's day. It is unquestionably the largest of the British agarics. It has been known to weigh fourteen pounds. Mr. Hopkirk mentions one that weighed five pounds six ounces, and measured forty-three inches in circumference; but Mr. Stackhouse found it to attain the enormous size of eighteen inches in diameter, which is fifty-four in circumference, having a stem as thick as a man's wrist. The best distinguishing marks are, the extreme paleness of the lamellæ at the period of the bursting of the veil, compared with the true mushroom; the greater convexity and thickness of flesh at the same period; and shortly afterwards, the more yellowish and tough pileus."

§ 32. *Hypoholoma*. So called, from *ὕψος*, a cup, and *λαίμα*, an edge. Wood species growing in patches.

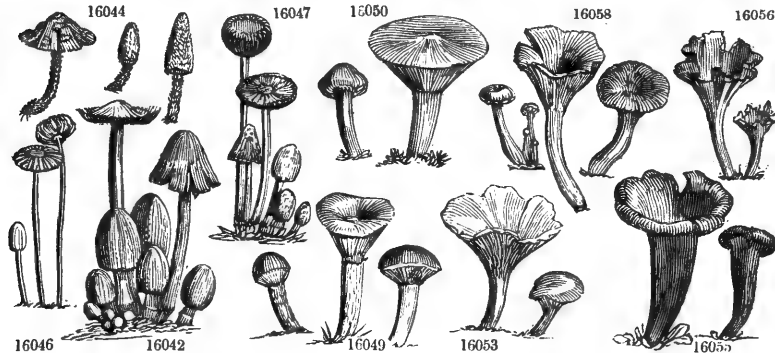
§ 33. *Psilocybe*. From *ψιλος*, thin, and *κεφαλή*, a head. A very natural assemblage. The species are for the most part terrestrial, inhabiting fertile and somewhat fenny places, growing either solitary or in groups, not eatable, and subject to much variety of appearance.

§ 34. *Psathyra*. So called, from *ψαθύρος*, fragile, on account of their remarkable brittleness. Many species are found upon moist wood, and in grassy places on a fertile soil.

§ 35. *Coprinarius*. All the species are found on dung, whence their name, from *κέρμα*, dung.

§ 36. *Coprinus*. Named for the same reason as the last. The species are gregarious and fugacious. They are found on dunghills, rich grassy places, and in the hollow trunks of decayed trees. The taste of the

|  |                |                 |    |                    |                |                                    |
|--|----------------|-----------------|----|--------------------|----------------|------------------------------------|
| 16042 <i>congregatus</i> Fries                           | clustered      | tufted          | 3  | my. no. Ferr.      | trun. of trees | Sowerby, t. 261                    |
| 16043 <i>niveus</i> Pers.                                | snowy          | variable        | 3  | au. no. W          | horse dung     |                                    |
| 16044 <i>cinereus</i> Fries                              | cinereous      | solitary        | 4  | jul. oct. Cin.     | dunghills      | Bolt. t. 156. <i>tomentosus</i>    |
| 16045 <i>domesticus</i> Fries                            | domestic       | pretty          | 3  | wet w. Sooty       | walls          | Bolton, t. 26                      |
| 16046 <i>plicatilis</i> Fries                            | plaited        | tender          | 2  | sum. Cin.          | damp places    | Sowerby, t. 364                    |
| 16047 <i>ephemerus</i> Pers.                             | ephemeral      | fugacious       | 2  | my. oc. Br         | dunghills      | Sow. t. 262. <i>stercorarius</i>   |
| 16048 <i>radiatus</i> Bolt.                              | radiated       | very delicate   | 2  | my. oc. Cin.       | dung           | Bolton, t. 39. f. C.               |
| 2367. <i>GOMPHUS</i> Fries. <i>GOMPHUS</i> .             |                |                 |    | <i>Sp. 2-4.</i>    |                |                                    |
| 16049 <i>glutinösus</i> Fr.                              | glutinous      | solitary        | 3  | jl. nov. Pu        | pine woods     | Sowerby, t. 7                      |
| 16050 <i>rutilus</i> Fr.                                 | sparkling      | solitary        | 3  | au. oct. Brsh      | pine woods     | Sowerby, t. 105                    |
| 2368. <i>CANTHAREL/LUS</i> Adans. <i>CHANTARELL</i> .    |                |                 |    | <i>Sp. 8-43.</i>   |                |                                    |
| 16051 <i>umbonatus</i> Pers.                             | umbonate       | gregarious      | 3  | au. no. Cin.       | among moss     | Jacq. coll. 2. t. 16. f. 1         |
| 16052 <i>aurantiacus</i> Fr.                             | orange         | poisonous       | 2  | au. no. Or. Y      | fields         | Jacq. coll. 2. t. 14. f. 5         |
| 16053 <i>cibarius</i> Fries                              | estable        | esulent         | 1½ | jl. nov. Y         | among moss     | Sow. t. 46. <i>A. cantharellus</i> |
| 16054 <i>cinereus</i> Fries                              | cinereous      | tufted          | 1½ | oct. Blish         | among moss     | Bolt. t. 34. <i>infundibularis</i> |
| 16055 <i>cornucopioides</i> Fries                        | purplish       | elastic         | 2  | au. no. Br         | woods          | Sowerby, t. 74                     |
| <i>Merulius purpuratus</i> With.                         |                |                 |    |                    |                |                                    |
| 16056 <i>undulatus</i> Fries                             | wavy           | tough           | ¾  | all sea. Pale      | on ground      | Sower. t. 75. <i>floriformis</i>   |
| 16057 <i>lobatus</i> Fries                               | lobed          | tough           | ¾  | spring Brsh        | humid places   | Bo. t. 177. <i>membranaceus</i>    |
| 16058 <i>lutescens</i> Fries                             | yellowish      | spirit-scented  | 2  | jul. no. Ysh       | humid places   | Sow. t. 47. <i>A. cantharellus</i> |
| 2369. <i>MERULIUS</i> Haller. <i>DRY-ROT</i> .           |                |                 |    | <i>Sp. 1-10.</i>   |                |                                    |
| 16059 <i>lachrymans</i> Schum. common                    | common         | parasite        | 4  | all sea. Y.Br      | decay. wood    | Sowerby, t. 113                    |
| <i>β obliquus</i> Bolton                                 | <i>oblique</i> | parasite        | 4  | all sea. Y.Br      | decay. wood    | Bolton, t. 74                      |
| 2370. <i>SCHIZOPHYLLUM</i> Fries. <i>SCHIZOPHYLLUM</i> . |                |                 |    | <i>Sp. 1.</i>      |                |                                    |
| 16060 <i>commune</i> Fr.                                 | common         | gregarious      | 2  | wet w. Grsh        | trun. of trees | Grev. crypt. t. 61                 |
| 2371. <i>D.EDA'LEA</i> Pers. <i>DEDALEA</i> .            |                |                 |    | <i>Sp. 7-30.</i>   |                |                                    |
| 16061 <i>quercina</i> Pers.                              | oak            | variable        | 0  | all sea. Pa. Y     | oak trees      | Sowerby, t. 181                    |
| 16062 <i>biennis</i> Fries                               | biennial       | three inch. br. | 1  | all sea. Ferr.     | rotten wood    | Sowerby, t. 190                    |
| 16063 <i>betulina</i> Pers.                              | birch          | smaller         | 0  | all sea. Pallid    | birch trees    | Sowerby, t. 182                    |
| 16064 <i>confragosa</i> Pers.                            | broken         | woody           | 0  | all sea. Brsh      | service trees  | Bolton, t. 160                     |
| 16065 <i>unicolor</i> Fries                              | whole-colored  | imbricated      | 0  | aut. Sooty         | trun. of trees | Sowerby, t. 325                    |
| 16066 <i>gibbosa</i> Pers.                               | gibbous        | six inches br.  | 0  | aut. Wsh           | trun. of trees | Sower. t. 194. <i>sinuosus</i>     |
| 16067 <i>angustata</i> Fries                             | tapering       | two inches br.  | 0  | aut. Cin.          | poplar trees   | Sowerby, t. 193                    |
| 2372. <i>POLYPORUS</i> Micheli. <i>POLYPORUS</i> .       |                |                 |    | <i>Sp. 35-143.</i> |                |                                    |
| § 1. <i>Favo'LUS</i> Beauv.                              |                |                 |    |                    |                |                                    |
| 16068 <i>squamösus</i> Fr.                               | scaly          | 3-18 inc. wide  | 2  | jn. nov. Och.      | trun. of trees | Grev. crypt. 207                   |
| 16069 <i>heteroclitus</i> Fr.                            | variable       | 2¼ inches wide  | 0  | aut. Or            | on earth       | Bolton, t. 164                     |



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European species is watery and nauseous; they are therefore not eatable. But in the spice islands, two species, *C. moschocaryanus*, which is found on the nutmegs, and *C. saguarius*, which inhabits the pith of the Sago palm, are said to be most delicious. *C. cinereus* is extremely rapid in its growth, attaining perfection and dissolving in the course of a few hours. At its first appearance, it is covered with the delicate frosted remains of the veil. 2367. *Gomphus*. So named from their form, from *γομφος*, a club. Large Fungi, scarcely fit for food, with little taste or smell.

2368. *Cantharellus*. An alteration of the French *Chantarelle*. *C. cibarius* is one of the best of our eatable mushrooms. The best way of preserving the plants for use is to string them in rows, after they have become flaccid, and to hang them in a dry place where they can have plenty of air. They then form a delicious ingredient in rich gravies, &c.

2369. *Merulius*. A name applied by the ancients to the common morel, *Morchella esculenta*. Natives of rotten wood, which they soften and finally destroy. *M. lacrymans*, the dry rot, is a pest to the wood of dwelling houses, which it speedily destroys. It is said to be destroyed by a wash of diluted sulphuric acid. The whole plant is generally resupinate, soft, tender, at first very light, cottony and white. When the veins appear, they are of a fine yellow, orange, or reddish-brown, forming irregular plicæ, most frequently so arranged as to have the appearance of pores, but never any thing like tubes. Sometimes the pileus or substance of the plant, from its situation, produces pendent processes like inverted cones. "The whole fructification often forms a circle of 1-3 inches in diameter." Except in favorable situations, it does not produce fructification, and resembles a dry pithy cottony substance, whence it has been called the dry rot. When in a perfect state, its sinuses contain drops of clear water, which have given rise to the specific name.

2370. *Schizophyllum*. From *σχιζω*, to cut, and *φυλλον*, a leaf, in allusion to its lacerated appearance. Found

- 16042 Tuft. Cap membranac. furrow. furfurac. brown-orange, Lamel. pale chang. to black, Stipes equal fragile  
 16043 Cap campan. farln. with min. scales, Stipes snow-white tomentose, Lamel. narrow at length brown-black  
 16044 Cap furrowed subtomentose cinereous smooth on the summit, Lamel. lin. Stipes tall attenuated upwards  
 16045 Cap obtuse scaly scurfy wavy-furrowed sooty, Lamellæ numerous linear blackish, Stipes somewhat silky  
 16046 Very tender, Cap conical at length plane umbilicated plicate, Lamellæ not reaching to the stipes distant dark-grey, Stipes smooth weak  
 16047 Ovato-campanulate scaly while young afterwards glabrous becoming expanded and revolute grey or tinged with brown very thin splitting, Lamellæ distant  
 16048 Very delicate and fugacious, Cap grey furfuraceous at length splitting in a radiated manner glabrous brownish in the centre, Stipes filiform

- 16049 Cap obtuse glutinous purplish-brown, Lamellæ whitish cinereous  
 16050 Cap umbonate somewhat viscid rufous-brown, Lamellæ purple umber-colored

- 16051 Cap slightly fleshy umbonate cinereous-blackish, Stipes solid paler, Plaits straight white  
 16052 Cap fleshy rather depressed downy and solid, Stipes orange-yellow, Plaits straight orange-colored  
 16053 Rich buff yellow, Cap fleshy irregular smooth: veins tumid, Stipes solid attenuated at the base  
 16054 Cap funnel-shaped pervious scaly and hollow, Stipes blackish, Plaits distant cinereous  
 16055 Cap tubiform pervious scaly black umber-color: wrinkles obsolete

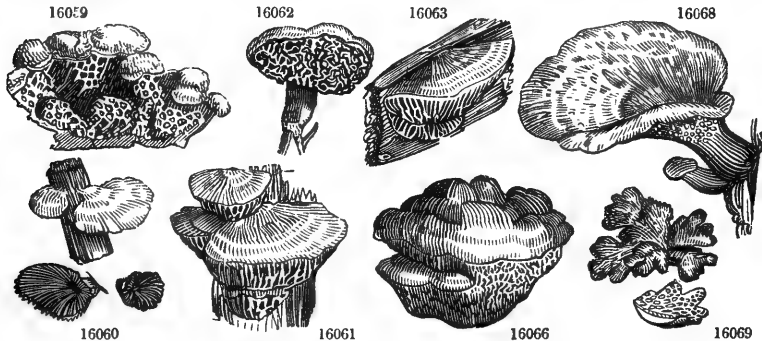
- 16056 Cap coriaceous membranous depressed wavy pallid rugose beneath, Stipes solid  
 16057 Horizontal sessile lobed membranaceous dilute brown, Veins branched  
 16058 Cap submembranac. funnel-shap. waved yellowish or olivac. brown, Veins anastomosing, Stipes holl. yell.

- 16059 Effused large yellow ferruginous or deep orange: margin white and cottony, Veins large forming irregular pores by their sinuosity

16060 The only species

- 16061 Sessile pale with a woody aspect, Cap suberose rugose glab. Hymenium contorted sinuose anastomosing  
 16062 Cap somewhat corky depressed rather velvety subferruginous, Hymenium composed of labyrinth-like pores grey flesh-color, Stipes irregular central or nearly lateral  
 16063 Sessile pallid, Cap coriaceous banded downy, Lamellæ straight somewhat branched  
 16064 Sessile, Cap corky-coriaceous banded rough brownish, Recesses labyrinth-like cinereous  
 16065 Sessile cinereous, Cap coriaceous villous banded, Recesses unequal somewhat flexuose becoming ragged  
 16066 Sessile whitish, Cap corky villous projecting and gibbous at base, Pores linear straightish  
 16067 Sessile, Cap corky downy banded brownish-cinereous, Pores long narrow olive-yellow

- 16068 Large, Cap fleshy pale dirty-yellowish with broad dark-colored scales, Pores large angular whitish becoming mere reticulations at the base, Stipes very short  
 16069 Sessile orange-colored, Cap imbricated lobed villous, Pores large deformed



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upon the trunks of leafy trees through all Europe and Asia, the Gold Coast, Cape of Good Hope, North America, the Antilles, and South America.

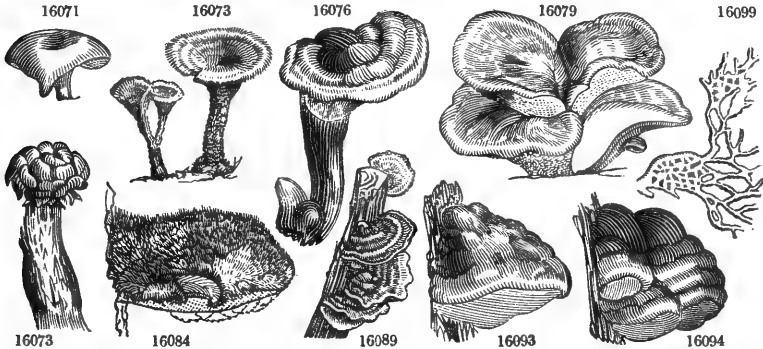
2371. *Dædalea*. So called from its sinuosities, which appear as if arranged with *Dædalean* art. Most of the species grow upon wood. The dried substance of *D. quercina* is a good styptic. *D. suaveolens* has, according to Bolton, a smell like aniseed; and Linnæus mentions, that the Laplanders carry it about them when they visit their mistresses, in order to render themselves more agreeable. From the powder of the plant is prepared an electuary which is said to have been used with success in cases of phthisia. The dose from a scruple to a drachm.

2372. *Polyporus*. From *πολυς*, many, and *πορος*, a pore, on account of the multitude of pores which constitute its hymenium. *P. squamosus* is a common species on trunks of willows, oaks, walnuts, &c. From this was extracted, by Braconnot, the Fungic acid. It is colorless, does not crystallize, has a very sour taste, and when evaporated to dryness, deliquesces upon exposure to the air. The fungates of potash and soda do not crystallize, are very soluble in water, but not in alcohol. The fungate of ammonia crystallizes in regular six-sided prisms. The fungate of lime is not altered by exposure to the air, and is soluble in about eighteen times its weight of water at seventy-three degrees.

*P. Tuberaster*, a species common in Italy, in various parts of the kingdom of Naples, and the Pontifical states, is held in the highest esteem as an article of Neapolitan cookery. *P. annosus*, a Swedish species, is used by the peasantry as a cure for the bite of snakes. Fries says, that he saw the blood which was flowing from the mouth of a kid which had been hurt stopped in a short space of time by its application. From *P. dryadeus*, the *Boletus pseudo-ignarius* of Bulliard, Braconnot obtained his Boletic acid. The color of this principle is white; it is not altered by exposure to the air, and its crystals are regular four-sided prisms. Its



|                                 |                                    |                       |                |              |           |                |                                  |  |
|---------------------------------|------------------------------------|-----------------------|----------------|--------------|-----------|----------------|----------------------------------|--|
| <p>§ 2. MICROPO'BUS. Beauv.</p> |                                    |                       |                |              |           |                |                                  |  |
| 16070                           | <i>leptocéphalus Jacq.</i>         | small-capped          | one inch wide  | 1 aut.       | Gr        | on wood        | Jacq. misc. f. t. 12             |  |
| 16071                           | <i>brumális Pers.</i>              | winter                | 1-4 inch. wide | 2 all sea.   | Sooty     | trun. of trees | Schæff. t. 281. <i>pileus</i>    |  |
| 16072                           | <i>perennis Fr.</i>                | perennial             | thin           | 3 aut.       | Cinn.     | trun. of trees | Sowerby, t. 192                  |  |
| 16073                           | <i>strobiliformis Dicks.</i>       | cone-like             | lumpish        | 2 aut.       | Br        | trun. of trees | Crypt. brit. t. 3. f. 2          |  |
| 16074                           | <i>pellucidus With.</i>            | pellucid              | two inch. br.  | ½ aug.       | Br        | old wood       |                                  |  |
| 16075                           | <i>variegatus Sower.</i>           | variegated            | patches        | 2 all sea.   | Br        | trun. of trees | Sowerby, t. 368                  |  |
|                                 | β <i>virius Pers.</i>              | <i>variable</i>       | patches        | 2 all sea.   | Grsh      | trun. of trees | Greiv. crypt. 202                |  |
|                                 | <i>B. lateralis</i> Bolt. 83       |                       |                |              |           |                |                                  |  |
|                                 | γ <i>nummularius Bull.</i>         | <i>moneywort</i>      | patches        | 2 all sea.   | Wsh       | trun. of trees | Sower. t. 368. fig. min.         |  |
| 16076                           | <i>lucidus Fr.</i>                 | shining               | variable       | 1½ or 2 sum. | Ysh       | trun. of trees | Sowerby, t. 134                  |  |
| 16077                           | <i>frondosus Fr.</i>               | leafy                 | broad patches  | 2 sep. oc.   | Sooty     | roots of oak   | Schæff. t. 127                   |  |
| 16078                           | <i>velutinus Fr.</i>               | velvety               | thin           | 2 spr. su.   | Wsh       | trun. of trees |                                  |  |
| 16079                           | <i>gigantéus Fr.</i>               | gigantic              | tufts          | 24 sum.      | Pa.Br     | beech trees    | Sow. t. 86. <i>imbricatus</i>    |  |
| 16080                           | <i>sulphureus Fr.</i>              | sulphur-color.        | tufts          | 24 sum.      | Rsh.Y     | oak trees      | Greiv. crypt. 113                |  |
| 16081                           | <i>betulinus Fr.</i>               | birch                 | acid           | 2 sum.       | Brsh      | birch trees    | Sowerby, t. 212                  |  |
| 16082                           | <i>spumeus Fr.</i>                 | frothy                | thick          | 3 aut.       | Wsh       | trun. of trees | Sower. t. 211. <i>stipitatus</i> |  |
| 16083                           | <i>cæsius Fr.</i>                  | cæsious               | very thin      | 2 aut.       | Bsh       | trun. of pines | Sower. t. 286. <i>albidus</i>    |  |
| 16084                           | <i>hispidus Fr.</i>                | hispid                | spongy         | 6 sum.       | Ferr.     | oak trees      | Greiv. crypt. 14                 |  |
|                                 | <i>Bol. velutinus</i> Sowerby, 345 |                       |                |              |           |                |                                  |  |
| 16085                           | <i>cuticularis Fr.</i>             | cuticular             | imbricated     | 3 aut.       | Ferr.     | trun. of trees | Sower. t. 195. <i>impuber</i>    |  |
| 16086                           | <i>adustus Fr.</i>                 | scorched              | imbricated     | 2 aut.       | Pa.Br     | trun. of trees | Sower. t. 231. <i>carpinus</i>   |  |
| 16087                           | <i>ulnarius Fr.</i>                | elm                   | 3-4 inch. wide | 0 aut.       | Fallid    | elm trees      | Sowerby, t. 88                   |  |
| 16088                           | <i>suavolens Fr.</i>               | fragrant              | fragrant       | 3 aut.       | W         | willow trun.   | Sowerby, t. 228                  |  |
|                                 | β <i>salicinus Fr.</i>             | <i>willow</i>         | fragrant       | 3 aut.       | W         | willow trun.   | Sowerby, t. 227                  |  |
| 16089                           | <i>versicolor Fr.</i>              | changeable            | tufted         | 1 su. aut.   | Bsh       | trun. of trees | Sowerby, t. 229                  |  |
| 16090                           | <i>radiatus Fr.</i>                | radiated              | imbricated     | 1 aut.       | Y.Br      | trun. of trees | Sowerby, t. 190                  |  |
| 16091                           | <i>pallescens Fr.</i>              | pallid                | imbricated     | 2 aut.       | pa.Oc.    | trun. of trees | Sow. t. 250. <i>pelleporus</i>   |  |
| 16092                           | <i>abietinus Fr.</i>               | pine-tree             | imbricated     | 1½ aut.      | Wsh       | dead pines     | Dicks. crypt. t. 9. f. 9         |  |
| 16093                           | <i>fomentarius Fr.</i>             | soft tinder           | spongy         | 6 all sea.   | Sooty     | beech trees    | Sowerby, t. 133                  |  |
| 16094                           | <i>igniarius Fr.</i>               | hard tinder           | hard           | 6 all sea.   | Ferr.     | trun. of trees | Sowerby, t. 132                  |  |
| 16095                           | <i>spongiosus Fr.</i>              | spongy                | tufts          | 2 aut.       | Ferr.     | trun. of trees | Bolt. t. 165. <i>resupinatus</i> |  |
| 16096                           | <i>medulla panis Fr.</i>           | bread-crumbs          | thick          | 4 aut.       | W         | fallen timber  | Bolton, t. 166. f. 1             |  |
| 16097                           | <i>vulgarius Fr.</i>               | common                | fragile        | 12 all sea.  | W         | fallen timber  | Bolt. t. 166. <i>proleus</i>     |  |
| 16098                           | <i>ferruginosus Fr.</i>            | rusty                 | unequal        | 1 sum.       | Ferr.     | elder trees    | Greiv. crypt. 155                |  |
| 16099                           | <i>mollisus Fr.</i>                | slippery              | variable       | 3 all sea.   | W         | dead trees     | Sow. t. 326. <i>Medul. panis</i> |  |
| 16100                           | <i>incarnatus Fr.</i>              | pink                  | firm           | 3 sum.       | Pk        | pine wood      |                                  |  |
| <p>§ 3. POLYSTIC'ITA.</p>       |                                    |                       |                |              |           |                |                                  |  |
| 16101                           | <i>reticulatus Nees.</i>           | netted                | very delicate  | 2 sum.       | W         | pine wood      | Nees crypt. f. 225               |  |
| 16102                           | <i>carmichaelianus Gr.</i>         | min. hon.-com.        | crust-like     | 3 aut.       | W         | decay. trun.   | Greiv. crypt. 224                |  |
|                                 | 2873. BOLETUS. Dill.               | BOLETUS.              |                |              | Sp. 8-20. |                |                                  |  |
| 16103                           | <i>luteus L.</i>                   | yellow                | 3 inch. broad  | 2 aut.       | Y         | old trees      | Greiv. crypt. 183                |  |
| 16104                           | <i>lactifusus With.</i>            | milky                 | 2-4 inches br. | 2½ aut.      | Buff      | pastures       |                                  |  |
| 16105                           | <i>piperatus Bull.</i>             | peppery               | 2½ inch. broad | 1½ su. aut.  | Ysh       | woods          | Sowerby, t. 34                   |  |
| 16106                           | <i>subtomentosus L.</i>            | cracked               | cracked        | 2 jn. oct.   | Ol        | woods          | Bulliard, t. 393                 |  |
|                                 | β <i>sanguineus With.</i>          | <i>bloody</i>         | cracked        | 2 jn. oct.   | Crim.     | woods          | Sow. t. 225. <i>commutatus</i>   |  |
| 16107                           | <i>luridus Schæff.</i>             | lurid                 | 6 inches broad | 2 su. aut.   | Ol G      | groves         | Greiv. crypt. 121                |  |
|                                 | <i>B. rubecolus</i> Sower. 150     |                       |                |              |           |                |                                  |  |
| 16108                           | <i>esculentus Per.</i>             | esculent              | cracked        | 4 su. aut.   | Sooty     | woods          | Sowerby, t. 111. <i>edulis</i>   |  |
| 16109                           | <i>scaber Fr.</i>                  | rough                 | 3 inches broad | 4 su. aut.   | W         | woods          | Bolt. t. 86. <i>procerus</i>     |  |
|                                 | β <i>aurantiacus</i> Sow.          | <i>orange-colored</i> | 3 inches broad | 4 su. aut.   | Ruf.      | woods          | Sowerby, t. 110                  |  |
|                                 | γ <i>bovinus</i> Schæff.           | <i>glutinous</i>      | 3 inches broad | 4 su. aut.   | Sooty     | woods          | Sowerby, t. 175. <i>scaber</i>   |  |
| 16110                           | <i>cyanescens Fries</i>            | bluish                | 3 inches broad | 3 su. aut.   | Straw     | woods          | Bulliard, t. 369                 |  |
|                                 | 2874. FISTULINA. Bull.             | FISTULINA.            |                |              | Sp. 1.    |                |                                  |  |
| 16111                           | <i>hepatica Bull.</i>              | liver-like            | patches        | 6 aut.       | Crim.     | oak trees      | Sowerby, t. 58                   |  |

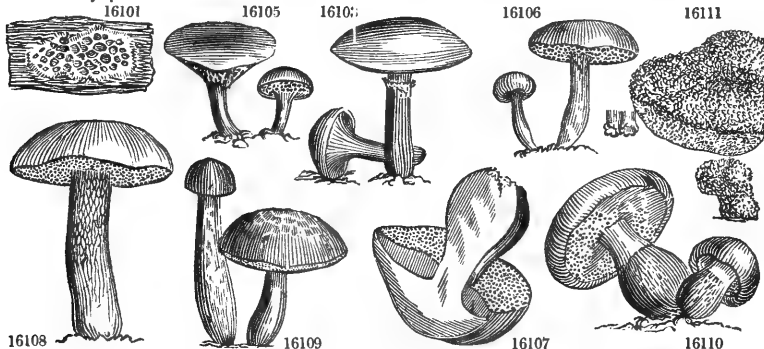


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taste is similar to that of tartar. It is soluble in 180 times its weight of water, at a temperature of sixty-eight degrees, and in forty-five times its weight of alcohol. The aqueous solution reddens vegetable blues. It combines with the different bases forming boletates, which have been but little examined. The boletate of ammonia crystallizes in flat four-sided prisms, and is soluble in twenty-six times its weight of water at sixty-eight degrees. The boletate of potash is very soluble in water, and crystallizes with difficulty. The boletate of lime crystallizes in flat four-sided prisms, and is soluble in about 110 times its weight of water at seventy-two and a half degrees. Polyporus fomentarius is much used on the continent for making Amadou; also very generally in the Highlands of Scotland for the same purpose by the shepherds, who manufacture it for themselves.

- 16070 Cap fleshy coriaceous thin smooth brownish, Pores very small roundish white, Stipes short pallid  
 16071 Cap soft fleshy somewhat umbilicated villous sooty pallid, Pores minute angular white, Stipes pallid  
 16072 Cap coriaceous velvety zoned, Pores minute at length lacerated, Plant cinnam.-col. Stipes central  
 16073 An obscure species scarcely known  
 16074 Cap concave rich brown scaly, Pores white very short, Stipes whitish thick short  
 16075 Cap rigid glab. smooth, Pores minute round. pallid, Stipes short smooth pallid abruptly black downwards  
 β Cap rigid glab. smooth, Pores small round. pale, Stipes short smooth pale becom. suddenly black at base  
 γ Cap yellow ochre-color or whitish  
 16076 Cap corky and stipes smooth shining, Pores minute round pale  
 16077 Much branched, Caps halved rugose sooty-grey, Pores white [Pores excessively short min. round wh.]  
 16078 Imbricated scarcely reflex. white or brown-grey, Cap betw. corky and coriac. thin velvety obscure. zoned,  
 16079 Imbricated multiplied, Caps very broad somewhat banded pale-brown, Pores unequal pale  
 16080 Multiplied subsessile, Caps broad imbricated smoothish reddish-yellow, Pores minute flat sulphur-colored  
 16081 Cap subsessile not dimidiate compact smooth pale whitish-brown, Pores white small unequal  
 16082 Whitish, Cap fleshy rugose hispid obtuse, Pores short roundish  
 16083 Cap fleshy subsericeous white changing to bluish, Pores minute white irregular lacerated  
 16084 Cap dimidiate large somew. fleshy thick villous ferrugin. Pores yellowish pale and fringed at the orifices  
 16085 Caps fleshy corky downy ferruginous, Pores shining greyish ferruginous  
 16086 Caps fleshy tough villous pale: margin straight blackish, Pores minute round cinereous  
 16087 Cap fleshy corky not banded glabrous pallid, Pores small equal  
 16088 Cap fleshy corky not banded villous white, Pores largish brownish [brown short irregular  
 β Sess. or dimid. bet. suber. and coriac. round. smooth white at length brown. Pores white becom. yellow.]  
 16089 Cap mostly reflexed coriaceous villose variegated by zones of different colors, Pores round white short  
 16090 Caps coriaceous streaked in rays somewhat velvety brownish-yellow, Pores minute  
 16091 Caps coriaceous smooth not banded pale ochre-color, Pores equal [lacerating  
 16092 Effused but at length mostly reflex. Cap thin coriac. vill. white, Pores violet at length brown. and toothed  
 16093 Cap subtriangular glabrous dark brownish-grey soft within: margin pale glaucous as well as the pores  
 (which are very minute) but at length ferruginous  
 16094 Hard, Cap thick obtuse smoothish mostly ferruginous blackish at the base banded: margin convex,  
 Pores minute greenish at length cinnamon-color  
 16095 Effused coriaceous-spongy ferruginous, Pores straight round minute  
 16096 Effused somewhat wavy hard smooth dry white, Pores middle-size  
 16097 Broadly effused thin dry smooth white, Pores minute subequal  
 16098 Effused thick portions sometimes growing out horizontally ferrugin. Pores round. very uneq. Flesh none  
 16099 Effused thin soft white with a fibrous circumference, Pores thin unequal  
 16100 Effused coriaceous very thin submarginate, Pores orange flesh-color minute round suboblique  
 16101 Very fine resembling byssus fugacious white, Pores distant cupulaeform powdery  
 16102 Effus. entirely resupin. very thin white: marg. membran. laciniat. Pores min. subhexagonal very shallow  
 16103 Cap glutinous varying from bright-yellow to fulvous: tubes adnate yellow, Stipes firm with an annular veil  
 16104 Cap red-buff, Pores yellow, Stipes bright-yellow, Juice like milk  
 16105 Cap redd. or brownish-yell. smooth: tubes adnate somew. decurr. large ferrugin. Stipes smooth deep-yell.  
 16106 Cap round. dry subtoment. reddish or olivaceous: tubes adnate large angul. yell. Stipes very firm smooth  
 16107 Cap convex subtomentose mostly olivaceous: tubes nearly free round yellow; the orifices crimson-red,  
 Stipes thick reticulated with crimson-red  
 16108 Cap convex smooth cinereous yellow or brown: tubes nearly free roundish minute whitish at length  
 yellowish, Stipes thick reticulated: flesh white not changing color  
 16109 Cap convex glabrous: tubes free round whitish, Stipes firm attenuated upwards scabrous  
 β Cap somewhat rufous with black scales  
 γ Cap slightly glutinous reddish-brown thin: tubes adnate compound yellowish, Stipes smooth  
 16110 Cap compact somewhat downy: tubes loose round equal, Stipes solid smooth ventricose

16111 The only species

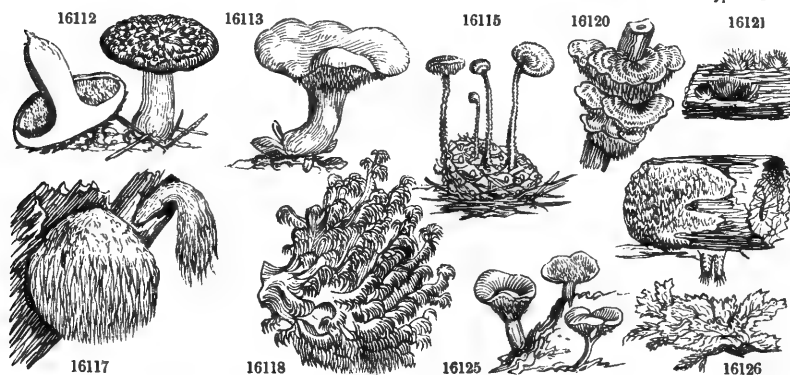


and Miscellaneous Particulars.

2373. *Boletus*. Pliny, Cæsalpinus, Porta, and others, call these plants Suilli. The Boleti (from *βωλος*, a field, in allusion to the places where they are found) of the Romans were terrestrial Fungi, and more particularly *Agaricus caesareus*. By Tournefort these were called Phalloidei; by Micheli, *Morchellæ*. The species grow singly upon the ground, are succulent, and have their parts in the greatest perfection of any fungi. *B. granulatus* is eatable, according to Persoon; so is *Boletus subtomentosus*. *Boletus edulis* is excellent when cooked.

2374. *Fistulina*. So called from the *fistulosus* nature of its tubes; the genus is just intermediate between *Boletus* and *Hydnum*, to the former of which it bears the same resemblance as *Schizophyllum* to *Agaricus*. There is only one species, and it is said, by Persoon, to be eatable.

|  |                 |            |                |    |          |        |                |  |
|--|-----------------|------------|----------------|----|----------|--------|----------------|--|
| 16112 imbricatum <i>L.</i>             | <i>HYDNUM</i> . | imbricated | esulent        | 1  | sep. oc. | Umb.   | pine woods     | Greville crypt. 71                     |
| 16113 repandum <i>L.</i>               |                 | repand     | esulent        | 1½ | su. aut. | Ysh    | woods          | Greville crypt. 44                     |
| β <i>squamosum</i> Fr.                 |                 | scaly      | esulent        | 1½ | su. aut. | Ysh    | woods          | Bolton, t. 88. <i>imbricatum</i>       |
| 16114 rufescens <i>Pers.</i>           |                 | brownish   | estable        | 3  | su. aut. | Psh    | beech woods    | Bolton, t. 89. <i>repandum</i>         |
| 16115 auriscálpium <i>L.</i>           |                 | ear-pick   | curious        | 2½ | all sea. | Bl     | pine cones     | Greville crypt. 196                    |
| 16116 gelatinosum <i>Scop.</i>         | gelatinous      |            | curious        | ½  | aut.     | Fusc.  | pine woods     | Jacq. aust. t. 239                     |
| 16117 erináceum <i>Bull.</i>           | Hedge Hog       |            | variable       | 3  | oct.     | W      | beech trees    | Bulliard, t. 34                        |
| 16118 coralloídes <i>Scop.</i>         | coralloid       |            | tufts          | 1  | aut.     | W      | trun. of trees | Sowerby, t. 252                        |
| 16119 crispum <i>Schaff.</i>           | crisp           |            | 4 inches wide  | 0  | oct.     | Brsh   | dead wood      | Schaff. t. 147. f. 1                   |
| 16120 ochréceum <i>Pers.</i>           | ochre-colored   |            | variable       | 2  | all sea. | Ysh    | pine wood      | Sowerby, t. 15. <i>Daviesii</i>        |
| 16121 minimum <i>Bolton</i>            | least           |            | curious        | ½  | aut.     | Taw.   | rotten oak     | Bolton, t. 171                         |
| 16122 membranaceum <i>Bull.</i>        | membranous      |            | effused        | 0  | sum.     | Ferr.  | pine wood      | Sowerby, t. 327                        |
| 16123 Bárba Jóvis <i>Bull.</i>         | Jew's Beard     |            | 12 inches wide | 0  | sum.     | Wsh    | hollow trees   | Sowerby, t. 328                        |
| 16124 spatulatum <i>Fr.</i>            | spatulate       |            | very delicate  | 0  | all sea. | W      | pine trees     | Nees syst. f. 231                      |
| 2376. SISTOSTREMA. <i>Fries.</i>       | SISTOSTREMA.    |            |                |    |          |        |                |  |
| 16125 cónfluens <i>Pers.</i>           | confluent       |            | gregarious     | 1  | au. no.  | Wah    | way-sides      | Sowerby, t. 112                        |
| 2377. PHLEBIA. <i>Fries.</i>           | PHLEBIA.        |            |                |    |          |        |                |  |
| 16126 vága <i>Fries</i>                | wandering       |            | membranous     | 2  | sep. no. | Sul.   | alder trees    |  |
| 2378. THELEPHORA. <i>Ehr.</i>          | THELEPHORA.     |            |                |    |          |        |                |  |
| 16127 pannósa <i>Fr.</i>               | cloth-like      |            | gregarious     | 2  | aut.     | Pallid | on ground      | Sowerby, t. 155                        |
| 16128 caryophyllæ'a <i>Fr.</i>         | clove           |            | tough          | 1½ | aut.     | Psh    | among grass    | Schæffer, t. 325                       |
| 16129 terréstris <i>Fr.</i>            | terrestrial     |            | gregarious     | 1½ | aut.     | Brsh   | on ground      | Bul. t. 268. <i>caryophyllæa</i>       |
| 16130 laciniáta <i>Fr.</i>             | ragged          |            | gregarious     | 1½ | aut.     | Ferr.  | on ground      | Bol. t. 173. <i>caryophyllæa</i>       |
| § 1. MERISMA. <i>Fr.</i>               |                 |            |                |    |          |        |                |  |
| 16131 palmáta <i>Fr.</i>               | palmate         |            | stinking       | 2  | wet au.  | Psh    | pine woods     | Greville crypt. f. t. 46               |
| β <i>anthocéphala</i> Fr.              | flower-headed   |            | stinking       | 2  | wet au.  | Ferr.  | pine woods     | Sowerby, t. 156                        |
| 16132 cristáta <i>Fr.</i>              | crested         |            | crust-like     | 3  | au. oct. | Pallid | damp places    | Sow. t. 158. <i>laciniata</i>          |
| 16133 tuberósa                         | dwarf tuberous  |            | solitary       | 1½ | aut.     | Rsh    | bare ground    | Greville crypt. 178                    |
| 16134 rubiginósa <i>Schr.</i>          | rusty           |            | woody          | 2  | all sea. | Bt.Br  | old oaks       | Sow. t. 26. <i>Au. ferrugin.</i>       |
| 16135 tabacina <i>Fr.</i>              | Tobacco         |            | elegant        | 6  | su. aut. | Ferr.  | bran. of trees | Sowerby, t. 25                         |
| <i>Auric. nicotiána</i> Bolton, t. 174 |                 |            |                |    |          |        |                |  |
| 16136 hepática <i>Fr.</i>              | Liver           |            | imbricated     | 4  | aut.     | Dl.Br  | trun. of trees | Sow. t. 388. f. 2. <i>Aur. levis</i>   |
| 16137 hirsúta <i>W.</i>                | hairy           |            | firm           | 3  | all sea. | Ysh    | trun. of trees | Sow. t. 27. <i>Au. reflexa</i>         |
| 16138 ochroleúca <i>Fr.</i>            | pale-yellow     |            | membranous     | 3  | aut.     | Wah    | trun. of trees | Sow. t. 349. <i>Au. papyrinus</i>      |
| 16139 purpúrea <i>Schum.</i>           | purple          |            | wavy           | 3  | aut.     | Fu     | trun. of trees | So. t. 388. f. 1. <i>A. persistens</i> |
| 16140 intybácea <i>Pers.</i>           | endive-like     |            | very irregular | 6  | au. spr. | Rsh    | stumps of tr.  |  |
| 16141 sínuans <i>Pers.</i>             | sinuous         |            | gregarious     | 1  | au. wi.  | Y.Br   | oak branches   |  |
| 16142 corýlea <i>Pers.</i>             | Hazel-Tree      |            | imbricated     | 6  | all sea. | Ochr.  | decay. hazel   |  |
| 16143 córium <i>Pers.</i>              | leathery        |            | thin           | 6  | aut.     | Buff   | dead trunks    | Greville crypt. 147                    |
| 16144 ochrécea <i>Fr.</i>              | yellow-ochre    |            | very broad     | 12 | aut.     | Ochr.  | rotten trun.   |  |
| 16145 radiáto-rimósa <i>Grev.</i>      | cracked         |            | confluent      | 4  | aut.     | R.Br   | damp fir tim.  |  |
| 16146 sanguinolénta <i>Fr.</i>         | bloody          |            | very gregar.   | 2  | nov.     | Psh    | dead trees     | Greville crypt. 225                    |



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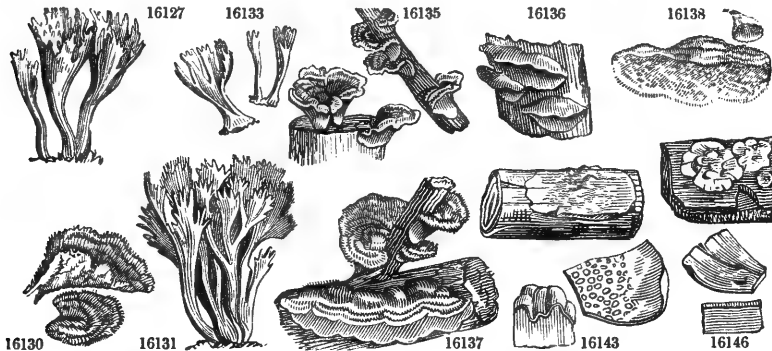
2375. *Hydnum*. The Greeks had their *ύδνα* and *ύδνα*, tumours, which were analogous to the tubers of the Romans. *H. coralloides* is eatable; so is *H. leoninum*, a Swedish species. A very extensive genus of fungi, chiefly found in moist situations upon the trunks of trees. The pileus is furnished on its lower surface with numerous awl-shaped bodies, which Linnaeus compares to the prickles of a hedgehog; they are soft, solid, conical or cylindrical substances, emitting spores from every part of their surface.

2376. *Sistostrema*. So named from *συστήμα*, part. *συστος*, compounded, and *στέμμα*, an orifice, in allusion to the regular rows of pores: Intermediate between the Agarics and Hydna. Gregarious, becoming concrete, fragile, scentless, white, becoming yellow in age. The pilei are thin, somewhat fragile, from half to one inch

1. *Stem perpendicular, Cap distinct, round, nearly entire.* GROWING ON THE GROUND.  
 16112 Cap fleshy flat tessellated scaly not banded umber-colored, Processes buffish-cinereous, Stipes short  
 16113 Cap fleshy smooth subrepand buffish, Subulate processes of hymenium unequal pale, Stipes unequal thick  
 16114 Cap fleshy orbicular somewhat tomentose brownish-flesh-color, Processes nearly equal, Stipes thin equal  
 16115 Cap coriaceous tomentose, Stipes lateral tomentose  
 2. *Stem simple, somewhat horizontal, Cap halved, or out of the centre.* FLESHY. GROWING ON WOOD.  
 16116 Cap gelatinous papillose, Processes soft pyramidal glaucous, Stipes short lateral  
 16117 Very large heart-shaped white becoming rather yellow, Cap subsessile fibrous torn, Processes very long  
 3. *Cap confounded with the stem, obliterated.* FLESHY. GROWING ON WOOD.  
 16118 Much branched white becoming yellow, Branches entangled tapering, Processes unilateral subulate  
 4. *Cap sessile, lateral.* GROWING ON WOOD.  
 16119 Cap coriaceous lobed scaly plaited rufous brown projecting behind, Processes imbricated pale rufous  
 16120 Effuse-reflexed, Cap coriaceous thin banded ochre-colored, Processes minute numer. ochre-flesh-colored  
 16121 Coriaceous woody spherical orange-color, Processes short erect  
 5. *Cap resupinate, effuse.* GROWING ON WOOD.  
 16122 Effused thin glabrous tawny-ferruginous, Processes in the middle straight  
 16123 Effused downy pale-white, Processes rounded pubescent at the end bearded with orange  
 16124 Effus. white at length yellow. with a byssoid marg. Process of hymen. oblique subent. compr. vill. at apex  
 16125 The only species

- 16126 Effused soft sulphur-colored : the circumference expanded and byssoid, Plaits distant irregular  
 1. *Cap entire, with a stem.* TERRESTRIAL.  
 16127 Corky pale, Cap depressed scaly beneath smooth somewhat pilose  
 16128 Somew. tuft. stipit. or sess. Cap irregul. rarely quite ent. striato-fibr. purplish-brown : marg. often lacinate  
 2. *Cap lateral, somewhat stipitate.* TERRESTRIAL.  
 16129 Irregularly tufted dark fuscous, Cap rather thick striato-fibrous sessile often imbricated sometimes with a very short lateral stipes  
 16130 Ferruginous brown, Caps fibrous scaly ragged and crisp at their edges  
 3. *Cap and stem confounded, running into compressed branches.* TERRESTRIAL. *Merisma.* Pers.  
 16131 Erect purple-brown, Branches compressed palmate folded paler at the summit  
 β Somewhat ferruginous, Branches glabrous obtusely ragged fastigate  
 16132 Subdecumbent pale greyish or yellowish, Branches effused plane expanding fimbriato-lacinate  
 16133 Erect distinct stipitate reddish-grey, Cap with branches-of nearly equal length, Stipes bulbous at base  
 4. *Cap sessile, lateral.* GROWING ON WOOD.  
 16134 Imbricated rigid somewhat zoned purplish reddish-brown glabrous, Hymenium papillose minutely velvety rubiginous paler at the margin  
 16135 Effuse-reflexed thin silky ferruginous margined downy beneath

- 16136 Somewhat imbricated bandless smooth on each side very smooth dull-brown  
 16137 Effuse-reflexed coriaceous strigose, Hymenium smooth yellowish or orange-buff  
 16138 Effuse-reflexed somewhat membranous striated pubescent beneath smooth and ochraceous  
 16139 Imbricated subcoriaceous zoned hirsute, Hymenium smooth purple  
 16140 Imbricated velvety zoned pale reddish-buff, Hymenium smooth irregularly papillose buffish at length ferruginous sometimes shooting out into rude stems anastomosing and producing irregularly caps  
 16141 Round, thick often confu. Marg. waved splitting, Hymenium tuberculous yellow. or reddish-brown crack.  
 16142 Broadly effused thickish, The margin slightly reflexed, Hymenium ochraceous uneven unually papillose  
 16143 Coriaceous broad thin, Margin free with the surface tomentose, Hymenium smooth minutely reticulated buff becoming darker in age  
 16144 Effus. very broad thin, Hymen. somew. of an ochrey pale-yell. smth. or with scatter. uneq. false papillae  
 16145 Resupinate, Margin free whitish hirsute, Hymenium fuscous smooth somewhat shining and faintly zoned towards the margin cracking in a radiated manner  
 16146 Circular effused, Margin sometimes free rarely reflexed, Hymenium pale whitish-brown pruinose silky and minutely byssoid at the margin turning red when wounded



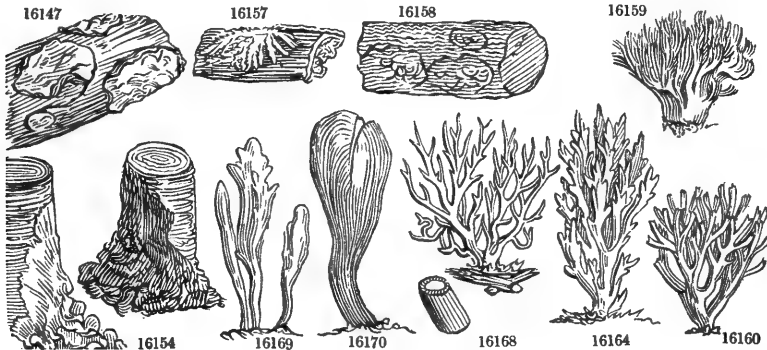
and Miscellaneous Particulars.

broad, somewhat depressed, flexuose, and apt to grow to one another. The only species is found in August and November by the side of sandy paths in pine-groves.  
 2377. *Phiebia*. So called, from φειβ, a vein. As the last was intermediate between *Agaricus* and *Hydnum*, so is this between *Cantharellus* and *Thelephora*. As that differed from *Daedalea*, does this from *Merulius*. The species are all found upon bark, late in the year. No species was described before the writings of Fries. *P. merismoides* is an elegant little plant, distinguished by its reddish-flesh-colored hues. It is found occasionally spreading over wood and smooth bark; and sometimes runs with its papillose veiny branches among mosses.  
 2378. *Thelephora*. So called, from *θηλα*, a nipple, and *φωσ*, to bear, in allusion to the papillose surface of

|                               |            |            |            |        |                 |                                       |
|-------------------------------|------------|------------|------------|--------|-----------------|---------------------------------------|
| 16147 <i>quercina Pers.</i>   | oak        | brittle    | 6 spr. au. | Blah   | fallen oaks     | Greville crypt. 142                   |
| 16148 <i>fraxinea Pers.</i>   | ash        | thin       | 1 aut.     | Grsh   | dead ashes      |                                       |
| 16149 <i>Tiliæ Pers.</i>      | lime       | irregular  | 2 aut.     | Cin.   | woods           |                                       |
| 16150 <i>epidërmea Pers.</i>  | bark       | irregular  | 3 nov.     | Pa. Bu | dead trunks     |                                       |
| 16151 <i>incrûstans Pers.</i> | incrusting | spreading  | 3 aut.     | Ysh    | earth, tr., &c. |                                       |
| 16152 <i>câlcea Pers.</i>     | chalky     | cracked    | 6 aut.     | W      | decay. wood     |                                       |
| 16153 <i>Sambûci Pers.</i>    | Elder Tree | membranous | 4 aut.     | W      | decay. elders   |                                       |
| § 2. PHYLACTERIA. Pers.       |            |            |            |        |                 |                                       |
| 16154 <i>biënnis Fr.</i>      | biennial   | plaited    | 4 aut.     | Wsh    | on ground       | Bulliard, t. 436                      |
| § 3. HIMANTIA. Pers.          |            |            |            |        |                 |                                       |
| 16155 <i>doméstica Pers.</i>  | household  | smooth     | 6 wet w.   | Br     | da. pla. in ho. |                                       |
| 16156 <i>fûsca Fr.</i>        | brown      | rugose     | 2 aut.     | VI Br  | trun. of trees  |                                       |
| 16157 <i>lâctea Fr.</i>       | milk-white | very thin  | 2 aut.     | W      | trun. of trees  | Sow. t. 387. f. 1. <i>F. stellata</i> |
| H. cândida Pers.              |            |            |            |        |                 |                                       |
| § 4. LEIOSTROMA. Fr.          |            |            |            |        |                 |                                       |
| 16158 <i>cinêrea Fr.</i>      | cinereous  | uneven     | 4 spr. au. | Cin.   | elder tree      | Sowerby, t. 388                       |

Division II. *Clavati.*

|   |                |               |            |       |                 |  |
|---|----------------|---------------|------------|-------|-----------------|--|
| 2379. CLAVARIA. Vaill. CLAVARIA.                              |                | Sp. 23—66.    |            |       |                 |  |
| 16159 <i>Bôtrytis Pers.</i>                                   | bunched        | much branch.  | 3 sum.     | Wsh   | beech woods     | Sch. t. 176 <i>acroporphyria</i>       |
| 16160 <i>flava Pers.</i>                                      | yellow         | delicious     | 3 aut.     | Y     | woods           | Schæffer, t. 175                       |
| 16161 <i>coralloïdes L.</i>                                   | coral-like     | very smooth   | 3 aut.     | W     | on ground       | Sowerby, t. 378. fig. sup.             |
| 16162 <i>abietina Pers.</i>                                   | pine-wood      | gregarious    | 3 aut.     | Ochr. | fir woods       | Greville crypt. 117                    |
| 16163 <i>cristata Pers.</i>                                   | crested        | polymorph     | 2½ aut.    | W     | woods           | Greville crypt. 190                    |
| 16164 <i>cinêrea Pers.</i>                                    | cinereous      | tufted        | 3 sum.     | Cin.  | damp places     | Greville crypt. f. t. 64               |
| 16165 <i>côrnea Pers.</i>                                     | corneous       | gregarious    | ½ aut.     | Y     | dead fir trees  |  |
| 16166 <i>stric'ta Pers.</i>                                   | erect          | thin          | 1 au. oc.  | Brsh  | trunks          | Schæffer, t. 286. <i>pallida</i>       |
| 16167 <i>praten'sis Pers.</i>                                 | meadow         | viscid        | 1 aut.     | Y     | meadows         | Bolton, t. 114. <i>muscoïdes</i>       |
| 16168 <i>corniculata Schæff.</i>                              | horned         | solitary      | 3 aut.     | Y     | meadows         | Sow. t. 157. <i>muscoïdes</i>          |
| 16169 <i>rugosa Bull.</i>                                     | rugose         | toughish      | 2½ aut.    | W     | damp earth      | So. t. 278. fig. inf. <i>coralloi.</i> |
| 16170 <i>pillularis L.</i>                                    | pillillary     | largest       | 12 au. no. | Ysh   | beech woods     | Sowerby, t. 277                        |
| 16171 <i>Ardénis Sowerby</i>                                  | flexuose       | opaque        | 6 sep.     | Brsh  | bran. of lime   | Sowerby, t. 215                        |
| 16172 <i>fusiformis Sowerby</i>                               | fusiform       | regular tufts | 3 sep.     | Y     | among grass     | Sowerby, t. 234                        |
| 16173 <i>ceranoïdes Pers.</i>                                 | wrinkled       | much tufted   | 3 aut.     | Ysh   | upon trees      | Sowerby, t. 235. <i>rugosa</i>         |
| 16174 <i>inæqualis Fries</i>                                  | unequal        | gregarious    | 2½ aut.    | Y     | meadows         | Sow. t. 253. <i>vermicularis</i>       |
| 16175 <i>frâgilis Pers.</i>                                   | brittle        | gregarious    | 1 aut.     | Ysh   | damp places     | Greville crypt. 37                     |
| <i>C. gracilis</i> Sowerby, 232                               |                |               |            |       |                 |  |
| 16176 <i>acuta Sowerby</i>                                    | acute          | gregarious    | 2 aut.     | W     | upon trees      | Sowerby, t. 333                        |
| 16177 <i>fimbriata With.</i>                                  | fringed        | polymorph.    | 2 aut.     | W     | upon trees      |  |
| 16178 <i>hélvola Pers.</i>                                    | pale-red       | flexuose      | 1½ aut.    | Y     | meadows         |  |
| 16179 <i>vermicularis Fries</i>                               | worm-like      | crowded tufts | 3 aut.     | W     | mea. & past.    |  |
| 16180 <i>unciâlis Grev.</i>                                   | dwarf          | very gregar.  | 1 aut.     | W     | rotten twigs    | Greville crypt. 98                     |
| 16181 <i>sétipes Grev.</i>                                    | bristle-footed | gregarious    | ½ aut.     | W     | dead leaves     | Greville crypt. fl. t. 49              |
| 2380. CALOCERA. Fries. CALOCERA.                              |                |               |            |       |                 |  |
| 16182 <i>tuberôsa Fries</i>                                   | tuberous       | root roundish | 2 aut.     | Y     | und. ba. of tr. | Sowerby, t. 199                        |
| 16183 <i>côrnea Fries</i>                                     | horny          | tufted        | ½ jl. dec. | Y     | various trees   | Sowerby, t. 40                         |
| 2381. GEOSLOS/SUM. Pers. EARTH-TONGUE. Sp. 4—9. Clavaria Sow. |                |               |            |       |                 |  |
| 16184 <i>hirsutum Pers.</i>                                   | hairy          | solitary      | 2 aut.     | Bl    | bogs & mea.     | Greville crypt. 185                    |

*History, Use, Propagation, Culture,*

of the pileus of all the species. *T. caryophyllæa* is very common upon the exposed roots of old firs in the autumn. The substance is tough and somewhat woody; the color a chocolate brown. The plants often grow in masses, attached by their upper side to sticks, old bark, &c. and are from one to three inches in diameter.

2379. *Clavaria*. So called, from the simple clavate form of the species. Some are eatable; as for instance *C. flava*, which is said to be delicious; *C. cinerea*, which is frequently eaten in France; *C. pyxidata* is said by Persoon to be tolerably good. Loureiro has also an eatable species found in Cochin-China, growing upon elephant's dung.

5. *Cap obliterated, resupinate.* GROWING ON WOOD.

- 16147 Resupinate rigid nearly black beneath, Hymenium flesh-color rugose and papillose at length cracking
- 16148 Very thin effused cracking and becoming invol. very dark ben. Hymen. brown.-grey minutely farin. papill.
- 16149 Effus. extremely thin, Marg. appress. minutely vill. Hymen. purp.-grey cover. with small uneq. papillæ
- 16150 Effused thin smooth, Margin delicate and byssoid, Hymenium whitish at first at length very pale-buff, Papillæ scattered or none
- 16151 Effused spreading over moss, &c., Margin fibrous, Hymenium very unequal tuberculose yellowish
- 16152 Effused unequal in thickness hard, Hymenium white glabrous cracked in different directions so as to be often tessellated obtusely papillose
- 16153 Effused membranaceous thin, Margin entire, Hymenium very white glabrous subpapillose

16154 Membranous smooth plaited at base whitish becoming blackish

- 16155 Effused membranous smooth pale beneath white with cobweb-like down
- 16156 Effused somewhat rugose soft of a violet-brown: at the margin and beneath downy
- 16157 Mostly on dead leaves, Filaments very fine white radiating dilated at the extremities in a plumose manner

16158 Broadly effused thin dry smooth glabrous cinereous

Division II. *Clavati.*

\* *Much branched, Stem thick.*

- 16159 Deformed, Stipes decumbent very thick pale, Branches short somewhat wrinkled red at ends
- 16160 More erect, Stem thick white, Branches straight round fastigiate yellow
- 16161 White erect, Stipes thick, Branches elongated irregular unequal mostly acute
- 16162 Dull ochrey-yellow much branched white and tomentose at the base turning green when bruised, Branches erect crowded slightly rugose with acute often forked summits
- 16163 White or ciner. tuft. branch. smooth, Branch. dilat. at summ. and jagged or shortly but acutely lacinate
- 16164 Grey often with a bluish or a purplish tinge much branched unequally increased rugose often subcompressed, Summits either very obtuse or somewhat acuminate
- 16165 Yellow half an inch high branched or nearly simple viscous, Stipes of several plants connected at the base

\*\* *Branched, Stem thin.*

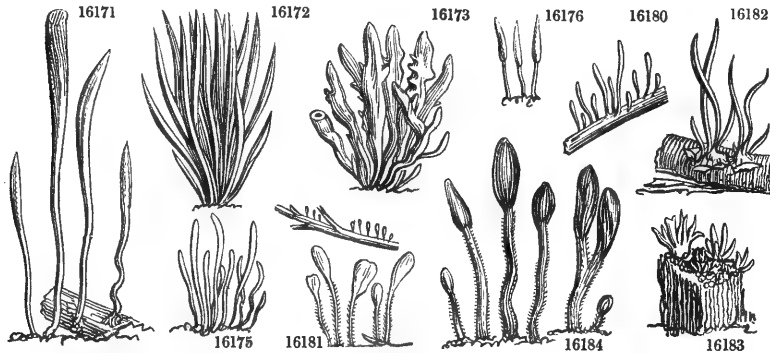
- 16166 Much branched pale brownish, Branches and branchlets straight appressed acute
- 16167 Yell. tuft. Stipes short producing numer. short geniculate divaricate branches: the ramuli subfastigi. obt.
- 16168 Yellow erect much branched in a dichotomous manner, Branches slender with acute summits
- 16169 White gregarious increased rugose simple or branched, Branches few short obtuse

\*\*\* *Simple, clavate.*

- 16170 Solitary large glabrous yellowish-brown thickened upwards and obtuse
- 16171 Very long hollow thickened upwards brownish downy at base
- 16172 Heaped fasciated yellow, Branches nearly equal incurved yellow
- 16173 Fasciated unequal subdivided hollow yellowish-brown at end [irregular at the apex]
- 16174 Yell. or yell.-white tuft. or gregarious fragile uneq. ventric. deformed somew. acum. often bifurcate and
- 16175 Yellow or white gregarious sometimes subcespitoso solid or hollow very brittle rather firm attenuated at the base subrugose in age and often crooked
- 16176 Straight white, Head distinct round acuminate as long as stipes
- 16177 Stem slender villous, Branches long compressed, Branchlets numerous setaceous cut
- 16178 Yellow gregarious cylind. equal smooth obt. slender below and paler, apex frequently of a cinnamon-color
- 16179 Pure white tuft. crowd. subul. flexuose solid but with a small perforat. mostly somew. connected at base
- 16180 White gregarious round club-shaped obtuse much attenuated at the base smooth not brittle
- 16181 White minute, Hymenium oblong or ovato-clavate passing suddenly into a filiform pilose stipes

- 16182 Tough yellowish nearly simple, Stem tuberous long-rooted
- 16183 Tufted smaller simple and branched viscid yellow connate at base

16184 Stipes hirsute deep-black, Hymenium somewhat plicate



and *Miscellaneous Particulars.*

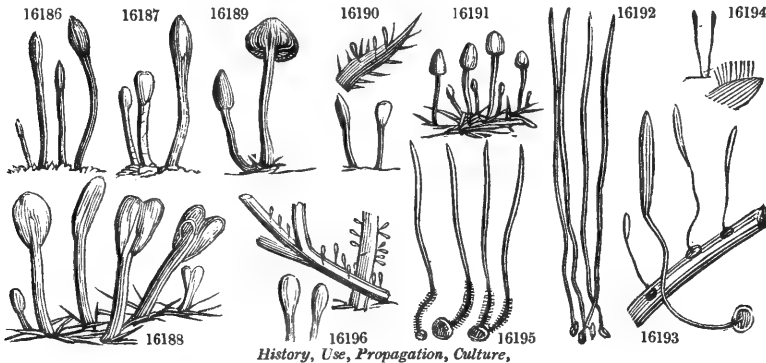
2380. *Calocera.* From *καλος*, beautiful, and *κερας*, a horn, in allusion to the divisions of the plants. They grow on wood, and are either brown or yellow; but their sporidia are generally white. *C. viscosa* is at once distinguishable by its beautiful gold color. Some of the species adhere to paper when dry.

2381. *Geoglossum.* From *γη*, the earth, and *γλωσσα*, a tongue; earth-tongue: in allusion to the simple form of the species, which all grow upon earth, and are of a blackish or dark-green color. Fries considers the genus to be scarcely distinct from *Clavaria*.

|                            |                         |            |           |       |                            |                           |
|----------------------------|-------------------------|------------|-----------|-------|----------------------------|---------------------------|
| 16185 glábrum Pers.        | smooth                  | gregario.  | 1 sum.    | Bish  | among grass                | Bolton, t. 111. fl. f. 2  |
| 16186 viscúsum Pers.       | viscid                  | cylindric. | 1½ aut.   | Bl    | moist meadows              | Greville crypt. fl. t. 55 |
| 16187 viride Pers.         | green                   | gregario.  | 2 aut.    | G     | moist meadows              | Greville crypt. 211       |
| 2382. SPATULA'RIA. Pers.   | SPATULARIA.             |            | Sp. 1.    |       | Clavaria Sow.              |                           |
| 16188 hávida Pers.         | yellowish               | variable   | 1½ aut.   | Ysh   | dead leaves                | Greville crypt. 165       |
| 2383. MI'TRULA. Fries.     | MITRULA.                |            | Sp. 1-5.  |       | Clavaria Sow. Leotia Pers. |                           |
| 16189 paludósa Fries.      | marshy                  | hollow     | 1 my. au. | Y     | wet ditches                | Sowerby, t. 293           |
| 16190 minúta Fries         | minute                  | gregario.  | ½ sum.    | Y     | brac. of Dips. pilos.      | Sowerby, t. 391           |
| 16191 abietis Fries        | fir-wood                | dry        | ½ aut.    | Cinn. | fir woods                  | Sow. t. 84. ferruginea    |
|                            | Leotia mitrula Grev. 81 |            |           |       |                            |                           |
| 2384. TY'PHULA. Fries.     | TYPHULA.                |            | Sp. 4-11. |       | Clavaria Sow.              |                           |
| 16192 phacorhíza Fr.       | tuberoso                | flexuose   | 2 aut.    | W     | woods                      | Sowerby, t. 253           |
| 16193 erythroopus Fr.      | red-footed              | gregario.  | ½ aut.    | W     | sticks and leaves          | Gre. cry. 43. Phacorhiza  |
| 16194 ténuis Fr.           | thin                    | gregario.  | ½ sum.    | Bish  | on wood                    | Sowerby, t. 386. f. 5     |
| 16195 filifor'mis Fr.      | filiform                | creeping   | ½ aut.    | Cin.  | dead leaves                | Gre. cry. 93. Phacorhiza  |
| 2385. PISTILLA'RIA. Fries. | PISTILLARIA.            |            | Sp. 1-7.  |       | Clavaria Sow.              |                           |
| 16196 quisquiliáris Fr.    | obtuse                  | gregario.  | ½ aut.    | W     | dead fern leaves           | Sow. t. 334. f. 1. obtusa |

## Class II. UTERINI v. ELVELLACEÆ. — Division I. Mitrati.

|                         |               |           |            |       |                     |                              |
|-------------------------|---------------|-----------|------------|-------|---------------------|------------------------------|
| 2386. MORCHEL'LA. Dill. | MOREL.        |           | Sp. 3-14.  |       |                     |                              |
| 16197 esculénta Pers.   | esculent      | eatable   | 3 spring   | Wsh   | on the earth        | Greville crypt. 68           |
| α rotúnda Pers.         | round         | eatable   | 3 spring   | Wsh   | on the earth        | Sow. t. 51. fig. sinistr.    |
| β ungaris Pers.         | common        | eatable   | 3 spring   | Wsh   | on the earth        | Sower. t. 51. fig. dextr.    |
| 16198 pástula Pers.     | spreading     | eatable   | 3 spring   | Ysh   | on the earth        | Sower. t. 51. fig. med.      |
| 16199 semilíbera Dec.   | half-separate | cap brown | 4 spring   | Wsh   | woods               | Grev. crypt. 83. hybrida     |
| 2387. HELVEL'LA. L.     | HELVELLA.     |           | Sp. 5-15.  |       |                     |                              |
| 16200 crispá Fr.        | crisp         | solitary  | 4 aut.     | Ysh   | borders of fields   | Gre. cry. 143. leucophæa     |
| 16201 lacunósa Afz.     | pitted        | solitary  | 4 aut.     | Livid | hedge banks         | Gre. crypt. fl. t. 36. Mitra |
| 16202 esculénta Pers.   | esculent      | eatable   | 3 mr. my   | Brsh  | pine woods          | Schæffer, t. 160             |
| 16203 In'fula Schaff.   | brown         | eatable   | 4 aut.     | Cinn. | damp scorch. places | Flora danica, t. 835         |
| 16204 elástica Fr.      | elastic       | slender   | 4 su. aut. | Bish  | damp places         | Sower. t. 154. fuliginosa    |
| 2388. VER'PA. Suzz.     | VERPA.        |           | Sp. 1-6.   |       |                     |                              |
| 16205 cónica Swz.       | conical       | fistular  | 3 aut.     | Br    | on ground           | Sowerby, t. 11. Relhoni      |



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2382. *Spatularia*. A very distinct genus, named from its *spatulate* form. The only species known is an autumnal epiphyte, common on fallen leaves, decaying mosses, &c. Its color is at first pallid; afterwards it becomes yellow and ferruginous; but the stipes retains its paler color. It is found in plantations in various parts of England. In a state of perfect maturity, the head, on being touched, throws up its spores in the form of smoke, which rises with elastic force, and glitters in the sunshine like particles of silver.

2383. *Mitrula*. So called from its *mitrate* form. The species are small epiphytes with a simple stem.

2384. *Typhula*. A diminution of *Typha*, a well-known marsh plant, the heads of fructification of which this genus resembles in miniature. All the species are delicate, and are found upon decayed leaves, or even occasionally upon *Sclerotias*.

2385. *Pistillaria*. So called from its *pistil*-like form. The species are all small, delicate epiphytes, appearing in the autumn.

2386. *Morchella*. A name altered by Dillenius from *Morchel*, the German name of the plant. Fungi of a large size, appearing in the spring upon the earth. The eatable morel is one of the most valuable of fungi for purposes of cookery; but is more frequently used in a dried state for sauces, than when fresh. It is found in greatest abundance in places where trees have been burned, which led in Germany to a practice of burning down masses of forests for the sake of the future morels. This practice proved so injurious, that it became necessary to suppress it by law. The morel is subject to many variations of figure and color, which are all referable to four principal forms. But there are also some legitimate species which have been distinguished by modern botanists. Of these it is not ascertained which are natives of England; but it is probable, that they are all to be found if sufficiently sought for. Without, therefore, absolutely inserting them in the list of British species, it cannot be otherwise than useful, considering the importance of an accurate knowledge of the eatable fungi, to enumerate the two principal in this place.

1. *M. Deliciosa* is found in the spring, among grass and bushes by the sides of fields in France, and is said to be much superior in flavor to the *M. esculenta*. Its stipes is hollow, and shorter than the pleus, scarcely ever so much as an inch long, about three or four lines thick, nearly equal in the whole length, but sometimes thickened and compressed at the base; under a lens covered with a slight downiness. Pleus is conical-cylindrical, from one inch to two inches and an half long, with nearly parallel ribs, which can scarcely be said to

16185 Glabrous dry blackish, Stipes somewhat scaly [thin and attenuated downwards  
 16186 Smooth very slimy in moist weather black, Hymen. cylind. round at apex confluent with stipes which is  
 16187 Green somewhat fasciculate, Hymenium distinct, Stipes minutely scaly

16188 The only species

16189 Yellow subgregarious, Cap orange-yellow obtuse hollow : margin connate with the stipes  
 16190 Very small, Head lanceolate yellow, Stipes equal paler  
 16191 Gregarious solid, Hymenium ovate yellow cinnamon, Stipes slender dark-brown flexuose at the base

16192 White filiform elongated somewhat villose at the base radicular tuber dark fuscous lenticular  
 16193 Gregarious min. Hymenium smooth white short terminat. in an elongated filiform dark pink-red stipes  
 16184 Simple smooth dark thickened at end  
 16195 Somewhat branched spadicuous, Heads thickened whitish

16196 Thickened towards the extremity white confluent with the stipes

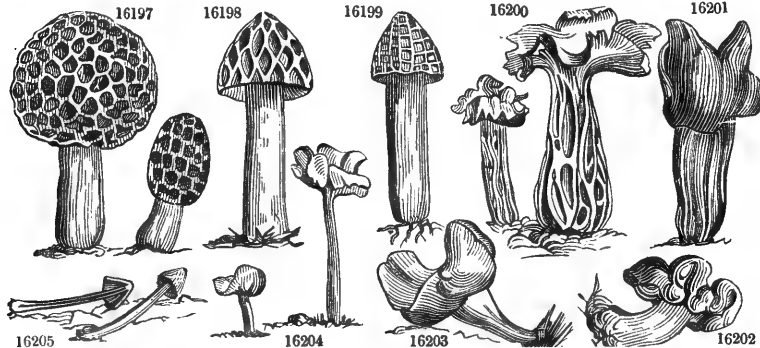
Class II. UTERINI v. ELVELLACEÆ. — Division I. *Mitrati*.

16197 Cap round, or oval: marg. contract. round the stipes, Areolæ much hollow. Stipes white dilat. tow. base  
 α Cap and areolæ round  
 β Cap oval, Areolæ quadrangular  
 16198 Cap obtuse separate as far as the middle, Areolæ rhomboid, Stipes smooth [thick white  
 16199 Cap short conic. spread. at base, Areolæ shall. partly formed by longitudin. parallel ribs, Stipes long equal

\* *Cap waxy, membranous, at first united, afterwards waxy in plait.*  
 16200 Cap irregularly deflexed free often variously lobed yellow-white, Stipes deeply sulcate and lacunose white  
 16201 Cap dark-livid inflated deflex. and partially adnate with stipes, Stipes deeply furrow. and lacunose white  
 16202 Cap inflated deformed waxy wrinkled in circles brown, Margin villous adhering to the smooth stipes  
 16203 Cap deflexed lobed adnate about cinnamon-colored, Stipes smoothish villous pale

\*\* *Cap somewhat membranous, smooth, always separate.*  
 16204 Cap loose smooth inflated becoming sharply lobed, Stipes long thin tapering pruinose

16205 Cap campanulate smoothish fuscous somewhat sinuated at the edge: beneath and the stipes yellow



and Miscellaneous Particulars.

anatomose, but which are united by transverse rugosities. The color is usually yellowish, rarely of a pale livid hue.

2. *M. elata* has a longer stipes than the last, an inch and more thick, very hollow and brittle, with irregular cavities. The pileus is ovate-conical, two or three inches long, but of a far more delicate texture than any of the others. The longitudinal ribs are much elevated, membranous, flaccid, with very few anatomoses, but united by transverse costae, which give the spaces between a sort of misshapen rhomboidal figure. The color is a soft brown. The flavor is watery and vapid, and in decay becomes so fetid as to be unfit for food. This is found in pine-woods, especially in humid places. It is a rarer kind than the last and like it, appears in the spring.

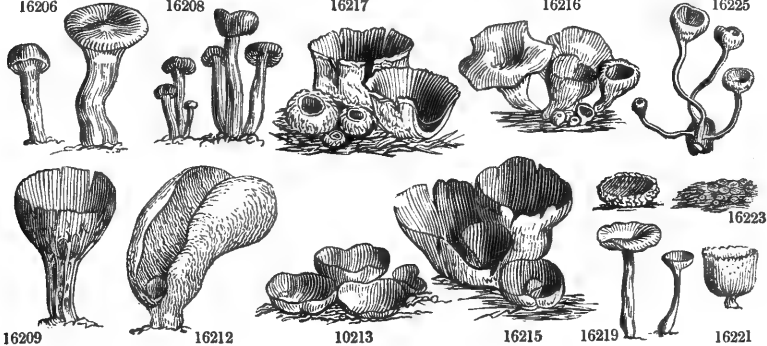
*M. patula* and *semilibera* are readily known from the true morels by their pileus not being attached to the stipes by the base, but altogether separate from it. They are distinguished from each other by the latter having a much longer stipes, and a shorter pileus, which is more conical and acute. *M. patula* is considered by Fries to have been confounded, in Mr. Sowerby's fine work on Fungi, with *Helvella esculenta*.

2387. *Helvella*. A name employed by Cicero, as the name of a fungus. The species of the modern genus are permanent, somewhat fragile fungi, with little odor or taste, but always innocuous. They grow on the earth or upon very wet wood, and are chiefly found in the autumn. *H. crispa* is excellent as an article of cookery. *H. lacunosa*, which is confounded with it, is by no means so good. *H. esculenta* has a good flavor, and is commonly eaten, but is far inferior to *Morchella esculenta*. Its qualities are nearly the same as those of the latter plant, and it is popularly confounded with it under the name, in Sweden, of *Stenmurkla*, and in Germany, of *Gemeine Morchel*, *Stumpf Morchel*, and *Stockmorchel*. *H. infula*, a large species, with an inflated smooth pileus of various hues of brown, is also esculent. This last plant is the true *H. Mitra* of Ruppius, and old botanists; a name which, having been applied by one writer or other to every species of *Helvella*, is now abandoned altogether in order to avoid further confusion.

2388. *Ferrea*. An old Roman name synonymous with *Phallus*, and restored to modern science by Swartz. The species are meteoric, terrestrial, and intermediate between the Morels and *Leotia*. The hymenium is covered, as is the case with many *Mitrati*, with a frost-like floculence, which Swartz mistook for sporules, but which more recent observation has shewn to have been a mistake.



|   |                 |             |                |                  |         |                      |                                      |
|---|-----------------|-------------|----------------|------------------|---------|----------------------|--------------------------------------|
| 2389. <i>LEOTIA</i> . <i>Hüll.</i>        | <i>LEOTIA</i> . |             |                | <i>Sp.</i> 3—11. |         |                      |                                      |
| 16206 <i>infundibuliformis</i> <i>Fr.</i> | funnel-form.    | solitary    | 3              | oct.             | Cin.    | on ground            | Sowerby, t. 153                      |
| 16207 <i>nana</i> <i>With.</i>            | dwarf           | subsessile  | $\frac{1}{2}$  | aut.             | W       | on trees             |                                      |
| 16208 <i>lábrica</i> <i>Pers.</i>         | slippery        | gregario.   | $\frac{1}{2}$  | aut.             | Ol      | moist woods          | Greville crypt. 56                   |
| Division II. <i>Cuspidati.</i>            |                 |             |                |                  |         |                      |                                      |
| 2390. <i>PEZIZA</i> . <i>Düll.</i>        | <i>PEZIZA</i> . |             |                |                  |         |                      |                                      |
| <i>Sp.</i> 45—300.                        |                 |             |                |                  |         |                      |                                      |
| § 1. <i>ALEUTICA</i> . <i>Fries.</i>      |                 |             |                |                  |         |                      |                                      |
| 16209 <i>acetábulum</i> <i>L.</i>         | brown           | clustered   | $\frac{1}{2}$  | spring           | Sooty   | damp woods           | Sowerby, t. 59                       |
| 16210 <i>bádia</i> <i>Pers.</i>           | saucer          | tufted      | 1              | su. aut.         | Br      | grassy places        | Bolton, t. 99. <i>cochleata</i>      |
| 16211 <i>leporina</i> <i>Batsch</i>       | hare's-ear      | gregario.   | 1              | aug. oc.         | Brsh    | on ground            | Schaeffer, t. 156                    |
| 16212 <i>onótica</i> <i>Pers.</i>         | rosy            | gregario.   | $\frac{1}{4}$  | aug. oc.         | Brsh    | dead leaves          | Sowerby, t. 79. <i>leporina</i>      |
| 16213 <i>aurántia</i> <i>Fl. dan.</i>     | orange          | beautiful   | $\frac{1}{4}$  | aut.             | Or      | sandy places         | Sowerby, t. 78. <i>coccinea</i>      |
| 16214 <i>concinna</i> <i>Pers.</i>        | neat            | very broad  | 1              | sum.             | Lem.    | dead leaves          | Bolton, t. 175. <i>vesiculosa</i>    |
| 16215 <i>cochleáta</i> <i>Huds.</i>       | cochleate       | brittle     | $2\frac{1}{2}$ | su. aut.         | Y.Br    | fields               | Sowerby, t. 5                        |
| 16216 <i>cérea</i> <i>Sowerby</i>         | waxen           | gregario.   | $\frac{1}{2}$  | sum.             | Sooty   | dunghills            | Sowerby, t. 3                        |
| 16217 <i>vesiculósa</i> <i>Bull.</i>      | bladdery        | crowded     | $2\frac{1}{2}$ | aut.             | Wsh     | dunghills            | Greville crypt. 107                  |
| 16218 <i>repánda</i> <i>Fr.</i>           | repand          | fleshy      | $\frac{1}{2}$  | aut.             | Wsh     | on ground            | Greville crypt. fl. 59               |
| 16219 <i>mácropus</i> <i>Pers.</i>        | large-footed    | solitary    | 2              | su. aut.         | Cin.    | shady woods          | Bolton, t. 96. <i>hispidá</i>        |
| 16220 <i>tuberósa</i> <i>Bull.</i>        | tuberous        | slender     | 2              | mr. ap.          | Br      | shady woods          | Sowerby, t. 63                       |
| 16221 <i>cupularis</i> <i>L.</i>          | cupped          | fringed     | $\frac{1}{2}$  | aut.             | Pa.Br   | scorched earth       | Bull. t. 396. f. 3                   |
| 16222 <i>argillácea</i> <i>Sowerby</i>    | argillaceous    | scattered   | $\frac{1}{2}$  | aut.             | Ysh     | clay                 | Sowerby, t. 148                      |
| 16223 <i>granuláta</i> <i>Bull.</i>       | granular        | gregario.   | $1\frac{1}{2}$ | sum.             | Or.Br   | cow dung             | Bull. t. 438. f. 3                   |
| 16224 <i>reticuláta</i> <i>Grev.</i>      | netted          | very fine   | $\frac{1}{4}$  | spring           | Br      | on ground            | Greville crypt. 156                  |
| 16225 <i>erécta</i> <i>Sowerby</i>        | erect           | patches     | $\frac{1}{2}$  | aut.             | Ysh     | shady woods          | Sowerby, t. 369. f. 10               |
| 16226 <i>humósa</i> <i>Fries</i>          | earth           | scattered   | $\frac{1}{2}$  | aut.             | Crim.   | damp earth           | Sowerby, t. 369. f. 2                |
| 16227 <i>fis'sa</i> <i>Fries.</i>         | split           | solitary    | $\frac{1}{2}$  | wint.            | Br      | hazel bark           |                                      |
| § 2. <i>LACH'NEA</i> . <i>Fries.</i>      |                 |             |                |                  |         |                      |                                      |
| 16228 <i>coccinea</i> <i>Scop.</i>        | scarlet         | subgrega.   | $\frac{1}{2}$  | spring           | W       | dead branches        | Greville crypt. 171                  |
| <i>P. epidendra</i> <i>Sow.</i>           |                 |             |                |                  |         |                      |                                      |
| 16229 <i>melastoma</i> <i>Sower.</i>      | blk.-mouth.     | solitary    | $\frac{1}{2}$  | feb. mr.         | Pa.Br   | heaths               | Sowerby, t. 149                      |
| 16230 <i>radiculáta</i> <i>Sower.</i>     | rooting         | clustered   | $\frac{1}{2}$  | su. aut.         | Sul.    | earth in gardens     | Sowerby, t. 114                      |
| 16231 <i>hemispha'rica</i> <i>Wig.</i>    | hemispheric.    | scattered   | 0              | jn. dec.         | Brsh    | earth in woods       | Sowerby, t. 147. <i>hispidá</i>      |
| 16232 <i>hirta</i> <i>Schum.</i>          | hairy           | scattered   | $\frac{1}{2}$  | aug. oc.         | Brsh    | earth                | Sow. t. 369. f. 1. <i>hybrida</i>    |
| 16233 <i>cerina</i> <i>Pers.</i>          | smooth          | much crowd. | 0              | spr. au.         | Ysh     | decayed dry wood     |                                      |
| 16234 <i>scutelláta</i> <i>L.</i>         | scutellate      | beautiful   | $\frac{1}{2}$  | spr. au.         | Or      | old cow dung         | Sowerby, t. 24                       |
| 16235 <i>Nidulus</i> <i>Pers.</i>         | bird's-nest     | punctif.    | 0              | aut.             | Br      | decayed stems        |                                      |
| 16236 <i>cærúlea</i> <i>Bolton</i>        | blue            | punctif.    | $\frac{1}{2}$  | aut.             | Bsh     | pine trees           | Bolton, t. 108. f.                   |
| 16237 <i>plano-umbilicáta</i> <i>Gr.</i>  | plano-convex    | hairy       | 0              | su. aut.         | W       | decayed nettles      |                                      |
| 16238 <i>stercórea</i> <i>Pers.</i>       | dung            | gregario.   | $1\frac{1}{2}$ | spr. su.         | Taw.    | cow dung             | Sowerby, t. 352. <i>equina</i>       |
| 16239 <i>albo-spádacea</i> <i>Grev.</i>   | pallid          | handsome    | $1\frac{1}{2}$ | aut.             | R.Br    | bare earth           |                                      |
| 16240 <i>sulphúrea</i> <i>Pers.</i>       | sulphur         | pretty      | 0              | aut.             | Y       | decay. herbac. stems | Greville crypt. fl. 83               |
| 16241 <i>virginea</i> <i>Batsch</i>       | virgin          | solitary    | $1\frac{1}{2}$ | aut.             | W       | rotten sticks        | Sowerby, t. 65. <i>nivea</i>         |
| 16242 <i>bicolor</i> <i>Bull.</i>         | two-colored     | gregario.   | $1\frac{1}{2}$ | aut.             | Ysh     | larch twigs          | Sowerby, t. 17                       |
| 16243 <i>varicolor</i> <i>Fries.</i>      | variable        | gregario.   | 0              | all sea.         | Ysh     | rotten wood          | Sower, t. 178. <i>hydnoidea</i>      |
| 16244 <i>papilláris</i> <i>Bull.</i>      | pimpled         | gregario.   | 0              | all sea.         | W       | upon wood            | Sowerby, t. 177                      |
| 16245 <i>villósa</i> <i>Fries</i>         | crowded         | crowded     | 0              | aut.             | W       | dead herbac. stems   | Sower, t. 389. f. 1. <i>sessilis</i> |
| 16246 <i>plúmbea</i> <i>Grev.</i>         | leaden          | crowded     | 0              | aut.             | Fu. ol. | rotten wood          | Greville crypt. fl. 11               |
| 16247 <i>anómala</i> <i>Pers.</i>         | anomalous       | crowded     | $\frac{1}{2}$  | all sea.         | DI.Y    | fallen branches      | Sower, t. 369. f. 3. <i>rugosa</i>   |
| 16248 <i>doméstica</i> <i>Sowerby</i>     | domestic        | minute      | 0              | all sea.         | Ruf.    | damp walls           | Sowerby, t. 351                      |
| 16249 <i>Wauchii</i> <i>Grev.</i>         | woolly          | beautiful   | $1\frac{1}{2}$ | aut.             | Pa.Br   | dead wood            | Greville crypt. 139                  |
| 16250 <i>fúscá</i> <i>Grev.</i>           | brown           | spots       | 0              | ap. my.          | Gr      | dead branches        | Greville crypt. 192                  |



*History, Use, Propagation, Culture,*

2389. *Leotia*. Named by Sir John Hill, of famous memory, for no known reason. Gregarious terrestrial substances of the middle size, appearing in summer or autumn, without smell or taste. They are most nearly akin to *Helvella* and *Verpa*, from which they differ in form and substance. The species are not known to be eatable, with the exception of *L. amara*, a native of Cochín-China, which is capable of being deprived of its native bitterness by long stewing.

- 16206 Cap depressed cinereous livid smooth on each side, Stipes solid smooth  
 16207 Dwarf, Cap rugose white beneath smooth brown, Stipes solid cylindrical white  
 16208 Tremellose, Cap tumid spread. olivac. : margin rounded, Stipes orange-cylindr. or unequally compressed

Division II. *Cupulati*.1. *Cupule always open, or when young conniving, Veil superficial, Sporidia with two smaller sporidia.*

## HELVELLOIDEAE.

- 16209 Cyathiform sooty veiny on the outside arising from a short fistulous pitted stipes  
 16210 Subsess. ent. flexuose brown, Margin at first involute externally pruinose paler and somew. olive-colored  
 16211 Substipitate lengthened on one side ear-shaped somew. ferrugin. mealy outside smooth inside at the base  
 16212 Substipitate lengthened on one side ear-shaped farinaceous outside pink inside becoming rugose at base  
 16213 Gregarious flexuose very brittle externally, Hymenium fine orange  
 16214 Caespitose large very brittle externally lemon-colored becoming wrinkled pale flesh-color inside  
 16215 Gregarious caespitose variously contorted externally yellowish-brown, Hymenium dull reddish-brown  
 16216 Large funnel-shaped repand yellowish villous and whitish outside and upon the stipes-like base [base  
 16217 Gregar. caespit. glob. at first with mouth conniv. at length campan. split. externally whit. and toment. at  
 16218 Sessile solitary or somewhat tufted large at first hemispherical and concave at length nearly plane sub-  
 rugose and brown within the outer surface farinose whitish, Margin crenate

2. *Cupule at first closed, Veil innate, Sporidia simple.* GEOPHYTES.

- 16219 Subgregarious large: the pileus hemispherical slightly hairy and verrucose ash-colored; the hymenium  
 mouse-colored at length pale, Stipes very long increased below  
 16220 Thin, Cupule funnel-shaped brownish pallid. Stipes long seated on a black deformed root  
 16221 Subsessile thin globose campanulate brownish or pale mealy outside crenate at edge  
 16222 Sessile yellowish smooth at first urceolate afterwards cracked and torn with hairs about the root outside  
 16223 Sessile minute flattish orange-red externally granulated with pimples [Stipes usually short and thick  
 16224 Centre pitted and reticulated. without whit. and pruin. Cap invol. at margin variously split somew. spread.

3. *Cupule a little fleshy, small, Veil floccose only at the edge, or fugacious, Sporidia with a solitary little sporidium.* HUMARIA.

- 16225 Sessile clustered subcylindrical smooth somewhat yellow becoming dilated with an erect subtillate orifice  
 16226 Sessile fleshy plano-convex smooth crimson entire at margin

4. *Membranaceous, bursting forth with a separating veil, Sporidia simple.* ENCELIA.

- 16227 Subcaespitose sessile coriacc. membran. Margin split ragged externally scurfy and brown, internally white

1. *Cupule fleshy, or fleshy-membranous. Crust none.* SARCOCYPHE.

- 16228 Stipitate large subinfundibuliform externally white and tomentose, Hymenium crimson-red

- 16229 Cupule fleshy, Disk urceolate black externally rubiginous-flocculent, Stipes short down dense dark strigose  
 16230 Subcaespit. fleshy sess. from hemispher. becom. flatten. Disk sulph. external. and thick root white and vill.  
 16231 Sessile hemispherical waxy brownish externally covered by dense fasciated hairs, Disk glaucous white  
 16232 Sessile subhemispher. externally fuscous hairy with a somewhat inflexed margin, Vermilion colored inside  
 16233 Min. sess. or subsessile hemispher. externally tomentose-pulverulent yellowish-olive, Hymen. dull ochrac.  
 16234 Sessile gregarious or scattered nearly plane: external surface of the margin hispid with black rigid hairs,  
 Hymenium orange-red

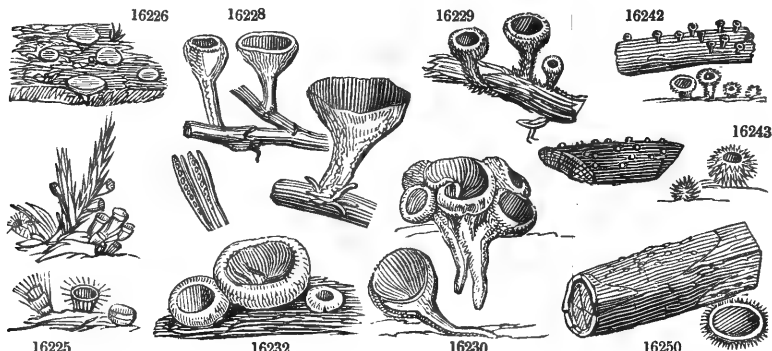
- 16235 Sessile gregarious very minute orbicular somewhat depressed substrigose brown or nearly black  
 16236 Plane ciliated blackish externally, Hairs pale, Disk blue [at margin, Hymenium gently umbonate  
 16237 Small sess. gregar. whole plant white glob. concave at length quite plane ciliate with horizont. white hairs  
 16238 Gregarious concave tawny externally surrounded near the edge with straightish brown hairs [white  
 16239 Sess. gregar. glob. at length quite plane, exter. surface and marg. strig. with redd.-brown hairs, Hymen.  
 16240 Sessile gregarious small globose at length plane: the strigose external surface yellow, Hymenium white

2. *Cupule waxy, dry, villous, Crust none.* EPIPHYTES. DASYSCYPHE.

- 16241 Stipitate gregarious small, Stipes rather long, Pileus hemispherical subpatulose villous, whole plant white  
 16242 Subsess. small gregar. externally very white vill. Mouth contract. Hymen. varying from dil. yell. to orange  
 16243 Sessile hemispherical orbicular rather firm flocculent, Disk urceolate whitish  
 16244 Sessile distinct concave villous hairy milk-white on each side granulated at edge  
 16245 Sessile very minute gregarious white subglobose villous. Mouth more or less connivent  
 16246 Sessile minute gregarious depressed externally fusco-olivaceous villose, Hymenium smooth bluish-grey

3. *Cupule waxy or coriaceous, seated on a downy crust.* TAPESIA.

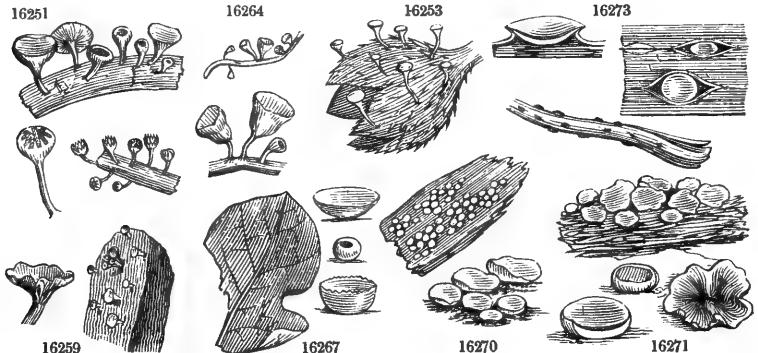
- 16247 Substipitate much crowded form. a crust, Cupules turbinate vill. light bistre-colored: disk urceol. whitish  
 16248 Sessile gregarious obovate strigose rufous  
 16249 Sessile gregarious ovate globose golden-yellow strigose with a subjacent woolly paler web  
 16250 Carn. sess. Cup. concave brown at length plane grey: marg. glab. attach. by fibres to a wide toment. web



## and Miscellaneous Particulars.

2390. *Peziza*. Pliny had a tribe of Fungi which he called *Pezica*, from which the modern name has been corrupted. The present genus is very extensive, but almost wholly of modern creation. The species are found in various situations, but chiefly on decayed wood. They are remarkable for their leathery texture, and for emitting their spores in the form of smoke from the bottom of their cup.

|                       |  |              |           |                        |           |   |
|-----------------------|--|--------------|-----------|------------------------|-----------|---|
| § 3. PHIA'LEA. Pers.  |  |              |           |                        |           |   |
| 16251                 | <i>firma Pers.</i>                       | firm         | gregario. | 1 aut.                 | Oc.Br     | rotten sticks Sower. t.115. <i>ochroleuca</i> |
| 16252                 | <i>Persoonii Moug.</i>                   | Persoon's    | aggreg.   | $\frac{1}{2}$ aut.     | R         | bogs on Equisetum Greville crypt. 162         |
| 16253                 | <i>fructigena Bull.</i>                  | fruit        | clustered | $\frac{1}{2}$ aut.     | Ysh       | nuts, &c. in woods Sowerby, t. 117            |
| 16254                 | <i>serotina Pers.</i>                    | late         | clustered | $\frac{1}{2}$ spring   | Y         | dampshady places Bolton, t. 98                |
| 16255                 | <i>inflexa Bolton</i>                    | inflexed     | gregario. | $\frac{1}{2}$ aut.     | Wsh       | rotten sticks Sowerby, t. 306                 |
| 16256                 | <i>pedicellata Sow.</i>                  | stalked      | solitary  | $\frac{1}{2}$          | Wsh       | rotten sticks Sowerby, t. 369. f. 4           |
|                       |  |              |           |                        |           |   |
| 16257                 | <i>tuba Boll.</i>                        | tubular      | gregario. | $\frac{1}{2}$ aut.     | Y         | fallen branches Bolton, t. 106. f. 1          |
| 16258                 | <i>calyculus Sow.</i>                    | cupped       | gregario. | $\frac{1}{2}$ aut.     | Or.Br     | rotten wood Greville crypt. 116               |
| 16259                 | <i>seruginosa Fl. dan. Uggveed Swed.</i> | verdigriseae | destruct. | 0 su.aut.              | Bt.G      | damp wood Sowerby, t. 347                     |
| 16260                 | <i>Aspegrenii Fr.</i>                    | Aspegren's   | gregario. | $\frac{1}{2}$ aut.     | Ysh       | damp wood Sower. t. 369. f.7. <i>bicolor</i>  |
| 16261                 | <i>citrina Batsch cyathoides Wither.</i> | lemon-color. | crowded   | $\frac{1}{2}$ aut.     | Y         | fallen branches Sowerby, t. 150. <i>aurea</i> |
| 16262                 | <i>pallescens Pers.</i>                  | pallid       | numer.    | $\frac{1}{2}$ aut.     | Pa.Y      | old trees Sowerby, t. 151. <i>citrina</i>     |
| 16263                 | <i>tricolor Sow.</i>                     | three-color. | scattered | 0 aut.                 | Sooty     | trunks of trees Greville crypt. 369. f. 6     |
| 16264                 | <i>campánula Nees</i>                    | bell         | delicate  | $\frac{1}{2}$ aut.     | W         | dead twigs Nees syst. t. 38. f. 295           |
| 16265                 | <i>cribrosa Greu.</i>                    | porous       | curious   | 1 aut.                 | Bl        | sandy places                                  |
| 16266                 | <i>clariflava Greu.</i>                  | bright-yell. | punctif.  | 0 aut.                 | Y         | decayed wood                                  |
| 16267                 | <i>punctata Greu.</i>                    | dotted       | punctif.  | 0 aut.                 | Y         | dead leaves Greville crypt. fl. 63            |
| 16268                 | <i>herbárum Pers.</i>                    | Herb         | crowded   | $\frac{1}{2}$ aut.     | W         | dead herbac. stems                            |
|                       |  |              |           |                        |           |   |
| 16269                 | <i>conigéna Pers.</i>                    | pine-cone    | gregario. | 0 au. sp.              | W         | pine cones                                    |
| 16270                 | <i>chrysooma Bull.</i>                   | yellow-hair. | crowded   | 0 aut.                 | Fu.Or     | posts & rails Sowerby, t. 152                 |
| 16271                 | <i>cinerea Batsch</i>                    | cinereous    | crowded   | 0 aut.                 | G         | rotten wood Sowerby, t. 64                    |
| 16272                 | <i>vulgáris Fries albella Wither.</i>    | common       | patches   | 0 wint.                | Wsh       | dry bark                                      |
|                       |  |              |           |                        |           |   |
| 16273                 | <i>diáphana Sowerby</i>                  | transparent  | scattered | 0 wint.                | Tran.     | rotten wood Sowerby, t. 389. f. 7             |
| 16273                 | <i>ámpens Greu.</i>                      | Sycam.-peti. | scattered | 0 aut.                 | Cæs.      | stalks of Sycamore Greville crypt. 99         |
|                       |  |              |           |                        |           |   |
| 16274                 | <i>ochrácea Greu.</i>                    | ochrey       | puckered  | 0 aut.                 | Oc.Br     | fallen trunks Greville crypt. 5               |
| 16275                 | <i>atrovirens Pers.</i>                  | dark-green   | crowded   | 0 aut.                 | G         | rotten wood                                   |
| 16276                 | <i>Abbottiana Sow.</i>                   | Abbott's     | scattered | 0 aut.                 | Sea G     | wood Sowerby, t. 389. f. 8                    |
| § 4. HELO'TIUM. Pers. |  |              |           |                        |           |   |
| 16277                 | <i>fibuliformis Fries</i>                | button-shap. | gregario. | $\frac{1}{2}$ aut.     | Y         | trunks of elms Bolton, t. 176                 |
| 16278                 | <i>aciculáris Pers.</i>                  | needle-like  | gregario. | $\frac{1}{2}$ au.dec.  | W         | hollow oaks Sow. t.57. <i>agariciformis</i>   |
| 2391.                 | <i>ASCOBOLUS. Pers.</i>                  | ASCOBOLUS.   |           |                        | Sp. 1-11. |   |
| 16279                 | <i>furfuráceus Pers.</i>                 | scurfy       | gregario. | 0 all sea.             | Brsh      | old cow dung                                  |
| 2392.                 | <i>BULGARIA. Fries.</i>                  | BULGARIA.    |           |                        | Sp. 2-6.  |   |
| 16280                 | <i>in'quinans Fries</i>                  | dirty        | gelatino. | 0 au. wi.              | Umb.      | dead oaks Sowerby, t. 428                     |
| 16281                 | <i>sarcoides Fries</i>                   | fleshy       | polymor.  | $\frac{1}{2}$ aut.     | Pu.R      | decaying trees Bolton, t. 101. f. 2           |
| 2393.                 | <i>DITIOLO. Fries.</i>                   | DITIOLO.     |           |                        | Sp. 1-5.  |   |
| 16282                 | <i>radicáta Fr.</i>                      | rooting      | gregario. | $\frac{1}{2}$ ap. jn.  | Gold.     | barked pines Fl. dan. t. 1378. f. 2           |
| 2394.                 | <i>CENANGIUM. Fr.</i>                    | CENANGIUM.   |           |                        | Sp. 5-30. |   |
| 16283                 | <i>quercinum Fr.</i>                     | oak          | gregario. | $\frac{1}{2}$ all sea. | Cin.      | dead oak branches Sowerby, t. 373. f. 3       |
| 16284                 | <i>Prunásti Fr.</i>                      | Plum         | crowded   | 0 aut.                 | Bl        | dead plum branches                            |
| 16285                 | <i>Cérasí Fr.</i>                        | Cherry       | crowded   | 0 all sea.             | R.Bl      | dead cherry branches                          |
| 16286                 | <i>Aucupáris Fr.</i>                     | Mount. Ash   | tufted    | 0 aut.                 | Bl        | dead mountain-ash branches                    |
| 16287                 | <i>ferruginósum Fr.</i>                  | ferruginous  | patches   | 0 aut.                 | R.Bl      | Scotch fir branches Greville crypt. 197       |
| 2395.                 | <i>STICTIS. Pers.</i>                    | STICTIS.     |           |                        | Sp. 1-23. |   |
| 16288                 | <i>radiáta Pers.</i>                     | radiating    | spots     | 0 au. spr.             | W         | bark of trees Sowerby t. 16                   |



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2391. *Ascobolus*. From *ascus*, one of the forms of theca in which the sporules are retained among Fungi, and *φαλλος*, to emit, in allusion to the principal peculiarity of the genus. Small gregarious soft plants, without roots, but not very perishable, growing upon dung, and most obvious during rainy weather.

2392. *Bulgaria*. An intermediate genus between *Perizia* and *Exidia*, named from *bulga*, a leather bag, on account of the saccate form of the species. Scentless, insipid, mucilaginous, rootless, soft fungi, tolerably permanent, and generally breaking forth in clusters from the bark of trees during the winter and autumn. Miller is said to have succeeded in obtaining glue from *B. inquinans*, but subsequent attempts have failed of success.

2393. *Ditiola*. From *dis*, double, and *ιολος*, down, in allusion to the nature of the pubescence of the velum. The species of this genus are gregarious, firm, permanent, without smell, flourishing upon dry wood from the

1. *Cupule somewhat membranous, distinctly stalked, Hymenium distinct.* HYMENOSCYPHÆ.

- 16251 Rather large ochrey-brown infundibulif. at length concavo-rep. or very plane, Stipes elongat. dark at base  
 16252 Cap smooth urceolate orange-color with a prominent membranous pale margin, Stipes cylindrical pink  
 16253 Gregar. yell. or redd.-white subinfundibulif. : surface of hymen. plane, Stipes long subflexu. and attenuat.  
 16254 Bright-yellow, Cupule plano-convex thinish, Stipes short firm thickish  
 16255 Stipit. glab. white or yellow. subinfundibulif. Margin fringed with inflexed teeth, Stipes elongated curved  
 16256 Stipitate campanulate, Margin smooth, Stipes straight

2. *Cupule fleshy, waxy, firm, obconical, somewhat stalked, Hymenium distinct.* CALYCIÆ.

- 16257 Yellow, Cupule turbinate : disk flat ; margin tumid, Stipes long slender [orange-brown  
 16258 Gregarious globose-infundibulif. slightly concave, Stipes rather short attenuat. whole plant ferrugin. or  
 16259 Æruginose, Cupule turbinate becoming expanded and flexuose : disk whitish, Stipes short

- 16260 Cupule subrepand smooth : disk yellow exteriorly white as well as the somewhat ascending stipes  
 16261 Yell. crowd. apparently sess. but having a short thick obconical stipes c. rrose, Hymenium plano-concave

- 16262 Crowded smooth pale-yellow or whitish, Cupule concave, Stipes short thickish pallid  
 16263 Hemispherical margined, Disk yellowish externally sooty, Stipes very short whitish  
 16264 Gregarious white rather small very membranaceous campanulate unequal, Stipes filiform short  
 16265 Black solitary rather large very concave, Hymen. cribriform or full of lacerat. irregular pores or sinuses  
 16266 Yellow gregarious minute obconical at length somew. plane, Margin raised obt. externally somew. paler  
 16267 Yellow very minute gregarious punctiform globular at length plane or subconvex, Margin minutely cren.  
 16268 White gregar. carnos. at length convex but sometimes depress. in centre turning reddish in age and decay

3. *Cupule waxy, soft, watery, sessile or obconical, Hymenium confluent.* MOLLISIA.

- 16269 White gregarious excessively minute orbicular subimmarginate  
 16270 Fulvous orange gregarious crowded minute nearly plane subtemella-like  
 16271 Grey gregarious depressed waved subtemellose, Margin obsolete  
 16272 Sessile somewhat tufted membranous soft smooth whole-colored all over and whitish

- β Scattered flattish-urceolate whitish transparent [in wet weather  
 16273 Minute ceraceous glab. sess. grey connate within the semiputrid petioles of the Sycamore and burst forth

4. *Cupule waxy, dry, sessile, flat at base or innate edged.* PATELLÆ.

- 16274 Ochrey-brown min. gregar. carnos. thick obconic. Hymen. minutely granul. at length plane or subconvex  
 16275 Green gregarious minute subtemellose hemispherical at length plane becoming black in decay  
 16276 Sessile dry patellate cæsius on the outside, Disk yellow

- 16277 Firm, Head convex yellow black-brown beneath, as is the short thick villous stipes  
 16278 White smooth, Head convex, Stipes long equal

- 16279 Sessile gregarious somewhat concave olive-green or brownish externally furfuraceous

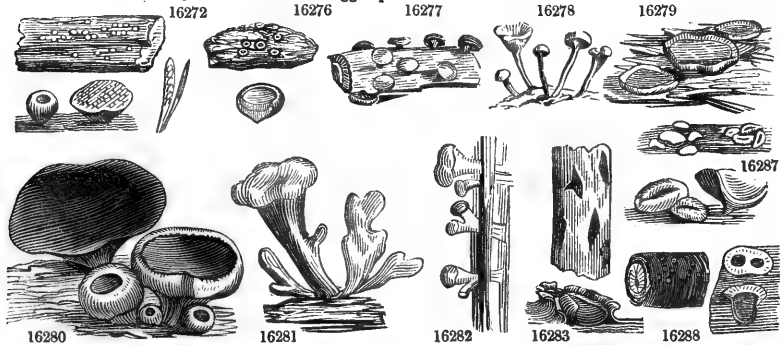
- 16280 Turbinate firm, externally rugulose scaly umber-colored, Disk flattish blackish  
 16281 Polymorphous cæspitose subgelatinous somew. firm purplish-red externally subvenose, Hymen. concave

- 16282 Disk flattish golden-yellow, Stipes thick villous white long-rooted

- 16283 Simp. gregar. long flexu. at first closed pruin. and blackish-cinereous, afterw. open with a broad pale disk

- 16284 Substipitate opaque rigid black marginate, Hymenium concave  
 16285 Coriaceous reddish-black at first closed at length expanded and plane  
 16286 In round. tufts, Caps stipit. subturbin. concave with round. marg. intermix. with digit. or subul. processes  
 16287 Gregarious between membrane and leathery subsessile rugose somewhat pruinose, The orifice compressed inflexed : when moist spreading

- 16288 Immersed orbicular, Limb snow-white ragged pulverulent



and Miscellaneous Particulars.

autumn until the spring. They are to be considered noxious fungi from the injury they bring to the timber upon which they vegetate. Their mucilaginous roots insinuate themselves between the fibres of the wood, and separate and soften them. Their tubercles burst forth, and filling the wood with clefts, and rendering its interior accessible to wet, soon destroy it. *D. radicata* is one of the species of dry rot.

2394. *Cenangium*. From *κίσος*, hollow, and *αγγίον*, a capsule or vessel, in allusion to the hollow nature of the receptacle. Chiefly distinguished from *Peziza* by substance, and the coriaceous nature of the cupules. From *Tympanis* it is distinguished by its closed cupules and smooth permanent hymenium. The species are small and deformed, growing upon the bark of trees, either singly or in tufts, and mostly produced in winter.

2395. *Stictis*. So named from the punctiform appearance of many of the species, from *στίκτης*, a dot. Very simple, minute, gregarious fungi.

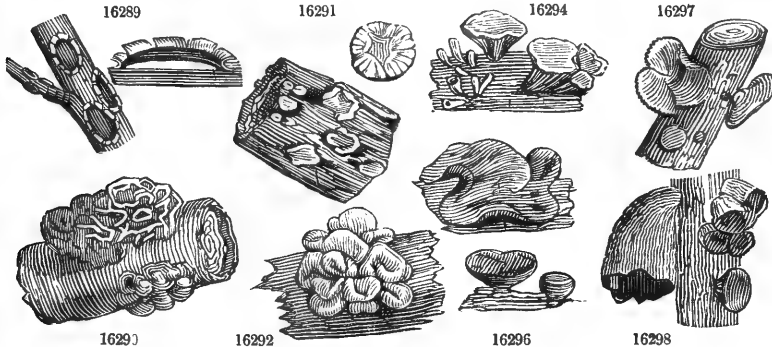
2396. *CRYPTOMYCES*. *Grev.* *CRYPTOMYCES*. *Sp. 1.*  
 16289 *Wauchii Grev.* Willow firm 0 su. aut. Br willow branches Greville crypt. 206

Class III. TREMELLINI.

2397. *TREMEL/LA. L. TREMELLA. Sp. 4—18.*  
 16290 *mesentérica Rtz.* Mesent.-like subsolit. 2 aut. sp. Y fallen branches Eng. bot. t. 709  
 16291 *albida Huuds.* whitish clustered 1 aut. Wsh fallen branches Eng. bot. t. 2117  
 16292 *intumescens E. B.* tumid twisted lobes 2 wet w. Br trunks of trees Eng. bot. t. 1870  
 16293 *clavariiformis Pers.* Clavar.-like gregarious 1 su. aut. Dl. Or juniper stems Jacq. ic. t. 648  
 † 1. *Co'RYNE. Nees.*  
 16294 *sarcoides Fries* fleshy clustered  $\frac{2}{3}$  aut. Pu rotten wood Eng. bot. t. 2450  
 † 2. *PHYLLOP'TA. Fries.*  
 16295 *biparasitica Fries* parasitical deformed  $\frac{1}{2}$  sept. Bl dead Agaric  
 2398. *EXI'DIA. Fries. EXIDIA. Sp. 3—14.*  
 16296 *auricula J'udæ Fries Jew's-ear* tufted 3 aut. wi. Blsh elder trunks Bolton, t. 107  
     *β rubescēnti-fusca Fr. redd.-brown* tufted 3 aut. wi. Rsh elder trunks Eng. bot. t. 2447  
 16297 *recisa Fr.* cut-back gregarious  $\frac{2}{3}$  winter Brsh dead willows E. b. t. 1819. *boletiformis*  
 16298 *flaccida E. B.* flaccid thin  $\frac{2}{3}$  winter Dark oak bark Eng. bot. t. 2452  
 16299 *glandulosa Fr.* glandular very gelat. 2 aut. Br dead trees E. b. t. 2448. *T. arborea*  
 2399. *DACRYMYCES. Nees. DACRYMYCES. Sp. 2—7.*  
 16300 *moriiformis Fr.* mulberry-like sessile 0 aut. Bl dead wood Eng. bot. 2446  
 16301 *stellatus Nees* trickling very soft  $\frac{1}{2}$  all sea. Or. Y rotten wood Grev. crypt. 159  
     *T. deliquescens Grev*  
 2400. *AGYRIUM. Fr. AGYRIUM. Sp. 1—6.*  
 16302 *cæsium Fr.* cæsious punctif. 0 all sea. Cæs. dead pine wood  
 2401. *HYMENEL/LA. Fr. HYMENELLA. Sp. 1—4.*  
 16303 *vulgáris Fr.* common tumid  $\frac{1}{2}$  aut. Blsh nettle stems  
 2402. *NEMATE/LIA. Fr. NEMATELIA. Sp. 1—3.*  
 16304 *encéphala Fr.* monstrous deformed  $\frac{1}{2}$  aut. Flesh dead pine wood

Class IV. SCLEROTIACEI.

2403. *ACROSPERMUM. Tode. ACROSPERMUM. Sp. 2—5.*  
 16305 *cornutum Fr.* cornute gregarious  $\frac{1}{2}$  aut. Ruf. putrid Agarics Bulliard, t. 256  
 16306 *compréssum Tode* dk. narr.-stem. scattered  $\frac{1}{3}$  aut. Blsh dead herbac. plants Grev. crypt. 182  
 2404. *SCLEROTIUM. Tode. SCLEROTIUM. Sp. 12—60.*  
 16307 *sémen Tode* Mustard Seed hard  $\frac{1}{2}$  wi. spr. W. Y dead leaves Grev. crypt. 144  
     *β Bras'sica Bolt.* Turnip Seed hard  $\frac{1}{2}$  wi. spr. W. Y dead leaves Sowerby, t. 393  
 16308 *fungorum* Fungus roundish 0 aut. Br gills of dead Agarics



History, Use, Propagation, Culture,

2396. *Cryptomyces*. Upon this curious addition to the British Flora, Dr. Greville has the following remarks. "This very curious plant, I have little hesitation in placing as a new genus among the true Fungi. It is difficult to say, with what it has nearest affinity. In general habit, it might be supposed to resemble some species of *Thelephora*, but there the comparison stops. Our plant, besides being produced under the epidermis, seems to belong to a more perfect group, when its structure is examined. The hymenium is a quite distinct substance from that of the receptacle. The fructification is fully and beautifully developed, a good deal similar to that of the *Helvella*. The receptacle is carnosé and white; and the whole exhales a very strong odor, precisely like what is universally known under the name of a fungus-like smell. Till the plant is perfected, it remains concealed beneath the epidermis; and on this account, I have named the genus *Cryptomyces*. The epidermis, in fact, scarcely seems to crack by the swelling of the fungus, more than by the natural consequence of being killed by its separation from the subjacent bark. A cluster of willows, which was attacked in the beginning of the season by this plant, has been nearly destroyed by it; and, from the rapidity of its progress, I have no doubt that a whole plantation might, in the course of a couple of seasons, be rendered good for nothing. At a little distance, the affected branches look as if they were dry, scorched, and rotten."

2397. *Tremella*. Large or middle-sized fungi, rooting at the base, which is considerably contracted between the bark and the wood of trees. Dillenius named the genus on account of its soft, tenacious, tremulous substance, but his name was applied in a far more extensive sense than at present. The section called *Phyllopta* is an aberrant form of the genus, and should perhaps be separated.

2398. *Exidia*. From *εξίδια*, to proceed from a thing; with reference to the manner in which the sporidia exude as it were from their receptacle. This genus differs from *Tremella*, to which it is nearest, in its horizontal *Peziza*-like receptacle; in its hymenium being superior, the lower surface being dissimilar and either

16289 Suborbicular olivaceous at length nearly black white within, Thecæ elongated obtuse

## Class III. TREMELLINI.

16290 Sessile roundish orange-yellow variously lobed and plicate

16291 Sessile roundish or spreading and somewhat expanded obtusely lobed and plaited whitish

16292 Sessile clustered tumid plaited shining-brown

16293 Gregarious distinct tender gelatinous simple lingulate dull-orange pulverulent towards the apex

16294 Sessile gelatinous reddish-purple at first club-shaped then rounded lobed plaited or curled finally blackish

16295 Cartilaginous lobed somewhat wrinkled black

1. *Pezizoid, plicate, villous beneath, or dotted with roughness, Tubes half inferior, distinct.* AURICULÆ.

16296 Sessile concave flexuose blackish plaited on each side with veins: beneath downy olive-grey

16297 Very soft truncate-flat subrepand fuscous beneath dotted scabrous, Stipes very short oblique out of centre

16298 Thin flaccid very dark, externally opaque, internally wrinkled

2. *Somewhat flattened, wavy, rugose beneath, Tubes half-inferior, obsolete.* GLANDULOSÆ.

16299 Sess. round. rather spread. thick not goyrose plicate ben.: the surface bear. min. white-headed processes

16300 Conglobated sinuous dark opaque fleshy and purple inside

16301 Gregarious entire round depressed pulpy orange-yellow

16302 Gregarious nearly separate convex whitish cæsious

16303 Long various smooth whitish when dry becoming brown: the circumference adhering

16304 Subsessile pulvinate plaited-rugose pale flesh-color becoming dry

## Class IV. SCLEROTIACEI.

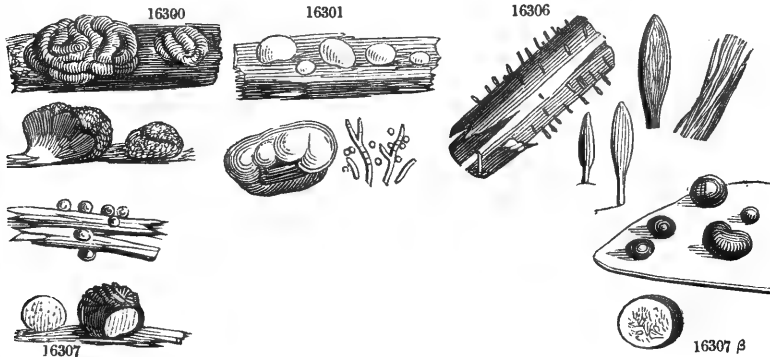
16305 Horn-like smooth when dry furrowed rufous becoming paler at the end

16306 Stipitate mostly lanceolate somewhat obtuse subcompressed of a dark olivaceous color

16307 Separate spherical whitish-yellow becoming wrinkled and black, white inside

β Clustered somewhat immersed pale inside

16308 Deformed lobed smooth pale becoming tawny, whitish inside



## and Miscellaneous Particulars.

villous or rugose, and ribbed in a peculiar manner; in the conoid papillæ of the disk; in the tubes, which must be esteemed rudimentary asci, containing the sporules; and in the elastic manner in which the sporidia are produced. The species are simple, rarely growing in patches, of a large or middle size, and generally inhabiting wood; when dry they are membranous, but nearly regain their original form upon being moistened.

2399. *Dacrymyces*. From *δακρυον*, a tear, and *μυκη*, a fungus; in allusion to their deliquescent nature. *Tremella deliquescens* of Bulliard, a yellow confluent mass found chiefly upon pine-timber in the spring, is the type of the genus.

2400. *Agyrium*. Apparently from *αγριος*, a crowd, in allusion to the clustered disposition of the individuals; although Fries, the author of the name, expressly declares that it has been named "ob superficiem nunquam non lævem." Small dot-like gregarious plants growing upon wood, perennial, seated upon a crust-like spot, and resembling some species of *Lecidea*.

2401. *Hymenella*. This genus consists of plants growing upon plants, generally upon the stem, having the habit of *Sclerotium durum*, but softer, more tender, and bearing sporidia within their surface, for which reason they seem as if they consisted only of a kind of elementary *hymenium*, whence their name.

2402. *Nematelia*. From *ναιμα*, gelatine, and *ελεω*, to enwrap, on account of the nucleus, which is of various figures, enclosed in the receptacle.

2403. *Acrospermum*. Minute fungi of a rigid habit, parasites upon decaying vegetables. From *ακρος*, the summit, and *σπρισμα*, seed, on account of the apex of the plants becoming tumid, and emitting the sporules.

2404. *Sclerotium*. From *σκληρος*, hard, in allusion to the remarkably firm substance of the species. All the species are parasites upon other plants, and some are very destructive.

|   |                |             |            |       |                      |   |
|---|----------------|-------------|------------|-------|----------------------|---|
| 16309 muscivum Pers.                          | Moss           | irregular   | ‡ spring   | Or.Y  | stems of mosses      | G.cr.101. <i>subterraneum</i>                           |
| 16310 salicinum Pers.                         | Willow         | patches     | 0 aut. wi. | Rsh   | Salix caprea leaves  |   |
| 16311 populinum Pers.                         | Poplar         | patches     | 0 all sea. | Rsh   | Populus tremula lvs. |   |
| 16312 Pteridis Pers.                          | Bracken        | punctiform  | 0 aut. sp. | Bl    | dead Pteris aquilina |   |
| 16313 scutellatum Alb.                        | shield-like    | button-like | 0 spring   | Br    | leaves of trees      | Grev. crypt. 144  |
| 16314 nitidum Pers.                           | shining        | less crowd. | 0 wi. spr. | Bl    | dead herb. stems     |   |
| 16315 dorum Fr.                               | hard           | corneous    | 0 wi. spr. | Bl    | dead herb. stems     | Grev. crypt. 1  |
| 16316 bullatum Dec.                           | blistered      | confluent   | 0 aut.     | Bl    | rotten gourds        |   |
| 16317 quercinum Pers.                         | Oak            | scattered   | 0 aut.     | Bl    | dead leaves          | Grev. crypt. t. 77                                      |
| 16318 fructuum Grev.                          | Fruit          | crowded     | 0 aut.     | Wsh   | putrid fruit         |   |
| 2405. RHIZOCTONIA. Dec. RHIZOCTONIA. Sp. 1—4. |                |             |            |       |                      |   |
| 16319 crocorum Dec.                           | Crocus-blight  | clustered   | 0 all sea. | Ruf.  | saffron roots        | Nees syst. f. 135                                       |
| <i>Thanatophyta crocorum</i> Nees             |                |             |            |       |                      |   |
| 2406. PERIOLA. Fr. PERIOLA. Sp. 1—3.          |                |             |            |       |                      |   |
| 16320 tomentosa Fr.                           | downy          | scattered   | ‡ wi. spr. | W     | potatoe roots        |   |
| 2407. ACI'NULA. Fr. ERGOT. Sp. 1.             |                |             |            |       |                      |   |
| 16321 Clavus Fr.                              | common         | nauseous    | 0 sum.     | Blish | glumes of grasses    | [ <i>Protium</i><br>Dec. mem. t. 14. f. 8. <i>Scle.</i> |
| 2408. ERY'SIBE. Rebutisch. MILDEW. Sp. 14—37. |                |             |            |       |                      |   |
| 16322 Artemisia Grev.                         | Wormwood       | patches     | 0 aut.     | Wsh   | Artemisia vulgaris   |   |
| 16323 Trifolii Grev.                          | Clover         | powdery     | 0 aut.     | Bl    | Trifolium            |   |
| 16324 Berberidis Dec.                         | Berberis       | spots       | 0 aut.     | Rsh   | Berberis             |   |
| 16325 Lathyri Grev.                           | Vetch          | powdery     | 0 aut.     | R.Br  | Lathyrus pratensis   |   |
| 16326 Bétulæ Dec.                             | Birch          | scattered   | 0 su. aut. | Blish | Birch leaves         |   |
| 16327 Robinie Grev.                           | Acacia         | powdery     | 0 aut.     | Wsh   | Robinia viscosa      |   |
| 16328 Arc'tii Grev.                           | Burdock        | patches     | 0 su. aut. | Rsh   | Arctium Lappa        |   |
| 15329 Aquilegiæ Dec.                          | Columbine      | spots       | 0 aut.     | Wsh   | Aquilegia vulgaris   |   |
| 16330 Alchemilla Grev.                        | Lady's Mar tle | powdery     | 0 su. aut. | Ysh   | Alchemilla vulgaris  |   |
| 15331 Pisi Dec.                               | Pea            | crowded     | 0 aut.     | W     | garden pea           | Grev. crypt. 134  |
| 16332 A'ceris Dec.                            | Sycamore       | scattered   | 0 aut.     | Blish | maple & sycamore     |   |
| 16333 Lonicéræ Dec.                           | Honeysuckle    | powdery     | 0 aut.     | Glau. | honeysuckles         |   |
| 16334 Asperifoliarum Grev.                    | Borage         | powdery     | 0 aut.     | Wsh   | Asperifolia          |   |
| 16335 Ranunculii Grev.                        | Crowfoot       | scattered   | 0 aut.     | Wsh   | Ranunculi            |   |

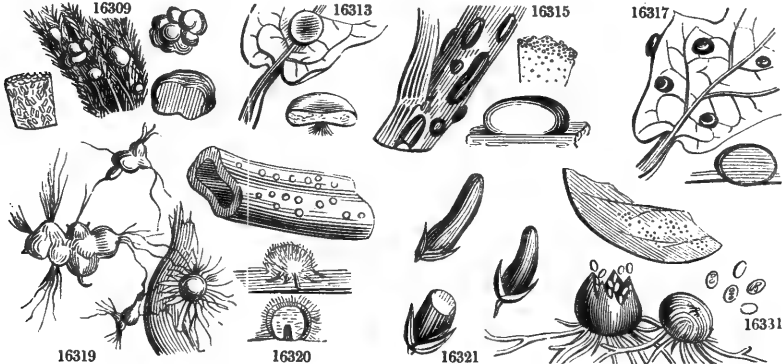
GASTEROMYCETES.

Class I. ANGIOGASTRES. — Division I. *Phalloidea*.

|  |                |            |            |     |                     |                                |
|--|----------------|------------|------------|-----|---------------------|--------------------------------|
| 2409. PHALLUS. Mich. PHALLUS. Sp. 2—9.     |                |            |            |     |                     |                                |
| 16336 impudicus L.                         | Stinking Morel | very fetid | 8 su. aut. | Wsh | woods and hedges    | G.cr. 213, 214. <i>fetidus</i> |
| 16337 caninus Huds.                        | scentsless     | smaller    | 4 au. sep. | Pk  | rotten hazel trunks | Sow. t. 330. <i>inodorus</i>   |
| 2410. BATAR'REA. Pers. BATAR'REA. Sp. 1— . |                |            |            |     |                     |                                |
| 16338 phalloides Pers.                     | Phallus-like   | long       | 3 au.      | Er  | banks               | Smith spicil. 1. t. 12         |

Division II. *Tuberaceæ*.

|                                      |        |               |            |     |              |                        |
|--------------------------------------|--------|---------------|------------|-----|--------------|------------------------|
| 2411. TUBER. Plin. TRUFFLE. Sp. 2—6. |        |               |            |     |              |                        |
| 16339 cibarium Sibth.                | common | esulent       | 1½ winter  | Er  | under ground | Nees pilz syst. f. 147 |
| 16340 albidum Cesalp.                | pale   | less fragrant | ½ su. aut. | Wsh | under ground |                        |



History, Use, Propagation, Culture,

2405. *Rhizoctonia*. Subterraneous fungi, reposing upon the roots of living plants, which they destroy. The species appear in the summer or autumn, and are very destructive. They have received their name from their habits; *gêas*, a root, and *zovino*, to destroy. They are very nearly related to the subterraneous *Sclerotia*. *R. crocorum* grows parasitically on the roots of the cultivated Saffron, *Crocus sativus*, in France, and is so pernicious as to have acquired the name of *la mort du safran*. It is very destructive, soon causing the bulb to perish, and spreading with great rapidity over a whole field of that valuable crop, if not speedily stopped by a trench fifteen to eighteen inches deep, to cut off the communication between the infected and the sound plants. The smallest quantity of earth from an infected field is said to be capable of communicating this plague, even if the ground were not planted with saffron till twenty years afterwards. "Hitherto this destructive parasite has not been heard of but in France. The plants are of an irregular knobbed figure, from half an inch to an inch long, of a light reddish brown, scarcely bursting; granular and paler within. Long branching capillary roots are sent out in all directions, propagating the plants very extensively and readily by offsets which attach themselves to the saffron, and multiplying in the substance of the bulbs soon destroy them." (*Smith*.)

2446. *Periola*. From *peri*, about, and *iolos*, hairiness, in allusion to the appearance the species exhibit when growing upon the roots of plants, or decaying fungi.

16309 Gregarious roundish but very irregular tuberculose orange-yellow within and without or whitish  
 16310 Depressed epiphyllous scattered or very confluent reddish fulvous  
 16311 Minute on both sides of the leaf numerous dark mostly angular and subconfluent  
 16312 Black very minute roundish or oval numerous depressed  
 16313 Epiphyllous orbicul. flattened at length somew. concave in middle fixed ben. by a central filamentous point  
 16314 Minute somewhat scattered or partially aggregate very black orbicular depressed  
 16315 Deep-black oval or elongated cernuous at length substriate or rugose white within  
 16316 Roundish or oval confluent corneous externally and black paler within and concave  
 16317 Epiphyllous scattered globular or subdepressed smooth pale at length black. Substance very corneous  
 16318 Rounded or oblong sometimes confluent white at length brown or black corneous externally, within somewhat hollow and carnosé

16319 Rufous, Filaments few spreading over the bulb in the form of a disk

16320 Round deformed downy white

16321 Horn-like cylindrical powdery and purple-black outside, white inside

16322 Very minute on both surfaces of the leaf, Filaments forming a dense whitish web  
 16323 On both sides of the leaf very globular nearly black, Filaments giving the leaf a farinose aspect  
 16324 On both sides of leaf form. circular pulverul. spots at length confu. Filam. dichotom. at their extremities  
 16325 Red-brown minute, Filaments spreading over the whole leaf pulverulent  
 16326 On the under-surface scattered very visible blackish, Filaments few simple not rendering the leaf whitish  
 16327 On the upper-surface finely pulverulent, Receptacles minute congregated here and there  
 16328 On the under-surface thickly covering the whole leaf, Filam. simple granuliferous : bodies pyriform small  
 16329 On both sides of the leaf forming a light pulverulent surface, Recept. few scattered distinct  
 16330 On under-surface very numer. min. Filam. few forming no filament, or pulverul. appear. to the naked eye  
 16331 On both sides of the leaf so crowded as to darken its color, Filaments very long and slender  
 16332 On the under-surface scattered at length concave, Filaments elongated interwoven  
 16333 On both sides the leaf very numerous scattered minute, Filaments presenting a glaucous powdery surface  
 16334 On both sides the leaf scattered becoming confluent pulverulent, Recept. aggregated here and there  
 16335 Chiefly on under-surface partially scatter. Filam. long flexu. Granulifer. cells oval contain. mostly 4 gran.

### GASTEROMYCETES.

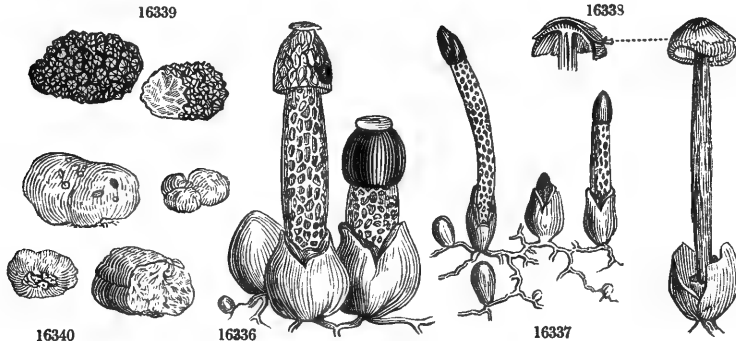
#### Class I. ANGIOGASTRES. — Division I. *Phalloideæ*.

16336 Volva large, Stipes very cellulose white, Cells of the head containing a fetid dull-green sporuliferous slime  
 16337 Head close to the stipes ovate warted impervious pink

16338 Stipes cylindrical straight mucilaginous

#### Division II. *Tuberaceæ*.

16339 Very rough with warts blackish  
 16340 Very rough with warts whitish



#### and Miscellaneous Particulars.

2007. *Acinula*. Very similar to *Sclerotium* or *Periola*; but distinguished by the diffuent coat, containing a nucleus resembling an *acinus* in a berry, whence the name. A *Clavus* is the *Ergot* of corn.

2408. *Erysibe*. A Greek name of mildew. Most of the productions arranged under this head are known by the popular name of mildew. They are better characterized by the plants on which they grow, than by their peculiar differences, which, it is probable, depend very much upon the former circumstance.

2409. *Phallus*. Large terrestrial fungi, sometimes growing upon rotten wood, not clustered, appearing in the summer after thunderstorms, fetid, and highly poisonous. Their form is so similar to that of the *φαλλος* of the Greeks, as not to be overlooked.

2410. *Batarrea*. So named by Persoon, in honor of Antonio Batarra, professor of botany in the Lyceum at Rimini, and author of a *Historia Fungorum Agri Ariminensis*, published at Faenza, in 1759, in quarto, with forty plates. A very curious plant found only in England, where, however, it is exceeding rare. The volva or wrapper is about the size of a hen's egg, originally of three slightly coriaceous layers, hollow internally, with a spongy stalk is formed which rises suddenly to its full height of about twelve inches. This stalk carries up on its summit full half the innermost layer of the volva, which is white and smooth within, and covered externally with copious brown sporules intermixed with fibres.

2411. *Tuber*. An ancient Roman name. *T. cibarium* is the famous truffle, so celebrated in the annals of



|                              |                                   |          |                     |
|------------------------------|-----------------------------------|----------|---------------------|
| 2412 RHIZOPO'GON. <i>Fr.</i> | RHIZOPOGON.                       | Sp. 1—4. |                     |
| 16341 álbus <i>Fr.</i>       | white flocculent                  | ½ aut.   | Rufes. way sides    |
|                              | <i>Lycopérdon gibbósum</i> Dicks. |          | Bull. champ. t. 404 |

Division III. *Nidulariaceæ.*

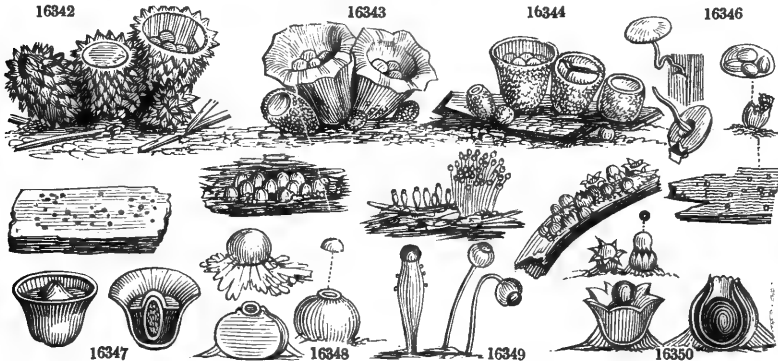
|                                 |                        |            |                         |
|---------------------------------|------------------------|------------|-------------------------|
| 2413. NIDULA'RIA. <i>Bull.</i>  | NIDULARIA.             | Sp. 3—13.  |                         |
| 16342 striáta <i>Bull.</i>      | striated gregarious    | ¼ au. no.  | Brsh on rotten leaves   |
| 16343 campanuláta <i>Sibth.</i> | bell-shaped flocculent | ¾ su.aut.  | Ciner. shavings of wood |
| 16344 Crucibulum <i>Haffm.</i>  | crucible coriaceous    | ¼ su.aut.  | Oc.fer pine bark        |
| 2414. MYRIOCOCC'UM. <i>Fr.</i>  | MYRIOCOCCUM.           | Sp. 1.     |                         |
| 16345 præ'cox <i>Fr.</i>        | early confluent        | ½ ear. sp. | W dead leaves, &c.      |
| 2415. POLYANGIUM. <i>Lk.</i>    | POLYANGIUM.            | Sp. 1.     |                         |
| 16346 vitellinum <i>Lk.</i>     | yolk of egg gregarious | 0 au.oct.  | Y damp trunks           |
|                                 |                        |            | Nees syst. f. 131       |

Division IV. *Carpoboli.*

|                                   |                         |            |                            |
|-----------------------------------|-------------------------|------------|----------------------------|
| 2416. ATRACTO'BOLUS. <i>Tode.</i> | ATRACOBOLUS.            | Sp. 1.     |                            |
| 16347 ubiq'uitárius <i>Tode</i>   | common powdery          | 0 th. sto. | W wood, bones, stones, &c. |
|                                   |                         |            | Fung. meckl. p. 45. f. 9   |
| 2417. THELE'BOLUS. <i>Tode.</i>   | THELEBOLUS.             | Sp. 1—2.   |                            |
| 16348 stercóreus <i>Tode</i>      | dung gregarious         | 1½ w. aut. | Ysh cow dung               |
|                                   |                         |            | Nees syst. f. 363          |
| 2418. PILO'BOLUS. <i>Tode.</i>    | PILOBOLUS.              | Sp. 1—2.   |                            |
| 16349 crystallinus <i>Tode</i>    | transparent very fugac. | ¼ cool w.  | Bl horse dung              |
| β ró'ridus <i>Pers.</i>           | frosted very fugac.     | ¼ cool w.  | Pellu. horse dung          |
|                                   |                         |            | Bolton, t. 133. f. 1       |
|                                   |                         |            | Bolton, t. 132. f. 4       |
| 2419. SPHERO'BOLUS. <i>Tode.</i>  | SPHEROBOLUS.            | Sp. 1—2.   |                            |
| 16350 stellátus <i>Tode</i>       | starry emerging         | 0 su. aut. | Pa. Y wood, &c.            |
|                                   |                         |            | Grev. crypt. 158           |

Class II. PYRENOMYCETES. — Division I. *Sphæriacei.*

|                                 |                         |            |                             |
|---------------------------------|-------------------------|------------|-----------------------------|
| 2420. XYLA'RIA. <i>Hill.</i>    | XYLARIA.                | Sp. 11—29. |                             |
| 16351 hypóxylon <i>Grev.</i>    | wood various            | 2 all sea. | Bl stumps of trees          |
| 16352 digitáta <i>Pers.</i>     | fingered tufted         | 2 all sea. | Bl stumps of trees          |
|                                 |                         |            | Sower. t. 55                |
| 16353 polymórpha <i>Grev.</i>   | polymorph. variable     | 2 aut.     | Bl stumps of trees          |
| 16354 grácilis <i>Grev.</i>     | slender simple          | 3 aut.     | Br moist places             |
| 16355 entomorhíza <i>Dicks.</i> | insect-root stalked     | 2 aut.     | Fusc. dead larvæ of insects |
| 16356 capitáta <i>Holmsk.</i>   | capitate tufted         | 3 sep. oc. | Br on Scler. cervinum       |
| 16357 alutácea <i>Pers.</i>     | tan-like brittle        | 2½ au.oct. | pa.tan dead pine leaves     |
| 16358 hypóxylon <i>Ehr.</i>     | wood gregarious         | ¼ aut.sp.  | Wsh old trunks              |
| β cupressifórmis <i>Woodv.</i>  | cypress-like gregarious | ¼ aut.sp.  | Wsh old trunks              |
| 16359 punctáta <i>Sowbery</i>   | dotted gregarious       | ¾ all sea. | Sooty animal dung           |
|                                 |                         |            | Bolton, t. 129. f. g        |
|                                 |                         |            | Sow. t. 54                  |



History, Use, Propagation, Culture,

cookery. Dogs are taught to find this fungus by the smell, and to scratch it up out of the earth. An instance is recorded of a man having possessed this power. It is brought to table either simply boiled, or stewed in various forms. It is reported to have a stimulating aphrodisiacal quality, which perhaps renders them more popular than their flavor, which is trifling. Truffles are found under the surface of the ground in various parts of Europe, where the soil is light and dry; as well as in Japan and the East Indies. There are said to be numerous varieties of color.

2412. *Rhizopogon*. Large or middle-sized Fungi, emerging from the earth, and resembling potatoes; scarcely eatable; but, according to Gleditsch, possessing aphrodisiacal qualities. On the outside covered with netted corymbose rooting fibres, whence the name, from *ρίζα*, a root, and *πogον*, a beard.

2413. *Nidularia*. A diminution of *nidus*, a nest. The plants consist of a leathery cup containing several lenticular bodies supposed to contain sporules, and all together resembling a bird's-nest with eggs.

2414. *Myriococcum*. From *μυριοσ*, a thousand, and *κοκκος*, a little capsulic. Related to *Sclerotium*. The only species consists of superficial deformed confluent tubercles, 2-4-lines broad, at first sight resembling a white compound *Spheria* with prominent brown orifices.

2415. *Polyangium*. Named by Link, from *πολυς*, many, and *αγγιος*, a capsule. Easily distinguished from the last by the internal grumous substance, which Nees and Fries consider unequal sporidia.

2416. *Atractobolus*. From *ατρακτος*, a spindle, and *βαλλω*, to cast. The bladder which contains the sporules, is fusiform and closed, and is ejected from the base of the cupule as soon as the operculum is thrown off.

2417. *Thelebolus*. From *θηλη*, a nipple, and *βαλλω*, to emit. The uterus protrudes a globose papilliform vesicle. This is found on the dung of swine, after rainy weather in June and July. *Tode* compares it to the

16341 Round somewhat rugose whitish-brown slightly fibrous at base

Division III. *Nidulariaceæ*.

16342 Obconical hirsute bright-brown striated inside

16343 Campanulate villous cinereous-brown lead-colored and shining inside

16344 Campanulate-cylindrical truncate at each end somew. downy ochrey-brown smooth and pale-yellow inside

16345 Tubercles superficial deformed confluent, at first sight resembling some kind of compound spheria

16346 About the size of a grain of sand

Division IV. *Carpobolæ*.

16347 Resembling to the naked eye flour scattered about

16348 Subglobose saffron-color gregarious sessile

16349 Stem-like receptacle inflated upwards (rarely filiform) Pointed capitular vesicle round depressed black  
 $\beta$  Stem-like receptacle globose, Stipes oblong filiform, Capitular vesicle dot-like black

16350 Globose pale-yellow, Orifice regular stellate toothed

Class II. PYRENUMYCETES. — Division I. *Sphaeriacci*.

16351 Gregarious branched compressed black white and farinaceous towards the apex downy at the base

16352 Gregarious somewhat tufted black, Peduncles glabrous more or less united at their base, Receptacle cylindrical terminated by a sterile acuminate apex

16353 Black gregar. simp. or divid. Pedunc. pass. into a ventric. recept. contain. spherules ben. its whole surface

16354 Stipes elongat. cylindr. equal somew. flexuose, Recept. smooth roundish-ovate brown, Spherules obl. pale

16355 Fleshy, Head globose fuscous, Stipes thin very long

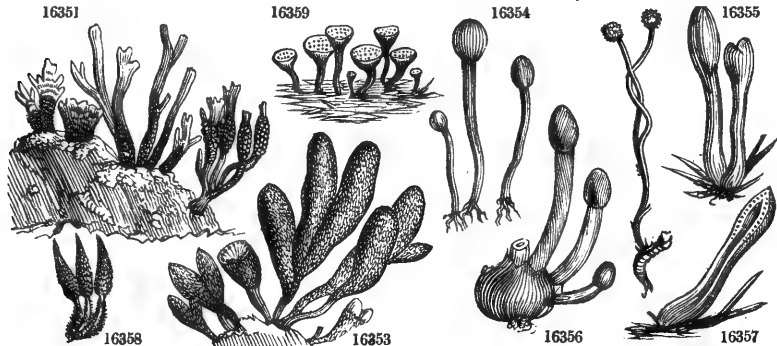
16356 Fleshy, Head ovate globose brown, Stipes yellow becoming blackish

16357 Fleshy soft, Head clavate pale tan-color confluent with the stipes

16358 Corky simple and branch. compressed at first whitish powdery afterwards naked and black, Stipes villous

$\beta$  Smaller simple, Head distinct cylindrical conical acuminate

16359 Stipitate turbin. Disk truncate white dotted with black blackish externally



and Miscellaneous Particulars.

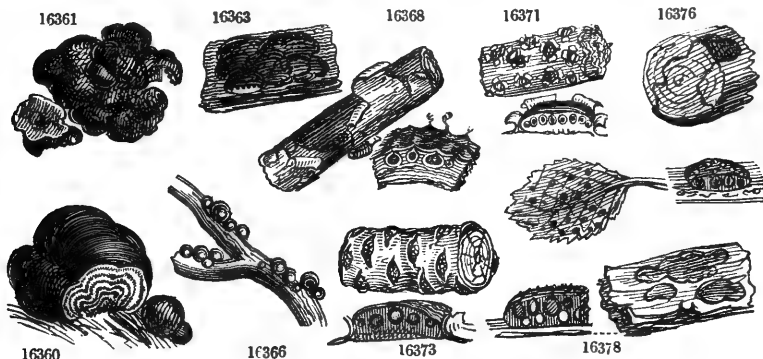
roe of a fish in appearance, and to poppy-seed in size. The color is a tawny yellow. Each individual is globular, attached at the bottom by capillary roots, and crowned by a small papillary tubercle of a more orange or golden hue than the rest.

2418. *Pilobolus*. Named from *πῖλος*, a cap, and *βαλλω*. A very natural genus, consisting of gregarious little fungi, of a very fugacious nature, inhabiting dung, appearing in the summer and autumn; when full grown they resemble species of *Mucor*, but in a younger state they are more evidently interwoven, and resemble *Sphaeria* or *Sclerotium*.

2419. *Sphaerobolus*. From *σφαῖρα*, a globe, and *βαλλω*. The peridium is double, membranous inside, at length becoming elastically inverted, and emitting a globose solid sporangium, filled with sporidia clustered in the centre. Epiphytous persistent plants, generally appearing in the autumn. *S. stellatus* is found in various parts of Europe in autumn upon rotten wood or branches of trees, heaps of sawdust, or in the tan-pits of hothouses. In an early state each plant consists of a pale yellow globe larger than a mustard seed. Several such grow crowded in patches, bound down as it were by a fine cottony web. After a while each plant bursts into several starry rays, and by a momentary explosion, projects to the distance of six or eight inches a whitish globular mass of powdery seeds from its internal cavity. Sometimes this ball of seeds remains sticking to the points of the rays. When fallen to a distance, the skin of this ball is found empty, the seeds having flown out, in its passage, through a hole in its base. (*Smith*.)

2420. *Xylaria*. From *ξύλον*, wood, in allusion to their station, or to their woody and durable texture. Once included in *Sphaeria*.

|  |                 |                |                        |        |   |
|--|-----------------|----------------|------------------------|--------|---|
| 2421. STROMATOSPHERIA. <i>Grev.</i> STROMATOSPHERIA. <i>Sp.</i> 24—58. |                 |                |                        |        |   |
| 16360 concéntrica <i>Grev.</i>   | concentric      | suberose       | 1 aut.                 | Bl     | ash trunks<br>Sow. t. 160. <i>fraxinea</i>                  |
| 16361 defesta <i>Grev.</i>   | scorched        | fleshy         | $\frac{1}{2}$ all sea. | Brsh   | rotten stumps<br>Sow. t. 338. <i>maxima</i>                 |
| 16362 fúscá <i>Grev.</i>   | fuscous         | suberose       | 0 all sea.             | Br     | dead hazel  |
| 16363 unduláta <i>Grev.</i>  | wavy            | broad          | $\frac{1}{2}$ aut.     | Bl     | decayed branches<br>Grev. crypt. 223                        |
| 16364 stríafórmis <i>Grev.</i>   | striated        | gregarious     | 0 aut.                 | Bl     | herbaceous stems  |
| 16365 múlticeps <i>Grev.</i>   | many-head.      | masses         | $\frac{1}{2}$ aut.     | Bl     | dead branches<br>Sower. t. 394. f. 8                        |
| 16366 fragifórmis <i>Grev.</i>   | Strawberry-like | clustered      | $\frac{1}{2}$ aut.     | R.Br   | dead beeches<br>Grev. crypt. 136                            |
| 16367 stígma <i>Grev.</i>  | spot            | spreading      | 0 all sea.             | Bl     | dead hazel, &c.<br>Grev. crypt. 223                         |
| 16368 decorticáta <i>Grev.</i>   | decorticating   | spreading      | 0 all sea.             | Bl     | dead hazel, &c.<br>Sow. t. 137                              |
| 16369 láta <i>Grev.</i>  | broad           | spreading      | 0 all sea.             | Bl     | wood and dead trees<br>Sow. t. 373. f. 9. <i>fuliginosa</i> |
| 16370 ulmária <i>Grev.</i>   | Elm             | punctiform     | 0 all sea.             | Gr. Bl | elm leaves  |
| 16371 discifórmis <i>Grev.</i>   | disk-shaped     | gregarious     | 0 all sea.             | D. Br  | dead hazel, &c.<br>Sow. t. 216. <i>depressa</i>             |
| 16372 emérsa <i>Sowerby</i>  | emerged         | gregarious     | 0 all sea.             | Dark   | lime branches<br>Sow. t. 372. f. 10                         |
| 16373 elliptica <i>Grev.</i>   | elliptical      | gregarious     | 0 all sea.             | Ru. Br | dead birches<br>Grev. crypt. 114                            |
| 16374 parállela <i>Sowerby</i>   | parallel        | deformed       | 0 all sea.             | Dark   | dead oaks<br>Sow. t. 374. f. 4                              |
| 16375 ribésia <i>Grev.</i>   | Currant         | furrowed       | 0 all sea.             | Bl. Bl | dead currants   |
| 16376 immérsa <i>Sowerby</i>   | immersed        | opaque         | 0 all sea.             | Bl     | dead hazels<br>Sow. t. 374. f. 1                            |
| 16377 nígro-annuláta <i>Grev.</i>                                      | black-ringed    | beautiful      | 0 all sea.             | Bl     | dead limes  |
| 16378 rubiginósa <i>Grev.</i>  | purplish        | crusts         | 0 all sea.             | Br     | dead trunks<br>Grev. crypt. 110                             |
| 16379 nívea <i>Grev.</i>   | snow-white      | gregarious     | 0 all sea.             | W      | dead oak branches   |
| 16380 prunástri <i>Grev.</i>   | Plum            | dense mass     | $\frac{1}{2}$ all sea. | Bl     | dead sloe branches  |
| 16381 quercína <i>Grev.</i>  | Oak             | contiguous     | $\frac{1}{2}$ all sea. | Bl     | dead oak branches   |
| 16382 ferrúginea <i>Grev.</i>  | rusty           | subconfluent   | 0 all sea.             | Bl     | decayed hazel   |
| 16383 corniculáta <i>Grev.</i>   | horned          | subcortical    | 0 all sea.             | Bl     | dead branches   |
| 2422. CUCURBITARIA. <i>Gray.</i> CUCURBITARIA. <i>Sp.</i> 5—13.        |                 |                |                        |        |   |
| 16384 Berbérídis <i>Grev.</i>  | Berberry        | crowded        | $\frac{1}{2}$ all sea. | Bl     | dead herb. branches<br>Grev. crypt. fl. t. 84               |
| 16385 pinástri <i>Grev.</i>  | Pinaster        | gregarious     | 0 all sea.             | R      | dead spruce branch.<br>Grev. crypt. fl. t. 50               |
| 16386 coccinea <i>Grev.</i>  | scarlet         | variable       | 0 all sea.             | Sc     | dead branches   |
| 16387 decolórans <i>Grev.</i>  | discoloring     | larger         | 0 all sea.             | Pa. R  | dead branches<br>Gr. cry. 135. <i>cinnabarina</i>           |
| 16388 elongáta <i>Grev.</i>  | long black      | cracks         | 0 all sea.             | Blsh   | furze branches<br>Grev. crypt. 195                          |
| 2423. CRYPTOSPHERIA. <i>Grev.</i> CRYPTOSPHERIA. <i>Sp.</i> 30—48.     |                 |                |                        |        |   |
| 16389 fagínea <i>Grev.</i>   | Beech-wood      | protruded      | 0 all sea.             | Bl     | dead beeches  |
| 16390 pulchélla <i>Grev.</i>   | pretty          | broad patc.    | 0 all sea.             | Bl     | dead birches<br>Grev. crypt. fl. t. 67                      |
| 16391 bífrons <i>Fries</i>   | two-fronted     | dry spots      | 0 wi. spr.             | Bl     | dry oak leaves<br>So. t. 373. f. 4. <i>circumvalata</i>     |
| 16392 Gnómón <i>Grev.</i>  | Gnomon          | yellow spots   | 0 all sea.             | Bl     | hazel leaves<br>Sower. 373. f. 6                            |
| 16393 Lonícifrá <i>Sowerby</i>   | Woodbine        | longit. cracks | 0 all sea.             | Bl     | honeysuck. branches<br>Sower. t. 393. f. 6                  |
| 16394 acúta <i>Grev.</i>   | acute           | very minute    | 0 all sea.             | Bl     | dead nettle stems   |
| 16395 Héderæ <i>Sowerby</i>  | Ivy leaf        | innate         | 0 all sea.             | Wah    | dry ivy leaves<br>Sower. t. 371. f. 5                       |
| 16396 millepunctáta <i>Grev.</i>                                       | punctated       | punctiform     | 0 all sea.             | Bl     | dead ashes<br>Grev. crypt. 201                              |
| 16397 subcónfluens <i>Sower.</i>                                       | subconfluent    | patches        | 0 spring               | Bl     | upon leaves<br>Sower. t. 370. f. 7                          |
| 16398 Táci <i>Grev.</i>  | Yew             | conv. spots    | 0 all sea.             | Bl     | dead yew leaves<br>Grev. crypt. fl. t. 13                   |



History, Use, Propagation, Culture,

2421. *Stromatosphæria*. From *stroma*, a layer or bed, and *sphæra*, a globe, in allusion to the imbedded character of the species. Apparently well divided by Dr. Greville from *Sphæria*.  
 2422. *Cucurbitaria*. So named in reference to the form of the sporules, which resemble little flasks. *Sphæria*

\* *Receptacle free, not bursting through bark.*

- 16360 Large black somewhat hemispherical, Surface smooth, Orifices of the spherules scarcely at all raised within composed of regular concentric strata  
 16361 Large pale and carnosae at length brownish-black and rigid spreading thick undulato-rugose: the surface dotted with raised points  
 16362 Brown hemispher. depress. somew. confu. when crowd. interior of same col. Spher. very slightly promin.  
 16363 Black thickish undulato-rugose whitish within, Mouths of the spherules round and somewhat prominent  
 16364 Black gregarious forming linear or oblong striæ smooth, Spherules very minute without obvious mouths  
 16365 Black irregular mostly free but sometimes bursting through the bark spreading confluent thickish-green within, Mouths of the spherules obtuse granulated prominent  
 16366 Globose purplish-red shining black within, Spherules in circumference with more or less promin. orifices

\*\* *Receptacle bursting through bark.*

a. *Orifices of the spherules plane, or slightly prominent.*

- 16367 Black plane spread, transversely on branch. smooth: inside whitish, Mouths of spherules not prominent  
 16368 Black plane spreading longitudinally white within, Mouths of the spherules somewhat prominent conical  
 16369 Black plane widely spreading somewhat rugose at first subdistinct at length confluent and united by a kind of irregular crust, Mouths of the spherules conical and angular  
 16370 Grey.-black scattered plano-conv. round. parasitic on elm leaves, Surface papill. with mouths of spherules  
 16371 Scattered distinct very gregarious round elevated plane dark-brown dotted with the orifices of the spherules, Orifices nearly plane  
 16372 Scatter. broadly thin, Perithecia immers. scatter. cover. with a dark membran. crust, Orifices burst. forth  
 16373 Scattered gregarious rather large elliptical rusty-brown smooth minutely pulverulent blackish and friable within, Mouths of the spherules quite concealed  
 16374 Short of a determinate figure emerging dark, Perithecia somewhat ovate, Orifices obtuse-unequal  
 16375 Rather small roundish elliptical dull-black bursting transversely through the bark depressed rugoso-sulcate, Surface minutely rough with the mouths of the spherules  
 16376 Innate-immersed effused smooth black, Perithecia ovate immersed, Orifices prominent somew. depressed  
 16377 Gregar. distinct bursting through the bark which is marked with a narrow black ring, Disk small covered by an evanescent membr. ben. white pulverul. dott. with the black orifices of the immersed spherules  
 16378 Thickish purplish-brown black within covered with a min. pulverul. substance, Spher. conceal. Spor. oval

b. *Orifices of the spherules more or less spinose.*

- 16379 Scattered very gregarious somewhat conical roundish: the disk pulverulent white, Orifices of the spherules somewhat prominent and converging  
 16380 Deep black bursting transversely through the bark oblong elevated, Orifices of the spherules crowded level-topped acutely 4-sided and grooved  
 16381 Black round much elevated very gregarious: the orifices thick irregular 4-sided  
 16382 Black gregarious sometimes subconfluent bursting transversely through the bark ferruginous within, Orifices of spherules erect straight cylindrical spinose  
 16383 Receptacle very small black, Spherules few crowded with thickish cylindrical elongated obtuse coarctate orifices umbilicate at their apex and piercing the bark  
 16384 Black ellipt.obl. burst. longitudin. through the bark, Spher. seat. on recept. crowd. rugose somew. tessellat.  
 16385 Clustered, Spherules globose dotted red at length black at first immersed in the receptacle, Tubes containing the sporules attenuated at each extremity  
 16386 Very gregarious, Spherules minute clustered scarlet oval irregular in size smooth: the mouth papilliform  
 16387 Dull pale-red scattered or crowded on the receptacle, Spherules globose tuberculated and rugose  
 16388 Black, Stroma very long, Perithecia at first immersed at length sessile crowded globose, Orifice papilliform with a circular depression around it

\* *Spherules collected into circular clusters.*

- 16389 Black, Spherules few: the mouths elongated rough converging  
 16390 Black spherules aggregated forming a dense circle, Mouths filiform flexuose converging depressed  
 16391 Innate grow. on both sides, Leaf arrayed in round spots flat black, Perith. convex promin. becom. bossed

\*\* *Spherules more or less scattered, or simply aggregated.*

a. *Spherules with an orifice.*

- 16392 Spherules few aggregated globose black: the orifice suberect filiform shining style-like  
 16393 Gregar. burst. forth, Perithecia glob. nearly separate fine black becom. ragged and cup-shap. Orifice simp.  
 16394 Black shining very numerous ovate conical: the mouth short thick cylindrical piercing the epidermis like a black point, After the decay of the epidermis the spherules are naked  
 16395 Scattered, Perithecia prominent convex smooth black, Orifice open white  
 16396 Spherules black minute very numerous globose white within immersed in the substance of the bark: the mouth very short scarcely piercing the epidermis which seems covered with innumerable dots  
 16397 Upon leaves, Perithecia innate prominent punctiform globose black clustered in unequal spots  
 16398 Minute scattered, Spherules depressed: the mouth very short not exerted, Epidermis of the leaf convex and slightly ruptured, Sporules naked extremely minute

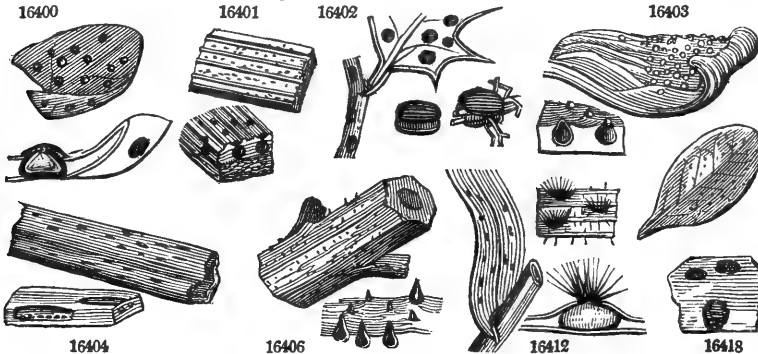


and *Miscellaneous Particulars.*

Cucurbitula of Tode, seems to have afforded the type of the genus, which contains most of the species constituting the seventh section of Spheria in Person's system.

2423. *Cryptospheria*. A genus formed by Dr. Greville, to include those plants formerly referred to Spheria,

|                                  |                |               |            |          |        |                                   |                                      |
|----------------------------------|----------------|---------------|------------|----------|--------|-----------------------------------|--------------------------------------|
| 16399 strobilina <i>Grev.</i>    | Pine-cone      | uneven        | 0          | all sea. | Bl     | dead fir cones                    |                                      |
| 16400 lauri <i>Grev.</i>         | Laurel         | scattered     | 0          | all sea. | Blsh   | dead laurel leaves                | Sower. t. 371. f. 4                  |
| 16401 duplex <i>Sowerby</i>      | double         | variable      | 0          | all sea. | Bl     | Spargan. stems, &c.               | Sower. t. 375. f. 4                  |
| 16402 bifrons <i>Grev.</i>       | two-fronted    | scattered     | 0          | all sea. | Bl     | dead holly leaves                 | Sower. t. 316                        |
| 16403 aurantia <i>Grev.</i>      | orange         | succulent     | 0          | all sea. | Ysh    | dead fungi                        | Grev. crypt. 78                      |
| 16404 Pteridis <i>Sowerby</i>    | Brake          | confluent     | 6          | spring   | Bl     | P. aquilina stems                 | Sower. t. 394. f. 10                 |
| 16405 decompens <i>Sow.</i>      | decomposing    | spots         | 0          | all sea. | Bl     | dead poplar branch.               | Sower. t. 217                        |
| 16406 acuminata <i>Sower.</i>    | acuminate      | very min.     | 0          | all sea. | Bl     | thistle stems                     | Sower. t. 394. f. 3                  |
| 16407 curvirostra <i>Sower.</i>  | curv.-beaked   | very min.     | 0          | all sea. | Bl     | Umbellifer. stems                 |                                      |
| 16408 Tamariscinis <i>Grev.</i>  | Tamarisk       | patches       | 0          | all sea. | Bl     | dead Tam. german.                 | Grev. crypt. fl. t. 45               |
| 16409 semi-immersa <i>Grev.</i>  | ½-immersed     | shining       | 0          | all sea. | Bl     | dead honeysuckle                  |                                      |
| 16410 herbárum <i>Grev.</i>      | Herbaceous     | punctif.      | 0          | winter   | Bl     | dead herbac. plants               |                                      |
| 16411 nebulosa <i>Grev.</i>      | cloudy         | spots         | 0          | winter   | Bl     | dead herbac. plants               |                                      |
| 16412 capillata <i>Grev.</i>     | hairy          | very min.     | 0          | all sea. | Br.Bl  | dead lvs. of <i>Holcus mollis</i> | Grev. crypt. fl. t. 69               |
| 16413 Ægopódii <i>Grev.</i>      | Ægopodium      | spots         | 0          | all sea. | Blsh   | living lvs. of Ægopod.            | Podagraria                           |
| 16414 punctiformis <i>Grev.</i>  | dot-like       | white spots   | 0          | all sea. | Bl     | dead oak and other leaves         |                                      |
| 16415 microscópica <i>Grev.</i>  | microscopic    | cld.-lik. sp. | 0          | all sea. | Bl     | dead Port. laurel lvs.            |                                      |
| 16416 glauco-punctata <i>Gr.</i> | glauc. dotted  | cld.-lik. sp. | 0          | all sea. | B.Bl   | dead <i>Rusc. aculea</i> lvs.     |                                      |
| 16417 arundinacea <i>Sow.</i>    | Reed           | minute        | 0          | spring   | Bl     | reed stems                        | Sower. t. 336                        |
| 16418 arbuticola <i>Sower.</i>   | arbutus        | polymorp.     | 0          | spring   | Bl     | dead <i>Uva ursi</i> lvs.         | Sower. t. 370. f. 6                  |
| 9424. HETEROSPHERIA <i>Grev.</i> | HETEROSPHERIA. |               | Sp. 1.     |          |        |                                   |                                      |
| 16419 patella <i>Grev.</i>       | collapsed      | shining       | 0          | all sea. | Bl     | dead herbac. stalks               | Grev. crypt. 103                     |
| 2425. SPHERIA <i>Haller.</i>     | SPHERIA.       |               | Sp. 38—63. |          |        |                                   |                                      |
| 16420 spermoides <i>Pers.</i>    | seed-like      | crowded       | 0          | all sea. | Bl     | rotten wood                       | Grev. crypt. fl. t. 6                |
| 16421 Peziza <i>Pers.</i>        | cup            | irreg. clust. | 0          | all sea. | R      | dead dry wood                     | Grev. crypt. fl. 186                 |
| 16422 Dolium <i>Pers.</i>        | tub            | contiguous    | 0          | all sea. | Bl     | dead herbac. stalks               |                                      |
| 16423 affinis <i>Grev.</i>       | red mouthed    | pretty        | 0          | aut.     | R      | on <i>Bangia atrovirens</i>       | Grev. crypt. 186                     |
| 16424 citrina <i>Pers.</i>       | yell. web-like | byssoid       | 0          | aut. wi. | Y      | on rotten wood, &c.               | Grev. crypt. 215                     |
| 16425 concéntrica <i>Bolton</i>  | concentric     | confuent      | 0          | aut.     | Blsh   | upon trees                        | Bolton, t. 180                       |
| 16426 tuberculosa <i>Bolton</i>  | warted         | superficial   | 0          | all sea. | Fusc.  | bark of trees                     | Bolton, t. 133. f. 1                 |
| 16427 sérpens <i>Pers.</i>       | creeping       | broad pat.    | 0          | spr. wi. | Bl     | dead wood                         | Sow. t. 372. f. 11. <i>crustacea</i> |
| 16428 réptans <i>Sowerby</i>     | branched       | superficial   | 0          | aut.     | Dark   | dead wood                         | Sower. t. 395. f. 1                  |
| 16429 lævia <i>Sowerby</i>       | smooth         | immersed      | 0          | aut.     | Bl     | dead wood                         | Sower. t. 394. f. 5                  |
| 16430 nummularia <i>Fries</i>    | moneypwort     | orbicular     | 0          | aut. wi. | Dark   | dead wood                         | Sower. t. 373. <i>diffusa</i>        |
| 16431 enteroleuca <i>Fries</i>   | white-heart.   | crustace.     | 0          | all sea. | Wsh    | dry branches                      | Sow. t. 120. ? <i>tentaculata</i>    |
| 16432 leiphæmia <i>Fries</i>     | bordered       | immersed      | 0          | spr. su. | Pallid | dead oak branches                 | Sower. t. 218. <i>Saturnus</i>       |
| 16433 oblonga <i>Sowerby</i>     | oblong         | in circles    | 0          | all sea. | Bl     | birch bark                        | Sower. t. 374. f. 7                  |
| 16434 convergens <i>Sower.</i>   | converging     | patches       | 0          | all sea. | Bl     | smooth bark                       | Sower. t. 374. f. 6                  |
| 16435 Nidula <i>Sowerby</i>      | bird's nest    | spots         | 0          | aut.     | Dark   | bean roots                        | Sower. t. 394. f. 2                  |
| 16436 hydróphora <i>Sower.</i>   | pitcher        | small         | 0          | aut. sp. | Or. R  | soft beech wood                   | Sower. t. 23                         |
| 16437 sanguinea <i>Sibth.</i>    | blood-red      | minute        | 0          | spring   | Crim.  | naked wood                        | Grev. crypt. 175                     |
| 16438 papillosa <i>Sowerby</i>   | pimpled        | gregarious    | 0          | all sea. | Dark   | rotten wood                       | Sower. t. 236                        |
| 16439 stercoraria <i>Sower.</i>  | dung           | middle sized  | 0          | spring   | Bl     | dung                              | Sower. t. 357                        |
| 16440 episphe'ria <i>Tode</i>    | parasitic      | dots          | 0          | wi. spr. | R      | Stromatospheria                   | Grev. crypt. 175                     |
| 16441 byssisèda <i>Pers.</i>     | byssoid        | spread. wide  | 0          | all sea. | Br.Bl  | dead branches                     |                                      |
| 16442 hirsuta <i>Pers.</i>       | hairy          | shining       | 0          | all sea. | Bl     | dead branches                     |                                      |
| 16443 pilosa <i>Pers.</i>        | pilose         | shining       | 0          | all sea. | Br     | dead branches                     |                                      |
| 16444 calva <i>Pers.</i>         | bald           | punctif.      | 0          | all sea. | Bl     | dry rotten branches               |                                      |
| 16445 atrea <i>Grev.</i>         | golden         | crowded       | 0          | all sea. | Or     | decay. large fungi                | Grev. crypt. t. 47                   |
| 16446 rosella <i>Alb.</i>        | rosy           | spots         | 0          | aut.     | R      | red                               | Grev. crypt. 138                     |



## History, Use, Propagation, Culture,

which are destitute of a receptacle and remain concealed (*σεντρος*, hidden, whence the name) beneath the epidermis of vegetables, which is only perforated by their mouths. They are further characterized by having their spherules not enclosed in filiform tubes as in true Sphæria.

- 16399 Black roundish oblong scattered bursting through the epidermis, Orifice irregular papillose. [minute  
 16400 Scatter. rather min. plano-convex black. split. Epider. in centre and becom. umbilicat. Spor. naked very  
 16401 Scattered, Perithecia immersed globose black concealed, Orifices dilated naked hemispherical  
 16402 Scattered black shining plane: the margin slightly raised; the epidermis united with the plant and  
 bursting at the centre into 3-5 acute segments, Sporules naked oblong in 3-5 distinct masses  
 16403 Gregarious often crowded, Spherules yellowish globose somewhat fleshy, Orifices short cylindrical sur-  
 rounded by an orange web  
 16404 Somew. innate parallel confu. in. black burst. with paral. slits, Thallus black, Perith. in rows connate  
 16405 Scattered, Perithecia immersed globose, Orifices min. convex peeping out of a black spot becom. bossed  
 16406 Gregarious, Perithecia somewhat immersed ovate black, Orifice bursting conical acute  
 16407 Gregarious, Perithecia covered ovate black, Orifices bursting equal smooth longer  
 16408 Scattered under the epidermis which is very convex and ruptured in the centre, Mouth very short obtuse  
 not exerted, Sporules oval in filiform tubes  
 16409 Scattered globose with a very short rounded umbilicated mouth: at first the mouth only visible at length  
 the spherule itself semi-exserted falling out in decay and leaving a cavity  
 16410 Spherules minute scattered very numerous black round depress. Orifice papilliform piercing the epidermis  
 like minute dots at length naked when it decays  
 16411 Spherules excessively minute scattered forming dark greyish cloud-like longitudinal spots on the smooth  
 stalks of plants: the orifice somewhat acute penetrating the epidermis

*b. Spherules without an evident orifice.*

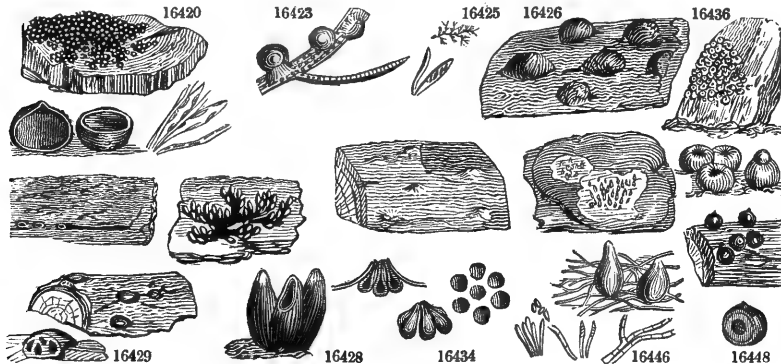
- 16412 Parasitic on the leaves of dead grasses scattered brown black white within flat hemispherical: the apex  
 furnished with a tuft of black rigid diverging hairs  
 16413 Scattered or in small groups minute blackish roundish producing pale spots on the leaf  
 16414 Scattered very gregarious fructiform somewhat shining rarely dehiscent  
 16415 Excessively minute very gregarious so as to form dark cloud-like irregular spots on the leaf  
 16416 Spherules very numerous punctiform glaucous or blueish-black rendering the leaf pale  
 16417 Bursting forth in. black with hardly any thallus, Perithecia in 1 or 2 rows somew. connate black inside  
 16418 Gregar. confu. cover. with a blackened epider. Perith. deform. black: disk finally burst. forth and opaque  
 16419 Forming nearly equidistant spots upon the stems of large dead herbaceous plants, Very common

*\* Spherules with an orifice, not hairy.*

- 16420 Black globose nearly smooth crowded: the orifice minute slightly papilliform  
 16421 Fine red min. smooth gregar. glob. with a very min. papill. orifice, Spher. at length collapsed and concave  
 16422 Black scattered gregarious roundish ovate acute shining: the mouth papilliform  
 16423 Subregar. or scattered sessile orange-colored smooth glob. destitute of orifice whit. and filament. at base  
 16424 Perithecia glob. subimbric. Orifices promin. convex furmish. with an effused filament. strat. of a yell. color  
 16425 Globose deformed brownish-black banded within with concentric layers, Perithecia oblong immersed  
 16426 Convex pulvinate fuscous whole-colored inside, Perithecia globose, Orifices bossed  
 16427 Effused thin flattened black, Perithecia subglobose prominent pimpled  
 16428 Dark, Layer diffused branched, Perithecia oblong smooth pimpled  
 16429 Elliptical smooth black white inside, Perithecia immersed ovate without orifice  
 16430 Of a regular figure very flat contigu. dark extern. and internally, Perith. immers. ov. Orif. glob. promin.  
 16431 Orbic. conv. separ. Layer white, Perithecia min. Orifices numer. disengaged glob. and rostell. somew. rug.  
 16432 Pustular, Layer adhering to the bark and emerging, Disk palish, Orifices exerted oval and rostellate  
 16433 Perithecia subovate, Orifices long thickened at end united in an opaque disk bursting transversely  
 16434 Minute circinate, Perithecia about 6 ovate and converging, Orifices round somewhat tapering emerging  
 16435 Caspitose growing to the surface, Perithecia stalked ovate acute smooth dark  
 16436 Gregarious soft, Perithecia globose smooth somew. pimpled orange-red becoming concave by collapsion  
 16437 Scattered soft very small, Perithecia ovate smooth pimpled crimson  
 16438 Dark, Perithecia thin globose smooth, Orifice papillaform  
 16439 Black shining, Perithecia globose rigid smooth, Orifice papillaform  
 16440 Sess. min. soft aggregated or scattered smooth blood-red, Perithecia subglob. collapsing, Orifice papilliform

*\*\* Spherules with an orifice, hairy.*

- 16441 Rather large brownish-black shining globose with a papilliform orifice arising from a dense brown  
 filamentous stratum which sometimes partly envelops the spherules  
 16442 Gregarious somewhat clustered quite black, Spherules roundish ovate somewhat tuberculate with short  
 rigid scattered hairs. Orifice obtuse  
 16443 Spherules minute crowded roundish: when young appearing like one mass of diverging brown hairs at  
 length almost naked towards the apex and black, Orifice minute papilliform  
 16444 Black gregar. hemispher. minutely granulat.: the apex naked somew. shin.; the base hairy, Orif. papill.  
 16445 Gregar. very crowd. ov. somew. acum. orange, Orifice indist. but the spherules escape in a pulverul. form  
 16446 Gregarious rose-colored, Spherules ovato-globose subacute or papillose placed on a paler colored web



*and Miscellaneous Particulars.*

242a. *Heterosphaeria*. From *irigos*, various, and *Sphaeria*; but we do not know in allusion to what peculiarity. A small black dot-like plant.

2425. *Sphaeria*. In allusion to the spherical figure of the species, which are exceedingly numerous and dull.

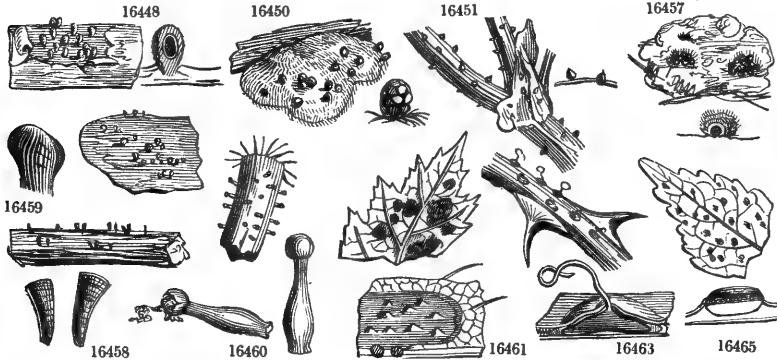
|       |   |                                  |                        |        |                  |          |                              |   |
|-------|---|----------------------------------|------------------------|--------|------------------|----------|------------------------------|---|
| 16447 | <i>bifórmis Pers.</i><br><i>β terrístris Sow.</i> | two-formed<br><i>terrestrial</i> | scattered<br>clustered | 0<br>0 | spring<br>spring | Bl<br>Bl | rotten wood<br>gravelly soil | <i>Pers. syn. t. 2. f. 14</i><br><i>Sower. t. 373. f. 7</i> |
| 16448 | <i>morifórmis Pers.</i>                           | Mulberry                         | contiguous             | 0      | all sea.         | Bl       | dead wood                    | <i>Sow. t. 337. claviformis</i>                             |
| 16449 | <i>lignária Grev.</i>                             | black wood                       | punctiform             | 0      | all sea.         | Bl       | dead wood                    | <i>Grev. crypt. 82</i>                                      |
| 16450 | <i>rugósa Grev.</i>                               | rugose                           | tessellated            | 0      | all sea.         | Bl       | dead Polypor. abietinus      | <i>Grev. crypt. f. t. 39</i>                                |
| 16451 | <i>Pisi Sowerby</i>                               | Pea                              | scattered              | 0      | wi. spr.         | Bl       | dead pease haulm             | <i>Sower. t. 393. f. 8</i>                                  |
| 16452 | <i>pálvis-pýrius Pers.</i>                        | small black                      | seed-like              | 0      | all sea.         | Bl       | dead dry wood                | <i>Grev. crypt. 152</i>                                     |
| 16453 | <i>irreguláris Sower.</i>                         | irregular                        | pulvinate              | 0      | aut.             | Brsh     | dead wood                    | <i>Sower. t. 374. f. 9</i>                                  |
| 16454 | <i>Vaccinii Sower.</i>                            | Cranberry                        | patches                | 0      | wi. spr.         | Dark     | live Vacc. Vitisídea         | <i>Sower. t. 373. f. 1</i>                                  |
| 16455 | <i>myricáarpa Fries</i>                           | minute-crowd.                    | punctiform             | 0      | aut.             | Bl       | dead wood                    | <i>Grev. crypt. 152</i>                                     |
| 16456 | <i>verrucósa Grev.</i>                            | warty                            | areolated              | ½      | aut. wi.         | Bl       | cup of fungi                 | <i>Grev. crypt. 39</i>                                      |
| 16457 | <i>hirsúta Sowerby</i>                            | hirsute                          | clustered              | 0      | all sea.         | Bl       | plaster                      | <i>Sower. t. 386. f. 3</i>                                  |
| 2426. | <i>LO'PHIUM. Fries.</i>                           | LOPHIUM.                         |                        |        |                  |          | <i>Sp. 2-3.</i>              |   |
| 16458 | <i>elátum Grev.</i>                               | elongated                        | scattered              | ½      | all sea.         | Bl       | pine bark                    | <i>Grev. crypt. 177</i>                                     |
| 16459 | <i>mytilinum Fr.</i>                              | muscle-shap.                     | crustaceous            | 0      | all sea.         | Bl       | pine bark                    | <i>Grev. crypt. 177</i>                                     |

Division II. *Cytispori.*

|       |                            |              |             |   |          |        |                    |                                    |
|-------|----------------------------|--------------|-------------|---|----------|--------|--------------------|------------------------------------|
| 2427. | <i>SPHÆRONÆMA. Fries.</i>  | SPHÆRONÆMA.  |             |   |          |        | <i>Sp. 1-15.</i>   |                                    |
| 16460 | <i>subulátum Fries</i>     | awl-shaped   | spiculiform | ½ | aut.     | Ciner. | On Agarics         | <i>Grev. crypt. 189</i>            |
| 2428. | <i>SEPTA'RIA. Fries.</i>   | SEPTARIA.    |             |   |          |        | <i>Sp. 1-2.</i>    |                                    |
| 16461 | <i>U'vni Fr.</i>           | Elm-leaf     | stains      | 0 | aut.     | Br     | elm leaves         | <i>Grev. crypt. 112</i>            |
| 2429. | <i>CYTISPO'RA. Ehrenb.</i> | CYTISPO'RA.  |             |   |          |        | <i>Sp. 2-18.</i>   |                                    |
| 16462 | <i>Chrysospérma Fr.</i>    | yellow-seed. | spots       | 0 | all sea. | Blsh   | poplar bark        | <i>Sow. t. 138 cirrhata</i>        |
| 16463 | <i>Rosárum Grev.</i>       | Rose twig    | pustular    | 0 | aut.     | Pallid | dead rose branches | <i>Grev. crypt. 20</i>             |
| 2430. | <i>PHO'MA. Fr.</i>         | PHOMA.       |             |   |          |        | <i>Sp. 2-5.</i>    |                                    |
| 16464 | <i>saligna Fr.</i>         | willow leaf  | pimpled     | 0 | wi. spr. | Brsh   | dead willow leaves | <i>Sow. t. 372. f. 1. salicina</i> |
| 16465 | <i>Pópuli Fr.</i>          | poplar leaf  | pimpled     | 0 | wi. spr. | Test.  | dead poplar leaves | <i>Sower. t. 374. f. 2</i>         |

Division III. *Phacidiaeci.*

|       |                            |  |            |   |          |      |   |                                   |
|-------|----------------------------|--|------------|---|----------|------|---|-----------------------------------|
| 2431. | <i>DOTHIDE'A. Fr.</i>      | DOTHIDEA.                              |            |   |          |      | <i>Sp. 7-54.</i>                                |                                   |
| 16466 | <i>typhina Fr.</i>         | Bull-rush                              | encrusting | 0 | sum.     | Y    | <i>Sphaeria. Sowerby</i><br>live stems of grass | <i>Grev. crypt. 204</i>           |
|       |                            | <i>Sphaeria spiculifera Sower. 270</i> |            |   |          |      |   |                                   |
| 16467 | <i>U'vni Fr.</i>           | Elm                                    | spots      | 0 | su. aut. | Blsh | elm leaves                                      | <i>Grev. crypt. 200</i>           |
| 16468 | <i>Robertiána Fr.</i>      | shining                                | punctiform | 0 | su. aut. | Bl   | live Geran. Roberti-<br>an. lvs.                | <i>Grev. crypt. 146</i>           |
| 16469 | <i>al'nea Pers.</i>        | alder                                  | punctiform | 0 | aut.     | Bl   | live alder leaves                               | <i>Grev. crypt. 146</i>           |
|       | <i>Xyloma alneum Pers.</i> |  |            |   |          |      |   |                                   |
| 16470 | <i>rúbra Fr.</i>           | red                                    | patches    | 0 | aut.     | R    | leaves  | <i>Grev. crypt. 120</i>           |
| 16471 | <i>fólva Fr.</i>           | tawny                                  | patches    | 0 | aut.     | Br   | leaves  |                                   |
| 16472 | <i>betulina Fries</i>      | Birch-leaf                             | punctiform | 0 | su. aut. | Blsh | birch leaves                                    | <i>Grev. crypt. 200</i>           |
| 2432. | <i>RHYTIS'MA. Fries.</i>   | RHYTISMA.                              |            |   |          |      | <i>Sp. 1-22.</i>                                |                                   |
| 16473 | <i>corrugátum Fr.</i>      | wrinkled                               | gregarious | 0 | all sea. |      | crusts of lichens                               | <i>E. b. 1464. L. graniformis</i> |
| 2433. | <i>PHACI'DIUM. Fries.</i>  | PHACIDIUM.                             |            |   |          |      | <i>Sp. 2-20.</i>                                |                                   |
| 16474 | <i>coronátum Grev.</i>     | crowned                                | black spot | 0 | all sea. | Bl   | dead oak leaves                                 | <i>Grev. crypt. f. t. 52</i>      |
| 16475 | <i>dentátum Schm.</i>      | toothed                                | white spot | 0 | all sea. | Bl   | oak leaves                                      |                                   |
| 2434. | <i>HYSTÉRIUM. Tode.</i>    | HYSTERIUM.                             |            |   |          |      | <i>Sp. 12-52.</i>                               |                                   |
| 16476 | <i>lineáre Fries</i>       | linear                                 | lines      | 0 | all sea. | Bl   | dead wood                                       | <i>Grev. crypt. 167</i>           |
| 16477 | <i>maculáre Fries</i>      | pale spot                              | blotches   | 0 | aut.     | Bl   | dead leaves                                     | <i>Grev. crypt. 129</i>           |



History, Use, Propagation, Culture,

cult of determination. Most of them are highly curious objects when minutely examined, and some even beautiful. *Sphaeria militaris* is a fine species, about an inch in height, the head being ovate, of a beautiful scarlet, granulated like orange-peel.

2426. *Lophium.* So named from *λοφος*, a little elevation. Differs from *Sphaeria* in being completely evolved, dehiscient, compressed, without a veil, and having a nucleus crumbling to powder. The plants are very similar to the valves of a bivalved shell.

2427. *Sphaeronæma.* From *σφαίρα*, a sphere, and *ναιμα*, gelatine, in allusion to the round mucous bag in which the sporules are enclosed. The species are minute innate plants, generally growing on wood, very permanent, and often cohering by their base.

2428. *Septaria.* Growing upon dead leaves, in the form of clouds or spots. Named upon account of the septa of the sporidia.

2429. *Cytispora.* From *κύρις*, a little chest, and *σπώρα*, a sporule. The species are very common, growing upon plants, immersed, soft, bearing fruit during damp weather, and even by watering only, within doors. The most essential character consists not in the cirrhi, common to many fungi, but in the deformed cellular perithecia, by which it may be easily known in any state.

- 16447 Perithecia somew. ov. rather wart. black cover. with strigose hairs of same col. Orifice rather lengthened  
 β Perithecia numerous seated on a little strigose villous crustaceous stalk  
 \*\*\* Spherules without an evident orifice.
- 16448 Gregarious obovate deep-black smooth tuberculated  
 16449 Spher. minute solitary or somew. cluster. black ovate setoso-rugose mouthless, Spor. ovate in cylindr. tubes  
 16450 Minute black scattered globose very rugose and tuberculated parasitic on the pileus of Polyporus abietinus  
 16451 Scatter. Perith. ellipt. rounded depress. plaited lengthwise opaque black, Orifice hidden somew. compress.  
 16452 Spher. black min. very numer. crowded roundish somew. tuberculated and often with a transverse furrow  
 16453 Emerging prominent irregular brownish-black rufous brown internally, Orifices concealed  
 16454 Tufted innate on the surface, Perithecia subglobose solid without orifice at first villous afterwards naked  
 16455 Naked more or less crowd. ovate-glob. black shining, Perith. very small smooth at first without an orifice  
 16456 Minute black scattered globose very warty, Parasitic on the cap of Polyporus abietinus  
 16457 Perithecia subglobose ovate tuberculate black covered with scattered hairs of the same color

- 16458 Stipit. compress. black transverse. striat. dilat. gradual. from stipes into an elongat. wedge-shap. peritheci.  
 16459 Somewhat stalked dilated upwards striated across shining

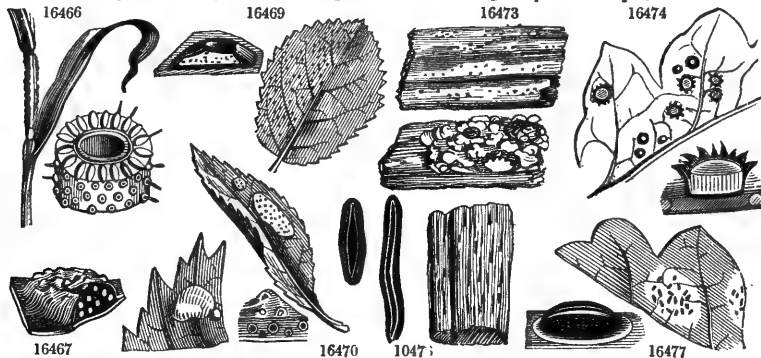
Division II. *Cyrtispori.*

- 16460 Perithecia conico-subulate acute yellowish somewhat pellucid, Globule very pale  
 16461 Spherules aggregated, Sporidia 3 or 4 times divided, Cirrhi often becoming effused  
 16462 Cells impressed on the receptacle, Disk emerging blackish, Cirrhi yellow [with a cottony margin  
 16463 Sporulifer. tendr. white simp. Spher. waved : when divid. horizontal. manifest under epider. Orifice black.  
 16464 One or many-celled convex brownish-black somewhat umbonate in the centre  
 16465 Generally many-celled roundish flat brownish-testaceous, Orifices obsolete

Division III. *Phacidiaeci.*

- 16466 Long, surrounding the culms whitish becoming dark-yellow at length rendered granular by the orifices  
 16467 Epiphyll. round. confu. convex cinereous-black : internally black with white cells, Orifices like granulat.  
 16468 Epiphyllous subgregarious hemispherical smooth shining very black white within  
 16469 On both sides of the leaf regularly scattered roundish black shining collapsed rugose and plaited  
 16470 Plane orange-red, Sporules unequal globose  
 16471 Plane pale fulvous  
 16472 Epiphyllous somewhat angular and irregular in form subconfluent tuberculose black shining black within :  
 the cellules white  
 16473 Minute innate on the surface rugose plaited opening with many flexuose cracks  
 16474 Orbicul. subhemispher. depressed black dehiscent in numer. acute segm. Disk pale greenish or yellowish  
 16475 Four-sided small black or whitish spots on the leaf splitting in 4-5 acute segments, Disk dingy

- 16476 Subimmersed crowded parallel linear black, Lips of the orifice tumid smooth, Disk linear  
 16477 Collected on pale defined spots roundish elliptical black : the margin depressed and paler



and Miscellaneous Particulars.

2430. *Phoma*. Said by its author to be named in allusion to the pustular appearance of the plants, which are of a brownish color, and grow within the substance of leaves.  
 2431. *Dothidea*. A genus which has been named from *δοθίω*, a tubercle, and *ειδος*, similar, and appears to be very distinct. The species are numerous, growing upon plants; many of them are innate and dark, a few colored.  
 2432. *Rhytisma*. From *ρῆσις*, a wrinkle. *R. corrugatum*, the Lichen graniformis of English botany, is a gregarious, subcorneous, shining flattish plant, referred to Lichens by Acharius, but considered by Fries and Ehrenberg to belong to Fungi. It is common upon the crusts of Lichens and upon dry wood.  
 2433. *Phacidium*. A name with the same meaning as *Dothidea*; from *φάσις*, and *ειδος*. Intermediate between *Rhytisma* and *Hysterium*, but differing from both in the manner of dehiscence. The species are somewhat innate, epiphytous, tolerably permanent, blackish, and with a kernel which becomes softish.  
 2434. *Hysterium*. From *ὑστέρω*, penury, in allusion, perhaps, to the diseased and squalid appearance which trees attacked by this fungus assume. Minute plants, resembling *Opegrapha*, and like that genus, found occupying the bark of trees; but destitute of a crust.



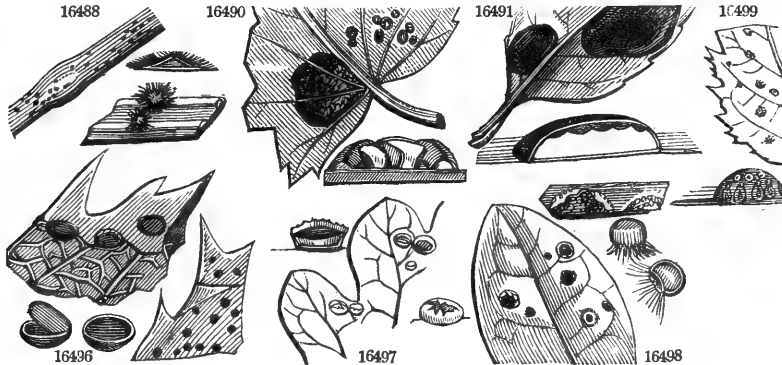
|                        |                    |             |      |                |                      |                       |
|------------------------|--------------------|-------------|------|----------------|----------------------|-----------------------|
| 16478 Rúbil Pers.      | Bramble-stem lines | 0           | aut. | Bl             | bramble branches     | Gre. crypt. 24        |
| 16479 foliocolum Fries | various            | dot-like    | 0    | spring Bl      | common ivy leaf      | Gre. crypt. 129       |
| 16480 melaleúcum Fries | blk. & white       | dots        | 0    | aug. Bl        | Vacc. Vitis idea     | Gre. crypt. 88        |
| 16481 pulicære Pers.   | fea-like           | very grega. | 0    | all sea. Bl    | rugged oak bark      | Gre. crypt. 167       |
| 16482 Fráxini Pers.    | Ash                | corneus     | 0    | all sea. Bl    | dead ash branches    | Gre. crypt. 72        |
| 16483 quercinum Pers.  | Oak                | gregarious  | 0    | all sea. Gr.Br | dead oak branches    |                       |
| 16484 angustátum Pers. | tapered            | minute      | 0    | all sea. DL.B  | dead wood & stumps   |                       |
| 16485 Pinástri Pers.   | Pinaster           | scattered   | 0    | all sea. Bl    | dead Scotch fir lvs. | Gre. crypt. fl. t. 60 |
| 16486 Juniperi Greu.   | Juniper            | spots       | 0    | all sea. Bl    | dead juniper leaves  | Gre. crypt. fl. t. 26 |
| 16487 graminéum Pers.  | Grass              | gregarious  | 0    | all sea. Bl    | dead grass leaves    | Gre. crypt. fl. t. 87 |

Division IV. *Xylomacci.*

|                             |                |              |   |                |                          |                                   |
|-----------------------------|----------------|--------------|---|----------------|--------------------------|-----------------------------------|
| 9435. ACTINOTHYRIUM. Kunze. | ACTINOTHYRIUM. | Sp. 1.       |   |                |                          |                                   |
| 16488 gráminis Kunze.       | grass          | gregarious   | 0 | spring Bl      | culms of grasses         | Gre. crypt. 218                   |
| 2436. LEPTOSTRO'MA. Fr.     | LEPTOSTROMA.   | Sp. 1-9.     |   |                |                          |                                   |
| 16489 scirpinum Fr.         | Rush           | spots        | 0 | su.aut. Bl     | Scirpus lacustris        | Fries obs. t. 1. f. 6             |
| 2437. XYLO'MA. Pers.        | XYLOMA.        | Sp. 8-14.    |   |                |                          |                                   |
| 16490 acerinum Pers.        | Maple          | broad spots  | 0 | all sea. Bl    | living sycamore leaves   |                                   |
| 16491 salicinum Pers.       | Willow         | solid spots  | 0 | all sea. Bl    | living Sal.caprea lvs.   | Gre. crypt. 118                   |
| 16492 salignum Pers.        | Sallow         | yell. spots  | 0 | all sea. Br    | decaying Sal.caprea lvs. | Gre. crypt. 118                   |
| 16493 populinum Pers.       | Poplar         | small spots  | 0 | all sea. Brsh  | aspens leaves            |                                   |
| 16494 Geránii Greu.         | Geranium       | crowded      | 0 | all sea. DL.Bl | living Geran.sylv.lvs.   |                                   |
| 16495 fagineum Pers.        | Beech          | very min.    | 0 | all sea. Bl    | dead beech leaves        |                                   |
| 16496 concáve Greu.         | concave        | scatt. spots | 0 | all sea. Bl    | dead holly leaves        | Sow. t. 317. <i>Sphaeria</i>      |
| 16497 peziáotideum Pers.    | Peziza-like    | punctiform   | 0 | all sea. Bl    | dead oak leaves          | So. t. 118. <i>Pez.comitialis</i> |
| 2438. LASIOBOTRY'S. Kunze.  | LASIOBOTRY'S.  | Sp. 1-7.     |   |                |                          |                                   |
| 16498 Lonicære Kunze        | Woodbine       | spots        | 0 | sum. Bl        | honeysuckle leaves       | Gre. crypt. 191                   |
| 2439. ASTERO'MA. Dec.       | ASTEROMA.      | Sp. 2-7.     |   |                |                          |                                   |
| 16499 U'ni Greu.            | Elm            | pale spots   | 0 | all sea. Bl    | living elm leaves        |                                   |
| 16500 Alchemilla Greu.      | Lady's Mantle  | pale spots   | 0 | all sea. Bl    | living Alchemilla lvs.   |                                   |

Class III. TRICHOSPERMI. — División I. *Lycoperdinet.*

|                           |                            |              |   |              |  |                         |
|---------------------------|----------------------------|--------------|---|--------------|--|-------------------------|
| 2440. ONYGE'NA. Pers.     | ONYGENA.                   | Sp. 1.       |   |              |  |                         |
| 16501 equina Pers.        | horse-hoof                 | minute       | ½ | aut. Wh      | decaying hoofs, and similar substances | Willd. fl. berol. f. 20 |
| 2441. TULO'STOMA. Pers.   | TULOSTOMA.                 | Sp. 1-3.     |   |              |  |                         |
| 16502 brumále Pers.       | winter                     | subsoliary   | 1 | au.oct. W.Br | pastures                               | Bulliard, t. 471. f. 2  |
| 2442. SCLERODER'MA. Pers. | SCLERODERMA.               | Sp. 4-14.    |   |              |  |                         |
| 16503 verrucósum Greu.    | warty                      | handsome     | 5 | aut. Y.Br    | plantations                            | Gre. crypt. fl. t. 43   |
| 16504 cépa Greu.          | solid                      | surf.variab. | 2 | aut. Y.Br    | plantations                            | Gre. crypt. fl. t. 66   |
|                           | <i>Tuber solidum</i> With. |              |   |              |  |                         |
| 16505 citrinum Pers.      | Lemon-color.               | tessellated  | 2 | aut. Pa.Y    | about oak roots                        | Bolton, t. 116          |
| 16506 spadicéum Pers.     | brown                      | tessellated  | 1 | sum. Pa.Br   | beech trunks                           | Schæffer, t. 188        |



History, Use, Propagation, Culture,

2435. *Actinothyrium*. So called from *ακτις*, a ray, and *θυρεω*, to enclose, in allusion to the radiated integument of the sporidia. The only known species is innate, growing upon plants, orbicular, almost black, and appearing in the early part of the year.

2436. *Leptostroma*. From *λεπτος*, thin or delicate, and *στρωμα*, a layer, in allusion to the disk, which, when the perithecium separates, becomes naked and very thin.

2437. *Xyloma*. From *ξύλον*, wood, and *λωμα*, a margin. The species are innate coated tubercles, of a hard vesicular substance, but which does not produce fructification. One of the most common kinds, *X. acerinum*, has a ragged border.

2438. *Lasiobotrys*. From *λασιος*, wool, and *βοτρυς*, a bunch. This plant originates beneath the epidermis of the leaf, during its green and living state. When mature, it is of a very black color, and regular circular form, from one to two lines in breadth, very slightly convex, the surface uniformly granulated, and the whole generally situated on a paler or colorless portion of the leaf. On the bursting or laceration of the epidermis of the leaf, which takes place in the centre, our plant is found to consist of a multitude of distinct perithecia of a roundish form, closely arranged side by side, destitute of orifice, and the summits of which produce a granulated appearance to the naked eye or a small magnifier. These perithecia are fixed to the leaf by a number of short filaments radiating from their base, and are not to be detached without some

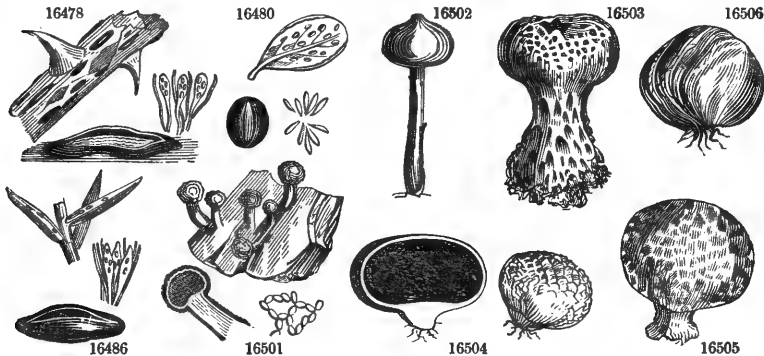
- 16478 Ellipt. or obl. atten. each end black somew. shin. obscure. striat. Sum. of sporulifer. cells obtuse. club-shap.  
 16479 Innate scattered elliptical obtuse rather tumid smooth naked black with a longitudinal depression  
 16480 Minute black irregularly gregarious oval or roundish convex, Sporuliferous tubes club-shaped  
 16481 Gregarious black oblong or roundish-elliptical obtuse somewhat striate  
 16482 Convex tumid oblong-elliptical very black disposed in a subconcentric manner, Sporules large obl. yellow  
 16483 Bursting through the bark oblong elliptical flexuose somewhat ventricose greyish-brown  
 16484 Gregarious linear narrow parallel smooth of dull black  
 16485 Minute oval elliptical very black disposed in a subconcentric manner, Sporules large oblong yellow  
 16486 Very min. oval shin. somew. plane growing longitudinally on leaf, Sporulifer. tubes clavate acum. at apex  
 16487 Very minute linear elliptical black mostly on the ribs of the leaf or culm

Division IV. *Xylomaceti*.

- 16488 Scattered or gregarious orbicular  $\frac{1}{2}$  to  $\frac{3}{4}$  line broad very dark a little ribbed and elevated in the centre  
 16489 Orbicular opaque bossed in the centre at length entirely separating, Disk whitish  
 16490 Black spreading in large irregular spots which are either uniform or composed of somewhat distinct dots dehiscence irregular and rugose  
 16491 Large irregular very thick black white within  
 16492 Gregarious sometimes crowded roundish slightly convex brown at length blackish  
 16493 Gregarious rarely scattered over the whole surface flattish irregular smooth dull-brown  
 16494 Scattered black unequal in size plane: the surface rugose and somewhat papillose in the centre  
 16495 Minute crowded often in circular groups round black shining plane rugose  
 16496 Minute roundish regularly scattered black shining smooth: the upper half separating  
 16497 Clustered orbicular black becoming open, Margin erect somewhat crenate, Disk pale  
 16498 Perithecia even much crowded black: the radiating fibres simple  
 16499 Filam. black radiat. subdichotom. at length covered with confluent rugoso-plicate shining black tubercles  
 16500 Filam. very min. extremely fine branch. at length subdist. black, Tubercles producing a pale spot on leaf

Class III. TRICHOSPERMI. — Division I. *Lycoperdinei*.

- 16501 Stipes short somewhat fibrous, Peridium scabrous always closed, Sporules ovate  
 16502 Stipes smoothish, Peridium globose, Orifice flat  
 16503 Large gregarious subglobose yellowish-brown, Scales small numerous, Stipes subelongated incrassated below lacunose and variously divided at the root  
 16504 Globose subdepressed very firm smooth or warty sess. or with a very short thick stipes, Root scarcely any  
 16505 Middle-sized roundish long-rooted pale lemon-color obsolete scaly, Scales thickish  
 16506 Gregarious smaller somewhat spotted smooth brown, Root hard fibrous



## and Miscellaneous Particulars.

force. Their surface is smooth black. Within they are replete with a somewhat gelatinous granulose mass, containing subglobose sporidia. The above is a description of the usual appearance of this plant.

A variety, however, occurs in the form of a ring or annulus, the centre being unoccupied. Sometimes the perithecia are scattered in irregular groups, a few together, and may even occur solitary.

2439. *Asteroma*. So named by Decandolle; but we know not with what meaning. Many of the substances referred to this genus are believed to be merely young states of various kinds of *Dothidea*; some are the black lines by which certain *Pyrenomyces* are bounded; others are merely darkened veins of leaves. To this the whole of *Actinonema* of Persoon, and several of his *Capillarias* are to be referred.

2440. *Ongyena*. So called from *οὐξ*, a hoof, and *γενεσις*, to be born, in allusion to the singular circumstance of the original and only species being always found on old horse-hoofs in shady woody places.

2441. *Tylostoma*. From *τυλος*, a wart, and *στομα*, the mouth, in reference to the nature of the orifice by which the seeds of this plant are dispersed. T. brumale is found on the mossy tops of walls about London in the winter and spring. It may easily be overlooked for some unexpanded *Agaric*.

2442. *Scleroderma*. So called from *σκληρος*, hard, and *δερμα*, skin, in allusion to the hardness of the coat of the species. S. spadicum is found on heaths in England, but is very rare; it is about the size of a chestnut, rather depressed at the top.

|  |              |                |                         |
|--|--------------|----------------|-------------------------|
| 2443. LYCOPERDON. Mich. PUFF-BALL.     | Sp. 4—11.    |                |                         |
| 16507 bovista Pers. large              | turbinate    | 3 aut.         | Wsh pastures            |
| 16508 pratense Pers. meadow            | 3 subterra.  | 2 su. aut.     | W pastures              |
| 16509 excipuliforme Pers. chan. to br. | 2 aut.       | W              | pastures                |
| 16510 pyriforme Pers. pear-shaped      | tufted       | 1 1/2 su. aut. | Pa.Br about tree stumps |
| 2444. BOVISTA Pers. BOVISTA.           | Sp. 2—4.     |                |                         |
| 16511 nigrescens Pers. blackish        | becom. blk.  | 2 su. aut.     | W pastures              |
| 16512 gigantea Greu. gigantic          | cracking     | 12 su. aut.    | Y.W pastures            |
| 2445. GEASTRUM Mich. GEASTRUM.         | Sp. 4—5.     |                |                         |
| 16513 coliforme Pers. purse-shap.      | subsultatory | 2 aut.         | Brsh pastures           |
| 16514 Woodwardi Pers. Woodward's       | subsultatory | 1 aut.         | D.Br dry banks          |
| 16515 quadrifidum Pers. quadrifid      | subsultatory | 2 aut.         | Wsh pine woods          |
| 16516 stellatum Bolt. stellated        | subsultatory | sp. aut.       | Br moors                |
| <i>Lycoperdon recolligens</i> Woodw.   |              |                |                         |

Sower. t. 332. *Proteus*  
Bulliard, t. 435. f. 2  
Bulliard, t. 450. f. 2  
Bulliard, t. 435. f. 3

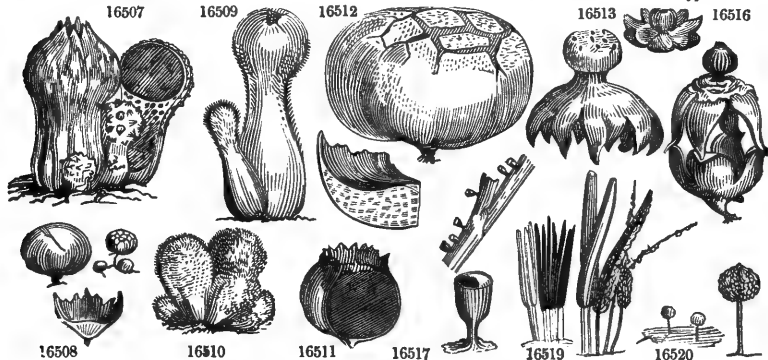
Sower. t. 331  
Bulliard, t. 447

Dic. cr. t. 3. f. 4. *Lycoperd.*  
Bry. hist. f. 19. *Lycoperd.*  
Sch. t. 183. *L. formicatum*  
Bolt. t. 179. *Lycoperdon*

Division II. *Trichocisti.*

|  |             |              |                        |
|--|-------------|--------------|------------------------|
| 2446. CRATERIUM. TREN. CRATERIUM.      | Sp. 2—6.    |              |                        |
| 16517 leucocéphalum Trenz. white-head. | pretty      | 1/2 aut.     | mosses, &c.            |
| 16518 vulgare Dittm. common            | pretty      | 1/2 aut.     | mosses, &c.            |
| <i>Cyatius minutus</i> Sowerby         |             |              |                        |
| 2447. STEMONITIS Pers. STEMONITIS.     | Sp. 2—2.    |              |                        |
| 16519 fasciculata Pers. fasciated      | dense       | 3/4 su. aut. | Bl.Br rotten wood      |
| <i>Trichia nuda</i> Sow.               |             |              |                        |
| 16520 papillata Pers. pimples          | scattered   | 1/2 aut.     | D.Br rotten wood       |
| 2448. CRIBRARIA Schrad. CRIBRARIA.     | Sp. 1—2.    |              |                        |
| 16521 micropus Schrad. small stalk.    | pinheaded   | 1/3 aut.     | Br pine trunks         |
| 2449. DICTYDIUM Schrad. DICTYDIUM.     | Sp. 1—2.    |              |                        |
| 16522 cernuum Nees cernuous            | pinheaded   | 1/3 all sea. | Bl rotten wood         |
| 2450. ARSCYRIA Pers. ARSCYRIA.         | Sp. 2—2.    |              |                        |
| 16523 punicea Pers. crimson            | gregar.     | 1/2 su. aut. | Crim. rotten wood      |
| <i>Trichia denudata</i> Sowerb. 29     |             |              |                        |
| 16524 nutans Greu. nodding             | weak        | 1/2 su. aut. | Pa.Y rotten wood       |
| 2451. LEANGIUM Link. LEANGIUM.         | Sp. 2—2.    |              |                        |
| 16525 floriforme Link. flower-like     | scattered   | 1/3 aut.     | Y decaying trunks      |
| 16526 Trevelyani Greu. Trevelyan's     | scattered   | 1/3 aut.     | Pa.Br leaves of mosses |
| 2452. TRICHIA Pers. TRICHIA.           | Sp. 3—2.    |              |                        |
| 16527 reticulata Pers. netted          | pulpy       | 0 aut.       | Ysh rotten wood        |
| 16528 ovata Pers. ovate                | crowded     | 0 aut.       | Y rotten wood          |
| 16529 fallax Pers. deceitful           | variable    | 0 aut.       | Rsh rotten wood        |
| <i>Sphaerocarpus fragilis</i> Sowerb.  |             |              |                        |
| 2453. DIDERMA Pers. DIDERMA.           | Sp. 1—2.    |              |                        |
| 16530 globosum Pers. globose           | clustered   | 0 aut.       | Cin. dead beech leaves |
| 2454. PHY SARUM Pers. PHY SARUM.       | Sp. 6—2.    |              |                        |
| 16531 sulcatum Link. furrowed          | weak        | 1/2 sp. aut. | Gr rotten wood         |
| 16532 nutans Pers. nodding             | weak        | 1/2 aut.     | Gr rotten wood         |
| 16533 nigripes Link. black stem.       | firm        | 1/2 aut.     | D.Gr rotten wood       |
| 16534 viride Pers. green               | rather weak | 1/2 aut.     | Y.G rotten wood        |
| 16535 leucopus Link. white stem.       | very stiff  | 1/2 aut.     | Gl. dead beech wood    |
| 16536 aureum Pers. golden yell.        | gregar.     | 1/3 sp. aut. | Y decaying trunks      |

Greville crypt. 170  
Nees syst. t. 10. f. 118  
Schrad. gen. t. 2. f. 1-2  
Greville crypt. 153  
Greville crypt. 130  
Sower. t. 260. *Trichia*  
Bulliard, t. 371  
Grev. crypt. 132  
Nees syst. t. 10. f. 111  
Sower. t. 85. *turbinata*  
Sower. t. 279  
Grev. crypt. 122  
Bull. t. 407. f. 3  
Sturm's Deuts. fun. t. 42  
Bull. t. 451. f. 1  
Grev. crypt.



History, Use, Propagation, Culture.

2443. *Lycoperdon*. So called by Tournefort, from *λυκος*, a wolf, and *σποδος*, to explode backwards, that author certainly having improved upon the foolish old name, *Crepitus lupi*, by making it less generally intelligible. (Smith.) These are roundish tuber-like plants, when ripe, exploding and emitting the spores in the form of smoke, whence country people call the species puff-balls.

2444. *Bovista*. A name of barbarous origin, having been formed by Dillenius, from the German *Bofist*. *Bovista furfuracea*, an Italian species, is said by Micheli, to be common on heaths near Florence, where it is sold with others of its tribe, as an article of food. *Bovista gigantea* is the largest of the genus, and, indeed, of the whole order, measuring not unfrequently nearly 2 feet in diameter. Bulliard mentions having seen many of eighteen, twenty, and twenty-three inches in diameter, and on the authority of others, affirms them to attain the enormous bulk of nearly nine feet in circumference. The flesh is at first white, afterwards of a greenish-yellow, lastly of a brown-grey. The outer peridium cracks and peels off in large flakes on being handled.

2445. *Geastrum*. So called from *γαστρος*, the earth, and *αστρος*, a star, in allusion to the stellate appearance of the species when burst and lying on the ground. A genus formed by Micheli upon the Puff-balls with a stellated volva.

2446. *Craterium*. So named from *καταρτης*, a cup, in allusion to the form of the peridium, which in *C. vulgare* is formed like a small goblet. This is a minute subsultatory plant, with the habit of *Calicium*.

16507 Large obconical soft whitish plicate beneath, Scales broad often indistinct  
 16508 White soft hemispherical subsessile somewhat smooth, Warts scattered  
 16509 Large white variable, Peridium subglob. cover. with spinul. warts, Stipes somew. smooth long and plicate  
 16510 Cæspit. pyrif. umbon. pale-brown, Scales in form of min. slender spin. process. Root consist. of long fibres

16511 Large white becoming blackish-brown plicate beneath  
 16512 Almost sessile very large globular yellowish-white, with scattered nearly obsolete scales

16513 Volva multifid, Peduncles and oscula of the peridium numerous  
 16514 Smaller, Head flat above, Orifice acuminate with longer cilia  
 16515 Peridium globose stalked, Orifice hoary, Radii somewhat quadrifid arched  
 16516 Volva multifid spreading, Laciniaë equal, Head depressed spherical sessile, Orifice acuminate

Division II. *Trichocisti.*

16517 Cup-shap. redd.-brown, Operculum convex whit. very thin evanescent, Filam. white, Sporules very dark  
 16518 Campanulate chesnut-color, Operculum firm white, Stipes orange, Sporules blackish

16519 Crowded cylindrical, Stipes black arising from a shining subjacent membrane, Peridia very fugacious  
 blackish-brown, Stipes continued to the summit of the peridium

16520 Dark-brown globose stipitate, Stipes penetrating through the summit of the peridium

16521 Gregarious roundish, Stipes short blackish

16522 Gregar. brownish-purple nodding umbilicated, Membrane of peridium deciduous, Flocci persistent robust

16523 Gregarious often cæspitose stipitate dull crimson, Sporules abundant crimson-red

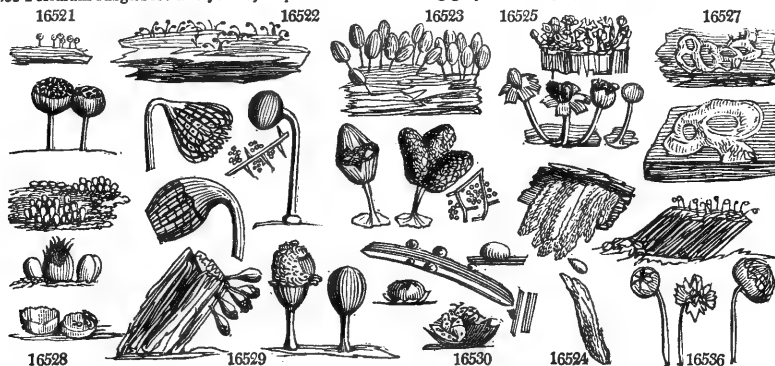
16524 Pale-yellow substipitate cylindrical long weak drooping

16525 Yellow globose stipitate, Peridium splitting into holes which are beautifully expanded and reflexed  
 16526 Sporangium sess. Peridium splitting into many regular reflexed segm. Colum. very min. Spor. pedicellat

16527 Effused forming an irregular sort of reticulation yellowish or pale-brown  
 16528 Crowded obovate ochrey-yellow bursting at the summit  
 16529 Shortly stipitate reddish at length yellowish bursting at the apex plicate beneath

16530 Sessile subglobose smooth greyish-white: both of the peridia fragile, Sporules globular

16531 Head globose flattish beneath grey inclined, Stipes rather long pale weak sulcate, Sporules dark-brown  
 16532 Head glob. flatt. ben. blueish-grey nodd. Stipes thin weak whit. not furrow. Spor. and filam. dark-brown  
 16533 Head globose dark-grey, Stipes long firm black, Sporules and filaments very dark  
 16534 Subglob. umbilicate ben. yellowish-green, Stipes slender rather weak brown. Sporules and flam. very dark  
 16535 Head globose depressed pale-glaucous, Stipes very short thick pale at length brownish  
 16536 Peridium subglobose fine yellow, Stipes slender rather long greyish-brown, Sporules globose



## and Miscellaneous Particulars.

2447. *Stemonitis*. From *σημαον*, a stamen, in allusion to the form of some of the species, which may be compared to the male organ of a flower, taking the stipes for the filament, and the head for the anthera.

2448. *Cribraria*. A genus formed by Schrader out of the *Sphærocarpi* of Bulliard. It has for its essential character, a peridium, the upper part of which has numerous apertures, whence the name, from *cribro*, to perforate. All the species are found in autumn upon rotten wood.

2449. *Dictydium*. From *δυσκρον*, a net, and *ιδος*, similar; the peridium appears like net-work fastened together by minute delicate ribs. Very minute pinheaded plants, with the appearance of *Calicium*.

2450. *Ascyria*. From *αστυς*, a net. The sporules are fastened together by a net-work of fibres. Beautiful little minute fungi, found upon wood.

2451. *Leangium*. From *λεως*, smooth, and *αγγιως*, a vessel, in reference to the smoothness of the peridium. Small wart-like plants, resembling a minute *Lycoperdon*.

2452. *Trichia*. From *τριχ*, hair, in allusion to the internal mass of elastic fibres gradually expanding after the head bursts. These are pin-headed plants, growing upon old wood, and very rarely seen in this country.

2453. *Diderma*. From *dis*, double, and *δερμα*, a skin, on account of the double peridium.

2454. *Physarum*. So named, on account of the bladderly appearance of the peridium, from *φυση*, a vesicle.

9455. LEOCARPUS. *Link.* LEOCARPUS. *Sp. 1—?*  
 16537 vernicosus *Link.* varnished enc  $\frac{1}{2}$  aut. R.Br stems of grasses Grev. crypt. 111  
*Lycopërdon fragüe* Sowerb.

Division III. *Puliginoides.*

2456. LYCOGALA. *Mich.* LYCOGALA. *Sp. 3—?*  
 16538 miniata *Pers.* vermilion granular 0 sp. aut. R rotten wood Grev. crypt. fl. t. 38  
 16539 argentea *Pers.* silvery fragile 0 aut. Wsh rotten wood Grev. crypt. t. 106  
*Reticularia Lycopërdon* Sowerb.  
 16540 minuta *Grev.* minute gregario. 0 aut. W decayed leaves Grev. crypt. fl. t. 40  
 2457. SPUMARIA. *Pers.* SPUMARIA. *Sp. 1—?*  
 16541 alba *Grev.* white frothy 1 aut. Br rott. wood, grass, &c. Sow. t. 280. *Reticularia*

Division IV. *Liceoides.*

2458. DICHOSPORIUM. *Nees.* DICHOSPORIUM. *Sp. 1.*  
 16542 aggregatum *Nees* clustered spots 0 aut. Bl bark of trees, Nees syst. f. 99  
*Spumaria physaroides* *Pers.*  
 2459. LYCEA. *Schrad.* LYCEA. *Sp. 2—?*  
 16543 circumscissa *Pers.* pared like ovules 0 aut. Ysh between bark & wood  
 16544 fragiformis *Nees* strawberry-like pulpy 0 aut. Di.R rotten wood Nees syst. t. 8. f. 102

Class IV. MUCOROIDES.

2460. MUCOR. *Pers.* MUCOR. *Sp. 1—?*  
 16545 stercorea *Grev.* common watery 2 wint. W dung  
*Hydróphora stercorea* *Tode.*  
 2461. THAMNIDIUM. *Link.* THAMNIDIUM. *Sp. 1—?*  
 16546 elegans *Link.* elegant whorled  $\frac{1}{2}$  aut. Pale putrid substances Nees syst. 75  
 2462. ASCOPHORA. *Tode.* ASCOPHORA. *Sp. 1—?*  
 16547 mucedo *Link.* mouldy very slend.  $\frac{1}{2}$  all sea. W putrid substances Sow. t. 378. f. 5, 6, 7. *Mucor*

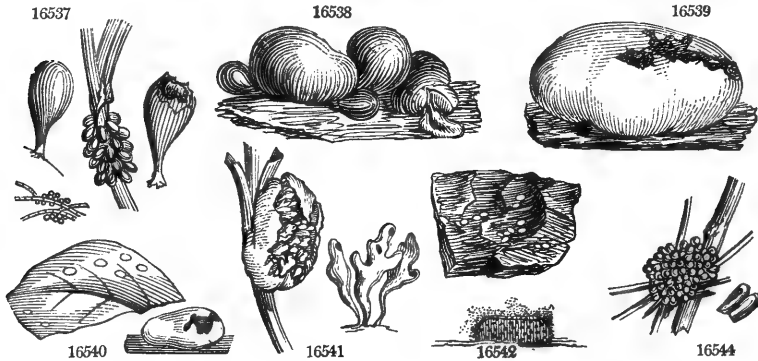
Class V. PERISPORIA.

2463. EUROTIIUM. *Link.* EUROTIIUM. *Sp. 2—?*  
 16548 herbariorium *Link.* herbarium punctiform 0 all sea. Y dried plants Grev. crypt. 164  
 16549 rosarum *Grev.* rose patches 0 sum. W rose bushes Grev. crypt. 164  
 2464. AMPHISPORIUM. *Link.* AMPHISPORIUM. *Sp. 1.*  
 16550 versicolor *Link.* changeable spots 0 wint. Y hyacinths in glasses Nees syst. 100

HYPHOMYCETES.

Class I. CEPHALOTRICH.

2465. CERATIUM. *Albertini.* CERATIUM. *Sp. 1—?*  
 16551 hydroides *Alb.* Hydnum-like fugacious  $\frac{1}{2}$  aut. W dead wood Berl. mag. v. 3. t. 1. f. 33



History, Use, Propagation, Culture.

2455. *Leocarpus*. A word with the same meaning as *Leangium*; which see. *L. vernicosus* appears as it varnished over with vermilion. The plants grow in clusters upon bits of rotten wood, and are each formed of a pear-shaped stalked peridium, bursting at the end, and letting fall out a nucleus of spores held together by fibres.

2456. *Lycogala*. From *λυκος*, a wolf, and *γαλα*, milk, a genus of fungi whose internal appearance and substance in an early state are like a mass of thick cream. It is included under *Mucor* by *Linnaeus*, *Schreber*, and others. *L. argenteum* is found upon rotten wood in the autumn. It is about an inch or more in diameter, brown and pulpy when young, of a brilliant white when arrived at maturity, discharging, by one or more irregular accidental openings, a mass of rich dark snuff-colored powder.

2457. *Spumaria*. From *spuma*, froth. *S. mucilago* is spread in the autumn over the leaves and stems of living plants, or over dead branches, when it resembles in some measure stiffened foam or froth.

2458. *Dichosporium*. From *διχα*, double, and *σπορα*, a seed; in allusion, we presume, to the double coat of the peridium, the innermost of which is formed of granules like spores. The only species known is found upon the bark of the oak.

2459. *Licea*. The meaning of this word is unexplained. The species have been referred to *Trichia*, *Didy-*

16537 Shortly stipitate obovate reddish-brown shining crowded, Stipes whitish

Division III. *Fuliginoides*.

16538 Globular gregarious red changing to brown, Sporules orange-red at length purple-grey like a lid, Sporules rarely mixed with one or two filaments

16539 Large subovate very fragile silvery-white, Sporules profuse deep-brown, Filaments few

16540 Minute white roundish depressed rarely confluent fragile, Sporules black intermixed with a few filaments

16541 Effused frothy, Peridium furnished internally with horn-like grey processes inclosing brown sporules

Division IV. *Licoides*.

16542 The only species

16543 Gregarious sessile yellowish or chestnut-brown subglobose: the upper half of the peridium separating like a lid, Sporules rarely mixed with one or two filaments

16544 Peridia cylindrical very fragile densely crowded forming a roundish or hemispherical mass dull-red changing to pale-brown, Sporules brown in the form of minute abundant dust

Class IV. MUCOROIDEI.

16545 Byssus-like white becoming yellowish, Stipes erect or lax simple bearing a minute subglobose head

16546 Filaments branched whorled, Peridium elevated

16547 Stipes simple, Heads inflated spherical dark-grey bursting close to the stipes which is long and filiform

Class V. PERISPORIA.

16548 Gregarious punctiform yellow, Filaments whitish branched

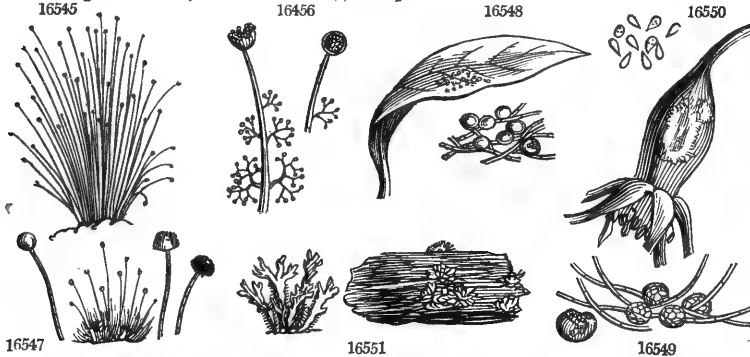
16549 Tufted, Peridia gregar. greenish covered by the filam. which are elongat. simple profuse somew. erect in [centre

16550 Changes from yellow to grey

HYPHOMYCETES.

Class I. CEPHALOTRICH.

16552 Growing in small tufts, Filaments subconfluent simple or branched and fasciculated



and Miscellaneous Particulars.

mium, &c. by various writers. They are minute productions scarcely bigger than pins' heads, found chiefly on rotten wood of the fir kind.

2460. *Mucor*. An alteration of *μυρς*, the name of a small fungus. To this genus are referable the greater part of the substances which form the mould upon cheese and other materials.

2461. *Thamnidium*. From *θαμνός*, a rod or twig, in allusion to the appearance of the plants under the microscope. Minute plants, with a bushy branched stipes, and a head like that of *Mucor*.

2462. *Ascophora*. From *ἀσχος*, a term used by mycologists to denote a peculiar kind of receptacle of sporules, and *φείω*, to bear. These are pin-headed fungi, with the habit of *Mucor*, from which they chiefly differ in their peridium being turned inside out after bursting, and being somewhat persistent.

2463. *Eurotium*. *Ευρώς* was the Greek name of a sort of mouldiness, and has been with a sufficient reason applied to this genus of plants.

2464. *Amphisporium*. From *ἀμφί*, double, and *σπόρα*, a sporule. These organs are of two forms, either roundish with three dots in the middle, or ovate acuminate, and quite pellucid.

2465. *Ceratium*. So named from *κέρας*, a horn, on account of the cornute appearance of the plants under a microscope.

2466. *ISA'RIA*. Pers. *ISARIA*. Sp. 1—?.  
 16552 *microscópica* Grev. microscopic very min. 0 spring W *Trichia clavata*

Grev. crypt. fl. t. 3

Class II. *STILBOIDEI*.

2467. *STIL'BUM*. Tode. *STILBUM*. Sp. 1—?.  
 16553 *vulgáre* Tode. common very min. 0 aut. Wsh decayed stems

Tode fun. meckl.t.2.f.16

Class III. *INOMYCETES*. — Division I. *Bysacei*.

2468. *TOR'ULA*. Link. *TORULA*. Sp. 1—?.  
 16554 *herbárium* Link herbaceous fragile 0 aut. Bl dead stems

2469. *MONI'LIA*. Pers. *MONILIA*. Sp. 1—?.  
 16555 *aúrea* Pers. golden yell. stalked  $\frac{1}{2}$  all sea. Y rotten wood

2470. *RACO'DIUM*. Pers. *RACODIUM*. Sp. 1—?.  
 16556 *celláre* Pers. wine-cellar shaggy 3 all sea. Sooty cellars

Sower. t. 432

2471. *DEMA'TIUM*. Pers. *DEMATIUM*. Sp. 1—?.  
 16557 *articulátum* Pers. articulated minute 0 aut. Blsh stems of herbs

Pers. disp. t. 4. f. 2

2472. *CLADOSP'ORIUM*. Link. *CLADOSPORIUM*. Sp. 2—?.  
 16558 *herbárium* Link herbaceous very min. 0 su. aut. Ol.G dead stems

Nees syst. t. 5. f. 64

16559 *velutínium* Grev. velvety patches 0 spring G.Bl rotten wood

2473. *HELICOSP'ORIUM*. Nees. *HELICOSPORIUM*. Sp. 1.  
 16560 *vegétum* Nees quickening cloud-like 0 oct. Gr foot of trees

Nees syst. 66

2474. *OZO'NIUM*. Lk. *OZONIUM*. Sp. 1—?.  
 16561 *auricozum* Link yell.-headed byssoid 3 aut. Or rotting wood

2475. *RHIZOMOR'PHA*. Roth. *RHIZOMORPHA*. Sp. 5—?.  
 16562 *subcorticális* Pers. subcortical net-like 72 all sea. Br beneath bark

Sow. 392. f. 1 & 2. *patens*

16563 *divérgens* Grev. diverging creeping 24 aut. Rsh beneath bark

Grev. crypt. 154

16564 *farinácea* Grev. mealy much branç. 36 all sea. W decayed trunks

16565 *subterránea* Pers. subterrane. filament. 24 all sea. Bl mines

Linn. trans. 12. t. 20

16566 *medulláris* Sm. medullary much branç. 144 all sea. W cellars

Division II. *Mucedines*.

2476. *SEPEDO'NIUM*. Link. *SEPEDONIUM*. Sp. 1—?.  
 16567 *mycophilum* Link yellow cloudy 0 aut. Or dying fungi

Grev. crypt. 198

2477. *ACREMO'NIUM*. Link. *ACREMONIUM*. Sp. 1—?.  
 16568 *fuscum* Schmidt brown patches 0 aut. Ol.G dead sticks

Schm. mycol. 1. t. 2. f. 23

2478. *SPORO'TRICHUM*. Link. *SPOROTRICHUM*. Sp. 6—?.  
 16569 *macrospórium* Grev. large grained blotches 0 spr. su. Hoa. apple leaves

16570 *minútum* Grev. minute tufts 0 aut. w. W dung in cellars

Wern. trans. 4. t. 5. f. 1

16571 *sulphúreum* Grev. sulph.-color. tufts 0 all sea. Y casks in cellars

Wern. trans. 4. t. 5. f. 1

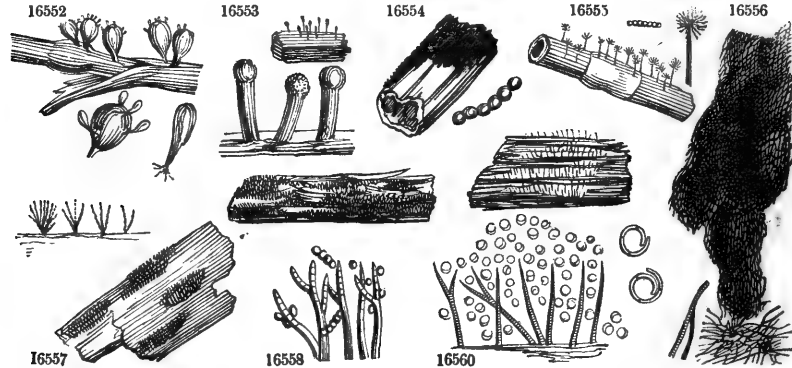
16572 *aurantiácum* Grev. orange-col. tufts 0 all sea. Or damp cellars

Wern. trans. 4. t. 5. f. 1

16573 *stercorárium* Link dung tufts 0 all sea. Or damp cellars

Wern. trans. 4. t. 5. f. 2

16574 *tenuis'simum* Grev. thin thin coat 0 aut. W dead bark



History, Use, Propagation, Culture,

2466. *Isaria*. From 1805, equal, on account, perhaps, of the equality which exists among the filaments of the plants both in size and length.

2467. *Stilbum*. From *στῖλος*, shining. The species are all found upon old rotten wood, and are at first watery or gelatinous, but become opaque and turbid as they ripen.

2468. *Torula*. A diminutive of *thorus* or *torus*, a bed. This plant forms a thick compact bed or layer upon the plants on which it grows.

2469. *Monilia*. From *monile*, a necklace, with reference to the peculiar manner in which the filaments are articulated.

2470. *Racodium*. *Ρακίον* was the name among the Greeks for a worthless worn-out ragged garment; and has been applied to the present genus, in allusion to the dirty interwoven cloth-like substance with which it clothes whatever it grows upon. R' cellare is the black substance which overruns the bottles of the wine merchant, and which often hangs in long thick festoons from the sides and roof of his cellars.

2471. *Dematium*. A diminutive of *δέμα*, a bundle or parcel. The filamentous thallus is often collected into bundles.

2472. *Cladosporium*. From *κλάδος*, a branch, because the sporules are attached to the branches of the fungi.

2473. *Helicosporium*. From *helix*, a spiral, in allusion to the manner in which the sporules are curved.

16552 Extremely minute scattered simple club-shaped very white, Filaments and sporidia indistinct

Class II. *STILBOIDEL*.

16553 Head roundish whitish semifluid becoming firmer and yellowish, Stipes rather thick cylindrical

Class III. *INOMYCETES*. — Division I. *Byssacei*.

16554 Filaments densely crowded so as to form a black crust

16555 Tufted gold color

16556 Very soft lax much interwoven of a greenish black color, Filaments intermixed with irregular granules

16557 Minute blackish fascicled, Bristles diverging sometimes jointed

16558 Tufted extremely minute of an olive-green color becoming blackish and rigid in old age

16559 Very minute spreading on old wood in wide velvety patches greenish-black, Filaments simple or branched jointed somewhat thickened upwards

16560 The only species

16561 Very irregular rigid diverging : when young from a common centre ; afterwards straggling, Filaments tawny orange-color compressed of various sizes

16562 Compressed brown or black shining anastomosing often broad and very extensive [regularly patent

16563 Stem pale redd. cylind. subflex. never anastomis. Branches spread. in all directions free, Fructific. clavate

16564 Stems covered with a mealy substance

16565 Long branched roundish somewhat separate black

16566 Round much branched snow-white, cellular and yellow inside

Division II. *Mucedines*.

16567 Spreading widely within putrefying *Agarici* and *Boleti*, Filam. white, Spor. profuse bright orange-yellow

16568 Filaments spreading branched olive-brown, Pedicels of the sporules numerous alternate

16569 Forming a pulverulent hoariness interspersed with very minute tufts, Filaments few branched straggling, Sporules large obtusely oval

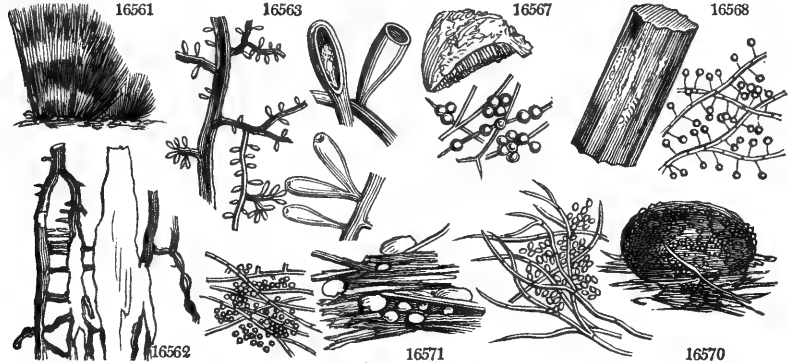
16570 Tufts roundish minute very white, Filaments loosely entangled, Sporules very numerous oval

16571 Tufts yellow irregular roundish, Filaments lax entangled, Sporules numerous subglobose

16572 Tufts of a reddish orange-color, Filaments very slender much entangled, Sporules glob. extremely minute

16573 Differs from the last, chiefly in its paler color

16574 Very white forming a web, Filam. densely interwoven very fine, Sporules globular scattered very minute

and *Miscellaneous Particulars*.

2474. *Ozonium*. We presume, from  $\alpha\zeta\omicron\varsigma$ , a branch, in allusion to the manner in which the filaments branch or diverge from a common centre. This genus has been extracted from Dematiu by Link.

2475. *Rhizomorpha*. So called from its resemblance to the branching fibrous roots of various plants. All the productions referred to this genus are very obscure and uncertain. *R. phosphorea*, the *Clavaria phosphorea* of Sowerby, is a plant sometimes existing as a parasite between the wood and bark of trees, or in wine-cellars among saw-dust, and is, when fresh, remarkably luminous in the dark.

2476. *Sepedonium*. From  $\sigma\eta\pi\epsilon\delta\omicron\nu\omicron\varsigma$ , putrescence. The species grow among the decaying parts of fungi, and other putrid substances.

2477. *Acremonium*. From  $\alpha\kappa\pi\epsilon\delta\omicron\nu\omicron\varsigma$ , a branch ; the thecæ are produced about the filaments in fascicles, and branches are about trees.

2478. *Sporotrichum*. From  $\sigma\pi\omicron\tau\epsilon\varsigma$ , and  $\tau\eta\tau\iota\chi$ , hair, in allusion to the filamentous nature of the sporules. A very destructive parasite in some seasons, and probably of general distribution, for it has been detected on a great variety of plants. To gardeners it is well known as a kind of mildew or blight, and is commonly taken for an insect. The leaves of the peach-trees, even when protected by glass, are often attacked by it, nor does the fruit itself always escape, in which case it frequently drops off. The leaves are more or less distorted by it. As its production is probably the result of a peculiar state of the atmosphere, there is little chance of any means being discovered for its prevention.



|                                   |                    |                                    |                        |                              |  |
|-----------------------------------|--------------------|------------------------------------|------------------------|------------------------------|--|
| 2479. TRICHOTHECIUM. <i>Link.</i> | TRICHOTHECIUM.     | <i>Sp. 1-2.</i>                    |                        |                              |  |
| 16575 roseum <i>Link</i>          | rose-colored tufts | 0 aut. w. W                        | rotten wood            |                              |  |
| 2480. ACROSPORIUM. <i>Nees.</i>   | ACROSPORIUM.       | <i>Sp. 2-2.</i>                    |                        |                              |  |
| 16576 monilloides <i>Nees</i>     | Monilla-like spots | 0 sp. aut. W                       | leaves of grasses      | Grev. crypt. fl. t. 73       |  |
| 16577 fasciculatum <i>Grev.</i>   | fasciated patches  | 0 spring Gl.                       | rotten oranges         |                              |  |
| 2481. BOTRYTIS. <i>Mich.</i>      | BOTRYTIS.          | <i>Sp. 4-2.</i>                    |                        |                              |  |
| 16578 diffusa <i>All.</i>         | diffuse            | broad tufts $\frac{1}{2}$ aut. W   | rotten herbac. stems   | Wern. trans. 4. t. 5. f. 7   |  |
| 16579 agaricina <i>Link</i>       | Agaric             | wool. coat 0 aut. W                | decaying fungi         |                              |  |
| 16580 effusa <i>Grev.</i>         | effused            | spots 0 aut. Pu. Gr                | underside of live lvs. |                              |  |
| 16581 parastica <i>Pers.</i>      | parasitic          | lax 0 spr. su. W                   | on shepherd's purse    | Sower. t. 359                |  |
| 2482. ASPERGILLUS. <i>Mich.</i>   | MOULDINESS.        | <i>Sp. 4-2.</i>                    |                        |                              |  |
| 16582 glaucus <i>Link</i>         | blue               | 0 all sea. B                       | rotten substances      | Berl. mag. 3. t. 1. f. 23    |  |
| 16583 laneus <i>Link.</i>         | white              | patches $\frac{1}{2}$ aut. Wsh     | putrid fungi           |                              |  |
| 16584 virens <i>Link</i>          | green              | broad spots $\frac{1}{2}$ aut. Gsh | putrid fungi           | [barium                      |  |
| 16585 penicillatus <i>Grev.</i>   | pencilled          | spots 0 all sea. D. Gr             | damp specimens in Her- | Grev. crypt. fl. t. 32       |  |
| 2483. STACHYLIDIUM. <i>Link.</i>  | STACHYLIDIUM.      | <i>Sp. 1-2.</i>                    |                        |                              |  |
| 16586 candidum <i>Grev.</i>       | white              | spreading $\frac{1}{2}$ aut. W     | dead wood              | Wern. trans. 4. t. 5. f. 6   |  |
| 2484. PENICILLIUM. <i>Link.</i>   | PENICILLIUM.       | <i>Sp. 2-2.</i>                    |                        |                              |  |
| 16587 sparsum <i>Grev.</i>        | scattered          | broad lines $\frac{1}{2}$ aut. W   | rotten herbac. stems   | Grev. crypt. fl. t. 58. f. 2 |  |
| 16588 glaucum <i>Link</i>         | blue               | tufts $\frac{1}{2}$ all sea. Gl.   | rotten substances      | Grev. crypt. fl. t. 58. f. 1 |  |
| 2485. TRICHODERMA. <i>Pers.</i>   | TRICHODERMA.       | <i>Sp. 1-2.</i>                    |                        |                              |  |
| 16589 viride <i>Pers.</i>         | green              | tufts 0 aut. w. W                  | rotten wood            |                              |  |

Class IV. PHYLLERIACEÆ.

|                                 |              |                                 |                    |  |  |
|---------------------------------|--------------|---------------------------------|--------------------|--|--|
| 2486. RUBIGO. <i>Link.</i>      | RUBIGO.      | <i>Sp. 1-2.</i>                 |                    |  |  |
| 16590 al'nea <i>Pers.</i>       | alder        | spots 0 sum. D. Br              | under alder leaves | Nees syst. 63                            |  |
| 2487. ERI'NEUM. <i>Pers.</i>    | ERI'NEUM.    | <i>Sp. 9-2.</i>                 |                    |  |  |
| 16591 aureum <i>Pers.</i>       | golden       | velvety spots 0 sum. Bt. Y      | lvs. Populus nigra | Edin. phil. jour. 6. t. 3. f. 15         |  |
| 16592 griseum <i>Pers.</i>      | grey         | velvety spots 0 spr. su. Dl. Pu | under oak leaves   | Ed. ph. jo. 6. t. 3. f. 17. <i>minus</i> |  |
| 16593 acerinum <i>Pers.</i>     | Sycamore     | depress. tufts 0 sp. aut. R. Br | und. sycamore lvs. | Edin. phil. jour. 6. t. 2. f. 1 & 6      |  |
| 16594 pyrinum <i>Pers.</i>      | Pear         | depress. tufts 0 aut. R. Br     | on crab-tree lvs.  | Grev. crypt. fl. t. 22                   |  |
| 16595 tortuosum <i>Kunze</i>    | tortuous     | depress. tufts 0 spr. su. Wsh   | on birch leaves    | Grev. crypt. fl. t. 94                   |  |
| 16596 Juglandis <i>Dec.</i>     | Walnut       | depress. tufts 0 sum. Pale      | under walnut lvs.  | Ed. ph. jo. 6. t. 2. f. 4. <i>subul.</i> |  |
| 16597 clandestinum <i>Kunz.</i> | concealed    | depress. tufts 0 sum. W. Pk     | und. hawthorn lvs. | Edin. phil. jour. 6. t. 2. f. 8          |  |
| 16598 roseum <i>Kunze</i>       | rose-colored | depress. tufts 0 sum. Crim.     | on birch lvs.      | Grev. crypt. fl. t. 21                   |  |
| 16599 betulinum <i>Rebent.</i>  | Birch        | depress. tufts 0 spr. su. Wsh   | on birch lvs.      | Edin. phil. jour. 6. t. 3. f. 16         |  |

CONIOMYCETES.

Class I. TUBERCULARIÆ.

|                                  |                                  |  |                        |                  |  |
|----------------------------------|----------------------------------|--|------------------------|------------------|--|
| 2488. TUBERCULARIA. <i>Tode.</i> | TUBERCULARIA.                    | <i>Sp. 3-2.</i>                        |                        |                  |  |
| 16600 vulgaris <i>Pers.</i>      | common                           | gregario. $\frac{1}{2}$ all sea. Dp. R | decayed sticks         | Sower. t. 294    |  |
|                                  | <i>Clavaria coccinea</i> Sowerb. |  |                        |                  |  |
| 16601 confluens <i>Pers.</i>     | confluent                        | gregario. 0 aut. sp. F. R              | dead sycamore branches |                  |  |
| 16602 granulata <i>Pers.</i>     | rough                            | scattered $\frac{1}{2}$ aut. Br        | dead branches          | Grev. crypt. 187 |  |



History, Use, Propagation, Culture,

2479. *Trichothecium*. The thecæ are intermixed among a mass of hair-like filaments; whence the name.  
 2480. *Acrosporium*. From *ακρος*, the top of any thing, and *σπορα*, a sporule; the latter occupying the summit of the simple filaments.  
 2481. *Botrytis*. So called from *βοτρυς*, a bunch of grapes, in allusion to the clusters of little globular seeds or seed vessels.  
 2482. *Aspergillus*. This is the name of the brush with which the holy-water is scattered in Catholic ceremonies. The little plant, consisting of a stem and a cluster of sporules at the top, is not unlike a little brush with its handle.  
 2483. *Stachylium*. From *σταχυς*, a spike, and *ιδες*, similar. The sporules are dispersed in a sort of spiked manner on the filaments.

- 16575 Tufted, Tufts distinct at length sometimes confluent, Filam. white, Sporules pink very numerous oval
- 16576 Filaments simple forming white spots of one or two lines in length on the living leaves of grasses  
 16577 Filam. branched somewhat fasciculated erect in spreading tufts white at first at length a fine glauc. color
- 16578 Very lax tuft. white branch. Branch. few long spread. set with short patent ramuli bear. round clust. of spor.  
 16579 Tufted confluent white, Filaments one line high, Branches divaricate, Sporules numerous ovate large  
 16580 Pale purpl.-grey spread. Filam. branch. towards summ t, Branch. divaric. short, Spor. large oval numerous  
 16581 Somewhat tufted lax white not much branched, Sporules roundish
- 16582 Tuft. min. formed of white erect filaments with little heads at first white but when mature of a glauc. color  
 16583 In dense tufts composed of whitish or yellowish suberect entangled filaments with yellowish heads  
 16584 Tufts rather dense, Filaments entangled suberect heads as well as the filaments greenish  
 16585 Filaments scattered gregarious about a line high supporting an elongated tuft of beaded sporidia
- 16586 Filaments branched erect remotely jointed scattered white, Sporules globular
- 16587 Barren filaments effused interwoven: fertile ones simple somewhat scattered, Heads of sporules white  
 16588 Densely tufted spreading, Heads of sporules at length glaucous
- 16589 Tufted, Tufts roundish composed of snow-white interwoven filaments, Sporules profuse green at length giving the whole a green-color

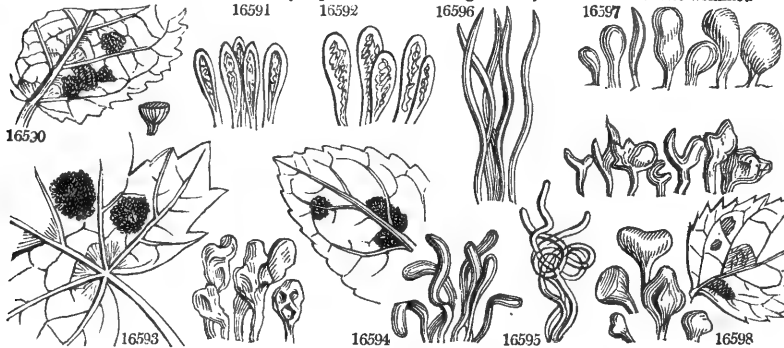
Class IV. PHYLLERIACEÆ.

- 16590 Irregularly tufted or effused and confluent whitish at length reddish-brown, Peridia shortly branched, Branches thick bearing several round or ovate lobes
- 16591 On the surface of the leaf bright gold-color effused sometimes spreading over the whole leaf, Peridia simple crowded club-shaped, Sporules evident excessively minute yellow
- 16592 Hypophyllous, so minute as scarcely to be raised above the surface of the leaf pale obscure purple widely effused, Peridia simple obtusely club-shaped
- 16593 On the under surface of the leaf depressed distinct or confluent pale becoming reddish-brown, Peridia club-shaped very rarely turbinate flaccid, the upper half often inclined
- 16594 Mostly on the under surface of the leaf scattered subeffused rich reddish-brown, Peridia compressed lin. somewhat lax with the apex club-shaped and often truncate
- 16595 Mostly on the under surface irregularly tufted whitish becoming ferruginous, Peridia linear cylindrical twisted with rounded summits
- 16596 Hypophyll. silky or toment. pale or quadrangular, Peridia erect cylindric. long and attenuated to a point
- 16597 On the under surface whitish-pink becoming subferruginous rarely in the form of spots or tufts but confluent at the margin of the leaf which is rolled inwards and conceals it, Peridia short
- 16598 Mostly on the upper surface unequally scattered confluent fine crimson, Peridia polymorphous turbinate club-shaped or capitate, the summit frequently truncate
- 16599 Mostly on the under surface whitish at length dark ferruginous often confluent, Peridia short polymorphous sometimes turbinate but generally with two blunt horn-like patent summits

CONIOMYCETES.

Class I. TUBERCULARIÆ.

- 16600 Gregarious deep-red rugose furnished with a very short thick pale stipes
- 16601 Gregarious confluent depressed flesh-red small somewhat plane
- 16602 Somewhat round somewhat shortly stipitate dull-red at length black, Surface tuberculate wrinkled



and Miscellaneous Particulars.

2484. *Penicillium*. A name with the same meaning as *Aspergillus*, to which genus this is extremely similar in appearance.
2485. *Trichoderma*. From *Τριχ* τριχος, hair, and *δερμα*, a coat. The threads to which the sporules are attached spread round, radiating through the powdery mass in little tufts from a subjacent membrane.
2486. *Rubigo*. An ancient Latin name of blight. There was a inferior deity whom the Romans acknowledged under the name of Rubigus, and whom they propitiated in bad seasons. All the productions referred hither are popularly called mildew or blight.
2487. *Erineum*. So named in reference to its hispid appearance, which resembles the common hedge-hog, *Erinaceus*. Found growing upon leaves in little tufts.
2488. *Tubercularia*. So named in allusion to its warted appearance.

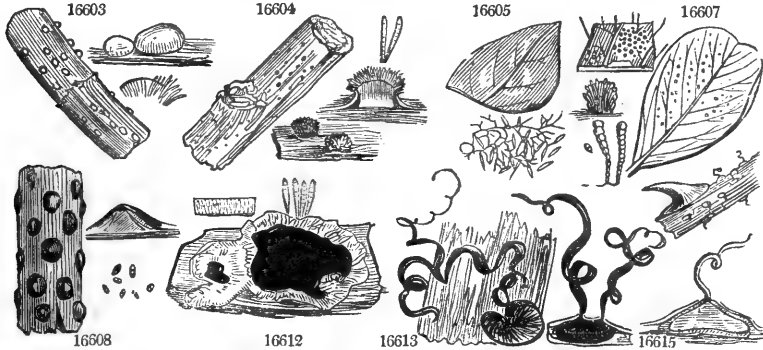
|                          |                       |          |        |      |                   |
|--------------------------|-----------------------|----------|--------|------|-------------------|
| 2489. FUSARIUM Link.     | FUSARIUM.             | Sp. 1—2. |        |      |                   |
| 16603 tremelloides Greu. | gelatinous very small | 0        | spring | Pksh | dead nettle stems |
| 2490. EXOSPORIUM Link.   | EXOSPORIUM.           | Sp. 1—2. |        |      |                   |
| 16604 Tiliae Link        | Linden punctif.       | 0        | sept.  | Bl   | linden branches   |

Class II. ENTOPHYTE. — Division I. *Stilbosporci.*

|                            |                |                |   |          |                             |
|----------------------------|----------------|----------------|---|----------|-----------------------------|
| 2491. FUSIDIUM Link.       | FUSIDIUM.      | Sp. 2—2.       |   |          |                             |
| 16605 griseum Greu.        | grey           | effus. spo.    | 0 | aut.     | Wsh dead beech leaves       |
| 16606 flavo-virens Ditlm.  | yellow-green   | effus. spo.    | 0 | aut.     | Ysh dead beech leaves       |
| 2492. POLYTHRINCIUM Kunze. | POLYTHRINCIUM. | Sp. 1.         |   |          |                             |
| 16607 Trifolii Kunze       | Trefoil        | punctif.       | 0 | aut.     | Bl clover leaves            |
| 2493. STILBOSPORA Hoffm.   | STILBOSPORA.   | Sp. 4—2.       |   |          |                             |
| 16608 profusa Greu.        | profuse        | spots          | 0 | spring   | Br sycamore branches        |
| 16609 microsperma Pers.    | small grain.   | emerging       | 0 | all sea. | Bl dead beech bran.         |
| 16610 ovata Pers.          | ovate          | dots           | 0 | aut.     | Br dead branches            |
| 16611 biloculata Greu.     | two-celled     | emerging       | 0 | all sea. | Bl dead furze branch.       |
| 2494. SPORIDERMIUM Link.   | SPORIDERMIUM.  | Sp. 1—2.       |   |          |                             |
| 16612 atrum Link.          | dark           | parasitic      | 0 | aut.     | Bl on species of Thelephora |
| 2495. NEMASPORA Pers.      | NEMASPORA.     | Sp. 3—2.       |   |          |                             |
| 16613 Carpini Sowerb.      | Hornbeam       | irregular      | 0 | all sea. | Bl dead hornbeam            |
| 16614 filamentosa Greu.    | filamentous    | tortuous       | 0 | all sea. | Gr.Bl dead branches         |
| 16615 Rosarum Greu.        | Rose           | slightly prom. | 0 | all sea. | Bl dead rose branches       |

Division II. *Hypodermia.*

|                             |                         |           |         |          |                                   |
|-----------------------------|-------------------------|-----------|---------|----------|-----------------------------------|
| 2496. CYLINDROSPORIUM Greu. | CYLINDROSPORIUM.        | Sp. 1—2.  |         |          |                                   |
| 16616 concentricum Greu.    | concent. speck-lik.hea. | 0         | my. jn. | W        | cabbage leaves                    |
| 2497. UREDO Pers.           | UREDO.                  | Sp. 45—2. |         |          |                                   |
| 16617 Geranii Dec.          | Geranium                | scattered | 0       | sum.     | D.Br on Geranium lvs.             |
| 16618 Ficariae Alb.         | Pile-wort               | pulverul. | 0       | su.aut.  | D.Br under Ficaria lvs.           |
| 16619 suavifolens Pers.     | odoriferous             | fragrant  | 0       | spr. su. | Pu.Br Cnicus arvensis lvs.        |
| 16620 Polygonorum Dec.      | Polygonum               | spreading | 0       | su.aut.  | Pa.Br under Polygonum lvs.        |
| 16621 Primulæ Dec.          | Primrose                | scattered | 0       | sum.     | Pa.Br under primrose lvs.         |
| 16622 Cichoracearum Dec.    | Syngenesious            | spots     | 0       | su.aut.  | D.Br on Compositæ lvs.            |
| 16623 Heraclei Greu.        | Cow-Parsnep             | patches   | 0       | sum.     | Pa.Br under Sphondylium lvs.      |
| 16624 bifrons Greu.         | two-sided               | spots     | 0       | aut.     | Pa.Br both sides of sorrel leaves |
| 16625 Ramicum Dec.          | Dock                    | small     | 0       | aut.     | Br on Rumex leaves                |
| 16626 Faba Pers.            | Bean                    | patches   | 0       | aut.     | Pa.Br on bean leaves              |
| 16627 Labiatarum Dec.       | Mint                    | pustular  | 0       | aut.     | Y.Br on mint leaves               |
| 16628 intrusa Greu.         | depressed               | scattered | 0       | aut.     | R.Br on Alchimella lvs.           |
| 16629 oblongata Lk.         | oblong                  | pustular  | 0       | sum.     | R.Br on Luzula leaves             |



History, Use, Propagation, Culture,

2489. *Fusarium*. The sporules are remarkable for their regular fusiform figure.  
 2490. *Exosporium*. So called by Link, from  $\xi\varsigma$ , on the outside, and  $\sigma\sigma\epsilon\sigma\varsigma$ , a spore; on account of their external situation. Entire plant about one-third of a line in diameter, rarely larger, very gregarious, deep black, convex, bursting from beneath the epidermis, and appearing bristly under a pocket magnifier. Sporidia very crowded, elongated, obtuse at the apex, subopaque, divided transversely about five times, fixed at the base upon a roundish dark-colored, solid receptacle, and there persistent.

2491. *Fusidium*. A name with the same meaning as *Fusarium*.  
 2492. *Polythrincium*. From  $\pi\omicron\lambda\upsilon\varsigma$ , many, and  $\theta\epsilon\iota\gamma\kappa\omicron\varsigma$ , a little division. To the naked eye, this little plant appears in the form of numerous minute black spots of unequal size. Under the microscope, these spots are each found to consist of a number of distinct little roundish tufts of filaments, nearly equidistant from one another, and becoming smaller towards the circumference. The filaments are densely crowded, semitransparent, gradually thickening upwards, somewhat moniliform from the numerous articulations, erect, simple; the sporidia oval, two-celled, scattered among the filaments.

2493. *Stilbospora*. From  $\sigma\tau\acute{\iota}\lambda\alpha\varsigma$ , to shine, and  $\sigma\sigma\epsilon\sigma\varsigma$ , a spore. Asci or sporules naked, imbedded in a black substance flowing from the branches of trees.

16603 Minute roundish or oval subgelatinous, Sporules long slender slightly curved

16604 Gregarious black minute convex, Sporidia elongated obtuse about 5 times transversely divided

Class II. ΕΝΤΟΦΥΤΕ. — Division I. *Stäubsporei*.

16605 Mass thin irregular of a whitish or grey color

16606 Mass irregular thin bright-yellow or greenish

16607 The only species

16608 Heaps rather large, Sporidia extremely minute nearly equally 2-celled

16609 Black granulated irregularly ovate at length shapeless, Sporules ovate attenuated at each extremity

16610 Heaps small, Sporidia ovate unilocular

16611 Heaps roundish bursting through the bark, Sporules ovate obtuse 2-celled

16612 Black very crowded, Filaments linear-oblong 4 or 5 times divided

16613 Spherules depressed black immersed, Sporules large ovate escaping in the form of thick black tendrils

16614 Spherules very small grey black, Sporules excessively minute dust-like under a high magnifying power escaping in the form of long capillary entangled dull-orange tendrils

16615 Spherules waved when divided horizontally elevating the epidermis, Orifice blackish with a cottony margin, Sporules very minute forming a single short slightly tortuous whitish tendrils

Division II. *Hypodermia*.

16616 The only species

16617 Hypophyllous scattered dark fuscous round very pulverulent sometimes confluent, Sporidia globose

16618 Aggregated deep-brown chiefly hypophyllous confluent, Sporidia oval sometimes with a very min. stipes

16619 Hypophyllous scattered becoming confluent reddish or purplish-brown, Sporidia globose greenish under a high power of the microscope

16620 Hypophyllous circular scattered rarely disposed in a circle round a pale-brown centre, Sporidia globular

16621 Hypophyllous scattered single or disposed in a circle round a central one light-brown, Sporidia globular subovoid and rarely furnished with a minute pedicel

16622 On both sides of leaf dark fuscous minute round scattered, Sporidia globular rarely with a minute pedicel

16623 Hypophyllous scattered sometimes subconfluent roundish light-brown girt by the remains of epidermis, Sporidia oviform sometimes furnished with a very short blunt pedicel

16624 On both surfaces of the leaf and opposite to each other scattered round light-brown girt with the remains of the epidermis, Sporidia globose

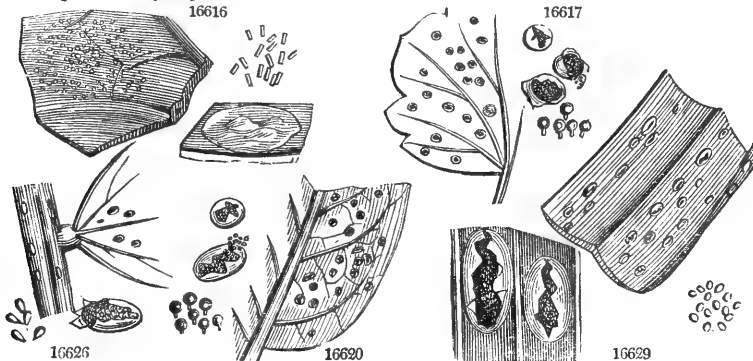
16625 On both surfaces of the leaf brown round minute often not bursting: the epidermis rarely disposed in a circle, Sporidia ovoid sometimes with minute pedicels

16626 Scattered round depressed light-brown girt with the remains of the epidermis, Sporidia rounded or suboval rarely with minute pedicels

16627 Hypophyllous pale yellowish-brown sometimes disposed in a circle round: a central one minute rarely confluent, Sporidia roundish or egg-shaped and rather hyaline

16628 Hypophyllous scattered or partially aggregated reddish-brown rounded somewhat prominent minute very unequal, Sporidia roundish or oval rarely pedicelled

16629 On both sides of the leaf scattered distinct oblong reddish-brown girt by the ruptured epidermis, Sporidia subglobose rarely subpedicelled



and Miscellaneous Particulars.

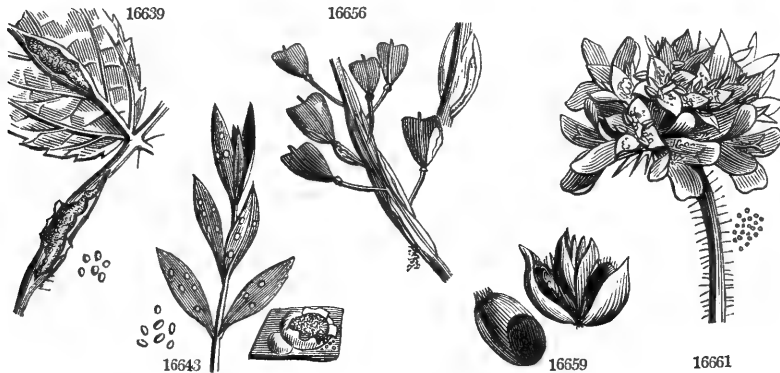
2494. *Sporidermium*. From *σπορος*, a spore, and *δερμα*, a skin, or coat. A plant of a very simple structure, composed entirely of linear-oblong or club-shaped semi-opaque bodies, closely arranged side by side, exactly of the same height, and transversely divided by three or four disseppiments. When viewed with the naked eye, it resembles an intensely black thin crust, creeping over the surface of *Thelephora*. Specimens from Captain Carmichael, as well as those found by Dr. Greville, occurred on *Thelephora vulgaris*.

2495. *Nemaspora*. From *νημα*, a thread, and *σπορα*, a spore. The species resemble distorted threads filled with minute spores.

2496. *Cylindrosporium*. In allusion to the cylindrical form of the spores. Found on both surfaces of living cabbage leaves (*Brassica oleracea*). Frequent in May and June. A very extraordinary plant, forming minute speck-like heaps of an oblong shape, but otherwise very irregular, and projecting into little angles and processes. They are disposed in a concentric manner, are pure white, and change in decay to a dirty yellow. Spores naked, very numerous, cylindrical, truncate at each extremity, pellicid.

2497. *Uredo*. An old Latin name, from *uro*, to burn or scorch, applied to those occasional discolorations of the surfaces of plants which were attributed to blasts or injuries of the atmosphere or heavenly bodies, and are

|       |                             |                      |            |            |        |  |
|-------|-----------------------------|----------------------|------------|------------|--------|--|
| 16630 | <i>Sálícis Dec.</i>         | Willow               | mettled    | 0 aut.     | Y      | under <i>Salix pentandra</i> lvs.                                |
| 16631 | <i>Vitellínæ Dec.</i>       | Golden Osier         | pimpled    | 0 my. aut  | Y      | under <i>Sal. vitellina</i> lvs.                                 |
| 16632 | <i>farinósa Pers.</i>       |                      | mealy      | 0 aut.     | Pa. Y  | under <i>Sal. Caprea</i> lvs.                                    |
| 16633 | <i>Tussilágínis Pers.</i>   | Colt's-foot          | gyrose     | 0 sum.     | Or     | under coltsfoot lvs.   |
| 16634 | <i>Senecióinis Dec.</i>     | Ragwort              | blotches   | 0 sum.     | Or     | under <i>Senecio</i> lvs.  |
| 16635 | <i>confuens Pers.</i>       | confluent            | gyrose     | 0 sum.     | Y      | on <i>Mercurialis</i> lvs.                                       |
| 16636 | <i>Potentillæ Dec.</i>      | Cinquefoil           | powdery    | 0 sum.     | Gol. Y | on <i>Fragaria sterilis</i> lvs.                                 |
| 16637 | <i>Róseæ Pers.</i>          | Rose                 | mottled    | 0 sum.     | Or     | under rose lvs.  |
| 16638 | <i>Rubórum Dec.</i>         | Bramble              | very powd. | 0 sum.     | Gol. Y | under bramble lvs.   |
| 16639 | <i>effusa Grev.</i>         | effused              | spreading  | 0 sum.     | R. Or  | under Rosaceæ lvs. <i>Grev. crypt. fl. t. 19</i>                 |
| 16640 | <i>gyrósæ Rebert</i>        | concentric           | gyrose     | 0 spr. su. | Y      | on raspberry lvs.  |
| 16641 | <i>Alchemillæ Pers.</i>     | Lady's Mantle        | spreading  | 0 my. jn.  | Or     | under <i>Alchemilla</i> lvs.                                     |
| 16642 | <i>Rhinanthacearum Dec.</i> | bt.-yellow spots     |            | 0 su. aut. | R. Y   | Scrophularinææ   |
| 16643 | <i>Lini Dec.</i>            | Flax                 | shining    | 0 sum.     | Or. Y  | <i>Linum cartharticum</i> <i>Grev. crypt. fl. t. 31</i>          |
| 16644 | <i>Saxifragarum Dec.</i>    | Saxifrage            | brilliant  | 0 sum.     | Or     | Saxifrage  |
| 16645 | <i>Campánulæ Pers.</i>      | Campanula            | bright     | 0 sum.     | Or     | under <i>Campanula</i> lvs.                                      |
| 16646 | <i>Py'rolæ Grev.</i>        | Winter Green         | minute     | 0 sum.     | Gold.  | under <i>Pyrola</i> lvs.   |
| 16647 | <i>Helioscópis Dec.</i>     | Euphorbia            | round      | 0 aut.     | Gold.  | under <i>Euphorbia</i> lvs.                                      |
| 16648 | <i>lineáris Pers.</i>       | linear               | very com.  | 0 sp. aut. | Y      | on grass leaves  |
| 16649 | <i>æcidii'formis Grev.</i>  | <i>Æcidium</i> -like | pustular   | 0 spring   | Y      | on <i>Sphondylium</i> lvs.                                       |
| 16650 | <i>Cerástii Grev.</i>       | Cerastium            | punctif.   | 0 sum.     | Gold.  | on <i>Cerast. viscosum</i> lvs.                                  |
| 16651 | <i>pustuláta Pers.</i>      | pimpled              | punctif.   | 0 spring   | Y      | on <i>Epilobium palustre</i> lvs.                                |
| 16652 | <i>Sónchi Pers.</i>         | Sow Thistle          | spreading  | 0 sum.     | R. Or  | under <i>Sonch. olerac.</i> lvs.                                 |
| 16653 | <i>Petasitis Dec.</i>       | Petasites            | gyrose     | 0 aut.     | Or     | under <i>Petasites</i> lvs.                                      |
| 16654 | <i>Populína Pers.</i>       | Poplar               | beautiful  | 0 aut.     | Gold.  | under <i>Populus nigra</i> lvs. <i>Ann. wett. 2. t. 11. f. 5</i> |
| 16655 | <i>ováta Strauss</i>        | Aspen                | spots      | 0 aut.     | Tawn.  | on <i>Populus tremula</i> lvs. <i>Ann. wett. 2. t. 11. f. 6</i>  |
| 16656 | <i>cándida Pers.</i>        | white                | spreading  | 0 aut.     | W      | Cruciferææ<br><i>Sower. t. 340. Thlaspi</i>                      |
| 16657 | <i>ségetum Pers.</i>        | Smut Brand           | spreading  | 0 sum.     | Bl     | within grains of corn  |
| 16658 | <i>urceolórum Dec.</i>      | sedge                | spreading  | 0 sum.     | Bl     | on fructif. of <i>Carex</i>                                      |
| 16659 | <i>cáries Dec.</i>          | cankering            | destroying | 0 aut.     | Bl. Br | within grains of wheat <i>Deutschl. fl. t. 34</i>                |
| 16660 | <i>antherárum Dec.</i>      | Anther               | spreading  | 0 sum.     | Pu     | on <i>Caryophyllææ</i>   |
| 16661 | <i>flosculósum Dec.</i>     | Floret               | spreading  | 0 sum.     | Pu. Br | on <i>Scabiosa arvensis</i> <i>Sow. t. 396. f. 2. Scabiosa</i>   |
| 2498. | <i>ÆCIDIUM. Pers.</i>       | <i>ÆCIDIUM.</i>      |            |            |        | <i>Sp. 21.—?</i>   |
| 16662 | <i>Pini Pers.</i>           | Pine                 | scattered  | ‡ sum.     | Fa. Or | on <i>Pinus sylvestris</i> <i>Grev. crypt. fl. t. 7</i>          |
| 16663 | <i>Epilóbii Dec.</i>        | Epilobium            | beautiful  | 0 sum.     | W      | on <i>Epilobium montanum</i> lvs.                                |
| 16664 | <i>Violárum Dec.</i>        | Violet               | crowded    | 0 sum.     | Wsh    | under <i>Viola canina</i> lvs.                                   |
| 16665 | <i>albescens Grev.</i>      | whitish              | beautiful  | 0 april    | W      | <i>Adoxa moschatellina</i>                                       |
| 16666 | <i>Taráxaci Grev.</i>       | Dandelion            | spreading  | 0 sum.     | W      | under <i>Leontodon Taraxacum</i> lvs.                            |
| 16667 | <i>Periclymeni Dec.</i>     | Woodbine             | large spot | 0 sum.     | Ysh    | under woodbine lvs.  |
| 16668 | <i>Bánii Dec.</i>           | Ground Nut           | deformed   | 0 spring   | Ysh    | on <i>Bunium</i> lvs.  |

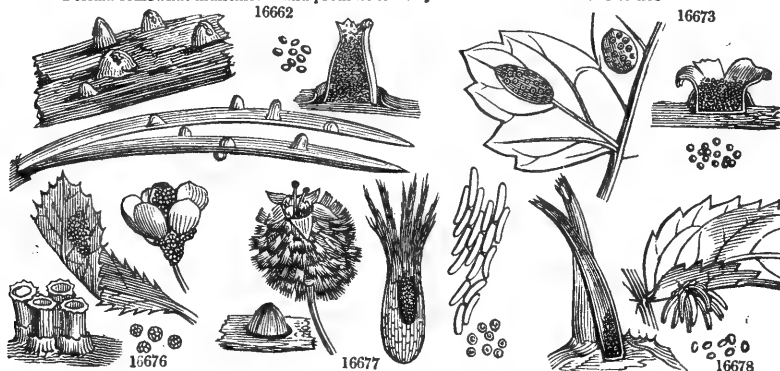


*History, Use, Propagation, Culture,*

called mildew or blight. All the species are obscure and require further examination. They are in the hands of Bauer, whose knowledge and pictorial powers cannot be better employed than in illustrating this obscure part of vegetation.

- 16630 Hypophyl. scatter. very min. rounded becom. contigu. but not confluent, Sporidia pyriform subpedicellate  
 16631 Hypophyl. very min. convex orbicular scattered becom. confluent, Sporidia very min. globul. transparent  
 16632 Hypophyl. pale ochrey-yell. distinct at first soon bursting becom. confu. and very pulverul. Sporidia oval  
 16633 Hypophyllous bright orange-yellow prominent crowded generally forming circles and becoming very confluent, Sporidia very numerous obovate  
 16634 Hypophyllous orange-yellow oblong irregular becoming confluent, Sporidia numerous  
 16635 Hypophyllous depressed yellow oblong concentric becoming confluent, Sporidia nearly oval  
 16636 Chiefly hypophyllous golden-yellow scattered irregular convex becoming confluent, Sporidia subspherical  
 16637 Hypophyllous small scattered effused orange-yellow, Sporidia suboval sometimes with a minute pedicel  
 16638 Hypophyllous golden-yellow suborbicular becoming effused, Sporidia very numerous irregularly spherical  
 16639 Bright reddish-orange broad pulverulent hypophyl. and on nerves and petioles, Sporidia numer. subglob.  
 16640 Epiphyllous much scattered rather large yellow thick elevated from the leaf and bursting in a gyrose manner, Sporidia subglobose  
 16641 Hypophyl. lin. obl. crowded arranged in a subparallel manner orange-yell. becom. pale, Sporidia spherical  
 16642 Hypophyllous and on the petioles and calyx oblong thickish sometimes partly disposed in a circular manner and subconfluent deep reddish-yellow, Sporidia spherical  
 16643 On both sides of the leaf and stem suborbicular prominent bright orange-yellow scattered, Sporidia oval or even oblong transparent  
 16644 Hypophyllous and on the calyces rather large oval with an indurated disk after the sporidia have escaped, Sporidia bright orange spherical and granular within  
 16645 Hypophyllous scattered round depressed rarely confluent, Sporidia yellowish-orange spherical surrounded by the remains of the ruptured epidermis  
 16646 Hypophyllous punctiform scattered or collected into small clusters golden-yellow scarcely bursting, Sporidia ovate or oblong somewhat transparent and granular within  
 16647 Hypophyll. golden yell. scatter. distin. surround. by remains of ruptur. epidermis, Sporidia subglob. minute  
 16648 On both sides of the leaf oblong or lin. sometimes forming long lines yellow becoming reddish or brownish in decay, Sporidia globular or suboval  
 16649 Hypophyllous and on the petioles somewhat aggregated but generally following the course of the veins, bullated yellow bursting in the centre  
 16650 Chiefly hypophyllous very minute regular numerous convex late in bursting golden-yellow, Sporidia roundish oval or even oblong  
 16651 Chiefly hypophyllous very minute pale-yellow subrotund convex scattered or collected into clusters scarcely bursting, Sporidia suboval  
 16652 Hypophyll. depressed regular in form redd. orange scattered becoming partially confu. Sporidia egg-shaped  
 16653 Hypophyllous depressed minute spreading somewhat aggregated subconfluent irregular in form of a deep orange or orange-red, Sporidia oval  
 16654 Hypophyllous scattered or crowded distinct convex roundish large compared with the following mostly closed pale becoming golden-yellow. Sporidia very long obtuse at each extremity  
 16655 Hypophyllous punctiform prominent or papilliform numerous tawny yellow mostly closed, Sporidia ovate  
 16656 Polymorphous of various forms sometimes disposed in a circular manner quite white frequently never bursting, Sporidia in great profusion globular  
 16657 Within the fruit and glumes of corn and various grasses spreading and in a short time filling the whole with a profuse black dust, which under the microscope consists of minute spherical spores  
 16658 Attacking the fructification of Carices and forming a black compact slightly pulverulent mass composed of a pale solid nucleus surrounded by the naked sporidia which are small and globular  
 16659 Always inclosed within the grain and filling it with uniform dense fetid blackish-brown mass composed of very minute spherical sporidia  
 16660 Attack. anth. and ovary of the *Caryophyllææ*, fine purp. Spori. very plentiful pulverul. min. and globul.  
 16661 Sporidia very min. purpl.-brown plentiful produc. within forets and often filling them with pulverul. mass

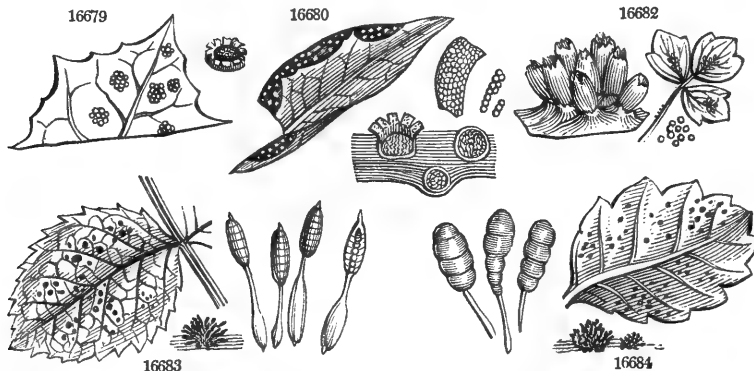
- 16662 Large oblong or conical much scattered pale-orange bursting with an irregular orifice, Sporidia excessively abundant bright-orange  
 16663 Hypophyllous numerous distinct, Sporidia very white toothed, Teeth beautifully rolled back brittle and vanishing, Sporidia pinkish-orange  
 16664 Hypophyllous and on the petioles scattered or subaggregated numerous, Peridia whitish split into many small deciduous teeth, Sporidia orange becoming obscure brown  
 16665 Hypophyllous and on the petioles scattered distinct, Peridia very white split into a few comparatively large teeth, Sporidia yellowish-white, Surface of the leaf blistered whitish  
 16666 Hypophyllous very numerous subsessile scattered or collected into little clusters, Peridia white split into subrevolute teeth, Sporidia fine orange  
 16667 Hypophyllous, Peridia distinct but decidedly clustered and crowded prominent becoming subelongated; the mouth with a few broad very delicate deciduous teeth, Sporidia fine orange  
 16668 Hypophyllous and on the petioles irregularly clustered and deforming the parts on which it grows, Peridia somewhat indistinct round prominent and yellowish with a subentire orifice



and Miscellaneous Particulars.

2498. *Acidium*. These plants are found upon the leaves of other vegetables, and one of them is known to agriculturists under the name of Red Gum. This species usually grows inside the glumes of the calyx, under the epidermis, which, when the plant is ripe, bursts and emits a powder of a bright orange color. It does not

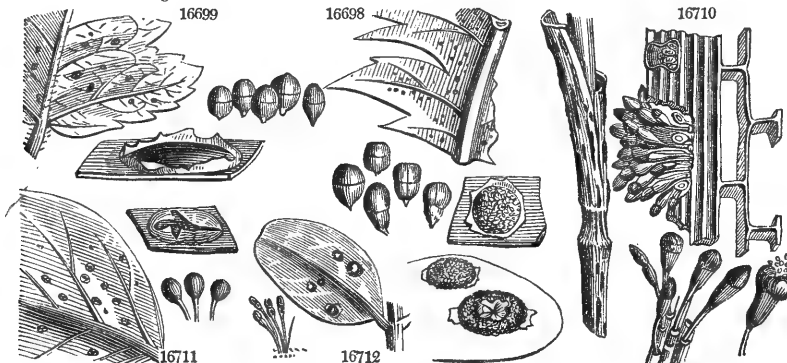
|       |                             |                  |                  |          |                 |   |
|-------|-----------------------------|------------------|------------------|----------|-----------------|---|
| 16669 | <i>Jacobææ Grev.</i>        | Ragwort          | agglomerat.      | 0 sum.   | Ysh             | under Sen. <i>Jacobææ</i> lvs.                              |
| 16670 | <i>Prenánthis Pers.</i>     | Prenanthes       | spots            | 0 sum.   | W               | under <i>Hierac. sylvat.</i> lvs.                           |
| 16671 | <i>Urticæ Dec.</i>          | Nettle           | clusters         | 0 sum.   | Ysh             | on <i>Urtica dioica</i>                                     |
| 16672 | <i>confértum Dec.</i>       | dense            | clusters         | 6 sum.   | Wsh             | on <i>Ficaria</i>   |
| 16673 | <i>Grossuláriæ Dec.</i>     | Gooseberry       | bright sp.       | 0 sum.   | R               | under gooseberry lvs. <i>Grev. crypt. fl. t. 62</i>         |
| 16674 | <i>Ranunculaceárum Dec.</i> | Crowfoot         | clusters         | 0 sum.   | Wsh             | under <i>Ranunc. lingua</i> lvs.                            |
| 16675 | <i>Cal'thæ Grev.</i>        | <i>Caltha</i>    | bright           | 0 spring | Or              | under <i>Caltha palustris</i> lvs.                          |
| 16676 | <i>Berbéridis Pers.</i>     | Berberry         | blight spreading | 0 sum.   | Or              | on <i>Berb. vulgaris</i> <i>Grev. crypt. fl. t. 97</i>      |
| 16677 | <i>lacerátum Dec.</i>       | ragged           | swollen          | 0 sum.   | Br              | on hawthorn <i>Grev. crypt. 209</i>                         |
| 16678 | <i>cornátum Pers.</i>       | cornute          | spots            | ½ sum.   | Y.Br            | on mountain-ash <i>Grev. crypt. 180</i>                     |
| 16679 | <i>Tussiláginis Pers.</i>   | Coltsfoot        | concentrical     | 0 sum.   | Psh             | under <i>Farfara</i> lvs. <i>Sower. t. 397. f.</i>          |
| 16680 | <i>rubéllum Dec.</i>        | pink             | concentrical     | 0 sum.   | Crim.           | under <i>Rumex</i> lvs. <i>Sow. t. 405. Rumicis</i>         |
| 16681 | <i>All'ii Pers.</i>         | Allium           | concentrical     | 0 sum.   | Y               | under <i>All. ursinum</i> lvs.                              |
| 16682 | <i>Thalictri Grev.</i>      | Thalictrum       | clustered        | 0 sum.   | Or              | <i>Thalictrum alpinum</i> <i>Grev. crypt. 4</i>             |
| 2499. | <b>PUCCY'NIA. Mich.</b>     | <b>PUCCINIA.</b> |                  |          | <i>Sp. 30—?</i> |   |
| 16683 | <i>Róssæ Grev.</i>          | Rose             | many-cell.       | 0 aut.   | Bl              | under rose leaves <i>Grev. crypt. fl. t. 15</i>             |
| 16684 | <i>Róbi Dec.</i>            | Bramble          | many-cell.       | 0 aut.   | Bl              | under bramble lvs.  |
| 16685 | <i>grácilis Grev.</i>       | slender          | many-cell.       | 0 aut.   | Bl              | under raspberry lvs.  |
| 16686 | <i>Potentillæ Pers.</i>     | Potentilla       | many-cell.       | 0 aut.   | Bl              | under <i>Potentilla</i> lvs. <i>Grev. crypt. fl. t. 57</i>  |
| 16687 | <i>Aspáragi Dec.</i>        | Asparagus        | two-celled       | 0 aut.   | Bl              | dead asparagus  |
| 16688 | <i>Circææ Pers.</i>         | Circeæ           | two-celled       | 0 aut.   | Pk.Br           | under <i>Circeæ</i> lvs.                                    |
| 16689 | <i>Chrysosplénii Grev.</i>  | Chrysosplen.     | two-celled       | 0 may    | Pa.Br           | under <i>Chrys. opp.</i> lvs.                               |
| 16690 | <i>Aviculáriæ Dec.</i>      | knot grass       | two-celled       | 0 aut.   | Bl              | under <i>Polygonum</i> lvs.                                 |
| 16691 | <i>Ægopódii Strauss</i>     | Ægopodium        | two-celled       | 0 aut.   | B.Gr            | on Ægopodium lvs.   |
| 16692 | <i>túmida Grev.</i>         | tumid            | two-celled       | 0 june   | Br.Gr           | on <i>Bunium Bulbocastanum</i>                              |
| 16693 | <i>Men'thæ Pers.</i>        | Mint             | two-celled       | 0 spring | Bl              | under <i>Mentha</i> lvs.                                    |
| 16694 | <i>Polygóni Pers.</i>       | Polygonum        | two-celled       | 0 aut.   | R.Br            | under <i>Polyg. amphib.</i> lvs.                            |
| 16695 | <i>Centaureæ Dec.</i>       | Centaury         | two-celled       | 0 aut.   | Bl              | on <i>Centaurea nigra</i>                                   |
| 16696 | <i>Umbelliferárum Dec.</i>  | Umbellifer.      | two-celled       | 0 aut.   | Ve.D            | on Umbelliferae lvs.  |
| 16697 | <i>Saniculæ Grev.</i>       | Sanicle          | two-celled       | 0 aut.   | Bl.Br           | under <i>Sanicula</i> lvs.                                  |
| 16698 | <i>variábilis Grev.</i>     | variable         | two-celled       | 0 aut.   | Blsh            | on <i>Leont. Taraxacum</i> <i>Grev. crypt. fl. t. 75</i>    |
| 16699 | <i>Heráclei Grev.</i>       | Cow Parsnip      | two-celled       | 0 sum.   | Blsh            | under <i>Sphondylium</i> lvs. <i>Grev. crypt. fl. t. 49</i> |
| 16700 | <i>Epilóbii Dec.</i>        | Epilobium        | two-celled       | 0 june   | Br              | under <i>Epilobium palustre</i> lvs.                        |
| 16701 | <i>Betónicæ Dec.</i>        | Betony           | two-celled       | 0 aut.   | Ferr.           | under <i>Beton. offic.</i> lvs.                             |
| 16702 | <i>pulverulénta Grev.</i>   | powdery          | two-celled       | 0 sum.   | D.Br            | under <i>Epilobium</i> lvs.                                 |
| 16703 | <i>Adóxxæ Dec.</i>          | Moschatel        | two-celled       | 0 sum.   | D.Br            | on <i>Adoxa Moschatellina</i>                               |



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appears to be materially injurious to the grain, if at all. Ears full of it have been found with very plump grains; and it has also been found upon branched ears. Before the cuticle which covers the fungus bursts, it has much the appearance of a pustule upon the human body.

- 16669 Hypophyllous at first prominent pustular soon becoming agglomerated very numerous, Peridia splitting into short brittle yellowish-white teeth, Sporidia pale-orange
- 16670 Hypophyllous in widely scattered agglomerated clusters but not very crowded, Peridia subsessile split into very white exceedingly brittle teeth, Sporidia pale
- 16671 Hypophyllous and on the petioles and stem, Peridia campanulate agglomerated rarely single split into many short recurved teeth, Sporidia ochre-yellow numerous ovate
- 16672 Hypophyllous and on the petioles, Peridia in dense agglomerated clusters whitish split into revolute teeth, Sporidia yellowish : the leaf whitish around the clusters
- 16673 Hypophyllous upon a thickened portion of the leaf, which on the upper surface is of a fine red color with a yellow border, Peridia densely crowded splitting into yellowish-white teeth, Sporidia pale
- 16674 Hypophyllous, Peridia agglomerated in scattered clusters of various sizes whitish with a brittle dentated margin, Sporidia yellow
- 16675 Hypophyllous and on the petioles aggregated short somewhat campanulate with numerous very minute marginal teeth, Sporidia bright-orange subglobose or oval
- 16676 Hypophyllous and on the fruitstalk, seed-vessel, calyx, and even petals, Peridia short or elongated cylindrical densely crowded fine orange, Sporidia yellow under the microscope
- 16677 Hypophyllous and on the petioles and young fruit, Peridia elongated agglomerated brown splitting to the base in capillary segments, Sporidia numerous light-brown
- 16678 Hypophyllous, Peridia 2-12 long cylindrical slightly curved yellowish-brown springing from an orange-colored thickened portion of the leaf, Sporidia numerous greyish becoming brown
- 16679 Hypophyllous marked on the upper surface of the leaf by a yellow or purplish spot, Peridia partly immersed short splitting into white revolute teeth, Sporidia pink-orange
- 16680 Hypophyllous producing a crimson spot on the upper surface of the leaf, Peridia minute subimmersed splitting regularly into small revolute white teeth, Sporidia yellowish-white
- 16681 Hypophyllous marked by a pale spot on the upper surface of the leaf and a pale ring round the peridia, which are small not numerous splitting into small brittle yellowish-white teeth, Sporidia pale
- 16682 Hypophyllous somewhat clustered, Clusters of a roundish form, Peridia oblongo-cylindrical bright-orange, Mouth paler and bursting irregularly
- 16683 Hypophyllous, Sporidia mucronated 5-7-celled with a white filiform stipes incrassated towards the base which is furnished with a yellow gland
- 16684 Hypophyllous deep-black tufted, Sporidia 4-celled obtuse mucronate, Stipes slender incrassated at the base
- 16685 Hypophyllous tufted of various sizes black rather lax scattered, Sporidia 7-9-celled somewhat attenuated mucronate with a slender stipes incrassated at the base
- 16686 Somewhat tufted scattered black, Sporidia cylindrical 3-4-celled obtuse never mucronated, Stipes filiform
- 16687 Round, or ov. obl. scatter. black somew. convex, Sporidia densely crowded obl. obt. firmly fix. by pedicels
- 16688 Hypophyll. deep pinkish-brown promin. consist. of a number of distinct aggregat. tufts, Sporidia obl. acute
- 16689 Hypophyllous small of various sizes few together and confluent pale-brown, Sporidia long somewhat waved much attenuated at each extremity with an elongated stipes
- 16690 Hypophyllous punctiform minutely tufted subrotund blackish-brown, Sporidia crowded obtusely egg-shaped with a long flexuose filiform pedicel
- 16691 Chiefly hypophyllous minute aggregated rendering the nerves and petioles swollen dark bluish-grey before bursting, Sporidia nearly black oval not contracted in the centre, Stipes short
- 16692 Hypophyllous and on the petioles conglomerated confluent brownish-grey before bursting, Sporidia nearly black obtuse scarcely contracted in the centre : the upper cell sometimes divided
- 16693 Hypophyllous round scattered nearly black, Sporidia of an obtuse irregular figure with a short filiform stipes somewhat incrassated at the base
- 16694 Hypophyllous minute round very crowded reddish-brown : upper cell of the sporidia thick globose ; the lower one long and narrow, Stipes short
- 16695 On both sides of the leaf and on the stem in small nearly black scattered tufts surrounded by the remains of the ruptured epidermis, Sporidia oval the two cells nearly equal, Stipes very short
- 16696 Hypophyllous minute very dark scattered, Sporidia short with both cells obtuse and a short stipes
- 16697 Hypophyllous circular very variable in size blackish-brown scattered rarely confluent, Sporidia very obtuse with a subelongated stipes
- 16698 On both sides of the leaf in minute tufts nearly black circular bordered by the remains of the epidermis, Sporidia variable very obtuse rounded 2-celled both often subdivided, Stipes very short
- 16699 Hypophyllous blackish-brown irregular in figure girt by ferruginous remains of epidermis, Sporidia crowded obtuse divided but scarcely contracted in the middle, Stipes short
- 16700 Hypophyllous scattered closely over the whole surface small round brown depressed, Sporidia much contracted in the centre nearly resembling figure 8 : the upper cell largest
- 16701 Hypophyllous very thickly scattered and becoming contiguous but very rarely confluent minute at first and ferruginous after bursting, Sporidia short : upper cell obtuse, Stipes very short
- 16702 Hypophyllous dark-brown scattered or sub-confluent often concentric, Sporidia crowded pulverulent obtusely oval slightly contracted in the middle : the lower cell terminating in an abrupt and short stipes
- 16703 On the leaf and petiole crowded confluent, Sporidia dark-brown pulverulent : upper cell obtuse, Stipes somewhat lengthened



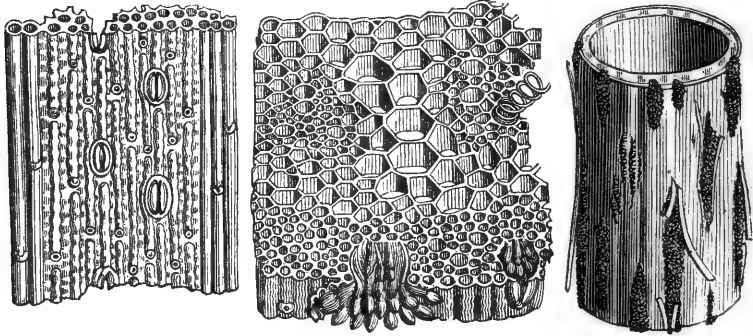
## and Miscellaneous Particulars.

2499. *Puccinia*. A name of obscure meaning ; possibly derived from *πύμα*, closely packed, in allusion to the crowded manner in which the little plants are placed. *P. graminis* is a plant too well known to the farmer under the name of blight. It attacks the stem and leaves of corn, at first having the appearance of orange-



|                              |            |                       |       |                                   |                                |
|------------------------------|------------|-----------------------|-------|-----------------------------------|--------------------------------|
| 16704 <i>Primulæ Grev.</i>   | Primrose   | two-celled 0 sum.     | D.Br  | under primrose lvs.               |                                |
| 16705 <i>Violæ Dec.</i>      | Violet     | two-celled 0 sum.     | D.Br  | under <i>Viola canina</i> lvs.    |                                |
| 16706 <i>Valántiæ Pers.</i>  | Cross-wort | two-celled 0 sum.     | Dp.Br | on <i>Galium verum</i>            |                                |
| 16707 <i>glomerátæ Grev.</i> | heaped     | two-celled 0 spr. su. | Dp.Br | under <i>Senecio Jacobææ</i> lvs. |                                |
| 16708 <i>Ulmáriæ Dec.</i>    | Ulmaria    | two-celled 0 aut.     | Pu.Bl | under <i>Ulmaria</i> lvs          |                                |
| 16709 <i>caricína Dec.</i>   | Sedge      | two-celled 0 aut.     | Bl    | on <i>Carex</i> leaves            |                                |
| 16710 <i>Gráminis Pers.</i>  | Grass      | two-celled 0 aut.     | Bl    | on corn & grasses                 | Sow. t.140. <i>U. Frumenti</i> |
| 16711 <i>globósa Grev.</i>   | globose    | one-celled 0 aut.     | Bl    | on bean leaves                    | Grev. crypt. fl. t. 89         |
| 16712 <i>Báxi Sou.</i>       | Box        | two-celled 0 sum.     | Br    | leaves of box                     | Grev. crypt. fl. t. 17         |

16710



#### History, Use, Propagation, Culture,

coloured streaks, which afterwards assume a deep chocolate-brown colour. The little plants chiefly attack the parenchyma, immediately below the stomata with which the cuticle abounds. Each individual is so small, that any stoma on a straw will, according to Sir Joseph Banks, produce from twenty to forty fungi, and every one of them will, no doubt, produce at least one hundred reproductive particles; so that the progeny from a single stoma will be enough to infect a whole plant. The period of a generation is supposed not to exceed a week; and as the reproductive particles are exceedingly light, they are wafted aloft in the air, which is thus loaded with clouds of animated dust, ready upon the first favourable occasion to carry blight and disease into all the neighbourhood. The figures which illustrate this subject are copies of Mr. Bauer's illustrations of blight, published in 1805 by Sir Joseph Banks. *a* (preceding page), a piece of infected wheat stem, natural size; *b*, a highly magnified longitudinal cutting of the same; *c* to *n*, highly magnified representations of the *Puccinia gráminis* in various states; *o*, a piece of the cuticle magnified, and showing the stomata; *p*, a highly magnified transverse cutting of the straw; *q*, a magnified representation of the outside of the straw; *r*, a very highly magnified representation of a part of the same.

The alarming state of the harvest of August 1804, from what is vulgarly called blight, induced Sir Joseph Banks to have some blighted stalks of wheat examined under a powerful microscope, and drawings made from them by Mr. Francis Bauer. These were published in a pamphlet in January 1805, the object of which, as we are informed in the advertisement, was to procure "actual observations on the origin and progress of the disease" from those "intelligent agriculturists, whose residence in the country enables them daily to examine, not only the progress of their crops, but the origin and advances also of all those obstacles which nature has opposed to the success of agricultural labours, as if to awaken the energies of reason, and to reward the farmer for the exertions of his intellectual faculties, by the satisfaction of surmounting them."

As we have here a space that would otherwise be unoccupied, we cannot do better than to fill it up by transcribing the whole of the pamphlet alluded to, there being still ample room for "actual observations" on that baneful disease.

"Botanists have long known that the blight in corn is occasioned by the growth of a minute parasitic fungus or mushroom on the leaves, stems, and glumes of the living plant. Felice Fontana published, in the year 1767, an elaborate account of this mischievous weed\*, with microscopic figures which give a tolerable idea of its form; more modern botanists† have given figures both of corn and of grass affected by it, but have not used high magnifying powers in their researches.

"Agriculturists do not appear to have paid, on this head, sufficient attention to the discoveries of their fellow-labourers in the field of nature; for though scarcely any English writer of note on the subject of rural economy has failed to state his opinion of the origin of this evil, no one of them has yet attributed it to the real cause, unless Mr. Kirby's excellent papers on some diseases of corn, published in the *Transactions of the Linnean Society*, are considered as agricultural essays.

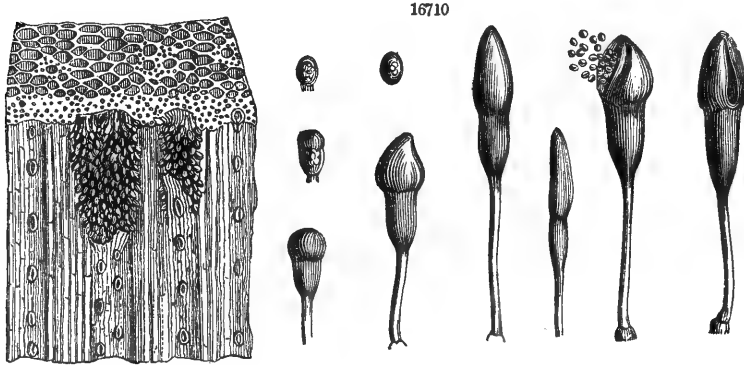
"On this account it has been deemed expedient to offer, to the consideration of farmers, engravings of this destructive plant, made from the drawings of the accurate and ingenious Mr. Bauer, botanical painter to His Majesty, accompanied with his explanation, from which it is presumed an attentive reader will be able to form a correct idea of the facts intended to be represented, and a just opinion whether or not they are, as is presumed to be the case, correct and satisfactory.

"In order, however, to render Mr. Bauer's explanation more easy to be understood, it is necessary to premise, that the striped appearance of the surface of a straw, which may be seen with a common magnifying glass, is caused by alternate longitudinal partitions of the bark, the one imperforate, and the other furnished with one or two rows of pores or mouths, shut in dry, open in wet weather, and well calculated to imbibe fluid whenever the straw is damp. Pores or mouths similar to these are placed by nature on the surface of the leaves, branches, and stems of all perfect plants, a provision intended, no doubt, to compensate, in some measure, the want of locomotion in vegetables. A plant cannot when thirsty go to the brook and drink, but it can open innumerable orifices, for the reception of every degree of moisture which either falls in the shape of rain and of dew, or is separated from the mass of fluid always held in solution by the atmosphere; it seldom

\* \* Osservazioni sopra la Ruggine del Grano. Lucca, 1767. 8vo.

† † Sowerby's English Fungi, vol. ii. tab. 140. Wheat; tab. 189. Púa aquática.

- 16704 Hypophyllous deep brown solitary scattered or concentric and subconfluent, Sporidia rather slender with the lower cell attenuated into a short stipes  
 16705 Hypophyllous minute scattered sometimes confluent irregular in form nearly black, Sporidia short obtuse small with a short stipes  
 16706 Hypophyll. very min. scatter. deep-brown, Sporidia thick obt. variable in shape with lower cell fusiform  
 16707 Hypophyllous tufts circular depressed broad dark fuscous composed of many smaller ones confluent at the centre, Sporidia oblong with lower cell somewhat attenuated  
 16708 Hypophyllous purplish black scattered in tufts, Sporidia variable generally very obtuse two rarely 3-celled frequently also divided perpendicularly, Stipes short  
 16709 Epiphyllous brown eventually black oval often confluent and forming long lines, Sporidia oblong with a white filiform stipes firmly fixed at its base  
 16710 Tufts dense oblong often confluent and forming long parallel lines changing from yellowish-brown to black, Sporidia elongated: the upper cell the shortest, Stipes filiform  
 16711 Epiphyllous minute scattered nearly black, Sporidia globose with a filiform slender stipes  
 16712 Scattered reddish-brown round very convex surrounded by the ruptured epidermis, Sporidia oblong 2-celled yellow with a long filiform stem



*and Miscellaneous Particulars.*

happens in the driest season, that the night does not afford some refreshment of this kind, to restore the moisture that has been exhausted by the heats of the preceding day. By these pores, which exist also on the leaves and glumes, it is presumed that the seeds of the fungus gain admission, and at the bottom of the hollows to which they lead (*b p*) they germinate and push their minute roots, no doubt (though these have not yet been traced), into the cellular texture beyond the bark, where they draw their nourishment by intercepting the sap that was intended by nature for the nutriment of the grain; the corn, of course, becomes shrivelled in proportion as the fungi are more or less numerous on the plant; and as the kernel only is extracted from the grain, while the cortical part remains undiminished, the proportion of flour to bran, in blighted corn, is always reduced in the same degree as the corn is made light. Some corn of this year's crop will not yield a stone of flour from a sack of wheat; and it is not impossible, that in some cases the corn has been so completely robbed of its flour by the fungus, that if the proprietor should choose to incur the expense of thrashing and grinding it, bran would be the produce, with scarcely an atom of flour for each grain.

Every species of corn, properly so called, is subject to the blight; but it is observable that spring corn is less damaged by it than winter, and rye less than wheat, probably because it is ripe and cut down before the fungus has had time to increase in any large degree. Tull says, 'that white core, or bearded white, which has its straw like a rush full of pith, is less subject to blight than lammas white, which ripens a week later.' (See page 74.) The spring wheat of Lincolnshire was not in the least shrivelled this year, though the straw was in some degree infected: the millers allowed that it was the best sample brought to market. Barley was in some places considerably spotted, but as the whole of the stem of that grain is naturally enveloped in the hose or basis of the leaf, the fungus can in no case gain admittance to the straw; it is, however, to be observed, that barley rises from the flail lighter this year than was expected from the appearance of the crop when gathered in.

Though diligent enquiry was made during the last autumn, no information of importance relative to the origin or the progress of the blight could be obtained: this is not to be wondered at, for as no one of the persons applied to have any knowledge of the real cause of the maledy, none of them could direct their curiosity in a proper channel. Now that its nature and cause have been explained, we may reasonably expect that a few years will produce an interesting collection of facts and observations, and we may hope that some progress will be made towards the very desirable attainment of either a preventive or a cure.

It seems probable that the leaf is first infected in the spring, or early in the summer, before the corn shoots up into straw, and that the fungus is then of an orange colour; after the straw has become yellow, the fungus assumes a deep chocolate brown: each individual is so small, that every pore on a straw will produce from twenty to forty fungi, as may be seen in the plates, and every one of these will, no doubt, produce at least one hundred seeds; if then, one of these seeds tillers out into the number of plants that appear at the bottom of a pore (*b p*), how incalculably large must the increase be! A few diseased plants scattered over a field must speedily infect a whole neighbourhood, for the seeds of fungi are not much heavier than air, as every one who has trod upon a ripe puff-ball must have observed, by seeing the dust, among which is its seed, rise up and float on before him.

How long it is before this fungus arises at puberty and scatters its seed in the wind, can only be guessed at by the analogy of others; probably the period of a generation is short, possibly not more than a week in a hot season; if so, how frequently in the latter end of the summer must the air be loaded as it were with this animated dust, ready whenever a gentle breeze, accompanied with humidity, shall give the signal, to intrude itself into the pores of thousands of acres of corn. Providence, however, careful of the creatures it has created, has benevolently provided against the too extensive multiplication of any species of being; was it otherwise, the minute plants and animals, enemies against which man has the fewest means of defence, would increase to an inordinate extent. This, however, can in no case happen, unless many predisposing causes afford their combined assistance. But for this wise and beneficent provision, the plague of slugs, the plague of mice, the plagues of grubs, wireworms, chafers, and many other creatures whose power of multiplying is countless as the sands of the sea, would long before this time have driven mankind and all the larger animals from the face of the earth.

Though all old persons who have concerned themselves in agriculture remember the blight in corn many years, yet some have supposed that of late years it has materially increased; this, however, does not seem to be the case. Tull, in his *Horse-hoeing Husbandry*, p. 74., tells us that the year 1725 'was a year of blight, the like of which was never before heard of, and which he hopes may never happen again;' yet the average

*History, Use, Propagation, Culture, and Miscellaneous Particulars.*

price of wheat in the year 1726, when the harvest of 1725 was at market, was only 36s. 4d., and the average of the five years of which it makes the first, 37s. 7d.; 1797 was also a year of great blight; the price of wheat, in 1798, was 49s. 1d., and the average of the five years, from 1795 to 1799, 68s. 5d.

"The climate of the British isles is not the only one that is liable to the blight in corn; it happens occasionally in every part of Europe, and probably in all countries where corn is grown. Italy is very subject to it, and the last harvest of Sicily has been materially hurt by it. Specimens received from the colony of New South Wales show that considerable mischief was done to the wheat crop there, in the year 1803, by a parasitic plant very similar to the English one.

"It has been long admitted by farmers, though scarcely credited by botanists, that wheat in the neighbourhood of a barberry bush seldom escapes the blight. The village of Rollesby in Norfolk, where barberries abound and wheat seldom succeeds, is called by the opprobrious appellation of mildew Rollesby. Some observing men have of late attributed this very perplexing effect to the farina of the flowers of the barberry, which is in truth yellow, and resembles in some degree the appearance of the rust, or what is presumed to be the blight in its early state.

"It is, however, notorious to all botanical observers, that the leaves of the barberry are very subject to the attack of a yellow parasitic fungus, larger, but not otherwise different from the rust in corn.

"Is it not more than possible, that the parasitic fungus of the barberry and that of wheat are one and the same species, and that the seed is transferred from the barberry to the corn? Mistletoe, the parasitic plant with which we are the best acquainted, delights most to grow on the apple and hawthorn, but it flourishes occasionally on trees widely differing in their nature from both of these: in the Home Park, at Windsor, mistletoe may be seen in abundance on the lime trees planted there in avenues. If this conjecture is well founded, another year will not pass without its being confirmed by the observations of inquisitive and sagacious farmers.

"It would be presumptuous to offer any remedy for a malady, the progress of which is so little understood; conjecture, however, founded on the origin here assigned to it, may be hazarded without offence.

"It is believed, but not dogmatically asserted (because Fontane, the best writer on the subject, asserts that the yellow and dark coloured blight are different species of fungi), to begin early in the spring, and first to appear on the leaves of wheat in the form of rust, or orange-coloured powder; at this season, the fungus will, in all probability, require as many weeks for its progress from infancy to puberty as it does days during the heats of autumn; but a very few plants of wheat thus infected are quite sufficient, if the fungus is permitted to ripen its seed, to spread the malady over a field, or indeed, over a whole parish.

"The chocolate-coloured blight is little observed till the corn is approaching very nearly to ripeness; it appears then in the field in spots, which increase very rapidly in size, and are in calm weather somewhat circular, as if the disease took its origin from a central position.

"May it not happen, then, that the fungus is brought into the field in a few stalks of infected straw uncorrupted among the mass of dung laid in the ground at the time of sowing? It must be confessed, however, that the clover leys, on which no dung from the yard was used, were as much infected last autumn as the manure crops. The immense multiplication of the disease in the last season seems however to account for this; as the air was no doubt frequently charged with seed for miles together, and deposited it indiscriminately on all sorts of crops.

"It cannot, however, be an expensive precaution to search diligently in the spring for young plants of wheat infected with the disease, and carefully to extirpate them, as well as all grasses, for several are subject to this or a similar malady, which have the appearance of orange-coloured or black stripes on their leaves, or on their straw; and if experience shall prove that uncorrupted straw can carry the disease with it into the field, it will cost the farmer but little precaution to prevent any mixture of fresh straw from being carried out with his rotten dung to the field.

"In a year like the present, that offers so fair an opportunity, it will be useful to observe attentively whether cattle in the straw yard thrive better or worse on blighted or on healthy straw. That blighted straw, retaining on it the fungi that have robbed the corn of its flour, has in it more nutritious matter than clean straw which has yielded a crop of plump grain, cannot be doubted; the question is whether this nutriment in the form of fungi does or can be made to agree as well with the stomachs of the animals that consume it, as it would do in that of straw and corn.

"It cannot be improper in this place to remark, that although the seeds of wheat are rendered, by the exhausting power of the fungus, so lean and shrivelled that scarcely any flour fit for the manufacture of bread can be obtained by grinding them, these very seeds will, except, perhaps, in the very worst cases, answer the purpose of seed-corn as well as the fairest and plumpest sample that can be obtained, and in some respects better; for as a bushel of much blighted corn will contain one third at least more grains in number than a bushel of plump corn, three bushels of such corn will go as far in sowing land, as four bushels of large grain. Eighty grains of the most blasted wheat of the last year that could be obtained, were sown in pots in the hot-houses; of these, seventy-eight produced healthy plants, a loss of 10 per cent only.












"The use of the flour of corn in furthering the process of vegetation is to nourish the minute plant from the time of its development till its roots are able to attract food from the manured earth; for this purpose, one tenth of the contents of a grain of good wheat is more than sufficient. The quantity of flour in wheat has been increased by culture and management calculated to improve its qualities for the benefit of mankind, in the same proportion as the pulp of apples and pears has been increased, by the same means, above what is found on the wildings and crabs in the hedges.

"It is customary to set aside or purchase for seed-corn, the boldest and plumpest samples that can be obtained; that is, those that contain the most flour; but this is unnecessary waste of human subsistence; the smallest grains, such as are sifted out before the wheat is carried out to market, and either consumed in the farmer's family or given to his poultry, will be found by experience to answer the purpose of propagating the sort from whence they sprung as effectually as the largest.

"Every ear of wheat is composed of a number of cups placed alternately on each piece of the straw; the lower ones contain, according to circumstances, three or four grains, nearly equal in size, but towards the top of the ear, where the quantity of nutriment is diminished by the more ample supply of those cups that are nearer the root, the third or fourth grain in a cup is frequently defrauded of its proportion, and becomes shrivelled and small. These small grains which are rejected by the miller, because they do not contain flour enough for his purpose, have, nevertheless, an ample abundance for all purposes of vegetation, and as fully partake of the sap, or blood, as we should call it in animals, of the kind which produced them, as the fairest and fullest grain that can be obtained from the bottoms of the lower cups, by the wasteful process of beating the sheaves."

# ENCYCLOPÆDIA OF PLANTS.

## PART II. NATURAL ARRANGEMENT.

|                                      |   |  |
|--------------------------------------|---|--|
| First grand Division, VASCULARES     |    | <i>(vas, a vessel; plants with woody fibre and cellular tissue).</i>                     |
| First Class, DICOTYLEDONES           |    | <i>(dis, two, and cotyledon; cotyledons two).</i>  |
| Subdivision I. <i>Dichlamydeæ</i>    |    | <i>(dis, two, and chlamys, a coat or covering; calyx and corolla distinct).</i>          |
| Subclass 1. Thalamifloræ             |    | <i>(thalamus, a bed or receptacle, and flos, a flower; stamens under the pistillum).</i> |
| Subclass 2. Calycifloræ              |    | <i>(calyx and flos; stamens on the calyx).</i>   |
| Subclass 3. Corollifloræ             |    | <i>(corolla, and flos; stamens on the corolla).</i>                                      |
| Subdivision II. <i>Monochlamydeæ</i> |    | <i>(monos, one, and chlamys, a coat or covering; calyx and corolla not distinct).</i>    |
| Second Class, MONOCOTYLEDONES        |    | <i>(monos, one, and cotyledon; cotyledon one).</i>                                       |
| Second grand Division, CELLULARES    |   | <i>(cellula, a little cell; plants with cellular tissue only).</i>                       |
| First Class, FOLIACEÆ                |  | <i>(foliaceus, leafy; habit).</i>  |
| Second Class, APHYLLÆ                |  | <i>(a, priv., and phyllon, a leaf; leafless).</i>  |

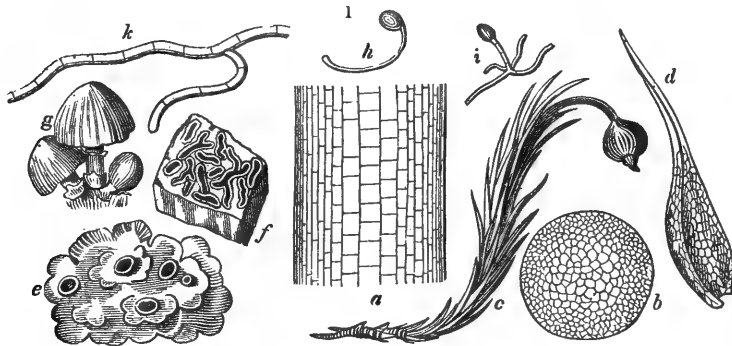
THE difficulties connected with the adoption of the natural system of plants are these, that the characters of many of the orders are at present imperfectly known, and that they depend upon a consideration of many points of structure which are not to be determined without much labor and a considerable degree of practical skill in the use of the microscope and the dissecting knife. But the facilities which the habit of viewing all natural bodies with reference to the relations they bear to other bodies, and not as insulated individuals merely possessing certain peculiarities by which they may be referred to some station in an artificial system, ultimately gives to the investigations of the naturalist, are so great, that difficulties of the nature just alluded to ought not to be suffered to influence the botanist in determining which line of study he will follow, whether that pointed out by Linnæus, or that traced by the hand of nature. By the artificial system of Linnæus, indeed, no great difficulty exists in determining the number of stamens or styles possessed by a given plant, or the nature of their combination, and from the knowledge so obtained, in referring them to their class and order in the Linnæan system. But when this step has been gained, what more has been acquired than the bare knowledge that the plant in question possesses a certain number of stamens and styles? No possible notion can be formed of the relation it bears to other plants of the same nature, of the qualities it probably possesses, or of the structure of those parts not under examination, the fruit for example; and, finally, if it were wished to convey an idea of the plant to a stranger, no means would be in the possession of the Linnæan botanist of doing so, except by stating that the plant belonged to Pentandria Monogynia for example, which is stating nothing. But what would be the condition of the student of the natural affinities of plants in a similar case? It is true he would be obliged to consult more characters than the two unimportant ones of Linnæus—it would be necessary to ascertain if his subject was Vascular or Cellular; if Vascular, whether it was Monocotyledonous or Dicotyledonous; if Dicotyledonous, whether the leaves were opposite or

alternate, stipulate or exstipulate, whether the flowers were monopetalous, polypetalous, or apetalous, the nature and station of the stamens, the condition of the ovarium, and so on. But when he has ascertained thus much, only let it be remembered, for a moment, how much he has gained indirectly as well as directly. Perhaps he has discovered that his plant belongs to Rubiaceæ; he will then have learned that all vegetables with opposite entire stipulate leaves, and a monopetalous-superior corolla, are also Rubiaceous; if a fragment of the leaves and stem only of such a plant were afterwards submitted to him for examination, he would recognise its affinities, and remember that it was Rubiaceous, and being aware of that fact, he would be able safely to infer that its calyx and corolla would be of a particular nature, that if the roots afforded any color for dyeing, it would be red; that the medicinal properties of the bark, if any, would be tonic, astringent, and febrifugal, and that its seeds would be of the same nature as those of coffee, and finally, its geographical position would be tolerably certain to him.

The really important obstacle which exists in the way of acquiring this kind of knowledge, is undoubtedly the want of any introduction to the study of it, accompanied by the distribution and characters of the natural orders into which plants are divided. It is to be hoped that English readers at least will not long have to regret this deficiency in their elementary works. In this place, it must suffice to point out the characters upon which the great divisions depend, under which the orders themselves are arranged; and it is to be hoped, that even this small aid will be found to smooth the way, and to remove some of the obstacles that at present are supposed to exist at the very threshold of the temple.

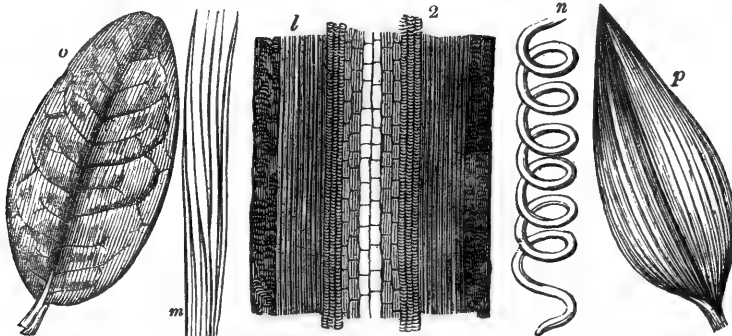
Plants considered with reference to their general structure, are separated into two grand divisions called CELLULARES and VASCULARES.

The Cellulares answer to the Linnæan Cryptogamia, and are also called Acotyledonous; the Vasculares answer to the rest of the Linnæan system, which is sometimes called Phanerogamia and Cotyledonous.



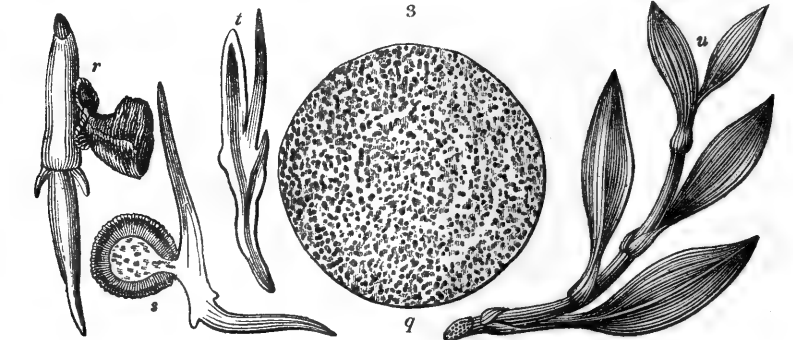
a, Longitudinal section of a stem.  
 b, Transverse section of a stem.  
 c, Stem of a moss, with leaves and theca, or seed-case.  
 d, Leaf of a moss, magnified.  
 e, Leafy thallus of a lichen, with shields.  
 f, Crustaceous thallus of a lichen, with shields.  
 g, Fungi of the highest dignity.  
 h, i, Fungi of the lowest rank.  
 k, Conferva magnified.

CELLULARES, CRYPTOGAMOUS, or ACOTYLEDONOUS plants are all, therefore, different terms denoting the same combination of vegetables. The first term is here adopted in preference to the others as expressing the most obvious character upon which the division depends, namely, the cellular, not vascular, structure of the plants composing it. Cellular plants are formed entirely of cellular tissue (fig. 1.), without woody fibre or spiral vessels; or in more familiar terms by having no veins in their leaves if foliaceous, and not forming wood; they also are destitute of perfect flowers. The lower tribes, such as Fungi and Algae, are destitute of leaves, and in some points approach the animal kingdom so nearly as to be scarcely distinguishable. In the highest tribe, Ferns, apparent veins are formed in the leaves; but as they are imperfectly supplied with spiral vessels, they cannot be considered more than analogous to the veins of other plants. Ferns, however, hold the intermediate station between Cellulares and Vasculares, and are chiefly retained among the former on account of their perfect accordance in other respects. In the whole of Acotyledones, it is unnecessary to examine the seed for the purpose of determining whether it has one cotyledon, several cotyledons, or none, the structure of the perfect plant giving the most obvious and satisfactory evidence.



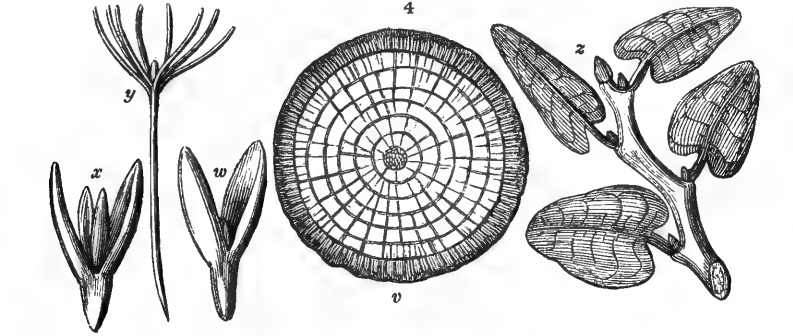
l, Vertical section of a vascular stem.  
 m, Woody fibre.  
 n, Spiral vessel.  
 o, Leaf of a dicotyledonous plant.  
 p, Leaf of a monocotyledonous plant.

VASCULARES, PHENOGAMOUS, or COTYLEDONOUS plants, are also separated into two great classes called Endogenes or Monocotyledones, and Exogenes or Dicotyledones, both which are distinguished as accurately by their obvious physical structure as they are by the minute and obscure peculiarities of the seed. They are all formed with cellular tissue, woody fibre, and spiral vessels (*fig. 2.*), and their leaves are traversed by veins; the last character is sufficient for practical purposes, if it is remembered that they also bear perfect flowers, (that is, flowers furnished either with stamina, or pistillum, or both,) which will always prevent their being confounded with the highest tribes of Cellulares.



1, Transverse section of a monocotyledonous stem.  
 2, Germination of a monocotyledonous seed.  
 3, Section of ditto, to show the cotyledon remaining in the testa.  
 4, Section of a germinating embryo of a grass, to show the two alternate cotyledons of unequal size; the back and front lobes represent these, the middle lobe is the plumula.  
 5, Stem and leaves of a monocotyledonous plant.

*Endogenes*, or *Monocotyledonous* plants, are the first remove from Cellulares, and hold an intermediate rank between them and *Exogenes* or *Dicotyledonous* plants, in which vegetation acquires its highest form of development. They were formerly characterised by having a single cotyledon, but this circumstance is not only not absolute but difficult of determination, except after minute analysis. The real difference in the seed of them and *Dicotyledones* is this, that in *Monocotyledones* there is only one Cotyledon (*fig. 3. s.*); or, if two, that they are alternate with each other (*l.*), while in *Dicotyledones* they are always opposite, and more than one, sometimes several, as in *Pinus* (*fig. 4. y.*). The physiological structure of the two classes is, however, that by which they are familiarly distinguished, and exhibits a beautiful proof of the harmony that exists between the great features of vegetation and their first principle, the seed from which they originate. In *Endogenes*, or *Monocotyledones*, there is no distinction between wood and bark (*fig. 3. q.*); in *Exogenes*, or *Dicotyledones*, the wood and bark are distinctly separated (*fig. 4. v.*). In *Monocotyledones* the wood and cellular tissue are mixed together without any distinct annual layers of the former being evident; in *Dicotyledones* the wood and cellular tissue have each their particular limits assigned them, a distinct layer of the former being annually deposited. In *Monocotyledones* there are no radiations from the medulla to the bark; in *Dicotyledones* the radiations are distinctly marked. In *Monocotyledones* there is generally no articulation between the leaves and the stem, while in *Dicotyledones* the leaves are always jointed with the stem from which they fall off, leaving a scar behind. In *Monocotyledones* the veins of the leaf pass in parallel lines from the base to the apex, in *Dicotyledones* they diverge from the midrib towards the margin at various angles; in the former they are unbranched, the principal veins being connected by nearly simple secondary veins; in the latter they are much branched, ramifying in many directions, and giving the surface of the leaf a netted appearance.



6, Transverse section of a dicotyledonous stem.  
 7, An embryo with two cotyledons.  
 8, An embryo with four cotyledons.  
 9, An embryo with many cotyledons.  
 10, Stem and leaves of a dicotyledonous plant.

Such are the very obvious distinctions of the two great classes of Phenogamous, or flowering, plants; and so far is it from there being any necessity for dissecting a seed in order to ascertain its structure, that this point is one of the most easy determination, and about which there cannot be in one case in five hundred the slightest cause of doubt or difficulty. It is almost impossible to take even a morsel of a plant in the hand without instantly being in possession of the knowledge of the structure of its seed, with respect to the cotyledons.

Thus far have we advanced without a single obstacle to impede us. In all farther investigation no greater degree of knowledge or application is requisite than what ought to be possessed by every one who would be able to ascertain the genus of a plant. Many of the orders do not depend upon the minute characters of the seed so much as is believed; the structure of the ovarium and position of the ovula, are aids which frequently make amends for the absence of fruit: and the nature of the foliage and inflorescence are guides which, though sometimes treacherous, are often as faithful as the fructification itself. But as it is not intended to give the characters of the orders in this place, neither is it necessary to advance farther in an explanation of the manner of determining them; upon that point each order would require a particular note. It may, how-

ever, be confidently believed, that there are no greater impediments in the road to an acquaintance with the natural relations of plants than those that have been already removed; and that although neither the science of botany, nor any other science, is to be taken by storm, yet that the fortress is sure to be reduced by silent and patient approach.

It only remains to explain briefly upon what principles the names of the orders, suborders, &c. are formed. It is usual, in the school of Jussieu, to give to a natural order a name derived from that of the genus which is understood to be the type of the order; as Ranunculaceæ from Ranunculus, Rosaceæ from Rôsa, and so on. But several deviations from this principle had been admitted by Jussieu, in favor of certain groups of plants, long known by other popular names, derived from certain peculiarities; such as Labiate, because their corollas are labiate; Composite, because their flowers are what is commonly called compound; Guttiferæ, on account of the resinous juice in which they abound, and some others. It would, perhaps, have been better, if uniformity in nomenclature had not thus been sacrificed to a dread of innovation; but it is now too late to remedy the evil, if such it be; nor would the advantage of alteration be at this day equivalent to the inconvenience. For the purpose of making it at once apparent, whether, in speaking of a group of plants, reference is had to an order or a suborder, it has of late years been thought convenient to terminate the name of the natural order in *aceæ*, and of the suborder in *ea*. Thus, in speaking of the whole mass of which Ranunculus is the representative, the word Ranunculaceæ is used; but in speaking of the particular division, or suborder, of which Ranunculus forms a part, the term Ranunculeæ is employed. This manner of speaking is, however, at present, very partial in its application, and is of little importance, except in a few cases, of which Ranunculaceæ is one of the most striking examples. In those orders, the titles of which, necessarily, from their grammatical construction, end in *ea*, as Orchideæ, it is obviously inapplicable, without a total change in a great part of the nomenclature of natural orders, a measure which cannot be too much deprecated.

It may, perhaps, be finally expected, that these remarks should be concluded by a recommendation of some work, from which those who are anxious to become fully acquainted with the principles and distinguishing characters of the Natural System of Botany, may derive the necessary information. Unfortunately, however, such a work has at present no existence. M. Decandolle's *Théorie Élémentaire de la Botanique* explains the principles upon which the orders of plants are constituted; and M. de Jussieu's *Genera Plantarum* contains their characters, as determined in 1789: but the latter is now too obsolete to be very useful to the tyro. In our own language, the only work that can be consulted upon the subject with advantage, is the *Flora Scotica* of Professor Hooker, in which the characters of the natural orders of Scottish plants are concisely indicated by Mr. Lindley. We understand a work upon the subject is in preparation by the latter gentleman, by which this great desideratum in the science of Botany will be supplied. It may be expected to appear in the course of 1839, previously to which, however, the division Botany, in the forthcoming *Encyclopædia of Natural History* will have been published, in which much information may be expected upon this important subject.

## I. VASCULARES.

### CLASS I. DICOTYLEDONES.

#### SUBDIVISION I. DICHLAMYDEÆ.

This subdivision comprehends all the Dicotyledonous plants, that have both a calyx and corolla, by which they are distinguished from Monochlamydeæ, in which the calyx only exists. It is in consequence of this high development of the floral envelopes, that the greater part of flowering trees and shrubs are found in Dichlamydeæ, it rarely happening that those with a single floral covering only have any brilliant coloring.

#### SUBCLASS I. THALAMIFLOREÆ.

##### *Petals inserted into the receptacle.*

The insertion of the petals and stamens into the receptacle is the great character of this subclass, which, therefore, contains all the polyandrous plants of Linnæus, as the Calycifloræ contain the icosandrous genera of the same botanist.

##### Section 1. *Carpella numerous, or stamens opposite the petals.*

#### ORDER I. RANUNCULACEÆ.

The greater part of the plants of this order are objects of interest with gardeners, containing, as it does, many of the most elegant or showy of the tribes of hardy plants. It is here that the graceful Clématis, the lowly Anémone, the glittering Ranunculus, and the gaudy Pæony are found; differing, indeed, in external appearance, but combined by all the essential characters of the fructification. It is remarkable, however, that the acrid and venomous properties of these plants are nearly as powerful as their beauty is great. They are all caustic, and in many of them the deleterious principle is in dangerous abundance. M. Decandolle remarks, that its nature is extremely singular; it is so volatile, that, in most cases, simple drying in the air or infusion in water is sufficient to destroy it: it is neither acid nor alkaline; but its activity is increased by acids, honey, sugar, wine, or alcohol; and it is, in reality, destructible only by water. The crowfoots of our European pastures, and the Anemones trilobata and triternata, of those of South America, are well known poisons of cattle. Blistering plasters are made in Iceland of the leaves of Ranunculus acris. The foliage of some species of Clématis is supposed to afford the means employed by beggars of producing artificial ulcers. Some of the Aconites are diuretic, especially Napellus and Cæmarum. Delphinium Consolida is said to be an ingredient in those French cosmetics which are so destructive of the surface of the skin. The Helleborus, famous in classical history for its drastic powers, and the Nigella, celebrated in ancient housewifery for its aromatic seeds, which were used for pepper before that article was discovered, are both comprehended in Ranunculaceæ. The range of this order, in a geographical point of view, is very extensive. A great number has been discovered in Europe, but they are so abundant in all parts of the world that an order can scarcely be found more universally and equally dispersed. It is singular, that, with the exception of the climbing species of Clématis and of Xanthorrhiza, scarcely an instance occurs in Ranunculaceæ of a shrubby stem.

#### Tribe 1. CLEMATIDÆ.

Clématis L.

1228 Naravéla Dec.

#### Tribe 2. ANEMONEÆ.

1239 Thalictrum W.  
1226 Anémone W.

1225 Hepática W. en.  
1241 Hydrástis W.

1231 Knowltonia Sal.  
1230 Adonis L.

#### Tribe 3. RANUNCULEÆ.

707 Myosurus W.

708 Ceratocéphalus P. S.

1233 Ranunculus W.

1232 Ficaria Pers.

#### Tribe 4. HELLEBOREÆ.

1239 Cáltha W.  
1234 Tróllius W.  
1286 Eránthis Sal.

1235 Isopfrum W.  
1237 Helleborus W.  
1239 Cóptis Sal.

1053 Garidélla W.  
1209 Nigélla W.  
1208 Aquilégia W.

1204 Delphinium W.  
1205 Aconitum W.

Tribe 5. PRONIÆ.

- 1164 *Actæa Ph.*                      1207 *Cimicifuga Ph.*                      1202 *Prœnia W.*                      709 *Xanthorrhiza W.*

ORDER II. DILLENIAEÆ.

Fine plants, almost exclusively confined to tropical countries. *Dillenia speciosa*, a native of India, is a most noble tree with large yellow flowers, rivaling those of a *Magnolia*. *Hibbertia volubilis* is a green-house plant well known for the beauty of its blossoms, and their powerfully fetid smell. The medical properties of this order are scarcely known; a decoction of their leaves or bark is astringent, and used for gargles; and the acid juice of the fruit of some of the species of *Dillenia* is used in India, mixed with water, as a pleasant beverage in fevers. The foliage of many of the species is extremely scabrous, whence the dried leaves are used for the same purposes as fish-skin and sand-paper in Europe; those of *Trachytella aspera* are even employed in China for polishing works of metal.

- 1201 *Curatella W.*                      1206 *Trachytella Dec.*                      1203 *Hibbertia H. K.*  
1212 *Tetracera L.*                      1214 *Dillenia W.*                      1211 *Colbertia Sal.*

ORDER III. MAGNOLIACEÆ.

No one is ignorant of the grandeur of *Magnolias*, or of the delicious, though sometimes dangerous, fragrance of their blossoms; but it is less generally known, that, from their affinity to the trees that produce the famous Winter's bark and Melambo bark, they possess medicinal qualities of no common power. The bark of all of them is said to have a bitter flavor without any astringency, and combined with a hot aromatic principle. In the United States, the bark of *Magnolia glauca* and *Liriodendron tulipifera*, is employed for the same purposes as Jesuit's bark, and from the fruit of *Magnolia acuminata*, a tincture is prepared which has some reputation for removing attacks of rheumatism. The fruit of *Illicium anisatum*, is the material which flavors the liqueur called Anisette de Bourdeaux. The *Magnolias* are exclusively inhabitants of Asia and America, no species having hitherto been found either in Europe or in Africa.

- 1215 *Illicium W.*                      1216 *Liriodendron W.*                      1217 *Magnolia W.*                      1218 *Michelia W.*

ORDER IV. ANNONACEÆ.

The plants of this order are closely allied to *Magnoliaceæ*, from which they are principally distinguished by the absence of stipulæ, and by the structure of their anthers and seeds. The latter consist of a hard mass of albumen, ruminated, as the botanists call it, that is to say, perforated by the substance of the seed-coat, in every direction. They are all trees or shrubs, and chiefly inhabitants of the hottest parts of the tropics, but a few have been discovered straggling into the temperate zones of America. The fruit of the *Annona* is in many species highly esteemed as an article for the dessert, especially that of the Cherimoyer, which has the reputation of being the finest fruit in the world, next to the Mangosteen. The hard fruits of the species of *Uvária* are highly aromatic; those of one of them furnish the Piper athiopicum of the shops. The genus *Asimina* is the only one which contains any hardy species, and these are so delicate as to be seen very rarely in this country. In Brazil, the bark of *Xylópia sericea* is used for cordage; for which it is admirably adapted.

- 1219 *Uvária W.*                      1221 *Artabotrys R. Br.*                      1223 *Asimina Ad.*  
1220 *Annona P. S.*                      1222 *Guattéria R. & P.*                      1224 *Xylópia W.*

ORDER V. MENISPERMEÆ.

The order of *Menispermæ* consists entirely of twining shrubs with minute flowers. They are extremely dissimilar in habit from the orders which are placed near them, and occupy their present station entirely on account of certain minute but important characters in their fructification. With the exception of *Schizandra coccinea* none of them are worth cultivating as plants of ornament. The berries of *Lardizabála biternata* are sold in the markets of Chile, under the name of *Aguilboquit*, *Guilbogui*, or *Coguil-Vochi*, according to different travellers. The bitter, diuretic, and aperient sorts of *Pareira brava*, are produced by a species of *Menispermum*, as is also the famous Columbo root, so much esteemed for its intense bitterness, and for its use in diarrhœa and dysentery. The poisonous drug, called *Cocculus indicus* in the shops, is the seed of *Menispermum Cœculus*. Several Brazilian species of *Cœculus* are said to possess powerful febrifugal properties. No species of *Menispermæ* is found in Europe; they are chiefly natives of tropical America and Asia.

- 858 *Wendlandia W.*                      2100 *Menispermum D.*                      2116 *Cissampelos Dec.*  
1972 *Schizandra W.*                      2101 *Cœculus Dec.*

ORDER VI. BERBERIDEÆ.

With the exception of *Berberis* this order does not contain any genus of much interest; most of the others are low, inconspicuous, herbaceous plants; *Nandina* is an elegant Japanese shrub. The *Berberis* are all shrubs of much beauty and interest, especially the species with pinnated leaves, which are sometimes called Mahonias. These are all inhabitants either of Europe, Asia, or North and South America; none have ever been seen in Africa or New South Wales. Many of the finest species from Chile and India yet remain to be introduced. The berries of the *Berberis* are acid and astringent; the latter quality is especially abundant in the stem and bark.

- 297 *Epimedium W.*                      826 *Caulophyllum Mich.*                      829 *Berberis W.*  
825 *Leontice W.*                      827 *Diphylleia Mich.*                      830 *Nandina W.*

ORDER VII. PODOPHYLLACEÆ.

Little interesting herbaceous North American plants, nearly related on the one hand to *Nymphæaceæ*, and, on the other, to the herbaceous genera of *Berberidæ*. Their juice is held to be purgative.

- 1166 *Podophyllum W.*                      896 *Jeffersônia Ph.*

ORDER VIII. HYDROPELTIDEÆ.

This order differs from *Nymphæaceæ* chiefly in having a definite number of seeds. It consists of only two genera, each containing a single species. Both are little floating plants of tropical and northern America. Nothing is known of their properties.

- 1240 *Hydropeltis H. K.*

ORDER IX. NYMPHÆACEÆ.

Like the last, these are all floating plants, and, to gardeners, possessed of great interest, on account of the elegant form and various hues of their flowers. Three species are known as the lilies of our own streams and ponds, and the remainder occupy similar stations in other countries. Some of the Indian species of *Nymphæa* are delightfully fragrant. The holy *Cyamus*, or Pythagorean bean of antiquity, is the produce of the *Nelumbium*, a stately aquatic, which abounds in all the hotter countries of the East, where its roots are frequently used as an article of food. The ditches, about Pekin and other Chinese cities, are literally choked up with its abundance. The pericarpia or beans are oblong, hard, smooth bodies, and possess the power of vegetating after having been dried for even thirty years. The flowers and roots of the common white *Nymphæa* have been long celebrated for their sedative and antiaphrodisiac qualities, which are, however, now considered doubtful. In Sweden, in years of scarcity, the roots of *Núphar lutea* are pounded into cakes along with the inner bark of *Pinus sylvestris*.



This order has been the cause of much difference among botanists, as to its true station in a natural classification, its structure being of so doubtful a character as to leave room for disputing whether it belongs to Dicotyledones or Monocotyledones. Upon this subject M. Decandolle has the following remarks: "Gértner declares that the embryo is undivided, and therefore monocotyledonous. In 1802, I remarked in the Bulletin Philomathique, that the embryo both of *Nymphæa* and *Núphar* is enclosed in a peculiar integument, and that a dicotyledonous structure is apparent when that integument is removed; shortly after, M. Mirbel declared that the embryo of *Nelúmbium* has two thick cotyledones; in 1806, M. Turpin gave an accurate description of the fruit of *Nelúmbium léteum*, without however removing the doubts about the real structure of the embryo, and two years afterwards his colleague, M. Poiteau, described the seed and germination of the same plant, pointing out that the embryo consisted of two thick cotyledones enclosed within a stipular membrane, but destitute of radicle; this was subsequently confirmed by M. Mirbel after very minute anatomical examination; that observer compared the seed of *Nelúmbium* to the seed of *Amygdalus*, and also to that of *Piper* and *Saururus*, and also demonstrated that the structure of the stem was analogous to that of exogenous or dicotyledonous plants. A very different opinion was shortly afterwards held by M. Correa de Serra, an observer of the highest order, who admitted indeed that *Nymphæacæ* are exogenous, but contended that the parts which had been taken by previous observers for cotyledones were, in fact, a mere expansion of the radicle, and that cotyledones were as entirely absent in *Nelúmbium* as in *Cúscuta*. In the meanwhile M. de Jussieu adhered to the old opinion, that *Nymphæacæ* are monocotyledonous; in which he was supported by the late Professor Louis Claude Richard, a name for ever memorable in the annals of Carpology, who published a new view of their structure, in which he differed materially from all his predecessors; this botanist considered the stipular membrane of Poiteau a simple cotyledon, and the cotyledons of that writer the hypoblastus, or *body of the radícula*; he also refused to admit any evidence derived from the anatomical structure of the stem. In this conflict of opinions, I have determined to station *Nymphæacæ* among Exogenes, for the following reasons: 1st, because the structure of their stem is that of Exogenes rather than of Endogenes; 2dly, because the two opposite bodies, enclosed within the little bag or stipular membrane, described by Poiteau, appear to be undoubtedly cotyledones, which is confirmed by the presence of a plumula between them in *Nelúmbium*; 3dly, because of the structure of their flower, which has a great affinity with that of *Pæonia*, *Magnólia*, and *Papáver*; 4thly, on account of the similarity between their fruit and stigma and that of *Papáver*; 5thly, because of their milky juice and convolute leaves, two characters which are not known to exist among Endogenes." Those who are interested in pursuing this curious discussion any farther, will find many remarks and illustrative figures in the English edition of the *Analyse du Fruit*, published by Mr. Lindley in 1819.

1174 *Nymphæa* W.1176 *Núphar* H. K.1177 *Eurýfale* H. K.1213 *Nelúmbium* J.Section 2. *Carpella solitary or connate; Placentæ parietal.*

## ORDER X. PAPAVERACEÆ.

These plants are better known for their medicinal properties than for their beauty. Some of them are the common pests of corn fields, and with grain have been disseminated over all the world. *Sanguinária* is a neat little American plant well known for its crimson juice, and the emetic purgative powers of its roots. *Saracénia* is a genus of very doubtful affinity; consisting of curious little American marsh plants of difficult culture, and remarkable for the singular pitcher-like form of its leaves. The peculiar power of the poppy is, as is well known, narcotic; a property which pervades all the order, although in a less intense degree in all than in the officinal *P. somniferum*, from which exclusively the drug opium is obtained. The Mexicans use the expressed oil of the seeds of *Argemón mexicana* for polishing furniture.

1170 *Papáver* W.1168 *Röméria* Med.1172 *Argemón* W.1073 *Boccónia* W.1165 *Sanguinária* W.1169 *Glácúdia* J.313 *Hypécoum* W.? 1173 *Saracénia* W.1167 *Chelidónium* W.1171 *Meconópsis* Víg.

## ORDER XI. FUMARIACEÆ.

Tender herbs, with finely cut leaves and annual stems, abounding in a watery juice; without any appearance of milkiness. They are reckoned slightly diaphoretic and aperient, but their medical properties are trifling. Formerly they were combined with *Papaveracæ*, from which they are now universally distinguished. The greater part of them are natives of hedges or thickets in the cooler parts of the northern hemisphere; two are natives of the Cape of Good Hope. Many of the species are beautiful ornaments of the flower-garden.

1502 *Corydalis* Vent.1504 *Diclytra* Dec.1506 *Sarcoácpnos* Dec.1503 *Cysticápnos* W. en.1505 *Adlúmia* Raf.1507 *Fumária* P. S.

## ORDER XII. CRUCIFERÆ.

The importance of this order to mankind, and the singular nature of its botanical characters, render it expedient to speak very fully upon it: in which the remarks of the learned M. Decandolle, who has paid *Cruciferæ* particular attention, will be chiefly followed. The order consists wholly of annual or perennial, often biennial herbs, occasionally assuming a suffruticose habit; then, however, never exceeding the height of three feet. The roots are either thick and perennial, or annual or biennial and slender, almost always perpendicular and undivided. The young roots are tipped with a little sheath, called the coleorhiza, which is produced by the extended ruptured coat of the epidermis when the rootlet first appears. This is a curious character, and deserves attention. The stems are round or somewhat angular, branched, and often, even in the annual species, indurated at the base. The branches proceed from the axillæ of the leaves, but the uppermost ones are abortive in most cases. The racemes are always opposite to the leaves; sometimes the terminal branch is abortive when the raceme appears to be terminal; but this is merely owing to that circumstance. The leaves are simple, generally radical or alternate, rarely opposite. The flowers are either white, yellow, or purple, or in a few Cape species bright blue. The fruit is called either a silqua or silicula, the former being a linear pod containing many seeds, the latter a roundish pod containing one or very few seeds, whence this order, which is the same as the Linnæan class *Tetradynamia*, is divided by Linnaeus into two parts, called *Siliquosæ* and *Siliculosæ*. In the seed, the radicle and cotyledons are applied to each other in different ways, from which the suborders of M. Decandolle derive their characters. When the edge of the cotyledons is pressed close to the radícula, so that a cross section would be thus  $\bigcirc =$ , the cotyledons are said to be incumbent, as in all *Pleurorrhizæ*; when the side of the cotyledons is pressed to the radícula thus  $\bigcirc |$ , the former are called incumbent, as in *Notorhizæ*. If the cotyledons are incumbent, and at the same time half folded together or connate, thus  $\bigcirc >$ , the suborder *Orthopocæ* is formed; when the cotyledons are incumbent and spirally twisted, so that a section would resemble this  $\bigcirc | |$ , they constitute the suborder *Spirolobæ*; and finally, when the cotyledons are incumbent, and doubled twice in their length, thus  $\bigcirc | | | |$ , we have *Dicoclobæ*.

The whole order is preeminently European; 166 species are found in the north and middle of Europe, and 178 on the sea-shores of the Mediterranean; 45 are found between Mogadore and Alexandria; 184 in the countries of the East, that is to say, Syria, Asia Minor, Tauria, and Persia; 99 in Siberia; 35 in China, Japan, and India; 16 in New Holland and the South Sea islands; 6 in the Mauritius and adjacent countries; 70 at the Cape; 9 in the Canaries; 2 in Saint Helena; 2 in the West Indies; 41 in South America; 48 in North America; 5 in Kamtchatka and the bordering islands; and finally, 35 are common to several parts of the globe. From this it appears that there are about 100 species in the southern hemisphere, and about 800 in the northern; or, if they are considered with reference to the zones of temperature, 205 are natives of the frigid zone of the northern hemisphere; 30 of the whole of the tropics; 548 of the temperate zone of the northern hemisphere; and 86 of the southern. The forty-first degree of north latitude may be considered the equa-

torial line of Cruciferae, about half being found on one side of it, and half on the other. Their station is very variable; many inhabit open sandy places, some form the vegetation about the limits of the perpetual snows of lofty mountains, and many follow the footsteps of man through all parts of the world.

The useful qualities of the turnip, the radish, the rape, and the cabbage, and its multiform varieties, are all well known. The greater part of the order consists of plants possessing high antiscorbutic powers. These appear to depend upon a certain acrid volatile oily principle, the chemical nature of which is imperfectly known. It is particularly abundant in the seeds of mustard and the roots of horseradish, and the leaves of *Lepidium latifolium*, which latter exercise a violent influence upon the organs of digestion. The same sort of acrimony, but in less degree, is found in the herbage of the scurvy-grass and the roots of the radish, which act much more mildly when taken inwardly; thus, when any cruciferous plants are found to be eatable, either from culture or other circumstances, it is to be understood to depend upon a reduction of this acrid principle. The exciting powers of this last, are what render the horse-radish, the scurvy grass, and others, so remarkably useful as antiscorbutics; they are also believed to possess diuretic and diaphoretic properties. It is to be remarked, that Cruciferae are always eatable when their texture is succulent and watery, as in the roots of the radish and the turnip, and the leaves of the cabbage tribe. A further diminution of the acrid principle is produced by blanching. Cruciferae are said to possess a greater share of azote than any other tribe of plants; as is apparent in their fetid smell when fermented. The embryo of all the order abounds in oil, whence many species are employed with much advantage for expressing, either for eating or for feeding lamps. Some of the species are extremely beautiful and fragrant, as the Stocks, the Gillyflowers, the Hesperides, the Candytufts, and many others. The Hutchinsias, Drabas, Cardamines, &c. are among the most interesting of alpine plants

SUBORDER I. *PLEUORHIZEÆ*. ○ =

Tribe 1. *ARABIDÆÆ*.

|                               |                              |                                |                              |
|-------------------------------|------------------------------|--------------------------------|------------------------------|
| 1381 <i>Mathiöla R. Br.</i>   | 1385 <i>Notóceras R. Br.</i> | 1390 <i>A'rabis L.</i>         | 1392 <i>Cardámíne L.</i>     |
| 1382 <i>Cheiránthus L.</i>    | 1386 <i>Barbaréa R. Br.</i>  | 1388 <i>Párrya R. Br.</i>      | 1393 <i>Pteroneóron Dec.</i> |
| 1383 <i>Nastúrtium R. Br.</i> | 1387 <i>Braça Stern.</i>     | 1391 <i>Macropódium R. Br.</i> | 1394 <i>Dentária L.</i>      |
| 1384 <i>Leptocarpæa Dec.</i>  | 1389 <i>Turritis R. Br.</i>  |                                |                              |

Tribe 2. *ALYSSINÆÆ*.

|                           |                              |                                |                           |
|---------------------------|------------------------------|--------------------------------|---------------------------|
| 1395 <i>Lunária L.</i>    | 1399 <i>Aubriétia Adans.</i> | 1402 <i>Clypéola W.</i>        | 1405 <i>Drába L.</i>      |
| 1396 <i>Ricótia L.</i>    | 1400 <i>Vesicária Lam.</i>   | 1403 <i>Peltária L.</i>        | 1406 <i>Eróphila Dec.</i> |
| 1393 <i>Farsétia Tur.</i> | 1401 <i>Alyssum L.</i>       | 1404 <i>Petrocállis R. Br.</i> | 1407 <i>Cochleária L.</i> |
| 1398 <i>Berteræa Dec.</i> |                              |                                |                           |

Tribe 3. *THLASPIDÆÆ*.

|                               |                              |                           |
|-------------------------------|------------------------------|---------------------------|
| 1408 <i>Thláspi L.</i>        | 1411 <i>Teesdália R. Br.</i> | 1413 <i>Biscutélla L.</i> |
| 1410 <i>Hutchínsia R. Br.</i> | 1412 <i>Ibéris L.</i>        |                           |

Tribe 4. *EUCLIDIÆÆ*.

|                              |                             |
|------------------------------|-----------------------------|
| 1414 <i>Euclídium R. Br.</i> | 1415 <i>Ochthódium Dec.</i> |
|------------------------------|-----------------------------|

Tribe 5. *ANASTATICÆÆ*.

|                           |
|---------------------------|
| 1416 <i>Anastática L.</i> |
|---------------------------|

Tribe 6. *CAKILINÆÆ*.

|                           |                             |
|---------------------------|-----------------------------|
| 1417 <i>Cakile Tourn.</i> | 1419 <i>Chorispora Dec.</i> |
|---------------------------|-----------------------------|

SUBORDER II. *NOTORHIZEÆ*. ○ ||

Tribe 7. *SISYMBRIÆÆ*.

|                             |                             |                          |
|-----------------------------|-----------------------------|--------------------------|
| 1420 <i>Malcómia R. Br.</i> | 1422 <i>Sisymbrium L.</i>   | 1424 <i>Erfýsimum L.</i> |
| 1421 <i>Héspéris L.</i>     | 1423 <i>Alliária Adans.</i> |                          |

Tribe 8. *CAMELINÆÆ*.

|                             |                          |
|-----------------------------|--------------------------|
| 1425 <i>Camelína Crantz</i> | 1426 <i>Néslia Desv.</i> |
|-----------------------------|--------------------------|

Tribe 9. *LEPIDINÆÆ*.

|                           |                         |                             |                              |
|---------------------------|-------------------------|-----------------------------|------------------------------|
| 1427 <i>Corónopus Sm.</i> | 1428 <i>Lepídium L.</i> | 1409 <i>Capsélla Münch.</i> | 1429 <i>Æthionéma R. Br.</i> |
|---------------------------|-------------------------|-----------------------------|------------------------------|

Tribe 10. *ISATIDÆÆ*.

|                       |                        |
|-----------------------|------------------------|
| 1430 <i>Isátis L.</i> | 1431 <i>Mýagrum L.</i> |
|-----------------------|------------------------|

SUBORDER III. *ORTHOPOLOEÆ*. ○ > >

Tribe 11. *BRASSICÆÆ*.

|                         |                             |                          |
|-------------------------|-----------------------------|--------------------------|
| 1432 <i>Brássica L.</i> | 1434 <i>Moricándia Dec.</i> | 1436 <i>Erúca Tourn.</i> |
| 1433 <i>Sinápis L.</i>  | 1435 <i>Diplotáxis Dec.</i> |                          |

Tribe 12. *VELLEÆÆ*.

|                      |                                |                             |
|----------------------|--------------------------------|-----------------------------|
| 1437 <i>Vélla L.</i> | 1438 <i>Carrichtéra Adans.</i> | 1439 <i>Succówia Münch.</i> |
|----------------------|--------------------------------|-----------------------------|

Tribe 13. *ZILLEÆÆ*.

|                          |                             |
|--------------------------|-----------------------------|
| 1440 <i>Zilla Forsk.</i> | 1441 <i>Calepína Adans.</i> |
|--------------------------|-----------------------------|

Tribe 14. *RAPHANÆÆ*.

|                     |                              |                        |
|---------------------|------------------------------|------------------------|
| 442 <i>Crámbe W</i> | 1418 <i>Rapístrium Desv.</i> | 1443 <i>Ráphanus L</i> |
|---------------------|------------------------------|------------------------|

SUBORDER IV. *SPIROLOBEÆ*. ○ || ||

Tribe 15. *BUNIADEÆÆ*.

|                       |
|-----------------------|
| 1444 <i>Búnias L.</i> |
|-----------------------|

Tribe 16. *ERUCARLEÆÆ*.

|                             |
|-----------------------------|
| 1445 <i>Erucária Gertn.</i> |
|-----------------------------|

SUBORDER V. *DIPLECOLOBÆÆ*. ○ || || ||

Tribe 17. *HELIOPHILEÆÆ*.

|                          |
|--------------------------|
| 1446 <i>Helióphila L</i> |
|--------------------------|

## Tribe 18. SUBULARIÆ.

1447 Subulária L.

§ *Of doubtful station.*

1380 Schizopétalon Sims.

## ORDER XIII. FLACOURTIANÆ.

A very small order formerly comprised in Tiliaceæ. It is remarkable on account of the structure of its fruit, to the inner lining of which the seeds are attached upon a branched placenta. Nothing is known of the properties of the Flacourtiæ. The berries of Flacourtia Ramóntchi are eaten in Madagascar. The order consists entirely of small tropical trees or bushes.

2102 Flacourtia W.

## ORDER XIV. CAPPARIDÆ.

These are nearly related to Cruciferae, of the properties of which they partake. Many are very pretty plants, especially Cléome rosea, and the various species of Crataeva. The common caper is an elegant bush, remarkable for its large white flowers and long purple stamens. The species are found occasionally in various parts of the world. The different kinds of Capparis are reputed to be stimulating, antiscorbutic, and aperient. The bark of the root of the common caper is used as a diuretic medicine. Several species of Cléome have an acid taste, which has been compared by travellers to that of mustard. The root of Cléome dodecandra is employed as a vermifuge in the United States; and the leaves produce an inflammation of the skin, whence they are used in Cochinchina as a sinapism. Dec.

1162 Capparis W.

1086 Crataeva W.

1448 Cléome W.

## ORDER XV. VIOLARIÆ.

This is one of the most favorite orders with gardeners; consisting, as it chiefly does, of the Violet genus, from which most of the others are recent dismembersments. The greater part are hardy herbaceous plants, some of which are remarkable for their perfume, others for their brilliant colors, and all for their neatness. They are natives of the temperate or cold zones of both hemispheres, often growing at great elevations above the sea. Among them is a tribe called Alsodineæ, consisting of suffruticose tropical plants; but none of them have been introduced into the gardens of this country. The attention of collectors should be directed to procuring the shrubby Violaceæ of Brazil, some of which possess great interest. The medical properties of the order are found principally in their roots, which appear to possess, in all cases, emetic properties, in a greater or less degree. One of the Ipecacuanhas is the root of a Brazilian violet. M. Decandolle has the following observations upon the affinities of the Violaria: — They are very nearly akin, he observes, to the Polygalæ and Droseraceæ, and especially to the Passifloræ. From the first they are distinguished by their unilocular fruit, leaves furnished with stipules and two-celled anthers; from Droseraceæ by their solitary style, lengthened embryo and stipulate leaves, the vernation of which is involutive, not circinate. From Passifloræ they differ in their fruit being capsular, not berried; in their albumen being compact and shining, not pitted; in their stamens being hypogynous, not perigynous; in their anthers being attached along their whole length, not fixed by their middle; finally, in their stigmas being one and not three. The genus Calyptrion approaches Passifloræ in its twining stem, and Hymenanthéra borders upon Polygalæ on account of its monospermous pericarpium with solitary pendulous seeds.

541 Ionidium Vent.

540 Viola W.

539 Sauvagéia Jacq.

## ORDER XVI. POLYGALÆ.

Most of the plants of this order are interesting, and deserving the attention of the gardener, some for their neatness, some for their beauty, and some for their use in medicine. They are natives of most countries, and are either low herbaceous plants, occasionally less than an inch in height (small specimens of Polygala purpurea), or shrubs varying from a dwarf, rigid, spiny habit, to a tall, graceful, drooping appearance. Polygalæ are remarkable for the union of their stamens into a single body, their one-celled anthers opening with a pore, and their irregular flowers, one of which is often keel-shaped, and beautifully crested or bearded. The leaves have generally a bitter astringent taste, which is much more abundant in the roots, combined with an acid and somewhat resinous flavour: these properties are particularly sensible in P. sénega, which is reputed a sudorific, diuretic, sialagogue, cathartic, or mild emetic, according to the manner in which it is administered. The Yelhol of South America, the root of a species of Monnina, has the same properties as P. sénega, and is particularly used as a remedy for dysentery. The well known Rattany, or Ratanhia root, of Chile, is the produce of a plant of this order, and possesses powerful tonic and astringent qualities. According to the analysis of a French chemist, it contains gallic acid, but neither tannin nor resin.

1508 Polgala W.

1509 Muráltia Neck.

1510 Múndia Kunth.

1511 Securidáca. L.

## ORDER XVII. DROSERACEÆ.

The order of sun-dews is a small group of plants, natives of marshes or inundated grounds in all the temperate parts of the world. The species are very remarkable for the abundance of glandular hairs with which all the parts of the foliage are covered. Only two species are in any degree frutescent. The young leaves are always rolled up in the circinate manner, so remarkable in ferns. Their medicinal properties appear to be trifling: the leaves have the power of curdling milk.

702 Drósera W.

1009 Dionæ'a W.

## ORDER XVIII. BIXINÆ.

The plants of this order are few in number, and not remarkable either for beauty or use. The Bixa orellana is chiefly known for producing the seed called in the shops Arnotta (Rocosa, Fr.), and used for coloring cheese; the properties of the Arnotta are slightly purgative and stomachic. They are all bushes or small trees, and mostly tropical. Azaras, Chilian shrubs with fragrant flowers, are not yet known in the gardens of Europe.

1178 Bixa W.

1179 Prockia L.

## ORDER XIX. CISTINÆ.

The common rock roses of our gardens give an accurate idea of this order, which contains little else. They are all very ornamental, and particularly well calculated for covering rockwork. The species of Cistus and Helianthemum have been multiplied by Dunal in an extravagant manner, as has been well demonstrated by Mr. Bentham. They are natives of most parts of the world in dry elevated places. The gum called Ladanum is the produce of some kinds of Cistus; it exhales a fragrant perfume when burnt, and possesses slightly tonic and stomachic properties.

1089 Hudsónia W.

1197 Cistus J.

1198 Helianthemum J.

222 Lechea W.

Section 3. *Ovarium solitary. Placenta central.*

ORDER XX. CARYOPHYLLEÆ.

These consist of herbs or low undershrubs, inhabiting the mountains and pastures of all parts of the world. In Europe and Siberia they are particularly abundant, and least so in Africa and South America. Many are common weeds, as most of the *Cerastiums*, *Spérgulas*, and others. Several of the *Silénæ* are very ornamental, and among the *Arenárias* are to be found some dwarf species of considerable elegance. But it is in *Dianthus* that the pride of the order consists; this genus is almost unrivalled for the brilliancy of its colors, the neatness of its foliage, and the perfume of its flowers. From the finest of its species the title of the order has been derived. The virtues of *Caryophyllææ* are slight. *Saponária officinális*, and one or two others, have been praised for possessing antiaiphilic properties; the root of *Siléne virginíana* is reputed anthelmintic; and the *Arenária peploídes*, being fermented, is used by the Icelanders for food.

Tribe 1. *SILENÆÆ.*

- |                           |                          |                           |
|---------------------------|--------------------------|---------------------------|
| 1044 <i>Gypsóphila W.</i> | 1047 <i>Cucúbalus L.</i> | 1066 <i>Agrostémma W.</i> |
| 1046 <i>Dianthus W.</i>   | 1048 <i>Siléne L.</i>    | 604 <i>Velézia W.</i>     |
| 1045 <i>Saponária W.</i>  | 1067 <i>Lýchnis W.</i>   | 687 <i>Drýphis W.</i>     |

Tribe 2. *ALSINÆÆ.*

- |                         |                          |                           |                          |
|-------------------------|--------------------------|---------------------------|--------------------------|
| 91 <i>Ortégia W.</i>    | 931 <i>Elátine W.</i>    | 1070 <i>Spérgula W.</i>   | 1050 <i>Arenária W.</i>  |
| 311 <i>Buffónia W.</i>  | 925 <i>Mollgóe W.</i>    | 1069 <i>Lambéa St.Hh.</i> | 1068 <i>Cerástium W.</i> |
| 319 <i>Sagína W.</i>    | 691 <i>Pharnáceum W.</i> | 1049 <i>Stellária W.</i>  | 1051 <i>Cheréria W.</i>  |
| 920 <i>Mehringia W.</i> | 920 <i>Holósteum W.</i>  | 688 <i>Aláine W.</i>      |                          |

ORDER XXI. LINEÆ.

Separated by M. Decandolle from *Caryophyllææ*, from which it is well distinguished by its fruit having several cells, or in the language of the botanist just named, being formed by the cohesion of several carpella. Most of the species are pretty plants, bearing yellow, blue, or white flowers. They are of immense importance in the world, on account of the tenacity of their fibres when made into flax. The seeds of common flax are between mucilaginous and oily; the leaves of *Linum cathárticum* and *L. selaginoides*, the latter a native of Peru, are purgative.

- |                     |                        |
|---------------------|------------------------|
| 701 <i>Linum W.</i> | 321 <i>Radiola Sm.</i> |
|---------------------|------------------------|

ORDER XXII. FRANKENIACÆÆ.

Distinguished from *Caryophyllææ* by the fruit not having a central separate placenta, but bearing the seeds on the inner margin of the valves. The species are natives of arid situations in Europe, Africa, and South America. They have not much beauty, and no known medical properties. Besides the genus here recorded, there are two others mentioned by M. Decandolle.

- 835 *Frankénia W.*

ORDER XXIII. MALVACÆÆ.

Before this order was dismembered of *Bombacææ* and *Byttneriacææ*, it contained most of the grandest flowers in nature. Even now, the splendour of the various species of *Málva*, *Althæa*, to which the hollyhock belongs, and *Hibiscus*, renders it one of the most remarkable groups of plants. With the exception of the numerous genus *Sida*, nearly all *Malvacææ* are objects worthy of the gardener's care, particularly those which are hardy. In stoves or greenhouse, the softness of their branches and leaves render them peculiarly liable to the attacks of the red spider, mealy bug, and scale, from which few collections are free; a circumstance which makes them less generally esteemed than the surpassing beauty of many of them merits. The greater part of the order is clothed with stellate pubescence, and a reniform one-celled anther is a character common to the whole. These two peculiarities, together with the alternate stipulate leaves, distinguish *Malvacææ* from all the rest of *Dichlamydeæ*. All the species abound in a nutritive mucilage; a quality which renders the young heads of the *Ochro*, or *Hibiscus esculéntus*, an object of great value within the tropics, as an ingredient in soups. In Brazil, the *Abtítion esculéntus* serves the same purposes. The emollient properties of *Althæa officinális*, or *Guinauve* of the French, are well known to physicians, as a remedy for catarrhs and pulmonary complaints. A decoction of the leaves of *Spharátoca cipléna* is used for similar objects in Brazil. A species of *Pavónia* is employed in the same country as a diuretic in the form of a decoction. The straight shoots of *Sida micrántha* are employed as rocket-sticks at Rio Janeiro. The chewed leaves of *Sida carpinifolia* allay the inflammation occasioned by the stings of wasps. The tough fibres of many *Malvacææ* are manufactured into cordage. Their petals are astringent; whence those of *Hibiscus Rósa sinénsis* are used in China to blacken the eyelashes and the leather of shoes. The fibrous threads in which the seeds of *Gossýpium* are enveloped furnish the valuable cotton, an article of immense importance to the world; these threads when examined by the microscope, will be seen to be finely toothed, which explains the cause of their adhering together with greater facility than those of *Bombax* and several *Apocinææ*, which are destitute of teeth, and which cannot be spun into thread without an admixture of cotton.

- |                          |                            |                         |                            |
|--------------------------|----------------------------|-------------------------|----------------------------|
| 1471 <i>Málope W.</i>    | 1476 <i>Málachra W.</i>    | 1487 <i>Sida W.</i>     | 1482 <i>Redoutéa Vent.</i> |
| 1472 <i>Málva W.</i>     | 1477 <i>Uréna W.</i>       | 1478 <i>Pavónia W.</i>  | 1483 <i>Palávia W.</i>     |
| 1475 <i>Lavatéra W.</i>  | 1484 <i>Cristária Cav.</i> | 1479 <i>Achánia W.</i>  | 1488 <i>Lagunéa W.</i>     |
| 1474 <i>Althæa W.</i>    | 1485 <i>Amóda Cav.</i>     | 1480 <i>Hibiscus W.</i> | 1481 <i>Gossýpium W.</i>   |
| 1473 <i>Kitaibéla W.</i> | 1486 <i>Periptera Dec.</i> |                         |                            |

ORDER XXIV. BOMBACÆÆ.

Distinguished from the last by the imbricate aestivation of the calyx, and the arrangement of the stamens in five sets, or, in Linnæan language, brotherhoods. The species are mostly fine trees with large showy flowers, and natives of the tropics. Some of them are among the largest trees in the world; *Adansónia*, the *Baobab* of Senegal, has been seen with a diameter of twenty-five feet, and specimens of *Bombax Ceiba*, and *Eriodéndron anfractuósum*, are not uncommon an hundred feet in height. The wood of all the species is light and soft, as in *Malvacææ*, from which this order probably does not differ in its medicinal properties.

- |                           |                          |                        |
|---------------------------|--------------------------|------------------------|
| 1458 <i>Ochróma W.</i>    | 1490 <i>Carolínea W.</i> | 1492 <i>Bómbax W.</i>  |
| 1466 <i>Helictères W.</i> | 1491 <i>Adansónia W.</i> | 1493 <i>Myródia W.</i> |

ORDER XXV. BYTTNERIACÆÆ.

Much the same kind of plants as those of the two last orders, from which they were not formerly distinguished; and from which they scarcely differ, except in their bilocular anthers. Many of the *Stercúliææ* are fine umbrageous trees, the seeds of which are large and eatable; especially those of the famous *Kola*, which possess the property, being chewed, of rendering bad water pleasant to the palate. The seeds of the *Chicha*, another and very noble species of the genus, are highly esteemed in Brazil for the desert. *Astrapea*, and several other genera related to it, are among the most beautiful in the world. The flowers of a species of *Pentapétææ*, called by the Indians, *Machucunha*, give out a mucilaginous refrigerant juice, which is employed in gonorrhæa. *Guzúma umifolia* has its fruit filled with a pleasant mucilage, which is sweet and very agreeable; an extract of the bark of the same plant is used in Martinique to clarify sugar; its old bark is

employed in the form of a strong decoction, as a sudorific. *Walthéria* Douradinha contains a great deal of mucilage, and is employed by the Brazilians as an antisyphilitic.

## Tribe 1. STERCULIACEÆ.

2036 *Stercúlia W.* 2037 *Heritiéra W.*

## Tribe 2. BYTTNERIÆ.

|                          |                           |                            |                         |
|--------------------------|---------------------------|----------------------------|-------------------------|
| 1607 <i>Theobróma W.</i> | 1608 <i>Bubróma W.</i>    | 704 <i>Rulingia R. Br.</i> | 527 <i>Avénia W.</i>    |
| 1609 <i>Abróma W.</i>    | 703 <i>Commersónia W.</i> | 526 <i>Buttnéria W.</i>    | 1098 <i>Kleinhhófia</i> |

## Tribe 3. LASIOPETALEÆ.

525 *Seringia Gay.* 524 *Thomásia Gay.* 523 *Lasiopétalum Sm.*

## Tribe 4. HERMANNIACEÆ.

1445 *Hermánia W.* 1456 *Melóchia W.* 1454 *Walthéria W.*

## Tribe 5. DOMBEYACEÆ.

|                           |                         |                             |
|---------------------------|-------------------------|-----------------------------|
| 1489 <i>Ruízia W.</i>     | 1467 <i>Dombéya J.</i>  | 1469 <i>Astrap'a Lindl.</i> |
| 1468 <i>Pentapétes W.</i> | 1457 <i>Melhánia J.</i> | 1470 <i>Pterospérnum W.</i> |

## ORDER XXVI. TREMANDREÆ.

A very small order containing only seven species, all small bushes, natives of New Holland, and remarkable for the peculiar neatness of their appearance. In habit, they may be compared to heaths, with which they agree in the anthers bursting by a pore at the end. Nothing is known of their properties.

879 *Tetrathéca Sm.*

## ORDER XXVII. TILIACEÆ.

Trees, shrubs, or herbs, in general not remarkable for their beauty, the greater part of the last being the commonest weeds of the tropics. The Lime, from which the order derives its name, is a genus of fine trees with fragrant flowers, and *Sparmánia* and *Enteléa* are handsome broad-leaved greenhouse arborescent plants. The inner bark of *Tilia* is tough and separable, and supplies the material whence the Russia mats used by gardeners and others are prepared. *Córchorus olitórius* is cultivated in Egypt as a kitchen-garden vegetable; the fibres of the bark of *Córchorus capsuláris* are twisted into fishing lines; and the roasted nuts of the Lime tree are reported to bear some resemblance to chocolate.

|                            |                            |                          |                          |
|----------------------------|----------------------------|--------------------------|--------------------------|
| 1087 <i>Triumfétta W.</i>  | 1181 <i>Apeiba W.</i>      | 1184 <i>Muntingia W.</i> | 1186 <i>Tilia W.</i>     |
| 1100 <i>Heliocárpus W.</i> | 1182 <i>Sparmánia W.</i>   | 1185 <i>Gréwia W.</i>    | 1187 <i>Córchorus W.</i> |
| 1180 <i>Sloána W.</i>      | 1183 <i>Enteléa R. Br.</i> |                          |                          |

## ORDER XXVIII. ELEOCARPEÆ.

These differ from Tiliaceæ in nothing except their lobed petals and anthers opening by two pores at the apex. The flowers of some of the species of *Eleocárpus* are fragrant, the fruit eatable, and the hard rugose stones manufactured into necklaces.

1192 *Eleocárpus W.*

## ORDER XXIX. SAPINDACEÆ.

One of the distinctive peculiarities of this order consists in the petals having an additional lobe in the inside, or a tuft of hairs instead. Nearly all the plants have compound leaves, and bunches of white flowers; a few of them are twining herbs, but the greater part are trees or shrubs, all natives of the warmer parts of the world, and in a great proportion, of the East. The only genus which will bear the climate of England is *Kolreutéria*, a fine shrub or small tree, with panicles of white or pale yellow flowers. *Nephélium* and *Dimocárpus* are both genera bearing excellent fruit. The rind of the berry of *Sapindus saponáris* is of a soapy quality, as the name of the plant indicates. The pulp of *Melicócca*, the arillus of *Blighia sápidia*, and the kernel of *Berthollétea* and *Pékea* are all excellent eating.

|                            |                          |                           |                             |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| 926 <i>Sapindus W.</i>     | 832 <i>Ornitrophe W.</i> | 887 <i>Kolreutéria W.</i> | 925 <i>Cardiospérnum W.</i> |
| 1071 <i>Nephélium W.</i>   | 884 <i>Melicócca W.</i>  | 923 <i>Paullinia W.</i>   | 897 <i>Dodonæa W.</i>       |
| 883 <i>Dimocárpus W.</i>   | 885 <i>Blighia H. K.</i> | 924 <i>Seriána W.</i>     | 1991 <i>Amiróla Pers.</i>   |
| 831 <i>Cossignia Juss.</i> | 886 <i>Mefábia Aubl.</i> |                           |                             |

## ORDER XXX. HIPPOCASTANÆ.

The only genus is *Æsculus*, from which some botanists have divided the smooth-fruited species under the name of *Pávia*. The order is much valued for the grandeur of the foliage and flowers of most of the species, which are all hardy trees. Their bitter fruit has sometimes been used as a sternutatory; it contains a large quantity of potash, and an abundance of starch. The bark is astringent, bitter, and febrifugal, and has been recommended as a substitute for *Cinchóna*.

866 *Æsculus W.*

## ORDER XXXI. HIPPOCRATICÆÆ.

Little is known of this order. The species are tropical arborescent or climbing shrubs, with opposite simple leaves, and small inconspicuous flowers. The genus *Tonsélla*, of which there is none in cultivation, contains some species known in Sierra Leone as bearing poisonous fruit.

83 *Hippocrátea L.*

## ORDER XXXII. MARCGRAAVIACEÆ.

Very curious half-climbing shrubs, all natives of hot countries. Some of them bear among the flowers, which are large and showy, singular hollow bodies, like the pitchers of *Sarracénia*. The order has been well illustrated by Professor Hooker, in the 160th article of his *Exotic Flora*.

1163 *Marcgraávia W.*

## ORDER XXXIII. ACERINEÆ.

Valuable trees, native of the woods of Europe, Siberia, and North America. Their flowers are in all cases inconspicuous; the breadth and rich color of their leaves constituting their beauty. All the larger species abound in a very saccharine sap, from which sugar is prepared in North America; it is chiefly made from *Acer saccharinum* and *Negúndium*, but may be obtained from many others.

2143 *A'cer W.* 2144 *Negúndium Dec.*

## ORDER XXXIV. MALPIGHIACEÆ.

Undulated unguiculate spreading petals form one of the most obvious characters of this order, the species of which are all tropical, and are either trees or shrubs, often climbers. Many of the Malpighias are well known

for the prurient hairs produced on the surface of their leaves; their fruit is eatable, their timber of a deep red color, and their bark a febrifuge. Their showy pink or yellow flowers, and firm neat foliage, render all this order worthy of cultivation, except *Aspicárpa*, which is a weed.

1054 *Malpíghia W.*                      1056 *Hirc'a W.*                      1007 *Gartnéra W.*  
1055 *Banistéria W.*                      29 *Aspicárpa Rich.*

ORDER XXXV. HYPERICINÆ.

The whole of these abound in a resinous juice, and are in most cases glandular in some degree. Their leaves are all dotted, and which is very remarkable, the dots are often black, even upon the yellow petals. These latter have a singular obliquity, which is not indicated by their outline, but by the arrangement of their veins. The juice just noticed as abundant in this order is yellow, viscid, rather bitter, often purgative or anthelmintic; and so very analogous to Gamboge, that the juice of *Hypericum bacca'tum*, and some other Guiana species, has received the name of American Gamboge. Most *Hypericinæ* are bitter, and slightly astringent, whence they have been used as febrifuges. A small part of the order is tropical; but in its most genuine form it consists of herbaceous or undershrubby plants, delighting in the shade of groves and thickets in the cooler parts of Europe and Asia. Nearly all the flowers are yellow; those of *H. cochinchinense* are dull red.

1617 *Hypéricum W.*                      1618 *Ascofrum W.*                      694 *Parnássia W.*

ORDER XXXVI. GUTTIFERÆ.

Trees or shrubs found in the hottest parts of the world, and well known by their thick entire opposite leaves and resinous juice. In the countries where they grow they are of great importance. One, the *Garcinia mangostána*, bears a fruit, the equal of which is supposed not to exist. The well known Gamboge is the inspissated juice of *Garcinia Gambógia*, and, perhaps, other species; the juice of others is found an efficacious vermifuge, and also a remedy for the chiggers, one of the worst pests of equinoctial America. The bark and fruit of many *Garcinias* are astringent. The unripe fruits of *Grias cauliflora* are pickled. The flowers of all the order being showy, the foliage good, and the properties interesting, every species deserves cultivation.

1079 *Garcinia W.*                      1190 *Mamméa W.*                      2151 *Clóssia W.*  
1085 *Canélla W.*                      1616 *Xanthochýmus Rosb.*                      1188 *Grias W.*  
1189 *Calophýllum W.*

ORDER XXXVII. VINIFERÆ.

The vine is the type and representative of this order. *Cissus* and *Ampelópsis* differ little from it in botanical characters, and not at all in habit. The common grape is the only species that bears really good fruit; the American kinds, with large fleshy berries, being spoiled by a disagreeable foxy flavor, which is not found to be removed by cultivation.

501 *Vitis P. S.*                      502 *Ampelópsis W.*                      305 *Cissus W.*                      454 *Leáa W.*

ORDER XXXIII. GERANIACEÆ.

The *Gerániums* are well known to all gardeners for their beauty, and the facility with which hybrid varieties are produced among them. *Geranium* and *Erodium* are chiefly natives of the northern hemisphere; and *Pelargónium* of the southern. Different as they appear from *Vinifera* in most respects, there are some points in which a curious resemblance may be found between the two orders. The young stems of both are articulated and separable at the articulations; and the lower leaves are opposite, while the upper ones are alternate. In *Geraniaceæ* no tendrils are produced, but the peduncles are opposite to the leaves, as in *Vitis*, and occupy the place of tendrils. M. Decandolle observes, that of the true *Geraniaceæ*, some are slightly acid, especially those of which the leaves and bark are succulent; several exhale a resinous smell which is sometimes agreeable, but occasionally so powerful as to be unpleasant. The resinous principle is so abundant in *Geranium spinosum*, that its stem burns like a torch, and exhales an agreeable perfume. The most common property of European geraniums is to be astringent, which is chemically determined by their juice being blackened by sulphate of iron; this is particularly remarkable in *G. Robertianum* and *sanguineum*, which are both accounted vulnerary, and in *G. moschatum*, *pratense*, and others, in which it is united to a slight aromatic principle, whence they have been recommended for various purposes, and among others for removing calculous disorders. The astringent property of the geraniums is also present in *G. maculatum*, which grows in much abundance about Philadelphia; the root of this plant, boiled in milk, is used for the cholera in children. Barton is of opinion, that it would be a good substitute for gum kino in nephritis and obstinate diarrheas.

1460 *Erodium W.*                      1461 *Pelargónium W.*                      1463 *Geranium W.*                      1465 *Monsónia W.*

ORDER XXXIX. OXALIDEÆ.

Formerly confounded with the last order. It is the opinion of modern botanists, that the species are more nearly allied to *Rutaceæ* or *Zygophylleæ*, and that their character and peculiar habit is quite sufficient to distinguish them. The beauty of the genus *Oxalis* is very great, and the readiness with which the species may be cultivated and caused to flower, would have been expected to make them universal favorites; they are not, however, much seen in cultivation. Their properties are well known: all of them have a slightly acid taste, whence some have occasionally been employed as salad; their acidity is very agreeable and depends upon the presence of a small quantity of oxalate of potassa. In some of the species of equinoctial America oxalic acid exists in great abundance. Several species are employed in Brazil as a remedy for certain fevers of that country.

1064 *Biophýtum Dec.*                      1065 *Oxalis W.*                      1058 *Averrhóa W.*

ORDER XL. TROPÆOLEÆ.

These are climbing or trailing herbs with handsome solitary axillary flowers, and fleshy stems and leaves. They are distinguished from *Geraniaceæ* by their stamens being separate, and not agreeing in number with the petals; by their axillary flowers, and fleshy indehiscent fruit. It is very curious, that this is the only order in which the peculiar acid flavor of *Crucifera* is found to exist. *Tropæolum pentaphýllum*, with probably other species, is a powerful antiscorbutic. All are natives of shady places in various parts of South America. The roots of some are fleshy and eatable.

875 *Tropæolum W.*

ORDER XLI. BALSAMINEÆ.

The flower of this order has been remarked by a learned botanist to be that of *Fumariaceæ*, the capsule of *Oxalis*, the embryo of *Linum*, and the habit peculiar. The well known elastic spring with which the seeds are ejected, constitutes a principal character of the order. All the species are annuals, with the exception of *Impatiens fruticósa*; they delight in moist hot situations, generally within the tropics; and are remarkable for the singularity and varied colors of their flowers.

538 *Impatiens W.*

ORDER XLII. ZYGOPHYLLEÆ.

The hardness of the wood of the shrubby species of this order is most remarkable, if the softness of the stems of the herbaceous ones is remembered. To this the extreme difficulty of propagating *Guaiacum* is to

be attributed. *Zygophyllum* Fabágo is employed as an anthelmintic, but it is in the *Guafacum* that the great medical virtues of the order are found: all the genus is extremely exciting; the wood and bark of *Guafacum officinale* and *sánctum* have a rather bitter acrid flavor, and are principally used as sudorifics, diaphoretics, or alteratives; they have been found to contain a particular substance differing both from gum and resin, which has been called *guayacine*. Many of the species bear beautiful flowers, especially the *Tribulus*s, which with their brilliant yellow *Cistus*-like blossoms, enliven many a barren rock in the tropics. None are found in the colder latitudes of the world.

994 *Zygophyllum* *W.*995 *Fagónia* *W.*996 *Tribulus* *W.*993 *Guafacum* *W.*

## ORDER XLIII. MELIACEÆ.

The nearest affinity of this order is probably with *Sapindaceæ*. It is particularly distinguished by the stamens being united into a tube bearing the anthers. The leaves are usually pinnated, and most of the species, which are all either trees or shrubs, are natives of tropical forests. *Méla*s bears bunches of fine lilac colored flowers, but few of the genera are interesting on account of their inflorescence. The qualities of the different species are little known. *Canélla álba* is aromatic, and is used in equinoctial America as a spice. The bark of *Guárea trichilioides* is said by Aublet to be purgative and emetic. The pulpy fruit of *Méla Azedarach* is said to be poisonous; both this part and the inner bark have been used as anthelmintics either in substance or in decoction. It is asserted by Michaux, that the pulp that surrounds the kernel is considered in Pekin a specific in scrophulous cases. The oil expressed from the seeds of the same plant is said to have strong antispasmodic powers.

888 *Guárea* *W.*  
987 *Trichília* *W.*988 *Méla* *W.*  
989 *Quivísia* *Cav.*991 *Ekebérgia* *W.*  
992 *Hefnea* *Rozb.*

## ORDER XLIV. CEDRELEÆ.

Some of the finest trees of the tropical regions of the globe are comprehended in this order, as the well known mahogany, and the New Holland cedar, which is a species of *Cedréla*. Their winged seeds distinguish them from *Meliaceæ*. The bark of *Cedréla Tóna* is employed in the East Indies as a febrifuge, as is also that of the mahogany in the West. But the most powerful remedy for fevers in the whole order is the *Soymdia* of the West Indies, which is the produce of *Swieténia febrifuga*; its taste is bitter and nauseous, and its virtues are extolled as equalling those of *Cinchóna*.

990 *Swieténia* *W.*531 *Cedréla* *W.*

## ORDER XLV. AURANTIACEÆ.

These are also known under the name of *Hesperideæ*. They consist of trees or shrubs of the greatest beauty and utility. The well known orange and lemon are the representatives of the order, the characters of which are so well defined that there is no material deviation from the type afforded by those species. The thick leaves, articulated with their petiole, and abounding in transparent reservoirs of odoriferous oil, are the most obvious peculiarities. The flowers are fragrant, and the fruit in all cases fleshy, and generally eatable. The wood is particularly close-grained. The volatile oil contained in the reservoirs of the leaves and fruit possesses powerful tonic and stimulating properties. M. Decandolle thus explains the singular structure of the fruit of the orange. In the opinion of this learned botanist it consists, first, of a thick, valveless, indehiscent indusium or coat, which is most likely to be considered a continuous torus. Secondly, of several carpella, verticillate around an imaginary axis, often separable without laceration; membranous, and either containing seeds only, or filled with pulp, lying in innumerable little bags proceeding from the inner coats of the cells.

500 *Triphásia* *Lour.*  
1003 *Límónia* *W.*1004 *Glycósmis* *Corr.*  
1615 *Cítus* *W.*1005 *Murráa* *W.*  
1006 *Coókia* *W.*1196 *Ægile* *Corr.*  
2149 *Ferónia* *Corr.*

## ORDER XLVI. TERNSTROMIACEÆ.

A very small order, consisting wholly of trees or shrubs, bearing handsome white or yellowish flowers. They are nearly related to *Camellieæ*, from which they do not differ at all in habit. Nothing is known of their properties. *Noronha* states that a species of *Saurauja* found in Java has a subacid fruit, in flavor resembling the Tomato, and that it is eaten by the Javanese under the name of *Koleho*.

1083 *Eórya* *Th.*1494 *Gordónia* *W.*1495 *Stuártia* *W.*

## ORDER XLVII. CAMELLIÆ.

*Camellias* are too well known in our gardens to render it necessary to say much upon their peculiarities. The *Camellia* is one of the most beautiful, and the tea one of the most useful, plants in the world. Both are natives either of China, Japan, or Nepal. The tea is well known for the stimulating influence of its decoction upon the nerves, which is attributed by Cullen to the presence of a narcotic principle. The seeds of *Caméllia oleifera* yield a fine oil. None of the species bear fragrant flowers. Their nearest affinity is with *Ternstrómiaceæ*, from which they probably ought not to be separated.

1496 *Caméllia* *Ker*

## ORDER XLVIII. OLACINÆÆ.

Smooth trees or shrubs, with simple stalked exstipulate alternate entire leaves, and little axillary flowers. Botanists doubt whether what is called a calyx is not rather an involucre, in which case the corolla would become a calyx, and the station of the order among *Monochlamydeæ*, rather than in this place.

890 *Ximénia* *W.*

## ORDER XLIX. RUTACEÆ.

An interesting and extensive, but rather heterogeneous, group of plants, natives of all countries and all situations. The species are either fetid northern herbaceous plants, as the garden rue, or neat heath-like southern shrubs, with an aromatic odor, as the Cape *Diósmas*; broad or long-leaved Australasian shrubs, with a stellate pubescence, as *Phebáium*, or tropical trees with panicles of pallid minute flowers, as the *Cuspárias* and *Xanthóxyllums*. The order contains nearly 300 species, of which but a small proportion is in our gardens. The medical properties of many genera are considerable. *Rúta* and *Péganum* are emmenagogue, anthelmintic, and sudorific. *Diósmá* abounds in a volatile oil of an agreeable smell, but acrid flavor; several of its species are reputed antispasmodics. The *Xanthóxyllums* are said to possess acrid, stimulating, or tonic qualities; *Cláva Hérculis* and *fraxíneum* are said, in America, to be powerful sudorifics and diaphoretics. According to Barton, they possess a remarkable power of exciting copious salivation, not only when applied to the mouth, but even when taken internally; they have both been found powerful remedies in paralysis of the muscles of the mouth. *Xanthóxyllum caribæum* is regarded in Guiana as a detersive vulnerary and febrifuge. The famous febrifugal *Angostura* bark is the produce of *Cuspária febrifuga*.

## Tribe 1. RUTÆ.

998 *Rúta* *W.*1088 *Péganum* *W.*1293 *Meliánthus* *W.*905 *Jambolifera*

Tribe 2. DIOSMEE.

|                           |                        |                             |                             |
|---------------------------|------------------------|-----------------------------|-----------------------------|
| 997 <i>Dictamnus W.</i>   | 999 <i>Créwea Sm.</i>  | 517 <i>Diosma W. en.</i>    | 520 <i>Agathosma W. en.</i> |
| 528 <i>Calodéndrum W.</i> | 878 <i>Borónia Sm.</i> | 518 <i>Adenandra W. en.</i> | 1965 <i>Empleurum W.</i>    |
| 880 <i>Corraëa W.</i>     | 304 <i>Ziéria Sm.</i>  | 519 <i>Baryósma W. en.</i>  |                             |

Tribe 3. ZANTHOXYLÆ.

|                      |                            |
|----------------------|----------------------------|
| 303 <i>Fagára W.</i> | 2066 <i>Xanthoxylum W.</i> |
|----------------------|----------------------------|

Tribe 4. CUSPARIÆ.

|                         |                          |
|-------------------------|--------------------------|
| 41 <i>Galipéa Aubl.</i> | 1500 <i>Monniéria W.</i> |
|-------------------------|--------------------------|

ORDER L. CORIARIEÆ.

Five species constitute the whole of this order, distributed in South Europe, New Zealand, Peru, and Mexico. They possess no beauty, and are only interesting on account of their problematical station in a botanical arrangement. The leaves of *C. myrtifolia* are astringent, and are employed in dying black. Its berries are very poisonous. On one occasion, during the Spanish war fifteen French soldiers were taken ill after eating them, and three died from their powerful narcotic effects.

2091 *Coriária W.*

Section 4. *Fruit (gynobasic) inserted into a fleshy receptacle, with which the style is continuous.*

ORDER LI. OCHNACEÆ.

Beautiful yellow-flowered tropical shrubs or trees with lucid leaves. The roots and leaves of *Walkera serrata*, a Cingalese plant, are bitter; a decoction of them, either in water or milk, is used in Malabar as tonic, stomachic, and antiemetic. The bark of *Gomphia hexasperma* is found useful in healing sores produced in cattle in Brazil by the stings of insects.

1001 *Gomphia W.*

1191 *Ochna W.*

ORDER LII. SIMARUBACEÆ.

Thirteen plants, found in equinoctial America, constitute this order. They are trees or shrubs, with an intensely bitter bark, a milky juice, and pinnated leaves. The *Quassia* is well known as the most pure and intense bitter hitherto discovered; the same property exists, in a milder degree, in the rest of the order. *Quassia amara* is a very ornamental plant, but rare, at present, in collections.

1002 *Quassia W.*

SUBCLASS II. CALYCIFLOREÆ.

*Petals separate, inserted into the calyx.*

ORDER LIII. CELASTRINEÆ.

This order differs from the succeeding, in having the stamens alternate with the petals; the sepals imbricated in aestivation; and the ovary wholly superior. It consists entirely of shrubs or small trees, with simple, rarely compound, alternate or opposite leaves, and inconspicuous flowers of a greenish or white color. Several are favorite ornaments of our shrubberies, as the *Staphylæa*, the *Celastrus*, and the *Euonymus*; the latter of which is valued on account of its beautiful-colored fruit. The fruit of *Euonymus europæus* is a brisk purgative, as is also the inner bark, and in strong doses powerfully emetic. The famous Paraguay tea is the foliage of a species of *Ilex*. The bark of *Prinos verticillatus* possesses such active, astringent, bitter, tonic, and febrifugal qualities, that it is used in North America, with success, as a substitute for *Cinchona*. A decoction of the twigs of *Maytenus boaria* is used to bathe the swellings produced by the poisonous shade of the tree *Lithi*.

Tribe 1. STAPHYLEACEÆ.

684 *Staphylæa W.*

Tribe 2. EUONYMEÆ.

509 *Euonymus W.*

507 *Celastrus W.*

51 *Maytenus Mol.*

516 *Elaodéndrum W.*

Tribe 3. AQUIFOLIACEÆ.

682 *Cassine W.*  
301 *Hartógia W.*  
300 *Curtisia W.*

605 *Bumálda Th.*  
314 *Mygánda W.*  
315 *Ilex W.*

828 *Prinos W.*  
543 *Electrónia W.*  
514 *Schrebera Retz.*

ORDER LIV. RHAMNEÆ.

In habit, this altogether agrees with the last, from which the medical properties of the species are not widely different. Throughout the order, as far as it has been examined, there is a remarkable agreement between the fruit and the inner bark, especially in *Rhamnus catharticus*, *frangula*, and others, in which they both are purgative and emetic. Some, as the *Jujuba*, and the African *Lote*, nevertheless, yield a wholesome and agreeable fruit; and the berries, of the greater number, yield, under the chemist's hands, green or yellow dyes of much importance in manufactures. The leaves of *Rhamnus theézans* are substituted for tea by the poorer sort among the Chinese. The bark of *Ceanothus cærtleus* is esteemed in Mexico as a good febrifuge.

506 *Zizyphus W.*  
505 *Pallúrus Gert.*  
504 *Cenópia Mich.*

503 *Rhamnus W.*  
510 *Ceanóthus W.*  
512 *Pomadéris W.*

542 *Phýlica W.*  
2146 *Gouánia W.*

532 *Hovánia Th.*  
2060 *Schæfféria W.*

ORDER LV. BRUNIACEÆ.

Small heath-like shrubs, all natives of the Cape of Good Hope, and extremely ornamental, both in flower and foliage. Their properties are unknown.

533 *Brúnia W.*

511 *Stáavia W.*

ORDER LVI. SAMYDEÆ.

Tropical shrubs or small trees, with entire, stipulate, alternate leaves, covered with pellucid dots, and axillary flowers of little show. Some of the species of *Samyda* are pretty, but very rare. Their properties are unknown. M. Decandolle remarks, that in their fruit they approach *Bixinez* and *Flacourtiaceæ*; but on account of the position of their stamens must be arranged in the vicinity of *Rhamnaceæ* and *Rosaceæ*.

1034 *Samyda W.*



## ORDER LVII. HOMALINEÆ.

Evergreen handsome shrubs, with alternate leaves and deciduous stipules; they are readily known by their parietal placentæ, an unusual character among the orders that surround them. *Blackwéllia fagiifolia* has fine bunches of starchy, white fragrant flowers. *Aristotéllia* is an evergreen hardy shrub, with eatable berries. Little is known of their medical properties; the root of *Homálium Racóbea* is used in Guiana as a cure for gonorrhœa.

1108 *Blackwéllia Juss.*873 *Astránthus L.*1084 *Aristotéllia W.*

## ORDER LVIII. TEREBINTHACEÆ.

This order is, notwithstanding the labors of several botanists, in a very confused state; from want of sufficient knowledge of many of the genera, which have been hitherto imperfectly described, it is difficult either to determine the value of the characters assigned to the tribes, or the dignity of the tribes themselves. All the species are shrubs or trees, with alternate exstipulate leaves, and inconspicuous flowers, and abound in a balsamiferous resin, which is chiefly present in the leaves and bark, and from which the denomination of the order has been derived. Notwithstanding the minuteness of their flowers, many of the species are valuable as ornamental plants, on account of the beauty of their foliage, others for the sake of their utility in arts or medicine, and others for their fruit. The walnut, the Cashew nut, and the Pistachio are valuable for their nuts, which are well known articles of the markets of Europe. The *Spóndias* and *Mángo* are equally famous in the tropics. The well-known balsam of Tolu is the produce of the *Toluifera*; the balsam of Mecca, of the *Amýris gileadénsis*; and balm of Acouchi, of the *Ícica acuchini*; gum comes from *Amýris elemifera* and *Ícica leptophýlla*; mastich from *Pistácia atlántica* and *lentiscus*; and Venetian turpentine from *Pistácia terebinthus*. *Schinus Molle* produces a resin which in Peru is used as a dentifrice, as myrrh is with us. Some of the best varnishes are prepared from the exudation of *Amýris guianénsis*, *Rhus vérnix*, copallina, and others; the finest kinds of incense are also afforded by plants of this order, such as the wood and resin of the different species of *Ícica*, of *Amýris balsamifera*, and of *Canárium commune*, the *Coumia*, which is used in Guiana for such purposes, and finally, the *Boswéllia thurifera*, which is the true frankincense of Indian temples. But among the fragrant and wholesome plants of which the order chiefly consists, lie concealed others in which acrid and poisonous qualities no less abound. Such are several pieces of *Rhus*, the juice of which produces blisters upon the skin, and the *Amýris toxifera*, the juice of which is accounted poisonous. To conclude this long list of the uses and dangers of *Terebinthaceæ*, the bark of *Brúcea* is used as an astringent in dysenteries, that of *Rhus glabra* as a febrifuge and as a mordant for red colors, and that of *Rhus coriária* as a powerful means of tanning skins of animals. It is curious to remark how strongly *Terebinthaceæ* are connected with *Amentacææ* through *Jóglans*.

## Tribe 1. ANACARDIÆ.

935 *Anacárdium W.*  
513 *Mangifera W.*2065 *Pistácia W.*  
85 *Comocládia*2067 *Picrámmia W.*

## Tribe 2. SUMACHINÆ.

681 *Rhus W.*2093 *Schinus W.*

## Tribe 3. SPONDIACÆ.

1059 *Spóndias W.*

## Tribe 4. BURSERACÆ.

2164 *Burséra W.*1010 *Garúga Rozeb.*

## Tribe 5. AMYRIDÆ.

889 *Amýris W.*

## Tribe 6. PTELEACÆ.

298 *Ptélea W.*529 *Toddália Lam.*84 *Cneórum W.*683 *Spathéllia W.*

## Tribe 7. CONNARACÆ.

1057 *Cnéstis Lam.*2061 *Brúcea W.*

## Tribe 8. JUGLANDEÆ.

1999 *Júglans W.*

## ORDER LIX. LEGUMINOSÆ.

The family to which the various kinds of pulse belong is one of the most familiar to the world, and at the same time one of the most useful to mankind. Their papilionaceous flowers characterise a large number, and their pods and pinnate leaves the remainder, with a few exceptions, which it is not necessary to particularise. As objects of ornament, many are possessed of unrivalled beauty, for example, among hardy flowering trees, the *Robinia* and the *Labúrnum*; among shrubs, for decorating the borders of the flower-garden, the various tribes of *Cýtisus*, *Caragána*, *Colútea*, *Amórrha*, and others; among hardy climbers, the far-famed *Glycine* of China, and its sister of North America, with the species of the herbaceous genera *Vicia* and *Láthyrus*; and, lastly, among hardy herbaceous plants, the numerous species of *Lupínus* and *Astrágalus*. Great, however, as is the beauty of the *Leguminosæ* which can brave the inclemencies of the seasons of Northern Europe, it must give way before the splendor and elegance of their brethren of the tropics. The flowers of the *Erythrina*, or Coral tree, are of the deepest crimson, and borne in profusion upon some of the loftiest trees of the forest. The *Bauhinias*, with their snake-like stems and twin leaves, hang in festoons of flowers from branch to branch of other trees, and are only rivalled by the less vigorous and elegant, but more richly colored blossoms of the *Carpopógons*. But all these, with their broad heavy foliage and gaudy colors, are far surpassed by the rugged trunks, trembling airy foliage, and golden flowers of the *Mimosa*, which cast a charm over even the most sterile deserts of burning Africa. While the forests of hot countries are thus indebted to species of this order for their timber, the meadows and pastures of the same latitudes are enamelled with the flowers of myriads of *Hedýsarums*, and animated by the wonderful motion of sensitive plants. As in our own country, the gayest part of our scenery is in many places indebted to the yellow flowers of our furze and broom, so in other countries the same effect is produced by other genera of *Leguminosæ*; by *Lipária*, *Borbónia*, and *Aspáthus*, at the Cape of Good Hope, and by the *Pultenæas*, *Daviésias*, *Aótuses*, and multitudes of similar genera in New Holland. The wood of the order is very hard and durable, with a yellow tinge, sometimes changing into green, as in the *Labórnum* of Europe, and in the better known Brazil wood of commerce, produced by *Cæsalpínia*. The following useful remarks upon the properties of the order are made by M. Decandolle:—

“The family of leguminous plants, though established upon characters of primary importance, offers, nevertheless, so large a number of species and such singular botanical anomalies, that it is easy to foresee that its properties will exhibit little uniformity. Still more exceptions may be anticipated if one reflects, that the chemical principle which is found most abundantly in every part of leguminous plants, and to which we must attribute their principal properties, is the extractive. It is probable that this principle, either from its own nature, or from its peculiar power of uniting with different matters, or perhaps instead of being a simple principle, it is rather a compound of different matters; it is probable, I say, that the extractive principle exhibits

much less uniformity in its results than any other. It is, without doubt, to the presence of the extractive principle, in considerable quantities, that many leguminous plants owe their purgative properties, which are common to several extracts, and which many chemists attribute to the acetate of potash, which they are almost universally found to contain. Thus the leaves and foliaceous pods of *Cassia séna Lin.*, of *Cassia lanceolata Forsk.*, of *Cassia emarginata* of the Antilles, of the *Cassia marylándica* employed in the United States, of *Colútea arboréscens*, of *Spartium púrgans*, and perhaps also of *Coronilla émerus*, act as brisk purgatives, and often cause wind and pain in the bowels. The juice of *Coronilla vária* excites vomiting, and may even become poisonous when taken in too large quantities. It is, perhaps, from a different cause that the pulp which is contained in the husks of leguminous plants operates upon the human body; it purges gently without causing the least pain, and ought to be considered as laxative rather than purgative. Such is the character of the juicy pulp that exists in the *Cassia fistula Lin.*, in the *Tamarindus indica Lin.*, in the *Crotalaria siliqua Lin.*, and probably in the *Mimósa inga* and the *M. fagifolia*, which are eaten in small quantities in the Antilles, but which, taken more copiously, would have the same effect as our Carobs. There are some fruits of Leguminosæ, for example, the *Sophóra* and the *Gleditschia*, with tumid pods, in which is found a juice which surrounds, it is true, the seeds, as in the plants just mentioned, but which differs from them altogether in its very astringent and nauseous flavor; the nature and properties of this juice deserve to be examined by chemists, and would undoubtedly throw some light upon the nature of Leguminosæ. I am induced to think, that the astringent juice of the *Sophóra* is a secretion of the pericarp, whilst the sweet and purgative juice of the *Cassia* would be a secretion of the external part of the seed; but this hypothesis requires to be verified: what leads me to this opinion, is the flavor commonly found in husks; in the Carobs, for example, the husk is astringent, and the pulp sweet and laxative. But let us return to the properties which may be attributed to the extractive principle. It is undoubtedly from some one of these modifications that the singular property of the *Piscidia* and many *Galéas* is derived, which are employed in America to stupefy fish, which are taken by this means as readily as with *Nux vómica*. The decoction of the root of *Galéa virginiana* is considered in America as a powerful vermifuge. It is, perhaps, indeed, to the very same cause that the rubefacient powers of the fresh leaves of some Leguminosæ are to be ascribed, which act readily upon the skin if applied as plasters; as, for example, in *Ornithopus scorpioides* among ourselves, and *Hyperanthera moringa* elsewhere. It appears to me, that it is to the greater or less considerable mixture of the extractive principle with the *fecúla* contained in the seed, that the different properties of the pulse of leguminous plants may be attributed. If found in small quantities, the seed may serve as food for man and animals, as we see in French beans, peas, lentils, chick peas, and many others, &c. If found in a more considerable quantity, it will render them purgative or emetic, as in the *Cytisus labúrnum*, the *Anagyris foetida*, and even in most *Coronillas*. It is remarkable that the botanical characters of Leguminosæ should so strictly agree with the properties of their seeds: the latter may be divided into two sections; namely, first, those of which the cotyledons are thick and filled with *fecúla*, and destitute of cortical pores, and which, moreover, in germination do not undergo any change, but nourish the young plant by means of that supply of food which they already contain; secondly, those of which the cotyledons are thin, with very little *fecúla*, and furnished with cortical pores, and which change at once into leaves at the time of germination for the purpose of elaborating food for the young plant. All the seeds of the first section are employed as food in different countries; none of those of the second section are ever so employed; the *Cajan*, which has long been classed among the *Cytisi*, was apparently an exception to this general rule; but observation has proved the contrary. Bearing in mind its known properties, I formerly paid particular attention to its structure, and I have shown in a note, which accompanies my catalogue of the Montpellier garden, that the *Cajan* forms a particular genus much more nearly allied to the French bean than to the *Cytis*, and that, in fact, belongs to the first of the sections in which I have just described. The seeds of Leguminosæ present also many other anomalies more difficult to reduce to any fixed laws; thus some are found which contain a rather large portion of fixed oil; such as the seed of the *A'rachis hypogæa*, lately introduced into European agriculture, and that of *Gulandina moringa* which produces oil of ben; there are some, of which the flavor and smell are rather powerful; as the seed of *Dipterix* or *Coumarouína odóra* of Aublet, which, under the name of Tonquin bean, is used for perfuming snuff; there are others which, like the chick pea, have rather a bitter taste and exciting properties, and are on that account administered for the jaundice. There are others again, like those of the *Andira*, which are so bitter as to be used in Java and Brazil as tonic, alexiteric, and vermifuge. In a word, are not the aperient and diuretic properties which are observable in the herbage and the roots of many leguminous plants, such as broom, beans, Onónis, *Gulandina ringa* and *moringa*, *Anthyllus crética*, &c. to be attributed to a modification of this extractive principle? There are, in another view, roots which are furnished with tubercles, that is to say, with reservoirs of *fecúla* which furnish mankind with wholesome food, as we see in the *Láthyrus tuberosus*, which is eaten in Holland, the *Dolios tuberosus*, and the *D. bulbosus*, which the Indians use as food. The roots of the liquorice have a sweet and mucilaginous taste, which is well known by every body, and which, united to an acrid and rather exciting principle, causes it to be employed as a pectoral; the analysis of this root, published by M. Robiquet, proves that independently of its woody skeleton, the same kind of amylaceous *fecúla* is found as in the tuberous roots of which we have just been speaking; it is thence seen that the acrid flavor of decoctions of liquorice depends on the small quantity of resinous oil which it contains, and that its sweet properties are by no means analogous to common sugar, since it is insoluble in cold water, soluble in warm water or in alcohol, not capable of fermentation, and does not yield to the action of nitric acid any of the known products of sugar. It may here be added, that the sugary flavor of liquorice, and its other properties, are not confined to this genus; they are found equally in the roots of *Trifolium alpinum*, vulgarly called Mountain liquorice; in those of the *A'rbus precatórius*, from which a pectoral draught is prepared in Hindoostan, called *Velti*, and in others. The barks of some trees of the leguminous class, are remarkable for their bitterness, and are used as febrifuges; the different kinds of *Geoffroya* possess this bitter and febrifugal quality in a remarkable degree; in India, the bark of the *Æschynoméne grandiflora* and of the *Casalpinia bonducella* are employed for the same purpose. The barks of many leguminous plants are also remarkable for their astringent qualities, caused by the quantity of tannin which they are found to contain; this is observable in the *Acácia Catechu*, and in the *Acácia arabica*, which is used for tanning leather, and elsewhere. It is well known that almost all coloring matter proceeds from the extractive principle; and as it appears that this principle abounds in Leguminosæ, we ought to find in them a considerable number of the colors which are used by dyers: to this family, in fact, belong the principal blue colors, known by the name of indigo, extracted from every kind of *Indigofera* and from some *Galéas*; and the red colors, which are yielded by all the species of *Casalpinia* and of *Hæmátóxylon*. We may add the red juice, which is drawn from the *Pterocárpus dráco* and *Santalinus*, under the name of sandal and of dragon's blood; from *Erythrina monosperma*, under the name of gum lac; and also from *Dalbergia monetária*. These juices appear to differ in many particulars, but their history and analysis are at present so far from being known, that it is impossible to form a true estimate of the nature of their differences. But anomalies of this nature are far from being confined to the plants just mentioned. Among the exotic drugs employed in the arts they are very common: such, for example, are the balsam of *Capivi*, produced by the *Copaifera*; the balsam of Peru, which, Mutis says, is obtained from *Myroxylon*; the *Cachou*, which has been found to be almost pure tannin, and which is supposed to be produced by *Acácia Catechu*; of the same character is that remarkable resin that is yielded by *Hymenæa Coubaril*; gum Arabic, produced by the bark and roots of *Acácia senegalensis*, *nilótica*, *arabica*, and others; gum tragacanth obtained from *Astragalus créticus*, *gummifera*, and *vérucus*; and finally, *manna*, secreted by *Heđysarum alghai*.

The arrangement of this tribe of plants has been found to be attended with much difficulty. By Linnæus, and the writers who succeeded him, the number of genera was much smaller than those admitted by botanists of the present age; many additions have been made in consequence of the discovery of New Holland, and a large number of subdivisions in old genera have been from time to time introduced by one writer or another. To combine these scattered improvements under one uniform system has lately been attempted by the learned botanist, from whom the foregoing extract has been taken. This was not executed at the time when those parts of the present work, in which leguminous plants are found, were written; for which reason the names

of the suborders will not be found in the body of the work. M. Decandolle's method, however, being here adopted, it will be useful to explain the principles upon which it is founded. He divides Leguminosæ into two grand divisions, the first of which consists of plants, the radicle of whose seed is curved back upon the edge of the cotyledons, and the second of those whose radicle and cotyledons are straight: the former are CURVEMBRIÆ, the latter RECTEMBRIÆ. In the *Curvembriæ*, certain diversities in the structure of the calyx and corolla again divide into two principal forms, one of which, comprehending all the genera with papilionaceous flowers, is called Papilionaceæ, and the other, consisting of a very small number of species, with one or two petals or more, and an obscurely lobed calyx, is called Swartziæ. The last is not subdivided, but the Papilionaceæ resolve themselves into the two great tribes pointed out by M. Decandolle, namely, those with fleshy cotyledons and eatable pulse, *Sarcolobæ*, and those with foliaceous cotyledons and seeds which are not eatable, *Phyllolobæ*. Each of these is divisible by three, upon slight differences in the fructification. In *Rectembris* two suborders, Mimosæ and Casalpinæ, are formed upon variations in the æstivation of the calyx and corolla; in the former, it is valvate, in the latter, imbricated; the first constitute a single tribe, the latter divide into three, distinguished by less momentous peculiarities of structure. Having premised thus much, the following tabular explanation will be intelligible:

## I. CURVEMBRIÆ.

## PAPILIONACEÆ.

- |                |   |  |
|----------------|---|--|
| a. Phyllolobæ. | } | Tribe 1. <i>Sophoreæ</i> . Pod continuous. Stamens distinct.   |
|                |   | Tribe 2. <i>Loteæ</i> . Pod continuous. Stamens united by the filaments.                               |
| b. Sarcolobæ.  | } | Tribe 3. <i>Hedysarææ</i> . Pod with transverse articulations. Stamens mostly united by the filaments. |
|                |   | Tribe 4. <i>Viciææ</i> . Pod polyspermous, dehiscent. Leaves cirrhous, the first alternate.            |
|                |   | Tribe 5. <i>Phaseolææ</i> . Pod polyspermous, dehiscent. Leaves not cirrhous, the first opposite.      |
| 2. SWARTZIÆ.   |   | Tribe 6. <i>Dalbergiææ</i> . Pod one or two-seeded, indehiscent. Leaves not cirrhous.                  |
|                |   | Tribe 7. <i>Swartziææ</i> .  |

## II. RECTEMBRIÆ.

## 1. MIMOSÆ.

## 2. CASALPINÆ.

- |  |
|--|
| Tribe 8. <i>Mimosææ</i> .  |
| Tribe 9. <i>Geoffrææ</i> . Sepals and petals imbricated in æstivation. Stamens variously connected by the filaments. |
| Tribe 10. <i>Cassiææ</i> . Sepals and petals imbricated in æstivation. Stamens distinct.                             |
| Tribe 11. <i>Detariææ</i> . Sepals before expansion indistinct, calyx bladder-like. Petals 0.                        |

## SUBORDER I. PAPILIONACEÆ.

## Tribe 1. SOPHOREÆ.

- |                              |                               |                               |                                |
|------------------------------|-------------------------------|-------------------------------|--------------------------------|
| 941 <i>Sophóra H. K.</i>     | 946 <i>Cyclóphia R. Br.</i>   | 954 <i>Gompholóbium H. K.</i> | 961 <i>Eutáxia H. K.</i>       |
| 940 <i>Edwárdia Sal.</i>     | 948 <i>Podalýria R. Br.</i>   | 955 <i>Burtónia H. K.</i>     | 962 <i>Sclerothámmus H. K.</i> |
| 942 <i>Ormósia Jacks.</i>    | 949 <i>Chorozémia Lab.</i>    | 956 <i>Jacksónia H. K.</i>    | 963 <i>Gastrolóbium H. K.</i>  |
| 945 <i>Virgília Lam.</i>     | 950 <i>Podolóbium H. K.</i>   | 957 <i>Viminária H. K.</i>    | 964 <i>Euchilus H. K.</i>      |
| 943 <i>Anagýria W.</i>       | 951 <i>Oxylóbium H. K.</i>    | 958 <i>Spherolóbium H. K.</i> | 965 <i>Pultenæa H. K.</i>      |
| 944 <i>Thermópsis R. Br.</i> | 952 <i>Callistachys Vent.</i> | 959 <i>Aótus H. K.</i>        | 966 <i>Daviésia L. T.</i>      |
| 947 <i>Baptisia R. Br.</i>   | 953 <i>Brachyséma H. K.</i>   | 960 <i>Dillwýnia H. K.</i>    | 967 <i>Miribéla L. T.</i>      |

## Tribe 2. LOTEÆ.

## Subtribe 1. Genistææ.

- |                               |                           |                              |                          |
|-------------------------------|---------------------------|------------------------------|--------------------------|
| 1536 <i>Hóvea H. K.</i>       | 1527 <i>Ráfnia Th.</i>    | 1535 <i>Loddigésia B. M.</i> | 1537 <i>Spartium W.</i>  |
| 1525 <i>Platylóbium Sm.</i>   | 1526 <i>Borbónia W.</i>   | 1539 <i>Lebéckia W.</i>      | 1538 <i>Genista W.</i>   |
| 1531 <i>Bossiaæ Sm.</i>       | 1565 <i>Lipária W.</i>    | 1529 <i>Sarcophýllum Th.</i> | 1566 <i>Cýtissus W.</i>  |
| 1534 <i>Goódia R. Br.</i>     | 1584 <i>Hállia Th.</i>    | 1528 <i>Aspálatrus W.</i>    | 1541 <i>Onónia W.</i>    |
| 1532 <i>Scóttia R. Br.</i>    | 1530 <i>Crotalária W.</i> | 1540 <i>U'lex W.</i>         | 1542 <i>Anthýllis W.</i> |
| 1533 <i>Templetónia H. K.</i> | 1523 <i>Vibórgia W.</i>   |                              |                          |

## Subtribe 2. Trifoliææ.

- |                           |                            |                                  |
|---------------------------|----------------------------|----------------------------------|
| 1605 <i>Medicágo W.</i>   | 1600 <i>Trifólium J.</i>   | 1601 <i>Lótus W.</i>             |
| 1603 <i>Trigonélla W.</i> | 1599 <i>Lupináster Ph.</i> | 1602 <i>Tetragonólobus Roth.</i> |
| 1598 <i>Melilótus J.</i>  | 1604 <i>Dorycénium W.</i>  | 1606 <i>Hymenocárpus W.</i>      |

## Subtribe 3. Clitoriææ.

- |                           |                          |                        |
|---------------------------|--------------------------|------------------------|
| 1597 <i>Psorálea W.</i>   | 1556 <i>Clitória W.</i>  | 1552 <i>Glycíne L.</i> |
| 1589 <i>Indigófera W.</i> | 1555 <i>Galáctia Mx.</i> |                        |

## Subtribe 4. Galegææ.

- |                                |                             |                             |                                |
|--------------------------------|-----------------------------|-----------------------------|--------------------------------|
| 1501 <i>Petalostémum Mich.</i> | 1590 <i>Tephrosía P. S.</i> | 1568 <i>Robínia W.</i>      | 1573 <i>Colútea L.</i>         |
| 1596 <i>Dálea P. S.</i>        | 1545 <i>Amórpha W.</i>      | 1581 <i>Sesbânia H. K.</i>  | 1570 <i>Swainsónia H. K.</i>   |
| 1574 <i>Glycyrrhíza W.</i>     | 1512 <i>Nissólia W.</i>     | 1524 <i>Piscidia W.</i>     | 1572 <i>Lessértia H. K.</i>    |
| 1575 <i>Liquorítia Mönch.</i>  | 1567 <i>Mulléra W.</i>      | 1569 <i>Caragána Royen.</i> | 1571 <i>Sutherlandia H. K.</i> |
| 1591 <i>Galéga P. S.</i>       |                             |                             |                                |

## Subtribe 5. Astragaleæ.

- |                      |                            |                             |                          |
|----------------------|----------------------------|-----------------------------|--------------------------|
| 1592 <i>Pháca W.</i> | 1593 <i>Oxýtropis Dec.</i> | 1594 <i>Astrágalus Dec.</i> | 1595 <i>Bisérrula W.</i> |
|----------------------|----------------------------|-----------------------------|--------------------------|

## Tribe 3. HEDYSARÆÆ.

## Subtribe 1. Coronilleææ.

- |                           |                             |                           |                            |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| 1579 <i>Scorpiúrus W.</i> | 1576 <i>Coronilla H. K.</i> | 1578 <i>Ornithopus W.</i> | 1577 <i>Hippocrépis W.</i> |
|---------------------------|-----------------------------|---------------------------|----------------------------|

## Subtribe 2. Euhedysarææ.

- |                               |                               |                             |                             |
|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| 1587 <i>Zórnia Mich.</i>      | 1582 <i>Æschynoméne H. K.</i> | 1588 <i>Hedýsarum W.</i>    | 1586 <i>Flemíngia Rozb.</i> |
| 1583 <i>Stylosánthes Swz.</i> | 1580 <i>Smithia Sal.</i>      | 1585 <i>Lespedéza Mich.</i> |                             |

## Tribe 4. VICIÆÆ.

- |                      |                         |                         |                           |
|----------------------|-------------------------|-------------------------|---------------------------|
| 1564 <i>Cicer W.</i> | 1562 <i>E'rvum W.</i>   | 1560 <i>Pisum W.</i>    | 1557 <i>O'robús W.</i>    |
| 1561 <i>Vicia W.</i> | 1563 <i>Ervilia Lk.</i> | 1558 <i>Láthyrus W.</i> | 1559 <i>O'chrus Bauh.</i> |

## Tribe 5. PHASEOLÆÆ.

- |                             |                              |                               |                          |
|-----------------------------|------------------------------|-------------------------------|--------------------------|
| 1643 <i>Róthia W.</i>       | 1553 <i>Kennédia Vent.</i>   | 1551 <i>Stizolóbium P. S.</i> | 1554 <i>Cylista W.</i>   |
| 1546 <i>A'brus W.</i>       | 1547 <i>Phaseólus W.</i>     | 1550 <i>Dólichos W.</i>       | 1521 <i>Erythrína W.</i> |
| 1548 <i>Terámmus Browne</i> | 1549 <i>Carpopógon Rozb.</i> | 1544 <i>Lupínus W.</i>        | 1522 <i>Bútea W.</i>     |

1514 Pongámia *Vent.*  
1513 Dalbérzia *W.*

Tribe 6. DALBERGIEÆ.  
1515 Pterocárpus *W.*  
1516 Ecastaphýllum *Rich.*

1520 Amerítmum *W.*

SUBORDER II. or Tribe 7. MIMOSEÆ.

2124 Mimósa *W.*  
2123 Ínga *W.*

2125 Schránkia *W.*  
2126 Desmánthus *W.*

982 Adenanthéra *W.*  
984 Prosópis *Rosh.*

2127 Acácia *W.*

SUBORDER III. CÆSALPINIÆ.

Tribe 8. GEOFFREÆ.

1543 A'rachis *W.*

1517 Geoffroja *W.*

1464 Brównea *W.*

1518 Dípterix *W.*

Tribe 9. CASSIÆ.

9155 Gledítschia *W.*  
9094 Gýmnocládus *W.*  
979 Guilandína *H. K.*  
978 Cæsálpinia *H. K.*  
977 Poinciána *H. K.*  
981 Hoffmánséggia *Ca.*

985 Hæmatóxylon *W.*  
976 Parkinsónia *W.*  
983 Cádía *W.*  
2156 Ceratónia *W.*  
867 Jonésia *W.*  
1449 Tamaríndus *W.*

974 Cássia *W.*  
975 Cathartocárpus *P. S.*  
971 Afzélia *Sm.*  
969 Schótia *W.*  
986 Copaífera *W.*  
973 Cynométra *W.*

1519 Parivósa *Aubl.*  
972 Hymenæ'a *W.*  
970 Bauhinia *W.*  
968 Cércia *W.*  
30 Codárium *Vahl*

980 Hyperanthéra *W.*

ORDER LX. ROSACEÆ.

With the exception of Chrysoalanæ and Sanguisorbæ, this order is so uniform in its appearance, that Rósa, the type from which all the other genera are to be considered variations, when justly understood, will be found to contain every form of structure which is essential to the order. Having stated this, it will be at once obvious, that if the other genera have such close affinity to Rósa, they must also bear a great analogy in beauty. And this is, indeed, the fact. Amýgdalus and Prúnus among trees, and Potentilla, Géum, and others, among herbaceous genera, rival the rose in their blossoms, and, in many particulars, surpass that most lovely of all flowers in foliage and general appearance. But it is not for charms alone of smell, or blossom, or foliage, that this order has fixed itself so high in the estimation of mankind. It has also the rare merit of comprehending all the most important of the fruits of the temperate regions of the world. Thus the apple and the pear belong to Pýrus, the plum and the apricot to Prúnus, the peach and the nectarine to Amýgdalus; Eriobótrya produces the loquat, Méspilus the medlar, and finally, the quince is borne by the Cydónia. The medical powers of many plants of this order are not less active than their fruit is excellent. The principal of these is the well-known Prussic acid, which exists in abundance in the leaves and kernels of many genera, especially of Prúnus and Amýgdalus; it is the basis of Laurel water, which, when taken in small doses, acts either as a violent purgative or as an emetic; and, in stronger doses, is said to destroy irritability without exciting inflammation; these properties, however, although thus dangerous in the distilled water of the laurel and other similar plants, can scarcely be said to exist in any important quantity in the plants in a state of nature. The kernel of the bitter almond, for example, in which the Prussic acid is more abundant than usual, is used for many culinary and other purposes without any bad effect. There are, however, cases in which it is said to be dangerous to eat the fresh leaves or kernels; as in the Prúnus virginiana, the leaves and fruit of which are reputed in the United States to be poisonous to certain animals. Besides the Prussic acid, there are several other principles which abound in the order. All Drupacææ yield a gum which is nearly allied to gum Arabic, and which affords a strong evidence of the affinity that exists between Rosacææ and Leguminosæ. A great deal of astringency is found in many species, whence different parts have been occasionally employed as febrifuges, and as remedies for hæmorrhage, diarrhæa, and dysentery. The root of the Tormentilla is used for tanning in the Ferro Isles; and that of the Capollin cherry in Mexico. The bark of Prúnus virginiana is used as a febrifuge in the United States; Potentilla réptans has been praised for the same properties. The root of Géum urbánum has been found, by Milandi and Moretti, to contain one eleventh of its weight of tannin; it has been used both in America and Europe as a substitute for Jesuit's bark. The leaves of Drýas octopétala in the north of Europe, of Rúbus árticus in Norway, of Prúnus spinósa and ávium, and of Rósa rubiginósa have been manufactured into a sort of substitute for tea. The bark of the root of Gillénia trifoliáta is remarkable in having, in addition to the astringency already mentioned, an emetic property, on which account it is employed in North America as Ipecacuanha. It is said, that a similar power exists in other Spireææ.

It must not be omitted, that the order Rosacææ nearly answers to the Icosandria of Linnæus.

Tribe 1. CHRYSOBALANÆÆ.

1130 Chrysobánus *W.*

870 Parinárium *Juss.*

499 Hirtélla *W.*

1080 Grangéria *Lam.*

Tribe 2. AMYGDALINÆÆ.

1128 Amýgdalus *W.*

1129 Prúnus *W.*

Tribe 3. SPIREACÆÆ.

1156 Kérria *Dec.*

1141 Spire'a *W.*

1142 Gillénia *Mönch.*

Tribe 4. NEURADREÆÆ.

1063 Griétum *W.*

Tribe 5. DRYADEÆÆ.

1159 Drýas *W.*

1140 Waldsteínia *W.*

1154 Tormentilla *L.*

1101 Agrimónia *W.*

1161 Sievérsia *W.*

1149 Rúbus *W.*

1153 Potentilla *L.*

1152 Comárum *W.*

1155 Géum *W.*

1150 Dalibárdia *Mich.*

710 Sibbáldia *W.*

1160 Colúria *R. Br.*

1151 Fragária *W.*

Tribe 6. SANGUISORBÆÆ.

255 Alchemilla *W.*

1190 Potérium *W.*

68 Ancístrum *L.*

256 Sanguisórba *W.*

2106 Clifórtia *W.*

Tribe 7. ROSÆÆ.

1148 Rósa *W.*

Tribe 8. POMACRÆÆ.

1132 Cratægus *L.*

1137 Eriobótrya *Lindl.*

1131 Méspilus *Lindl.*

1136 Raphiolépis *Lindl.*

1139 Cotoneáster *Lindl.*

1138 Fýrus *Sm.*

1135 Phtodia *Lindl.*

1138 Amelánchier *Lindl.*

1134 Cydónia *Juss.*

## ORDER LXI. SALICARIÆ.

Most of these are very showy plants, in particular the genera *Lýthrum* and *Lagerstrœmia*, which are the representatives of the order. They are chiefly natives of temperate climates, on mountains and among bushes. *Glaux* and *Péplis* are common shore plants in England. *Heimia* is remarkable for its yellow flowers. Little is known of the properties of *Salicariæ*; they are mostly astringent; the common *Salicaria* is used in inveterate diarrheas; a species of *Lýthrum* is used in Mexico as a vulnerary and astringent, and *Lawsonia*, which is used by the Turkish women to stain their nails, is also supposed to possess similar properties. There is a plant of this order called *Hanchinol* in Mexico, which is said to possess much more remarkable powers than any of the preceding; its expressed juice, taken in doses of four ounces, excites violent perspiration and secretion of urine, and is said to cure venereal disorders in an incredibly short space of time.

|                             |                           |                       |                            |
|-----------------------------|---------------------------|-----------------------|----------------------------|
| 877 <i>Grislea W.</i>       | 1094 <i>Lýthrum W.</i>    | 302 <i>Ammánia W.</i> | 898 <i>Lawsonia W.</i>     |
| 1097 <i>Cúpheæ Jacq.</i>    | 1095 <i>Nese'a Kunth.</i> | 568 <i>Glaux W.</i>   | 1031 <i>Acisanthéra J.</i> |
| 1195 <i>Lagerstrœmia W.</i> | 1096 <i>Heimia Lk.</i>    | 836 <i>Péplis W.</i>  |                            |

## ORDER LXII. MELASTOMACEÆ.

All these are remarkable as handsome tropical shrubs or trees, with large purple or white flowers, and leaves with several costæ, or nerves as they are incorrectly termed. The genera admitted in the body of the work are those received by the greater part of previous writers; they have been much increased, and apparently with great propriety, by Mr. D. Don. The species are generally ill treated in collections, where they are not unfrequently to be found under the form of sickly stunted plants, instead of noble broad-leaved spreading shrubs, with masses of brilliant flowers. To be grown well they require much heat, much moisture during the summer, and much pit-room and heat-room. The fruit of true *Melastomas* is a fleshy insipid juicy berry, which is for the most part eatable, and is often so deep a black as to dye the teeth and mouths of those who eat it. They are nearly related to *Myrtaceæ*, from which they differ in the want of essential oil, and of the dot-like reservoirs of the leaves which contain it. The juice of the leaves of *M. succósa* and *aláta* is used as a lotion for recent wounds by the inhabitants of Guiana.

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 899 <i>Osbéckia W.</i> | 1029 <i>Melastoma W.</i> | 1075 <i>Blákea W.</i> |
| 900 <i>Rhéxia W.</i>   | 1030 <i>Petalóma W.</i>  |                       |

## ORDER LXIII. MYRTACEÆ.

Dotted leaves, with marginal ribs, and an inferior ovary and single style, are the great features of *Myrtaceæ*. They are all fine evergreen shrubs or trees, generally bearing white flowers, and in the first section producing fleshy fruit. It is there that the Allspice, the Clove, the Rose-apple, and the Guava find their station, by the side of the common myrtle and pomegranate of Europe. The section with capsular fruit comprehends, with the exception of the gigantic *Eucalyptuses*, almost wholly, handsome hard-wooded New Holland or South Sea shrubs, with white or crimson flowers and stamens; yellow flowers are very uncommon. The volatile oil contained in the little reservoirs of the bark, the leaves, and the floral envelopes, gives these plants the fragrance which has caused them to be celebrated by poets of all ages. It is very aromatic, a little acrid, and slightly tonic and stimulant, whether it is under the form of Cajeputi oil, the produce of *Melaleuca leucadéndron*, or of oil of cloves or of myrtle. In the clove this oil is so abundant as to constitute nearly a fifth of the whole weight of the calyxes that produce it. There is also a considerable proportion of astringent principle in these plants; in the bark of the pomegranate it is very obvious; and in *Myrtus régni* and *lúma* of Chile, *Eugénia malaccénsis*, it is so abundant as to render a decoction of those plants of great use in cases of dysentery. *Eucalyptus resinifera* produces an astringent resinous substance resembling gum Kino. The leaves of the Chilian myrtles, *Leptospermum scopárium*, and some other species, have been used as substitutes for tea.

## Tribe 1. BACCATÆ.

|                         |                                |                             |                          |
|-------------------------|--------------------------------|-----------------------------|--------------------------|
| 1193 <i>Alángium J.</i> | 1120 <i>Caryophýllus P. S.</i> | 1123 <i>Piménta Lindl.</i>  | 1499 <i>Cáreya Roxb.</i> |
| 1118 <i>Psáidium W.</i> | 1121 <i>Myrtus W.</i>          | 1124 <i>Olyñthia Lindl.</i> | 1082 <i>Decumária W.</i> |
| 1119 <i>Eugénia W.</i>  | 1122 <i>Calypránthes W.</i>    | 1127 <i>Pónica W.</i>       |                          |

## Tribe 2. CAPSULARES.

|                             |                             |                              |
|-----------------------------|-----------------------------|------------------------------|
| 891 <i>Bæ'ckia Sm.</i>      | 1117 <i>Metrosidéros W.</i> | 1611 <i>Tristánia Br.</i>    |
| 1115 <i>Leptospermum W.</i> | 1126 <i>Eucalyptus W.</i>   | 1612 <i>Calothámmus Lab.</i> |
| 1116 <i>Fabricia W.</i>     | 1610 <i>Melaleuca H. K.</i> | 1613 <i>Beaufórtia Br.</i>   |

## Tribe 3. LECTYTHIDÆ.

|                               |                             |                         |
|-------------------------------|-----------------------------|-------------------------|
| 1125 <i>Straváidium Juss.</i> | 1497 <i>Barringtónia W.</i> | 1498 <i>Gustávia W.</i> |
|-------------------------------|-----------------------------|-------------------------|

## ORDER LXIV. COMBRETACEÆ.

*Combrétum* and *Quisquális* are among the most splendid of the climbing plants of the tropics, adorning the trees from which they depend with garlands of white and crimson, and yellow. The bark of *Bóccia Búceras* is used with success in Guiana for tanning leather. The juice of *Terminália vérnix* is employed by the Chinese as a varnish; it is, however, caustic, and its exhalation dangerous; benzoin is the produce of *Terminália Benzóin*. The kernel of several species is eaten as a nut, and the expressed oil has the remarkable quality of not becoming rancid.

|                          |                           |                           |
|--------------------------|---------------------------|---------------------------|
| 544 <i>Conocárpus W.</i> | 1027 <i>Getónia Roxb.</i> | 2140 <i>Terminália W.</i> |
| 916 <i>Combrétum W.</i>  | 1028 <i>Quisquális W.</i> |                           |

## ORDER LXV. PASSIFLOREÆ.

The beauty of *Passifóras* is well known; they are remarkable for the singular arrangement of the stamens and pistillum, upon a column surrounded by several lines of circumvallation, formed by as many rows of barren thread-like colored stamens, which are popularly called the rays. The fruit of several species of passion-flower is filled with a pleasant acidulated pulp, on which account they are eaten as dessert fruit. It is not known that they possess any medical properties. The station of the order is not settled; it is undoubtedly very near *Cucurbitaceæ*.

1459 *Passifóra W.*2075 *Modécca Lam.*

## ORDER LXVI. CUCURBITACEÆ.

Here is the station of the gourd, the melon, and the cucumber, succulent climbing vegetables, the fruit of which administers to us many of our comforts and necessities. The importance of the gourd in hot countries is of the highest degree, where, from the nature of the climate, few of those culinary vegetables that are so abundant in the north can be made to succeed. Among these tribes of climbing annuals, the papaw tree is a remarkable deviation from the ordinary character of the vegetation. Its fruit, however, and flowers are in all respects those of *Cucurbitaceæ*. The fruit is mostly sweet, watery, refreshing, and pleasant to the palate; but the *coloquintida* gourd, the spitting cucumber, and the *Trichosanthes amára*, are all possessed of violent bitter, drastic, purgative qualities, which are, indeed, to be found, in a slight degree, even in the mildest of the eatable gourds. M. Decandolle observes, that as the violent action of the *Colocynth* resin is much softened by the mixture with it of gum, it is probable that the difference in the fruits of the order depends upon the different proportions between these two substances. The seeds of the gourd, like those of the

passion-flower, possess none of the properties of the pulp; they are sweet and nutty, and readily form an emulsion. The roots of the bryony are purgative, but also contain a wholesome facula. It is said that the roots of a species of bryony are eaten in Abyssinia, after being merely boiled. There are some Cucurbitaceæ, the roots of which are intensely bitter; those of one of this description are used in Peru, to remove the pains attendant upon inveterate venereal disorders.

|                        |                              |                        |                        |
|------------------------|------------------------------|------------------------|------------------------|
| 551 Gronóvia <i>W.</i> | 2019 Trichosánthes <i>W.</i> | 2022 Cúcumis <i>W.</i> | 2024 Bryónia <i>W.</i> |
| 1940 Angúria <i>W.</i> | 2020 Momórdica <i>W.</i>     | 2023 Sicyos <i>W.</i>  | 2025 Cátria <i>W.</i>  |
| 1976 Lúfia <i>Cav.</i> | 2021 Cucúrbita <i>W.</i>     |                        |                        |

ORDER LXVII. LOASEÆ.

Nothing is known of the qualities of this order. It consists of succulent cut-leaved plants, generally covered with asperities or rigid stinging hairs, and yellow or white flowers. They are all natives of America, and handsome annuals. A very few of them are climbers.

|                          |                          |                      |
|--------------------------|--------------------------|----------------------|
| 1113 Bartónia <i>Ph.</i> | 1194 Mentzélia <i>W.</i> | 1619 Loása <i>L.</i> |
|--------------------------|--------------------------|----------------------|

ORDER LXVIII. HALORAGEÆ.

Obscure weeds, chiefly distinguished from Onagrarías, by their naked and solitary ovula. They are natives of moist places or ponds, in various parts of Europe and North America. Some of the species of Halorágis are tropical. They are not known to possess any medicinal properties.

|                          |                          |                             |                        |
|--------------------------|--------------------------|-----------------------------|------------------------|
| 23 Hippáris <i>W.</i>    | 932 Halorágis <i>W.</i>  | 1987 Myriophýllum <i>W.</i> | 309 Ludwígia <i>W.</i> |
| 27 Callitriche <i>W.</i> | 1968 Serpícula <i>W.</i> | 258 Isnárda <i>W.</i>       |                        |

ORDER LXIX. ONAGRARIÆ.

A very well defined order, generally known by its pollen cohering, by a sort of filamentous substance, an inferior polypermous ovarium, a tetrasepalous tetrapetalous flower, with a definite number of stamens, and a single style. From this form there are some anomalous variations, such as *Circæa* and *Lopézia*, which are, however, easily reconciled to the usual structure of the order. Most of the genera are pre-eminently beautiful; as *Epilóbium*, *Ænothéra*, and *Fúchsia*, which are old favorites among gardeners. The properties of Onagrarías are little known, and probably very weak. The leaves of *Jussiaea peruviana* are used as an emollient poultice, the seed of *Trápa nátnas* as an eatable nut, and the root of *Ænothéra biennis* as a sort of salad.

|                        |                         |                         |
|------------------------|-------------------------|-------------------------|
| 71 <i>Circæa W.</i>    | 903 <i>Epilóbium W.</i> | 1026 <i>Jussiaea W.</i> |
| 18 <i>Lopézia Cav.</i> | 904 <i>Fúchsia W.</i>   | 901 <i>Ænothéra W.</i>  |
| 902 <i>Gaúra W.</i>    | 308 <i>Trápa W.</i>     | 2064 <i>Montinia W.</i> |

ORDER LXX. FICOIDEÆ.

These are all plants with a greater or less degree of succulence; the *Mesembryánthemums* and *Hymenógynæ* are well-known dry-stove plants, many of which are beautiful in the highest degree. Of the former of these two, the flowers are of all colors, many of the most vivid hues, and remarkable for expanding only beneath bright sunshine; this phenomenon, indeed, is common to the whole order. *Tetragónia exzánsa*, *Sesúvium portulacástrum*, and *Mesembryánthemum edéle*, are excellent substitutes for summer spinach. A large quantity of saline matter is contained in all of them; in *Reaumúria vermiculáta*, a substance is secreted, which has been found by chemical analysis to consist of muriate of soda and nitrate of potash. The whole order grows in very dry or saline places, in the temperate regions of the world. Four fifths of the whole are natives of the Cape of Good Hope. The leaves of the different species of *Mesembryánthemum*, offer the most remarkable instances of figure known in the vegetable world.

|                         |                         |                                 |                             |
|-------------------------|-------------------------|---------------------------------|-----------------------------|
| 1090 <i>Nitrária W.</i> | 1143 <i>Sesúvium W.</i> | 1145 <i>Tetragónia W.</i>       | 1147 <i>Hymenógynæ Haw.</i> |
| 1107 <i>Ghius W.</i>    | 1144 <i>Aizóon W.</i>   | 1146 <i>Mesembryánthemum L.</i> | 1210 <i>Reaumúria W.</i>    |

ORDER LXXI. PORTULACEÆ.

With the exception of *Turnéra*, *Támarix*, *Talinum*, and a few species of *Claytónia*, the whole of this order consists of insignificant weedy plants, of no beauty, and little use. *Claytónia perfoliáta* and common purslane, which are occasionally used as salads, being the only species of a useful kind. They are chiefly herbaceous plants, frequenting dry barren situations, or the sea-shore of all parts of the world; all are insipid and inodorous, and destitute, as far as is known, of medicinal properties. Some of the kinds of *Támarix* have an astringent tonic bark, and yield, when burnt, a large proportion of sulphate of soda. *Turnéra* resembles a *Cistus*.

|                          |                             |                            |                          |
|--------------------------|-----------------------------|----------------------------|--------------------------|
| 224 <i>Móntia W.</i>     | 1092 <i>Talinum Haw.</i>    | 871 <i>Limeum W.</i>       | 690 <i>Corrigiôla W.</i> |
| 537 <i>Claytónia W.</i>  | 1093 <i>Anacampséros L.</i> | 692 <i>Portulacária W.</i> | 686 <i>Turnéra W.</i>    |
| 689 <i>Telephium W.</i>  | 1036 <i>Triánthema W.</i>   | 1037 <i>Scleránthus W.</i> | 685 <i>Támarix W.</i>    |
| 1091 <i>Portuláca W.</i> |                             |                            |                          |

ORDER LXXII. CACTI.

All succulent plants destitute for the most part of leaves, the place of which is supplied by fleshy stems of the most grotesque figure; some angular, and attaining the height of thirty feet, others roundish, covered with stiff spines, like the hedgehog, and not exceeding the stature of a few inches. Their flowers are in many cases large and remarkably specious, varying from pure white to rich scarlet and purple, through all the intermediate gradations of colors. The species are chiefly natives of the hottest and driest parts of the tropics, and are cultivable with little care, in pots filled with rubbish, in a dry-stove. Their fruit is fleshy and watery, and generally insipid, but it is eaten in their native countries for the sake of its refreshing moisture and coolness. Two species of *Opúntia* are hardy in Great Britain. The characters of this order and the next are very similar, although their habit is so widely different. Cacti are sometimes called *Nopalea*.

|                       |                             |
|-----------------------|-----------------------------|
| 1111 <i>Cáctus W.</i> | 1112 <i>Rhípsalis Gart.</i> |
|-----------------------|-----------------------------|

ORDER LXXIII. GROSSULACEÆ.

Distinguished from the last by the definite number of their stamens and woody leafy stems. The utility and excellence of the gooseberry and currant are known to every one. None of the other species equal these, although the fruit of several possesses considerable excellence. The berry of most of these is sweet, watery, and acid, but that of *Ribes nigrum*, and a few more, is tonic and stimulant, which appears to have some connection with the presence of glands upon the leaves of those species.

|                     |
|---------------------|
| 550 <i>Ribes W.</i> |
|---------------------|

ORDER LXXIV. SEMPERVIVÆÆ.

Still another order of succulent plants, but with a habit very different from that of those which have gone before. The species are often characterised by the rosulate or densely imbricated arrangement of their leaves, but this is not by any means a universal character. They are natives, for the most part, of dry barren places in Europe, North Africa, and the Cape of Good Hope, and are cultivable with ease in pots of dry rubbish. Many of them have extremely beautiful flowers, especially those of the genera *Sempervivum* and *Crássula*, which are either white, yellow, or deep rose color. Their leaves are used medicinally as refrigerant and abstergent; they are also, in a slight degree, astringent, and in *Sédum acre* so acrid, that, taken internally,

they operate violently both as purgatives and emetics. The leaves of *Sádum teléphiúm* are occasionally eaten as a vegetable, but they are always found to leave behind a slight and unpleasant taste of burning.

|                            |                             |                          |                       |
|----------------------------|-----------------------------|--------------------------|-----------------------|
| 1061 <i>Sádum W.</i>       | 967 <i>Vérea W.</i>         | 874 <i>Séptas W.</i>     | 699 <i>Crásula W.</i> |
| 1110 <i>Sempervívum W.</i> | 638 <i>Róchea Dec.</i>      | 1062 <i>Penthórum W.</i> | 320 <i>Tillæa W.</i>  |
| 1060 <i>Cotylédon W.</i>   | 928 <i>Bryophýllum Sal.</i> |                          |                       |

## ORDER LXXV. SAXIFRAGÆ.

The whole of these plants constitute the glory and delight of the cultivator of alpine plants. This is to be attributed to the neatness and perpetual verdure of their leaves, and the exquisite simplicity and elegance of their flowers, rather than to any striking attractions, of which they are wholly destitute: their blossoms being generally white or pale pink, occasionally becoming brownish-purple. All the genuine species are humble herbaceous plants, affecting mountainous situations, but occasionally found in marshes by the sides of springs, and even upon dry walls. All are natives of cold regions, or of the most temperate mountainous situations of hot ones. They are slightly astringent; some of them, as *Heuchéra americana*, eminently so. Infusions of the leaves have been reckoned lithontriptic, and the powdered root of the last-named plant is used with success in cancerous disorders. *Hydránga*, which is shrubby, is not a legitimate inhabitant of the order.

|                          |                        |                     |                               |
|--------------------------|------------------------|---------------------|-------------------------------|
| 1041 <i>Saxifraga W.</i> | 1043 <i>Mitella W.</i> | 930 <i>Adóxa W.</i> | 1040 <i>Chrysosplénium W.</i> |
| 1042 <i>Tiarélla W.</i>  | 606 <i>Heuchéra W.</i> | 361 <i>Gálix W.</i> | 1039 <i>Hydránga W.</i>       |

## ORDER LXXVI. PHILADELPHÆÆ.

This consists at present of a single genus, which was formerly referred to *Myrtacæ*, but which has lately been separated with much acuteness by Mr. Don. The species are hardy ornamental shrubs, natives of North America, with white flowers; in some cases fragrant. Nothing is known of their properties.

1114 *Philadélphus W.*

## ORDER LXXVII. CUNONIACÆÆ.

These were formerly included in *Saxifragæ*, from which Mr. Brown first distinguished them. They are shrubs of the southern hemisphere, mostly with pinnated leaves and white flowers. *Callicoma* and *Bauéra*, which have simple leaves, are elegant green-house shrubs. The bark of a species of *Weinmánnia* is employed in Peru for tanning leather, and is said to be also used for adulterating the quinquina. Nothing is known of the properties of the remainder.

|                        |                             |                          |                          |
|------------------------|-----------------------------|--------------------------|--------------------------|
| 1038 <i>Cunónia W.</i> | 1099 <i>Callicoma B. R.</i> | 1199 <i>Bauéra H. K.</i> | 919 <i>Weinmánnia L.</i> |
|------------------------|-----------------------------|--------------------------|--------------------------|

## ORDER LXXVIII. ARALIACÆÆ.

*Araliacæ* are a slight divergence from the well-known *Umbellifera*, with which they nearly agree in habit, except in being frutescent, and from which they are obviously distinguished by their 5-celled fruit. Their flowers have no beauty, but the foliage of many is extremely fine, especially of the species of *Actinophýllum*; that of our common ivy must not be omitted. Their medicinal properties are much the same as those of *Umbellifera*, except the fruit, which differs in virtues as it does in botanical structure. Their bark exudes an aromatic gum resin, as in *Arália umbellifera*. Their roots are tonic, with, in some cases, the flavor of parsnep. The famous ginseng, which is produced by a *Pánax*, is reputed to have powerful tonic, restorative, and even aphrodisiacal qualities; but it is probable that these have been greatly exaggerated.

|                        |                                      |                            |
|------------------------|--------------------------------------|----------------------------|
| 607 <i>Cussónia L.</i> | 697 <i>Actinophýllum R. &amp; P.</i> | 1109 <i>Gastónia Juss.</i> |
| 696 <i>Arália W.</i>   | 549 <i>Hédera W.</i>                 | 2166 <i>Pánax W.</i>       |

## ORDER LXXIX. UMBELLIFERÆÆ.

One of the least attractive groups of plants, and at the same time one of the most important to the world. They are not more useful as food than they are dangerous as poison; while in their native ditches they are often suspiciously lurid weeds, but under the influence of cultivation they lay aside their venom, and become wholesome food for man. They are generally recognised by their hollow stems and cut leaves, with what botanists call a sheathing petiole; that is to say, with a petiole, the base of which wraps round the stem. Their flowers are mostly white or greenish, rarely, as in *Astrántia*, some species of *Caucalis*, and others, of a pink color. The inflorescence is umbellate, and their fruit consists of two ribbed portions, improperly called seeds, which are held together by a common axis, and a thickened discus. All are natives of damp ditches or way-sides, in cool parts of the world; in the tropics they are either extremely rare or wholly unknown, and when present, have generally a character unlike that of our European species. The simplicity of their structure, and uniformity of their appearance, has rendered their classification a matter of very great difficulty. It has been attempted in modern days by Lagasca, Sprengel, and Koch, all of whom have added something to our knowledge; but much still remains to be done. The arrangement of Professor Sprengel, objectionable as it is many points, is here adopted as the most perfect, upon the whole, of any yet published. The culinary and agricultural importance of many species is well known; the parsnep and carrot form a large part of the staple winter store of the inhabitants of Europe, as the *Arracachas* do of those of South America; and the *Frangos* of Thibet is supposed to be the most important and productive of any in the whole world, as a forage plant. The medicinal properties of *Umbellifera* are not more powerful than they are at variance with each other. While the seeds of some are aromatic, and stimulating in the highest degree, the fresh roots and leaves of others are not less narcotic. This has been supposed to arise from the difference in the state of the sap in different parts of the plant; and it has been thought that the narcotic principle is only to be found in the ascending sap, while the aromatic stimulant properties are found in the juices, which are fully elaborated and matured. It has been already observed, that their dangerous properties are often removed by cultivation; the common celery is a familiar instance of this; but the most remarkable, that of *Enánthe pimpinelloides*, a most dangerous species when wild, which is cultivated about Angers for the sake of its roots, which are there called *Jouanettes*, and about Saumur, where they are known by the name of *Méchons*. The roots of some *Umbellifera* contain a large proportion of sugar; those of the carrot, when dried, more than an eighth; those of the parsnep just an eighth; and those of the chervil about eight parts in 100. *Galbanum*, *Opopanax*, and *Assafœtida*, are all the produce of different species of *Umbellifera*.

## Tribe 1. DESCISCENTES.

|                         |                           |                           |                           |
|-------------------------|---------------------------|---------------------------|---------------------------|
| 2165 <i>Arctópus W.</i> | 622 <i>Eryngium W.</i>    | 644 <i>Actinótus Lab.</i> | 637 <i>Dóndia Spreng.</i> |
| 548 <i>Lagócia W.</i>   | 624 <i>Echinóphora W.</i> | 623 <i>Sanicula W.</i>    | 674 <i>Astrántia W.</i>   |

## Tribe 2. HYDROCOTYLINÆ.

|                           |                            |
|---------------------------|----------------------------|
| 658 <i>Hydrocótyle W.</i> | 659 <i>Spanánthe Jacq.</i> |
|---------------------------|----------------------------|

## Tribe 3. BUPLEURINÆ.

|                         |                       |
|-------------------------|-----------------------|
| 657 <i>Bupleúrum W.</i> | 2147 <i>Hérmas W.</i> |
|-------------------------|-----------------------|

## Tribe 4. PIMPINELLÆÆ.

|                           |                         |                            |                       |
|---------------------------|-------------------------|----------------------------|-----------------------|
| 635 <i>Pimpinélla W.</i>  | 647 <i>Sison W.</i>     | 656 <i>Cnidium Cuss.</i>   | 651 <i>A'pium W.</i>  |
| 629 <i>Ledebergia Lk.</i> | 652 <i>Ægopódium W.</i> | 632 <i>Enánthe W.</i>      | 653 <i>Méum Jacq.</i> |
| 642 <i>Séseli W.</i>      | 655 <i>Cárum W.</i>     | 636 <i>Phellándrium W.</i> |                       |

Tribe 5. SMYRNIÆ.

|                           |                                |                      |                             |
|---------------------------|--------------------------------|----------------------|-----------------------------|
| 650 Smyrniūm <i>W.</i>    | 677 Cáchrys <i>W.</i>          | 648 Cicúta <i>W.</i> | 666 Hasselquistia <i>W.</i> |
| 633 Crithmum <i>W.</i>    | 678 Hippomárrathrum <i>Lk.</i> | 661 Æthúsa <i>W.</i> | 673 Tordylium <i>W.</i>     |
| 660 Ulospérnum <i>Lk.</i> | 618 Coriándrum <i>W.</i>       |                      |                             |

Tribe 6. CAUCALINÆ.

|                           |                              |                         |
|---------------------------|------------------------------|-------------------------|
| 626 Cúcalis <i>W.</i>     | 628 Olivéria <i>Vent.</i>    | 640 Búbōn <i>W.</i>     |
| 625 Daucús <i>W.</i>      | 634 Athamánta <i>W.</i>      | 631 Báñium <i>W.</i>    |
| 627 Tórislis <i>Gært.</i> | 638 Trachyspérnum <i>Lk.</i> | 676 Rámia <i>Haffm.</i> |

Tribe 7. SCANDICINÆ.

|                          |                          |                               |                             |
|--------------------------|--------------------------|-------------------------------|-----------------------------|
| 619 Scándix <i>P. S.</i> | 630 Mýrrhis <i>P. S.</i> | 621 Chærophýllum <i>P. S.</i> | 620 Anthriscus <i>P. S.</i> |
|--------------------------|--------------------------|-------------------------------|-----------------------------|

Tribe 8. AMMINÆ.

|                    |                      |                          |
|--------------------|----------------------|--------------------------|
| 639 Ammi <i>W.</i> | 646 Stum <i>W.</i>   | 665 Ligústicum <i>W.</i> |
| 641 Cúminum.       | 649 Cónium <i>W.</i> | 645 Trinia <i>Haffm.</i> |

Tribe 9. SELINÆ.

|                          |                           |                           |                          |
|--------------------------|---------------------------|---------------------------|--------------------------|
| 663 Selinum <i>W.</i>    | 675 Zosímia <i>Haffm.</i> | 664 Angélica <i>W.</i>    | 669 Lásépitium <i>W.</i> |
| 670 Peucedánus <i>W.</i> | 671 Pastináca <i>W.</i>   | 662 Imperatória <i>W.</i> | 667 Artéria <i>W.</i>    |
| 672 Herácleum <i>W.</i>  | 668 Férulea <i>W.</i>     | 643 Thápsia <i>W.</i>     | 654 Anéthum <i>W.</i>    |

ORDER LXXX. RHIZOPHOREÆ.

The mangroves are plants of arborescent stature, which are remarkable, in tropical countries, for growing upon the shores of the sea, even as far as low water. The seeds have the singular property of germinating, while enclosed within the capsule, and adhering to their parent, and pushing forth a long thread-like radicle, which lengthens till it reaches the soil, where it takes root, and forms a new individual. The bark of *Rhizophora gymnorhiza*, which is very astringent, is used in India for dying black.

1078 *Rhizophora W.*

ORDER LXXXI. HAMAMELIDÆÆ.

Hardy American deciduous shrubs, with the appearance of Amentaceæ, to which they are undoubtedly closely allied notwithstanding their situation here, which must be considered quite artificial. Nothing is known of their medicinal qualities.

1200 *Fothergilla W.*

312 *Hamamelis W.*

ORDER LXXXII. CAPRIFOLIACÆÆ.

This is an eminently beautiful order, consisting either of twining or erect shrubs with clusters of trumpet-shaped fragrant flowers, or of fine bushes having cymes of white blossoms. The honeysuckle is the representative of the former, the dogwood of the latter. Here too is found the modest and delicate *Linnæa*, which, however inferior its attractions for the vulgar eye may be to those of its more ostentatious neighbours, yields to none of them in elegance or interest for the botanist. All the genera have a more or less astringent bark; that of *Lonicera corymbosa* is used in Chile for dying black; that of *Cornus florida* in North America in intermittent fevers, as is also the bark of *Cornus sericea*, which, according to Barton, is scarcely inferior to Quinquina. The Elders are the link between honeysuckles and umbelliferous plants, to the latter of which they are allied by their stinking divided foliage and half herbaceous habit; their flowers are sudorific and soporific in a high degree, their leaves and inner bark are emetics and drastic purgatives. *Triosteum perfoliatum* is intermediate between this order and Rubiaceæ, with the former of which it agrees in its purgative, and with the latter in its emetic, qualities, which resemble those of *Ipecacuanha*. All *Caprifoliacææ* love shady cool places in both hemispheres; but few have been found in such as endure a very severe climate.

474 *Caprifolium R. S.*

477 *Diervilla J.*

306 *Cornus W.*

475 *Lonicera R. S.*

478 *Triosteum W.*

679 *Viburnum W.*

476 *Symphoria Pk.*

292 *Linnæa W.*

680 *Sambucus W.*

ORDER LXXXIII. LORANTHÆÆ.

None of these are cultivable; they are all genuine parasites rooting beneath the bark of the trees on which they grow, and deriving from their juices the whole of their nutriment. The *Viscum* have little or no beauty, but the *Loranthi* are among the most lovely of plants, hanging in clusters of rich scarlet flowers from the branches of trees in the tropics, which they often clothe with a beauty not their own. The mistletoe of the Druids is supposed to have been the *Loranthus europæus*, the common *Viscum* never being seen upon the oak, while the *Loranthus* inhabits no other tree. If this be so, the latter must have once existed in this kingdom although now extinct. It has been suggested, that all vestiges of their religion were extirpated with the Druids, which will account for the *Loranthus* having disappeared wherever that religion formerly held its sway.

2054 *Viscum W.*

ORDER LXXXIV. RUBIACÆÆ.

Opposite entire leaves with intervening stipule, a monopetalous superior corolla, with a definite number of stamens and a bilocular ovary, are the great characteristics of Rubiaceæ; an order of such extent that it embraces a very large proportion of the whole of phanogamous plants, including within its limits humble weeds and lofty trees, plants with important medicinal qualities and flowers of varied dyes, and herbs of neither value nor beauty as far as has yet been ascertained. The sections into which the order has been divided are merely artificial, with the exception of *Stellata*, which are the representatives of the order in northern regions. Among these the *Rubia*, or madder, is the most important on account of its dye; *Galium* also possesses some qualities of minor consequence, which have been already indicated in the body of this work. Among the other sections, the plants of beauty or value are innumerable: of the former description, the genera *Ikóra*, *Bouvardia*, *Catesbea*, *Portlandia*, *Coutarea*, *Gardnia*, *Mussaenda*, *Hamellia*, *Cephaelis*, *Cephalanthus*, and many others, are notable examples; to the latter, every genus has a contribution of one kind or another. The root of *Oldenlandia umbellata* is employed in India for staining nankin; that of *Morinda umbellata* in the Moluccas, and of *Morinda citrifolia* in India, is used for dying red and brown. The potent frigid properties of the *Cinchona* need not be insisted on; it is less generally known that the bark of *Pinckneya pubens*, *Macronemum corymbosum*, *Guttarda coccinea*, and *Portlandia grandiflora*, possesses similar, but weaker powers. The bark and roots of *Antirrhoea* are used, in the Isle of Bourbon, to stop hæmorrhage; and that of *Morinda Rôyoc* is used for ink. Astringent properties of a very marked character are found in the juice of *Naucllea Gámbir* of Hunter, and the *Uncaria Gámbir* of Roxburgh, both which are often improperly confounded with Gum kino, which is the produce of a very different plant. Some of the species formerly comprehended under the genus *Cinchona*, but since separated by the name of *Exostemma*, possess strong emetic powers. The same qualities exist in *Psychotria emética* *Cephaelis*, *Ipecacuanha*,



and Psychotria herbæceæ, which are often used as ipecacuanha. The seed of the Coffea furnishes the valuable beverage which is so much esteemed in Europe and the East, under the name of coffee.

## SECTION I. STELLATÆ.

|                       |                         |                           |                       |
|-----------------------|-------------------------|---------------------------|-----------------------|
| 266 Gáilium <i>W.</i> | 268 Aspérula <i>W.</i>  | 271 Crucianélla <i>W.</i> | 617 Phýllis <i>W.</i> |
| 267 Rúbia <i>W.</i>   | 269 Sherárdia <i>W.</i> | 2136 Valántia <i>W.</i>   |                       |

## SECTION II.

|                             |                         |                          |                          |
|-----------------------------|-------------------------|--------------------------|--------------------------|
| 270 Spermacœce <i>W.</i>    | 290 Pavétta <i>W.</i>   | 479 Coffea <i>W.</i>     | 483 Psychotria <i>W.</i> |
| 285 Chomélla <i>W.</i>      | 291 Ernódea <i>Suz.</i> | 480 Chioócœca <i>W.</i>  | 495 Plócama <i>W.</i>    |
| 288 Ixóra <i>W.</i>         | 294 Mitchélla <i>W.</i> | 482 Cánthus <i>Pers.</i> | 833 Richárdia <i>L.</i>  |
| 292 Siderodéndrum <i>W.</i> | 439 Pædéria <i>W.</i>   | 494 Webéra <i>W.</i>     |                          |

## SECTION III.

|                             |                                |                             |                            |
|-----------------------------|--------------------------------|-----------------------------|----------------------------|
| 287 Bouvárdia <i>H. K.</i>  | 456 Dentélla <i>W.</i>         | 485 Posoquéria <i>Aubl.</i> | 489 Oxyánthus <i>Dec.</i>  |
| 261 Houstónia <i>W.</i>     | 457 Macroenémum <i>W.</i>      | 458 Exostémma <i>Rich.</i>  | 490 Rándia <i>P. S.</i>    |
| 283 Coccocýpsilum <i>W.</i> | 460 Rondelétia <i>W.</i>       | 462 Portlándia <i>W.</i>    | 491 Mussæ'nda <i>W.</i>    |
| 295 Oldenlándia <i>W.</i>   | 455 Spermadictyon <i>Rozb.</i> | 461 Coutaréa <i>Aubl.</i>   | 492 Pincknéya <i>Mich.</i> |
| 296 Manétta <i>W.</i>       | 832 Hillia <i>W.</i>           | 487 Gardénia <i>P. S.</i>   | 481 Serissa <i>W.</i>      |
| 406 Ophiorhiza <i>L.</i>    | 289 Catesbæ'a <i>L.</i>        | 488 Genípa <i>P. S.</i>     |                            |

## SECTION IV.

|                         |                         |                          |
|-------------------------|-------------------------|--------------------------|
| 493 Erithalia <i>W.</i> | 486 Vanguiéta <i>W.</i> | 1981 Guettárda <i>W.</i> |
|-------------------------|-------------------------|--------------------------|

## SECTION V.

484 Haméllia *W.*

## SECTION VI.

|                         |                               |                            |                              |
|-------------------------|-------------------------------|----------------------------|------------------------------|
| 497 Cephállia <i>W.</i> | 496 Sarcocéphalus <i>Afx.</i> | 286 Adína <i>Sal.</i>      | 459 Burchéllia <i>R. Br.</i> |
| 496 Morínda <i>W.</i>   | 521 Naúclea <i>W.</i>         | 275 Cephalánthus <i>W.</i> | 2060 Anthospérmum <i>W.</i>  |

## ORDER LXXXV. OPERCULARINÆ.

Exotic weeds, nearly related to Rubiacææ. Their properties are unknown. M. de Jussieu has remarked that their affinity to Valerianæ is supported by the curious circumstance, that birds devour the young shoots of the Opercularias as they do those of the Corn-salads.

250 Operculária *W.*251 Cryptospérmum *P. S.*

## ORDER LXXXVI. VALERIANÆÆ.

Small herbaceous plants, more interesting for the sake of their symmetry and neatness, than on account of any particular attractions; they may be considered a connecting link between Rubiacææ and Dipsacææ. Many of the Valerians, and all the Patrinias, are pretty plants. The Valerianéllas are useful esculents, known under the name of corn-salads. Their medicinal properties are of a decisive character. The roots of Valeriána officinális, Phu, and others, are bitter, tonic, aromatic, antispasmodic, and vermifugal; they are occasionally used as febrifuges. The odour of Valerian is not generally agreeable, but the Orientals collect with care, on the mountains of Austria, the roots of Valeriána céltica, with which they perfume their baths; and the natives of India, at this day, employ the Valeriána jatamánsi, the spikenard of old times, as a perfume, and against hysterics and epilepsy.

20 Centránthus *Mich.*78 Valeriána *W.*80 Valerianélla *Dec.*72 Fédia *Dec.*79 Patrínia *W.*

## ORDER LXXXVII. DIPSACÆÆ.

Very nearly akin to Compositææ, of which they have nearly the habit. All are herbaceous plants with flowers growing in heads. Some of the Scabiósas are very handsome, and popular border flowers. The whole tribe is cultivated with great facility. Some of the species of Scabiósæ have been employed as diaphoretic and antisyphilitic, but are now neglected.

70 Morína *W.*263 Cephalária *Schr.*265 Knaútia *W.*262 Dipsacus *W.*264 Scabiósæ *W.*

## ORDER LXXXVIII. CALYCERÆÆ.

Obscure weedy South American plants, differing from Compositææ, chiefly in the position of their ovula.

1842 Acicárpa *Juss.*

## ORDER LXXXIX. COMPOSITÆÆ.

A most extensive and natural order, obviously characterized by the cohesion of their anthers, and the arrangement of their florets in involucreted heads, or calathidia, as they are now called. Most of them may be said to be ornamental plants, and yet but a very few hold that station in the opinion of the public. It is difficult to account for this circumstance, nor is this the place to enter upon such an investigation; certain, however, it is, that with the exception of Dáhlías, the varieties of Chrysanthemum sinénsæ, and a few Caléndulas and Arcétítes, and perhaps Tagétes, scarcely a single Compositææ now finds a place in a fashionable flower garden. The prevailing color of the flower in the order is yellow; red, purple, or scarlet, being comparatively uncommon. The species inhabit every part of the world, and in all, perhaps, in nearly equal proportions:—in Europe and the north of the world they are chiefly herbaceous; but within the tropics, they are more frequently frutescent. Their medical properties are very important; Tussilágo fárfara, Chamomile, Ínula, Solidágo Virgáurea, Matricária Parthénium, Stévia febrífuga, and Eupatóríum perfolíatum, are instances of the presence of tonic and febrifugal properties; Tanacétum and Santolina are antihelmintic; Matricária and the Achilléas emmenagogue; some Eupatóríums, Achilléas, Artemísias, and Caléndulas, are sudorific; certain Liátrises are diuretic, and Erigeron philadélficus is both sudorific and diuretic. Fíarmica and A'rnica are sternutatory, and Spilánthes, Siegesbécia orientális, A'nthemis pyréttrum, and others, powerfully excite salivation; finally, many Achilléas, Chamomile, Tanacétum, and Eupatóríums, are tonic and antispasmodic. Others seem to possess all these properties combined, and are reckoned among the best alexiterics, as the Ayapana of Brazil, and the Guaco of Peru. Every one knows the excellent and refreshing flavor communicated to vinegar by Tarragon: the same effects are produced in the Alps by Achilléa nána, Artemísia glaciális, rupestris, and spicáta. Some species of Achilléa, Béliis, and Artemísia have been used as substitutes for tea. The seeds of many Compositææ, as Mádia and Verbesina, yield a copious oil; and the fleshy roots of Heliánthus tuberósus, a wholesome food for man. The juice of Láctœca vírœsa is highly narcotic, and has been even employed with extraordinary advantage as a substitute for opium. It is not necessary to mention the utility of the leaves of the lettuce, the endive, the succory, the cardoon, or the roots of Scorzonéra and Salsafis, as culinary productions; they must be familiar to all our readers; as also the fleshy receptacle of the artichoke and some other plants. The flowers of Echinops strigósus are used as a kind of tinder; those

of the artichoke, the cardoon, and others, have the power of curdling milk. The arrangement of Compositæ is attended with extreme difficulty; the greatest progress that has yet been made in reducing them to order has been with M. Cassini, by whom they are called Synanthereæ: but unfortunately, the remarks of that learned botanist are so scattered and unconnected, that the public has hitherto been able to derive little benefit from his labors. His general arrangement is here adopted, but for the reasons now given, his genera have not been enquired after, as, until they shall have been more completely systematized, the adoption of them would necessarily be full of errors, which would only add to the confusion that already too extensively exists. Those who wish to make themselves masters of this very interesting and difficult branch of systematic botany, should consult the Opuscules phytologiques of M. Cassini, and Mr. Brown's elaborate essay on the structure of Compositæ, in the Transactions of the Linnæan Society.

SUBORDER I. *INULÆE*.

|                            |                             |                               |                                 |
|----------------------------|-----------------------------|-------------------------------|---------------------------------|
| 1767 Relhánia <i>W.</i>    | 1848 Cassinia <i>H. K.</i>  | 1747 Podolépis <i>H. K.</i>   | 1844 Cedéra <i>W.</i>           |
| 1765 <i>Leysera W.</i>     | 1681 Ammóbium <i>R. Br.</i> | 1723 Antennária <i>R. Br.</i> | 1723 Leontopódium <i>R. Br.</i> |
| 1764 Longhámptia <i>W.</i> | 1713 Ixódia <i>H. K.</i>    | 1726 Metalásia <i>R. Br.</i>  | 1728 Athrixia <i>Ker.</i>       |
| 1722 Gnaphállum <i>W.</i>  | 1727 Astélna <i>R. Br.</i>  | 1846 Stærbe <i>W.</i>         | 1730 Elichárysium <i>W.</i>     |

Tribe 1. *ARCHETYPÆ*.

|                         |                              |                               |
|-------------------------|------------------------------|-------------------------------|
| 1838 Filágo <i>L.</i>   | 1734 Confza <i>W.</i>        | 1731 Carpósiusium <i>W.</i>   |
| 1794 <i>E'vax Lam.</i>  | 1744 Y'nula <i>W.</i>        | 1785 Columéllia <i>Jac.</i>   |
| 1839 Micrópus <i>W.</i> | 1745 Pulicária <i>Geert.</i> | 1710 Neurozá'na <i>R. Br.</i> |

Tribe 2. *BUPHTHALMÆE*.

|                            |                            |
|----------------------------|----------------------------|
| 1797 Buphthállum <i>W.</i> | 1849 Sphæránthus <i>W.</i> |
|----------------------------|----------------------------|

SUBORDER II. *LACTUCEÆ*.

Tribe 3. *PROTOTYPÆ*.

|                         |                             |                        |
|-------------------------|-----------------------------|------------------------|
| 1659 Scólymus <i>W.</i> | 1626 Pteridium <i>P. S.</i> | 1628 Lactúca <i>W.</i> |
| 1623 Amopógon <i>W.</i> | 1627 Sócnhus <i>W.</i>      |                        |

Tribe 4. *CREPIDÆE*.

|                           |                            |                             |                          |
|---------------------------|----------------------------|-----------------------------|--------------------------|
| 1639 Helmínthia <i>J.</i> | 1653 Rbagadiolus <i>W.</i> | 1652 Zacintha <i>W.</i>     | 1638 Crépis <i>W.</i>    |
| 1634 Picris <i>W.</i>     | 1629 Chondrilla <i>W.</i>  | 1687 Borkháusia <i>Dec.</i> | 1640 Myóseris <i>Lk.</i> |
| 1651 Lapsána <i>W.</i>    | 1632 Apárgia <i>W.</i>     | 1636 Lagóseris <i>Lk.</i>   |                          |

Tribe 5. *HIERACIÆE*.

|                           |                       |                               |                          |
|---------------------------|-----------------------|-------------------------------|--------------------------|
| 1630 Prenánthes <i>W.</i> | 1641 Tólpis <i>W.</i> | 1649 Soldevilla <i>Lag.</i>   | 1643 Róthia <i>W.</i>    |
| 1635 Hierácium <i>L.</i>  | 1644 Krigia <i>W.</i> | 1654 Moscária <i>Fl. per.</i> | 1642 Andrýfala <i>W.</i> |

Tribe 6. *SCORZONERÆE*.

|                            |                              |                             |                           |
|----------------------------|------------------------------|-----------------------------|---------------------------|
| 1647 Robértia <i>Rich.</i> | 1621 Tragopógon <i>W.</i>    | 1625 Scorzone'ra <i>W.</i>  | 1655 Catanánche <i>W.</i> |
| 1648 Seriola <i>W.</i>     | 1633 Thrínčia <i>W.</i>      | 1622 Tróximón <i>Geert.</i> | 1657 Cichórium <i>W.</i>  |
| 1650 Hypochæ'ris <i>W.</i> | 1631 Leóntodon <i>W.</i>     | 1645 Hyóseris <i>W.</i>     |                           |
| 1620 Geropógon <i>W.</i>   | 1624 Podospérnum <i>Dec.</i> | 1646 Hedýpnis <i>W.</i>     |                           |

SUBORDER III. *ADENOSTYLEÆE*.

|                            |
|----------------------------|
| 1678 Palafóxia <i>Lag.</i> |
|----------------------------|

SUBORDER IV. *EUPATORIÆE*.

Tribe 7. *AGERATEÆ*.

|                         |                             |                         |
|-------------------------|-----------------------------|-------------------------|
| 1689 Stévia <i>W.</i>   | 1688 Cælestína <i>Cass.</i> | 1704 Piquéria <i>W.</i> |
| 1687 Agératum <i>W.</i> | 1700 Lavénia <i>W.</i>      |                         |

Tribe 8. *ARCHETYPÆ*.

|                        |                           |
|------------------------|---------------------------|
| 1683 Mikánia <i>W.</i> | 1685 Eupatórium <i>W.</i> |
|------------------------|---------------------------|

Tribe 9. *LIATRIDÆE*.

|                        |
|------------------------|
| 1682 Liátris <i>W.</i> |
|------------------------|

SUBORDER V. *AMBROSIEÆE*.

Tribe 10. *IVRÆ*.

|                     |
|---------------------|
| 1841 I'va <i>W.</i> |
|---------------------|

Tribe 11. *ARCHETYPÆ*.

|               |               |
|---------------|---------------|
| 1974 Xánthium | 1977 Ambrósia |
|---------------|---------------|

SUBORDER VI. *ANTHEMIDÆE*.

Tribe 12. *CHRYSANTHEMÆE*.

|                             |                          |                                  |                              |
|-----------------------------|--------------------------|----------------------------------|------------------------------|
| 1721 Artemísia <i>W.</i>    | 1774 Cénia <i>J.</i>     | 1719 Pentzia <i>Th.</i>          | 1769 Chrysánthemum <i>W.</i> |
| 1711 Húmea <i>Sw.</i>       | 1775 Cótula <i>W.</i>    | 1720 Tanacétum <i>W.</i>         | 1771 Matricária <i>W.</i>    |
| 1835 Soliva <i>Fl. per.</i> | 1718 Balsamita <i>W.</i> | 1770 Pyrèthrum <i>W.</i>         | 1773 Lidbéckia <i>W.</i>     |
| 1834 Híppia <i>W.</i>       | 1776 Gránga <i>W.</i>    | 1788 Chrysanthéllum <i>P. S.</i> |                              |

Tribe 13. *SANTOLINEÆE*.

|                          |                             |                               |
|--------------------------|-----------------------------|-------------------------------|
| 1717 Athanásia <i>W.</i> | 1777 Anacyclus <i>W.</i>    | 1781 Achilléa <i>W.</i>       |
| 1715 Otánthus <i>Lk.</i> | 1778 A'nthemis <i>W.</i>    | 1806 Osmites <i>W.</i>        |
| 1714 Santolina <i>W.</i> | 1837 Eriocéphalus <i>W.</i> | 1816 Sphenóggpe <i>R. Br.</i> |

SUBORDER VII. *ARCTOTIDÆE*.

Tribe 14. *GORTERIEÆE*.

|                           |                         |                             |
|---------------------------|-------------------------|-----------------------------|
| 1812 Gortéria <i>W.</i>   | 1811 Didétta <i>W.</i>  | 1809 Cullómia <i>H. K.</i>  |
| 1813 Gazánia <i>H. K.</i> | 1801 Galárdia <i>W.</i> | 1810 Berckhýfa <i>H. K.</i> |

Tribe 15. *ARCHETYPÆ*.

|                                 |                           |                            |
|---------------------------------|---------------------------|----------------------------|
| 1814 Cryptostémma <i>R. Br.</i> | 1815 Arctothéca <i>W.</i> | 4831 Arctótis <i>H. K.</i> |
|---------------------------------|---------------------------|----------------------------|

SUBORDER VIII. *CALENDULEÆ*.

Tribe 16. *ARCHETYPÆ*.  
1830 *Caléndula W.*

Tribe 17. *OSTEOSPERMÆ*.  
1832 *Osteospermum W.*

SUBORDER IX. *MUTISIEÆ*.

Tribe 18. *ARCHETYPÆ*.  
1748 *Chaetanthera Fl. per.*

Tribe 19. *GERBERIEÆ*.  
1750 *Gerbéria Burm.* 1829 *Chaptália Vent.* 1752 *Perdicium H. K.*

SUBORDER X. *TUSSILAGINEÆ*.

1737 *Tussilágo W.*

SUBORDER XI. *NASSAUVIEÆ*.

Tribe 20. *TRIXIDÆ*.

1686 *Dumcrlia Lag.* 1825 *Trixis Dec.*

Tribe 21. *ARCHETYPÆ*.  
1656 *Triptilion Fl. per.*

SUBORDER XII. *CARLINEÆ*.

1671 *Acárna W.* 1676 *Carlópstium Pers.* 1677 *Stæhelia W.* 1729 *Xeránthemum W.*  
1670 *Atráctylis W.* 1609 *Carlina W.* 1673 *Stobæa Th.* 1674 *Onobróma Gert.*  
1658 *Bacázia Fl. per.* 1662 *Saussúrea Dec.*

SUBORDER XIII. *CENTAURIEÆ*.

1819 *Centauréa W.* 1665 *Cnicus W.* 1817 *Zæ'gea W.*

SUBORDER XIV. *CARDUINEÆ*.

1660 *A'rectium W.* 1668 *Cýnara W.* 1666 *Onopórduum W.* 1661 *Serrátula W.*  
1663 *Cárduus W.* 1820 *Galáctites P. S.* 1667 *Berárdia Vill.* 1664 *Silybum Gert.*  
1675 *Cárthamus W.* 1818 *Leúzea Dec.*

SUBORDER XV. *ECHINOPSEÆ*.

1850 *Echinops W.* 1699 *Lagásca Cav.*

SUBORDER XVI. *TAGETINEÆ*.

1749 *A'rnica W.* 1763 *Péctis W.* 1760 *Tagétes W.*  
1702 *Kleínia W.* 1766 *Sellóa Spreng.* 1759 *Bobéra W.*

SUBORDER XVII. *HELIANTHEÆ*.

Tribe 22. *HELENIEÆ*.

1782 *Trídax W.* 1690 *Cephalóphora W.* 1692 *Hymenopáppus J.*  
1707 *Cálea W.* 1792 *Gáinsóga W.* 1694 *Marshálla Pa.*  
1716 *Caleacte R. Br.* 1755 *Helénium W.* 1762 *Schkúhria W.*

Tribe 23. *COREOPSIDEÆ*.

1697 *Bídens W.* 1758 *Dáhlia Cav.* 1824 *Silphium W.*  
1804 *Coreópsis W.* 1761 *Heterospermum W.* 1791 *Synedrèlla P. S.*  
1803 *Cósmea W.* 1840 *Parthénium W.* 1753 *Tetragonothéca W.*

Tribe 24. *ARCHETYPÆ*.

1793 *Acmélla P. S.* 1693 *Melananthéra M.* 1780 *Sanvitálla Cav.* 1790 *Verbeína W.*  
1807 *Encélla Cav.* 1709 *Petróhium R. Br.* 1805 *Simsia Pers.* 1754 *Ximenesía W.*  
1798 *Helíanthus W.* 1698 *Platýpteris Kth.* 1695 *Spilánthes W.* 1768 *Zinnia W.*  
1708 *Isocárpha R. Br.* 1696 *Sálmea Dec.*

Tribe 25. *RUDBECKIEÆ*.

1823 *Baltimóra W.* 1799 *Gymnolómia Kth.* 1795 *Pascálla W.* 1802 *Tithónia Desf.*  
1786 *Eclipta W.* 1796 *Heliópsis P. S.* 1800 *Rudbéckia W.* 1821 *Weddèlla W.*

Tribe 26. *MILLERIEÆ*.

1852 *Brotéra W.* 1827 *Chrysógonum L.* 1735 *Mádia W.* 1808 *Sclerocárpus W.*  
1712 *Cesúlia W.* 1854 *Euxénia Cham.* 1828 *Melampódium W.* 1789 *Siegesbeckia W.*  
1787 *Meyéra Swz.* 1847 *Nauenbúrgia W.* 1822 *Milléria P. S.* 1794 *Zaluzánia P. S.*  
1779 *Centrospermum Spr.* 1845 *Flavéria Juss.* 1826 *Polýmnia W.*

SUBORDER XVIII. *ASTEREÆ*.

1783 *Améllus W.* 1732 *Bácccharis W.* 1757 *Béllium W.* 1784 *Stárkea W.*  
1743 *Kaufússia Nees.* 1733 *Mólina Fl. per.* 1772 *Boltónia W.* 1836 *Psiádia W.*  
1739 *A'ster W.* 1756 *Béllis W.* 1705 *Chrysócoma W.* 1746 *Grindèlla W. en.*  
1740 *Solidágo W.* 1742 *Calótis R. Br.* 1736 *Erigeron W.* 1679 *Pterónia W.*

SUBORDER XIX. *SENECIONES*.

1701 *Caçálla W.* 1751 *Dorónicum W.* 1738 *Senécio W.*  
1741 *Cinerária W.* 1833 *Othónna W.*

SUBORDER XX. *VERNONIEÆ*.

1843 *Elephantópus W.* 1851 *Rolándra W.* 1706 *Tarchonánthus W.*  
1703 *Ethúlia W.* 1684 *Sparganóphorus Gertn.* 1680 *Vernónia W.*  
1853 *Gundèlla W.* 1672 *Stokésia W.* 1691 *Ampheréphis Kth.*

ORDER XC. CAMPANULACEÆ.

These differ from the last in not having the flowers in heads, in their usually distinct anthers, which are however, syngenesious in *Lobelia*, in their polyspermous fruit, and also in exuding a milky juice. All the genera are pretty, and some highly ornamental. They are mostly herbaceous, and by far the greater number are extra-tropical, abounding especially in the woods and coppices of the North. The roots of *Campánula Rapunculus* are used as a vegetable under the name of Rampion. The juice of some of the *Lobelias* is highly caustic and inflammatory; when taken internally, producing vomiting and even death: nevertheless, the root of *Lobelia siphilitica*, in small doses, acts as a diaphoretic, in greater quantity as diuretic or purgative, and, if taken in considerable quantities, as an emetic. An infusion of *Lobelia infata* is used in North America as a remedy for leucorrhœa; and the root of *Lobelia cardinâlis* is employed in the same country as a vermifuge.

|                         |                               |                      |                        |
|-------------------------|-------------------------------|----------------------|------------------------|
| 464 <i>Lobelia W.</i>   | 466 <i>Trachélium W.</i>      | 467 <i>Roëlla W.</i> | 834 <i>Canarina W.</i> |
| 463 <i>Campánula W.</i> | 546 <i>Lightfoëtia L'Her.</i> | 545 <i>Cyphia W.</i> | 547 <i>Jasione W.</i>  |
| 465 <i>Phyteúma W.</i>  | 895 <i>Michauxia W.</i>       |                      |                        |

ORDER XCI. GOODENOVIÆ.

New Holland and South Sea herbs or undershrubs, very nearly akin to the last, from which they differ more in artificial characters than in habit. All of them are pretty, and deserving culture. Nothing is known of their properties.

|                            |                            |                           |
|----------------------------|----------------------------|---------------------------|
| 468 <i>Goodénia R. Br.</i> | 470 <i>Dampiera R. Br.</i> | 473 <i>Scævola R. Br.</i> |
| 469 <i>Eutháles R. Br.</i> | 472 <i>Velléia Sm.</i>     |                           |

ORDER XCII. STYLIDEEÆ.

Like the last, the properties of this very small but curious order are, if any, undiscovered. All are inhabitants of New Holland, and either herbs or half-herbaceous shrubs. They have pink flowers, ornamented with glittering glands; their stamens are united into a column, which is terminated by a sessile stigma, and which is irritable in so high a degree, that, if touched with a pin, it instantly starts from its place with great elasticity.

|                              |
|------------------------------|
| 1932 <i>Stylidium R. Br.</i> |
|------------------------------|

ORDER XCIII. GESNERIÆÆ.

Fine tropical herbs, with broad, fleshy, downy leaves, and purple or scarlet flowers. They all require stove heat, and decayed vegetable soil; in their native country, which is chiefly equinoctial America, they are found growing in the woods, where the earth is little more than a bed of rotten leaves and bark.

|                         |                         |
|-------------------------|-------------------------|
| 1290 <i>Gesneria W.</i> | 1291 <i>Gloxinia W.</i> |
|-------------------------|-------------------------|

ORDER XCIV. ERICEÆ.

These are distinguished from the neighbouring orders by their polyspermous fruit, aristate anthers, and dry shrubby habit. Every genus is eminently beautiful, and worthy of the most assiduous cultivation. The first tribe is a native of hill-sides and open plains, chiefly of the extra-tropical regions of the earth. Some are famous for their beauty, some for their fragrance, and many for their foliage. The heaths are the glory of the Cape, the *Arbutuses* of Europe, the *Andrómédas* of America, and *Cléthra* of the Canaries. The second tribe is distinguished from the rest by its inferior berry, and is not less valuable for its fruit than conspicuous for its beauty. The species are principally North American. *Monotropeæ* stand in their systematic station as they grow in their native woods, lowly herbs among thickets of bushes and trees. *Rhodoraceæ*, once considered a distinct order, are chiefly North American; their flowers are less tubular than those of true *Ericææ*; but their habit is not materially different; here the *Azálea* the *Kálmia*, and the *Rhododéndron*, the pride of European gardens, as they are of their native woods, find their station. The utility of the fruit of *Vaccinium* is well known; its bark is reckoned tonic, stimulant, and astringent, and their fruit slightly styptic. The berries of *A'rbutus úva-ursi* are considered lithontriptic; its leaves have also been employed successfully in infusions in obstinate cases of gonorrhœa. Extract of *Chimáphila umbelláta*, in the form of pills, in doses of five scruples a day, has been found successful in cases of dropsy. Some of the species are possessed of narcotic qualities; this is the case with *Lédum*, *Rhododéndron chrysánthum*, and especially *Azálea póntica*; honey obtained from the juice of which is said by *Xenophon*, to have caused the death of many soldiers in the famous retreat of the ten thousand. An infusion of *Rhododéndron máximum* is used in America in cases of chronic rheumatism, and that of *Rhododéndron pónticum* in Asia, against gout and rheumatism.

Tribe 1. ERICEÆ VERÆ.

|                        |                          |                              |                               |
|------------------------|--------------------------|------------------------------|-------------------------------|
| 284 <i>Blas'ria W.</i> | 535 <i>Itea L.</i>       | 1018 <i>Gaulthéria W.</i>    | 1020 <i>Cléthra W.</i>        |
| 892 <i>Erica W.</i>    | 536 <i>Cyrtilla L.</i>   | 1019 <i>A'rbutus W.</i>      | 1021 <i>Mylocáryum W. em.</i> |
| 534 <i>Brossa'a L.</i> | 1016 <i>Andróméda W.</i> | 1017 <i>Enkiánthus B. M.</i> |                               |

Tribe 2. VACCINIÆÆ.

|                            |                         |
|----------------------------|-------------------------|
| 906 <i>Oxycóccus P. S.</i> | 907 <i>Vaccinium L.</i> |
|----------------------------|-------------------------|

Tribe 3. MONOTROPEÆ.

|                       |                            |                          |
|-----------------------|----------------------------|--------------------------|
| 1022 <i>Pýrola W.</i> | 1023 <i>Chimáphila Ph.</i> | 1008 <i>Monotrópa W.</i> |
|-----------------------|----------------------------|--------------------------|

Tribe 4. RHODORACEÆ.

|                           |                        |                             |
|---------------------------|------------------------|-----------------------------|
| 403 <i>Azálea W.</i>      | 1011 <i>Kálmia W.</i>  | 1014 <i>Rhododéndron W.</i> |
| 404 <i>Chamælédon Lk.</i> | 1012 <i>Lédum W.</i>   | 1015 <i>Epigæ'a W.</i>      |
| 893 <i>Menziésia Sm.</i>  | 1013 <i>Rhodóra W.</i> | 1026 <i>Bejéria Ph.</i>     |

SUBCLASS III. COROLLIFLORÆ.

Petals cohering in the form of a hypogynous corolla, which is not attached to the calyx.

To this subclass are to be referred all genera which have a monopetalous corolla, with the stamens inserted into it, and a superior ovarium.

ORDER XCV. MYRSINEÆ.

Showy shrubs, with evergreen undivided leaves, and cymes of white or red flowers. *Theophrásta* is a very rare stove plant, with a simple stem, and undulated spiny toothed leaves. The *Ardísias* are common in collections. None are natives of Europe, but are found in the hot parts of Asia, Africa, and America. Nothing is known of their properties.

|                             |                            |                            |
|-----------------------------|----------------------------|----------------------------|
| 408 <i>Theophrásta L.</i>   | 435 <i>Ardisia W.</i>      | 443 <i>Baebótrys Vahl.</i> |
| 409 <i>Clavija Fl. per.</i> | 2160 <i>Myrsine R. Br.</i> |                            |

## ORDER XCVI. SAPOTÆÆ.

These are also shrubs, which are mostly evergreen, and natives of the warmer regions of the world. Some of the Humélias are found in the southern states of N. America, but none of the order exists in Europe. They are chiefly valuable for their fruit, which, in many cases, contributes richly to the dessert. *Mimusops eléngi*, *Imbricária malabárica*, *Sideróxylon spinóseum*, are all of this description; the star apples of the West Indies, the produce of several species of *Chrysophílum*, and particularly of *C. canitoe*, are esteemed delicious; and the Medlars, *Lucumas*, and *Sapotillas* of equinoctial America, all the fruit of different kinds of *A'chras*, are among the most valuable productions of the western world. The seeds of all the order are oily: those of *A'chras sapóta* are accounted diuretic and aperient. Their oil is not fluid, but so concrete as to have the appearance and consistence of butter, whence the name of butter-tree has been applied to different species both in Africa and India. The most famous of this description is the Indian mava, mahva, or madhuca, the *Bássia butyrácea* of botanists; the seeds of which are so oleaginous, that a single tree has been known to produce three quintals of oil; the dried flowers of the same tree are mixed by some Indians with their food, and a kind of spirit is distilled from them by others. The juice of all the *sapotas* is milky, but not acrid and poisonous like that of most other lactescent orders, but, on the contrary, yielding a wholesome beverage or food. Here is supposed to belong the famous Palo de Vaca, or Cowtree of South America, the trees of which are regularly milked by the inhabitants of the districts in which it grows. According to Brown, the bark of some of the *A'chras* is so astringent and febrifugal as to be substituted for quina.

|                     |                       |                     |                   |
|---------------------|-----------------------|---------------------|-------------------|
| 423 Bumélia W.      | 426 Jacquinia W.      | 434 Manglilla Juss. | 1024 Inocárpus W. |
| 424 Chrysophílum W. | 427 A'chras W.        | 881 Mimusops W.     | 1074 Bássia W.    |
| 425 Sideróxylon W.  | 433 Sersalísia R. Br. |                     |                   |

## ORDER XCVII. SYMPLICACEÆ.

Shrubs with serrated leaves, turning yellow in drying, and small white flowers which are sometimes fragrant. The leaves of most of them are astringent; those of *Alstónia* tinge the *salwa* greenish yellow, of *Symplocos tuctória* are used in America under the name of Sweet-leaf, for dying yellow.

1614 *Symplocos L.*

## ORDER XCVIII. EBENACEÆ.

Some of these are hardy trees or shrubs, with deciduous leaves and white flowers, natives of woods, mountains, and banks of streams in North America and Europe; others are tropical evergreens. Among the former, the best known are the Snow-drop tree, or *Halésia*, with pendent shewy white blossoms; and the different species of *Stýrax*: of the latter, many of the *Diospýruses'* produce are eatable fruit; as, for example, the *Mabolo* of the Philippine Islands, which is as big as a peach, and the *Kaki* of Japan, which resembles an apricot. All these fruits are remarkable for their extreme austerity before maturity, and the necessity of letting them decay, like our medlars, before they are fit for table. These are also distinguished for the excessive hardness of their wood, and for the black colour it sometimes acquires when old, as the Ebony. The bark of *Diospýros virginiana* is used in North America in intermittent fevers.

|                |                   |                 |
|----------------|-------------------|-----------------|
| 1035 Royéna W. | 2159 Diospýros W. | 1081 Halésia W. |
| 2066 Mába J.   | 1025 Stýrax W.    | 1105? Vínsea W. |

## ORDER XCIX. OLEINÆ.

The olives are known by their monopetalous corolla, with a valvular æstivation, two stamens alternate with the segments, a bilocular ovary with no discus at the base, and pendulous collateral ovula. They were formerly combined with the *jasminæ*. They have all simple opposite leaves; their flowers are either white, yellow, or purple, and frequently fragrant. The *Phillyréas* are among our finest evergreens, and the *Lilac* or *Syringa* perhaps at the head of hardy deciduous bushes. The ash is an anomalous genus which hardly belongs to the order. The seed of the olive contains so large a proportion of fixed oil, that it has long been one of the most important objects of cultivation in the South of Europe. The bark and leaves of many *Oleinæ* are bitter and astringent; these properties are particularly apparent in the ash, which has often been employed successfully as a febrifuge. From the exudation of many species of that genus, the mild purgative called manna is formed; it is most commonly found upon the *O'rtus*. *M. Decandolle* remarks, that in proof of the natural affinity of the plants here combined, and of the propriety of separating the *jasminæ* from them, it has been found that all the olives as now restricted, will bud or graft upon one another, but not on the *jasminæ*. Thus the *lilac* will graft on the ash, the *Chionánthus*, and the *Fontanésia*, and even upon *Phillyréa latifolia*, and the olive will take upon the *Phillyréa*, and even on the ash.

|                   |                   |                    |                  |
|-------------------|-------------------|--------------------|------------------|
| 32 O'lea W.       | 34 Chionánthus W. | 07 Linociéra B. P. | 69 O'rtus P. S.  |
| 33 Phillyréa      | 36 Ligústrum W.   | 66 Fontanésia W.   | 2157 Fráxinus W. |
| 36 Notela'a B. P. | 37 Syringa W.     |                    |                  |

## ORDER C. JASMINEÆ.

Fragrance is the predominant property of the *jasmine*, and has made it for ages the favourite of poets and of the people; this arises from the presence of an oil which can be extracted so as to retain its perfume. In medicinal qualities, the *jasminæ* do not differ materially from the last; they are neatly distinguished by botanists by the direction of their ovula which are erect in *Jasminæ*, and pendulous in *Oleinæ*.

|                  |                |
|------------------|----------------|
| 38 Nyctánthes W. | 39 Jasminum W. |
|------------------|----------------|

## ORDER CI. APOCYNÆÆ.

We now turn from the contemplation of plants endowed with mild and agreeable properties and fragrant flowers, and often bearing food for man, to others which are among the most dangerous and fatal poisons; whose juices, milky indeed, like the *Cowtree*, are not a wholesome and delicious beverage like those of *Sapotææ*, but on the contrary acrid, caustic, or bitter. They are readily known by the twisted direction of the segments of the corolla, which have been compared to the rays of a Catherine's wheel, whence they were called by *Linnaeus*, *Contorta*. By far the greatest part of the order consists of tropical trees and shrubs: a few *Apocýniums*, *Ansónias*, and *Víncaas*, are natives of the colder zones of the earth. Many are elegant climbers, as the different species of *Echites* and *Melóidius*. The splendid *Oleánder* belongs to *Nérium*; the different species of *Plumiéria*, *Camerária*, *Strophánthus*, and *Arduina* are stove plants of the greatest beauty. The medicinal action of these plants is highly powerful. The *Strychnos*, or nux vomica tree, is remarkable for its bitterness and acrid deleterious effects, which are indicated not only when introduced into the stomach, but still more violently when absorbed into the system by inoculation. In general, the *Apocýnææ* are acrid, stimulating, and astringent; these principles, when in excess, act so powerfully on the nerves as to produce stupefaction. The root of *Ophióxydon* is very bitter and purgative: under the name of snake-root it is used in India as an antidote to the bites of serpents. The bark of *Cérbera Mánghas* is purgative; of *Echites antisyntérica*, and the *Wrightia* of the same name, astringent and febrifugal; the leaves of the *Vínca* are so astringent, that they have been used successfully in tanning; those of *Nérium oleánder* are said to abound in free gallic acid. The inspissated juice of a species of *Cérbera*, known in Mexico under the name of *Yocoti*, is a fatal poison.

|                   |                     |                        |                       |
|-------------------|---------------------|------------------------|-----------------------|
| 407 Allamándia W. | 411 Nérium R. Br.   | 413 Echites R. Br.     | 415 Plumiéria W.      |
| 410 Vínca W.      | 412 Wrightia B. Br. | 414 Ichnocárpus R. Br. | 416 Strophánthus Dec. |

|                              |                         |                         |                             |
|------------------------------|-------------------------|-------------------------|-----------------------------|
| 417 Camerária <i>W.</i>      | 430 Cérbera <i>W.</i>   | 438 Carissa <i>W.</i>   | 575 Apocynum <i>R. Br.</i>  |
| 418 Tabernamontána <i>W.</i> | 436 Arduina <i>W.</i>   | 440 Gelsémiun <i>J.</i> | 573 Melodinus <i>Forst.</i> |
| 2152 Ophióylon <i>W.</i>     | 437 Strychnos <i>W.</i> | 441 Rauwófia <i>W.</i>  | 299? Monétia <i>W.</i>      |
| 419 Amsónia <i>Mich.</i>     |                         |                         |                             |

ORDER CII. ASCLEPIADEÆ.

These differ from the last only in having the stamens united into a sort of fleshy crown, and the pollen coherent in masses of a waxy substance like that of Orchideæ; their properties, habit and geographical range, are much the same. Periplóca is a singular instance of an asclepiadaceous plant being a hardy shrub, every other frutescent species of the order being natives of countries where frost is unknown. Hofoa comprehends climbing plants, with waxen, clustered, odoriferous flowers distilling honey. Pergulária is valued for its fragrance, Ceropégia for its singularity, and Asclépias for beauty and hardness. But the most extraordinary genera of the order are Stapélia, Piaránthus, and Huérnia, in which the place of leaves is supplied by fleshy short stems of various forms, and whose flowers are not less singular for their curious and complex organization, than they are remarkable for their strange coloring and spotting, and offensive for their fetor. The root of Gymnéma vomitórioim, Asclépias curassávica, Calótropis prócera, and some others, is employed in different countries for ipecacuanha. An infusion of the root of Asclépias decumbens has the singular property of exciting general perspiration; whence it is successfully used in Virginia for pleurisy. It is very singular that, in a tribe of plants so generally poisonous as these are, the young shoots of some species should be an article of food: of this nature are Pergulária édulis, Periplóca esculenta, Apocynum indicum, and several more.

|                                |                               |                                |                                |
|--------------------------------|-------------------------------|--------------------------------|--------------------------------|
| 574 Periplóca <i>R. Br.</i>    | 581 Cynánchum <i>R. Br.</i>   | 587 Gomphocárpum <i>R. Br.</i> | 593 Ceropégia <i>Rozb.</i>     |
| 575 Cryptostégia <i>R. Br.</i> | 582 Oxystéima <i>R. Br.</i>   | 588 Asclépias <i>R. Br.</i>    | 594 Stapélia <i>R. Br.</i>     |
| 576 Hemidéimus <i>R. Br.</i>   | 583 Gymnéma <i>R. Br.</i>     | 589 Gonólobus <i>R. Br.</i>    | 595 Piaránthus <i>R. Br.</i>   |
| 577 Secamóné <i>R. Br.</i>     | 584 Calótropis <i>R. Br.</i>  | 590 Pergulária <i>R. Br.</i>   | 596 Huérnia <i>R. Br.</i>      |
| 578 Microlóma <i>R. Br.</i>    | 585 Dischidia <i>R. Br.</i>   | 591 Marsdénia <i>R. Br.</i>    | 597 Brachystéima <i>R. Br.</i> |
| 579 Sarcostémma <i>R. Br.</i>  | 586 Xysmalóbium <i>R. Br.</i> | 592 Hofoa <i>R. Br.</i>        | 598 Caralhúma <i>R. Br.</i>    |
| 580 Dæmia <i>R. Br.</i>        |                               |                                |                                |

ORDER CIII. GENTIANEÆ.

An order in some degree intermediate between Polemoniaceæ and Scrophulariaceæ, from both which it is distinguished both by habit and fruit; some of the genera border closely upon Apocynæ. The species are natives of cool or mountainous regions or pools in all parts of the world. The Gentians are mostly dwarf herbaceous plants, with deep blue flowers; the latter color, and different shades of orange, being the prevailing hues. They are all pretty, and many beautiful in the highest degree; but, with a few exceptions, they are impatient of cultivation. The medicinal properties of the root of Gentiana lítea, rábra, and purpúrea, are eminently tonic, stomachic, and febrifugal; their bitterness is second only to Quassia. Similar, but more feeble virtues, are found in most of the order, especially in Villária ováta, Gentiana peruviána, Chirayita, Fraséra Wálteri, &c. Spigélia anthémia is used as a vermifuge; and the root of Spigélia marylándica infused in water as anthelmintic, and in wine as febrifuge. Potálha amára is used in Guiana as an emetic. A kind of spirit is distilled in Switzerland from the roots of Gentiana, macerated in water.

|                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| 281 Sebæa <i>R. Br.</i>  | 365 Eústoma <i>P. L.</i>  | 600 Gentiana <i>W.</i>   | 368 Logánia <i>R. Br.</i>  |
| 282 Fraséra <i>Walt.</i> | 366 Erythraa <i>P. S.</i> | 599 Swértia <i>W.</i>    |                            |
| 280 E xacum <i>W.</i>    | 367 Sabbátia <i>P. L.</i> | 379 Spigélia <i>W.</i>   | 362 Menyánthes <i>W.</i>   |
| 364 Chirónia <i>L.</i>   | 894 Chlóra <i>W.</i>      | 378 Lisianthus <i>W.</i> | 363 Villária <i>R. Br.</i> |

ORDER CIV. BIGNONIACEÆ.

The showy trumpet-shaped flowers and broad leaves of these plants, render them objects of general admiration. The greatest number is found in the equinoctial regions, a few only passing beyond those limits to the north. Bignónia rádicans is a hardy climbing plant, of exceeding beauty; and the Jacarándas are resplendent with flowers of blue or purple, and leaves which emulate the elegance of the Acácia. Nothing important is known of their qualities. Their wood is said to resist the attack of worms.

|                         |                         |                             |
|-------------------------|-------------------------|-----------------------------|
| 69 Catálpa <i>Juss.</i> | 1294 Bignónia <i>W.</i> | 1295 Jacaránda <i>Juss.</i> |
|-------------------------|-------------------------|-----------------------------|

ORDER CV. COBEACEÆ.

A climbing genus with large purple flowers, recently separated from the Bigonías by Mr. Don. Nothing is known of its medicinal properties.

|                       |
|-----------------------|
| 388 Cobæa <i>Cav.</i> |
|-----------------------|

ORDER CVI. POLEMONIACEÆ.

Herbaceous plants with showy blue, red, or white flowers, and often with pinnated leaves. They are natives of cool or mountainous parts in Europe and America. Nothing is known of their properties.

|                     |                         |                      |                         |
|---------------------|-------------------------|----------------------|-------------------------|
| 369 Pálox <i>W.</i> | 70 Polemónium <i>W.</i> | 389 Cántua <i>W.</i> | 390 Hoitzia <i>Cav.</i> |
|---------------------|-------------------------|----------------------|-------------------------|

ORDER CVII. CONVOLVULACEÆ.

Nearly the whole of these are twining plants, with shewy flowers expanding beneath the influence of bright sunshine. A few are shrubs, but the greater part are herbaceous, and very many annual. They are frequently, also, weeds, which, from their creeping roots, are difficult to extirpate. All parts of the world produce them, from the cold regions of the north to the burning soil of the equator. Cúscuta is a singular parasite, wholly destitute of leaves. The root of many is filled with a milky acrid juice, which is very purgative. Scammony, jalap, and some other drugs, are the produce of Convolvulaceæ. The root of Convolvulus fióridus and scopáriu, and Ipomæa quamóclit, is stimulatory; that of Convolvulus batátas, which is the sweet potato of America and Southern Europe; and Convolvulus édulis are wholesome articles of food.

Hydrólea are little known, pretty, herbaceous plants, most with blue flowers, native both of cold and tropical countries; Diapénsia lapponica being an inhabitant of Lapland mountains, and Hydrólea spinósa of West Indian marshes. Their botanical characters are very nearly the same as those of Polemoniaceæ. The roots of Hydrólea spinósa are reputed bitter, and slightly purgative.

|                           |                              |                             |
|---------------------------|------------------------------|-----------------------------|
|                           | Tribe 1. GENUINE.            |                             |
| 383 Ipomæa <i>R. Br.</i>  | 387 Calystégia <i>R. Br.</i> | 310 Cúscuta <i>W.</i>       |
| 384 Convolvulus <i>W.</i> | 602 Fálkia <i>L.</i>         | 603 Dichóndra <i>W.</i>     |
| 385 Argyréia <i>Lour.</i> | 686 Evólulus <i>L.</i>       | 391 Rétzia <i>Th.</i>       |
|                           | Tribe 2. HYDROLEÆ.           |                             |
| 601 Hydrólea <i>W.</i>    | 388 Diapénsia <i>W.</i>      | 359 Pyxidanthéra <i>Mi.</i> |

ORDER CVIII. BORAGINEÆ.

True Boragineæ are chiefly herbaceous plants, with alternate exstipulate leaves, the surface of which is covered over with minute asperities, and with flowers arranged in one-sided spikes or racemes, occasionally solitary. Each flower has also four distinct little nuts or seeds, as they are commonly called. Some E'chiums.

and a few more are shrubs. They are found abundantly in Europe, Siberia, and the North of Africa, less commonly in India, and the equinoctial parts of the world; in some quantity in North America, and in tolerable abundance in New Holland. Within the tropics the order is principally represented by *Heliotrópiums* and *Tournefortias*; in colder latitudes by *Anchúsas*, *Cynoglossúms*, herbaceous *Echiums*, and the like. Some are mere weeds, quite unworthy of culture; others are eminently beautiful, as many *Echiums*, *Onósmas*, *Onosmódiums*, *Sýmphytums*, and others. In general they are mucilaginous and emollient, qualities which are especially abundant in the root of *Sýmphytum* and *Cynoglossum*. Pure nitre has been found in several plants of the order. A red color is given out by *Anchúsa tinctória*, *Lithospérmum tinctórium*, and *Onósma echioides*, which is used in dyeing. Several plants are employed on the same account in America. The *Hydrophyllæ* are often considered as distinct, on account of their capsular fruit and cartilaginous albumen. One or two of these are pretty plants, but most of them mere weeds.

## Tribe 1. ASPERIFOLIÆ.

|                              |                             |                               |                                |
|------------------------------|-----------------------------|-------------------------------|--------------------------------|
| 316 <i>Coldénia W.</i>       | 330 <i>Lithospérmum W.</i>  | 336 <i>Cynoglossum W.</i>     | 342 <i>Asperógo W.</i>         |
| 325 <i>Heliotrópium L.</i>   | 331 <i>Bátachia Mich.</i>   | 337 <i>Omphalódes Lehm.</i>   | 343 <i>Nónca Mönch.</i>        |
| 326 <i>Myosótis B. P.</i>    | 332 <i>Onósma W.</i>        | 338 <i>Pulmonária W.</i>      | 344 <i>Lycópsis W.</i>         |
| 327 <i>Echinospérmum Sw.</i> | 333 <i>Anchúsa W.</i>       | 339 <i>Cerínthe W.</i>        | 345 <i>Echium W.</i>           |
| 328 <i>Mátta Sch.</i>        | 334 <i>Sýmphytum W.</i>     | 340 <i>Borágo W.</i>          | 346 <i>Tournefortia R. Br.</i> |
| 329 <i>Tiaridium Lehm.</i>   | 335 <i>Onosmódium Mich.</i> | 341 <i>Trichodésma R. Br.</i> | 347 <i>Nolána W.</i>           |

## Tribe 2. HYDROPHYLLÆ.

|                            |                           |                            |                       |
|----------------------------|---------------------------|----------------------------|-----------------------|
| 372 <i>Hydrophyllum W.</i> | 373 <i>Phacélia Mich.</i> | 386 <i>Nemóphila Nutt.</i> | 432 <i>Ellisia W.</i> |
|----------------------------|---------------------------|----------------------------|-----------------------|

## ORDER CIX. CORDIACEÆ.

Trees formerly referred to the last order, from which their habit, plaited cotyledons, and dichotomous style divide them. Little is known of their properties, except that the flesh of their fruit is emollient and mucilaginous. The nuts of *Córdia Sebesténia* are employed sometimes as laxatives.

|                      |                        |                       |                            |
|----------------------|------------------------|-----------------------|----------------------------|
| 428 <i>Córdia W.</i> | 429 <i>Varrónia W.</i> | 430 <i>Ehrétia W.</i> | 431 <i>Bourrétia Gært.</i> |
|----------------------|------------------------|-----------------------|----------------------------|

## ORDER CX. SOLANÆÆ.

The baneful nightshade represents this order, which participates very generally in its qualities, although they are frequently hidden beneath a fairer form, and often much mitigated. Many of the *Solanæms* are very handsome. The *Verbásucums*, *Datúras*, and *Solándras* are all plants of great beauty, although the former, on account of their frequency, are despised in gardens. *Cápsicum* are famous for their pungent fruit and seeds; *Brunsfélias* for their fragrance, and *Nicotíanas*, or Tobacco, for their fetor. The leaves indeed of the whole order are disagreeably scented. The usual effect of *Solanæ* is narcotic; but it is thought that this has been exaggerated, on account of the intense and deleterious properties of *Atropa belladónna*. These, according to the observations of *Vauquelin*, depend upon the presence of a bitter nauseous matter which is soluble in spirits of wine, forming with tannin an insoluble compound, and giving out ammonia when decomposed by fire. Notwithstanding the narcotic power of the roots of the *Mandrake*, the *Belladónna*, and others, those of the potato are found to contain an abundant fecula, which is among the most valuable food of man. The leaves of many *Solanæ* are exciting and narcotic, but in very unequal degree, as in Tobacco, *Physalis*, *Henbane*, &c.; those of the Nightshade excite vertigo, convulsions, and vomiting. The juice of *Stramónium* is given in North America, in doses of from twenty to thirty grains, in cases of epilepsy. The fruit of *Physalis Alkekéngi* is a veterinary diuretic; that of *P. édulis* is used in tarts; that of *Solanum Lycopersicum*, and *Melongena*, is served at table in various forms, under the name of Tomatoes and Aubergines.

|                             |                              |                            |                               |
|-----------------------------|------------------------------|----------------------------|-------------------------------|
| 375 <i>Verbáscum W.</i>     | 381 <i>Hyoscyámus L.</i>     | 273 <i>Witheríngia W.</i>  | 1336 <i>Crescéntia W.</i>     |
| 374 <i>Ramónida P. S.</i>   | 382 <i>Nicotíana W.</i>      | 430 <i>Lycium W.</i>       | 1375 <i>Brunsfélia W.</i>     |
| 1377 <i>Alonsósa H. K.</i>  | 446 <i>A'tropa W.</i>        | 371 <i>Véstia W. en.</i>   | 445 <i>Solándra W.</i>        |
| 1376 <i>Célsia W.</i>       | 447 <i>Mandragóra W. en.</i> | 451 <i>Solanum W.</i>      | 446 <i>Céstrum W.</i>         |
| 376 <i>Datúra W.</i>        | 448 <i>Physalis W.</i>       | 452 <i>Nyctérium Vent.</i> | 1378 <i>Anthocéris R. Br.</i> |
| 377 <i>Brugmansia P. S.</i> | 449 <i>Saracha Fl. per.</i>  | 453 <i>Cápsicum W.</i>     | 1000? <i>Éodon W.</i>         |
| 380 <i>Nicándra J.</i>      |                              |                            |                               |

## ORDER CXI. OROBANCHEÆ.

Leafless parasites on roots, with brown or colorless scaly stems and flowers.

|                          |                        |
|--------------------------|------------------------|
| 1335 <i>Orobánche W.</i> | 1339 <i>Lathræa W.</i> |
|--------------------------|------------------------|

## ORDER CXII. SCROPHULARINEÆ.

A great part of *Linneus's* *Didynamia Angiospermia* is found here, capsular fruit and didynamous stamens being among the most obvious characteristics of the order. The species are generally herbs with opposite leaves, very rarely shrubs; and natives of mountains, valleys, ditches, woods, and waysides, in all parts of the world. The *Personatæ* have the palate so prominent as to close up the orifice of the corolla. *Ringentes* have the palate open. Some are highly ornamental, as *Digitális*, *Pedicularis*, *Calceolária*, &c. others are mere weeds, as is the case with a large proportion of them. Most of them have a weak unpleasant smell, a bitterish taste, and acrid and suspicious properties; but this odor is sweet and aromatic in the *Ambúlia* of *Lamarck*; the taste is refreshing in *Mimulus léteus*, which is a culinary plant in Peru, and the ordinary acrid properties become emollient in some *Antirrhinum*. The *Rhinanthaceæ* are remarkable for their astringent tonic bark and leaves. The leaves and roots of *Scrophularia aquática*, *Gratiola officinális* and *peruviana*, and *Calceolária*, act as purgatives, or in strong doses produce vomiting: these properties exist, in a high degree, in *Digitális purpúrea*. The leaves of this plant, reduced to powder, excite vomiting and vertigo, excite urine and saliva, and lower the pulse: in too strong doses they cause death; in moderate doses they are useful in scrophula, dropsy, asthma, &c.

## Tribe 1. PERSONATÆ (or RHINANTHACEÆ).

|                              |                            |                           |                            |
|------------------------------|----------------------------|---------------------------|----------------------------|
| 1343 <i>Antirrhinum J.</i>   | 1346 <i>Nemésia Vent.</i>  | 1342 <i>Euphrásia W.</i>  | 1337 <i>Castilléja Sm.</i> |
| 1344 <i>Linária J.</i>       | 1347 <i>Maurándya W.</i>   | 1340 <i>Rhinánthus W.</i> | 1299 <i>Fourcettia J.</i>  |
| 1345 <i>Anarrhinum Desf.</i> | 1349 <i>Pedicularis W.</i> | 1341 <i>Bártsia W.</i>    | 1298 <i>Choléne W.</i>     |

## Tribe 2. RINGENTES.

|                           |                               |                              |                                     |
|---------------------------|-------------------------------|------------------------------|-------------------------------------|
| 40 <i>Verónica W.</i>     | 1350 <i>Erinus W.</i>         | 1359 <i>Limosélla W.</i>     | 1368 <i>Caprária P. S.</i>          |
| 43 <i>Gratiola W.</i>     | 1351 <i>Mimulus W.</i>        | 1360 <i>Browllia W.</i>      | 1369 <i>Bachnéra B. P.</i>          |
| 51 <i>Calceolária W.</i>  | 1352 <i>Hornemánia W. en.</i> | 1361 <i>Stemódia W.</i>      | 1370 <i>Manólea W. en.</i>          |
| 276 <i>Scopária W.</i>    | 1353 <i>Mázus Lour.</i>       | 1362 <i>Trevirána W. en.</i> | 1371 <i>Angelónia Kth.</i>          |
| 279 <i>Báddlea W.</i>     | 1354 <i>Ignópléxis Lindl.</i> | 1363 <i>Colúmnea W.</i>      | 1372 <i>Schizánthus R. &amp; P.</i> |
| 1297 <i>Pentstémón W.</i> | 1355 <i>Digitális W.</i>      | 1364 <i>Russélla W.</i>      | 1373 <i>Besléria W.</i>             |
| 863 <i>Disándra W.</i>    | 1356 <i>Scrophularia W.</i>   | 1365 <i>Dodártia W.</i>      | 1374 <i>Teécia P. S.</i>            |
| 1338 <i>Halléria W.</i>   | 1357 <i>Vandéllia L.</i>      | 1366 <i>Lindérnia R. Br.</i> | 1379 <i>Cymbária W.</i>             |
| 1348 <i>Gerárdia W.</i>   | 1358 <i>Sibthórpia W.</i>     | 1367 <i>Herpéstis R. Br.</i> |                                     |

Tribe 3. MELAMPYRACEÆ.  
1315 Melampyrum W.

ORDER CXIII. LABIATÆ.

A portion of Diandria Monogynia, and the whole of Didynamia Gymnospermia of Linnæus, make up Labiate, which are characterized by their didynamous stamens, four little nuts or naked seeds, single style, and irregular corolla. They are mostly natives of extra-tropical countries, although under the form of *Hýptis*, *Anisoméles*, *Leúcas*, *O'cymum*, &c., they are found in the hottest zones of the world. Many are extremely odoriferous in the leaves, some bear handsome flowers, but by far the greater part are no better than weeds. They are all remarkable for their tonic, cordial, and stomachic virtues: they contain both a bitter and an aromatic principle, in different proportions. The bitterness which is given out in decoctions, resides in a gum-resinous secretion, abounding in some *Técturiums*, which are particularly employed as stomachics, and sometimes as febrifuges: those which abound in essential oil, and which are consequently aromatic, are used as stimulants. From the different degree of combination of these principles in different plants, they have obtained various uses; such as savory, thyme, marjoram, for seasoning of food; sage, balm, ground ivy for tea; marum, marjoram, lavender, and thyme, for sternutatories; others, such as lavender, mint, balm, and rosemary, for perfumes. It is a remarkable fact, that the essential oil of all contains camphor, which exists in such quantity in sage and lavender, that it has been supposed that the separating of it might become an object of commerce.

§ 1. *Diandræ.*

|                         |                         |                          |
|-------------------------|-------------------------|--------------------------|
| 55 <i>Lýcopus W.</i>    | 58 <i>Cúnila P. S.</i>  | 61 <i>Rosmarinus W.</i>  |
| 56 <i>Amethýstæa W.</i> | 59 <i>Hedeóma P. S.</i> | 62 <i>Sálvia W.</i>      |
| 57 <i>Ziziphora W.</i>  | 60 <i>Monárda W.</i>    | 63 <i>Collinsónia W.</i> |

§ 2. *Tetrandræ.*

|                               |                                |                             |                                 |
|-------------------------------|--------------------------------|-----------------------------|---------------------------------|
| 1242 <i>A'júga W.</i>         | 1254 <i>Méntha W.</i>          | 1266 <i>Marrábium W.</i>    | 1278 <i>Melísa W.</i>           |
| 1243 <i>Anisoméles R. Br.</i> | 1255 <i>Perilla W.</i>         | 1267 <i>Leonúrus R. Br.</i> | 1279 <i>Dracocépalum W.</i>     |
| 1244 <i>Técturium W.</i>      | 1256 <i>Hýptis Poit.</i>       | 1268 <i>Phlómis R. Br.</i>  | 1280 <i>Melittis W.</i>         |
| 1245 <i>Westringia Sm.</i>    | 1257 <i>Horminum Ort.</i>      | 1269 <i>Leúcas R. Br.</i>   | 1281 <i>O'cymum W.</i>          |
| 1246 <i>Saturéja W.</i>       | 1258 <i>Gléichoma W.</i>       | 1270 <i>Leonóti R. Br.</i>  | 1282 <i>Plectránthus W.</i>     |
| 1247 <i>Thýmra W.</i>         | 1259 <i>Lámium W.</i>          | 1271 <i>Moluceëlla W.</i>   | 1283 <i>Trichostéma W.</i>      |
| 1248 <i>Hyssópus W.</i>       | 1260 <i>Galeópsis W.</i>       | 1272 <i>Clinopódium W.</i>  | 1284 <i>Prostanthéra R. Br.</i> |
| 1249 <i>Néseta W.</i>         | 1261 <i>Galeóbdolon, E. B.</i> | 1273 <i>Fycánthemum Th.</i> | 1285 <i>Scutellária W.</i>      |
| 1250 <i>Elshóltzia W.</i>     | 1262 <i>Betónica W.</i>        | 1274 <i>Origanum W.</i>     | 1286 <i>Prunélla W.</i>         |
| 1251 <i>Lavándula W.</i>      | 1263 <i>Stáchyis W.</i>        | 1275 <i>Thýmus L.</i>       | 1287 <i>Cleónia W.</i>          |
| 1252 <i>Sidérítia W.</i>      | 1264 <i>Zieténia Pers.</i>     | 1276 <i>A'cynos Pers.</i>   | 1288 <i>Prásius W.</i>          |
| 1253 <i>Bystropógon W.</i>    | 1265 <i>Ballóta W.</i>         | 1277 <i>Calamíntha Ph.</i>  | 1289 <i>Phrýma W.</i>           |

ORDER CXIV. PEDALINÆ.

Herbaceous plants, formerly included in Bignoniaceæ, from which they are distinguished by the small number of seeds in each cell of the fruit. Natives of the tropics, with shewy trumpet-shaped flowers. The seeds of *Sésamum* abound in oil, which is easily expressed, for which the common species is extensively cultivated in hot countries.

|                        |                         |                        |
|------------------------|-------------------------|------------------------|
| 1296 <i>Sésamum W.</i> | 1300 <i>Martýnia W.</i> | 1331 <i>Pedálum W.</i> |
|------------------------|-------------------------|------------------------|

ORDER CXV. MYOPORINEÆ.

South Sea and New Holland shrubs, with scarcely any hair. The leaves are simple, alternate, or opposite, with no stipule. The flowers, scarlet, white, or blue, axillary without bractææ. These are very near *Verbenaceæ*. *Stenochilus* is the handsomest genus of the order: the *Avicénnias* are shore plants, growing in the place of the mangroves, and shooting their long roots to a great distance among the mud, sometimes to the length of six feet along the surface before they fix themselves. Their medicinal properties, if any, are unknown.

|                          |                             |                                |                           |
|--------------------------|-----------------------------|--------------------------------|---------------------------|
| 1323 <i>Avicénnia L.</i> | 1332 <i>Myopórum Forst.</i> | 1333 <i>Stenochilus R. Br.</i> | 1334 <i>Bóntia R. Br.</i> |
|--------------------------|-----------------------------|--------------------------------|---------------------------|

ORDER CXVI. VERBENACEÆ.

A mixture of weeds and shewy herbs, of humble creeping plants and of lofty timber trees. Some of the *Vitéxes* and *Clerodéndrums* are handsome shrubs: *Aloýsia* is esteemed for the fragrance of its flowers, and *Holmskiöldia* for the refulgent scarlet of its enlarged calyxes. *Téctona* produces the famous Indian teakwood. No properties of consequence have been attributed, by medical men, to any plant of the order, those formerly ascribed to the vervain and chaste-tree being now disregarded. The species are natives of waysides in Europe, and of woods and barren plains in the tropics.

|                             |                              |                              |                                |
|-----------------------------|------------------------------|------------------------------|--------------------------------|
| 1322 <i>Verbéna L.</i>      | 274 <i>Egíphiila W.</i>      | 1313 <i>Aloýsia Fl. per.</i> | 1325 <i>Clerodéndrum B. P.</i> |
| 54 <i>Stachytárphe Vahl</i> | 421 <i>T'éctona W.</i>       | 1316 <i>Selágo W.</i>        | 1326 <i>Volkaméria H. K.</i>   |
| 1319 <i>Zapánia J.</i>      | 1309 <i>Hebenstréítia W.</i> | 1312 <i>Lantána W.</i>       | 1327 <i>Holmskiöldia H. K.</i> |
| 1320 <i>Príva P. S.</i>     | 1310 <i>Héstá Jacq.</i>      | 1311 <i>Gmelina W.</i>       | 1328 <i>Petréa W.</i>          |
| 1314 <i>Líppia L.</i>       | 1317 <i>Vítex W.</i>         | 1321 <i>Spielmánnia W.</i>   | 1329 <i>Citharéxylum W.</i>    |
| 272 <i>Callicárpa W.</i>    | 1318 <i>Cornútia W.</i>      | 1324 <i>Caldásia W.</i>      | 1330 <i>Duránta W.</i>         |
| 65 <i>Ghínia W.</i>         |                              |                              |                                |

ORDER CXVII. ACANTHACEÆ.

These are known by the elastic dehiscence of their capsules, and the hooked processes of the seeds. They are almost entirely tropical herbs or shrubs, with the pubescence, if any, simple or capitate, but never stellate. Their leaves are opposite, occasionally arranged in fours, simple and undivided, or very seldom lobed. The flowers are either in imbricated heads or open racemes, always enclosed in their bractææ; and are white, blue, yellow, scarlet, or purple. Some of the species are very shewy, but few of them are cultivated commonly; a large proportion are mere weeds. The *Thunbergias* are fine climbers, and the *Acánthus mollis*, the foliage of which gave rise to the classical acanthus of architecture, is, perhaps, except *Morina pérsica*, one of the most interesting of hardy herbaceous plants. It is also one of the few species to which any medical properties are ascribed, being used sometimes as an emollient by reason of its mucilage. *Justicia biflóra* is employed in Egypt as a poultice, *J. Ecbólium* as a diuretic, and *J. pectorális* as a vulnerary.

|                            |                              |                            |                               |
|----------------------------|------------------------------|----------------------------|-------------------------------|
| 45 <i>Elytrária M.</i>     | 49 <i>Eránthemum P. B.</i>   | 1304 <i>Ruéliia J.</i>     | 1306 <i>Aphelándra R. Br.</i> |
| 46 <i>Hypoéstes R. Br.</i> | 1302 <i>Barléria W.</i>      | 1305 <i>Bléchum R. Br.</i> | 1307 <i>Crossándra P. L.</i>  |
| 47 <i>Justícia W.</i>      | 1303 <i>Phaylópsis Juss.</i> | 1301 <i>Acánthus W.</i>    | 1308 <i>Thunbergia W.</i>     |
| 48 <i>Dicliptera W.</i>    |                              |                            |                               |

ORDER CXVIII. LENTIBULARIÆ.

Very pretty interesting aquatics, which are scarcely susceptible of cultivation, except in a few cases. The *Pinguiculas* are either European or North American, inhabiting elevated patches in bogs: the *Utricularías* are floaters, found in most countries in marshes and little rills: their flowers, are white, yellow, or blue.

|                         |                          |
|-------------------------|--------------------------|
| 52 <i>Pinguicula W.</i> | 53 <i>Utricularía W.</i> |
|-------------------------|--------------------------|



## ORDER CXXIX. PRIMULACEÆ.

Beautiful dwarf herbs, inhabiting the mountains and meadows of all parts of the world, but especially in the northern hemisphere. Nothing can be more lovely than the little delicate alpine Primulas, Androsaces, Arctias, and Soldanellas, with their little modest blossoms, sometimes rivaling the whiteness of the surrounding snow, sometimes emulating the intense blue of the empyrean, as if the one had borrowed its hues from heaven, and the other from the spotless mantle of the earth. Hottónia is a naiad of the stream, inhabiting several parts of England, in ponds and ditches, which are enlivened for many a month with its rosy flowers, peeping from among the sedge and under grass, by which it is environed. All the genera are familiar to gardeners, except Centúnculus and Schwénckia, of which the former is singular in the order, as being an obscure minute weed, and the latter has inelegant green flowers, curious to the botanist but ungrateful to the florist. The prominent botanical character is the one-celled fruit, with a central placenta, and the stamens opposite the petals. The properties of Primulaceæ are feeble and of little consequence; they appear to be slightly astringent and bitter; the root of Cýclamen is acrid, and only eaten by wild boars; the flowers of the primrose and cowslip are fragrant, and mildly sudorific and soporific. Cortúsa Mathiola has been used in nervous disorders.

|                  |                    |                   |                    |
|------------------|--------------------|-------------------|--------------------|
| 350 Primula W.   | 352 Soldanella W.  | 356 Lysimachia W. | 277 Centúnculus W. |
| 349 Androsace W. | 353 Dodecatheon W. | 392 Lubinia Comm. | 42 Schwénckia W.   |
| 348 Arctia W.    | 354 Cýclamen W.    | 357 Anagallis W.  | 471 Samolus W.     |
| 351 Cortúsa W.   | 355 Hottónia W.    | 360 Córís W.      | 832 Trientális     |

## ORDER CXX. GLOBULARINÆ.

Pretty alpine plants with blue flowers. The leaves of Globulária Atypum are very bitter and powerfully purgative, giving at the same time a tone to the stomach and intestines.

260 Globulária W.

## ORDER CXXI. PLUMBAGINÆ.

These are properly placed at the limit between Monochlamydeæ and Dichlamydeæ, to either of which they are referable in the minds of some botanists, although it appears, upon the whole, to be most convenient to station them where they are now arranged. They are low shrubs or herbaceous plants, with shewy red or blue flowers of an arid texture, inhabiting salt marshes and subalpine tracts, in the temperate latitudes of both the northern and southern hemispheres. All the Státices and Arméria are fine plants worth cultivating. The root of Státice Limónium is astringent and tonic; of the Plumbágos, the root and whole plant are acrid and caustic, and employed as vesicatories.

|                 |                    |                    |
|-----------------|--------------------|--------------------|
| 324 Plumbágo W. | 705 Arméria W. en. | 706 Státice W. en. |
|-----------------|--------------------|--------------------|

## SUBDIVISION II. MONOCHLAMYDEÆ.

*Perianthium simple.*

The absence of corolla characterizes this subdivision of dicotyledonous vegetation; but as the term corolla is subject to frequent misunderstanding, it should be borne in mind, that whenever there is only one floral envelope, that envelope is to be considered calyx, whether green, as in most cases, or colored, as in the Marvel of Peru.

## ORDER CXXII. PLANTAGINÆ.

Little inconspicuous herbs found in waste places all over the world. The leaves are stellate, and occasionally ternate; the pubescence is jointed; the flowers are brownish, and arrayed in dense spikes. Their leaves are rather bitter and astringent; their seeds mucilaginous and rather acrid; those of Plantágo arenária are imported in large quantities, from the south of France, for the purpose of forming an infusion in which muslins are washed. P. média is sometimes cultivated by farmers under the name of ribgrass.

|                 |                    |
|-----------------|--------------------|
| 278 Plantágo W. | 1967 Littorélla W. |
|-----------------|--------------------|

## ORDER CXXIII. NYCTAGINÆ.

With the exception of Mirábilia, in which the colored calyx has a shewy effect, all the order consists of weeds, growing often among the loose sand on the sea coast of the tropics and western hemisphere; none are found in Europe. The Abrónia is curious, neat, and often fragrant. The root of Mirábilia Jalapa was formerly considered the jalap, which is now known to be an error; it is however purgative, although in a less degree. Boerhaavia tuberósa is also a reputed purgative.

|                  |                    |                  |                   |                |
|------------------|--------------------|------------------|-------------------|----------------|
| 19 Boerhaavia W. | 81 Calyménia R. P. | 322 Mirábilis W. | 323 Abrónia Juss. | 864 Pisónia W. |
|------------------|--------------------|------------------|-------------------|----------------|

## ORDER CXXIV. AMARANTHACEÆ.

Upon this order Dr. von Martius has the following remarks: Leaves, especially when young, of a lax soft texture, abounding in saccharine, mucilaginous, and fibrous particles, and therefore fit for food. The seeds are farinaceous, consisting chiefly of starch and mucus. Their virtues are nutritive, emollient, demulcent; the root of Gomphréna officinális is tonic and stimulant. The species are either gregarious or solitary; mostly diffuse and villous, and existing in dry stony exposed places, or erect and reclining on other vegetables, with little pubescence, when found on the skirts of ancient forests; a few are found in saline coast places; finally, they are more common in low land, little elevated above the surface of the sea, than in mountainous regions. They are met with in both hemispheres; rarely under the equator, but increasing both northwards and southwards as we recede from them; they are confined to no countries in particular, but are found to affect all regions of the world. Among an abundance of weeds, we distinguish a few fine plants deserving cultivation, as the Globe Amaranthus, the Cockscombs, and a few species of Amaranthus, one of which, under the name of Love-lies-bleeding, is commonly reared for the sake of its long, tail-like, pendent masses of crimson flowers. Amaranthus oleráceus, and a few others, are occasionally cultivated as potherbs.

|                       |                          |                      |                    |
|-----------------------|--------------------------|----------------------|--------------------|
| 552 Achyránthes W.    | 556 Alternanthera R. Br. | 563 Deeringia R. Br. | 918 Aphanánthe Lk. |
| 553 Philoxérus R. Br. | 560 Erúga Juss.          | 565 Celosia R. Br.   | 1975 Amaranthus W. |
| 554 Desmodochæta Dec. | 561 Lestibudésia R. Br.  | 566 Gomphréna R. Br. | 2069 Irésine W.    |

## ORDER CXXV. ILLECEBREÆ.

Weeds distinguished from Amaranthaceæ by their membranous stipules. They are found in dry barren places, for which they are better fitted than for a garden, unless as objects of curiosity.

|                      |                  |                   |                  |
|----------------------|------------------|-------------------|------------------|
| 555 Illecóbrum Juss. | 569 Mollia W.    | 82 Loéflingia W.  | 226 Minuártia W. |
| 557 Paronýchia Juss. | 614 Herniária W. | 221 Polycápton W. | 227 Quéria W.    |
| 559 Anýchia Mich.    |                  |                   |                  |

## ORDER CXXVI. CHENOPODEÆ.

The habit of this order is a better distinction from Amaranthaceæ, than any artificial character which it is easy to point out. While Amaranthaceæ have a dry perianthium with a dense inflorescence, Chenopodeæ on the contrary have a fishy perianthium and a very effuse inflorescence. In the former, the stamens are usually

inserted under the ovarium; in the latter into the calyx, but this mark is not constant. None of them, unless *Phytolacca* is excepted, can be esteemed plants of ornament; on the contrary, they have a weedy uninviting appearance, which is not improved by the fetid smell of some of them. But, although their appearance is less attractive than that of the *Amaranth*s, their use to man is far more considerable. Their qualities are very various; *Camphorosma* has the smell of camphor; *Petivéria* stinks like onions; *Phytolacca* roots, leaves, and berries, are violent purgatives and emetics; the latter are esteemed in North America nearly equal to *Guaiacum*, and are employed in chronic rheumatisms, and in rheumatic pains following venereal diseases; an extract of the berries has been employed in scrophula and cancerous ulcers; and the young shoots of the plant are eaten in the United States as asparagus. Some of the *Chenopodium*s, as *Ambrosioides*, *Bótrys*, &c., possess antispasmodic and tonic properties; the leaves of *Spinácia*, and of many *Chenopodium*s, are eaten as spinach; as are those of *Basélla* in China and India. *Salicórn*a and *Salicórn*a are often employed as pickles. Beet roots are equally valuable as a culinary and agricultural production, and the leaves are an excellent vegetable when boiled. But the most remarkable feature in the properties of the order is the abundant production of soda, which is obtained from many of the species, as from all the *Salsóla*s, *Salicórn*as, *Anabásis*, many species of *Atriplex*, several salt marsh *Chenopodium*s, and others. The seeds of *Chenopodium anthelminticum* are used as a vermifuge, those of *Atriplex horténsis* excite vomiting, frequently attended with acute pain; those of *Chenopodium quinóa* are said to be used as rice. To conclude this list of remarkable properties in one of the most vile of all assemblages of plants, the roots of beet yield an abundance of sugar.

|                                |                         |                                   |                             |
|--------------------------------|-------------------------|-----------------------------------|-----------------------------|
| 21 <i>Pollíchia W.</i>         | 608 <i>Anabásis W.</i>  | 254 <i>Camphorósm</i> a <i>W.</i> | 1943 <i>Axýria W.</i>       |
| 22 <i>Salicórn</i> a <i>W.</i> | 538 <i>Chenólea W.</i>  | 693 <i>Basélla W.</i>             | 1964 <i>Diótis W.</i>       |
| 92 <i>Polycnémum W.</i>        | 613 <i>Bósea W.</i>     | 865 <i>Petivéria W.</i>           | 2070 <i>Spinácia</i>        |
| 611 <i>Chenopódium W.</i>      | 28 <i>Blitum W.</i>     | 917 <i>Galénia W.</i>             | 2138 <i>Atriplex</i>        |
| 609 <i>Salsóla W.</i>          | 26 <i>Coricérmum W.</i> | 1071 <i>Phytolacca W.</i>         | 2139 <i>Rhagódia R. Br.</i> |
| 610 <i>Kóchia Roth.</i>        | 253 <i>Rivína W.</i>    | 1937 <i>Ceratocárpus W.</i>       | 2072 <i>Acnóia W.</i>       |
| 612 <i>Béta W.</i>             |                         |                                   |                             |

ORDER CXXVII. POLYGONÆ.

Herbaceous or suffrutescent fleshy-leaved plants, chiefly natives of the northern hemisphere; a few *Polygonum*s and *Coccolóba*s are found to the south, the former in barren places, the latter on sea shores. A great part of the order consists of worthless weeds. Some of the *Polygonum*s, and all the *Eriogonum*s, are handsome plants; the *Rhéum*s are famous in medicine. The root of *Rhéum* is tonic and purgative; most of the *Rúmxes* and *Polygonum*s are also tonics. The juice of the *Coccolóba*s is very astringent. The young leaves and shoots of several species of *Rúmx* and *Rhéum* are eaten either raw or baked, under the name of sorrel, French sorrel, and tart rhubarb. For the sake of its seeds, *Polygonum Fagopyrum* is cultivated by farmers under the name of buck-wheat; the seeds of *P. aviculáre* are very emetic and purgative. The fleshy calyx of the *Coccolóba*s is colored; and, the fruit growing in clusters, the genus has received the name of the sea-side grape.

|                          |                         |                           |                           |
|--------------------------|-------------------------|---------------------------|---------------------------|
| 228 <i>Koenigia W.</i>   | 857 <i>Oxýria Dec.</i>  | 937 <i>Eriogonum Mi.</i>  | 1106 <i>Calligonum W.</i> |
| 838 <i>Atrapháxis W.</i> | 921 <i>Polygonum W.</i> | 938 <i>Rhéum W.</i>       | 2090 <i>Triplaris W.</i>  |
| 856 <i>Rúmx W.</i>       | 923 <i>Coccolóba W.</i> | 1052 <i>Brunnichia W.</i> |                           |

ORDER CXXVIII. BEGONIACEÆ.

The acid qualities, sheathing stipules, and alternate leaves of these tropical herbs approximate them to *Polygonæ*, notwithstanding the very different structure of their fructification. Most of the species are pretty, some very handsome; all requiring great heat and humidity to be grown in perfection.

1989 *Begónia W.*

ORDER CXXIX. LAURINÆ.

Noble trees or shrubs with handsome foliage and inconspicuous flowers. They are chiefly natives of hot countries, where they constitute some of the most valuable of the productions known under the name of spice. By botanists they are readily recognized by the singular circumstance of their anthers having each four cells, the valves of which are hinged as it were to the upper edge of each cell, and do not open longitudinally like those of most other plants. It is well known that the cinnamon is the produce of the *Láurus cinnamómum*, and that its properties are eminently aromatic, warm, and stomachic. The same peculiarities, but in a less degree, exist also in *Láurus cassia*, *L. malabáthrica*, and *L. cullában*, which are all occasionally substituted for true cinnamon; they are found in the leaves of *Láurus parvifolia*, in the bark of the species which produces the *Pichurim* bean; in that of *L. cupuláris*, which is the Isle of France cinnamon; of *L. quixos*, which yields the *Peruvian* cinnamon; in *L. Benzoin*, which was used as spice in the United States during the American war; and finally, in the common bay tree of our plantations. *Láurus sassafras* yields the *sassafras* chips of the shops, but its bark is much more powerful. The fruit of many *Laurinæ* are extremely aromatic; that of *Láurus Pérsæ* is an agreeable West Indian fruit, called the alligator pear. Camphor is the produce of *Láurus cámpora*, and of another or two; this substance is found indeed in small quantities in the roots of almost all the order; one of the cinnamons is even named *Capuru Carundu*, which signifies camphorated cinnamon.

|                      |                        |                          |                              |
|----------------------|------------------------|--------------------------|------------------------------|
| 934 <i>Láurus W.</i> | 936 <i>Cassétha W.</i> | 1942 <i>Hernándia W.</i> | 1077 <i>Agathophýllum W.</i> |
|----------------------|------------------------|--------------------------|------------------------------|

ORDER CXXX. MYRISTICÆ.

Closely allied to the last, especially in sensible properties. The arillus of *Myristica* is the mace of the shops, and its nut, the famous nutmeg. It is well known that this abounds with oil; in *Viróla sebifera* the oily secretion is so copious, that it is readily separated by immersion in boiling water under the form of fat.

2120 *Myristica W.*

ORDER CXXXI. PROTEACEÆ.

Favorite shrubs with gardeners, both on account of the neatness of their foliage and the beauty of their flowers. With very few exceptions, they are confined to the southern promontory of Africa, and to New Holland, where they adorn large tracts of country. They are shrubby or arborescent plants with an arid habit. The leaves are simple, evergreen, narrow, entire or serrated. The flowers generally grow in clusters, and are green, yellow, or red, sometimes in true *Proteas* surrounded by colored bractæ with dark hairy margins. Their stamens are four, with distinct anthers, which rarely adhere together. The pollen is triangular; the stigma undivided and usually oblique. Their fruit is of various kinds, either a solitary nut or a sort of cone consisting of many nuts immersed among the indurated remains of abortive flowers. Of their properties, little is known. Some of the *Rhópala*s afford tolerable timber; the bark of *Prótea speciosa* and *grandifóra* is astringent and useful in diarrhæas. The seeds of *Embóthrium tinctorium* yield a powder which is employed for dying pink. The *Próteas* of the Cape, and the *Banksias* and *Dryándras* of New Holland, are the finest plants of the order.

|                                 |                                |                               |                            |
|---------------------------------|--------------------------------|-------------------------------|----------------------------|
| 229 <i>Petróphila R. Br.</i>    | 233 <i>Mimétes R. Br.</i>      | 239 <i>Grevillea R. Br.</i>   | 245 <i>Lomátia R. Br.</i>  |
| 230 <i>Isopogon R. Br.</i>      | 234 <i>Serrúria R. Br.</i>     | 240 <i>Hákea R. Br.</i>       | 246 <i>Rhópala R. Br.</i>  |
| 231 <i>Prótea R. Br.</i>        | 235 <i>Nivénia R. Br.</i>      | 241 <i>Stenocárpus R. Br.</i> | 247 <i>Bánkisa R. Br.</i>  |
| 232 <i>Leucospérmum R. Br.</i>  | 236 <i>Sorocéphalus R. Br.</i> | 242 <i>Lambértia R. Br.</i>   | 248 <i>Dryándra R. Br.</i> |
| 052 <i>Áglax R. Br.</i>         | 237 <i>Spatálla R. Br.</i>     | 243 <i>Xylomélum R. Br.</i>   | 2142 <i>Brabéjum W.</i>    |
| 2053 <i>Leucadéndron R. Br.</i> | 238 <i>Fersónia R. Br.</i>     | 244 <i>Telopéa R. Br.</i>     |                            |

## ORDER CXXXII. THYMELÆÆ.

Nearly all shrubby plants, found in all parts of the world, but most abundantly in the south of Africa. The flowers are white, yellow, or red, most commonly in clusters, and often fragrant; the foliage is entire, either smooth or silvery, and generally very neat. Their wood is particularly soft; their inner bark easily separable, and in *Daphne Lagetta*, pulls out by the division of the vertical fibres into a sort of network resembling lace. Their bark is extremely acrid, acting as a vesicatory when applied to the skin, and if chewed, producing extreme heat and torture in the mouth; a decoction of it has been used with some success in venereal diseases. The seeds of these plants are poisonous to man, but birds eat them with impunity. The fibres of *Dorca* and *Lagetta* are used for cordage; those of *Daphne gnidium* and *Passerina tinctoria* are employed in the south of Europe for staining wool yellow, which is converted into green by the addition of *Isatis*.

|                          |                      |                         |                       |
|--------------------------|----------------------|-------------------------|-----------------------|
| 73 <i>Pimelæa B. P.</i>  | 910 <i>Daphne W.</i> | 913 <i>Stellera W.</i>  | 915 <i>Lachnæa W.</i> |
| 249 <i>Struthiola W.</i> | 911 <i>Dorca W.</i>  | 914 <i>Passerina L.</i> | 1032 <i>Dáís W.</i>   |
| 909 <i>Lagetta J.</i>    | 912 <i>Gnidia W.</i> |                         |                       |

## ORDER CXXXIII. SANTALACÆÆ.

Trees or dwarf herbs, with inconspicuous or unattractive flowers. They are chiefly natives of the Cape, New Holland, and India, a few only being found in Europe and North America. Their virtues are few. The wood of *Santalum album* has a sweet aromatic flavor, and a slightly bitter taste: it is chiefly known as a perfume, although it is said to possess mild sudorific properties. The leaves of *Myoschilos* are purgative, of *Ocfris japonica* eatable as salad; *Thesium* is slightly astringent.

|                        |                         |                        |                           |
|------------------------|-------------------------|------------------------|---------------------------|
| 307 <i>Santalum W.</i> | 908 <i>Memecylon W.</i> | 2051 <i>Ocfris W.</i>  | 2161 <i>Nýssa W.</i>      |
| 569 <i>Thesium W.</i>  | 1033 <i>Bucida W.</i>   | 2141 <i>Fusánus L.</i> | 2162 <i>Hamiltonia W.</i> |

## ORDER CXXXIV. ELÆAGNÆÆ.

Hardy shrubs or small trees, with deciduous leaves, covered, as well as the bark, with minute silvery scales: their flowers are inconspicuous, but sometimes agreeably fragrant. They occupy but little space; a few inhabiting China and Japan, and the remainder Europe, North America, and Guiana. The berries of *Hippophae rhamnoides*, which are slightly acid, are used as a kind of sauce by the Swedes.

|                        |                              |                          |
|------------------------|------------------------------|--------------------------|
| 259 <i>Elæagnus W.</i> | 2057 <i>Shepherdia Nutt.</i> | 2058 <i>Hippophae W.</i> |
|------------------------|------------------------------|--------------------------|

## ORDER CXXXV. ARISTOLOCHIÆÆ.

Here we are on the limits of Monocotyledones and Dicotyledones. The species are herbaceous or half shrubby plants, with simple, often reniform, leaves; and mottled grotesque flowers, usually brownish purple. Their roots are all bitter, and possessed of tonic and stimulating properties; but the degree in which they exist in different species is not at present ascertained. The *Aristolochias* have been in former days praised as emmenagogues, and many are still used in South America as a remedy for the bite of serpents. *A'sarum europæum* is a purgative and emetic when fresh, but its powers are much diminished by drying; its dried leaves are occasionally used by the country people in some parts of England as a sternutatory.

|                        |                             |
|------------------------|-----------------------------|
| 1072 <i>A'sarum W.</i> | 1934 <i>Aristolochia W.</i> |
|------------------------|-----------------------------|

## ORDER CXXXVI. EUPHORBIAÆÆ.

Weeds and lofty trees, of such varied appearance and property, that it is scarcely possible to frame a brief character by which they can be expressed. Their vegetation in cold countries is mostly herbaceous, in hot countries frutescent or arborescent; their juice is milky, and their flowers mostly inconspicuous. It is for their medicinal properties that they are chiefly known, and these are as various as their aspect; mostly, however, dangerous, and always to be suspected. In a few of them, the smell and taste are aromatic; but in most, there is either no smell or it is nauseous, and the taste constantly acrid and pungent. Some possess also an acrid limpid fluid, which is given out by the leaves when touched. Many of them act strongly upon the kidneys, as several species of *Phyllanthus*, the leaves of *Mercurialis annua*, and the root of *Ricinus communis*. Many are said to be powerful medicines in cases of dropsy. The bark of several *Crótons*, the wood of *Cróton Tiglium* and *Báxus*, the leaves of the same, and also of *Cicca disticha*, several *Euphorbias*, and others, are recorded as sudorific, and useful against syphilis; as emetics, we find the roots of the *Euphorbias*, the juice of *Cómnia*, *A'nda*, *Mercurialis perennis*, &c. A great number are purgative, especially the leaves of *Báxus* and *Mercurialis*, the juice of *Euphorbia*, *Cómnia*, *Húra*, the seeds of *Ricinus*, *Cróton Tiglium*, *A'nda*, and *Játropha*. The effects of some others are so dangerous, particularly *Hippomane*, that it is not advisable to administer them even in very small doses; even in many *Euphorbias* it is difficult to draw a line between the quantity in which they are poisonous, and that in which they are harmless or useful. The nature of their poison is mostly acrid, occasionally, however, mixed with something narcotic, as is apparent from the effect of those which are used for poisoning or rather stupefying fish. The purgative oil in which the seeds of many are found to abound, has been determined to reside wholly in the albumen; hence the embryo of some, as *Ómphalea diandra*, is eaten as nuts. Boiling or roasting has also the effect of dissipating their noxious effects; thus *Játropha Manihot*, than which there scarcely exists a more dangerous poison, affords a food when submitted to fire, called cassava, the flour of which is often used in London as a luxury for making puddings, than which few are reputed to be more wholesome. But the most curious of all the products of *Euphorbiacæ* is the Caoutchouc, that singular substance which, although the produce of dangerous acrid trees, possesses nothing whatever which has been found capable of acting upon the human system in whatever way applied, which is unalterable either in air, in water, or in spirits, although it softens at a high temperature. It is chiefly produced by *Siphonia elástica*, but also exists in the juice of very many others, as *Excaccaria Agallocha*, *Hippomane Mancinella*, *Húra crepitans*, *Sápium aucuparium*, *Plukenetia volubilis*, the *Játrophas*, *Mábea*, *Ómphaleas*, and many others. *Tournesole*, another curious chemical preparation, is the juice of *Cróton tinctorium*, but is also found in several others. Many other properties belong to this order, which it would be too long to detail in this place. The curious reader will find ample information in the medical division of *M. Adrian de Jussieu's* monograph of the order, from which most of the foregoing remarks are taken.

## SECTION I.

|                             |                      |                           |                        |
|-----------------------------|----------------------|---------------------------|------------------------|
| 1963 <i>Pachysandra Mi.</i> | 1957 <i>Báxus W.</i> | 1978 <i>Securinæga W.</i> | 2071 <i>Flúggea W.</i> |
|-----------------------------|----------------------|---------------------------|------------------------|

## SECTION II.

|                       |                           |                         |
|-----------------------|---------------------------|-------------------------|
| 1958 <i>Cicca W.</i>  | 2092 <i>Kiggelária W.</i> | 2122 <i>Cluytia W.</i>  |
| <i>Phyllanthus W.</i> | 2025 <i>Andrachne W.</i>  | 2143 <i>Bridélia W.</i> |

## SECTION III.

|                       |                            |                         |                             |
|-----------------------|----------------------------|-------------------------|-----------------------------|
| 2032 <i>Cróton W.</i> | 2105 <i>Rottléra Roxb.</i> | 2034 <i>Ricinus W.</i>  | 2028 <i>Aleurites W.</i>    |
| 2118 <i>Adelia W.</i> | 2104 <i>Gelónira Roxb.</i> | 2033 <i>Játropha W.</i> | 2097 <i>Hyænánche H. K.</i> |
| 2044 <i>Bórya W.</i>  | 2119 <i>Loureira W.</i>    |                         |                             |

## SECTION IV.

|                         |                            |                           |                    |
|-------------------------|----------------------------|---------------------------|--------------------|
| 2038 <i>Acályphá W.</i> | 2068 <i>Mercurialis W.</i> | 2040 <i>Plukenetia W.</i> | 1944 <i>Trágia</i> |
|-------------------------|----------------------------|---------------------------|--------------------|

SECTION V.

2031 *Sápium W.*                      2030 *Hippómáne W.*                      2035 *Húra W.*                      2029 *Omphálea W.*  
2026 *Stillingia W.*                      1922 *Acidóton W.*                      2117 *Excæcária W.*

SECTION VI.

2039 *Dalechámpia W.*                      1103 *Euphórbia W.*                      1104 *Pedilánthus Neck.*

ORDER CXXXVII. RESEDACEÆ.

Weeds of no interest, except the *Réseda odoráta* for its delicious fragrance. *R. lutéola*, a common annual in waste places, yields a yellow color fit for dyeing.

1102 *Réseda W.*                      2099 *Datisca W.*

ORDER CXXXVIII. CALYCANTHEÆ.

Handsome grateful deciduous shrubs, with deliciously fragrant flowers, natives of North America and Japan. They are not known to possess any medicinal virtues, but their odour insures them a place in every garden, notwithstanding the uninviting look of the blossoms themselves.

1157 *Calycánthus L.*                      1158 *Chimonánthus Lindl.*

ORDER CXXXIX. ATHEROSPERMEÆ.

Allied to the last in sensible and botanical qualities: they are shrubs, natives of America and New Holland, of which little is known either to gardeners or botanists.

2103 *Peúmus Pers.*

ORDER CXL. EMPETREÆ.

Dwarf heath-like shrubs, with obscure flowers and berries, natives of Europe and North America.

2045 *Empétrum L.*

ORDER CXLI. URTICEÆ.

Few are the objects in this order deserving the care of the cultivator; it is rather extraordinary, however, that those few are abundantly so. Among worthless weeds and shabby half herbaceous shrubs, some of which are covered with rough points, and others defended by stinging hairs, we find the fig, the mulberry, the hemp, the hop, and the bread-fruit, all objects of the first consequence to the world. Here also is placed the half fabulous *Úpas*, with which lying travellers and credulous naturalists have long deluded Europe. The *Úpas* tree is now known to be the *Antiáris toxicária*, the inspissated juice of which is indeed a frightful poison, but the baneful effects of whose branches are purely imaginary. Similar, though inferior, qualities have been found to exist in *Ficus toxicária*, and some of the *Artocarpus*. The root of the black mulberry is bitter, acrid, and purgative; of *Dorséna brasiliénsis*, emetic; of *D. contrayérba*, bitter, aromatic, hot, and stimulant. A decoction, or the dried leaves, of hemp, is eminently narcotic, and forms the basis of the well known intoxicating Turkish drug called *Bang* or *Haschisch*. The tenacious nature of the fibres of the hemp is also found in other plants of the order, especially *Urtica cannábina*, the hop, the bread-fruit tree, the common stinging-nettle, and others.

|                           |                             |                            |                            |
|---------------------------|-----------------------------|----------------------------|----------------------------|
| 1962 <i>Urtica W.</i>     | 1993 <i>Thelfgonum W.</i>   | 2043 <i>Cecrópia W.</i>    | 75 <i>Gunnéra W.</i>       |
| 1961 <i>Pilea Lindl.</i>  | 2059 <i>Broussonétia W.</i> | 1989 <i>Maclúra Nutt.</i>  | 2158 <i>Bróseimum W.</i>   |
| 2137 <i>Parietária W.</i> | 2073 <i>Cánnabis W.</i>     | 1959 <i>Mórus W.</i>       | 1973 <i>Franzéria Cav.</i> |
| 1960 <i>Bœhméria W.</i>   | 2074 <i>Hómulus W.</i>      | 1935 <i>Artocárcpus W.</i> | 2063 <i>Tróphis W.</i>     |
| 333 <i>Forskónlea W.</i>  | 2167 <i>Ficus W.</i>        | 257 <i>Dorséna W.</i>      | 2050 <i>Stilágo W.</i>     |

ORDER CXLII. AMENTACEÆ.

Here is the group in which all the timber trees of Europe, and most of those of all cold countries, are stationed. Every genus consists of plants important to the wants of man. The alder, the birch, the willow, the poplar, the oak, the chestnut, the hornbeam, and the plane, are all collected in this place, to which they have been brought by the coincidence of similar fructification existing in all of them. This similarity depends upon their producing flowers of one sex only, the males of which are always arrayed in catkins, of which the flowers are destitute of calyx or corolla, in the place of which is produced a single scale. Their bark is furnished with an astringent principle, which has rendered them valuable either for staining black, as in the alder and the oak gall; or for tanning, as in the oak; or as febrifuges, as the alder, the birch, the oak, most of the willows, and also *Pópulus tremulóides*, which is well known in North America as a tonic and stomachic febrifuge. The substance called *tacamahaca* was formerly supposed to be produced by some of the poplars, but it is now believed to be obtained from a very different plant, *Fagára octándra*. The fruit of many *Amentáceæ* contains a considerable proportion of *fecula*, which renders it fit for the food of man and other animals, as the acorns of the oak, the mast of birch, the nut of *Castánea* and *Córylus*, &c.

|                        |                              |                         |                        |
|------------------------|------------------------------|-------------------------|------------------------|
| 1955 <i>A'lnus W.</i>  | 2001 <i>Liquidámbar W.</i>   | 1995 <i>O'strya W.</i>  | 1997 <i>Fágus W.</i>   |
| 1956 <i>Bétula W.</i>  | 2002 <i>Plátanus W.</i>      | 1996 <i>Carpínus W.</i> | 1998 <i>Córylus W.</i> |
| 2042 <i>Sálix W.</i>   | 2003 <i>Salisbúria L. T.</i> | 1994 <i>Castánea W.</i> | 2000 <i>Quércus W.</i> |
| 2087 <i>Pópulus W.</i> |                              |                         |                        |

ORDER CXLIII. ULMACEÆ.

Many of the observations upon the last order are also applicable to this, which differs rather in certain technical characters, than in any arrangement of nature. The elm is its representative, from which the others only slightly differ.

616 *Planéra Michx.*                      615 *U'lmus L.*                      2145 *Céltis W.*

ORDER CXLIV. CASUARINEÆ.

These are nearly related to *Conifera*, than which they are dwarfer, and of far less importance. By various writers they have been tossed about between *Amentacea* and *Conifera*, and have at last settled in a place by themselves. The leaves of *Comptónia plenifolia* are employed in the United States against diarrhoea. The berries of *Myrica cerifera* yield, on boiling, an abundance of wax which is manufactured into candles; the nuts of *Ephédra distáchya* are eatable; the wood of some of the *Casuarina*s is remarkably hard and durable.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| 1936 <i>Casuarina W.</i> | 1941 <i>Comptónia W.</i> | 2056 <i>Nagéla Gaertn.</i> |
| 2115 <i>Ephédra W.</i>   | 2055 <i>Myrica W.</i>    |                            |

ORDER CXLV. CONIFEREÆ.

These bear the same relation in point of consequence to resinous trees, that *Amentacea* bear to those that are not resinous. They are well known as lofty timber, yielding valuable wood and abundance of resin.

Among them is now numbered the loftiest tree in the world, a species of pine found by Mr. Douglas in California, which grows 220 feet high, with a circumference of 80 feet. Pitch, turpentine, Venice turpentine, are produced by various species. Gum Sandarach, by *Thúja quadriválvis*; a matter like olibanum, by *Juníperus lycia*; a sort of liquid storax, by *Altingia excélsa*. The *Juníperuses* in which the resin is "incompletely oxygenized," are more fragrant, and also stimulating in a greater degree; as the savin for example. The berries of many of these plants possess similar qualities. Their seeds are all oily; those of *Pinus Pineæ*, *Cémbra*, and *Lambertiána*, and *Salisbúria adiantifólia*, are eatable as nuts. The fleshy fruit of the ivy, which is poisonous, is an exception to the general innocuous character of the order. *Coniferae* are mostly inhabitants of the northern parts of the world, where they form immense forests, and supply with their dense persistent leaves the place occupied by the evergreen trees of warmer climates. A few are found in the southern hemisphere.

|                              |                          |                              |                               |
|------------------------------|--------------------------|------------------------------|-------------------------------|
| 2012 <i>Pinus W.</i>         | 2017 <i>Cuprésus W.</i>  | 2112 <i>Araucária J.</i>     | 1970 <i>Exocárpus Lab.</i>    |
| 2013 <i>A'bies Salisb.</i>   | 2018 <i>Thúja W.</i>     | 2010 <i>Bélis Salisb.</i>    | 2016 <i>Podocárpus L'her.</i> |
| 2014 <i>Lárix Salisb.</i>    | 2113 <i>Juníperus W.</i> | 2011 <i>A'gathis Salisb.</i> | 2114 <i>Táxus W.</i>          |
| 2015 <i>Schubértia Mirb.</i> |                          |                              |                               |

## ORDER CXLVI. CHLORANTHÉE.

Obscure Asiatic weeds of no known use, and wholly destitute of interest for gardens.

25 *Chloránthus W.*

## ORDER CXLVII. PIPERACÉE.

The peppers are far more valuable in commerce than interesting in cultivation, their flowers being in all cases very insignificant, and their leaves so uniform in appearance, as to create but little variety. Nearly the whole indeed of the herbaceous species or *Peperómias*, as they are sometimes called, are mere weeds. The berry of the pepper is well known to be hot, aromatic, pungent, and stimulating; not only in the common peppers of the shops, but also in *P. cubéna*, *carpúnga*, and *heterophyllum*. The *Piper anisátum* yields a strong smell of anise; a decoction of its berries is used in Spanish America for washing ulcers. The *Piper Bétel* and *Siribó* afford the Malays a powerfully acrid and exciting preparation, which, they suppose, invigorates and enables them to withstand the debilitating influence of their climate. In the South Sea Islands, an inebriating beverage is procured by the mixture of the leaves and stems of *P. inébricans* with water. No pepper has yet been found beyond the limits of the tropics. *Saurúrus* is the representative of the order in extra-tropical countries.

77 *Piper W.*

872 *Saurúrus W.*

## ORDER CXLVIII. CYCADEE.

The true station of this very curious order is extremely uncertain. Although placed here in conformity with the common practice, it is to be supposed that its true station is in the immediate vicinity of ferns, with which the species agree in veneration, and in many curious particulars. All are natives of countries beyond the reach of frosts, chiefly of the Cape of Good Hope and equinoctial America. With a low trunk which rarely exceeds the height of a few inches, they have the fronds and appearance of pigmy palms, and the inflorescence of gigantic *Equisétums*. The trunk of *Cycas* contains a great quantity of fecula, which is manufactured into a kind of spurious sago; and a similar substance, it has lately been ascertained, may be obtained from the stem of *Cycas*. (*Gard. Mag.*, vol. iv.)

2107 *Cycas W.*

2108 *Zámia W.*

## CLASS II. MONOCOTYLEDONES.

The physiological peculiarities of this class of plants have been already explained in the general remarks which precede this arrangement of natural orders. To what is there stated, little remains to be added, except that in these northern regions, every thing included in it is herbaceous, and that in hotter latitudes, few deserve the name of either bush or tree, except the palms, and a few *Aroidæ* and *Asphodelæ*.

## SECTION I. STAMENS EPIGYNOUS.

## ORDER CXLIX. HYDROCHARIDEÆ.

Floating white-flowered plants, of which *Stratiótes* is the most majestic. They possess no known properties, but have the singular character in Monocotyledones of being in some cases lactescent. The species are natives of various parts of the world.

308 *Trápa W.*

859 *Damasónium W.*

2089 *Hydrocháris W.*

2096 *Stratiótes W.*

## ORDER CL. ORCHIDEÆ.

Of all tribes of plants, this is the most singular, the most fragrant, and the most difficult of culture. The flowers are often remarkable for their grotesque configuration, which has been likened to heads and bodies of animals, and for the strange character of their stems, which are sometimes attenuated into a degree of gracefulness scarcely equalled even among grasses, and sometimes contracted into a clumsy goutiness of figure such as is known no where else. The species are found inhabiting the mountains and meadows of the cooler parts of the globe, or adhering by their tortuous roots to the branches of the loftiest trees of the tropical forest, to which their blossoms often lend a beauty not their own. Vulgarly, this last description of plants is called parasitic; they are, however, not so, deriving no support from the juices of the plants on which they grow; but on the contrary, are epiphytes, merely adhering to other plants for support, and vegetating amidst the rich black soil which collects at the foot of all trees growing in a hot humid climate. It is very singular that the pollen of these plants has no parallel, except among the very different and distinct order of *Asclepiadæ*. The only medical properties of the order exist in the roots of some of the *O'rchides*, from which the nutritious substance called salop is prepared. The Vanilla of the shops is the pod of the genus called *Vanilla*. From the boiled stems of some of the Brazilian species a tenacious glue is obtained, which is employed in many useful purposes.

## Tribe 1. NEOTTIEÆ. Lindl.

|                             |                              |                              |                                 |
|-----------------------------|------------------------------|------------------------------|---------------------------------|
| 1870 <i>Goodyéra R. Br.</i> | 1872 <i>Ponthiéra R. Br.</i> | 1876 <i>Listéra R. Br.</i>   | 1875 <i>Stenorhynchus Rich.</i> |
| 1871 <i>Diáris Sw.</i>      | 1873 <i>Neóttia L.</i>       | 1874 <i>Spiránthes Rich.</i> |                                 |

## Tribe 2. ARETHUSEÆ. Lindl.

|                              |                             |                                   |
|------------------------------|-----------------------------|-----------------------------------|
| 1877 <i>Arethúsa L.</i>      | 1879 <i>Pogónia R. Br.</i>  | 1880 <i>Epipáctis Sw.</i>         |
| 1878 <i>Calopógon R. Br.</i> | 1881 <i>Calcéana R. Br.</i> | 1882 <i>Corallorrhiza Haller.</i> |

## Tribe 3. GASTRODIEÆ. R. Br.

|                              |                         |
|------------------------------|-------------------------|
| 1926 <i>Proscótia Lindl.</i> | 1930 <i>Vanilla Sw.</i> |
|------------------------------|-------------------------|

Tribe 4. OPHRYDEÆ *Lindl.*

- |                              |                            |                               |                               |
|------------------------------|----------------------------|-------------------------------|-------------------------------|
| 1859 O'rchis <i>L.</i>       | 1865 A'ceras <i>R. Br.</i> | 1861 Habenária <i>R. Br.</i>  | 1868 Hermannium <i>R. Br.</i> |
| 1863 Glóssula <i>Lindl.</i>  | 1866 O'phrys <i>L.</i>     | 1859 Gymmadénia <i>R. Br.</i> | 1862 Bartholina <i>R. Br.</i> |
| 1864 Anacómpsis <i>Rich.</i> | 1869 Serápia <i>R. Br.</i> | 1857 Platánthéra <i>Rich.</i> | 1856 Satúrium <i>W.</i>       |
| 1860 Nigritélla <i>Rich.</i> | 1855 Dísa <i>Su.</i>       | 1867 Chamórchis <i>Rich.</i>  |                               |

Tribe 5. VANDEÆ *Lindl.*

- |                                   |                                |                                |                                  |
|-----------------------------------|--------------------------------|--------------------------------|----------------------------------|
| 1923 Calánthe <i>R. Br.</i>       | 1917 A'érides <i>Su.</i>       | 1887 Lissóchilus <i>R. Br.</i> | 1920 Eulóphia <i>R. Br.</i>      |
| 1913 Octoméria <i>R. Br.</i>      | 1916 Vánda <i>R. Br.</i>       | 1888 Geodórum <i>Jacks.</i>    | 1891 Xylóhium <i>Lindl.</i>      |
| 1892 Maxillária <i>Fl. per.</i>   | 1915 Sarcánthus <i>Lindl.</i>  | 1895 Oncídium <i>Su.</i>       | 1908 Polystáchia <i>Hooker</i>   |
| 1901 Camarídium <i>Lindl.</i>     | 1922 Aeránthes <i>Lindl.</i>   | 1898 Macradénia <i>R. Br.</i>  | 1890 Trizeúxia <i>Lindl.</i>     |
| 1902 Ornithídium <i>Salisb.</i>   | 1921 Angré'cum <i>Pet. Th.</i> | 1886 Brássia <i>R. Br.</i>     | 1883 Rodriguézia <i>Fl. per.</i> |
| 1904 Pholidóta <i>Lindl.</i>      | 1919 Ionópis <i>Kth.</i>       | 1896 Cyrtopódium <i>R. Br.</i> | 1884 Goméza <i>R. Br.</i>        |
| 1910 Ornithocéphalus <i>Hook.</i> | 1918 Renanthera <i>Lour.</i>   | 1889 Catasétum <i>Rich.</i>    | 1893 Notflia <i>Lindl.</i>       |
| 1909 Cryptarrhéna <i>R. Br.</i>   | 1885 Cymbídium <i>Su.</i>      |                                |                                  |

Tribe 6. EPIDENDREÆ *Lindl.*

- |                               |                            |                                |
|-------------------------------|----------------------------|--------------------------------|
| 1911 Blétia <i>Fl. per.</i>   | 1907 Epidéndrum <i>L.</i>  | 1905 Broughtónia <i>R. Br.</i> |
| 1914 Brassavóla <i>R. Br.</i> | 1906 Cátteya <i>Lindl.</i> | 1903 Isochilus <i>H. Br.</i>   |

Tribe 7. MALAXIDÆÆ *Lindl.*

- |                                 |                                |                             |                                  |
|---------------------------------|--------------------------------|-----------------------------|----------------------------------|
| 1912 E'ria <i>Lindl.</i>        | 1897 Cælogýne <i>Lindl.</i>    | 1928 Líparis <i>Rich.</i>   | 1894 Pleurothállis <i>R. Br.</i> |
| 1900 Dendróbium <i>H. K.</i>    | 1925 Maláxis <i>L.</i>         | 1929 Calýsso <i>Salisb.</i> | 1924 Stélias <i>Su.</i>          |
| 1899 Anisopétalum <i>Hooker</i> | 1927 Micróstyliis <i>Nutt.</i> |                             |                                  |

Tribe 8. CYPRIPEDIÆÆ

- 1931 Cypripédium *W.*

ORDER CLI. SCITAMINEÆ.

These are distinguished from the last by their pollen not cohering in masses, their seeds not being winged, and their plurilocular ovarium. Their sensible qualities are also widely different. The species are natives only of the tropical parts of the world, where they form stemless or caulescent herbaceous plants, with long broad leaves, and flowers of white, yellow, or red, often possessing great fragrance, and generally much beauty. Their sensible qualities reside either in the root or the seeds. The former is the part used of the Ginger, the Galangale, the Cóstus, Turmeric, Zedoary, and others, all of which are more or less aromatic. The root of turmeric is also well known as affording a yellow dye, a property which it possesses in common with some others. The seeds of Cardamom are well known for their aromatic stimulating powers.

- |                        |                          |                        |                         |
|------------------------|--------------------------|------------------------|-------------------------|
| 6 Hedyfchium <i>W.</i> | 9 Hellénia <i>R. Br.</i> | 12 Kæmpféria <i>W.</i> | 15 Glóbbá <i>Rosc.</i>  |
| 7 Roscóea <i>Sm.</i>   | 10 Zingiber <i>Rosc.</i> | 13 Amómum <i>Rosc.</i> | 16 Mantísia <i>Sims</i> |
| 8 Alpínia <i>W.</i>    | 11 Cóstus <i>Rosc.</i>   | 14 Curcúma <i>W.</i>   |                         |

ORDER CLII. CANNEÆ.

Differing from the preceding, in the absence of aromatic principles, in the petaloid nature of the filament, and the single cell of their anther, they wholly resemble them in external appearance and geographical distribution. The Cannas are well known for their beautiful flowers, and the Maránta arundiánaea is celebrated for the abundance of nutritive fæcula which is prepared from it, and imported to Europe under the name of arrow-root.

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|---------------------|----------------------|--------------------------|
| 1 Cánna <i>W.</i>   | 4 Thállia <i>W.</i>  | 3 Calathéa <i>Meyer.</i> |
| 2 Maránta <i>W.</i> | 5 Phrynium <i>W.</i> |                          |

ORDER CLIII. MUSACEÆ.

A noble order of plants, resembling the two last in appearance, but of far more gigantic stature, different geographical distribution, and sensible qualities. All the species, without exception, are among the grandest in the vegetable world, whether the breadth and beauty of their foliage, or the surpassing grandeur of their flowers, be considered. They are not, like Scitamineæ and Canneæ, confined to the tropics, but approach in many points towards the cooler latitudes of either hemisphere. While the Strelitzias, resplendent with orange and scarlet and white, are peculiar to the Cape of Good Hope, the plantain is laden with its enormous masses of wholesome pleasant fruit, in the mild climate of Madeira; the Heliócnias and Uránias appear in the sultriest forests of Madagascar and Guiana. The fruit of the Músa is, as just stated, pleasant and wholesome; the leaves of the same plant form a valuable thatching for cottages; and the fibres of a particular species are manufactured into a fine hemp, from which the most delicate muslins of India are prepared.

- |                         |                             |                    |                      |
|-------------------------|-----------------------------|--------------------|----------------------|
| 570 Heliócnia <i>W.</i> | 571 Strelitzia <i>H. K.</i> | 721 Músa <i>W.</i> | 722 Uránia <i>W.</i> |
|-------------------------|-----------------------------|--------------------|----------------------|

ORDER CLIV. HEMODORACEÆ.

The name of this order, derived from *αἷμα*, blood, indicates its most striking peculiarity; the roots of several species of Hæmodórum, Wachendorfia, and Heritiéra yielding a brilliant crimson dye. The species have equitant leaves, and six stamens, with anthers turned towards the ovarium; in which last character they differ from the closely allied order of Irideæ. They are found, with very few exceptions, in the Cape of Good Hope and New Holland.

- |                             |                          |                           |                              |
|-----------------------------|--------------------------|---------------------------|------------------------------|
| 108 Xiphídium <i>W.</i>     | 111 Hæmodórum <i>Sm.</i> | 718 Lophóla <i>B. M.</i>  | 720 Anigozánthos <i>Lab.</i> |
| 110 Wachendorfia <i>Ker</i> | 113 Dilátris <i>Ker</i>  | 719 Argólsia <i>Juss.</i> |                              |

ORDER CLV. IRIDEÆ.

The peculiarity of this order exists in the superior six-cleft perianthium, three stamens opposite the outer segments, and the anthers so inserted that the line of their bursting is towards the outside of their flower. Occasionally, they are still called by the old appellation of Ensatæ. Most of the species are extremely beautiful; and as they are generally very easily cultivated, they have become universal favorites in gardens. Many of the species are found by the side of streams, or in rich pastures in Europe, Siberia, and America; others adorn the most barren deserts of the same countries, with their perishable flowers; a third set, consisting for the most part of Sisyrinchium and its allies, are found in cool parts of the islands in the South Seas; and, lastly, a large proportion of the order contributes to the herbage of Southern Africa, that indescribable charm which has captivated all observers. Their medicinal virtues are trifling. Iris florentina and germánica have roots, which, when dry, smell like violets, and are slightly stimulant, acting as sternutatories or purgatives, according as they are employed. The stigmas of the Crócus form the well-known saffron, which differs from the general character of the order, in being aromatic, and possessing a valuable coloring matter, which has the singular property of entirely disappearing under the influence of the sun's rays.

- |                        |                          |                           |                         |
|------------------------|--------------------------|---------------------------|-------------------------|
| 93 Crócus <i>Ker</i>   | 95 I'xia <i>Ker</i>      | 97 Geissorhiza <i>Ker</i> | 99 Sparáxis <i>Ker</i>  |
| 94 Witsénia <i>Ker</i> | 96 Trichonéma <i>Ker</i> | 98 Hesperántha <i>Ker</i> | 100 Tritónia <i>Ker</i> |

|                             |                           |                           |                               |
|-----------------------------|---------------------------|---------------------------|-------------------------------|
| 101 <i>Watsónia Ker</i>     | 105 <i>Gladíolus Ker</i>  | 115 <i>Iris Ker</i>       | 1450 <i>Patersónia R. Br.</i> |
| 102 <i>Babiána Ker</i>      | 106 <i>Anomathéca Ker</i> | 116 <i>Morz'a Ker</i>     | 1451 <i>Ferrária Ker</i>      |
| 103 <i>Lapeyróúia Ker</i>   | 107 <i>Antholyza Ker</i>  | 117 <i>Márica Ker</i>     | 1452 <i>Tigrídia J.</i>       |
| 104 <i>Melasphá'ula Ker</i> | 112 <i>Aristéa Ker</i>    | 118 <i>Pardánthus Ker</i> | 1453 <i>Galáxia W.</i>        |

## ORDER CLVI. AMARYLLIDÆE.

Here we have another group of vegetation so lovely as to have excited admiration from the days of Solomon, who called them the lilies of the field, down to our own period. Their roots are all bulbous. In stature they seldom exceed a foot or two: in *Doryánthes*, and some species of *Crinum* alone, much surpassing such a size; in foliage they possess a uniformity of figure which is very singular; in color they vary from white and yellow to deep scarlet and azure blue; in fragrance they vie with the violet and the primrose. Some of the species are natives of thickets in the cooler provinces of Europe and Asia; others are found deep rooted in the burning shores of islands where scarcely a blade of grass interposes itself between them and the torrid rays of a scorching sun; many spring up in the gloomy, damp, and sultry woods of equinoctial America; and another set intermingles with the *Ixias* and *Gladioluses* of Southern Africa. Several of the *Narcissi*, independent of their beauty, possess emetic qualities; from the viscid juice of *Hæmánthus toxicáriu*s, the Hottentots procure a poison wherewith to smear their arrows.

|                              |                             |                              |                                |
|------------------------------|-----------------------------|------------------------------|--------------------------------|
| 711 <i>Narcíssus W.</i>      | 731 <i>Hæmánthus W.</i>     | 737 <i>Brunsvígia Heist.</i> | 743 <i>Zephyránthes' Herb.</i> |
| 712 <i>Pancrátiu W.</i>      | 732 <i>Galánthus W.</i>     | 738 <i>Nerine Herb.</i>      | 744 <i>Habránthus Herb.</i>    |
| 713 <i>Eucrósia B. Reg.</i>  | 733 <i>Leucójuum W.</i>     | 739 <i>Amarýllis W.</i>      | 745 <i>Doryánthes R. Br.</i>   |
| 714 <i>Eúrycles Salisb.</i>  | 734 <i>Strumária Jacq.</i>  | 740 <i>Vallóta Herb.</i>     | 746 <i>Gethýllis H. K.</i>     |
| 715 <i>Calostémma R. Br.</i> | 735 <i>Crinum W.</i>        | 741 <i>Grifínia Ker</i>      | 748 <i>Alstroméria W.</i>      |
| 716 <i>Chlidánthus Herb.</i> | 736 <i>Cyrtánthus H. K.</i> | 742 <i>Sternbérgia W.</i>    | 749 <i>Conanthea Fl. per.</i>  |
| 717 <i>Chrysiphiala Ker</i>  |                             |                              |                                |

## ORDER CLVII. HYPOXIDÆE.

America, New Holland, the Cape of Good Hope, Polynesia, and the Indian Archipelago give birth to these plants, which have sweet yellow flowers and linear leaves, protected by long weak hairs. Nothing is known of their medicinal qualities.

|                       |                            |
|-----------------------|----------------------------|
| 750 <i>Hypóxis W.</i> | 751 <i>Curcúligo H. K.</i> |
|-----------------------|----------------------------|

## ORDER CLVIII. DIOSCOREÆ.

A climbing stem, and broad, cordate, or angular leaves, inconspicuous yellowish flowers, and a large fleshy root, are the obvious characteristics of this order, of which the yam is the representative; the roots of this plant yield one of the most important articles of food in the tropical countries.

|                                 |                        |                          |
|---------------------------------|------------------------|--------------------------|
| 2083 <i>Testudinária Burch.</i> | 2084 <i>Rajánia W.</i> | 2085 <i>Dioscóræa W.</i> |
|---------------------------------|------------------------|--------------------------|

## SECTION II. STAMENS PERIGYNOUS.

## ORDER CLIX. HEMEROCALLIDÆE.

These are fine shewy plants, bearing their flowers in umbels or racemes, either white, yellow, red, or blue; they are mostly inhabitants of temperate zones, and are of little utility, with the exception of the *Aloe*, the purgative powers of which need not be insisted on. This genus is, besides, remarkable among *Monocotyledones* for its fleshy leaves, in which, and its woody stem, it offers a striking deviation from the usual structure of these plants.

|                               |                            |                            |                         |
|-------------------------------|----------------------------|----------------------------|-------------------------|
| 747 <i>Poliánthes L.</i>      | 769 <i>Hemerocállis W.</i> | 777 <i>Tritóma B. M.</i>   | 780 <i>Tulbághia W.</i> |
| 767 <i>Agapánthus W.</i>      | 770 <i>A'loe W.</i>        | 778 <i>Veltheíma H. K.</i> | 792 <i>Brodíæa Sm.</i>  |
| 768 <i>Blandfórdia R. Br.</i> | 776 <i>Alétris W.</i>      | 779 <i>Sanseviéra W.</i>   |                         |

## ORDER CLX. ASPHODELEÆ.

Different from *Hemerocallidæe* in their expanded flowers and dark crustaceous seed-coat; the only characters which have yet been discovered to distinguish them. The species are all pretty, many very handsome, some bulbous, some with fasciated roots, a few with arborescent stems. They are uncommon in tropical countries, very abundant in temperate latitudes, and not unfrequent in the cooler regions of the world. Among the prettiest are *Gágea*, *Scilla*, and *Hyacínthus*; the least interesting are *Chlorophýtum* and *Zuccágnia*. *Aspáragus* and *Dracæ'na* have berried fruits; the former is diuretic, and when young is employed as a favorite food; the same properties are possessed by *Scilla* and *A'lilium*. The stamens of *Arthropódium* are remarkable for their tuft of yellow hairs, of *Dianélla* for the thickening of the filaments. Many of the *A'liliums* are very pretty, and admired notwithstanding their unpleasant odor; their roots are all eatable, and those of some among the most useful articles of food. *Thysanótus*, the fringed violet of New Holland, has rich purple blossoms, with long delicate fringes which sparkle in the sun, as if continually bedewed with minute particles of water. From *Phórmium téna*x the strong fibrous substance called New Zealand flax is prepared. *Xanthorrhæ'a* has an arborescent stem which abounds in resin.

|                                |                              |                                |                                |
|--------------------------------|------------------------------|--------------------------------|--------------------------------|
| 808 <i>Asphódelus W.</i>       | 815 <i>Eustréphus R. Br.</i> | 795 <i>Sowerbæ'a L. T.</i>     | 818 <i>Uropétalon Ker</i>      |
| 807 <i>Bulbóne W. ex.</i>      | 805 <i>Massónia W.</i>       | 798 <i>Xanthorrhæ'a R. Br.</i> | 819 <i>Hyacínthus B. M.</i>    |
| 806 <i>Eremíurus Bieb.</i>     | 803 <i>Scilla W.</i>         | 791 <i>Eúcomia W.</i>          | 820 <i>Zuccágnia Th.</i>       |
| 809 <i>Anthéricum W.</i>       | 804 <i>Puschkinia Bieb.</i>  | 799 <i>Thysanótus R. Br.</i>   | 821 <i>Muscári B. M.</i>       |
| 810 <i>Arthropódium R. Br.</i> | 802 <i>Ornithógalum W.</i>   | 794 <i>Aphyllánthus W.</i>     | 822 <i>Lachenálla W.</i>       |
| 811 <i>Chlorophýtum Ker</i>    | 801 <i>Gágea Sal.</i>        | 775 <i>Phyllóma B. M.</i>      | 823 <i>Phórmium W.</i>         |
| 812 <i>Cæ'sia R. Br.</i>       | 800 <i>Eriospérmum W.</i>    | 774 <i>Dracæ'na W.</i>         | 824 <i>Cyanélla W.</i>         |
| 813 <i>Narthécium B. M.</i>    | 796 <i>A'lilium W.</i>       | 816 <i>Aspáragus L.</i>        | 817 <i>Feliosánthes R. Br.</i> |
| 814 <i>Dianélla Lam.</i>       | 797 <i>Albúca W.</i>         | 817 <i>Drimis Jacq.</i>        | 793 <i>Rúscus W.</i>           |

## ORDER CLXI. SMILACEÆ.

These scarcely differ from the bacate *Asphodeleæ*, except in their usually trifid style, and the membranous integuments of the seed. Many are interesting plants, especially the lily of the valley, a species of *Convallária*, the odor of which is perhaps the most grateful in the vegetable kingdom. Several others, as *Uvulária*, *Smilacína*, *Polygonátum*, and *Trillium* are objects of ornament. *Smilax* is remarkable for its twining stems, and its leaves, which resemble those of *Dicotyledones*; the roots of several species form the sarsaparilla of the shops, a drug, the nature of which is mucilaginous and rather bitter, and which is employed as diaphoretic and diuretic. *Medéola* is also an active diuretic. The roots of *Támus* are purgative and dangerous.

|                              |                              |                           |                        |
|------------------------------|------------------------------|---------------------------|------------------------|
| 785 <i>Uvulária W.</i>       | 788 <i>Smilacína Desf.</i>   | 843 <i>Myrsiphýllum</i>   | 2082 <i>Támus W.</i>   |
| 786 <i>Streptópus M.</i>     | 789 <i>Polygonátum Desf.</i> | 846 <i>Medéola W. en.</i> | 850 <i>Trillium W.</i> |
| 787 <i>Convallária Desf.</i> | 790 <i>Ophiópogon Ker</i>    | 2081 <i>Smilax W.</i>     | 729 <i>Páris W.</i>    |

## ORDER CLXII. BROMELIACEÆ.

Of these the eatable pine-apple is the representative, from which the other genera differ more in the want of a fleshy fruit than in general appearance. Their habit is acid, their leaves rigid and toothed with spines, and covered with minute scales, their bractæ often colored with scarlet, and their flowers either white or blue.

They are all natives of tropical countries, with the exception of *Tillandsia*, which, in the humid woods of Carolina, forms dense festoons among the branches of the trees; this, like many others of the order, is an epiphyte, vegetating among the black mould that collects upon the bark of trees in hot damp countries; others are inhabitants of deep and gloomy forests; and others form, with their spiny leaves, an impenetrable herbage in the extensive pampas of Buenos Ayres and Brazil. From the *Agave mexicana* a fermented beverage is prepared, from which a strong colorless spirit, resembling the best Scotch whiskey, is distilled.

726 *Bromelia W.* 737 *Guzmánia Fl. per.* 723 *Bonapártea F. P.* 725 *Furcraea V.*  
728 *Pitcairnia W.* 729 *Tillandsia W.* 724 *Agave H. K.*

ORDER CLXIII. LILIACEÆ.

It is doubted whether several of the preceding orders are not rather sections of this; until, however, the combination of these shall be effected by some hand yet more masterly than those by which they have been divided, it is best to let them remain as they are. The beauty of the plants composing the Liliaceæ, strictly so called, is universally acknowledged; the rich colors of the branching lilies, the vivid hues of the painted tulip, the modest graces of the humble *Erythronium*, and the portly forms of the *Yuccas* are all attractions of which no good garden should be destitute. The species are all inhabitants of either cold or temperate latitudes.

771 *Lilium W.* 773 *Fritillaria W.* 782 *Erythronium W.*  
772 *Tulipa W.* 781 *Yucca W.*

ORDER CLXIV. MELANTHACEÆ.

These, too, are pretty herbs, although destitute of the grandeur of the preceding, which, however, they far surpass in the potency of their virtues. The flowers of many are inconspicuous, and of a dull-green or yellow color, sometimes assuming a livid hue, which will bespeak the nature of their powers. A dangerous or poisonous acrid juice is their characteristic, which is particularly active in some of them, such as the *Cólchicum* and *Verátrum*. The roots of the former are the basis of the eau médicinale, and are now used in cases of gout with much success. The root of *Verátrum* is believed to have been the hellebore of the ancients, an active drug, which, administered in small doses, is a drastic purgative, in more abundance a violent emetic. The root of *Helónias* dioica, infused in water, is anthelmintic, but, steeped in spirits, yields a bitter and tonic tincture. The leaves of *Cólchicum* and *Verátrum* often produce vomiting and severe pain in the animals that eat them; the flowers of the first are also said to be poisonous, and its seeds to possess the same properties as the roots, but in a milder degree. Groves and pastures in Europe and Siberia and North America are the most frequented by *Melanthaceæ*, several are found at the Cape, and *Gloriosa* is a native of the woods of middle Africa.

851 *Cólchicum W.* 847 *Xerophyllum Mich.* 849 *Androcymbium W.* 858 *Nolina Mich.*  
784 *Bulbocóidium W.* 842 *Lichtenstéinia W.* 844 *Tofiéidia Hud.* 2128 *Verátrum W.*  
845 *Melánthium L.* 848 *Wúrmbæa L.* 852 *Helónias L.* 783 *Gloriosa W.*

ORDER CLXV. BUTOMEÆ.

Fine water plants, of which *Bútomus*, by general consent the most beautiful of British plants, has purple flowers; and *Limnocháris*, a native of the marshes of Brazil, has yellow ones.

939 *Bútomus W.* 1175 *Limnocháris Rich.*

ORDER CLXVI. ALISMACEÆ.

Handsome water plants, with white flowers, and many ovaria. Some are common in our English ditches, others are found in similar situations in the tropics.

860 *Actinocárpus R. Br.* 1988 *Sagittária W.* 861 *Alisma W.*

ORDER CLXVII. COMMELINEÆ.

Mostly inhabitants of marshy ground, in either hemisphere, but not known in Europe except in cultivation. America is their grand station. Many are insignificant creeping plants, especially the *Commelinæ*; others, as the *Pontederías* are very handsome; and the *Dichorizándras* are exceedingly noble caulescent plants, with large thyrses of blue flowers: this color is the prevailing one of the order.

84 *Callisia W.* 89 *Anelíma B. P.* 730 *Pontedería W.* 766 *Dichorizándra Vand.*  
88 *Commelina B. P.* 90 *Cartonéna R. Br.* 765 *Tradescántia W.*

ORDER CLXVIII. JUNCEÆ.

Inconspicuous, rigid, worthless weeds, for the most part; *Xýris* and *Philydrum*, which have pretty yellow flowers, if belonging to the order, being exceptions. They clothe barren ground in most parts of the world, and are the first approach to the formation of a regular perianthium, as we ascend in the scale of vegetation. *Xerótes* has the habit of a low palm.

86 *Xýris L.* 761 *Lúzula Dec.* 2076 *Xerótes R. Br.*  
760 *Juncus L.* 839 *Flagellária W.* 17? *Philydrum R. Br.*

ORDER CLXIX. ERIOCAULEÆ.

Pretty interesting little bog plants, found in all parts of the world. The order consists of *Eriocaúlon* only, many of whose species are easily cultivated, though seldom seen in gardens. The *Eriocaúlon septanguláre*, found in a lake in the Isle of Skye, is, perhaps, the rarest of European plants. They are not known to possess any medical virtues.

223 *Eriocaúlon W.*

ORDER CLXX. PANDANEÆ.

With the habit of palms, and the inflorescence of *Aroidæ*, this fine order stands very distinctly separated from all others. The stem is an arborescent caudex, either growing to a considerable height, or weak, and lying on the ground. The leaves of some are formed into a coarse cordage; the flowers of *P. odoratissimus*, and the fruit of some others, are eaten. All are tropical.

2004 *Carludóvia Fl. per.* 2041 *Pandánuus W.*

ORDER CLXXI. NAIADES.

Floating uninteresting plants, scarcely susceptible of cultivation: they form a close approach to *Cellulares*.

1938 *Zannichéllia W.*

ORDER CLXXII. RESTIACEÆ.

Rigid, inelegant, often leafless plants, with split vagina, and the habit of some *Cyperaceæ*, or true *Juncææ*. They are all inhabitants of the southern hemisphere, especially of the Cape of Good Hope and New Holland.

2046 *Willdenóvia Th.* 2047 *Réstio W.* 2048 *Elégia W.* 2110 *Leptocárpus R. Br.*



## ORDER CLXXIII. PALME.

These were well named by Linnæus, the princes of the vegetable world; for they far surpass all other plants in the grandeur and majesty of their port. Their lofty stem, supported by a mass of fibrous roots, which frequently creep along the surface of the ground, consists of wood with longitudinal fibres, soft in the centre, but hard as horn itself at the circumference; it is almost always unbranched, bearing a tuft of leaves at the summit; in a very few cases it is dichotomous, always round, and it terminates by a single bud; by the fall of the petioles of the leaves, which sheath it in a greater or less degree at the base, it is covered with large scars. The leaves, technically called fronds, are pinnate or flabelliform, never simple; and, in a young state, before they expand, they are folded up in plaits from the base to the apex. The flowers are small, with bractææ at their base, either sessile or seated in some cavity, of a pallid color, and contained in a large bag called a spathe; when they open, the mass of inflorescence, called a spadix, bursts suddenly through the under side of the spathe, generally evolving the most fragrant odors. Impregnation takes place rapidly, through the injection of the pollen upon the humid surface of the stigmata, which gape open to receive it. The fruit is perfected in a period varying from six months to a year; when ripe it is a drupe or berry, with either a fibrous or fleshy coat; the mass of its kernel consists of oily albumen, which, in the case of the cocoa nut, is soft enough to be eaten, but which in most species is as hard as horn. Dr. von Martius, the celebrated traveller in Brazil, to whom the world is indebted for nearly all that is known of these plants, concludes his remarks upon the characters of the order in the following words:—"Palms, the noble offspring of Terra and Phœbus, are natives of those happy countries within the tropics, where the rays of the latter are ever beaming. In all such climates they are to be found, with this limitation, however, that in the southern hemisphere they do not overstep the 35th degree of latitude, nor in the northern the 40th. Most species are confined within fixed and narrow bounds, for it comes to pass that wherever a district is characterized by striking peculiarities of soil or climate, those species exist which are not found elsewhere; but few, on the contrary, extend over a large extent of surface, as the *Cocos nucifera*, *Acroëmia sclerocarpa*, *Borassus flabelliformis*, &c. It is probable that the number of palms existing on the face of the earth, will be found by future travellers to amount to as many as a thousand species. More of them grow the margin of springs and streams, but few establish themselves on the shores of the ocean, and yet a smaller number ascend into the alpine regions of their country; some collect in large forests; some are scattered singly or in clusters, among woods and plains. In the most ancient periods of the world, when the genera of plants were beginning to be formed, palms scarcely existed; they were preceded in the creation by the more ancient Ferns, Cycadææ, Grasses, and Equisetacææ. Some of their remains have, however, been found in variegated sandstone, and in limestone of the third order (fetzalk), part of which belong to unknown species, and part to species still in existence. But in the times succeeding the deluge, they appear, from the written evidence of historians and poets, to have followed the footsteps of man, to whom their fruit yielded food, drink, and oil; their stems houses, arms, utensils, flour, and wine; and their leaves cordage and roofs for habitations. In cultivation their soil should be slightly saline; they are propagated by seeds more readily than by truncheons of the stem; when cultivated they undergo no alteration, except in producing more fleshy or stemless fruit: it is extremely difficult to transplant them beyond their own country; naturally their migration is absolutely opposed by the barriers of the ocean."

|                        |                        |                          |                          |
|------------------------|------------------------|--------------------------|--------------------------|
| 762 <i>Corypha W.</i>  | 1982 <i>Sagus W.</i>   | 2008 <i>Nipa Tr.</i>     | 2079 <i>Borassus W.</i>  |
| 763 <i>Licuála W.</i>  | 1983 <i>Cocos W.</i>   | 2009 <i>Aréca W.</i>     | 2080 <i>Mauritia W.</i>  |
| 764 <i>Thrinax W.</i>  | 1984 <i>Elate W.</i>   | 2049 <i>Phœnix W.</i>    | 2109 <i>Latáma J.</i>    |
| 855 <i>Sábal P. S.</i> | 1985 <i>Betris W.</i>  | 2077 <i>Elaïs W.</i>     | 2153 <i>Rhápis W.</i>    |
| 753 <i>Cálanus W.</i>  | 2007 <i>Caryóta W.</i> | 2078 <i>Chamadóra W.</i> | 2154 <i>Chamérops W.</i> |

## SECTION III. STAMENS HYPOGYNOUS.

## ORDER CLXXIV. GRAMINEÆ.

The order of grasses is beyond doubt the most natural of all that the ingenuity of systematic botanists has contrived; it is also the most numerous in species. The inflorescence is very much alike throughout the order, and the floral envelopes, which are bractææ in a progressive state to the form of calyx and petals, offer few striking characters by which the genera can be characterized. Hence it is that the classification of the order, and its division into genera, has not only been found extremely difficult, but has given rise to much difference of opinion among botanists; some of whom, adhering to the synthetical arrangement of Linnæus, admit but a small number of genera, while others, admitting the analytical principles of modern science, divide it into a vast number. The middle course in this, as in most other cases, is probably the just one. A subdivision of the order into tribes, has been attempted by Palisot, Trinius, Dumortier, Raspail, Kunth, Link, and others; that of M. Kunth is here adopted. The general habit of grasses is so familiar to every one, that it may be passed over in silence. They are remarkable for exhibiting, in no case, properties that are actually poisonous; possessing on the contrary, in almost all cases, wholesome and nutritive qualities. These latter are especially obvious in their seeds, which always contain a farinaceous substance, mixed with a certain proportion of glutinous matter. No one is ignorant of the various and important uses of the seeds of wheat, rye, barley, oats, maize, rice, and others, and in general of all the larger kinds of grass. It must however be remarked, that if the smaller sorts are not employed in like manner, it is merely on account of their minuteness, and not on account of any difference in their nature; in fact, in times of scarcity, and in half cultivated countries, use has advantageously been made of *Festúca fluitans*, *Zizánia aquática*, *Avéna fátua*, *Pánicum sanguinalis*, *Avéna elátiór*, *Brómus secalinus*, and *Elymus arenárus*. It is also to be noted, that the particular uses for which the seeds of certain grasses are employed, are not peculiar to them, but may be obtained from all the others, with slight modifications. Thus beer is made, not only from barley but also from wheat; spirituous liquors not only from our European cerealia, but also from rice. But it must be remarked, that a singular exception to the generally wholesome properties of grasses, appears to exist in *Lólium temulentum*, the seed of which is reported to be narcotic and inebriating, and even poisonous; there is no doubt, however, that these qualities have been greatly exaggerated; for in the first place they disappear in bread or beer manufactured from *Lólium temulentum*; and secondly, in times of scarcity, people have frequently lived upon it. But even supposing all that has been stated upon the subject to be true, this plant will still be found to be little different from wheat, when long exposed to wet; so well, indeed, is this known by country people, that a belief exists, that in wet summers wheat is actually transmuted into rye grass. The exciting properties of the oat, which are very unusual in this order, have been found to reside in the husk and not in the seed, and to depend upon the presence of a minute quantity of an aromatic principle, analogous to Vanilla, lying imbedded in the envelope of the seed, and capable of being extracted by aid of alcohol. As to the deleterious effects of the ergot of rye, these do not depend certainly upon any such property in the rye itself, but is caused either by the ergot disease, or, as is believed, by the parasitic fungus, from the attack of which it arises. Now let us pass from the seeds of Gramineæ to their stems, and we shall find a no less remarkable uniformity of nature in them. They all contain, especially before flowering, a sweet sugary mucilage, which varies in quantity in different species. The sugar cane, in which this is found in greatest abundance, not only constantly exists in the most favorable condition for producing it, as it rarely flowers, but is also one of the largest grasses known. The maize also abounds in sugar; and the same substance is secreted in such abundance by the *Sorghum saccharátum*, that attempts have actually been made in Italy to cultivate it as the sugar cane. The creeping roots of grasses, which are generally mucilaginous and demulcent, are sometimes used in medicine; but they are of more importance for retaining in banks the sand of the sea shore, so as to form artificial cliffs on flat coasts, to restrain the inroads of the sea. The stems of *Andropogon schœnánthus*, the leaves of *Andropogon citrárum*, the roots of *Andropogon nártus*, and the whole plant of all the species of *Anthoxánthum*, exhale an aromatic odor, and possess slightly tonic properties. To conclude, the epidermis of grasses has been found to contain a considerable quantity of silex.

Tribe 1. PANICEÆ.

- |                              |                             |                                  |                             |
|------------------------------|-----------------------------|----------------------------------|-----------------------------|
| 139 Páspalum <i>W.</i>       | 143 Digitária <i>P. S.</i>  | 146 Echinochlóa <i>P. de B.</i>  | 149 Lappágo <i>W.</i>       |
| 140 Axónopus <i>P. de B.</i> | 144 Pánicum <i>B. P.</i>    | 147 Orthopógon <i>P. de B.</i>   | 134 Cénchrus <i>P. S.</i>   |
| 141 Mílium <i>W.</i>         | 145 Setária <i>P. de B.</i> | 148 Penicillária <i>P. de B.</i> | 135 Pennisétum <i>Rich.</i> |
| 142 Knáppia <i>E. B.</i>     |                             |                                  |                             |

Tribe 2. STIPACEÆ.

- |                     |                            |
|---------------------|----------------------------|
| 150 Stípa <i>W.</i> | 138 Oryzópsis <i>Mich.</i> |
|---------------------|----------------------------|

Tribe 3. AGROSTIDÆ.

- |                                |                             |                           |                                 |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|
| 151 Muhlenbérghia <i>Schr.</i> | 156 Agróstis <i>W.</i>      | 161 Cínna <i>P. de B.</i> | 164 Alopecúrus <i>W.</i>        |
| 152 Chetárus <i>Lk.</i>        | 157 Trichódium <i>Mi.</i>   | 135 Spartina <i>W.</i>    | 165 Phárum <i>W.</i>            |
| 153 Lagúrú <i>W.</i>           | 158 Tristegis <i>Nees.</i>  | 162 Pámma <i>P. de B.</i> | 166 Achnodónton <i>P. de B.</i> |
| 154 Polypógon <i>W. en.</i>    | 159 Sporóbolus <i>B. P.</i> | 163 Crýpsis <i>W.</i>     | 167 Chilochlóa <i>P. de B.</i>  |
| 155 Gastrídium <i>P. de B.</i> | 160 Airópsis <i>Desu.</i>   | 133 Cornucópiæ <i>L.</i>  | 168 Phálaris <i>W. en.</i>      |

Tribe 4. BROMEÆ.

- |                                  |                              |                                  |                                 |
|----------------------------------|------------------------------|----------------------------------|---------------------------------|
| 169 Corynéphorus <i>P. de B.</i> | 176 Chrysórus <i>P. S.</i>   | 184 Brómus <i>W.</i>             | 192 Beckmánnia <i>Hort.</i>     |
| 76 Anthoxánthum <i>W.</i>        | 177 Sesléria <i>P. de B.</i> | 185 Brachypódium <i>P. de B.</i> | 193 Mélica <i>W.</i>            |
| 170 Aíra <i>W.</i>               | 178 Cynosúrus <i>P. S.</i>   | 186 Untola <i>W.</i>             | 194 Molínia <i>P. de B.</i>     |
| 171 Avéna <i>P. S.</i>           | 179 Kaeléria <i>P. S.</i>    | 187 Tricópsis <i>P. de B.</i>    | 195 Bríza <i>W.</i>             |
| 172 Trisetum <i>P. S.</i>        | 180 Dáctylis <i>W. en.</i>   | 188 Dipláchne <i>P. de B.</i>    | 196 Fóa <i>W.</i>               |
| 173 Danthónia <i>P. de B.</i>    | 181 Gýcéria <i>R. Br.</i>    | 189 Ceratochlóa <i>P. de B.</i>  | 197 Eragróstis <i>P. de B.</i>  |
| 174 Gaudínia <i>P. de B.</i>     | 182 Festúca <i>W.</i>        | 190 Schísmus <i>P. de B.</i>     | 198 Megastáchya <i>P. de B.</i> |
| 175 Arúndo <i>Witth.</i>         | 183 Mygalórus <i>Lk.</i>     | 191 Triódia <i>R. Br.</i>        |                                 |

Tribe 5. CHLORIDÆ.

- |                                 |                                    |                             |                            |
|---------------------------------|------------------------------------|-----------------------------|----------------------------|
| 199 Sclerochlóa <i>P. de B.</i> | 201 Dactylocténium <i>P. de B.</i> | 203 Cýnodon <i>P. S.</i>    | 205 Echinária <i>Desu.</i> |
| 200 Eleusine <i>R. Br.</i>      | 202 Leptochlóa <i>P. de B.</i>     | 204 Dinébra <i>P. de B.</i> |                            |

Tribe 6. HORDEACEÆ (OR CERREALES.)

- |                        |                              |                              |
|------------------------|------------------------------|------------------------------|
| 206 Tríticum <i>W.</i> | 209 Secále <i>W.</i>         | 212 Ophiúrus <i>P. de B.</i> |
| 207 Lólium <i>W.</i>   | 210 Hórdeum <i>W.</i>        | 213 Monérra <i>P. de B.</i>  |
| 208 Elymus <i>W.</i>   | 211 Microchlóa <i>R. Br.</i> | 137 Nárdus <i>W.</i>         |

Tribe 7. SACCHARINÆ.

- |                           |                          |                           |
|---------------------------|--------------------------|---------------------------|
| 214 Perótiis <i>H. K.</i> | 215 Sácccharum <i>W.</i> | 216 Imperátia <i>Cyr.</i> |
|---------------------------|--------------------------|---------------------------|

Tribe 8. ORYZEÆ.

- |                           |           |                         |
|---------------------------|-----------|-------------------------|
| 217 Leérsia <i>R. Br.</i> | 837 Orýza | 754 Ehrhártia <i>W.</i> |
|---------------------------|-----------|-------------------------|

Tribe 9. OLYZEÆ.

- |                               |                           |                            |                           |
|-------------------------------|---------------------------|----------------------------|---------------------------|
| 1950 Zéa <i>W.</i>            | 1954 Olýfra <i>W.</i>     | 2130 Chlóris <i>W.</i>     | 2132 Hólcus <i>W. en.</i> |
| 1951 Cóix <i>W.</i>           | 1979 Zizánia <i>W.</i>    | 2131 Sórghum <i>W. en.</i> | 2134 E'gilops <i>W.</i>   |
| 1952 Trípsacum <i>W.</i>      | 1980 Phárus <i>W.</i>     | 2133 Ischá'mum <i>W.</i>   | 2135 Manisúria <i>W.</i>  |
| 1953 Heteropógon <i>Rich.</i> | 2129 Andropógon <i>W.</i> |                            |                           |

Tribe 10. BAMBUSACEÆ.

- |                            |                         |                           |                       |
|----------------------------|-------------------------|---------------------------|-----------------------|
| 218 Diarrhéna <i>Mich.</i> | 131 Remiréa <i>Aud.</i> | 219 Arundinária <i>W.</i> | 752 Bambósa <i>W.</i> |
|----------------------------|-------------------------|---------------------------|-----------------------|

Station Uncertain.

- 132 Lygéum *W.*

ORDER CLXXV. CYPERACEÆ.

The sedges, as these may be called in English, differ from grasses not only in their comparative worthlessness, and the different development of the parts of fructification, but also in the sheath, at the base of the leaves, being closed up, not slit. As objects of ornament they are of no value, and as subjects of agricultural interest of but little; they are, moreover, of little utility to man. They are chiefly valuable for covering, with the appearance of herbage, waste, and barren, marshy, or sandy tracts, in which little else will thrive. The roots of *Cárex arenária*, *disticha*, and *hirta*, possess diaphoretic and demulcent properties, whence they are sometimes called German sarsaparilla. Some of the *Scirpus*es and *Cyperus*es have eatable nutty roots; the stems of *Scirpus lacústris*, *Eleócharis palústris*, *Cypérus téxtilis*, and others, are manufactured into mats and the bottoms of chairs; the roots of *Cypérus esculéntus* abound in oil, a very unusual circumstance; the papyrus of the ancients was manufactured from the stem of *Cypérus papyrus*; finally, the roots of *Cypérus lóngus*, *odorátus*, and others, are fragrant.

- |                              |                              |                               |                           |
|------------------------------|------------------------------|-------------------------------|---------------------------|
| 74 Cládium <i>Schr.</i>      | 122 Isolépis <i>R. Br.</i>   | 126 Trichóphorum <i>P. S.</i> | 130 Mariscus <i>Vahl</i>  |
| 119 Schœ'nus <i>Vahl</i>     | 123 Scirpus <i>R. Br.</i>    | 127 Cypérus <i>W.</i>         | 1247 Cárex <i>W.</i>      |
| 120 Rhynchospóra <i>Vahl</i> | 124 Eleócharis <i>R. Br.</i> | 128 Pápyrus <i>Lk.</i>        | 1948 Cobréria <i>W.</i>   |
| 121 Fimbristylis <i>Vahl</i> | 125 Erióphorum <i>P. S.</i>  | 129 Kyllínga <i>W.</i>        | 1949 Uncinia <i>Rich.</i> |

ORDER CLXXVI. AROIDEÆ.

Herbaceous, stemless, or caulescent plants, with broad fleshy leaves, approaching very nearly to those of Dicotyledons. Their flowers are enclosed within a spathe, and are imbedded on a simple cylindrical spadix. Some are natives of Europe and of similar latitudes, but the greater number inhabit the tropics, where they often climb by their rooting stems to the tops of lofty trees. They have thick fleshy roots, which, when fresh, contain an acrid stimulating principle, which is so volatile that it passes off freely upon the application of heat; whence the roasted roots of many species are among the most common articles of negro food. The leaves of *A'rum seguinum* are so paralyzing, that if chewed they deprive one of the power of utterance; whence in the West Indies it is called the *dumb cane*; the leaves of *Dracontium pertúsium* are acrid; fresh gathered, and applied all over the surface of the body, they produce a slight inflammation and blistering, and are used in Demerara, by the natives, in dropsical cases. The root of *A'rum triphýllum*, boiled in milk, has been found efficacious in consumption. The flowers of many species are highly fetid. Typhineæ, or bull-rushes are very like *Cyperaceæ* in habit. *Fistiaceæ* are floating plants, in which the organs of fructification are reduced to the very simplest state. *Juncagineæ* are obscure marsh or river plants.

Tribe 1. GENUINE.

- |                        |                         |                          |                           |
|------------------------|-------------------------|--------------------------|---------------------------|
| 252 Póthos <i>W.</i>   | 758 Tácca <i>W.</i>     | 868 Dracóntium <i>W.</i> | 876 Roxbúrghia <i>Dr.</i> |
| 755 A'corus <i>W.</i>  | 2006 A'rum <i>W.</i>    | 869 Cálía <i>W.</i>      | 769 Aspidístra <i>Ker</i> |
| 756 Oróntium <i>W.</i> | 2005 Caládium <i>W.</i> |                          | 757 Tuplátra <i>B. M.</i> |

|                             |                            |                           |
|-----------------------------|----------------------------|---------------------------|
|                             | Tribe 2. TYPHINEÆ.         |                           |
| 1945 <i>Týpha W.</i>        |                            | 1946 <i>Spargánium W.</i> |
|                             | Tribe 3. PISTIACEÆ.        |                           |
|                             | 1939 <i>Lémna W.</i>       |                           |
|                             | Tribe 4. JUNCAGINEÆ.       |                           |
| 109 <i>Leptánthus Mich.</i> | 840 <i>Scheuchzéria W.</i> | 841 <i>Triglóchin W.</i>  |
| 854 <i>Aponogéton W.</i>    | 317 <i>Potamogéton W.</i>  |                           |

## ORDER CLXXVII. FLUVIALES.

With these the Vasculares and Monocotyledones terminate: it has long been apparent that we have been descending in the scale of vegetation; and hence, the last order exhibited a structure the most simple of all vascular plants. In the present order, *Zostéra* and *Rúppia* are so closely allied to *Algae*, that they may be mistaken for them.

|                      |                      |
|----------------------|----------------------|
| 24 <i>Zostéra L.</i> | 318 <i>Rúppia W.</i> |
|----------------------|----------------------|

## II. CELLULARES.

The characteristics of this division have already been explained in the preliminary observations upon the natural orders; and the remarks which were required for each natural order of Cellulares have already been given in *Cryptogamia* in the body of the work. It has, therefore, been thought advisable to adopt from Professor Agardh such observations as he has made upon the orders, as a sort of contrast to those already given.

## CLASS I. FOLIACEÆ.

## ORDER I. FILICES.

Of these the stem is perennial, often subterranean and creeping, and occasionally becoming arborescent and leafy above the ground. The fronds or leaves are usually pinnatifid, and more or less compound; sometimes nearly simple and entire, with reticulated veins. The capsules are minute, one-celled, seldom many-celled, brown, membranous, and surrounded by a thick articulated elastic ring, irregularly bursting, and either clustered on the lower surface of the frond, or compound in spikes. Their vernation is circinate, and some are propagated by bulbs. The old botanists denied any fruit whatever to Ferns; believing the seeds of these plants to be so rare as to invest any body with invisibility who could collect them. Afterwards, their capsules were believed to be their seeds. Linnæus, and some others, doubted whether their fructification were seeds or pollen. Finally, the experiments of Ehrhart and Lindsay proved, beyond all cavil, that they were really seeds. As to the male organs nothing is known; some suppose them to be glands of the frond, others the elastic ring, some the indusium, and others the pores of the epidermis; lastly, Martius has supposed them to be the membrane including the spiral vessels. Ferns are chiefly inhabitants of the torrid zone, becoming rarer as we approach the poles. They delight in a humid soil, and they often grow parasitically upon trees. The medicinal virtues of some are highly astringent, of others anthelmintic, of others purgative; some have acquired celebrity for their pectoral, others for their corroborant qualities. The young leaves and roots of some constitute an article of food; beer is obtained from the roots of others, and, finally, *Aspidium* fragrans has been used as tea.

## Tribe 1. POLYPODIACEÆ.

|                                    |                                 |                               |                               |
|------------------------------------|---------------------------------|-------------------------------|-------------------------------|
| 2168 <i>Polybótýra H. &amp; B.</i> | 2177 <i>Nothochlæna R. Br.</i>  | 2186 <i>Asplénium L.</i>      | 2195 <i>Cheilánthes Swz.</i>  |
| 2169 <i>Acrostichum L.</i>         | 2178 <i>Oncoclea L.</i>         | 2187 <i>Allantodia R. Br.</i> | 2196 <i>Davállia Sm.</i>      |
| 2170 <i>Hemionitis L.</i>          | 2179 <i>Struthiôpteris W.</i>   | 2188 <i>Scolopéndrium Sm.</i> | 2197 <i>Dicksónia L'Her.</i>  |
| 2171 <i>Gymnogramma Desv.</i>      | 2180 <i>Allosórus Bernh.</i>    | 2189 <i>Diplázium Swz.</i>    | 2198 <i>Balántium Kauf.</i>   |
| 2172 <i>Meniscium Schreb.</i>      | 2181 <i>Ellobocárcpus Kauf.</i> | 2190 <i>Ptéris L.</i>         | 2199 <i>Aspidium Swz.</i>     |
| 2173 <i>Xiphópteris Kauf.</i>      | 2182 <i>Lomária W.</i>          | 2191 <i>Vittária Sm.</i>      | 2200 <i>Woodsia R. Br.</i>    |
| 2174 <i>Céterach W.</i>            | 2183 <i>Bléchnum L.</i>         | 2192 <i>Lonchitis L.</i>      | 2201 <i>Cyathea Sm.</i>       |
| 2175 <i>Polypódium L.</i>          | 2184 <i>Woodwárdia Sm.</i>      | 2193 <i>Antróphyum Kauf.</i>  | 2202 <i>Trichómanes L.</i>    |
| 2176 <i>Tænitis Swz.</i>           | 2185 <i>Doógia R. Br.</i>       | 2194 <i>Adiántum W.</i>       | 2203 <i>Hymenophyllum Sm.</i> |

## Tribe 2. OSMUNDACEÆ.

|                      |                        |                           |                         |
|----------------------|------------------------|---------------------------|-------------------------|
| 2204 <i>Tódea W.</i> | 2205 <i>Osmúnda L.</i> | 2206 <i>Lygódium Swz.</i> | 2207 <i>Anémia Swz.</i> |
|----------------------|------------------------|---------------------------|-------------------------|

## Tribe 3. OPHIOGLOSSÆ.

|                             |                             |                          |
|-----------------------------|-----------------------------|--------------------------|
| 2208 <i>Botrychium Swz.</i> | 2209 <i>Ophioglóssum L.</i> | 2210 <i>Marátia Swz.</i> |
|-----------------------------|-----------------------------|--------------------------|

## ORDER II. EUISETACEÆ.

Marsh plants, with a verticillate arrangement of their branches, and a highly indurated epidermis. Their seeds are remarkable for a hygrometrical movement. The quality of some is said to be hurtful to cattle, which is denied by others. Formerly they were used in medicine as astringents and diuretics. *Equisetum hyemale* has been employed for tea, and as a polishing material for furniture, under the name of Dutch rushes.

2211 *Equisetum L.*

## ORDER III. LYCOPODINEÆ.

With the habits of mosses they have the seeds of ferns. They are herbaceous prostrate plants, with imbricated simple leaves. *Lycopodium complanatum*, *Selágo*, and *clavatum* are used as dyes; the sporules of *Lycopodium clavatum* are said to be employed for ameliorating wine, and are also used in making fire-works, on account of their inflammable nature. The herb of *Lycopodium clavatum* and *Selágo* is emetic, and produces abortion. *Lycopodium phlegmária* is reputed an aphrodisiac.

|                           |                           |
|---------------------------|---------------------------|
| 2212 <i>Lycopódium L.</i> | 2213 <i>Psilótum Swz.</i> |
|---------------------------|---------------------------|

## ORDER IV. MARSILEACEÆ.

Floating or erect simple-leaved plants of no known use. The Marsileæ, which are to some countries what *Lémna* is to this, are not known in cultivation.

|                        |                          |
|------------------------|--------------------------|
| 2214 <i>Isóetes L.</i> | 2215 <i>Pilulária L.</i> |
|------------------------|--------------------------|

CLASS II. APHYLLÆ

ORDER V. MUSCI.

Winter plants, reviving in humid air, abundant about the poles, rare at the equator. They cover the mountains of the earth as high as the limits of perpetual snow; growing in patches, they clothe the most barren spots with verdure, preserve trees from heat and cold, prepare the earth for nourishing more perfect plants, and fill up bogs and morasses with vegetable matter. To the economy of nature they are, therefore, more subservient than to the purposes of man. Medicinal astringent properties were formerly ascribed to some few, but they are now neglected or forgotten.

Tribe 1. EVAGINULATI.

2216 Sphágnum L.

Tribe 2. VAGINULATI OLOCARPI.

|                           |                            |                        |                        |
|---------------------------|----------------------------|------------------------|------------------------|
| 2217 Pháscum L.           | 2226 Trichóstomum Hedw.    | 2235 Diphýscium Mohr.  | 2244 Leúcodon Schwagr. |
| 2218 Schistosistéga Mohr. | 2227 Cincilidókus P. de B. | 2236 Buxbaumia L.      | 2245 Fontinás L.       |
| 2219 Gymnóstomum Hedw.    | 2228 Tétrata Ehr.          | 2237 Funária Hedw.     | 2246 Anódodon Hook.    |
| 2220 Hymenóstomum R.Br.   | 2229 Pterogónium Swz.      | 2238 Bartrámia Hedw.   | 2247 Neckéra Hedw.     |
| 2221 Tétraphis Hedw.      | 2230 Didýmodon Hedw.       | 2239 Póhlia Hedw.      | 2248 Daltónia Hook.    |
| 2222 Encalypta Hedw.      | 2231 Spláchnum L.          | 2240 Bryum Hedw.       | 2249 Hookéria Sm.      |
| 2223 Grimmia Hedw.        | 2232 Conóstomum Swz.       | 2241 Polytrichum L.    | 2250 Leskea Ehr.       |
| 2224 Weissia Hedw.        | 2233 Orthotrichum Hedw.    | 2242 Anictágnium Hedw. | 2251 Hýpnum L.         |
| 2225 Dicranum Hedw.       | 2234 Zýgodon Hook.         | 2243 Fissidens Hedw.   |                        |

Tribe 3. VAGINULATI SCHISTOCARPI.

2252 Andræa Hedw.

ORDER VI. HEPATICÆ.

Creeping small plants, with their leaves arranged in an imbricated manner. They differ from Lichens in structure, color, and fruit; from Musci, in the dehiscence of their capsule. Their qualities are mild, if any; some of them are fragrant.

|                       |                       |                         |
|-----------------------|-----------------------|-------------------------|
| 2253 Jungermannia L.  | 2255 Riccia E. B.     | 2257 Targiónia E. B.    |
| 2254 Marchántia Mich. | 2256 Anthóceros E. B. | 2258 Sphærocárpus E. B. |

ORDER VII. ALGÆ.

Plants ascending from the simplest form known in vegetation to a very compound state. The lowest are filiform, leafless, with their fructification immersed; the highest are leafy, with the fructification included in an indehiscent wart-like pericarpium. Some copulate like animals, others have a spontaneous motion like worms. Their color is lively, in the lowest grades green, in the highest red or purple. Some are ephemeral and microscopical, annual or perennial, and others extend to the length of many fathoms. They grow at the bottom of the sea, or in fresh water, the depths of which they clothe with vegetation, as the higher orders of plants cover the earth with forests. They grow on stems in the water only, or on each other. Some exhale oxygen, others are scented like violets. Their taste is mild; their substance gelatinous, membranous, or coriaceous, usually covered externally with mucus. The structure of the lowest is articulated; of the highest fibrous.

Tribe 1. DIATOMÆ.

|                     |                      |                     |
|---------------------|----------------------|---------------------|
| 2259 Achnánthes Ag. | 2261 Fragillária Ag. | 2263 Desmídium Ag.  |
| 2260 Diátoma Ag.    | 2262 Meloseira Ag.   | 2264 Schizonéma Ag. |

Tribe 2. NOSTOCHINÆ.

|                    |                      |                      |                      |
|--------------------|----------------------|----------------------|----------------------|
| 2265 Palmélla Ag.  | 2267 Alcyonídium Ag. | 2269 Corynéphora Ag. | 2271 Chætópóra Ag.   |
| 2266 Echinélla Ag. | 2268 Nóstoc Ag.      | 2270 Rivulária Ag.   | 2272 Scythyménia Ag. |

Tribe 3. CONFEROIDEÆ.

|                       |                          |                       |                         |
|-----------------------|--------------------------|-----------------------|-------------------------|
| 2273 Bysoccládium Ag. | 2281 Leptomítus Ag.      | 2289 Zygénéma Ag.     | 2297 Griffithsia Ag.    |
| 2274 Mycinéma Ag.     | 2282 Mesoglóia Ag.       | 2290 Mougeotia Ag.    | 2298 Chætospóra Ag.     |
| 2275 Chroolépus Ag.   | 2283 Batrachospérmum Ag. | 2291 Hydrodictyon Ag. | 2299 Polysiphónia Græv. |
| 2276 Trentepóhlia Ag. | 2284 Draparnaldia Ag.    | 2292 Conférva Ag.     | 2300 Rytiphléa Ag.      |
| 2277 Scytonéma Ag.    | 2285 Oscillatória Ag.    | 2293 Bulbocháeta Ag.  | 2301 Ectocárpus Ag.     |
| 2278 Stigonéma Ag.    | 2286 Clathrix Ag.        | 2294 Nitélla Ag.      | 2302 Sphacllária Ag.    |
| 2279 Protocéma Ag.    | 2287 Lyngbya Ag.         | 2295 Chára L.         | 2303 Cladostépus Ag.    |
| 2280 Hygrocrócia Ag.  | 2288 Bángia Ag.          | 2296 Cerámium Ag.     |                         |

Tribe 4. ULVACEÆ.

|                    |                   |                   |
|--------------------|-------------------|-------------------|
| 2304 Vauchéria Ag. | 2306 Bryopsis Ag. | 2308 U'va L.      |
| 2305 Córdium Ag.   | 2307 Solénia Ag.  | 2309 Pórnhyra Ag. |

Tribe 5. FLORIDEÆ.

|                   |                    |                       |                        |
|-------------------|--------------------|-----------------------|------------------------|
| 2310 Polyídes Ag. | 2312 Rhodoméla Ag. | 2314 Sphærococcus Ag. | 2316 Bonnemaisónia Ag. |
| 2311 Ptilóta Ag.  | 2313 Chónndria Ag. | 2315 Halyménia Ag.    | 2317 Dellesséria Ag.   |

Tribe 6. FUCOIDEÆ.

|                      |                     |                    |                      |
|----------------------|---------------------|--------------------|----------------------|
| 2318 Lemána Ag.      | 2321 Sporóchnus Ag. | 2324 Zonária Ag.   | 2327 Furcellária Ag. |
| 2319 Chordária Ag.   | 2322 Haliseris Ag.  | 2325 Laminária Ag. | 2328 Fúcus L.        |
| 2320 Scytosiphon Ag. | 2323 Enceátium Ag.  | 2326 Lichína Ag.   | 2329 Cystoseira Ag.  |

ORDER VIII. LICHENS.

Lichens are not only most useful in the Economy of Nature, as preparing the surface of the earth for the reception of larger vegetables, but they are, moreover, of great utility to man. Many, as Cetrária islandica, are eatable, having a bitter principle, and giving out a styptic tincture, if immersed in alcohol. Others, steeped in urine or salts, are used for dyeing; crustaceous species of this kind are Variolária oreina, Lecanóthra tartárea, Leparária chlorina, &c.; foliaceous species, Parméla saxatília, Sticta pulmonácea, Solorína crócea, Gyrophóra désta and pustuláta, &c.; and branched kinds, Rocélla tinctoria (the common Orchal), U'snea plicáta, Alectória jubáta, and others. In medicine, Cetrária islandica and nívális, Sticta pulmonácea, Alectória usneoides are tonic and nutritive; Parméla parietína, Borréra purpurácea, Evérnia prunástri, &c. are astringent and febrifugal; Peltidía aphthósa, anthelmintic; Evérnia vulpina, poisonous. Some yield a gum, as Evérnia prunástri; Sticta pulmonácea may be employed for bittering beer instead of hops, and Ramalína

scopulorum instead of scap. The various species give the grey hue to old walls and stones, cover desert heaths, and mottle the bark of ancient trees.

## Tribe 1. IDIOTHALAMI.

2330 *Spilöma Ach.*  
2331 *Solorina Ach.*

2332 *Lecidea Ach.*  
2333 *Calicium Ach.*

2334 *Gyröphora Ach.*  
2335 *Endocarpön Ach.*

## Tribe 2. CENOTHALAMI.

2336 *Thelotréma Ach.*  
2337 *Fyrénula Ach.*  
2338 *Variolária Ach.*  
2339 *Urceolária Ach.*  
2340 *Lecanöra Ach.*

2341 *Parnölia Ach.*  
2342 *Borrära Ach.*  
2343 *Cetrária Ach.*  
2344 *Sticta Ach.*  
2345 *Peltidéa Ach.*

2346 *Nephróma Ach.*  
2347 *Ecöella Ach.*  
2348 *Evérnia Ach.*  
2349 *Cenömyce Ach.*

2350 *Baöomyces Ach.*  
2351 *Isidium Ach.*  
2352 *Stereocätion Ach.*  
2353 *Sphæröphoron Ach.*

## Tribe 3. HOMOTHALAMI.

2354 *Alectoria Ach.*  
2355 *Ramalina Ach.*

2356 *Corniolária Ach.*  
2357 *U'nea Ach.*

2358 *Colléma Ach.*

## Tribe 4. ATHALAMI.

2359 *Leprária Ach.*

## Tribe 5. PSEUDO-LICHENES.

2360 *Opögrapha Ach.*  
2361 *Verrucária Ach.*

2362 *Porina Ach.*  
2363 *Arthönia Ach.*

2364 *Gráphis Ach.*

## ORDER IX. FUNGI.

We have now reached the lowest station of vegetable existence, in arriving where the vesicles which compose the vegetable fabric are combined in various forms, according to the contingent circumstances under which they are developed. The mould on the cheese, the ergot of corn, the rust of the rose, and the huge *Bolétus*, which, in Java, spreads out its many-handed body from the trunks of ancient trees like a vegetating demon, differ only in the number of the vesicles of which they are composed. Many species are eatable, as *Agáricus campéstris*; others are deadly, as *Bolétus scáber*; some are used medicinally, as *Dædálea suavéolens* in coughs; *Agáricus túba reginæ* in diarrhæa; *Agáricus piperátus* in calculous disorders; *Phállus Mokúsín* against cancer; *Polypórus annósus* against the bites of serpents. Some *Copríni* are used for healing ulcers; *Polypórus officínalis* as a purgative; *Polypórus igniárius* as a styptic; *Polypórus destrúctor*, and a number of others, constitute dry rot. For the poison of fungi, the roots of garlic, the leaves of parsley, and tincture of lacmus, are said to be remedies: so also is common spirit. Fungi swarm in all the coldest countries of the world, but as we approach the equator they are extremely rare; the place where they most flourish is Sweden, and the adjacent regions.

## Tribe 1. HYMENOMYCETES.

## § 1. Hymenini.

Div. 1. *Pileati.*

2365 *Agáricus L.*  
2366 *Coprínus Lk.*  
2367 *Gómphus Fries.*  
2368 *Cantharéllus Adans.*

2369 *Merúlius Haller.*  
2370 *Schizophýllum Fries.*  
2371 *Dædálea Pers.*  
2372 *Polypórus Micheli.*

2373 *Bolétus Dill.*  
2374 *Fistulina Bull.*  
2375 *Hýdnum L.*

2376 *Sistostrema Fries.*  
2377 *Phlébia Fries.*  
2378 *Thelephora Ehr.*

Div. 2. *Clavati.*

2379 *Clavária Vail.*  
2380 *Calócera Fries.*

2381 *Geoglóssum Pers.*  
2382 *Spatulária Pers.*

2383 *Mitrula Fries.*  
2384 *Týphula Fries.*

2385 *Pistillária Fries.*

## § 2. Uterini v. Elvellaceæ.

Div. 1. *Mitrati.*

2386 *Morchélla Dill.*

2387 *Helvélla L.*

2388 *Vérpa Swz.*

2389 *Leötia Hill.*

Div. 2. *Cupulati.*

2390 *Peziza Dill.*  
2391 *Ascóbolus Pers.*

2392 *Bulgária Fries.*  
2393 *Ditiola Fries.*

2394 *Cenángium Fr.*  
2395 *Stictis Pers.*

2396 *Cryptomyces Fr.*

## § 3. Tremellini.

2397 *Tremélla L.*  
2398 *Exidia Fries.*

2399 *Dacrymyces Nees.*  
2400 *Agýrium Fr.*

2401 *Hymenélla Fr.*  
2402 *Næmatélla Fr.*

## § 4. Sclerotiacei.

2403 *Acrospérmum Tode.*  
2404 *Sclerotium Tode.*

2405 *Rhizoctönia Dec.*  
2406 *Periöla Fr.*

2407 *Acínula Fr.*  
2408 *Erýsibe Rebentisch.*

## Tribe 2. GASTEROMYCETES.

## § 1. Angiogastres.

Div. 1. *Phalloideæ.*

2409 *Phállus Mich.* 2410 *Batártea Pers.*

Div. 2. *Tuberaceæ.*

2411 *Tüber Plin.* 2412 *Rhizopögon Fr.*

Div. 3. *Nidulariaceæ.*

2413 *Nidulária Bull.* 2414 *Myriocöccum Tr.* 2415 *Polyángium Lk.*

Div. 4. *Carpoboli.*

2416 *Atractóbolus Tode.* 2417 *Thelebolus Tode.* 2418 *Pilóbolus Tode.* 2419 *Sphæróbolus Tode.*

## § 2. Pyrenomycetes.

Div. 1. *Sphæriacei.*

2420 *Xylária Hill.* 2421 *Stromatosphæria Grev.* 2422 *Cucurbitária Gray.* 2423 *Cryptosphæria Grev.* 2424 *Heterosphaeria Grev.* 2425 *Sphæria Haller.* 2426 *Lóphium Fries.*

|                                   |                                 |                                 |                               |
|-----------------------------------|---------------------------------|---------------------------------|-------------------------------|
|                                   |                                 | Div. 2. <i>Cytisporaei.</i>     |                               |
| 2427 <i>Sphaeronæ'ma Fries.</i>   | 2428 <i>Septária Fries</i>      | 2429 <i>Cytisopóra Ehr.</i>     | 2430 <i>Phóma Fr.</i>         |
|                                   |                                 | Div. 3. <i>Phacidiacei.</i>     |                               |
| 2431 <i>Dothidéa Tr.</i>          | 2432 <i>Rhytisma Fries.</i>     | 2433 <i>Phaetidium Fries.</i>   | 2434 <i>Hystérium Tode.</i>   |
|                                   |                                 | Div. 4. <i>Xylomacei.</i>       |                               |
| 2435 <i>Actinothýrium Kunz.</i>   | 2437 <i>Xylóma Pers</i>         |                                 | 2439 <i>Asteróma Dec.</i>     |
| 2436 <i>Leptostróma Fr.</i>       | 2438 <i>Lasiobótrys Kunz.</i>   |                                 |                               |
|                                   |                                 | § 3. <i>Trichospermi.</i>       |                               |
|                                   |                                 | Div. 1. <i>Lycoperdinei.</i>    |                               |
| 2440 <i>Onygéna Pers.</i>         | 2442 <i>Sclerodérma Pers.</i>   |                                 | 2444 <i>Bovísta Pers.</i>     |
| 2441 <i>Tulóstoma Pers.</i>       | 2443 <i>Lycopérdon Mich.</i>    |                                 | 2445 <i>Geástrum Mich.</i>    |
|                                   |                                 | Div. 2. <i>Trichocisti.</i>     |                               |
| 2446 <i>Cratérium Trent.</i>      | 2449 <i>Dictýdium Schrad.</i>   | 2452 <i>Tríchia Pers.</i>       | 2454 <i>Phýsarum Pers.</i>    |
| 2447 <i>Stemontis Pers.</i>       | 2450 <i>Arscfria Pers.</i>      | 2453 <i>Didérma Pers.</i>       | 2455 <i>Leocárus Lk.</i>      |
| 2448 <i>Cribrária Schrad.</i>     | 2451 <i>Leángium Lk.</i>        |                                 |                               |
|                                   |                                 | Div. 3. <i>Fuliginoidi.</i>     |                               |
|                                   | 2456 <i>Lycogála Mich.</i>      |                                 | 2457 <i>Spumária Pers.</i>    |
|                                   |                                 | Div. 4. <i>Liceoidi.</i>        |                               |
|                                   | 2458 <i>Dichospórium Nees.</i>  |                                 | 2459 <i>Líceá Schrad.</i>     |
|                                   |                                 | § 4. <i>Mucoroidei.</i>         |                               |
| 2460 <i>Múcor Pers.</i>           | 2461 <i>Thamnídium Lk.</i>      |                                 | 2462 <i>Ascóphora Tode.</i>   |
|                                   |                                 | § 5. <i>Perisporia.</i>         |                               |
| 2463 <i>Eurótium Lk.</i>          |                                 |                                 | 2464 <i>Amphispórium Lk.</i>  |
|                                   |                                 | Tribe 3. <i>HYPHOMYCETES.</i>   |                               |
|                                   |                                 | § 1. <i>Cephalotrichi.</i>      |                               |
|                                   | 2465 <i>Cerátium Albertini.</i> |                                 | 2466 <i>Isária Pers.</i>      |
|                                   |                                 | § 2. <i>Stilboidei.</i>         |                               |
|                                   |                                 |                                 | 2467 <i>Stilbum Tode.</i>     |
|                                   |                                 | § 3. <i>Inomycetes.</i>         |                               |
|                                   |                                 | Div. 1. <i>Byssacei.</i>        |                               |
| 2468 <i>Tóruła Lk.</i>            | 2470 <i>Racódiium Pers.</i>     | 2472 <i>Cladospórium Lk.</i>    | 2474 <i>Ozónium Lk.</i>       |
| 2469 <i>Monília Pers.</i>         | 2471 <i>Demátium Pers.</i>      | 2473 <i>Helicospórium Nees.</i> | 2475 <i>Rhizomórpha Roth.</i> |
|                                   |                                 | Div. 2. <i>Mucedines.</i>       |                               |
| 2476 <i>Sepedónium Lk.</i>        | 2479 <i>Trichothécium Lk.</i>   | 2482 <i>Aspergillus Mich.</i>   | 2484 <i>Penicíllium Lk.</i>   |
| 2477 <i>Acremónium Lk.</i>        | 2480 <i>Acrospórium Nees.</i>   | 2483 <i>Stachylidium Lk.</i>    | 2485 <i>Trichodérma Pers.</i> |
| 2478 <i>Sporótrichum Lk.</i>      | 2481 <i>Bótrytis Mich.</i>      |                                 |                               |
|                                   |                                 | § 4. <i>Phylleriaceæ.</i>       |                               |
|                                   | 2486 <i>Rubígo Lk.</i>          |                                 | 2487 <i>Erineum Pers.</i>     |
|                                   |                                 | Tribe 4. <i>CONIOMYCETES.</i>   |                               |
|                                   |                                 | § 1. <i>Tuberculariæ.</i>       |                               |
| 2488 <i>Tuberculária Tode.</i>    | 2489 <i>Fusárium Lk.</i>        |                                 | 2490 <i>Exospórium Lk.</i>    |
|                                   |                                 | § 2. <i>Entophytæ.</i>          |                               |
|                                   |                                 | Div. 1. <i>Stilbosporaei.</i>   |                               |
| 2491 <i>Fusídium Lk.</i>          | 2493 <i>Stilbospóra Hoffm.</i>  |                                 | 2495 <i>Næmaspóra Pers.</i>   |
| 2492 <i>Polythrincium Kunz.</i>   | 2494 <i>Sporidérnium Lk.</i>    |                                 |                               |
|                                   |                                 | Div. 2. <i>Hypodermia.</i>      |                               |
| 2496 <i>Cylindrospórium Grev.</i> | 2497 <i>Urédo Pers.</i>         | 2498 <i>Ecídium Pers.</i>       | 2499 <i>Puccinia Mich.</i>    |

After the most perfect classification which the present state of botanical knowledge renders practicable, there still remain a few genera which are incapable of having their true station assigned to them, either in consequence of their structure being incompletely known, or of their affinity not having yet been discovered. As far as this work is concerned, they are the following, all of which are Dicotyledones.

|                              |                          |                              |
|------------------------------|--------------------------|------------------------------|
| 1966 <i>Aúbuba W.</i>        | 1462 <i>Aitónia W.</i>   | 2121 <i>Nepéntes W.</i>      |
| 405 <i>Bréxia Nor.</i>       | 2068 <i>Antidésma W.</i> | 2163 <i>Laurophýllum W.</i>  |
| 442 <i>Vallésia Fl. per.</i> | 2098 <i>Eúclea W.</i>    | 1986 <i>Ceratophýllum W.</i> |

# GLOSSARY

OF

TERMS USED IN THE GENERIC AND SPECIFIC DESCRIPTIONS, IN THE GENERAL OBSERVATIONS ON THE CLASSES, AND IN THE NOTES.

The figures between parentheses ( ) refer to the engravings at the bottom of the page.

After each term a reference is given to an example of its application in the body of the work ; in these references, g. signifies genus, s. species, p. page.

## A.

**A**, in composition, signifies without, as *Aphyllus*, without leaves ; *Acaulis*, without stem. s. 1339.

**Abbreviate** (*abbreviare*, to shorten). Used in comparative descriptions, to indicate that one part is shorter than another. *Sálvia crassifólia*, s. 420.

**Aberrant**, deviating from the natural or direct way ; applied in Natural History to species or genera that deviate from the usual characters of their neighbours. p. 408.

**Abortion** (1) signifies an imperfect development of any given organ. *Cephalánthus*, g. 275. p. 78.

**Abraded**, rubbed or worn off. *Acácia*, g. 2127. (note.)

**Abstergent**, cleansing, having a cleansing quality. *Sapindus*, g. 926. (note.)

**Accessory**, something added to the usual number of organs, or their parts. *Phálaris*, g. 168. p. 32.

**Accretion**, the growing of one thing to another. p. 748.

**Accumbent**, lying on, prostrate, supine ; this term is employed in Crucifereæ, to signify a radicle, which lies upon the edge of the Cotyledons. p. 536.

**Acerose**, (2) needle-pointed ; fine and slender, with a sharp point. *Báksia pulchella*, s. 1449.

**Acescent**, sour, tart, acid. *Pinguicula*, g. 52. (note.)

**Acetarious**, any thing belonging to the salad tribes of vegetables. *Lactúca*, g. 1628. (note.)

**Acetous**, something that produces acidity. *Triticum*, g. 206. (note.)

**Acicular**, (3) needle-shaped. *Leptospermum triloculare*, s. 6931.

**Acinaciform**, (4) scimitar-shaped. *Ehrháta*, g. 754. p. 238.

**Acini**, the small stones in grapes, strawberries, &c. *Cecrópia*, g. 2043. (note.)

**Aculeate**, (5) being furnished with aculei or prickles, as distinguished from spines. *Spartina polystachya*, s. 920.

**Aculei**, prickles, sharp hard processes of the epidermis falling off when old ; by which character they are distinguished from spines, which do not fall off. *Medicágo mûreæ*, s. 10910.

**Acuminate**, (6) taper-pointed. *Cánná indica*, s. 2.

**Acutangular**, (7) having sharp angles. *Córchorus acutángulus*, s. 7722.

**Adnate**, (8) adhering to a thing. Anthers are called adnate when they are attached to the filament by their whole length. *Anthoxáanthum amárum*, s. 498.

**Adult**, the full-grown of any thing : full-grown leaves are adult leaves. *Prótea obtúsa*, s. 1318.

**Æruginous**, having a color like that of ærugo or verdigris. *Curcúma ærugínosa*, s. 82.

**Agglomerated**, collected in a heap or head. *Æcidium Jacobææ*, s. 16669.

**Aggregate**, (9) gathered together ; usually applied to a dense sort of inflorescence. *Calyménia aggregáta*, s. 570.

**Agrumi**, a name given by the Italians to any kind of lemons or oranges. *Cítrus*, g. 1615. (note.)

**Akenium**, (10) a hard pericarpium, containing a single

seed, which does not adhere to it ; it is the same as the Linnean *nut.* *Hippophæa*, g. 2058. p. 817.

**Albumen**, the substance under the inner coat of the testa, surrounding the embryo ; it is sometimes absent. *Réseda*, g. 1102. (note.)

**Alambick**, a vessel used in distilling, or acting like a still. *Phœnix*, g. 2049. (note.)

**Alexipharmic**, that which counteracts poisons, antidotal. *Maránta*, g. 2. (note.)

**Alexiteric**, having the power of doing away poisons. p. 1065.

**Alkalescent**, having the properties or effects of alkali. *Rúmex acetósa*, g. 856. (note.)

**Alkali**, any substance which, when mingled with acid, produces fermentation. *Viola*, g. 540. (note.)

**Alveolate**, (11) resembling a honeycomb. *Borkhátsia*, g. 1637. p. 661.

**Alvine**, of or belonging to the intestines. *Acácia*, g. 2127. (note.)

**Amentum**, (12) a catkin ; mode of inflorescence. *Aponogéton*, g. 854. p. 240.

**Amplexicaul**, (13) stem-clasping ; the base of the leaf surrounding the stem. *Cestrum auriculátum*, s. 2465.

**Amylaceous**, having the properties of starch. p. 1065.

**Anastomosing**, (14) uniting, or inoculation, of vessels. *Cinclidótus*, g. 2227. p. 896.

**Androgynous**, producing both male and female sexes on the same root, or in the same flower. *Unciaia*, g. 1949. p. 768.

**Anfractuose**, full of turnings and winding passages. *Ochróma*, g. 1458. p. 560.

**Angular**, (15) composed of, or furnished with, angles. *Lopézia coronáta*, s. 103.

**Angulo-dentate**, (16) angularly toothed, or angular and toothed. *Lapsána communis*, s. 11324.

**Annulations**, (17) rings or circles. *Rivulária*, g. 2270. p. 925.

**Anterior**, growing in front of some other thing. *Hákea acanthophýlla*, s. 1434.

**Anthemintic**, capable of killing worms. *Geoffróa*, g. 1517. (note.)

**Antheriferous**, (18) bearing anthers. *Lopézia*, g. 18. p. 1.

**Antiphradisiacal**, any thing which checks the desire of sexual intercourse. *Vitex*, g. 1317. (note.)

**Anti-pestilential**, efficacious against pestilence. *Angélica*, g. 664. (note.)

**Antiphrasis**, the use of words in a sense opposite to that of some neighbouring parallel sentence. *Globulária*, g. 260. (note.)

**Anti-scurphulous**, antiscorbutic ; efficacious against scurvy. *Cynoglossum*, g. 336. (note.)

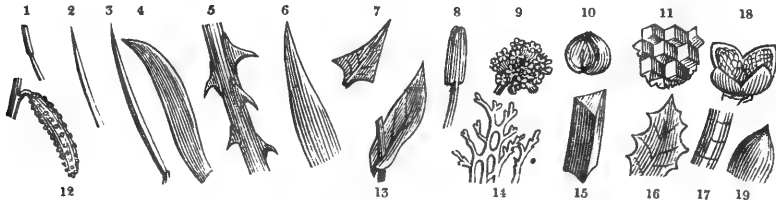
**Antiseptic**, efficacious against putrefaction. *Artemisia*, g. 1721. (note.)

**Aperient**, having a slight purgative quality. *Curcúma*, g. 14. (note.)

**Apetalous**, being without petals. p. 1.

**Apez**, (19) the summit ; generally applied to any thing terminating in a point. *Thália dealbáta*, s. 26.

**Aphrodisiacal**, any thing which excites a desire for sexual intercourse. *Justicia*, g. 47. (note.)



**Apthous**, resembling something covered with little ulcers. *Acácia*, g. 2127. (note.)  
**Apiculate**, (20) terminating in an apiculus or little point. *Rósa microphýlla*, s. 7512.  
**Apiculus**, (21) a small point. This term is generally used when the midrib projects beyond the leaf, forming a little point, or when a small point is very suddenly and abruptly formed. *Tórtula unguiculáta*, s. 14157.  
**Apophysis**, (22) a swelling beneath the theca of a moss. *Spláchnum*, g. 2231. p. 896.  
**Appendix**, (23) that which is attached. *Sarracéna fábra*, s. 7675.  
**Appense**, being hung up as a hat is upon a pin; an approach to pendulous. *Piménta*, g. 1123. p. 409.  
**Appressed**, placed close upon something else; when hairs lie flat upon the surface of a plant, they are said to be appressed. *Stachytárfheta hirsutíssima*, s. 337.  
**Approximated**, near together. *Sávia truncáta*, s. 445.  
**Apterous**, without wings, or the membranous margins which botanists call wings. *Pinguicula*, g. 52. (note.)  
**Aquatic**, growing in or belonging to water. p. 1.  
**Arboreous**, being a tree, as distinguished from frutescent or shrubby. *Pelargónium discipes*, s. 9633.  
**Arborescent**, having a tendency to become a tree. *Piper tomentósum*, s. 517.  
**Arcuate**, curved or bent like a bow. *Hypécoum procumbens*, s. 1815.  
**Areolæ**, (24) little spaces or areas on the surface of a thing: the surface of crustaceous lichens is often cracked in every direction; the spaces between the cracks are the areolæ. *Lecidéa coracína*, s. 15378.  
**Areolated**, the adjective of the last term. *Solénia*, g. 2307. p. 925.  
**Aridity**, dryness. *Xerótes*, g. 2076. (note.)  
**Arillate**, having that peculiar appendage called the Arillus. The term is only applied to seeds. p. 751.  
**Arillus**, (25) a process of the placenta adhering to the hilum of seeds, and sometimes enveloping them. *Phryníum*, g. 5. p. 1.  
**Aristate**, bearded, as the glumes of barley. Many grasses.  
**Aroma**, the spicy quality of a thing. *Justícia*, g. 47. (note.)  
**Articulation**, the place where one thing is joined with another, another word for joint. *Corynéphorus*, g. 169. (note.)  
**Asci**, (26) small tubes in which the spores of Cryptogamic plants are placed. p. 978.  
**Ascigerous**, having asci. p. 982.  
**Assurgent**, rising upward. *Phlox amœna*, s. 2113.  
**Attenuate**, made thin or slender. *Lopézia racemósa*, s. 102.  
**Auriculated**, (27) having an ear-like base. *Jasminum auriculátum*, s. 174.  
**Awns**, the beard or arista of corn. *Salsóla muricáta*, s. 3404.  
**Axil-flowering**, flowering in the axilla. *Chionánthus axilláris*, s. 154.  
**Axilla**, literally the armpit; in plants applied to the angle formed by the union of the leaf and stem. *Dipsácus*, g. 262. (note.)  
**Axillary**, (28) placed in the axilla. *Pollichia campéstris*, s. 113.  
**Axis**, the line, real or imaginary, that passes through any thing. *Actinócarpus*, g. 860. (note.)

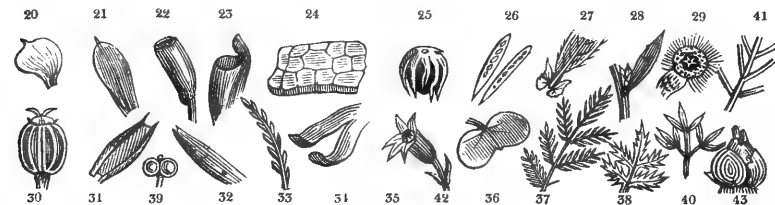
B.

**Baccate**, berried, having a fleshy coat or covering. *Gmélina*, g. 1311. p. 493.  
**Bagged**, resembling a bag or sack. *Ceanóthus*, g. 510. p. 113.  
**Ball**, (29) the round central part of the flower of the *Statézia*, p. 199.  
**Bands**, (30) or vittæ, are the spaces between the elevated lines or ribs of the fruit of umbelliferous plants. *Bábon*, g. 640. p. 116.  
**Barred**, crossed by a paler color in spaces resembling bars. *Sanseviéra glaucá*, s. 4540.

**Beak**, any thing which resembles the beak of a bird; hard short points. *Briza*, g. 195. p. 35.  
**Bearded**, having long hair like a beard. *Wulfénia*, g. 50. p. 9.  
**Beardletted**, having small awns. *Cinna arundinácea*, s. 1010.  
**Bicuspidate**, (31) twice pointed. *Cárex lagopodioides*, s. 13081.  
**Bidentate**, (32) double-toothed, or having two teeth. *Alantódia axilláris*, s. 14527.  
**Biennial**, a plant is said to be biennial which requires two seasons to mature its fruit, and then dies. *Philydrum*, g. 17. (note.)  
**Bifarious**, (33) placed in two rows. *Alpinia tubuláta*, s. 50.  
**Bifid**, (34) half divided in two; two cleft. *Cánna lítea*, s. 4.  
**Biglandular**, double-glanded. *Malpighia glandulósa*, s. 6374.  
**Bilabiate**, (35) having two lips. *Diclíptera*, g. 48. p. 9.  
**Bilobed**, (36) divided into two lobes. *Oxalis illicíulis*, s. 6518.  
**Binate**, growing two together. *Córnus sucéica*, s. 1791.  
**Bipartible**, capable of being parted in two. *Prótea*, g. 231. p. 77.  
**Bipinnate**, (37) a mode of foliation; twice pinnate. *Petróphila pulchélla*, s. 1306.  
**Bipinnatifid**, (38) twice pinnatifid, a mode of foliation. *Verónica Jacquinii*, s. 238.  
**Bisaccate**, having two little sacks, bags, or pouches. *Mathiola*, g. 1381. p. 536.  
**Biscutate**, (39) resembling two bucklers (*scuta*) placed side by side. *Biscutella*, g. 1413. p. 537.  
**Biternate**, (40) divided in three twice over. *Cherophyllum Claytonii*, s. 3491.  
**Bi-tri-crenate**, crenate twice or thrice. *Jungermánia pusilla*, s. 14958.  
**Bi-tri-pinnatifid**, pinnatifid twice or thrice over. *Petróphila diversifolia*, s. 1307.  
**Bi-tri-ternate**, growing in three twice or thrice over. *Actæa americana*, s. 7650.  
**Bivalved**, two-valved. p. 877.  
**Blanching**, made white by being grown in a dark place. *Lactúca*, g. 1628. (note.)  
**Blanc**, fair, beautiful. *Mesembryánthemum blándum*, s. 7348.  
**Blight**, a vague term, signifying a pestilence among plants caused by the attack of insects or of parasitical fungi, or by some endemic affection of the atmosphere. *Húmulus*, g. 2074. (note.)  
**Blistered**, having the surface raised as the skin is when blistered. *Sávia micrantha*, s. 393.  
**Bole**, trunk of a tree. *Órnus*, g. 69. (note.)  
**Boragineous**, of or belonging to the natural order Boragineæ. *Rhécia*, s. 900. (note.)  
**Brachiate**, (41) having arms or branches usually placed opposite to each other, nearly at right angles with the main stem, and crossing each other alternately. *Phillytéa angustifolia*, s. 143.  
**Bracteate**, furnished with bractæe. p. 443.  
**Bracteolæ**, little bractæe. *Geropógon*, g. 1620. p. 661.  
**Bractææ**, (42) small leaves placed near the calyx. *Maránta obliqua*, s. 19.  
**Branchlets**, small branches. *Agrostis vulgáris*, s. 993.  
**Bristles**, rigid hairs. *Ghinia*, g. 65. p. 10.  
**Bulbiferous**, bulb-bearing. *Glóbbá marantína*, s. 96.  
**Bulbous**, having bulbs. *Cypérus*, g. 157. p. 81.  
**Bulbs**, (43) underground buds resembling roots, and consisting of numerous fleshy scales placed one over the other. *Allium*, g. 796. p. 272.  
**Burly**, covered with hooked stiff hairs, like the heads of Bur or Burdock. *Pisónia*, g. 864. (note.)  
**Byssoid**, having the appearance of Bysii. p. 979.

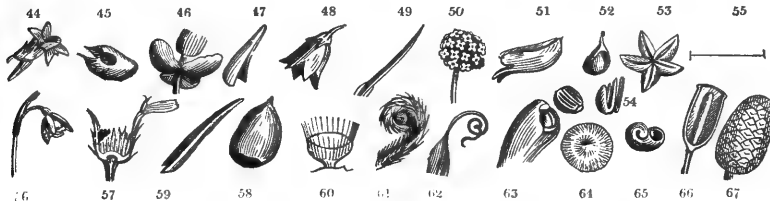
C.

**Caducous**, falling off soon. *Epidémium*, g. 297. p. 79.  
**Cæsious**, grey. *Curcúma cæ'sia*, s. 84.  
**Cæspitose**, growing in little tufts. *Erinus alpinus*, s. 8825.





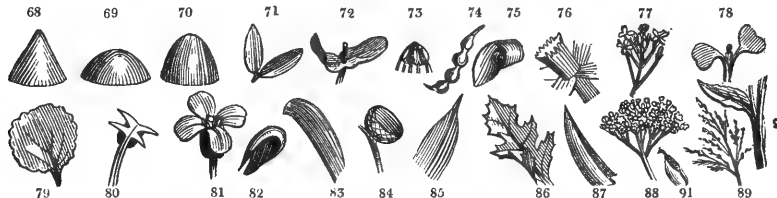
- Calcarate**, (44) spurred, or spur-shaped. *Alpínia cardamómum*, s. 48.
- Calcareous**, chalky, or growing on chalk. *O'lea*, g. 32. (note.)
- Calceiform**, (45) formed like a little shoe. *Pedilánthus*, g. 1104. p. 393.
- Calli**, small callosities, or rough protuberances. *Sálvia amaríssima*, s. 397.
- Callous**, hardened. *Eránia ericoides*, s. 3005.
- Calyxine**, of or belonging to a calyx. *Cartonéma*, g. 90. p. 30.
- Calyculated**, (46) having bracteolæ resembling an external or additional calyx. *Myóseris*, g. 1640. p. 661.
- Calyptra**, (47) literally an extinguisher; applied to the body which tips the theca of a moss, and the like. p. 895.
- Calyptrate**, having a covering resembling an extinguisher. *Erica coarctata*, s. 5330.
- Calyptrate**, having a calyptra. *Actinophýllum*, g. 697. p. 117.
- Calyptriiformis**, shaped like a calyptra. *Marcgraávia*, g. 1163. p. 456.
- Campanulate**, (48) bell-shaped. *Cóstus*, g. 11. p. 1.
- Canaliculate**, channelled or furrowed. *Weíssia acúta*, s. 14714.
- Cancellate**, latticed; resembling lattice-work. *Trigonélla cancelláta*, s. 10882.
- Canescent**, hoary, approaching to white. *Selágo canescens*, s. 8662.
- Capillary**, (49) very slender; resembling a hair. *Trichóporum*, g. 126. p. 31.
- Capitate**, (50) growing in a head. *Chloránthus*, g. 25. p. 1.
- Capitular**, growing in small heads. *Brýum*, g. 2240. (note.)
- Capitúli**, small heads. *Réveda*, g. 1102. (note.)
- Capitulumiform**, formed like a small head. *Cenomýce*, g. 2349. p. 949.
- Carbonised**, burned to a coal. *Quércus súber*, g. 2000. (note.)
- Carina**, (51) a keel like that of a boat; also the two lower petals of papilionaceous flowers. *Pongámia*, s. 1514. p. 958.
- Carinate**, keel-shaped. *Utriculária m'ínor*, s. 329.
- Cariopsis**, (52) a one-celled, small, indehiscent pericarpium adhering to the seed which it contains, as the grain of grasses. *Hydrástis*, g. 1241. p. 459.
- Cariosus**, decayed. *Juniperus*, g. 2113. (note.)
- Carminative**, medicines which promote perspiration. *Pimpinélla ánisum*, s. 3562.
- Carnose**, fleshy. *Gymnóstomum Griffithsiánum*, s. 14671.
- Corpella**, (53) the small parts out of which compound fruit are formed. *Actinocárpus*, g. 860. (note.)
- Carpology**, the science which treats of the structure of fruits and seeds. p. 1056.
- Cartilage**, gristle. *Róchea odoratíssima*, s. 3868.
- Cartilaginous**, gristly. *Aspicárpa*, g. 29. p. 1.
- Cataplasm**, a plaster, or more properly a poultice. *Zingiber*, g. 10. (note.)
- Catarrah**, of or belonging to a cold. *Acácia*, g. 2127. (note.)
- Cathartic**, purgative. *Gratiola*, g. 43. (note.)
- Catkin**, (12) inflorescence of the natural order *Amentáceæ*. *Artocárpus*, g. 1935. p. 768.
- Caudate**, tailed, being like a tail. *Strophánthus*, g. 416. p. 111.
- Caudex**, the trunk or stem. *Cócos aculeáta*, s. 13321.
- Caudicula**, (54) a small membranous process on which the pollen of orchideous plants is fixed. *Rodriguezia*, g. 1883. p. 749.
- Caulescens**, acquiring a stem. *Trichónema caulescens*, s. 642.
- Cauline**, produced on the stem. *Centránthus calcitráris*, s. 112.
- Causiticity**, having a burning quality. *Plumbágo*, g. 324. (note.)
- Cavity**, that which burns. *Artemisia*, g. 1721. (note.)
- Cellular**, composed of cells. *Eriocáulon septanguláre*, s. 1295.
- Centimetre** (55) is a French measure equal to 4 lines <sup>432</sup> or near 4½ lines. *Palmélla*, g. 2265 (note.)
- Centurie**, hundreds. *Buxbaámia*, g. 2236. (note.)
- Cephalic**, medicinal to the head. *Kæmpféria*, g. 12. (note.)
- Ceraceous**, wax-like. *Peziza erópens*, s. 16273.
- Cernuous**, (56) nodding, drooping, or pendulous. *Cánná iridiflóra*, s. 17.
- Chaffy**, (57) bearing processes resembling chaff. *Erióphorum*, g. 125. p. 31.
- Chilaxa**, (58) a spot on the seed, indicating where the vessels of the raphe terminate. *Eriobótrya*, g. 1137. p. 409.
- Channel-leaved**, (59) folded together so as to resemble a channel for conducting water. *Trichónema bulbocódium*, s. 640.
- Charlatantry**, quackery. *Mandragóra*, g. 447. (note.)
- Charring**, blackening by fire. *Quércus*, g. 2000. (note.)
- Chlorosis**, the green sickness, a disease so called. *A'nthemis*, g. 1778. (note.)
- Cilia**, (60) hairs like those of the eyelash. *Plantágo subuláta*, s. 1707.
- Ciliary processes**, like eyelash hairs. p. 907.
- Ciliated**, eyelash-haired. *Lopezia cordáta*, s. 104.
- Ciliato-dentate**, toothed and fringed with hairs like eyelashes. *Cnicus heterophýllus*, s. 11405.
- Cinereous**, ash-colored, grey. *Grevillea cinérea*, s. 1417.
- Cingalese**, inhabitants of, or belonging to, Ceylon. *Plumbágo zeyláncia*, s. 1861.
- Circinately**, (61) curled round like a sharp crook. p. 539.
- Cirrhiferous**, bearing tendrils. *Gloriôsa supérba*, s. 4574.
- Cirrhose**, or *Cirrhous*, (62) tendrilled. *Bignónia únguis*, s. 8531.
- Clammy**, viscid, sticky. *Boerhávia viscosa*, s. 109.
- Clathrate**, latticed, divided like lattice-work. *Solénia compressa*, s. 15270.
- Clavate**, club-shaped. *Curcúma comósa*, s. 85.
- Clavellose**, clubbed, or having club-like processes. *Chóndria clavellósa*, s. 15240.
- Clavus**, a name for the ergot, a disease in corn. *Festuca duríscula*, g. 182. (note.)
- Clava**, (263) the taper base of a petal. *Cánná limbáta*, s. 8.
- Climandrium**, (63) that part of the column of orchideous plants in which the anther lies. *Listéra*, g. 1876. p. 749.
- Clypeate**, (64) shaped like a Roman buckler. *Tupistra*, g. 757. p. 238.
- Cobwebbed**, covered with loose hairs, as if with a cobweb. *Anacámperos arachnoídes*, s. 6630.
- Cochleate**, (65) resembling the shell of a snail. *Rhéxia*, g. 900. p. 300.
- Cohæring**, connected. *Frótea*, g. 231. p. 77.
- Collapsion**, the act of closing or falling together. *Sphæria hydróphora*, s. 16436.
- Columella**, (66) the axis of the fruit of mosses. p. 874.
- Columnar**, formed like columns. *I'xia fucáta*, s. 623.
- Comminuted**, pulverised or pounded. *Línium*, g. 701. (note.)
- Comose**, this term is used to express a kind of inflorescence, which is terminated by sterile bractæ. *Maránta comósa*, s. 24.
- Compact**, close, solid. *Cypérus vegetus*, s. 895.
- Complicate**, folded together. *Rhopáta dentata*, s. 1447.
- Complicato-carinate**, folded together so as to form a sort of keel. *Fontinális antipyrética*, s. 14848.
- Compound**, used in botany to express the union of several things in one: thus, a compound umbel is formed by several simple umbels, a compound flower by several simple flowers, &c. *Alpínia nútans*, s. 43.
- Compressed**, pressed together. *Salicórmia*, g. 22. p. 1.
- Concave**, hollow. *Zingiber mióga*, s. 54.
- Concentric**, points or lines at equal distances from a common centre. *Eórycles amboinénsis*, s. 4077.
- Concrete**, hardened or formed into one mass. *O'rnus*, g. 69. (note.)
- Cone**, (67) a particular kind of compound fruit. *Petrophila*, g. 229. p. 76.
- Conferruminate**, united together, so as to be undistinguishable. *Olynthia*, g. 1124. p. 409.



- Conferoid**, like *confervæ*. *Sporóchnus*, g. 2321. p. 928.
- Confluent**, running into one another. *Jasminum grandifórum*, s. 181.
- Conglobated**, collected into a spherical form. *Dacrymyces moriformis*, s. 16300.
- Conical**, (68) resembling a cone. *Hedýchium heteromallum*, s. 16300.
- Conico-hemispherical**, (69) between conical and round. *Bryum cuspidatum*, s. 14830.
- Conico-ovate**, (70) between conical and ovate. *Pinus sylvestris*, s. 13502.
- Conjugate**, (71) joined in pairs: a term chiefly applied to leaves. *Piper cuneifólium*, s. 524.
- Connate**, (72) joined together at the base. *Calceolária parália*, s. 320.
- Connivent**, (73) converging. *Lœfingia*, g. 82. p. 30.
- Conoid**, cone-like. *Silêne conoidea*, s. 6223.
- Constricted**, (74) tightened or contracted in some particular place. *Sáliz lanceolata*, s. 13691.
- Converging**, approaching together. *Datúra férox*, s. 2164.
- Convex**, rising in a circular form. *Piper rubéllum*, s. 543.
- Convexo-plane**, plane on one side, convex on the other. *Cárex vulpina*, s. 13084.
- Convolute**, (75) rolled together. *Crócus*, g. 93. p. 30.
- Coralloid**, like coral. *Chondria kaliformis*, s. 15291.
- Cordate**, heart-shaped. *Cánna variabilis*, s. 9.
- Coriaceous**, leathery. *Chionánthus virginicus*, s. 152.
- Corneous**, horny, of the consistence of horn. *Sphærococcus cornéus*, s. 15301.
- Corniculate**, having processes like small horns. *Mesembryánthemum procumbens*, s. 7251.
- Cornute**, horned. *Eucalyptus cornúta*, s. 7003.
- Corona**, (76) literally a crown: applied in botany to the crown-like cup which is found at the orifice of the tube of the corolla in *Narcissus*, *Pancrátium*, and others. *Brodiaea*, g. 114. p. 31.
- Corpuscle**, a small body; a particle of any thing. *Secamóne*, g. 577. p. 114.
- Corroborant**, strengthening, having the power to give strength. *Melissa*, g. 1278. (note.)
- Corrosive**, having the power of wearing away. *Sapindus*, g. 926. (note.)
- Corrugated**, wrinkled or shrivelled. *Páspalum stoloníferum*, s. 926.
- Cortical**, of or belonging to the bark. *Linum*, g. 701. (note.)
- Corymb**, (77) a raceme or panicle in which the stalks of the lower flowers are longer than those of the upper, so that the flowers themselves are all on the same level. *Centránthus rúber*, s. 110.
- Corymbose**, formed or arranged after the manner of a corymb. *Lopézia coronáta*, s. 103.
- Corymbulose**, formed or arranged in many small corymbs. *Crássula corymbulosa*, s. 3887.
- Cosmetic**, beautifying. *Dipsácus*, g. 262. (note.)
- Cossæ** literally ribs: applied by botanists sometimes to the midrib of a leaf, and sometimes to any projecting round elevations having the same direction as the axis of the fruit. *Morchélla*, g. 2386. (note.)
- Costate**, ribbed. *Jungermánia furcáta*, s. 15004.
- Cotyledons**, (78) seed leaves. *Hórdeum*, g. 210. (note.)
- Cowled-leaved**, a thing is said to be cowled or cucullate when its end is curved inwards in such a manner as to represent the cowl or hood of a monk. *Lachenália bifolia*, s. 4898.
- Crenæ**, notches. *Saxifraga umbrósa*, s. 6063.
- Crenate**, (79) notched. *Cánna limbáta*, s. 8.
- Crenature**, the notching. *Prásium mínus*, s. 8518.
- Crenulate**, full of notches. *Sálvia pomifera*, s. 370.
- Crest**, (80) applied to some elevated appendage terminating a particular organ: a stamen is crested when the filament projects beyond the anther, and becomes dilated. *Kämpferia*, g. 12. p. 1.
- Cribiform**, riddled with holes like a sieve. *Peziza cribrósa*, s. 16265.
- Cribose**, perforated like a sieve. *Parinárium*, g. 870. p. 27.
- Crisp**, when leaves are very much undulated at the margin, they are called crisp or curled. *Cóstus villosissimus*, s. 66.
- Cruciate**, (81) shaped like a Maltese cross: a flower is said to be cruciate when four equal petals are placed opposite each other at right angles. *Gentiána septemfida*, s. 3360.
- Cruciferous**, the name of a particular family of plants bearing cruciate flowers. p. 536.
- Crustaceous**, having a hard brittle shell. *Hellénia*, g. 9. p. 1.
- Crysaline**, consisting of, or resembling, crystals. *Mesembryánthemum lanceolátum*, s. 7382.
- Cucullate**, (82) hooded, cowled; see *Cowled*. *Calathéa*, g. 3. p. 1.
- Culm**, the stem of grasses, scitamineous plants, and the like. *Maránta arundinácea*, s. 18.
- Culmiferous**, producing culms. *Triticum spélta*, s. 1235.
- Cultrate**, (83) shaped like a pruning-knife. *Crássula cultráta*, s. 3880.
- Cuneate**, wedge-shaped. *Teúcrum cubense*, s. 8117.
- Cup**, the same as corona; see that word, g. 711. p. 236.
- Cupule**, (84) the cup of an acorn, and of all amentaceous plants. p. 1017.
- Cupuliform**, or *Cupulate*, shaped like a reversed bell. p. 982.
- Cuspidate**, (85) like the point of a spear, a leaf is cuspidate, when it is suddenly tapered to a point. *Tritónia rósea*, s. 664.
- Cutaneous**, relating to the skin. *Scabiosa*, g. 264. (note.)
- Cuticle**, the scarf skin, or epidermis. *Chára*, g. 2295. (note.)
- Cut-toothed**, (86) cut and toothed at the same time. *Plantágo macrorrhiza*, s. 1708.
- Cyathiform**, cup-shaped, concave. *Narcissus pulchellus*, s. 4025.
- Cylindrical**, having the form of a cylinder. *Dicranum Scottiánum*, s. 14724.
- Cylindrical**, cylinder-shaped. *Salicórnia rádicans*, s. 116.
- Cylindrico-campanulate**, cylindrical bell-shaped. *Encyclia*, g. 2222. p. 696.
- Cymbiform**, (87) boat-shaped. *Vallésia glábra*, s. 2456.
- Cyme**, (88) a mode of inflorescence, resembling a flattened panicle. *Scirpus lacústris*, s. 861.
- Cymose**, flowering in cymes. *Róchea cymósa*, s. 3866.

## D.

- Decandrous**, having ten stamens. *Phytolácca abyssinica*, s. 6373.
- Deciduous**, falling off. Leaves which are shed annually are said to be deciduous: as are also trees that annually lose their leaves. *Olea excélsa*, s. 141.
- Decimate**, curved downwards. *Zingiber zerúmbet*, s. 56.
- Decoction**, a preparation or digest by boiling water. *Cúnila*, g. 58. (note.)
- Decomposed**, (89) a leaf is said to be decomposed when it is twice pinnated; a panicle when its branches are also pinnated. *Linociera compacta*, s. 474.
- Decorticated**, disbarbed. *Amýgdalus*, g. 1128. (note.)
- Decumbent**, lying down. *Chloránthus inconspicuus*, s. 121.
- Decurrent**, (90) running down. *Lopézia coronáta*, s. 103.
- Decursive**, having a tendency to run down. *Actinóthus heliánthi*, s. 3591.
- Decussated**, when two right lines cross each other at right angles they are said to decussate; leaves are often placed in this position. *Ixóra parviflora*, s. 1746.
- Deflexed**, turned downwards. *Schizánthus pinnátus*, s. 272.
- Dehiscent**, (91) gaping; an expression applied to the mode in which the anthers or the fruit burst open and discharge their contents. p. 896.
- Deliquescent**, melting away upon exposure to air. p. 979.



**Delta-leaved, Deltoid, (92)** shaped like the Greek  $\Delta$ . Mesembryanthemum, g. 1146, p. 437.

**Demulcent,** having the property of softening any thing. Máiva, g. 1472. (note.)

**Dentate, (93)** having the margin divided into incisions resembling teeth. Verónica acúta, s. 196.

**Dentato-ciliate,** having the margin dentate and tipped with cilia. Sónchus arvensis, s. 11106.

**Dentato-sinuate, (94)** scolloped and toothed. Hypochaeris glabra, s. 11319.

**Denticulate,** being finely dentate. Circæa lutetiána, s. 487.

**Denticulations,** small toothings. Bossiæa scolopéndrium, s. 10121.

**Dentiform,** tooth-shaped. Barbaræa plantaginea, s. 8980.

**Dentifrice,** powder made to scour the teeth. Acácia, g. 2127. (note.)

**Deobstruent,** having the power of removing obstructions, a term of medicine. Agrimónia, g. 1101. (note.)

**Depressed,** hanging down. Morse's spathácea, s. 826.

**Depressed,** pressed downward. Thálla, g. 4, p. 1.

**Depurated,** purified, cleansed. O'xalis, g. 1065. (note.)

**Despumate,** to throw off in froth or scum. Cecrópia, g. 2043. (note.)

**Detergent, Detersive,** having the power of cleansing. Physalis, g. 448. (note.)

**Diandrous,** having two stamens. Boerhaavia hirsúta, s. 107.

**Diaphanous,** transparent. Encalypta ciliáta  $\beta$  alpína, s. 14685.

**Diaphoretic,** promoting perspiration. Sambucus, g. 880. (note.)

**Dichotomous, (95)** a stem that ramifies in pairs. Phrynium dichotómum, s. 28.

**Dicoccus,** having two cocci, p. 78.

**Didymous,** two united. Priva mexicana, s. 8675.

**Didynamous, (96)** having two long stamens and two short ones in the same flower, each pair being collateral. Stenochilus, g. 1333, p. 493.

**Dietetic,** relating to food or diet. Sácharum, g. 215. (note.)

**Diform,** two forms; used to express irregularity. Anacampseros rotundifolia, s. 6629.

**Diffuse,** scattered, widely spread. Verónica saxátilis, s. 226.

**Diffusible,** such as may be spread. Amýgdalus, g. 1128. (note.)

**Digitated, (97)** fingered, shaped like the hand spread open. Verónica digitáta, s. 255.

**Digitiform,** formed like fingers. Mesembryanthemum incomp'tum, s. 7408.

**Dignous,** two styles or female organs. Sálvia crética, s. 401.

**Diluent,** something diluting. Melissa, g. 1278. (note.)

**Dimidiate, (98)** halved, divided into two parts, p. 895.

**Dioecious,** when a plant bears female flowers on one individual, and males on another, it is called dioecious. Valeriána dioica, s. 544.

**Discoid, (99)** When in Compositæ the florets are all tubular, the head of flowers is said to be discoid. In other cases, when the florets of the centre of a head of flowers are more perfect than the rest, they are called discoid. Finally, when any thing is dilated into something which may be compared to a disk, the term discoid is also made use of. Valerianella discoides, s. 563.

**Discus, or Disk,** the fleshy annular process that surrounds the ovary of many flowers; also the surface of a leaf; also the centre of a head of flowers of Compositæ. Enópia, g. 504, p. 113.

**Discussent,** having the power to scatter the matter of tumours. Artemisia, g. 1721. (note.)

**Disseipment, (100)** the partitions by which a seed vessel is divided internally. Elytrária, g. 45, p. 9.

**Distichous, (101)** two-rowed; producing leaves or flowers in two opposite rows. Schærus, g. 119, p. 31.

**Ditrichotomous, (102)** divided in twos or threes; a stem continually dividing into double or treble ramifications. Trichódium caninum, s. 1001.

**Diuretic,** having the power of promoting the flow of urine. Bromélia, g. 726. (note.)

**Divaricate,** growing in a straggling manner. Verónica pinnáta, s. 219.

**Dodecandrous,** having twelve stamens. Rivina dodecándra, s. 1511.

**Dotabryform, (103)** axe-shaped. Stizolóbium, g. 1551, p. 599.

**Dorsal,** growing on the back. Kæmpferia rotúnda, s. 67.

**Drastic,** applied to medicines which act violently. Dictamnus, g. 997. (note.)

**Drupe, (104)** a kind of fruit consisting of a fleshy succulent rind, and containing a hard stone in the middle. O'lea, g. 52, p. 9.

**Dyspepsia,** difficulty of digestion. Artemisia, g. 1721. (note.)

## E.

**Echinated, (105)** covered with prickles like an echinus or hedgehog. Amómum subulátum, s. 79.

**Echibe, eatable, Eleusite,** g. 200. (note.)

**Effuse, (106)** literally poured forth; applied to inflorescence, it means a kind of panicle with a very loose one-sided arrangement. Juncus effusus, s. 4327.

**Electuaries,** a medicine of conserves and powders in the consistence of honey. Prúnus doméstica, s. 7045.

**Elephantiasis,** a disease in which the limbs become prodigiously swollen and finally fall off. Similax, g. 2081. (note.)

**Ellipsoid, (107)** like an ellipsis. Nastúrtium amphibium, s. 8970.

**Elliptic-lanceolate, (108)** a form between elliptical and lanceolate. O'lea americana, s. 140.

**Elongated, lengthened, Cánna gigantéa,** s. 6.

**Emarginate, (109)** having a small notch in the end. Cánna coccinea, s. 3.

**Embossed, (110)** projecting in the centre like the boss or umbo of a round shield or target. Prótea umbonális, s. 1327.

**Embracing, (13)** a leaf is said to embrace a stem when it clasps it round with its base. Sálvia amplexicaúlis, s. 428.

**Emetic,** that which produces vomiting. Primula vulgaris, s. 2020.

**Emmenagogue,** any medicine that promotes menstruation. Ligústicum, g. 665. (note.)

**Emollient, softening. Triumfetta, g. 1087. (note.)**

**Emulsions,** medicines made of bruised oily seeds and water. Amýgdalus, g. 1128. (note.)

**Ensate, or Ensiform, (111)** shaped like a sword with a straight blade. A'loe cándicans, s. 4444.

**Epidermis,** the outer skin of the bark. Lá'urus, g. 934. (note.)

**Epiphyllous, (112)** growing upon a leaf. Jungermannia epiphylla, s. 15003.

**Epiphytes,** plants which grow upon other plants without deriving any nutriment from them. Catasetum, g. 1889. (note.)

**Equidistant, equally distant. Ægopódium, g. 652, p. 116.**

**Equilateral, having equal sides. A'loe reticuláta, s. 4392.**

**Equivalent, (113)** a mode of veneration, or of arrangement of leaves with respect to each other, in which the sides or edges alternately overlap each other. Moræa iridioides, s. 827.

**Erecto-patent, between erect and spreading. Dicranum glaucum, s. 14715.**

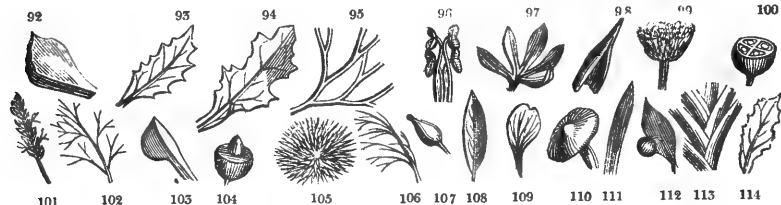
**Eroded, (114)** gnawed, bitten; a term used to express a particular kind of irregular denticulation. Sálvia pinnáta, s. 377.

**Eroso-dentate, the toothing being eroded. Lycopodium clavátum, s. 14632.**

**Errhine, promoting a discharge of mucus from the nostrils. A'sarium, g. 1072. (note.)**

**Escharotic, having the power to scar or burn the skin. Juniperus, g. 2113. (note.)**

**Esculent, good for food. Oxystélma esculéntum, s. 3226.**



*Estuaries*, arms of the sea, mouths of a river. Polygonum amphibium, s. 5568.  
*Ethiolated*, whitened by being kept from air and light. Triticum spelta, p. 70. (note.)  
*Evanescent*, quickly vanishing. Heracleum, g. 672. p. 117.  
*Evolved*, unfolded. Aneifema, g. 89. (note.)  
*Excavated*, hollowed out. Borago, g. 340. p. 109.  
*Excentrical*, (115) flying off from the centre. Agaricus ulmarius, s. 15924.  
*Excoriate*, stripped of the bark or skin. Bromelia Karatas, g. 736. (note.)  
*Excurrens*, projecting or running beyond the edge or point of any thing. Tortula subulata, s. 14751.  
*Exotic*, foreign. p. 1.  
*Expectorant*, any thing that promotes the discharge of mucus from the chest. Sambucus nigra, p. 225. (note.)  
*Exserted*, (116) projecting beyond something else. Jasminum revolutum, s. 179.  
*Exsiccated*, dried up. Papaver, g. 1170. (note.)  
*Extra-axillary*, above or on the outside of the axils. Mesembryanthemum, g. 1145. (note.)  
*Extra-foliaceous*, away from the leaves, or inserted in different place from them. Echites bispinosa, s. 2360.  
*Exuvie*, whatever is cast off by plants or animals. Cactus, g. 1111. (note.)

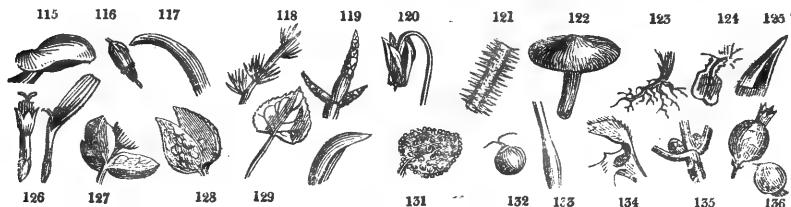
F.

*Fecula*, the nutritious powder of wheat or of other things. Codium, g. 30. p. 8.  
*Falcate*, or *Falciform*, (117) bent like a sickle. Dactyloctenium, g. 201. p. 37.  
*Falcato-secundis*, bent on one side like a sickle. Dicranum longifolium, s. 14717.  
*Falsely two-valved*, having two valves which are not of the same nature as other valves. Hakea, g. 240. p. 77.  
*Farinaceous*, full of flour. Triticum, g. 206. (note.)  
*Fascicles*, parcels or bundles. Maranta obliqua, s. 19.  
*Fasciculate*, (118) arranged in bundles or parcels. Aspidathus, g. 1528. (note.)  
*Fastigate*, (119) tapering to a narrow point like a pyramid. Salicornia procumbens, s. 118.  
*Fauces*, (120) the jaws; the gaping part or orifice of a monopetalous flower. Acacia, g. 2127. (note.)  
*Favose*, (11) pitted or excavated like the cells of a honeycomb. Thrinacia, g. 1633. p. 661.  
*Feathery*, resembling a feather. Arundinaria, g. 219. p. 35.  
*Febrifuge*, efficacious in moderating fever. Swietenia febrifuga, s. 5867.  
*Feculent*, muddy, thick with sediment. Aloe, g. 770. (note.)  
*Fecundation*, the act of making fruitful. Jasione, g. 547. (note.)  
*Feroces*, (121) thickly set with spines, p. 443.  
*Ferruginous*, iron-colored, rusty. Sideritis, g. 1252. (note.)  
*Fibrillose*, (122) covered with little strings or fibres. p. 989.  
*Fibrous*, (123) being composed of fibres. Scirpus multicaulis, s. 858.  
*Fiddle-tipped*, (124) having a lip resembling the figure of a fiddle. Zingiber panduratum, s. 53.  
*Filiform*, shaped like a thread. Mantisia, g. 16. p. 1.  
*Fimbriate*, (125) fringed. Eleusine, g. 260. p. 33.  
*Finger-parted*, (97) divided into lobes having a fanciful resemblance to the five fingers of a human hand. Veronica verna, s. 254.  
*Fistular*, or *Fistulous*, hollow like a pipe. Monarda media, s. 356.  
*Fleecid*, feeble, weak. Canna flaccida, s. 15.  
*Flexile*, capable of being bent in different directions, pliable. Paullinia, g. 923. (note.)  
*Flexuose*, having a bent or undulating direction. Alpinia cardamomum, s. 48.  
*Flexuose-recurved*, bent backward in a flexuose or undulated manner. Dicranum crispum, s. 14723.

*Flocci*, little tufts like wool. p. 983.  
*Flora horologica*, flowers which expand at particular hours, whence they are a sort of timekeepers. Anagallis, g. 357. (note.)  
*Floral envelopes*, the calyx, bractee, and corolla, which envelope the inner parts of the flower are all so called. p. 1.  
*Florets*, (126) little flowers; chiefly applied to those which constitute what were formerly called compound flowers. Festuca vivipara, s. 1093.  
*Floriferous*, that which bears flowers. Colchicum, g. 351. (note.)  
*Flobose*, compound flowers, consisting of many tubulose monopetalous florets. Carduus, g. 1663. p. 680.  
*Foliaceous*, (127) having the form of leaves. Pinckneya, g. 492. p. 113.  
*Follicle*, (128) a particular kind of seed-vessel. Hakea, g. 240. p. 177.  
*Footstalks*, (129) the stalks of either flowers or leaves. Avena, g. 171. (note.)  
*Fornicate*, (130) arched. Roscoea, g. 7. p. 1.  
*Fragmentary*, composed of fragments. Lecidea microspora, s. 15440.  
*Fringed*, (125) having a border like a fringe. Canna glauca, s. 16.  
*Fronal*, the leaves of palms. Sabal, g. 855. p. 292.  
*Frontal*, that which is in front. Kaempferia rotunda, s. 67.  
*Frosted*, (131) covered with glittering particles, as if fine dew had been congealed upon it. Anomatheca, g. 106. p. 31.  
*Fructification*, all those parts composing the flower and fruit of plants. Poa alpina, p. 67. (note.)  
*Frutescent*, or *Fruticose*, shrubby. Piper, g. 77. (note.)  
*Fugacious*, that which lasts but for a short time. Utricularia, g. 53. (note.)  
*Fulvous*, tawny yellow or fox-colored. Sansevieria fulvo cincta, s. 4545.  
*Fungous*, having the substance of fungi or mushrooms. Cachrys, g. 677. p. 177.  
*Funicle*, (132) the little stalk by which a seed is attached to the placenta. Cardamine, g. 1392. p. 536.  
*Furcate*, forked. Avena furcata, s. 8099.  
*Furfuraceous*, scaly, mealy, scurfy. Agaricus granulosis, s. 15745.  
*Fuscous*, blackish-brown. Brunia ericoides, s. 3005.  
*Fusiform*, (133) spindle-shaped. Selinum palustre, s. 3669.

G.

*Galeate*, (134) helmeted; the upper lip of a ringent corolla is the galea of that corolla. Touréttia, g. 1239. p. 492.  
*Gelatine*, jelly; a term of chemistry. p. 924.  
*Gelatinous*, consisting of jelly. Chrysophyllum, g. 424. (note.)  
*Geminate*, doubled. Didymodon, g. 2230. (note.)  
*Gemma*, (135) leafy buds as distinguished from alabastra or flower buds. Bryum, g. 2240. (note.)  
*Geoponic*, relating to agriculture. Columella, g. 1785. (note.)  
*Germ*, or *Germen*, the old name of the ovarium. Muscari, g. 321. (note.)  
*Germen inferior*, (136) fruit below the flower. p. 1.  
*Germination*, the first act of vegetation in a seed. Triticum spelta, p. 70. (note.)  
*Gibbous*, protuberant. Maranta gibba, s. 23.  
*Glabrous*, smooth. Asperula laevigata, s. 1641.  
*Glabrate*, (111) shaped like a short straight sword. Eryngium aquaticum, s. 3495.  
*Glandular*, having glands. Schwénckia, g. 42. p. 9.  
*Glaucouscent*, or *Glaucine*, having something of a bluish hoary appearance. Mesembryanthemum glaucoscent, s. 7273.  
*Glaucous*, having a decided hoary grey surface. Canna glauca, s. 16.  
*Globose*, or *Globular*, (136) round or spherical. Pingicula lusitánica, s. 322.



**Glochidate**, having hairs, the ends of which are split and hooked back, so that the hook is double. *Thrinicia hispida*, s. 11175.

**Glomerate**, (137) gathered into a round heap or head. *Conyza glomerata*, s. 11850.

**Glotis**, the throat. *Acácia*, g. 2127. (note.)

**Glumaceous**, plants are said to be glumaceous when their flowers are like those of grasses. *Cládium*, g. 74. p. 11.

**Glume**, (138) a part of the floral envelopes of a grass. *Anthoxánthum*, g. 76. p. 11.

**Gluten**, a chemical principle. *Triticum*, g. 206. (note.)

**Glutinous**, adhesive. *Sálvia glutinósa*, s. 398.

**Grained**, (139) the segments of the flowers of Rumex have tubercles which are called grains. *Rúmex paténtia*, s. 4997.

**Graniform**, formed like grains of corn. *Mesembryanthemum parvifólium*, s. 7441.

**Granular**, covered as if with grains. *Gálium ánglicum*, s. 1616.

**Gregarious**, herding together. *Agáricus fúsipes*, s. 15857.

**Grooved**, furrowed, channelled, marked with grooves. *Caúcalis*, g. 626. p. 115.

**Grumous**, clubbed, knotted, contracted at intervals into knots. *Aconitum napéllus*, g. 1205. (note.)

**Gynandrous**, (140) having the stamens and style combined in one body. *Órchis*, g. 1859.

**Gyrose**, turned round like a crook. *Urédo gyrósa*, s. 16640.

H.

**Habit**, features or general appearance of a plant. *Dicliptera*, g. 48. p. 9.

**Hæmorrhages**, copious bleeding. *Acácia*, g. 2127. (note.)

**Hæmorrhoid**, a kind of disease. *Ornithógalum*, g. 802. (note.)

**Hastate**, (141) formed like the head of a halbert. *Sálvia canariénsis*, s. 372.

**Hastato-lanceolate**, between halbert shaped and lanceolate. *Dieránum várium*, s. 14728.

**Hastato-sagittate**, between halbert-shaped and arrow-shaped. *A'rum maculátum*, s. 13472.

**Haulm**, dead stems of herbs. *Dioscórea*, g. 2085. (note.)

**Helmet**, (134) the same as *Galea*; see *Galeate*. *Monárda*, g. 60. p. 10.

**Herbaceous**, a plant the stem of which perishes annually. *Maránta arundinácea*, s. 18.

**Hermaphrodite**, consisting of two sexes. *Hippúris*, g. 23. (note.)

**Hexagonal**, six-sided. *I'ris ochroleúca*, s. 782.

**Hexandrous**, (142) having six stamens. *Gardénia hexándra*, s. 2934.

**Hexangular**, six-angled. *I'ris gramínea*, s. 795.

**Hexapetalous**, having six petals. *Furcræa cubénsis*, s. 4105.

**Hilum**, (143) the scar or mark on a seed which indicates the place by which it adhered to the placenta. *A'chras*, g. 427. p. 111.

**Hirsute**, rough with soft hairs. *Pánicum miliáceum*, s. 948.

**Hispid**, rough with stiff hairs. *Justicia ciliáris*, s. 288.

**Hoary**, covered with white down. *O'lea oleáster*, s. 135.

**Homogeneous**, having a uniform nature, or principle, or composition. *Draparnáldia ténis*, s. 15105.

**Honey-pore**, (144) the pore in flowers which secretes honey. *Geissorhíza rochénsis*, s. 646.

**Honey-scales**, (145) the scales in flowers which secrete honey. *Cotylédon*, g. 1060. p. 341.

**Honey-spots**, the spots in flowers which secrete honey. *Rúta*, g. 998. p. 339.

**Hooded**, (130) being curved or hollowed at the end into the form of a hood. *Hippocratéa*, g. 83. p. 30.

**Horn**, (146) any long subulate process in a flower is called a horn. *Zíngiber*, g. 10. p. 1.

**Husks**, the dry envelopes of either flowers or fruits. *Sporóbulus*, g. 159. (note.)

**Hyaline**, crystalline, transparent. *Diatóma*, g. 2260. p. 924.

**Hybrid**, mule; partaking of the nature of two species. *Syringa chinénsis* & *rothomagénsis*, s. 161.

**Hydragogue**, that which removes dropsy. *Euphórbia*, g. 1103. (note.)

**Hygrometrical**, indicating the approach of moisture. *Avéna stérilis*, p. 60. (note.)

**Hypocathartics**, a medicine that produces too powerful effects as a purgative. *Verátrum*, g. 2128. (note.)

**Hypocrateriform**, salver-shaped. *Galipéa*, g. 41. p. 9.

**Hypogynous**, (147) situated below the ovarium. *Serúria*, g. 234. p. 77.

**Hypophyllous**, (148) under the leaf. *Eríneum griseum*, s. 16592.

## I.

**Iced**, (131) covered with particles like icicles. *Mesembryanthemum pisiforme*, s. 7210.

**Ice-drops**, transparent processes resembling icicles. *Mesembryanthemum glaciále*, s. 7377.

**Imbricate**, (149) laid one over another like tiles. *Maránta obliqua*, s. 19.

**Incised**, (150) cut, separated by incisions. *Verónica austriaca*, s. 239.

**Incrassated**, (151) becoming thicker by degrees. *Tétraphis Browniána*, s. 14682.

**Incurved**, bending inward. *Roscóea*, g. 7. p. 1.

**Incurve-recurved**, bending inwards and then backwards. *Mesembryanthemum lineolátum*, s. 7302.

**Indehiscent**, not dehiscing. *Néslia*, g. 1426. p. 537.

**Indigenous**, native of a country. *Crócus*, g. 93. (note.)

**Indurated**, hardened. *Mílium*, g. 141. p. 32.

**Indusium**, (152) the membrane that encloses the theca of ferns. *Polybótريا*, g. 2168. p. 876.

**Inflated**, blown up. *Amómum sylvéstre*, s. 78.

**Inflexed**, bending inward. *Dicliptera*, g. 48. p. 9.

**Inflorescence**, disposition of flowers. *Chloránthos*, g. 25. (note.)

**Infradiviform**, funnel-shaped. *Tritónia fenestráta*, s. 672.

**Innocuous**, harmless. *Gomphocárpus*, g. 587. p. 115.

**Inspissated**, thickened; spoken of sap or other liquor. *A'tropa*, g. 446. (note.)

**Intenerating**, having the power of making tender or softening. *Cárica*, g. 2095. (note.)

**Internodes**, the space between the joints of plants. *Bambúsa*, g. 752. (note.)

**Interpetiolar**, between the petioles or leafstalks. *Microlóma*, g. 578. (note.)

**Interstices**, spaces between one thing and another. *Pimpinélla*, g. 635. p. 116.

**Intramarginal**, within the margin. *Listéra*, g. 1876. p. 749.

**Inverse**, inverted. *Sántalum*, g. 307. p. 79.

**Involucels**, (153) the partial involucre of umbelliferous plants. *Caúcalis platycárpas*, s. 3528.

**Involucral**, having an involucre. *Ammóbium*, g. 1681. (note.)

**Involucrated**, covered with an involucre. *Penicillária*, g. 148. p. 32.

**Involucres**, or **Involucrum**, (154) the bractæ which surround the flowers of Umbellifera in a whorl. *Caúcalis platycárpas*, s. 3528.

**Involute**, rolled inwards. *Moræa*, g. 116. p. 31.

## J.

**Joints**, the places at which the pieces of the stem are articulated with each other. *Boerhaavia erecta*, s. 105.

**Jointiform**, (155) formed like an amentum or catkin. *Bryum ulúceum*, s. 14816.



K.

- Kaliform**, formed like *Salsola kali*, a sea-coast plant. *Chondria kaliformis*, s. 15231.  
**Keel**, (51) when the midrib of a leaf or petal is sharp and elevated externally it is called a keel. p. 31.  
**Kneed**, or **Knee-jointed**, bent like the knee-joint. *Aconitum tortuosum*, s. 7867.

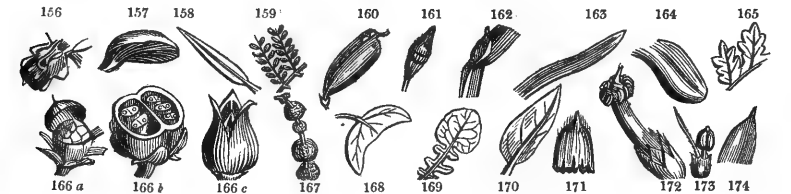
L.

- Labellum**, (156) the front segment of an orchideous or other flower. *Ionopsis*, g. 1919. p. 750.  
**Laciniae**, segments of any thing. *Parmelia cycloséilis*, s. 15581.  
**Laciniate**, cut or divided into segments. *Phlomis laciniata*, s. 8365.  
**Lactescent**, yielding milky juice. *Maclóra aurantiaca*, s. 13256.  
**Lacuna**, little pits or depressions. p. 948.  
**Lacumose**, covered with little pits or depressions. *Helvélla crispa*, s. 16200.  
**Lavigated**, smoothed. *Oenothera glauca*, s. 5459.  
**Lamellated**, (157) divided by plates internally. *Músa*, g. 721. (note.)  
**Lamina**, literally a plate; it is mostly applied to the leaf of a plant considered without its petiole. *Béta cicla*, p. 207. (note.)  
**Lanceolate**, (158) lance or spear shaped. *Cóstus*, g. 11. p. 1.  
**Lanceolato-subulate**, between lanceolate and subulate. *Sphágnum cuspidatum*, s. 14653.  
**Lateral**, on one side. *Alpínia núans*, s. 43.  
**Lax**, loose, not compact. *Zingiber róseum*, s. 59.  
**Leaflets**, (159) small parts of compound leaves. *Cordárium acutifólium*, s. 133.  
**Legume**, or **Legumen**, (160) a pod; the fruit of leguminous plants. *Gompholóbium*, g. 954. (note.)  
**Leguminous**, plants which bear legumes, such as the pea, the bean, the kidneybean. p. 8.  
**Lenticular**, shaped like a lens. *Kyllinga*, g. 129. p. 31.  
**Lentiform**, in form like a lens. *Rivína*, g. 253. p. 78.  
**Leprous**, covered with spots or scales. *Rhododéndron ferrugineum*, s. 5923.  
**Lid**, (161) the calyx which falls off from the flower in a single piece. *Eucalyptus*, g. 1126. p. 409.  
**Ligula**, (162) the membrane at the top of the petiole of grasses and other plants. *Zingiber pandurátum*, s. 63.  
**Ligulate**, (163) strap-shaped. *Aneléma sínicum*, s. 595.  
**Limbate**, having a colored or dilated surface. *Erica oppositifólia*, s. 5265.  
**Linear**, when the two sides are parallel. *Cánna*, g. 1. p. 1.  
**Linear-ensate**, long sword-shaped. *Márica califórnica*, s. 833.  
**Linguliform**, or **Lingulate**, (164) tongue-shaped. *Hæmánthus coccineus*, s. 4149.  
**Lipped**, (156) having a distinct lip or labellum. *Roscea*, g. 7. p. 1.  
**Lithontriptic**, having the power of breaking the stone in the bladder. p. 1075.  
**Lobelets**, (165) small lobes. *Geráanium sanguíneum*, s. 9644.  
**Lochial**, relating to the natural discharges consequent upon childbirth. *Aristolóchia*, g. 1934. (note.)  
**Locomotion**, motion from place to place. *Mimósa*, g. 2124. (note.)  
**Locuments**, partitions or cells of a seed vessel. *Cystosáira*, g. 2320. p. 927.  
**Locular**, (166) fruit is called unilocular if it contains but one cell (a), bilocular if two cells (b), trilocular if three (c), and so on. *Fédia*, g. 72. p. 11.  
**Loment**, (167) a kind of legume falling in pieces when ripe. *Mulléra*, g. 1567. p. 597.  
**Lomentaceous**, bearing pericarpia, called lomenta. *Erucária*, g. 1445. p. 539.  
**Lorate**, (163) shaped like a thong or strap. *Pancrátiúm littorále*, s. 4062.

- Lubricate**, to make slippery. *Acácia*, g. 2127. (note.)  
**Lucid**, bright, shining. *Sálvia lineatifólia*, s. 399.  
**Lunate**, or **Lunulate**, (168) shaped like a half moon. *Cestrum auriculátum*, s. 2465.  
**Lurid**, a color between purple, yellow, and grey. *Morce'a lárida*, s. 828.  
**Lymphatic**, of or belonging to lymph or sap. p. 874.  
**Lyrate**, (169) lyre-shaped. *Sálvia lyráta*, s. 450.

M.

- Macerate**, to decompose by steeping in water or other liquid. *Méntha*, g. 1234. (note.)  
**Marginal**, relating to the margin. *Hellénia*, g. 9. p. 1.  
**Masticatory**, grinding or chewing with the teeth. *Pimpinélla*, g. 635. (note.)  
**Math**, an old term for crop. *Alopecórus*, g. 164. (note.)  
**Matrix**, a place where any thing is generated or formed. *Cálothrix*, g. 2286. p. 925.  
**Medulla**, the pith of a plant. p. 1053.  
**Medullary**, relating to the pith of plants. *Mimósa*, g. 2124. (note.)  
**Melastomaceous**, partaking of the nature or appearance of *Melástoma*. p. 300.  
**Meliferous**, honey-bearing. *Anchósa*, g. 332. (note.)  
**Membranaceous**, or **Membranous**, having the texture of a membrane. *Chionánthus martima*, s. 153.  
**Menstruum**, a liquor used as a dissolvent. *Ranúnculus*, g. 1233. (note.)  
**Meshes**, the openings in any tissue. *Mougeótia*, g. 2290. p. 925.  
**Micacious**, glittering, shining. *Watsónia*, g. 101. (note.)  
**Midrib**, (170) the large vein which passes from the petiole to the apex of a leaf. *Póthos*, g. 252. (note.)  
**Milky**, granulate resembling many seeds. *Citrus média*, p. 555. (note.)  
**Mitryform**, (171) formed like a mitre. p. 895.  
**Mobility**, the power of motion. *Mimósa*, g. 2124. (note.)  
**Monadelphous**, (172) having the filaments cohering in a tube. *Yxia monadépha*, s. 629.  
**Monandrous**, (173) having one stamen. *Alchemílla A'phanes*, s. 1519.  
**Moniliform**, formed like a necklace, that is to say, with alternate swellings resembling beads and contractions. *Helióphila amplexicaulis*, s. 9312.  
**Monocotyledons**, having one seed leaf. p. 236.  
**Monocious**, having the one sex in one flower, and the other in another. *Schœnus monoicus*, s. 847.  
**Monopetalous**, having one petal. p. 9.  
**Monosepalous**, having one sepal or division of the calyx. *Pontedéria*, g. 730. p. 237.  
**Mordant**, that which enables vegetable matter or tissue to receive dyes or coloring matter, and to retain them. p. 1064.  
**Mottled**, marked with blotches of color of unequal intensity passing insensibly into each other. *Syringa pérsica*, s. 162.  
**Mucilage**, a turbid slimy fluid. *Sálvia*, g. 62. (note.)  
**Mucronate**, (174) pointed sharp. *Corsipérum intermédium*, s. 127.  
**Mucronulate**, having a little hard point. *Bánksia integrifólia*, s. 1459.  
**Mulch**, a gardener's term for the placing manure about the roots of trees on the surface of the ground. *Rósa*, g. 1148. (note.)  
**Multifarious**, very numerous; or arranged in many rows. *A'loe rígida*, s. 4387.  
**Multiparite**, much divided. *Pterónia stricta*, s. 11492.  
**Multiplex**, much multiplied. *Selágo fasciculáta*, s. 8657.  
**Muricated**, covered with short sharp points. *Pánicum muricatum*, s. 949.  
**Muricato-hispid**, covered with short sharp points and rigid hairs or bristles. *Bryónia scabrélla*, s. 13588.



## N.

*Naiades*, nymphs of the springs and fountains: a particular order of Monocotyledonous plants. p. 772.  
*Narcotic*, producing sleep or torpor. Brómus, g. 184. (note.)  
*Navigular*, (175) boat-shaped. Airópsis, g. 160. p. 32.  
*Neck*, the upper tapering end of bulbs is called the neck. Crinum sumatránium, s. 4184.  
*Nectariferous*, bearing honey. Swértia, g. 599. p. 115.  
*Nectary*, or *Nectarium*, (144, 145.) that part of a flower which produces honey. Alpinia Allóghas, s. 51.  
*Nerves*, the strong veins upon leaves or flowers. Canna rubricáulis, s. 11.  
*Nervinotion*, the power of motion in leaves. Mimósa, g. 2124. (note.)  
*Nervose*, or *Nervine*, composed of nerves. Eránthemum pulchellum, s. 312.  
*Neuter*, neither male or female. Anthoxáanthum, g. 76. p. 11.  
*Nidulant*, nesting; lying among any thing as a bird in its nest. Samýda, g. 1034. p. 940.  
*Nidus*, the nest of any thing. Alcyonidium, g. 2267. (note.)  
*Nodding*, (177) having a drooping position. Verónica complicáta, s. 190.  
*Nodi*, (178) the articulations of plants: the place where one joint is articulated with another. Sporóchnus villósus, s. 15333.  
*Nodose*, having many nodi or knots. Póa serótina, s. 1187.  
*Nodules*, small hard knots. Ischæmum aristátum, s. 14230.  
*Notch-flowered*, having the flower notched at the margin. Verónica crenuláta, s. 185.  
*Nucamentaceous*, producing nuts. Búnias, g. 1444. p. 539.  
*Nucleus*, the kernel. Myrica Fáya, s. 13869.

## O.

*Ob* is used in the composition of Latin technical terms, to indicate that a thing is inverted; for instance, obovate is inversely ovate, obcordate inversely cordate, and so on.  
*Occidental*, coming from the west. Alpinia occidentális, s. 42.  
*Ochraceous*, having the color of clay or yellow ochre. Oscillatória ochracea, s. 15118.  
*Octandrous*, (179) having eight stamens. Rivina octándra, s. 1511.  
*Octogynous*, (180) having eight styles. Phytolácca octándra, s. 6572.  
*Official*, any thing that is, or has been, used in the shops. Kæmpféria Galána, s. 68.  
*Oleaginous*, having the qualities of oil. Rivina, g. 253. (note.)  
*Oleaceus*, esulent, eatable. Ranúnculus, g. 1233. (note.)  
*Olivaceous*, having the qualities of olives. p. 924.  
*Opercular*, (161) covered with a lid. p. 749.  
*Operculiform*, having the figure and position of a round lid of something. Operculária, g. 250. p. 78.  
*Operculum*, (161) a lid. p. 874.  
*Opiate*, having the power of opium. Dictámnus, g. 997. (note.)  
*Orbicular*, or *Orbiculate*, a plane surface circumscribed by a circle. Farsétia, g. 1397. p. 586.  
*Orchideous*, of or belonging to the natural order of Orchidæe. p. 748.  
*Orifice*, an opening. Schwénkia, g. 42. p. 9.  
*Ossified*, become like bone. Cóix, g. 1951. p. 768.  
*Ova*, the eggs of any thing. Palmélla, g. 2265. (note.)  
*Oval*, having the figure of an ellipse. Corispérmum, g. 26. p. 1.  
*Ovarium*, or *Ovary*, (176) the part of the flower in which the young seeds are contained. Hæmodórum, g. 111. p. 31.  
*Ovate*, (181) egg-shaped. Maránta Tónchat, s. 22.  
*Ovato-acuminate*, (182) egg-shaped, and tapering to a point. Cárex ovális, s. 13080.  
*Ovato-cylindraceous*, (183) egg-shaped, with a convolute cylindrical figure. Didýmodon purpúreum, s. 14762.  
*Ovato-deltoid*, triangularly egg-shaped. Bétula álba, s. 13188.  
*Ovato-rotundate*, roundly egg-shaped. Pháscum míticum, s. 14660.  
*Overlapping*, when the margin of one thing lies upon that of another, it is said to overlap. Cýclamen vérnium, s. 2051.  
*Ovoid*, (181) egg-like. Forálea Lupinéllus, s. 10758.  
*Ovules*, (176) the young seeds of plants contained in the ovarium. Nemóphila, g. 386. p. 110.

## P

*Palate*, (184) the mouth of a ringent flower. Pingucula edéntula, s. 327.  
*Paleaceous*, abounding with chaffy scales. Bromélla Karátas, s. 4114. (note.)  
*Palmated*, or *Palmatifid*, (185) divided so as to resemble a hand. Curcúma Zedóaria, s. 80.  
*Panduriform*, (186) having the figure of a fiddle. Kæmpféria panduráta, s. 70.  
*Panicled*, (187) loose-spiked. Maránta, g. 2. p. 1.  
*Pannary*, useful for making bread. Tríticum, g. 206. (note.)  
*Papilionaceous*, (188) butterfly-shaped flowers. p. 338  
*Papillose*, producing small glandular excrescences like nipples. Onosómódium hispídum, s. 1930.  
*Pappus*, (189) the crown of the fruit of Compósitæ, and similar plants. Centránthus, g. 20. p. 1.  
*Papulose*, producing small glands like pimples. Mesembryanthemum parvifólium, s. 7442.  
*Parabotulicly*, in form like a parabola. A'loe brevifólia, s. 4435.  
*Parenchyma*, all the parts of plants which consist of cellular tissue only. Solorina, g. 2331. p. 943.  
*Parietal*, being attached to the sides of an ovarium instead of its axis. Glóbbá, g. 15. p. 1.  
*Patent*, spread out or expanded. Lycopódium anótinum, s. 14336.  
*Patent-reflexed*, spread out and turned back. Cárex pauciflóra, s. 13069.  
*Patulous*, slightly spreading. Centauréa babilónica, s. 12613.  
*Pectinate*, (190) resembling the teeth of a comb. Verónica orientális, s. 237.  
*Pectoral*, relating to the breast. Trápa, g. 308. (note.)  
*Pedatifid*, (191) cut into lobes, the lateral ones of which do not radiate from the petiole like the rest. Saxifraga pedatifida, s. 6089.  
*Pedicellate*, slightly stalked. Céstrum tinctorium, s. 2475.  
*Pedicels*, small footstalks of flowers. Commelina cœlestis, s. 592.  
*Peduncle*, the common footstalk of flowers. Canna Lambétti, s. 5.  
*Pellicle*, a thin skin. Pápyrus, g. 128. (note.)  
*Pellucid*, bright, transparent. Mesembryanthemum réptans, s. 7278.  
*Peltate*, (192) when the petiole is fixed in the disk instead of the margin. Piper peltátum, s. 514.  
*Pencilled*, (193) marked in lines as if with a pencil. Crócus lagenæfórus  $\gamma$  penicillális, s. 612.  
*Pendulous*, drooping, hanging down. Curcúma angustifólia, s. 91.  
*Pentagonal*, having five angles. Piquéria, g. 1704. p. 663.  
*Pentogynous*, (194) having five styles. Phytolácca abyssínica, s. 6573.  
*Pentandrous*, (194) having five stamens. Portlándia grandiflóra, s. 2622.  
*Pentapetalous*, (194) having five petals. p. 115.  
*Perennial*, lasting many years without perishing. Aspicárpa grens, s. 132.  
*Perfoliate*, (195) when the stem passes through the base of the leaf. Verónica perfoliáta, s. 251.  
*Perianthium*, the envelope that surrounds the flower; this term is applied when the calyx cannot be distinguished from the corolla. Gomphréna perénnis, s. 3178.



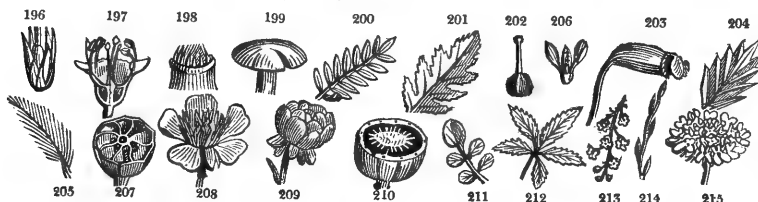
- Pericarp**, the seed vessel. *Deeringia*, g. 563. (note.)
- Perichatium**, (196) leaves which in mosses surround the base of the stalk of the theca. p. 895.
- Perigynous**, (197) inserted into the calyx. *Larbræa*, g. 1069. p. 341.
- Peristome**, (198) the rim which surrounds the orifice of the theca of a moss. p. 895.
- Perithecium**, *Peridium*, or *Perisporium*, different kinds of envelopes of the reproductive organs of Fungi. *Fyrénula*, g. 2337. p. 948.
- Persistent**, remaining, not falling off. *Codárium*, g. 30. p. 8.
- Perivious**, having a passage through which anything can be transmitted. *Prímula*, g. 350. p. 110.
- Petaloid**, like a petal. *Damasónium*, g. 859. p. 241.
- Petals**, (194) divisions of the corolla. p. 1.
- Petiolate**, having footstalks. *Alpínia malaccénsis*, s. 46.
- Petioles**, footstalks of leaves. *Cissus heterophýlla*, s. 1780.
- Petioletes**, little petioles. *Erythrina*, g. 1521. (note.)
- Pezizoid**, like a *Peziza*; a kind of fungus resembling a cup in figure. p. 1021.
- Phanogamous**, such plants as are visibly furnished with sexual organs. p. 108.
- Phagedenic**, eating, corroding; a gnawing of the stomach; also applied to ulcerous sores. *A'nthemis*, g. 1778. (note.)
- Pharmaceutical**, relating to the art of pharmacy. *Astrágalus Tragaçántha*, p. 637. (note.)
- Phthisis pulmonalis**, consumption of the lungs. *Acácia*, g. 2127. (note.)
- Pileate**, (199) having a cap or lid like the cap of a mushroom. *Cúscuta chilénsis*, s. 1811.
- Pileus**, the cap of a mushroom. p. 978.
- Piliferous**, bearing hairs. *Sphenogyne dentáta*, s. 12528.
- Piliform**, formed like down or hairs. *Grimmia pulvináta*, s. 14690.
- Pilose**, slightly hairy. *Monárda Kalmiána*, s. 363.
- Pimpled**, covered with minute pustules resembling pimples. *Saxifraga liguláta*, s. 6051.
- Pinnæ**, or *Pinnule*, the segments of a pinnated leaf. *Calceolária pinnáta*, s. 315.
- Pinnate**, (200) a leaf is so called when it is divided into numerous smaller leaves or leaflets. *Codárium acutifólium*, s. 133.
- Pinnatifid**, (201) a leaf is so called when it is divided into lobes from the margin nearly to the midrib. *Centránthus calcitrapa*, s. 112.
- Piquancy**, sharpness, pungency. *Spilánthes*, g. 1695. (note.)
- Pisiform**, formed like peas. *Lagétta*, g. 909. p. 300.
- Pistillum**, or *Pistil*, (202) the columnar body situate in the centre of a flower, consisting commonly of three parts, viz. the ovary, style, and stigma. *Knáppia*, g. 142. p. 32.
- Pitchers**, (203) hollow leaves so called. *Nepénthes distillatória*, s. 14077.
- Pith**, medulla occupying the centre of a stem or shoot. *Mélica*, g. 193. (note.)
- Pituitous**, discharging mucus. *Pánax*, g. 2166. (note.)
- Plane**, flat. *Matricária*, g. 1771. p. 664.
- Plano-compressed**, compressed down to a flattish surface. *Poinciána*, g. 977. p. 339.
- Plethoric**, having a full habit. *Juniperus*, g. 2113. (note.)
- Plieate**, (204) plaited. *Nicotiána repánda*, s. 2206.
- Plumose**, (205) feathery, resembling feathers. *Centránthus*, g. 20. p. 1.
- Plumula**, (206) the young leaves in the embryo. p. 1053.
- Plurilocular**, (207) having many cells. p. 1085.
- Pod**, (160) a kind of seed vessel such as that of the pea tribe. *Epidémium*, g. 237. p. 79.
- Polyandrous**, (208) having more stamens than 20. *Royéna ambigua*, s. 6037.
- Polygamous**, a plant is said to be polygamous when some flowers are male, others female, and others hermaphrodite. *Rhagódia*, g. 562. p. 114.
- Polygamous**, (208) having numerous styles. *Royéna ambigua*, s. 6037.
- Polypetalous**, (209) having many separate petals. p. 10.
- Polyspermous**, (210) having many seeds. p. 1066.
- Pome**, an apple. *Pýrus*, g. 1133.
- Pores**, apertures in the cuticle through which transpiration takes place. *Lasiopétalum*, g. 523. p. 113.
- Porrect**, extended forward. *Bauhinia aurita*, s. 5768.
- Pouch**, a little sack or bag at the base of some petals and sepals. *Nigritélla*, g. 1860.
- Prænomen**, the first name of several; in plants it is the same as the generic name. *Crócus*, g. 93. (note.)
- Precocity**, ripe before the usual time. *Dáphne Mezéreum*, p. 323. (note.)
- Prismatic**, formed as a prism. *Polycnémum arvénse*, s. 599.
- Processes**, protrusions either natural or monstrous. *Orthotrichum*, g. 2233. p. 896.
- Profliferous**, a plant is said to be profliferous when it forms young plants in abundance about its roots. *Scirpus Lúzula*, s. 867.
- Prominences**, protuberant risings from the surface. *Colutáa arboréscens*, s. 10434.
- Propendent**, hanging forward and downward. *Cæ'asia vittáta*, s. 4831.
- Prurient**, stinging. p. 1061.
- Pubescence**, down, closely pressed to the surface. *Fragária véscá*, s. 7566.
- Pululating**, budding. *Conférva páterns β proliféra*, s. 15177.
- Pulverised**, reduced to powder. *Crócus*, g. 93. (note.)
- Pulvinate**, become cushion-shaped. *Grimmia pulvináta*, s. 14690.
- Pulvinuli**, little cushions. p. 948.
- Punctiform**, formed like points. *Peziza punctáta*, s. 16887.
- Pungent**, stinging or pricking. *Corispérmum Redóvskii*, s. 126.
- Pustular**, or *Pustulate*, covered with glandular excrescences like pustules. *Pelargónium pustulósum*, s. 9621.
- Pustules**, pimples or little blisters. *Brunsvígia Rádula*, s. 4215.
- Pyiform**, shaped like the fruit of a pear. *Paulínia pinnáta*, s. 5612.

## Q.

- Quadrangular**, four-angled. *Dorsténia Houstóni*, s. 1526.
- Quadrifarious**, arranged in four rows or ranks. *Struthiola imbricáta*, s. 1487.
- Quadrifid**, divided four times. *Plantágo*, g. 278. p. 78.
- Quadriglandular**, having four glands. *Malpighia glandulifera*, s. 6373.
- Quartz**, a species of stone. *Láurus cinnamómum*, s. 5640.
- Quaternary**, succeeding by fours. p. 76.
- Quaternate-pinnate**, (211) pinnate; the pinnæ being arranged in fours. *Anthýllis tetraphýlla*, s. 10211.
- Quinate**, in fives. *Póthos pentaphýlla*, s. 1506.
- Quinquefid**, (212) divided into five. *Cissus*, g. 305. (note.)
- Quintuple**, five times multiplied. *Ephédra*, g. 2115. p. 819.

## R.

- Racemes**, (213) a particular arrangement of flowers, when they are arranged around a filiform simple axis, each particular flower being stalked. *Alpínia nútans*, s. 43.
- Racemose**, flowering in racemes. *Verónica Barrelliér*, s. 212.
- Rachis**, (214) that part of a culm which runs up through the ear of corn, and consequently the part that bears the flowers in other plants. *Páspalum*, g. 139. p. 31.
- Radiant**, or *Radiate*, (215) a flower is said to be radiant, when, in a cluster or head of florets, those of the circumference or ray are long and spreading, and unlike those of the disk. *Scabiósa canéscens*, s. 1569.





**Radical**, proceeding from the root. Phrynium capitatum, s. 27.

**Radicans**, producing roots from the stem. Marcgravia, g. 1163. (note.)

**Radicle**, (216) that end of the embryo which is opposite to the cotyledons. p. 537.

**Radius**, (217) the ray of compound flowers. Solidago canadensis, s. 12066.

**Ramenta**, little brown withered scales with which the stems of some plants, especially ferns, are covered. Rhodamela lycopodioides, s. 15280.

**Ramentaceous**, (218) covered with ramenta. Euphorbia fragifera, s. 6793.

**Ramifications**, subdivision of roots or branches. Eragrostis pilosa, s. 1207.

**Ramose**, branched. Ylex, g. 315. (note.)

**Ramuli**, twigs or small branches. Draparnaldia, g. 2284. p. 925.

**Raphe**, in seeds this is the channel of vessels which connects the chalaza with the hilum; in umbelliferous plants it is the line of junction of the two halves of which their fruit is composed. Babon, g. 640. p. 116.

**Rationale**, the reason of a thing. Solanum, g. 451. (note.)

**Receptacle**, (219) that part of the fructification which supports the other parts. Pollichia, g. 21. p. 1.

**Recesses**, the bays or sinuses of lobed leaves. Sisymbrium obtusangulum, s. 9169.

**Rectangular**, right-angled. Teucrium asiaticum, s. 8114.

**Rectilinear**, right-lined. Bómbax eriánthos, s. 9942.

**Rectum**, an intestine. Anthemis, g. 1778. (note.)

**Recurved**, bent backward. Zingiber, g. 10. p. 1.

**Recurvo-patens**, bent back and spreading. Grimmia apocárpa, s. 14687.

**Reflexed**, bent backward. Canna gigantea, s. 6.

**Reflexed recesses**, sinuses of leaves which are bent backward from the ordinary direction of the surface of a leaf. p. 165.

**Refrigerant**, producing coolness. Oxalis, g. 1065. (note.)

**Reniform**, (220) kidney-shaped. Leptánthus reniformis, s. 736.

**Repand**, (221) a leaf having a margin undulated and unequally dilated is said to be repand. Eranthemum bicolor, s. 313.

**Repando-dentate**, repand and toothed. Doronicum Pardaliánches, s. 12189.

**Repellant**, that which turns you away from any thing. A'tropa, g. 446. (note.)

**Replicate**, folded back. Cyclópsia, g. 946. (note.)

**Resolutive**, or *Resolutive*, having the power to dissolve. Argemone, g. 1172. (note.)

**Resolvent**, having the power of dissolving. Curcúma, g. 14. (note.)

**Restricting**, astringent. Berberis, g. 829. (note.)

**Resupinate**, inverted in position, so that that which was in front becomes at back. Hedýchium, g. 6. p. 1.

**Reticulated**, resembling a net. Hákea unduláta, s. 1435.

**Retuse**, (222) abruptly blunt. Hedýchium flavum, s. 36.

**Revolute**, rolled back. Canna speciósa, s. 13.

**Rhomboidal**, (225) like a rhombus. Sálvia mexicana, s. 385.

**Rhomboid-ovate**, rhomboidally egg-shaped. Chenopodium atriplicis, s. 9416.

**Rib**, (170) the projecting vein of any thing. Curcúma rubescens, s. 83.

**Rigid**, stiff. Nolea'ra rígida, s. 157.

**Ringent**, (223) gaping. Justicia, g. 47. p. 9.

**Ring**, making an incision resembling a ring all round a branch. Liriodéndron, g. 1216. (note.)

**Rotate**, (224) a monopetalous corolla, the limb of which is flat and the tube very short, is called rotate. Valerianella discoidea, s. 563.

**Rotundo-ovate**, roundly egg-shaped. Cárex fulva, s. 13123.

**Rubefacient**, any thing which reddens the skin, or raises slight cutaneous inflammation. Euphorbia, g. 1103. (note.)

**Rudiment**, when an organ is imperfectly developed, botanists call such development a rudiment. Molinia, g. 194. p. 33.

**Rufous**, reddish orange-colored, or rusty. Canna glauca  $\beta$  rufa, s. 16.

**Rugose**, rough or coarsely wrinkled. Calceolaria rugosa, s. 317.

**Rugulose**, finely wrinkled. Sálvia chamaedryoides, s. 386.

**Runcinate**, (226) hooked back, applied to the lobes of leaves. Héspers runcinata, s. 9161.

**Runcinato-dentate**, hooked back and toothed. Apárgia taraxáci, s. 11166.

**Runners**, (229) procumbent shoots which root at their extremity. Ranúnculus saluginósus, s. 8037.

**Rusty**, rust-colored. Curcúma ferruginea, s. 87.

## S.

**Saccate**, bagged; having a bag or pouch; as many petals. Calótropis, g. 584. p. 115.

**Sagittate**, (227) shaped like an arrow-head. Dorsténia arifolia, s. 1528.

**Salivation**, a discharge of saliva from the glands of the mouth. Plumbágo, g. 324. (note.)

**Samara**, (228) a kind of winged seed vessel; the same as what the English call key. O'rnus, g. 69. p. 11.

**Sapid**, agreeable to the palate. Nelámbium, g. 1213. (note.)

**Saponaceous**, soapy. Æ'sculus, g. 866. p. 296.

**Sarmentose**, (229) producing sarmenta or runners. Echites biflóra, s. 2355.

**Sawed**, resembling the teeth of a saw. Coldénia procumbens, s. 1833.

**Scabrous**, rough with little asperities. Sálvia runcinata, s. 469.

**Scales**, any small processes resembling minute leaves; also the leaves of the involucrem of Composítæ. Pollichia, g. 21. p. 1.

**Scandent**, climbing. Piper, g. 77. (note.)

**Scape**, (231) a stem rising from the root and bearing nothing but flowers. Maránta comósa, s. 24.

**Scariose**, or *Scariosus*, membranous and dry. Bufónia tenuifolia, s. 1813.

**Schistous**, rocky, formed of the rock called schist. Olea, g. 32. (note.)

**Scion**, shoot intended for a graft. Caméllia, g. 1476. (note.)

**Scoræe**, cinders. Caméllia, g. 1476. (note.)

**Scrobiculate**, excavated into little pits or hollows. Antennária, g. 1725. p. 663.

**Scrotiform**, formed like a double bag. Ellisia, g. 432. p. 111.

**Scurfy**, covered with scales resembling scurf. Eústoma, g. 365 p. 110.

**Scutate**, formed like an ancient round buckler. Pitikáta, g. 2311. p. 925.

**Secund**, (232) arranged on one side only: the same as unilateral, which is better. p. 917.

**Sedges**, a tribe of marsh plants so called. p. 31.

**Segments**, parts of any thing. p. 1.

**Semi-**, half.

**Seminal**, belonging to the seed. Scabiósa, g. 264. (note.)

**Semination**, seeding. Crócus, g. 93. (note.)

**Sepals**, (233) the segments of the calyx. Sebæa, g. 281. p. 98.

**Septa**, (166) the partitions that divide the interior of the fruit. Rulíngia, g. 704. p. 118.

**Septiferous**, bearing septa. Ramóna, g. 374. p. 110.

**Serrated**, (230) like the teeth of a saw. Mayténus boária, s. 134.

**Serrulations**, notchings like those of a saw. Agáve yuccafolia, s. 4093.

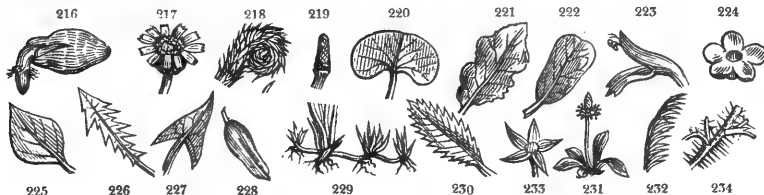
**Sessile**, without footstalks. Zostéra, g. 24. p. 1.

**Setaceo-rostrate**, having a beak with the figure of a bristle. Cárex ampullácea, s. 13162.

**Setaceous**, resembling a bristle in shape. Justicia nigricans, s. 282.

**Setæ**, bristles. Schœnus nigricans, s. 845.

**Seriform**, (234) formed like a bristle. Rósa hibérnica, s. 7501.

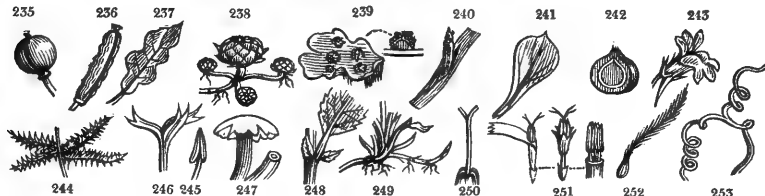


**Setigerous**, or *Setose*, covered with bristles. *Knáppia*, g. 142, p. 32.  
**Sheath**, the lower part of the leaf that surrounds the stem. *Zostéra*, g. 24, p. 1.  
**Sheras**, the fragments of pottng employed by gardeners to drain their flower-pots. *Prótea*, g. 231. (note.)  
**Shield**, (29) a broad table-like process in the flower of *Stapélia* and its allies. *Huérnia clavigera*, s. 3351.  
**Stalagmoe**, having the power of exciting saliva. p. 536.  
**Silicated**, coated or mixed with flint. *Astrágalus tragacantha*, p. 637. (note.)  
**Siticeous**, flinty. *Laórus cinnamómum*, g. 934. (note.)  
**Siticle**, (235) the small round pod of *Cruciferae*. *Lunária*, g. 1395, p. 536.  
**Sitique**, (236) the long taper pod of *Cruciferae*. *Brásica*, g. 1432.  
**Simple**, the reverse of compound. p. 1.  
**Sinuate**, or *Sinuose*, (237) bending in and out. *Lycopus europæus*, s. 538.  
**Sinuato-dentate**, sinuate and toothed. *Leóntodon palustris*, s. 11156.  
**Sinus**, the bays or recesses formed by the lobes of leaves or other bodies. *Hamamélis virginica*, s. 1814.  
**Soboliferous**, (238) producing young plants from the root. *A'loe brévia*, s. 4415.  
**Soddened**, soaked. *Prótea*, g. 231. (note.)  
**Somniferous**, causing sleep. *Primula véris*, s. 2022.  
**Soporific**, causing sleep. *Húmulus*, g. 2074. (note.)  
**Sorediferous**, (239) bearing soredia. *Ramalina*, g. 2355, p. 949.  
**Sori**, (152) the patches of fructification on the back of the fronds of ferns. p. 925.  
**Spatha**, (240) a spike protracted from a spathe. *Zostéra*, g. 24, p. 1.  
**Spatha**, a broad sheathing leaf enclosing flowers arranged upon a spadix. *Hedýchium spicátum*, s. 34.  
**Spathaceous**, furnished with a spathe. p. 1.  
**Spathulate**, (241) shaped like a spatula, a knife so called. *Cánna gigantéa*, s. 6.  
**Sphacelate**, withered or dead. *Senécio ægyptius*, s. 11911.  
**Spherical**, round like a sphere. *Alpinia nútans*, s. 43.  
**Spheroidal**, almost like a sphere. *Cáctus latispinus*, s. 6352.  
**Spherules**, (242) minute spheres. *Stromatosphæ'ria concéntrica*, s. 16360.  
**Spike**, (214) flowers sessile upon a long rachis. *Maránta lítea*, s. 20.  
**Spines**, indurated branches or processes formed of woody fibre, and not falling off from the part that bears them. *Ancistrum*, g. 68, p. 10.  
**Spiniform**, formed like a spine. *Mesembryánthemum spinifórmis*, s. 7363.  
**Spinous**, full of spines. *Alpinia cernua*, s. 44.  
**Spinulescent**, having a tendency to produce small spines. *Mesembryánthemum spinuliferum*, s. 7421.  
**Spinulose**, covered with small spines. *Rhécum Ribes*, s. 5667.  
**Spiral**, (253) circularly involved. *Cóstus spirális*, s. 65.  
**Sporules**, that part in *Cryptogamous* plants which answers to the seeds of other plants. p. 874.  
**Sporuliferous**, bearing sporules. *Phállus impudicus*, s. 16336.  
**Spurious**, counterfeit. *I'ris spúria*, s. 781.  
**Spurs**, (243) long processes resembling horns produced by various parts of the flower. *Curcúma*, g. 14, p. 1.  
**Squamiform**, like scales. *Sántalum*, g. 307, p. 79.  
**Squarrose**, (244) spreading rigidly at right angles, or in a greater degree. *Zingiber squarrosum*, s. 60.  
**Squinancy**, an inflammation in the throat. *Aspéruia*, g. 268. (note.)  
**Stamen**, (245) the male organ of a flower. p. 1.  
**Staminiferous**, producing stamina. *Campánula*, g. 463, p. 112.  
**Standard**, (188) the upper segment of the flower of *Leguminosæ*. *Thermópis*, g. 944, p. 338.  
**Stellate**, in the manner of a star. *Schwénkia*, g. 42, p. 9.

**Stellulate**, resembling little stars. *Onósma taúricum*, s. 1907.  
**Sterile**, barren. *Amómum grandifórum*, s. 74.  
**Sternutatory**, qualities which provoke sneezing. *Primula vulgaris*, g. 350. (note.)  
**Stigma**, (246) the female organ of a flower. *Cánna*, g. 1, p. 1.  
**Stimulating**, exciting. *Cinna*, g. 161. (note.)  
**Stimuli**, stinging hairs. *U'rtica árdens*, s. 13230.  
**Stipes**, (247) the stalk of *Fungi*. p. 978.  
**Stipitate**, having a short stalk. *Aspidistra*, g. 759, p. 238.  
**Stipulaceous**, having appendages called stipulæ. *Solanum peruvianum*, s. 2516.  
**Stipulary**, occupying the place of stipulæ. *Palíurus australis*, s. 2896.  
**Stipules**, (248) small scales at the base of the petiole of certain leaves. *Spermacóce stylósa*, s. 1653.  
**Stoloniferous**, (249) having creeping roots. *Sesléria elongáta*, s. 1075.  
**Stolons**, root shoots. *Agróstis*, g. 156. (note.)  
**Stomachic**, relating or agreeable to the stomach. *Kampféria*, g. 12. (note.)  
**Strangers**, a disease, and produced on plants by tight ligatures. *Ornithógalum*, g. 802. (note.)  
**Strata**, layers, beds. *Cápsicum*, g. 453. (note.)  
**Striæ**, small streaks, channels, or furrows. p. 877.  
**Striated**, having striæ. *Alpinia racemósa*, s. 41.  
**Strigæ**, little, rigid, unequal, irregular hairs. *Chára hispida*, s. 15199.  
**Strigose**, having strigæ. *Lithospérmum arvénsis*, s. 1895.  
**Strophiolate**, surrounded by protuberances. *Hóvea*, g. 1536, p. 599.  
**Struma**, a wen or protuberance. p. 903.  
**Strumose**, or *Strumous*, covered with strumæ. *Mesembryánthemum gróssum*, s. 7422.  
**Style**, (250) the stalk which intervenes between the ovarium and stigma, bearing the latter. p. 1.  
**Styptic**, having the power to staunch blood. *Rhús*, g. 681. (note.)  
**Sub**, in composition, signifies subordinate, or somewhat.  
**Succedaneum**, coming in the place of another. *Tácca*, g. 758. (note.)  
**Succulent** fleshy and filled with juice. *Blítum*, g. 28. (note.)  
**Sudorific**, having the power of producing perspiration. *Sálvia*, g. 62. (note.)  
**Suffruticose**, shrubby in a slight degree. *Spermacóce suffruticósa*, s. 1656.  
**Sulcate**, furrowed. *Vibérgia*, g. 1523, p. 599.  
**Supernatant**, floating on the surface of any thing. *A'loe*, g. 770. (note.)  
**Suppurate**, to generate matter. *Rhús*, g. 681. (note.)  
**Supra-decompound**, doubly compounded. *Scirpus sylváticus*, s. 868.  
**Surculi**, young shoots. *Erythrónium*, g. 782. (note.)  
**Suture**, the line formed by the cohesion of two parts. *Mirbélia*, g. 967, p. 538.  
**Syngenesius**, (251) belonging to the nineteenth class of the sexual system. *Phlóx*, g. 369. (note.)  
**Synthetical**, combining; opposed to analytical. *Gillénia*, g. 1142. (note.)  
**Syphilitic**, useful in the cure of syphilis. *Chenopódium*, g. 611. (note.)

T.

**Tails**, (252) the long feathery or hairy terminations of certain fruits. *Clematis chinénsis*, s. 7968.  
**Tap-root**, a root which penetrates deep and perpendicularly into the ground without dividing. *Crinum defixum*, s. 4182.  
**Tartareous**, consisting of tartar. *Lecidéa cónfluens*, s. 15384.  
**Teated**, resembling the figure of the teat of animals. *A'chras*, g. 427, p. 111.  
**Tendrils**, (253) the curling twining organs by which some plants lay hold of others. *Vitis índica*, s. 2858.



**Tenesmus**, a disposition to go to stool, without the power of evacuation. *A'nthemis*, g. 1778. (note.)  
**Tepid**, lukewarm. *A'nthemis*, g. 1778. (note.)  
**Terebinthinate**, consisting of turpentine. *A'bies balsamea*, p. 805. (note.)  
**Terete**, taper, round and long. *Hákea obliqua*, s. 1423.  
**Terminal**, ending, or at the top. *Maránta létea*, s. 20.  
**Ternary**, consisting of threes. *Valeríana*, g. 78. (note.)  
**Ternate**, (254) growing together in threes. *Hedýchium elátum*, s. 31.  
**Tessellated**, variegated by squares. *Sarcocéphalus*, g. 498, p. 113.  
**Testa**, the skin or integument of the seed. *Psídium*, g. 1118, p. 409.  
**Testaceous**, having a pale brown color. *Mesembryanthemum testáceum*, s. 7430.  
**Tetrachotomous**, (255) a stem that ramifies in fours. *Euphóbia*, g. 1103. (note.)  
**Tetrandrous**, (256) having four stamens. *Collinsónia anisáta*, s. 469.  
**Tetrapetalous**, (256) having four petals. p. 1069.  
**Tetraspalous**, (256) having four sepals. p. 1069.  
**Thalamus**, (258) that part of a flower which rises from below the ovarium and sometimes supports the outer envelopes. p. 539.  
**Thallus**, (257) that part which bears the fructification of Lichens. p. 874.  
**Theca**, the cases that contain the spores of Cryptogamic plants. p. 874.  
**Threads**, long delicate hairs. *Anacámperos filamentósa*, s. 8632.  
**Throat**, (190) the orifice of a flower. *Justícia picta*, s. 285.  
**Thyrse**, (259) a kind of dense panicle like that of the lilac. *A'juga furcáta*, s. 8099.  
**Thyrsoid**, resembling a particular kind of panicle called a thyrseus. p. 85.  
**Tomentose**, densely and closely hairy. *Thýmus tomentosus*, s. 8414.  
**Tomentum**, dense close hair. *Grevillea buxifolia*, s. 1418.  
**Tonic**, bracing, corroborative. *Sálvia*, g. 62. (note.)  
**Toothed**, (260) divided so as to resemble teeth. *Políchia*, g. 21, p. 1.  
**Toothletted**, furnished with little teeth. *Sálvia paniculáta*, s. 402.  
**Topical**, local, confined to some particular place. *Papáver*, g. 1170. (note.)  
**Torose**, uneven; alternately elevated and depressed. *Papáver híbridum*, s. 7659.  
**Tortuose**, twisted. *Helianthemum Fumána*, s. 7773.  
**Tortuose**, slightly torose. *Echites torósa*, s. 2357.  
**Torus**, (258) the same as thalamus, which see. *Sisýmbrium*, g. 1422, p. 537.  
**Trapeziform**, in the shape of a trapezium. *Borónia serruláta*, s. 5091.  
**Trapezoid**, like a trapezium. *Adiántum villósum*, s. 14554.  
**Triandrous**, (261) having three stamens. p. 30.  
**Trichotomous**, (102) branches divided in threes. *Trichódium decámbens*, s. 1000.  
**Tricuspidate**, (262) having three points. *A'líum Pórrum*, s. 4617.  
**Trifarious**, arranged in triple rank. *A'loe tortuósa*, s. 4386.  
**Trifid**, divided in three. *Mantísia*, g. 16, p. 1.  
**Trilocular**, (166) having three cells. *Leptoséprium triloculáre*, s. 6931.  
**Tripetaloid**, appearing as if furnished with three petals. *Tillándsia xiphioídes*, s. 4144.  
**Tripetalous**, having three petals. *Elatipe hydropíper*, s. 5635.  
**Triquetrous**, having three sides or angles. *A'loe reticuláta*, s. 4392.  
**Triturated**, reduced to powder by pounding, *Amýgdalus*, g. 1128. (note.)  
**Tropical**, belonging to the torrid zone. *Conocárpum*, g. 544. (note.)  
**Truncate**, (263) blunt, as if cut off. *Hedýchium spícátum*, s. 34.  
**Tuberculate**, covered with knobs or tubercles. *Ranúnculus parviflórus*, s. 8073.

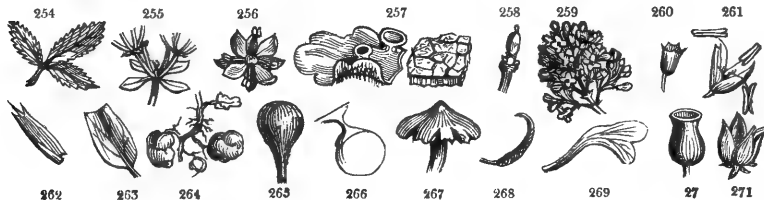
**Tuberous**, (264) bearing solid fleshy roundish roots like the potato. *Cánnis edulis*, s. 12.  
**Tubers**, roots so called. *Curcúma*, g. 14. (note.)  
**Tumid**, swelling. *Secále orientále*, s. 1267.  
**Tunic**, a coat. *Crocus pusillus*, s. 606.  
**Tunicated**, having a coat. *A'líum Pórrum*, s. 4617.  
**Turbinate**, (265) having the figure of a top. *Salicórnica*, g. 22, p. 1.  
**Turgid**, swollen, puffed up. *Brómus praténsis*, s. 1132

## U.

**Umbellules**, (153) divisions of an umbel. *Caúcalis daucoides*, s. 3524.  
**Umbels**, (154) the round tuft of flowers produced by the carrot, &c. *Boerhaávia scádensis*, s. 108.  
**Umbilicus**, (266) the cord which attaches the seed to the receptacle. *Bérberis*, g. 829, p. 239.  
**Umbonate**, (267) having a top in the centre like that of the ancient shield. *Cucúrbita Melopépo*, a. 13566.  
**Unarmed**, destitute of prickles or spines, which are the arms of plants. *Corispérmum hyssopifólium*, s. 124.  
**Uncinate**, (268) hooked. *Piper adúncum*, s. 502.  
**Unctuous**, fat, oily. *Anchúsa*, g. 333. (note.)  
**Undulate**, waved. *Sálvia pomifera*, s. 370.  
**Undulato-rugose**, rugose or pumged and waved. *Stromatosphé'ria detústa*, s. 16361.  
**Unguiculated**, furnished with a short unguis. *Alpínia galánga*, s. 40.  
**Unguis**, (268) the taper base of a petal. *Diánthus*, p. 372. (note.)  
**Unilateral**, one-sided. *Brachypódium lolíáceum*, s. 1147.  
**Unilocular**, (166) one-celled. *Calepina*, g. 1441. (note.)  
**Unisexual**, being of one sex. *Próckia*, g. 1179. (note.)  
**Urceolate**, (270) pitcher-shaped. *Camphorósmá*, g. 254, p. 78.  
**Uterine**, belonging to the womb. *Acácia*, g. 2127. (note.)  
**Uterus**, the womb. p. 981.  
**Utricle**, or *Utriculus*, a little bottle or bladder. *Salicórnica*, g. 22, p. 1.  
**Uvula**, the gland of the throat. *Acácia*, g. 2127. (note.)

## V.

**Valvular**, (271) or *Valved*, consisting of valves or seed cells. p. 895.  
**Varicose**, (272) swollen here and there. *Pterocárpum*, g. 1515, p. 598.  
**Vascular**, (273) consisting of tissue in a very succulent enlarged state. *Potamogéton*, g. 317. (note.)  
**Vaulted**, (274) formed or placed like the roof of a vault. *Gladíolus namaquénsis*, s. 709.  
**Veneering**, the art of covering one kind of wood with thin plates of another kind. *Spártium scopárium*, p. 611. (note.)  
**Ventricose**, (275) inflated. *Gastridium*, g. 155, p. 32.  
**Veratrine**, the active principle of *Verátrum*. *Verátrum*, g. 2128. (note.)  
**Vermífuge**, that which expels worms. *Hellébórus*, g. 1237. (note.)  
**Vernacular**, native. *Zingiber*, g. 10. (note.)  
**Vernal**, belonging to the spring. *Verónica vérna*, s. 254.  
**Versatile**, (276) swinging lightly on a stalk so as to be continually changing direction. *Sternbérgia*, g. 742, p. 237.  
**Verte**, the uppermost point. *Róméria*, g. 1168, p. 456.  
**Vertical**, perpendicular. *Nivénia*, g. 235, p. 77.  
**Vertically compressed**, that is depressed. *Salicórnica*, g. 22, p. 1.  
**Vertilinear**, the same as rectilinear; in a straight line. *Viola campéstris*, s. 3037.  
**Vesicatories**, blistering plasters. *Ranúnculus*, g. 1233 (note.)



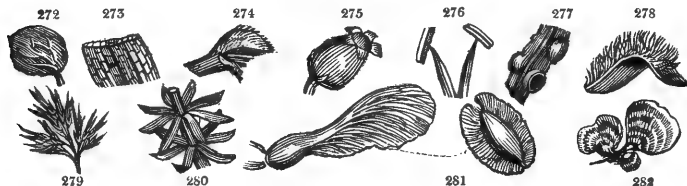
*Vesicles*, (277) hollow excrescences resembling bladders, g. 310. (note.)  
*Vesillum*, (188) a standard; the upper petal of a papilionaceous flower. Petalostémum, g. 1501. p. 598.  
*Villosus*, (278) shaggy, with long loose hair. Còstus villosissimus, s. 66.  
*Virescent*, green, flourishing. Mesembryánthemum viréscens, s. 7275.  
*Virgate*, twiggly. Verbáscum cúpream, s. 2152.  
*Viscid*, or *Viscous*, adhesive, clammy. Boerhaávia viscosa, s. 109.  
*Vivacious*, lively. Cárduus, g. 1663. (note.)  
*Viviparous*, (279) bearing young plants in the place of flowers and seed. Márica cærdéa, s. 841.  
*Vulnerary*, useful in the cure of wounds. Sýmphytum, g. 334. (note.)  
*Vulviform*, like a cleft with projecting edges. Melampódium, g. 1828. p. 665.

*Wattled*, having processes like the wattles of a cock. Rhinánthus alectorólóphus, s. 8746.  
*Wetted*, flaccid, drooping. Cárduus acanthoides, s. 11375.  
*Whorls*, (280) leaves inserted round a stem. Hippúris, g. 23. (note.)  
*Wing*, (281) in botany, signifies a membranous border, wherewith many seeds are supported in the air when floating from place to place. Amómum dealbátum, s. 77.

Z.

*Zones*, (282) stripes or belts. Zonária pavónia, s. 15335.

○ signifies wanting or absent. p. 79.  
 ○ ○, very numerous.



# TABLE OF SUCH AS HAVE SYNONYMES IN

In this Index, the systematic names in col. 1. are distinguished as classical, i.e. names  
memorative, by the terminating letter or letters being in Italic, as *Bánksia*; and as  
the other names are formed, in almost every case, from the Greek, but sometimes from

| Page | Nos.<br>to Genera. | British or Systematic<br>Synonymes. | English Names.   | French.                                  | German.                                   |
|------|--------------------|-------------------------------------|--|--|---|
| 650  | 1609               | - - -                               | - - -  | Ambrome                                  | Die abrome                                |
| 614  | 1546               | - - -                               | Wild liquorice   | Liane à réglisse                         | Der abrusstrauch, <i>or</i><br>giftbohne  |
| 856  | 2127               | Mimōsa                              | - - -  | - - -                                    | - - -                                     |
| 814  | 2038               | - - -                               | Three-seeded Mer-<br>cury                              | La ricinelle                             | Zeckel, <i>or</i> brenn-<br>kraut         |
| 516  | 1301               | - - -                               | Bear's breech  | Branc-ursine                             | Die bärenklau                             |
| 864  | 2143               | - - -                               | Maple  | L'érable                                 | Der ahorn                                 |
| 752  | 1865               | O'phrys                             | Man orchis   | - - -                                    | - - -                                     |
| 726  | 1781               | - - -                               | Milfoil  | L'achilléo                               | Das achillenkraut                         |
|      |                    | - - -                               | Yarrow   | Millefeuille                             | Die schaaftarbe, <i>or</i><br>garbenkraut |
| 150  | 427                | Nisberry tree                       | Sapodilla  | Le sapotier                              | Der breyapfelbaum                         |
| 190  | 552                | - - -                               | - - -  | Le cadéari                               | Die spreublume                            |
| 834  | 2072               | - - -                               | Virginian hemp   | Acnie de Virginie                        | Der Virginische hanf                      |
| 474  | 1205               | - - -                               | Wolf's-bane  | L'aconit                                 | Der sturmhut                              |
| 256  | 755                | Clāmus aromāticus                   | Sweet rush   | L'acore odorant                          | Der kalmus, <i>or</i><br>calmus           |
| 878  | 2169               | - - -                               | - - -  | L'acrostique                             | Der vollblühende<br>farn                  |
| 460  | 1164               | - - -                               | Herb. Christopher                                      | L'actée                                  | Schwarzwurz                               |
| 294  | 860                | Alisma                              | - - -  | - - -                                    | - - -                                     |
| 508  | 1276               | Thymus                              | - - -  | Basilique sauvage                        | Kleine bergmünze                          |
| 592  | 1471               | - - -                               | Ethiopian sour<br>gourd, <i>or</i> mon-<br>key's bread | Le baobab, <i>or</i> le pain<br>du singe | Die adansonie, <i>or</i><br>der affenbaum |
| 850  | 2118               | - - -                               | - - -  | L'adehe                                  | Quästhen                                  |
| 180  | 518                | Diósma                              | - - -  | - - -                                    | - - -                                     |
| 350  | 982                | - - -                               | Bastard flower<br>fence                                | Le condori                               | Der strüsenbeutel                         |
| 834  | 2194               | - - -                               | Maidenhair   | Adianthe                                 | Venushaar                                 |
| 98   | 286                | Naúclea                             | - - -  | - - -                                    | - - -                                     |
| 434  | 1230               | - - -                               | Pheasant's eye   | Adonide                                  | Die adonisblume, <i>or</i><br>adonisrose  |
| 328  | 930                | Musk crowfoot                       | Moschatel  | Moscatelline                             | Das bisamkräutchen                        |
| 862  | 2134               | - - -                               | Hard grass   | L'égilope                                | Das geissauge                             |
| 96   | 274                | - - -                               | - - -  | Égiphile                                 | Das ziegenbäumchen                        |
| 468  | 1196               | Crataeva                            | Bengal quince  | - - -                                    | Der schleimapfel-<br>baum                 |
| 216  | 652                | - - -                               | Gout weed  | Boucage                                  | Geissfuss                                 |
| 762  | 1917               | - - -                               | Air plant  | - - -                                    | - - -                                     |
| 192  | 560                | - - -                               | - - -  | Aerve                                    | - - -                                     |
| 630  | 1582               | - - -                               | Bastard sensitive<br>plant                             | L'eschynoméne                            | Die unächte sinn-<br>pflanze              |
| 296  | 866                | Pavia                               | Horsechestnut  | Le marronnier d'Inde                     | Die rosskastanie                          |
| 218  | 661                | Lesser hemlock                      | Fool's parsley   | Æthuse                                   | Der gartenschierling                      |
| 260  | 767                | Crinum africanum                    | African lily   | Crinole d'Afrique                        | Die Afrikanische<br>hakenblume            |
| 986  | 2365               | - - -                               | Mushroom   | L'agaric                                 | Der blätterschwamm                        |
| 802  | 2011               | Pinus                               | Dammar   | - - -                                    | - - -                                     |
| 182  | 520                | Diósma                              | - - -  | - - -                                    | - - -                                     |
| 244  | 724                | Aloe                                | - - -  | L'agavé                                  | Die baum-aloë                             |
| 690  | 1687               | - - -                               | - - -  | L'agérate                                | Das ageratum                              |
| 338  | 1101               | Liverwort                           | Agrimony   | L'aignemoiné                             | Der odernemng                             |
| 338  | 1066               | - - -                               | Rose-campion   | La nielle                                | Der raden                                 |
| 56   | 156                | - - -                               | Bent grass   | Agrostia                                 | Das strausgrass                           |
| 866  | 2150               | - - -                               | - - -  | Le langit                                | - - -                                     |
| 58   | 170                | - - -                               | Hair grass   | Canche                                   | Schmellen, <i>or</i><br>schmielen         |
| 428  | 1144               | - - -                               | - - -  | La languette                             | Das immergrün                             |
| 494  | 1242               | - - -                               | Bugle  | La bugle                                 | Günsel                                    |
| 274  | 797                | - - -                               | Bastard star of<br>Bethlehem                           | - - -                                    | Dass weisaleder                           |
| 88   | 255                | - - -                               | Ladies' mantle   | L'alchimille                             | Der sinau                                 |
| 812  | 2028               | - - -                               | - - -  | L'aleurit                                | Der melbbaum                              |
| 294  | 861                | - - -                               | Water plantain   | Le fluteau                               | Der frochlöffel                           |
| 146  | 407                | - - -                               | - - -  | Liane à lait                             | - - -                                     |

# OF THE GENERA, DIFFERENT LANGUAGES.

applied to plants by the ancients, by the first letter being in *Italic*, as *A'bies*; as com-  
aboriginal, or of uncertain derivation, by the whole word being in *Italic*, as *Z'rua*. All  
the Greek and Latin.

| Page | Dutch.  | Italian.                 | Spanish.                      | Portuguese, Danish, Russian, Polish, South American,<br>Oriental, or other Names. |
|------|---|--------------------------|-------------------------------|---|
| 614  | Weegboontjes                                      | - -                      | Abro de cuentas<br>de rosario | Berdeebedeo <i>Otaheite</i> . <i>Olinda Ceylon</i> . <i>Konni Malab.</i>          |
| 814  | Netelkruid  |                          |                               |   |
| 516  | Beerenklaauw                                      | Acanto                   | Acanto                        | Acanto <i>Port.</i>   |
| 864  | Ahorn   | Acero                    | Arce                          | Acero <i>Port.</i>  |
| 726  | Duizendblad<br>Hetgemeene dui-<br>zenblad         | Achillea<br>Millefolgie  | Aquilea                       |   |
| 150  | Sapodilleboom                                     | - -                      | Sapote                        | Zapota menor <i>Port.</i> Sapotilletre <i>Dan.</i>                                |
| 190  | Kafbloem  | - -                      | Cañamo de Vir-<br>gibia       |   |
| 834  | Kennip  | - - -                    | Aconito                       | Aconito <i>Port.</i>  |
| 474  | Monnikskappen                                     | Aconito                  | Acoro calamo                  | Acoro calamo <i>Port.</i> Waambu <i>Malab.</i> Cassabel                           |
| 256  | Kalmus  | Acoro                    | Acrostico                     | <i>Egypt.</i><br>Acrostico <i>Port.</i> Pletbrægne <i>Dan.</i>                    |
| 878  | Plakvaren   | Acrostico                | Acrostico                     |   |
| 460  | Kristoffelkruid                                   | Actea                    | Actea                         | Actea <i>Port.</i>  |
| 508  | Vold mynte  | - - -                    | Albahaca menor                | Serpao <i>Port.</i>   |
| 592  | Meloenboom, aa-<br>penbrood boom, or<br>baobaboom | - - -                    | -                             | Iciboica <i>Brazil.</i>   |
| 350  | Klierenbloem                                      | Adenantera               | Adenantera                    | Adenantera <i>Port.</i>   |
| 884  | Venusshaair                                       | Adianto                  | Adianto                       | Adianto <i>Port.</i> Cay Duòl chon <i>China.</i>                                  |
| 484  | Adonisbloem                                       | Fiore d' Adono           | Adonis                        | Adonis <i>Port.</i>   |
| 328  | Muskuskruid                                       | Moscatellina             | Moscatelina                   | Moscatelina <i>Port.</i> Desmerurt <i>Dan.</i> Desmansört <i>Swed.</i>            |
| 862  | Geitenoog   | Egilope                  | Ejilope                       | Egilopee <i>Port.</i> Gedeöye <i>Dan.</i> Getöga <i>Swed.</i>                     |
| 96   | Het geitenoompje                                  | Egifila                  | Ejifila                       | Egiphila <i>Port.</i> Lidet geedetre <i>Dan.</i>                                  |
| 468  | Stymappelboom                                     | - - -                    | -                             | Marmeiteiro da India <i>Port.</i> Covalam <i>Malab.</i>                           |
| 216  | Gerardskruid                                      | Podagraria               | Egopodio                      | Egopodio <i>Port.</i> Snit <i>Russ.</i> Podagrycznik <i>Pol.</i>                  |
| 762  | -   | -                        | -                             | Fùm-lán <i>China.</i> Phaong lon <i>Cochinch.</i>                                 |
| 192  | -   | -                        | -                             | Aerva <i>Arab. fel.</i> Sedjaret ennaghi <i>Cairo.</i>                            |
| 680  | Schaamboom  | -                        | -                             |   |
| 296  | Paardenkarstenge-<br>boom                         | L' ippocastano           | Esculo castána<br>de caballo  | Esculo <i>Port.</i> Kònskoi kastàn <i>Russ.</i>                                   |
| 218  | Tuinscheerling                                    | Cicuta minore            | Cicuta menor                  | Cicuta menor <i>Port.</i> Medwjeschei kòren <i>Russ.</i>                          |
| 260  | Afrikaanse haak-<br>lelie                         | -                        | -                             |   |
| 986  | Kampmoelje  | Agarico                  | Agarico                       | Agarico <i>Port.</i> Fastacki <i>Jap.</i> Bladsvamp <i>Dan. &amp; Swed.</i>       |
| 244  | Boomaloe  | Aloe grande, or<br>agave | Agave                         | Agave <i>Port.</i> Den træaloe, or agave <i>Dan.</i>                              |
| 690  | Geurkruid   | Agerato                  | Agerato                       | Agerato <i>Port.</i> Ageratum <i>Dan., &amp;c.</i>                                |
| 398  | Agrimonie   | - - -                    | -                             | Agrimonia <i>Port.</i> Daikon so <i>Jap.</i> Repnik <i>Russ.</i>                  |
| 388  | Koornvlam   | - - -                    | -                             | Agrostema <i>Port.</i> Drema <i>Russ.</i> Firlетка <i>Pol.</i>                    |
| 56   | Struisgras  | - - -                    | -                             | Agrostis <i>Port.</i> Hven <i>Dan. &amp; Swed.</i>                                |
| 866  | -   | - - -                    | -                             | Tong-yen-tsaou, or Tchean-theum <i>China.</i>                                     |
| 58   | Rietgras  | - - -                    | -                             | Sivegræs <i>Dan.</i> Tatalen <i>Swed.</i> Reyrgrese <i>Iceland.</i>               |
| 428  | -   | - - -                    | -                             | Aizoa <i>Port.</i>  |
| 494  | Senegroen   | Bugola                   | -                             | Ædel vundurt <i>Dan.</i> Kåringkruka <i>Swed.</i>                                 |
| 274  | Stiftbloem  | - - -                    | -                             | Albuca <i>Port.</i>   |
| 88   | Leeuwenvoet                                       | Alchimilla               | Alchemila                     | Alchimilla <i>Port.</i> Mariä kåpa <i>Swed.</i> Synov <i>Dan.</i>                 |
| 294  | Water weegbree                                    | - - -                    | - - -                         | Guldblomme <i>Dan.</i> Ståckra <i>Swed.</i>                                       |

| Page | No. to Genera.              | British or Systematic Synonymes. | English Names.          | French.                      | German.                                 |
|------|-----------------------------|----------------------------------|-------------------------|------------------------------|---|
| 272  | <i>Allium L.</i>            | 796                              | Garlic                  | L'all                        | Der lauch                               |
|      | 1. <i>ascalónicum L.</i>    |                                  | Shallot, or scallion    | Echalote, or ail sterile     | Die schalotte, or aschlauch             |
|      | sp. 4664                    |                                  |                         |                              |   |
|      | 2. <i>Pórrum L.</i>         |                                  | Leek                    | Porreau, or l'ail à tuniques | Der zahme lauch, or der Spanische lauch |
|      | sp. 4617                    |                                  |                         |                              |   |
|      | 3. <i>Schœnoprasum L.</i>   | - -                              | Chives                  | Ciboullette                  | Der binsenlauch, or schnittlauch        |
|      | sp. 4688                    |                                  |                         |                              |   |
|      | 4. <i>Cœpa L. sp.</i>       |                                  | Onion                   | L'oignon                     | Die zwiebel                             |
| 780  | <i>A'lnus Tou.</i>          | 1955                             | Alder                   | L'aune                       | Die erle                                |
| 534  | Alonsoa R. & P.             | 1377                             | Hemimeris               |                              |   |
| 56   | <i>Alopecurus L.</i>        | 164                              | Fox-tail grass          | Le vulpin                    | Der fuchschwanz                         |
| 518  | <i>Aloëzia Or.</i>          | 1313                             | Verbena                 |                              |   |
| 226  | <i>Alaine L.</i>            | 688                              | Chickweed               | La morgeline                 | Der hühnerbiss                          |
| 192  | <i>Alternanthera R. Br.</i> | 556                              |                         | L'alternante                 |   |
| 534  | <i>Althæa L.</i>            | 1474                             | Marsh mallow            | La guimauve                  | Der eibisch                             |
| 544  | <i>Alyssum L.</i>           | 1401                             | Madwort                 | L'alyse                      | Das steinkraut                          |
| 786  | <i>Amarantus L.</i>         | 1975                             | Amaranth                | L'amaranthe                  | Der amarant                             |
| 252  | <i>Amarýllis L.</i>         | 739                              | Daffodil lily           | L'amaryllis                  | Die narzissenlilie                      |
| 788  | <i>Ambrósia L.</i>          | 1977                             |                         | L'ambrose                    | Das traubenkraut                        |
| 726  | <i>Améllus L.</i>           | 1783                             | A'ster                  | L'œil de Christ              |   |
| 20   | <i>Amethystea L.</i>        | 56                               | Blue amethyst           | L'améthystée                 | Die amethystpflanze                     |
| 214  | <i>A'mmi L.</i>             | 639                              | Bishop's weed           |                              |   |
| 4    | <i>Amomum Rosc.</i>         | 13                               | Cardamoms               | L'amome                      | Die kardamomen                          |
| 614  | <i>Amórpha L.</i>           | 1545                             | Bastard indigo          | L'amorpha                    | Der unforn                              |
| 148  | <i>Amsonia Walt.</i>        | 419                              | Tabernamontana          |                              |   |
| 420  | <i>Amýgdalus Tou.</i>       | 1128                             | Almond                  | L'amandier                   | Der mandelbaum                          |
|      | <i>A. Pérsica L.</i>        |                                  | Peach                   | Le pécher                    | Der pirschenbaum                        |
|      | sp. 7020                    |                                  |                         |                              |   |
| 304  | <i>Amýris L.</i>            | 889                              | Balm-tree               | Le balsamier                 | Der balsamtrauch                        |
| 204  | <i>Anábasis L.</i>          | 608                              | Berry-bearing glasswort | L'anabase                    | Die salzbeere                           |
| 534  | <i>Anacárdium Rox.</i>      | 935                              | Cashew nut              | L'acajou                     | Der acajoubaum                          |
| 724  | <i>Anacyclus L.</i>         | 1777                             | Ring-flower             | L'anacycle                   | Der scheibenring                        |
| 128  | <i>Anagallis L.</i>         | 357                              | Pimpernel               | Le mouron                    | Das gauchheil                           |
| 342  | <i>Anagyris Tou.</i>        | 943                              | Bean trefoil            | Le bois puant                | Der stinkbaum                           |
| 548  | <i>Anastática L.</i>        | 1416                             | Rose of Jericho         | La jérose hygromé-trique     | Die Jerichorose                         |
| 180  | <i>Anches L.</i>            | 333                              | Bugloss                 | La buglosse                  | Die ochsenzunge                         |
| 810  | <i>Andrache L.</i>          | 2025                             | Bastard orpine          | L'andrache                   | Die spaltblume                          |
| 860  | <i>Andropogon W.</i>        | 2129                             |                         | Le barbon                    | Das bartgras                            |
| 126  | <i>Androsáce L.</i>         | 349                              |                         | L'androsacé                  | Das mannschild                          |
| 676  | <i>Andryala L.</i>          | 1642                             |                         | L'andriale                   | Derzüllich, or zülch                    |
| 886  | <i>Anémia Swz.</i>          | 2207                             | Osmúnda                 |                              |   |
| 482  | <i>Anemone L.</i>           | 1226                             | Pulsatilla              | L'anémone                    | Die anemone                             |
| 218  | <i>Anéthum L.</i>           | 654                              | Dill                    | Anith                        | Das dillkraut                           |
| 220  | <i>Angélica L.</i>          | 664                              | Herb archangel          | Angélique                    | Die angelika, or engelwurz              |
| 912  | <i>Anictanglum</i>          | 2242                             | Gymnóstomum             |                              |   |
|      | <i>Hedw.</i>                |                                  |                         |                              |   |
| 404  | <i>Anisómeles R. Br.</i>    | 1243                             | Népetum                 |                              |   |
| 480  | <i>Anisóna Adan.</i>        | 1220                             |                         |                              |   |
| 912  | <i>Anisódon Hook.</i>       | 2246                             |                         |                              |   |
| 794  | <i>Anthemis L.</i>          | 1778                             | Chamomile               | La camomille                 | Die kamille                             |
| 280  | <i>Anthéricum L.</i>        | 809                              |                         | L'anthéric                   | Das spinnkraut                          |
| 44   | <i>Anthotyza L.</i>         | 107                              |                         | L'anholise                   | Die steinblume                          |
| 832  | <i>Anthospermum L.</i>      | 2062                             | Amber tree              | L'anthosperme                | Der ambertrauch                         |
| 28   | <i>Anthoxánum L.</i>        | 76                               | Spring grass            | La flouve                    | Das rüchgras                            |
| 208  | <i>Anthriscus Pers.</i>     | 620                              | Rough chervil           | Cerfeuil à fruits courts     | Der rauhe kerbel                        |
| 612  | <i>Anthýllis L.</i>         | 1542                             | Kidney vetch            | L'anthyllide                 | Die wollblume                           |
| 834  | <i>Antidésmia L.</i>        | 2068                             |                         | L'antidesme                  | Die schlangenbeere                      |
| 526  | <i>Antirrhinum L.</i>       | 1943                             | Toadflax                |                              | Der dorax                               |
| 832  | <i>Antrophium</i>           | 2193                             | Vitæria                 |                              |   |
| 518  | <i>Aphelándra R. Br.</i>    | 1306                             | Justicia                |                              |   |
| 272  | <i>Aphyllánthes L.</i>      | 794                              |                         |                              |   |
|      | <i>A. monspeliénsis L.</i>  |                                  | Lily pink               | Jonciolle                    | Die blattlose                           |
|      | sp. 4614                    |                                  |                         | Bragalou de Mont-pellier     |   |
| 216  | <i>A'pium L.</i>            | 651                              | Parsley                 | Lé persil                    | Die petersilie                          |
|      | <i>A. graveolens L.</i>     |                                  | Celery                  | Céliéri                      | Der celeri                              |
|      | sp. 3618                    |                                  |                         |                              |   |
| 194  | <i>Apócynum L.</i>          | 572                              | Dog's bane              | L'apocin                     | Der hundekohl                           |
| 292  | <i>Aponogeton Thun.</i>     | 854                              |                         | L'aponoget                   | Der schwimmer                           |
| 476  | <i>Aquilegia L.</i>         | 1208                             | Columbine               | Ancolie                      | Der ackeley                             |
| 540  | <i>A'rabis L.</i>           | 1390                             | Wall cress              | L'arabette                   | Der gänsekraut                          |
| 614  | <i>A'rachis L.</i>          | 1543                             | Pindars, or ground nuts | L'arachide                   | Die erdnuss                             |
| 230  | <i>Aralia L.</i>            | 696                              | Angelica tree           | L'aralie                     | Die aralie                              |
| 330  | <i>A'rbutus L.</i>          | 1019                             | Arctostáphylos          | L'arbusier                   | Der erdbeerbaum                         |
| 680  | <i>A'rectium L.</i>         | 1690                             | Clot-burr               | Bardane                      | Die klette                              |
| 672  | <i>A'retópus L.</i>         | 2165                             | Burdock                 | L'arctope                    | Der bärenfuss                           |
| 734  | <i>Arctothèca Wnl.</i>      | 1815                             | Arctótis                |                              |   |
| 740  | <i>Arctótis L.</i>          | 1831                             | Bear's ear              | L'arctotide                  | Das bärenohr                            |
| 800  | <i>Aréca L.</i>             | 2009                             | Cabbage tree            | L'aréc, or chou palmiste     | Die arekapalme                          |
| 378  | <i>Arenaria L.</i>          | 1050                             | Sandwort                | La sablonière                | Das sandkraut                           |
| 462  | <i>Argemone Tou.</i>        | 1172                             | Prickly poppy           | L'argemone                   | Der stachelmohn                         |
| 766  | <i>Aristobchia L.</i>       | 1934                             | Birthwort               | L'aristolochie               | Die ostertuzey                          |
| 234  | <i>Arméria W. en.</i>       | 705                              | Státice Arméria         | Statice                      | Das seegras                             |

TABLE OF SYNONYMES.

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| Page | Dutch.                      | Italian.                    | Spanish.                 | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.   |
|------|-----------------------------|-----------------------------|--------------------------|--|
| 272  | Look                        | Agljo                       | Ajo                      | Alho <i>Port.</i> Tum <i>Indian.</i> Sir <i>Pers.</i> Tschesnok <i>Russ.</i> Scalotlögen <i>Dan.</i> Chalottenbök <i>Swed.</i> Osleych <i>Boh.</i> Mogyoró-hagyma <i>Hung.</i> Cay-nen <i>Cochinch.</i>  |
|      | 1. Chalotte                 | Scalogni, or cipolle malige | Escalónia, or chalote    | Alho porro <i>Port.</i> Purio <i>Swed.</i> Pras <i>Russ.</i> Plodziszek <i>Pol.</i> Pár-hagyma <i>Hung.</i> Chazir <i>Heb.</i> Korrat <i>Cairo.</i> Cebolinha de Ingalaterra <i>Port.</i> Graslög <i>Dan.</i> Luczer lupny, or Szczypiorek <i>Pol.</i> |
|      | 2. Prey, or porreye         | Porro, or porreta           | Puerro                   | Bhazal <i>Hebr.</i> Pias <i>Pers.</i> Sochan <i>Turk.</i> Sogan <i>Tatar.</i> Alemo <i>Port.</i> Olcha <i>Russ.</i> Olsza <i>Pol.</i> Ell <i>Dan.</i>  |
|      | 3. Bieslook, or sny-prey    | Cipolletta maligia          | Cibollino de Inglaterra  |  |
|      | 4. Uijen                    | Cipolla                     | Cebolla                  |  |
| 780  | Elzeboom                    | Ontano                      | Alliso                   |  |
|      | 56 Vossestaart              | Alopecuro                   | Alopecuro                | Alopecuro <i>Port.</i> Ræverumpe <i>Dan.</i> Raffvants <i>Swed.</i>  |
| 228  | Muur                        | Morgellina                  | Alsine                   | Kávar el abid <i>Arab. fel.</i> Hámel, in <i>Rosetta.</i>  |
| 192  | -                           |                             |                          |  |
| 584  | De heemst                   | Altea                       | Althea                   | Althéa <i>Port.</i>  |
| 544  | Tanddraad                   | Aliso                       | Aliso                    | Aliso <i>Port.</i>   |
| 786  | Amaranth                    | Amaranto                    | Amaranto                 | Amaranto <i>Port.</i> Krowawick <i>Russ.</i>   |
| 522  | Lelie-narcis                | Giglio narciso              | Amaryllis                | Amaryllis <i>Port.</i> Amaryllis <i>Dan. &amp; Swed.</i>   |
| 788  | Druifkruid                  | -                           | -                        | Ambrosia-Urt <i>Dan.</i> Ambrosia-ört <i>Swed.</i>   |
|      | 90 Amethystkruid            | -                           | -                        |  |
| 214  | -                           | -                           | -                        | Asperokephalos <i>Tenedos.</i> Chælle <i>Egypt.</i>  |
| 4    | Kardamom                    | Cardamomo                   | Cardamomo                | Cardamomo menor <i>Port.</i>   |
| 614  | Amorpha, or bastaard indigo | Indaco bastardo             | Indigo, or anil bastardo | Anileira bastarda <i>Port.</i> Bastard Indigo <i>Dan.</i>  |
| 420  | Amandelboom                 | Il mandorlo                 | Almendro                 | Him ho gin <i>Chin.</i> Minaldoe dero <i>Russ.</i>   |
|      | Persikboom                  | Pesco, or persico           | El melocoton             | Scheptals <i>Russ.</i> Baratsk-fa <i>Hung.</i>   |
| 504  | Balsemboom                  | Il balsamino                | El balsamo               | Obalsamo <i>Port.</i> Abu scham <i>Arab.</i>   |
| 204  | Zoutdruif                   |                             |                          |  |
| 334  | Catsjoe-appelboom           | Il albero acaju             | Anacardio occi-dental    | Anacardo da America <i>Port.</i> Kapa-mava <i>Malab.</i>   |
| 724  | Ringbloem                   | Anaciclo                    | Anaciclo                 | Anaciclo <i>Port.</i> Ringblomster <i>Dan.</i> Ringskifvan <i>Swed.</i>  |
| 128  | Het guichelheil             | Anagalide                   | Anagalide                | Murriao <i>Port.</i> Kurjatschja nogà trawá <i>Russ.</i>   |
| 342  | Stinkboompje                | Anagiride                   | Leño hediondo            | Anagyro de Hespanha <i>Port.</i> Bob kamienny <i>Pol.</i>  |
| 548  | Roos van Jericho            | Rosa di Jerico              | Rosa de Jerico           | Rosa de Jerich <i>Port.</i> Kaf marjam <i>Egypt.</i> Roza Jerychónska <i>Pol.</i>  |
| 120  | Ossetong                    | Ancusa                      | Anchusa                  | Andrachne <i>Dan. &amp; Swed.</i>  |
| 810  | Andrachne                   | -                           | -                        | Andropogon <i>Port.</i> Skæggegræs <i>Dan.</i>   |
| 860  | Baardgras                   | Andropogon                  | Andropogon               | Pereloinaja trawa <i>Russ.</i> Rzesza skalna <i>Pol.</i> Hilsko <i>Sw.</i>   |
| 126  | -                           | -                           | -                        |  |
| 676  | Woldistel                   | -                           | -                        |  |
| 482  | Anemone                     | Anemone                     | Anemone                  | Anemone <i>Port.</i> Ollina gusa <i>Jap.</i> Wjetreniza <i>Russ.</i>   |
| 218  | Dille                       | Aneto                       | Eneldo                   | Endro <i>Port.</i>   |
| 220  | Engelwortel                 | Angelica                    | Anjelica                 | Angelica <i>Port.</i> Angelika <i>Russ.</i> Dziegiel ogrodny <i>Pol.</i>   |
|      | 480 Annona                  |                             | Annona                   | Guanambao <i>Port.</i>   |
| 724  | Kamille                     | La camomilla                | La manzanilla            | A macella <i>Port.</i>   |
| 280  | Anthericum                  | Anterico                    | Anterico                 | Anterico <i>Port.</i> Kosatki <i>Pol.</i>  |
| 44   | Antholyza                   |                             |                          |  |
| 832  | Amberstruik                 | Antospermo                  | Antospermo               | Antospermo <i>Port.</i> Ambratræ <i>Dan.</i> Ambrabuske <i>Swed.</i>   |
| 28   | Geelbloem                   | Antoxanto                   | Antoxanto                | Guul ax <i>Dan.</i> Vårbrädd <i>Swed.</i>  |
| 208  | Wilde kervel                |                             |                          |  |
| 612  | Wundkruid                   | Antillide                   | Antillide                | Vundurt <i>Dan.</i> Ullblomster <i>Swed.</i>   |
| 834  | Vlaachboom                  | -                           | -                        | Cordueira <i>Port.</i> Noeli-tali <i>Malab.</i>  |
| 526  | Leeuwebek                   | Antirrino                   | Antirrino                | Antirrino <i>Port.</i>   |
|      | 272 Bies-anjelier           |                             |                          |  |
| 216  | Peterselie Sellery          | Petroselino Appio           | Perejil Apio hortense    | Baqdunis <i>Egypt.</i> Petruschka <i>Russ.</i> Pietruszka <i>Pol.</i> Kerafs <i>Egypt.</i> Selderi <i>Russ.</i> Zelerya <i>Pol.</i>  |
| 194  | Hondsdoed                   | Apocino                     | Apocino                  | Hundedöd <i>Dan.</i>   |
| 476  | Akeley                      | Acquilegia                  | Pajarilla                | Odamaki <i>Jap.</i> Kolokótschiki <i>Russ.</i> Orlik <i>Pol.</i>   |
| 540  | Honigschub                  | -                           | Arabide                  | Gassurt <i>Dan.</i> Akerleukoer <i>Swed.</i>   |
| 614  | Aardeikel                   | Pistacheie di terra         | Mani                     | Amenduinás <i>Port.</i> Mundubi <i>Brazil.</i> Cay dau phung <i>Cochinch.</i>  |
| 230  | Aralia                      |                             |                          |  |
| 360  | Arbutus                     | Arbuto                      | Madroño                  | Ljesnája jablon <i>Russ.</i> Jezowka wloska <i>Pol.</i>  |
| 680  | Klissen                     | Lappola                     | Lampazo                  | Lapa <i>Port.</i> Lapuschnik <i>Russ.</i> Lopian <i>Pol.</i>   |
| 872  | Gedoornd                    | -                           | -                        | Biörneföd <i>Dan.</i>  |
| 740  | Beerenoer                   | -                           | Arctotis                 | Arctotis <i>Port.</i> Biörneore <i>Dan.</i> Björnöra <i>Swed.</i>  |
| 800  | De koolboom                 | -                           | -                        |  |
| 378  | Zandmuur                    | Arenaria                    | Arenaria                 | Arenaria <i>Port.</i> Sandurt <i>Dan.</i> Sandört <i>Swed.</i>   |
| 462  | Kiepheul                    | Aristolochia                | Aristolochia             | Pigvalmue <i>Dan.</i> Piggvalmoge <i>Swed.</i>   |
| 766  | Oesterlucie                 | Statice                     | Statice                  | Liden biernellike <i>Dan.</i> Strandblomster <i>Swed.</i>  |
| 234  | Zeegras                     |                             |                          |  |



| Page | Nos. to Genera. | British or Systematic Synonymes. | English Names.       | French.                    | German.                 |
|------|-----------------|----------------------------------|----------------------|----------------------------|-------------------------|
| 716  |                 | <i>A'rnica L.</i>                |                      | Le dromic                  | Die wolverley           |
| 696  |                 | <i>Artemisia L.</i>              | Wormwood             | L'absinthe                 | Der wermuth             |
|      |                 | <i>A. Dracúnculus L.</i>         | Tarragon             | Estragon                   | Drakonkel               |
|      |                 | sp. 11739                        |                      |                            |                         |
| 280  |                 | <i>Arthropodium R. Br.</i>       | Anthéricum           |                            |                         |
| 770  |                 | <i>Artocárpus L.</i>             | Bread fruit          | Le jaquier                 | Der brodbaum            |
| 830  |                 | <i>Arum L.</i>                   | Wake robin           | Le gouet                   | Der aronswurz           |
|      |                 | <i>74 Arundinaria Mx.</i>        | Cane-brake           |                            |                         |
| 60   |                 | <i>Arundo With.</i>              | Reed                 | Le roseau                  | Das rohr                |
| 392  |                 | <i>A'sarum L.</i>                | Asarabacca           | L'asaret                   | Das haselwurz           |
| 196  |                 | <i>Asclépias L.</i>              | Swallow-wort         | L'asclépiade               | Die seidenfrucht        |
| 658  |                 | <i>A'scyrum L.</i>               |                      |                            |                         |
| 490  |                 | <i>Asimina Adan.</i>             |                      |                            |                         |
| 506  |                 | <i>Aspáthalus L.</i>             | African broom        | L'aspalat                  | Witschen                |
| 282  |                 | <i>Aspáragus L.</i>              | Sparrowgrass         | L'asperge                  | Der spargel             |
| 124  |                 | <i>Asperúgus L.</i>              | German madwort       | Le porte-feuille           | Das scharfkraut         |
| 94   |                 | <i>Aspérula L.</i>               | Woodruff             | L'asprule                  | Das megerkraut          |
| 280  |                 | <i>Asphódelus L.</i>             | Asphodel             | L'asphodèle                | Der affodil             |
|      |                 | <i>A. luteus L. sp. 4793</i>     |                      | Báton-de-Jacob             |                         |
|      |                 | <i>A. ramósus L. sp. 4795</i>    | King's rod           | Báton royal                |                         |
| 884  |                 | <i>Aspidium Swz.</i>             | Shield fern          |                            |                         |
| 880  |                 | <i>Asplenium L.</i>              | Spleenwort           | La doradille               | Der streifenfarren      |
| 706  |                 | <i>A'ster L.</i>                 | Starwort             | L'astere                   | Die sternblume          |
| 636  |                 | <i>Astrágalus L.</i>             | Milk vetch           | L'astragale                | Tragan                  |
| 222  |                 | <i>Astrántia L.</i>              | Masterwort           | L'astrance                 | Astranz                 |
| 212  |                 | <i>Athamánta L.</i>              | Spignel              | L'athamante                | Die hirschwurz          |
| 696  |                 | <i>Athanásia L.</i>              |                      | L'athanasie                | Die athanasie           |
| 686  |                 | <i>Atráctylis L.</i>             | Distaff thistle      | La quenouillette           | Das spindelkraut        |
| 288  |                 | <i>Atrapháxis L.</i>             |                      | L'atraphaxe                | Die strachmelde         |
| 862  |                 | <i>A'triplex L.</i>              | Orache               | L'aroeche                  | Die melde               |
| 154  |                 | <i>A'tropa L.</i>                | Deadly nightshade    | La belladone               | Die wolfkirsche         |
| 828  |                 | <i>Aólix Berg.</i>               |                      |                            |                         |
| 58   |                 | <i>Avena L.</i>                  | Oat grass            | L'avoine                   | Der hafer               |
| 380  |                 | <i>Averrhoa L.</i>               |                      | Carambolier à fruits ronds | Zuurknoopboom           |
| 144  |                 | <i>Azalea L.</i>                 |                      | L'azalée                   | Der fels'nstrauch       |
| 42   |                 | <i>Babiana Ker.</i>              |                      |                            |                         |
| 702  |                 | <i>Bácccharis L.</i>             | Plowman's spike-nard | La bacchante               | Die baccharis           |
| 884  |                 | <i>Balántium Kauf.</i>           | Dicksönta            |                            |                         |
| 504  |                 | <i>Balbita L.</i>                | Black horehound      | La ballote                 | Die zahnlöse            |
| 696  |                 | <i>Balsamita Desf.</i>           | Tanacetum            | Coeq des jardins           | Die frauenmünze         |
| 256  |                 | <i>Bambusa Schr.</i>             | Arundo Bambos        | Le roseau d'Inde           | Das bambus-rohr         |
| 342  |                 | <i>Baptisia Ven.</i>             | Podalýria            |                            |                         |
| 540  |                 | <i>Barbarea R. Br.</i>           | Erfsimum             | Winter cress               | Die winterkresse        |
| 596  |                 | <i>Barringtonia Forst.</i>       | Butónica             | Le butonic                 |                         |
| 752  |                 | <i>Bartholina R. Br.</i>         | Archúsa              |                            |                         |
| 524  |                 | <i>Bárta L.</i>                  |                      | Cocrète                    |                         |
| 228  |                 | <i>Basdia L.</i>                 |                      | Baselle                    | Die beerblume           |
| 346  |                 | <i>Bauhínia Pluk.</i>            |                      | Bauhine                    | Die bergebenholz        |
| 66   |                 | <i>Beckmánnia Hort.</i>          | Cynóshrus            |                            |                         |
| 802  |                 | <i>Bélis Sal.</i>                | Pinus                |                            |                         |
| 718  |                 | <i>Béllis L.</i>                 |                      | Daisy                      | La piquette             |
| 684  |                 | <i>Berárdia Vil.</i>             | A'rctium             |                            |                         |
| 226  |                 | <i>Bérberis L.</i>               |                      | Barberry                   | L'épine-vinette         |
| 206  |                 | <i>Béta L.</i>                   |                      | Beet                       | Bette, or betterave     |
| 502  |                 | <i>Betónica L.</i>               |                      | Betony                     | Betoine                 |
| 730  |                 | <i>Bétula L.</i>                 |                      | Birch                      | Le bouleau              |
| 692  |                 | <i>Bidens L.</i>                 |                      |                            | Le bident               |
| 514  |                 | <i>Bignónia L.</i>               |                      | Trumpet flower             | La bignone              |
| 546  |                 | <i>Biscutélla L.</i>             |                      | Buckler mustard            | La lunetière            |
| 638  |                 | <i>Biserrula L.</i>              |                      | Hatchet vetch              | La pelécine             |
| 64   |                 | <i>Bixa L.</i>                   |                      | Anotta                     | Le rocurier des Indes   |
| 880  |                 | <i>Bléchnum L.</i>               |                      |                            | Blégne                  |
| 518  |                 | <i>Bléchnum J.</i>               |                      |                            |                         |
| 762  |                 | <i>Blétia R. &amp; P.</i>        |                      |                            |                         |
| 302  |                 | <i>Bilghia H. K.</i>             |                      |                            |                         |
| 8    |                 | <i>Blitum L.</i>                 |                      | Akee tree                  | Bléte, or blite         |
| 392  |                 | <i>Bocconia L.</i>               |                      | Strawberry blite           |                         |
| 6    |                 | <i>Boerhaavia L.</i>             |                      | Celandine tree             |                         |
| 1008 |                 | <i>Bolétus Dill.</i>             |                      | Hogweed                    | La tassole              |
| 592  |                 | <i>Bómbax L.</i>                 |                      | Spunk                      | La morille              |
| 524  |                 | <i>Bóntia L.</i>                 |                      | Silk cotton tree           | Le fromager             |
| 122  |                 | <i>Borágo L.</i>                 |                      | Barbadoes wild olive       | Le daphnot des Antilles |
| 836  |                 | <i>Borásus L.</i>                |                      | Borage                     | Bourraché               |
|      |                 |                                  | Fan palm             | Le rondier                 | Borago                  |
| 826  |                 | <i>Börya W.</i>                  | Adèlia, Bigelóvia    |                            | Der goldruthenbaum      |
| 206  |                 | <i>Bösea L.</i>                  |                      | Golden rod                 | Bosé                    |
| 886  |                 | <i>Botrychium Swz.</i>           | Osmónda              | Moonwort                   | Lunaire                 |
| 152  |                 | <i>Bourrèria Gae.</i>            | Ehrétia              |                            | Die mondraute           |
| 98   |                 | <i>Bouvárdia Sal.</i>            | Houstónia            |                            |                         |
| 864  |                 | <i>Brabjium L.</i>               |                      | African almond             | Brabei                  |
| 762  |                 | <i>Brasavola R. Br.</i>          | Epidéndrum           |                            | Der scepterbaum         |
| 756  |                 | <i>Brassia R. Br.</i>            | Maláxis              |                            |                         |

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| Page | Dutch.                      | Italian.       | Spanish.                | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names. |
|------|-----------------------------|----------------|-------------------------|--|
| 716  | Valkruid                    | -              | -                       | Volverley <i>Dan.</i> Fibler <i>Swed.</i>                                      |
| 696  | Aisem                       | Assenzio       | Ajenjo                  | Polin <i>Russ.</i> Malurt <i>Dan.</i>  |
|      | Dragon                      | Dragoncello    | Estragon                | Torun <i>Pol.</i> Kigyótiang <i>Hung.</i>                                      |
| 770  | Broodboom                   | Artoccarpo     | Zueco                   | Eoroo <i>Otaheite.</i> Brödtræe <i>Dan.</i>                                    |
| 800  | Kalfsvoet                   | Aro            | Yaro                    | Munskesvands <i>Dan.</i>   |
| 60   | Riet                        | Canna          | Cana                    | Trost <i>Russ.</i> Trcina <i>Pol.</i> Rör <i>Dan.</i> & <i>Swed.</i>           |
| 392  | Mans-oor                    | Asaro          | Asaro                   | Wodolei <i>Russ.</i> Kopytnick <i>Pol.</i>                                     |
| 396  | Zydevrugt                   | Asclepiade     | Asclepiada              | -  |
| 658  | -                           | -              | -                       | Ascyro <i>Port.</i>  |
| 282  | Aspergie                    | Sparagio       | Esparrago               | Sparsa <i>Russ.</i>  |
| 124  | Scherpkruid                 | Asperugine     | Asperugo                | Rapette, or brevtaske <i>Dan.</i> Ormögen <i>Swed.</i>                         |
| 94   | Ruuwkruid                   | -              | -                       | Schwedopetschenaja trawa <i>Russ.</i> Myseka <i>Dan.</i>                       |
| 280  | Affodil                     | Asofodelo      | Affodelo                | Asfalt <i>Russ.</i> Kozlie jayka <i>Pol.</i> Beenbrud <i>Dan.</i>              |
| 880  | Miltkruid                   | Asplenio       | Asplenio                | -  |
| 706  | Sterrebloem                 | Aster          | Aster                   | Stiernblomst <i>Dan.</i> Stjernört <i>Swed.</i>                                |
| 636  | Kootkruid                   | Astragalo      | Astragalo               | Hvirvelurt <i>Dan.</i> Strutschkowaja trawa <i>Russ.</i>                       |
| 222  | Sterrekruid                 | -              | -                       | Astrancia <i>Port.</i> Zápótza <i>Hung.</i>                                    |
| 212  | Beerwortel                  | Atamanta       | Atamanta                | Hiorteroed <i>Dan.</i> Säfferot <i>Swed.</i>                                   |
| 696  | Duurbloem                   | Atanasia       | Atanasia                | Atanasia <i>Port.</i>  |
| 686  | Staaakop                    | Atrattile      | -                       | Acarna de Creta <i>Port.</i> Spindelurt <i>Dan.</i>                            |
| 288  | Atraphaxis                  | -              | -                       | Atraphaxis <i>Dan.</i> & <i>Swed.</i>  |
| 862  | Melde                       | Atrepice       | Arnuelles               | Lebeda <i>Russ.</i> Loboda <i>Pol.</i> Molla <i>Swed.</i>                      |
| 154  | Doodkruid                   | Atropa         | Atropa                  | Belladonna <i>Port.</i> Beschenaja wischnja <i>Russ.</i>                       |
| 58   | Havor                       | Vena           | Avena                   | Avea <i>Port.</i> Owès <i>Russ.</i> Owies <i>Pol.</i>                          |
| 380  | Zuurknoopboom               | -              | -                       | Cheramela <i>Port.</i> Bilinbi <i>Malab.</i> Billingham <i>Cey.</i>            |
| 144  | Azalea                      | -              | -                       | Tsususi <i>Jap.</i> Odur rshawnoi <i>Russ.</i> Azalea <i>Dan.</i>              |
| 702  | Roerkruid                   | -              | -                       | -  |
| 504  | Ballote                     | Marrobio       | Marrubia                | Marroyo <i>Port.</i> Szanta czarna <i>Pol.</i>                                 |
| 696  | Tuinbalsam                  | Costo ortense  | Hierba de Santa Maria   | Balsamita <i>Port.</i> Hanegræs <i>Dan.</i> Svensk salvia <i>Swed.</i>         |
| 256  | Bamboesriet                 | Canna bambu    | Cana bambos             | E. owhe <i>Otaheite.</i> Ily <i>Malab.</i> Bambusör <i>Dan.</i>                |
| 540  | Winterkers                  | Barbarea       | Hierba de Santa Barbara | Herva de S. Barbara <i>Port.</i> Barbora <i>Pol.</i> Vinterkers <i>Dan.</i>    |
| 524  | -                           | -              | -                       | Bergskülle <i>Swed.</i> Lokasiöds broder <i>Iceland.</i>                       |
| 228  | Beetklim                    | -              | -                       | Murasakki <i>Jap.</i> Loquei <i>Chin.</i> Cay boung toi <i>Cochinch.</i>       |
| 346  | Bauhinia                    | -              | -                       | -  |
| 718  | Madelieven                  | Margheritina   | Maya                    | Bonina <i>Port.</i> Barchatnaja zwietödschka <i>Russ.</i>                      |
| 286  | Berberis                    | Crespino       | Berberis                | Tomara soo <i>Jap.</i> Barbaris <i>Russ.</i> Ciernie biale <i>Pol.</i>         |
| 206  | Beete                       | Bieta          | Acelga                  | Acelga <i>Port.</i> Sweklà <i>Russ.</i> Cwiklija <i>Pol.</i>                   |
| 502  | Betonie                     | Betonico       | Betonica                | Betonica <i>Port.</i> Bukwiza <i>Russ.</i>                                     |
| 780  | Berk                        | Betulla        | El abedul               | Berésa <i>Russ.</i> Brzoza <i>Pol.</i> Birk <i>Dan.</i> Biork <i>Swed.</i>     |
| 692  | Tandzaad                    | Bidente        | Bidente                 | Brönsel <i>Dan.</i> Brunskiär <i>Sw.</i>                                       |
| 514  | Bignonia                    | Bignonia       | Bignonia                | Bignonia <i>Port.</i> Jacaranda <i>Brazil.</i>                                 |
| 546  | Brilkruid                   | -              | -                       | -  |
| 638  | Zaagpeul                    | -              | -                       | -  |
| 464  | Orlean                      | -              | -                       | Urucu <i>Port.</i> Achiotl <i>Mexico.</i> Bixa <i>Dan.</i> & <i>Swed.</i>      |
| 880  | Ribvaren                    | -              | -                       | -  |
| 8    | Bes-melde                   | Blito          | Bledo                   | Zminda <i>Pol.</i> Bærmeld <i>Dan.</i> Bärmolla <i>Swed.</i>                   |
| 6    | Boerhaavia                  | -              | -                       | Folhas de pitao <i>Port.</i> Nuna-nuna <i>Otah.</i> Vuddjef <i>Arab.</i>       |
| 1008 | Zwam                        | Boleto         | Boleto                  | Boleto <i>Port.</i> Grib <i>Russ.</i> Grzyb <i>Pol.</i>                        |
| 592  | Kapokboom                   | -              | Bombasi                 | Ostrtræe <i>Dan.</i> Ostrträd <i>Swed.</i>                                     |
| 524  | Barbadoesche wilde olyfboom | -              | -                       | -  |
| 192  | Bernagie                    | Borragine      | Borrāja                 | Borragem <i>Port.</i> Oguretschnaja trawa <i>Russ.</i> Borak <i>Pol.</i>       |
| 836  | Wyngeevende palmboom        | -              | -                       | Palmeira macha brava <i>Port.</i> Ampana <i>Malab.</i>                         |
| 206  | Bosea                       | -              | Hierba-mora             | Bosea <i>Dan.</i> & <i>Swed.</i>   |
| 886  | Maankruid                   | Lunaria minore | Lunaria menor           | Lunaria bastarda <i>Port.</i> Bogoroditschka rutschka <i>Russ.</i>             |
| 864  | Kransboom                   | -              | -                       | Brabyla <i>Port.</i>   |

## TABLE OF SYNONYMES.

| Page | Nos. to Genera.                           | British or Systematic Synonymes. | English Names.               | French.                         | German.                            |
|------|---|----------------------------------|------------------------------|---------------------------------|------------------------------------|
| 552  | <i>Brássica L.</i>                        | 1432                             | Cabbage                      | Le chou                         | Der kohl                           |
|      | <i>B. o. a. capitata</i>                  |                                  | White                        | Chou cabus blanc                |                                    |
|      | <i>B. o. f. c. rubra</i>                  |                                  | Red                          | Chou cabus rouge                |                                    |
|      | <i>B. o. y. bullata</i>                   |                                  | Savoy                        | Chou de Milan                   |                                    |
|      | <i>B. o. c. bullata</i>                   |                                  | Brussels sprouts             | Chou de Bruxelles à jets        |                                    |
|      | <i>B. o. d. acéphala</i>                  | -                                | Borecole                     | Choux verts                     |                                    |
|      | <i>B. o. s. Bótrytis</i>                  | -                                | Cauliflower                  | Chou-fleur                      |                                    |
|      | <i>B. o. f.</i>                           | -                                | Broccoli                     | Chou-brocoli                    |                                    |
|      | <i>B. Napus L. sp. 9247</i>               | -                                | -                            | Navet                           |                                    |
|      | <i>B. Erúca</i>                           | -                                | -                            | Roquette                        |                                    |
|      | <i>B. o. vacclna</i>                      | -                                | -                            | Chou cavalier                   |                                    |
|      | <i>B. o. fimbriata</i>                    | -                                | -                            | Chou frisé du nord              |                                    |
|      | <i>B. Nápo-brássica</i>                   | -                                | -                            | Chou-navet                      |                                    |
|      | <i>B. rutabaga</i>                        | -                                | -                            | Chou-rutabaga                   |                                    |
|      | <i>B. o. campéstris</i>                   | -                                | -                            | Chou-colza                      |                                    |
|      | <i>B. Nápus sylvéstris</i>                | -                                | -                            | Navette                         |                                    |
|      | <i>B. Rápa L. sp. 9246</i>                | -                                | -                            | Navet turnep                    |                                    |
| 66   | <i>Brlza L.</i>                           | 195                              | Quaking grass                | Brize                           | Das zittergras                     |
| 246  | <i>Broméla L.</i>                         | 726                              | Pine-apple                   | L'ananas                        | Die ananas                         |
| 64   | <i>Bromus L.</i>                          | 184                              | Brome grass                  | Brome, or droue                 | Die trespe                         |
| 870  | <i>Brosimum Swz.</i>                      | 2158                             | Bread nut                    | -                               | -                                  |
| 760  | <i>Broughtonia R. Br.</i>                 | 1905                             | Dendrobium                   | -                               | -                                  |
| 134  | <i>Brunánsia Pers.</i>                    | 377                              | <i>Datúra</i>                | -                               | -                                  |
| 250  | <i>Brunsvigia Heir.</i>                   | 737                              | <i>Amarýllis</i>             | -                               | -                                  |
| 810  | <i>Bryonia L.</i>                         | 2024                             | Wild hops                    | Bryony                          | Bryone, or couleavrée              |
| 214  | <i>Bubon L.</i>                           | 640                              | -                            | Bubon                           | Der steineppich                    |
| 650  | <i>Bubroma W.</i>                         | 1608                             | <i>Theobrdma</i>             | Bastard cedar                   | Der guazumabaum                    |
|      |   |                                  | <i>Guazúma</i>               | -                               | -                                  |
| 364  | <i>Bucida L.</i>                          | 1033                             | <i>Búceras</i>               | Olive-bark tree, or black olive | Le grignon                         |
| 270  | <i>Bulboedidium L.</i>                    | 784                              | -                            | -                               | Campanette                         |
| 558  | <i>Bunias L.</i>                          | 1444                             | -                            | -                               | Das zackenkraut                    |
| 212  | <i>Bunium L.</i>                          | 631                              | Sea rocket                   | La terre-noix                   | Die ernuss                         |
| 728  | <i>Bupphálmum L.</i>                      | 1797                             | Ox eye                       | Le bupthalme                    | Das rindsauge                      |
| 218  | <i>Bupleúrum L.</i>                       | 637                              | Hare's ear                   | Le buplevre                     | Das hafenhöhrchen                  |
| 182  | <i>Bursária Cav.</i>                      | 530                              | -                            | La bursaire                     | Der beutelwurm                     |
| 672  | <i>Burséria Jac.</i>                      | 2194                             | Jamaica birch tree           | Le gomart d'Amerique            | Die gummitragende bursere          |
| 336  | <i>Bütomus L.</i>                         | 939                              | Water gladiole               | Butome                          | Die blumenbinse                    |
| 780  | <i>Báxus L.</i>                           | 1957                             | Flowering rush               | Le bulis                        | Der buchs                          |
| 692  | <i>Cacalia L.</i>                         | 1701                             | Box tree                     | La cacalie                      | Die pestwurzel                     |
| 224  | <i>Cachrys L.</i>                         | 677                              | -                            | L'armarinte                     | Die nussdolde                      |
| 410  | <i>Cactus L.</i>                          | 1111                             | Cochineal fig                | Le cactier                      | Die koschenillen-pflanze           |
| 350  | <i>Cádia Forsk.</i>                       | 983                              | -                            | -                               | -                                  |
| 350  | <i>Cæsálpinia (brasil. liensis) Pluk.</i> | 978                              | -                            | Brasiletto                      | Le brésillet                       |
| 548  | <i>Cakile Tou.</i>                        | 1417                             | <i>Búnias</i>                | -                               | Caquille                           |
| 798  | <i>Caládium Ven.</i>                      | 2005                             | <i>Arum</i>                  | -                               | -                                  |
| 508  | <i>Calamintha Ph.</i>                     | 1277                             | Melissa                      | Le calament                     | Der kalamint                       |
| 256  | <i>Cálamus L.</i>                         | 753                              | Rotang                       | Le rotin                        | Der rotang                         |
| 18   | <i>Calceolaria L.</i>                     | 51                               | Slipperwort                  | La calcéolaire                  | Die schuhblume                     |
| 148  | <i>Caldasia W.</i>                        | { 422                            | <i>Bonplándia</i>            | -                               | -                                  |
| 520  |   | { 1324                           |                              |                                 |                                    |
| 740  | <i>Caléndula L.</i>                       | 1830                             | Marigold                     | Le souci de jardin              | Die ringelblume                    |
| 298  | <i>Cállia L.</i>                          | 869                              | -                            | Calle                           | Das schlangenkraut                 |
| 96   | <i>Callicarpa L.</i>                      | 372                              | -                            | Callicarpe                      | Die wirbelbeere                    |
| 406  | <i>Calligonum L.</i>                      | 1106                             | -                            | Le calligon                     | Der hackenknopf                    |
| 36   | <i>Callisia L.</i>                        | 87                               | -                            | Callise                         | Der zärtling                       |
| 8    | <i>Callitriche W.</i>                     | 27                               | Vernal star-headed chickweed | Water starwort                  | Der wasserstern                    |
| 466  | <i>Calophýllum L.</i>                     | 1189                             | American calaba              | Le calaba                       | Der kalababaum                     |
| 756  | <i>Calopýgon R. Br.</i>                   | 1878                             | Limodórum                    | -                               | -                                  |
| 196  | <i>Calótropis R. Br.</i>                  | 584                              | <i>Asclépias</i>             | -                               | -                                  |
| 490  | <i>Cáltha L.</i>                          | 1239                             | Marsh marigold               | Le populage                     | Die sumpf-dotterblume              |
| 454  | <i>Calycánthus L.</i>                     | 1157                             | Allspice                     | Le calycant                     | Die kelchblume                     |
| 764  | <i>Calýso Sal.</i>                        | 1929                             | Limodórum                    | -                               | -                                  |
| 140  | <i>Calystégia R. Br.</i>                  | 387                              | Convólulus                   | Bearbind                        | Le liseron des haies               |
| 550  | <i>Camelina Crz.</i>                      | 1425                             | <i>Mýagram</i>               | Gold of pleasure                | La cameline                        |
| 592  | <i>Caméllia L.</i>                        | 1476                             | Japan rose                   | La rose du Japon                | Die sinésische, or japanische rose |
| 148  | <i>Camerária L.</i>                       | 417                              | Bastard manchineel           | -                               | -                                  |
| 162  | <i>Campánula L.</i>                       | 463                              | Bell flower                  | La campanule                    | Die glockenblume                   |
| 88   | <i>Campborésma L.</i>                     | 254                              | -                            | La camphrée                     | Die kampferpflanze                 |
| 288  | <i>Canarina L.</i>                        | 834                              | Canary bell-flower           | -                               | -                                  |
| 394  | <i>Canélla P. Br.</i>                     | 1085                             | -                            | Cannelle blanche                | Der weisse zimmet                  |
| 2    | <i>Cánna L.</i>                           | 1                                | Flowering reed               | Le balisier                     | Das blumenrohr                     |
| 834  | <i>Cánnabis L.</i>                        | 2073                             | -                            | Le chanvre                      | Der hanf (hampf)                   |
| 458  | <i>Cápparis L.</i>                        | 1162                             | Caper tree                   | Le cáprier                      | Die kapernstaude                   |
| 532  | <i>Capraria L.</i>                        | 1368                             | Sweet weed                   | Capraire                        | Die herbblume                      |
| 170  | <i>Caprifólium R. &amp; S.</i>            | 474                              | <i>Lonicéra</i>              | -                               | -                                  |
| 546  | <i>Capsélla Moen.</i>                     | 1409                             | <i>Thláspi</i>               | Honeysuckle                     | -                                  |
| 160  | <i>Cápicum L.</i>                         | 453                              | Shepherd's purse             | Le piment                       | Der Spanische Pfeffer              |
|      |   |                                  | Guinea or Indian Pepper      | -                               | -                                  |
| 626  | <i>Caragána Lam.</i>                      | 1569                             | <i>Robínia</i>               | -                               | -                                  |
| 202  | <i>Caralúma R. Br.</i>                    | 598                              | <i>Stapéla</i>               | -                               | -                                  |

TABLE OF SYNONYMES.

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| Page | Dutch.                       | Italian.              | Spanish.                 | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.       |
|------|------------------------------|-----------------------|--------------------------|--|
| 552  | Kaal                         | Cavolo                | Berza                    | Verça <i>Port.</i> Kapusta <i>Russ. &amp; Pol.</i> Kaal <i>Dan.</i> Kål <i>Swed.</i> |
| 66   | Trilgras                     | Briza                 | Briza                    | Bevegras <i>Dan.</i> Båfvegräs <i>Swed.</i>  |
| 246  | Ananas                       | Ananas                | Pina de Indias           | Ananas <i>Port.</i> Kapa-tsjakka <i>Malab.</i>                                       |
| 64   | Zwenkgras                    | Bromo                 | Bromo                    | Bromo <i>Port.</i> Kostej <i>Russ.</i> Hejre <i>Dan.</i>                             |
| 810  | Bryone                       | Brionia               | Nueza                    | Norca branca <i>Port.</i> Przestep biały <i>Pol.</i>                                 |
| 214  | Gomeppe                      | Bubon                 | Bubon                    |  |
| 650  | Bastard-ceder                |                       |                          |  |
| 364  | Leertouwersboom              |                       |                          | Mangle bastarda <i>Port.</i>   |
| 270  | Klokbol                      |                       | Colchico de la primavera |  |
| 558  | Knodsvrugt                   |                       |                          |  |
| 212  | Aardnoot                     | Castagna di terra     | Castano de tierra        | Castanha de terra <i>Port.</i> Jordolden <i>Dan.</i> Jordnöt <i>Swed.</i>            |
| 728  | Koe-oog                      | Buftalmo              | Buftalmo                 | Oxe-öye <i>Dan.</i> Oxöga <i>Swed.</i>   |
| 218  | Haazenoor                    | Bupleuro              | Buplero                  | Bupleuro <i>Port.</i> Buplewr <i>Russ.</i>   |
| 182  |                              |                       |                          | Pungen <i>Dan.</i>   |
| 872  | Gom elemniboorn              |                       | Almacigo americano       |  |
| 336  | Zwaanebloem                  | Butomo                | Butomo                   | Susak <i>Russ.</i> Sit kwitnacy <i>Pol.</i> Blomstersiv <i>Dan.</i>                  |
| 780  | Palm                         | Busso                 | El box                   | Schimschat <i>Persia.</i> Samsehit <i>Russ.</i> Bukspan <i>Pol.</i>                  |
| 692  | Dokkeblad                    | Cacalia               | Cacalia                  | Pestrod <i>Dan.</i> Pestrot <i>Swed.</i>   |
| 224  | Nootekroon                   |                       | Tuero                    | Nödkrone <i>Dan.</i> Nöthrona <i>Swed.</i>   |
| 410  | Cocheniljedraagende vygplant | Planta di cocciniglia | Cardon de cochinitilla   | Cochenilheira <i>Port.</i> Nupalnochezli <i>Mexico.</i>                              |
| 350  |                              |                       |                          | Kadi <i>Arab.</i>  |
| 350  | Brasile-hout boom            | Legno di Fernambuco   | Fernambuco               | Pao Brasil <i>Port.</i> Ibiripitanga <i>Brazil.</i>                                  |
| 548  | Europische knodsvrugt        | Cachile               | Cakile                   | Strandkarse <i>Dan.</i> Strandsenap <i>Swed.</i>                                     |
| 508  | Berg-kalaminth               | Calaminta             | Calaminto                | Melissa <i>Russ.</i> Melisa <i>Pol.</i>  |
| 256  | Rottingewas                  |                       |                          | Rotang <i>Dan. &amp; Swed.</i> Rotan <i>Malej.</i>                                   |
| 18   | Klompbloem                   |                       |                          |  |
| 740  | Goudbloem                    | Calendula             | Calendula                | Nogotki <i>Russ.</i> Nogietek <i>Pol.</i>  |
| 298  | Slangekruid                  | Calla                 | Calla                    | Calla <i>Port.</i> Smei trawa <i>Rus.</i> Mysse <i>Dan.</i> Drakröt <i>Swed.</i>     |
| 8    | Sterrekruid                  | Callitrica            | Calitriche               | Callitriche <i>Port.</i> Kaldunowa trawa <i>Russ.</i>                                |
| 466  | Geele gom-appelboom          |                       |                          |  |
| 490  | Moerassig geelbloem          | Sposa del sole        | Hierba centella          | Nogietek <i>Pol.</i> Kabeleye <i>Dan.</i> Kalfjeka <i>Swed.</i>                      |
| 454  | Kelkbloem                    |                       |                          | Malmqueuer dos brejos <i>Port.</i>   |
| 140  | Haagwinde                    | Il vilucchio          | Correguela               | Trepadeira <i>Port.</i>  |
| 550  | Vlaschdotter                 | Miagro                | Miagro                   | Ryschik <i>Russ.</i> Krowia <i>Pol.</i> Hörrurt <i>Dan.</i> Dodra <i>Swed.</i>       |
| 592  | Chineesche roos              |                       |                          | Tsubakki <i>Jap.</i>   |
| 162  | Klokjes                      | Campanella            | Campanula                | Kolokoltshik <i>Russ.</i>  |
| 88   | Kamferkruid                  | Canforata             | Canforada                | Campherplante <i>Dan.</i> Kampherväk <i>Swed.</i>                                    |
| 2    | Bloemriet                    | Canna                 | Canã                     | Cana <i>Port.</i> Racua-canga <i>Brazil.</i> Katu-bala <i>Malab.</i>                 |
| 834  | Hennip                       | Canapa                | Canamo                   | Canhamo <i>Port.</i> Konapli <i>Russ.</i>  |
| 458  | Kappers                      | Cappari               | Alcaparro                | Alcaparra <i>Port.</i> Kapersowoy kust <i>Russ.</i>                                  |
| 532  | Geitenkruid                  | Capraria              | Capraria                 | Capraria <i>Port.</i> Hierteblomster <i>Dan.</i> Hjertblomster <i>Swed.</i>          |
| 160  | Spaanschepeper               | Il peberone           | El pimentero             | Pimentaõ <i>Port.</i> Vallia-Capo-Molago <i>Malab.</i> Perez <i>Russ.</i>            |
| 626  |                              |                       |                          | Gorochnnik <i>Russ.</i> Karagan Tartar   |

| Page | Nos. to Genera.             | British or Systematic Synonyms. | English Names.   | French.             | German.           |                     |
|------|-----------------------------|---------------------------------|------------------|---------------------|-------------------|---------------------|
| 542  | <i>Cardamine L.</i>         | 1392                            | -                | -                   | Die gauchblume    |                     |
| 328  | <i>Cardiospermum L.</i>     | 925                             | Heart-pea        | Le cresson          | Die herzaeme      |                     |
| 680  | <i>Carduus L.</i>           | 1663                            | -                | La corinde          | Die diestel       |                     |
| 774  | <i>Carex L.</i>             | 1947                            | -                | Le chardon          | Das riedgras      |                     |
| 842  | <i>Cárica L.</i>            | 2095                            | -                | La laiche           | Der papayabaum    |                     |
| 152  | <i>Carissa L.</i>           | 469                             | -                | La papayer          | -                 |                     |
| 684  | <i>Carlina L.</i>           | 1388                            | Carándas         | Le calac            | -                 |                     |
| 592  | <i>Carolinea L.</i>         | 1490                            | -                | La carline          | Die eberwurz      |                     |
|      |                             |                                 |                  | La pachirie         | Der wilde kakao   |                     |
|      |                             |                                 |                  | -                   | baum              |                     |
| 702  | <i>Carpesium L.</i>         | 1731                            | -                | Le carpsie          | Die kragenblume   |                     |
| 792  | <i>Cárpinus L.</i>          | 1996                            | Nodding starwort | Le charme           | Die hagebuche     |                     |
| 686  | <i>Cárthamus L.</i>         | 1675                            | Hornbeam         | Le carthame         | Die büstenpflanze |                     |
| 218  | <i>Cárum L.</i>             | 655                             | Safflower        | Le carthame         | Der kümmel        |                     |
| 416  | <i>Caryophyllus L.</i>      | 1120                            | -                | Le carvi            | Gewürznäglein     |                     |
|      |                             |                                 | Clove tree       | Le girofier         | -                 |                     |
| 800  | <i>Caryota L.</i>           | 9007                            | -                | -                   | Die brennpalme    |                     |
| 348  | <i>Cássia L.</i>            | 974                             | -                | Caryote             | Kassien           |                     |
| 792  | <i>Castanea Tou.</i>        | 1994                            | Fagus            | La case             | Der kastanienbaum |                     |
| 772  | <i>Casuarina L.</i>         | 1936                            | -                | Le chatagnier       | Der kasuarbaum    |                     |
| 678  | <i>Catanánche L.</i>        | 1655                            | -                | Le filao            | Die rasselblume   |                     |
| 100  | <i>Catesbea W.</i>          | 289                             | -                | La cupidone         | -                 |                     |
| 350  | <i>Cathartocarpus Pers.</i> | 375                             | -                | La catesbée         | -                 |                     |
| 210  | <i>Cácaelis L.</i>          | 696                             | Clássia          | -                   | -                 |                     |
| 178  | <i>Ceanóthus L.</i>         | 510                             | Bastard parsley  | La caulcaide        | Die haftdolde     |                     |
| 826  | <i>Cecropia L.</i>          | 2043                            | -                | Ceanote d'Afrique   | Die seckelblume   |                     |
| 182  | <i>Cedréla L.</i>           | 531                             | Trumpet tree     | Le coulequin        | Der trompetenbaum |                     |
| 178  | <i>Celástrus L.</i>         | 507                             | -                | -                   | -                 |                     |
| 192  | <i>Celósia L.</i>           | 565                             | Snake-wood       | -                   | -                 |                     |
| 534  | <i>Célsia L.</i>            | 1736                            | Bastard cedar    | Le passevelours     | Die celosia       |                     |
| 864  | <i>Céltis L.</i>            | 2145                            | Staff-tree       | -                   | -                 |                     |
| 52   | <i>Cénchrus L.</i>          | 134                             | -                | Le micocoulier      | Der lotusbaum     |                     |
| 734  | <i>Centauréa L.</i>         | 1819                            | -                | La racle            | Das klebrgas      |                     |
| 96   | <i>Centánculus L.</i>       | 277                             | -                | La centauree        | Die flockenblume  |                     |
|      |                             |                                 | 96               | Centenille bassette | Der centunkel     |                     |
|      |                             |                                 | 96               | Cephalanthus L.     | 775               | Der knopfbaum       |
|      |                             |                                 | 388              | Cerástium L.        | 1068              | Das hornkraut       |
|      |                             |                                 | 772              | Ceratocárpus L.     | 1937              | Die hornfrucht      |
|      |                             |                                 | 66               | Ceratochloa Beauv.  | 189               | -                   |
|      |                             |                                 | 868              | Cerátônia L.        | 2156              | Die sodschoten      |
|      |                             |                                 | 790              | Ceratophyllum L.    | 1886              | Das hornblatt       |
|      |                             |                                 | 148              | Cérbera L.          | 420               | Der schellenbaum    |
|      |                             |                                 | 346              | Cércis L.           | 968               | Der Judasbaum       |
|      |                             |                                 | 122              | Cerínthe L.         | 339               | Die wachslume       |
|      |                             |                                 | 154              | Céstrum L.          | 445               | Der hammerstrauch   |
|      |                             |                                 | 878              | Céstrach W.         | 2174              | -                   |
|      |                             |                                 | 938              | Cheerophyllum L.    | 621               | -                   |
|      |                             |                                 | 868              | Chamaerops L.       | 2154              | Der küberkropf      |
|      |                             |                                 |                  |                     |                   | Die zwergpalme      |
|      |                             |                                 | 936              | Cha'ra L.           | 2295              | Der armluchter      |
|      |                             |                                 | 538              | Cheiránthus L.      | 1382              | Die leucioe         |
|      |                             |                                 | 460              | Cheleidonium Bauh.  | 1167              | Das schölkraut      |
|      |                             |                                 | 516              | Cheône L.           | 1298              | Die schildblume     |
|      |                             |                                 | 206              | Chenopodium L.      | 611               | Der gänsefuss       |
|      |                             |                                 | 362              | Chimaphila Ph.      | 1023              | -                   |
|      |                             |                                 | 172              | Chiococca W.        | 480               | Die schneebeere     |
|      |                             |                                 | 12               | Chionánthus L.      | 34                | Die schneeblume     |
|      |                             |                                 | 316              | Chibra L.           | 894               | Das bikerkraut      |
|      |                             |                                 | 670              | Chondrilla L.       | 1629              | -                   |
|      |                             |                                 | 424              | Chrysobalanus L.    | 1130              | Die ikakopflume     |
|      |                             |                                 | 694              | Chrysócoma L.       | 1705              | Das goldhaar        |
|      |                             |                                 | 150              | Chrysophyllum L.    | 424               | Der sternapfel      |
|      |                             |                                 | 366              | Chrysosplenium L.   | 1040              | Die goldmilz        |
|      |                             |                                 | 624              | Cicer Tou.          | 1364              | Die kichern         |
|      |                             |                                 | 678              | Cichorium L.        | 1657              | Die cichorie        |
|      |                             |                                 |                  | C. Endivia L.       | sp. 11338         | Die endivie         |
|      |                             |                                 | 216              | Cicuta L.           | 648               | Der wütherich       |
|      |                             |                                 | 476              | Cimicifuga L.       | 1207              | Das wanzekraut      |
|      |                             |                                 | 304              | Cinclidobus Beauv.  | 2327              | -                   |
|      |                             |                                 | 712              | Cineraria L.        | 1741              | Die aschenpflanze   |
|      |                             |                                 | 26               | Circæa L.           | 71                | Das hexenkraut      |
|      |                             |                                 | 848              | Cissampelos L.      | 2116              | Die gierenwurz      |
|      |                             |                                 | 102              | Cissus L.           | 305               | Klimmen             |
|      |                             |                                 | 468              | Cistus Tou.         | 1197              | Das cistenröschchen |
|      |                             |                                 | 520              | Citharoxylum L.     | 1329              | Das geigenholz      |
|      |                             |                                 | 652              | Citrus L.           | 1615              | Der pomeranzbaum    |
|      |                             |                                 | 26               | Cladium Schr.       | 74                | -                   |
|      |                             |                                 | 1012             | Clavaria Vail.      | 2379              | Der keulenschwamm   |
|      |                             |                                 | 184              | Claytonia W.        | 557               | Der portulakbaum    |
|      |                             |                                 | 482              | Clematis L.         | 1227              | Die waldrebe        |
|      |                             |                                 | 558              | Cleome W.           | 1443              | Die pillenblume     |
|      |                             |                                 | 520              | Clerodendrum J.     | 1325              | Der losbaum         |
|      |                             |                                 | 362              | Clethra L.          | 1020              | Die amerikanische   |
|      |                             |                                 |                  |                     |                   | else                |
|      |                             |                                 | 506              | Clinopodium L.      | 1272              | Die wirbeldeste     |
|      |                             |                                 | 618              | Clitória L.         | 1556              | Die klitorisblume   |
|      |                             |                                 | 866              | Clusia L.           | 2151              | -                   |
|      |                             |                                 | 544              | Clypeola Gae.       | 1402              | Das schildkraut     |
|      |                             |                                 |                  |                     |                   | Die eberwurz        |
|      |                             |                                 |                  |                     |                   | Der wilde kakao     |
|      |                             |                                 |                  |                     |                   | Die kragenblume     |
|      |                             |                                 |                  |                     |                   | Die hagebuche       |
|      |                             |                                 |                  |                     |                   | Die büstenpflanze   |
|      |                             |                                 |                  |                     |                   | Der kümmel          |
|      |                             |                                 |                  |                     |                   | Gewürznäglein       |
|      |                             |                                 |                  |                     |                   | Die brennpalme      |
|      |                             |                                 |                  |                     |                   | Kassien             |
|      |                             |                                 |                  |                     |                   | Der kastanienbaum   |
|      |                             |                                 |                  |                     |                   | Der kasuarbaum      |
|      |                             |                                 |                  |                     |                   | Die rasselblume     |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die haftdolde       |
|      |                             |                                 |                  |                     |                   | Die seckelblume     |
|      |                             |                                 |                  |                     |                   | Der trompetenbaum   |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die celosia         |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Der lotusbaum       |
|      |                             |                                 |                  |                     |                   | Das klebrgas        |
|      |                             |                                 |                  |                     |                   | Die flockenblume    |
|      |                             |                                 |                  |                     |                   | Der centunkel       |
|      |                             |                                 |                  |                     |                   | Der knopfbaum       |
|      |                             |                                 |                  |                     |                   | Das hornkraut       |
|      |                             |                                 |                  |                     |                   | Die hornfrucht      |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die sodschoten      |
|      |                             |                                 |                  |                     |                   | Das hornblatt       |
|      |                             |                                 |                  |                     |                   | Der schellenbaum    |
|      |                             |                                 |                  |                     |                   | Der Judasbaum       |
|      |                             |                                 |                  |                     |                   | Die wachslume       |
|      |                             |                                 |                  |                     |                   | Der hammerstrauch   |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Der küberkropf      |
|      |                             |                                 |                  |                     |                   | Die zwergpalme      |
|      |                             |                                 |                  |                     |                   | Der armluchter      |
|      |                             |                                 |                  |                     |                   | Die leucioe         |
|      |                             |                                 |                  |                     |                   | Das schölkraut      |
|      |                             |                                 |                  |                     |                   | Die schildblume     |
|      |                             |                                 |                  |                     |                   | Der gänsefuss       |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die schneebeere     |
|      |                             |                                 |                  |                     |                   | Die schneeblume     |
|      |                             |                                 |                  |                     |                   | Das bikerkraut      |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die ikakopflume     |
|      |                             |                                 |                  |                     |                   | Das goldhaar        |
|      |                             |                                 |                  |                     |                   | Der sternapfel      |
|      |                             |                                 |                  |                     |                   | Die goldmilz        |
|      |                             |                                 |                  |                     |                   | Die kichern         |
|      |                             |                                 |                  |                     |                   | Die cichorie        |
|      |                             |                                 |                  |                     |                   | Die endivie         |
|      |                             |                                 |                  |                     |                   | Der wütherich       |
|      |                             |                                 |                  |                     |                   | Das wanzekraut      |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die aschenpflanze   |
|      |                             |                                 |                  |                     |                   | Das hexenkraut      |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Die gierenwurz      |
|      |                             |                                 |                  |                     |                   | Klimmen             |
|      |                             |                                 |                  |                     |                   | Das cistenröschchen |
|      |                             |                                 |                  |                     |                   | Das geigenholz      |
|      |                             |                                 |                  |                     |                   | Der pomeranzbaum    |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Der keulenschwamm   |
|      |                             |                                 |                  |                     |                   | Der portulakbaum    |
|      |                             |                                 |                  |                     |                   | Die waldrebe        |
|      |                             |                                 |                  |                     |                   | Die pillenblume     |
|      |                             |                                 |                  |                     |                   | Der losbaum         |
|      |                             |                                 |                  |                     |                   | Die amerikanische   |
|      |                             |                                 |                  |                     |                   | else                |
|      |                             |                                 |                  |                     |                   | Die wirbeldeste     |
|      |                             |                                 |                  |                     |                   | Die klitorisblume   |
|      |                             |                                 |                  |                     |                   | -                   |
|      |                             |                                 |                  |                     |                   | Das schildkraut     |

TABLE OF SYNONYMES.

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| Page    | Dutch.                  | Italian.                 | Spanish.           | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.           |
|---------|-------------------------|--------------------------|--------------------|--|
| 542     | Schuimblad              | Cardamindo               | Cardamina          | Lugobii kres <i>Russ.</i> Rzezucha <i>polna Pol.</i>                                     |
| 328     | Hartvrugt               | Cardiospermo             | Cardiospermo       | Blære-erter <i>Dan.</i>  |
| 680     | Distel                  | Cardo                    | Cardo              | Osët <i>Russ.</i> & <i>Pol.</i> Tidsel <i>Dan.</i>                                       |
| 774     | Rietgras                | La caretta               | El carex           | O carrigo <i>Port.</i> Stargræs <i>Dan.</i> Starr <i>Swed.</i>                           |
| 842     | Papajaboorn             | Il papajo                | El papayo          | Papayo <i>Port.</i> Pino-guacu <i>Brazil.</i> Papaya-maram <i>Mal.</i>                   |
| 684     | Everwortel              | Carlina                  | Carlina            | Kolitschka <i>Russ.</i> Lepczyca <i>Pol.</i> Korstorn <i>Dan.</i>                        |
| 592     | -                       | -                        | -                  | Xiloxochitl <i>Mexico.</i>   |
| 702     | Kraagbloem              | Carpesio                 | Carpesio           | Carpesio <i>Port.</i> Kraveblomster <i>Dan.</i> Krageblomster <i>Sw.</i>                 |
| 792     | Haagbeuk                | Carpino                  | Charmilla          | Carpe <i>Port.</i> Asad <i>Pers.</i> Grab <i>Russ.</i> & <i>Pol.</i> Avenbög <i>Dan.</i> |
| 686     | Safflor                 | Cartamo                  | Cartamo            | Cartamo <i>Port.</i> Chartam <i>Arab.</i> Polewoi <i>Rus.</i> Krokos <i>Pol.</i>         |
| 218     | Karwey                  | Il carvi                 | Alcaravea          | Alcaravia <i>Port.</i> Timon <i>Russ.</i> Karny <i>Pol.</i> Kommen <i>Dan.</i>           |
| 416     | Kruidnagel-boorn        | Il garofano aromatico    | El clavo aromatico | Cravoaria <i>Port.</i> Chanke <i>Java.</i> Gwosditschka <i>Russ.</i>                     |
| 800     | Saguerboorn             | -                        | -                  | Schunda-panna <i>Malab.</i> Nibun <i>Malef.</i> Kettule <i>Cey.</i>                      |
| 348     | Kasie                   | Cassia                   | Cassia             | Chaiarkambar <i>Egypt.</i> Cassie <i>Dan.</i>  |
| 792     | Kastanjeboorn           | Castagno                 | Castañõ            | Riits <i>Jap.</i> Keschtan <i>Russ.</i> Kasztan owoc <i>Pol.</i>                         |
| 772     | -                       | -                        | -                  | Kajo tajammara <i>Malef.</i>   |
| 678     | Dwangkruid              | Catananche               | Catananche         | Catananche <i>Port.</i>  |
| 210     | Doornzaad               | Caucali                  | Caucalide          | Beterliuus <i>Dan.</i> Kaukalis <i>Swed.</i>   |
| 826     | Trompetboorn            | Ambaiba                  | Ambaiba            | Trompettræ <i>Dan.</i> Trumpeträd <i>Swed.</i>   |
| 178     | -                       | -                        | Celastro           | Kuro gani <i>Jap.</i> Celastertræ <i>Dan.</i> Celasterträd <i>Swed.</i>                  |
| 192     | Der hahnenkamm          | Celosia                  | Celosia            | Hanekam <i>Dan.</i> Hankam <i>Swed.</i>  |
| 534     | -                       | Arturo di Candia         | -                  | -  |
| 864     | Lotusboorn              | Il loto                  | El almez           | Temur-agatsch <i>Pers.</i> Lotustræ <i>Dan.</i> Lotusträd <i>Swed.</i>                   |
| 52      | Kleeifgras              | Cencro                   | Cencro             | Cencro <i>Port.</i> Burregras <i>Dan.</i> Borregræs <i>Swed.</i>                         |
| 734     | Santorie                | Centaurea                | Centaurea          | -  |
| 96      | Zeer klein guichel-muur | -                        | -                  | -  |
| 96      | Kogelboorn              | -                        | -                  | Knaptræ <i>Dan.</i> Knappräd <i>Swed.</i>  |
| 388     | Hoornbloem              | -                        | -                  | Hornurt <i>Dan.</i> Hornört <i>Swed.</i>   |
| 772     | Hoornvrugt              | Ceratocarpo              | Ceratocarpo        | Ustelipole <i>Russ.</i> Hornfrugt <i>Dan.</i> & <i>Swed.</i>                             |
| 868     | Karobenboorn            | Carobola                 | Algarrobo          | Alfarroba <i>Port.</i> Johannisbröd <i>Dan.</i> & <i>Swed.</i>                           |
| 790     | Hoornblad               | Ceratofilo               | Ceratofila         | Ceratofilo <i>Port.</i> Hornblad <i>Dan.</i> & <i>Swed.</i>                              |
| 148     | Rinkelboorn             | -                        | -                  | -  |
| 346     | Judasboorn              | Siliquastro              | Algarrobo loco     | Siliquastre <i>Port.</i> Fanna suwo <i>Jap.</i> Judastræ <i>Dan.</i>                     |
| 122     | Waschkruid              | Cerinte                  | Ceriflor           | Chupamel <i>Port.</i> Voxurt <i>Dan.</i> Vaxört <i>Swed.</i>                             |
| 208     | Kervel                  | Cerfoglio                | Perifollo          | Cerofolho <i>Port.</i>   |
| 868     | Laage palmboorn         | Palma di S. Pier martire | Palmitos           | Palmeira des vassoiras <i>Port.</i> Dvergpalm <i>Dan.</i>                                |
| 936     | Kaarskroon              | Chara                    | Chara              | Dvärgpalm <i>Swed.</i>   |
| 538     | Violier                 | Leucojo                  | Alheli             | Chara <i>Port.</i> Armstage <i>Dan.</i> Ijusarm <i>Swed.</i>                             |
| 460     | Schelkruid              | Celidonia                | Celidonia          | Goiveiro <i>Por.</i> Naegels <i>Arab.</i> Gwosditschnija fialke <i>Russ.</i>             |
| 516     | Schildbloem             | -                        | -                  | Svaleurt <i>Dan.</i>   |
| 206     | Ganzevoet               | -                        | -                  | Skjoldblomster <i>Dan.</i> Sköldblomster <i>Swed.</i>                                    |
| 172     | Sneeuwbesie             | -                        | -                  | Guasefod <i>Dan.</i>   |
| 12      | Sneeuwbloem             | Albero di neve           | Arbol de nieve     | Sneeber <i>Dan.</i> Snöbär <i>Swed.</i>  |
| 424     | Icacopruim              | Albero icaco             | Icaco arbol        | Sneeblomster <i>Dan.</i> Snöblomster <i>Swed.</i>  |
| 694     | Fronkbloem              | Crisocoma                | Crisocoma          | Ikakoblomme <i>Dan.</i> Ikakoplommon <i>Swed.</i>  |
| 150     | Star-appelboorn         | Crisofilo                | Chrysophyllo       | Guldhaar <i>Dan.</i>   |
| 366     | Goudveil                | -                        | -                  | Chrysophyllo <i>Port.</i> Stierneåble <i>Dan.</i> Stjernåple <i>Swed.</i>                |
| 624     | Cicers                  | Ceci                     | Garbanzo           | Gylden steenbrek <i>Dan.</i> Gul stenbräcka <i>Swed.</i>                                 |
| 678     | Suikerey                | Cicoria                  | Achicoria          | Ervanjo <i>Port.</i> Ciecierzycza ogrodna <i>Pol.</i> Muscart <i>Dan.</i>                |
| Endivie | Endivia                 | Endibia                  | Endibia            | Zikorija <i>Russ.</i>  |
| 216     | Water-scheerling        | -                        | -                  | Endibia <i>Port.</i> Andiwija <i>Russ.</i> Sterbák <i>Boh.</i>                           |
| 476     | Wantsdryver             | -                        | -                  | Cegude <i>Por.</i> Omeg <i>Rus.</i> Vand-skarntyde <i>Dan.</i>                           |
| 712     | Aschkruid               | -                        | -                  | Tægeurt <i>Dan.</i>  |
| 26      | St. Stevenskruid        | -                        | -                  | Aske-urt <i>Dan.</i> Ask-ört <i>Swed.</i>  |
| 848     | Touwdruif               | -                        | -                  | Kaldunowa trawa <i>Russ.</i> Czarownik <i>Pol.</i>                                       |
| 102     | Boschtouw               | -                        | -                  | Caapeha <i>Port.</i>   |
| 468     | Veldroosje              | Cistio                   | Jara               | Cisto <i>Port.</i> Cisturoe <i>Dan.</i> Cisturos <i>Swed.</i>                            |
| 520     | Vedelhoutboorn          | Melarancino              | Naranjo            | Fiolintræ <i>Dan.</i> Fiolträd <i>Swed.</i>  |
| 652     | Oranjeboorn             | -                        | -                  | Cay cam <i>Cochinch.</i> Pomerancez <i>Russ.</i>   |
| 1012    | Knodszwam               | -                        | -                  | Klubban <i>Swed.</i> Köllesop <i>Dan.</i>  |
| 482     | Clematis                | Clematite                | Clematide          | Powoy <i>Pol.</i> Clematis <i>Dan.</i> & <i>Swed.</i>                                    |
| 538     | Hederik                 | -                        | -                  | Tarenaya <i>Port.</i>  |
| 520     | Lotboorn                | -                        | -                  | Pinna <i>Cey.</i>  |
| 362     | Clethra                 | -                        | -                  | -  |
| 506     | Borstelkrans            | Clinopodio               | Albahaca silvestre | Clinopodio <i>Port.</i> Blosschinza <i>Russ.</i> Storzyszek <i>Pol.</i>                  |
| 618     | Kittelbloem             | Clitoria                 | Clitoria           | Clitoria <i>Port.</i> Clitorisblomster <i>Dan.</i> & <i>Swed.</i>                        |
| 866     | Lymboorn                | -                        | -                  | -  |
| 544     | Schildzaad              | Rotella                  | Hierba rodela      | Escudinha <i>Port.</i> Skiold-urt <i>Dan.</i> Sköld-ört <i>Swed.</i>                     |

| Page              | No. to Genera. | British or Systematic Synonyms. | English Names.                | French.                        | German.           |
|-------------------|----------------|---------------------------------|-------------------------------|--------------------------------|-------------------|
| 36                | 84             | -                               | Widow wail                    | La camélése                    | Der zeyland       |
| 682               | 1065           | -                               | Thistle                       | Le cnichaut                    | Das kratzkraut    |
| 778               | 1948           | Carex                           | -                             | -                              | -                 |
| 326               | 922            | -                               | Seaside grape                 | Le raisinier de mer            | Die seetraube     |
| 844               | 2101           | Menispermum                     | -                             | -                              | -                 |
| 546               | 1407           | -                               | Scurvy grass                  | Le cranson                     | Das lösselkraut   |
| 788               | 1983           | -                               | Cocoa-nut tree                | Le cocotier                    | Die kakospalme    |
| 10                | 30             | -                               | Black tamarinda               | -                              | -                 |
| 170               | 479            | -                               | Coffee tree                   | Le caffayer                    | Der kaffebaum     |
| 778               | 1931           | -                               | Job's tears                   | Larmille                       | Das thranengras   |
| 476               | 1211           | Hibbertia                       | -                             | -                              | -                 |
| 292               | 851            | -                               | Meadow saffron                | Colchique d'automne            | Die zeitlose      |
| 24                | 63             | -                               | Aniseed tree                  | -                              | -                 |
| 626               | 1573           | -                               | Bladder senna                 | Le baguenaudier                | Der blasenbaum    |
| 452               | 1152           | -                               | Marsh cinquefoil              | Le comaret                     | Das fünfblatt     |
| 36                | 85             | -                               | Maiden plum                   | Comocladia à feuilles entières | Die astlose       |
| 994               | 2292           | -                               | -                             | La conferve                    | Der wasserfaden   |
| 216               | 649            | -                               | Hemlock                       | La cigue                       | Der schierling    |
| 188               | 544            | -                               | Button tree                   | Le concocarpe                  | Der zirbelbaum    |
| 270               | 787            | May lily                        | Lily of the valley            | Le muguet                      | Die mayblume      |
| 140               | 384            | -                               | Bind weed                     | Le liseron                     | Die winde         |
| 702               | 1734           | -                               | Flea-bane                     | La conise                      | Die dürrwurz      |
| 356               | 1006           | -                               | Wampee tree                   | -                              | -                 |
| 350               | 986            | -                               | Balsam of capevi              | Le copaier                     | Der kopaiwabaum   |
| 488               | 1238           | Helleborus                      | -                             | -                              | -                 |
| 756               | 1882           | O'phrys                         | -                             | -                              | -                 |
| 466               | 1187           | -                               | Jew's mallow                  | La corete                      | Die muspflanze    |
| 150               | 428            | Sebesten                        | -                             | La sebestier                   | Der sebestenbaum  |
| 732               | 1804           | -                               | Tickseed sun-flower           | La coriope                     | Das kappchen      |
| 208               | 618            | -                               | Coriander                     | La coriandre                   | Der koriander     |
| 482               | 2091           | -                               | Myrtle-leaved sumach          | Le redoul                      | Der gerberstrauch |
| 130               | 360            | -                               | -                             | Le coris                       | Der erdkiefer     |
| 8                 | 26             | -                               | Tickseed                      | Le corisperme                  | Der wanzensame    |
| 52                | 133            | -                               | Horn of plenty grass          | Le coqueluchiole               | Das füllhorngras  |
| 102               | 306            | Cornelian cherry                | Dogwood                       | Le cornouiller                 | Der kernelbaum    |
| 520               | 1318           | -                               | -                             | L'agnanthe                     | -                 |
| 628               | 1576           | -                               | Scorpion senna                | La coronille                   | Die kronwicke     |
| 550               | 1427           | -                               | Wart cress, star of the earth | -                              | -                 |
| 228               | 690            | Bastard knotgrass               | Strapwort                     | La corrigiole                  | Das lingenkraut   |
| 128               | 351            | -                               | Bear's-ear sanicle            | La cortuse                     | Die kortuse       |
| 600               | 1502           | Fumaria                         | -                             | -                              | -                 |
| 792               | 1998           | Hazel nut tree                  | Nut tree                      | Le noisetier                   | Die haselstaude   |
| 58                | 169            | Corynephorus                    | Club grass                    | -                              | -                 |
| 258               | 762            | -                               | Fan palm                      | Coryphe                        | Die schirmpalme   |
| 722               | 1775           | -                               | Mayweed                       | La cotule                      | Die laugenblume   |
| 382               | 1060           | Kidneywort                      | Navel-wort                    | Le cotylet, or cotylier        | Die nabelfianze   |
| 556               | 1442           | -                               | Sea Kail                      | Le crambé                      | Der meerkohl      |
| 230               | 699            | -                               | -                             | La crassule                    | Das dickblatt     |
| 424               | 1132           | -                               | Hawthorn                      | L'aubépine                     | Der hagedorn      |
| 336               | 1086           | -                               | Garlic pear                   | Le tapier                      | Der tapiabaum     |
| 674               | 1639           | -                               | Succory hawkweed              | Crépele                        | Pippau            |
| 524               | 1336           | -                               | Calabash tree                 | Le calabassier                 | Der kürbisbaum    |
| 250               | 735            | -                               | African lily                  | La crinole                     | Die hakenlilie    |
| 212               | 633            | -                               | Sapphire                      | La bacille                     | Der meerfenchel   |
| 36                | 98             | -                               | Saffron                       | Le safran                      | Die safranpflanze |
| 608               | 1530           | -                               | -                             | La crotalaire                  | Die klapperschote |
| 812               | 2032           | Cascarilla                      | -                             | -                              | -                 |
| 94                | 271            | Petty madder                    | Crosswort                     | La crucianelle                 | Das kreuzblatt    |
| 734               | 1814           | Arctotis                        | -                             | -                              | -                 |
| 372               | 1047           | -                               | Bladder campion               | Le behen                       | Das behen         |
| 808               | 2022           | -                               | Cucumber                      | Le concombre                   | Die gurke         |
| 808               | 2021           | -                               | Gourd                         | La courge                      | Der kürbis        |
| 732               | 1809           | Berekhaya                       | -                             | -                              | -                 |
| 214               | 641            | -                               | Cumin                         | Le cumin                       | Der kümmel        |
| 806               | 2017           | -                               | Cypress                       | Le cyprès                      | Die cyresse       |
| 6                 | 14             | -                               | Turmeric                      | Le curcuma                     | Kurkuma           |
| 100               | 300            | -                               | Hasagay tree                  | -                              | -                 |
| 104               | 310            | -                               | Dodder                        | Cuscute                        | Die flachseide    |
| 286               | 824            | -                               | -                             | La cyanelle                    | Das hängblatt     |
| 846               | 2107           | -                               | Sago tree                     | Le cycas des Indes             | Der sagoubaum     |
| 128               | 354            | -                               | Sow bread                     | Cyclame                        | Die erdscheibe    |
| 426               | 1134           | Pyrus                           | Quince                        | Coignassier                    | Der quittenbaum   |
| 534               | 1379           | -                               | -                             | Cymbaire                       | Das nachenkraut   |
| 196               | 581            | -                               | Dog's bane                    | La cyananque                   | Der hundswürger   |
| 684               | 1668           | -                               | Artichoke                     | L'artichaut                    | Die artichoke     |
| C. Cardunculus L. | -              | -                               | Cardoons                      | Cardon                         | Kardonen          |
| sp. 11458         | -              | -                               | -                             | -                              | -                 |
| 122               | 336            | -                               | Hound's tongue                | Cynoglosse                     | Die hundsrunge    |
| 348               | 973            | -                               | -                             | Le cynomètre                   | Die hundscham     |
| 62                | 178            | -                               | Dog's-tail grass              | Crételle                       | Das kammgras      |
| 50                | 127            | -                               | -                             | Le souchet                     | Das cyperngras    |
| C. esculéntus L.  | -              | -                               | -                             | Amande-de-terre                | -                 |
| sp. 896           | -              | -                               | -                             | -                              | -                 |

| Page   | Dutch.  | Italian.   | Spanish.  | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.   |
|--|---|--|---|--|
| 36<br>682  | Chamaelea<br>Distel   | Camalea  | Olivilla  | Citocacio <i>Port.</i> Chamaelea <i>Dan. &amp; Swed.</i><br>Kradstidse! <i>Dan.</i> Krattstistel <i>Swed.</i>  |
| 326  | Druiveboom  | Grappoliere  | Coccoloba   | Druetræe <i>Dan.</i> Drusveträd <i>Swed.</i>   |
| 546<br>788   | Lepelkruid<br>Kokosboom   | Coclearia<br>Albero del cocco  | Cochlearia<br>El coco   | Skee-urt <i>Dan.</i><br>Inaiaguacuiha <i>Brasil.</i> Cay dua <i>Cochinch.</i>  |
| 170<br>778   | Koffyboom<br>Traangras  | Il caffè<br>Lacrime di<br>Giobbe   | El café<br>Lagrmas de<br>Moises   | Cay càphe <i>Cochinch.</i> Koff <i>Russ.</i> Kawa <i>Pol.</i><br>Lagrymas de N. Senhora <i>Port.</i> Jobs taarer <i>Dan.</i>   |
| 292  | Wildi saffraan  | Colchico   | Villorita   | Colchico <i>Port.</i> Beswrémnoi zvjat <i>Russ.</i> Rozsiad <i>Pol.</i>  |
| 626<br>452<br>36   | Senneboom<br>Rood waterbezie<br>Maagden-pruim-<br>boom  | Solatro  | Espanta-lobos   | Colutea <i>Port.</i> Linsetræe <i>Dan.</i> Linseträd <i>Swed.</i><br>Sabelnik <i>Russ.</i> Pieciornik <i>Pol.</i> Kräkfottis <i>Swed.</i>  |
| 934<br>216<br>188<br>270   | Flap<br>Scheerling<br>Knopboom<br>Leitjes van den<br>dale   | -<br>Cicuta<br>Il mughetto   | -<br>Ceguda<br>Azucena del<br>valle   | Thachhoa <i>Cochinch.</i> Vandträd <i>Dan.</i><br>Bologolow <i>Russ.</i> Swinia wesz <i>Pol.</i> Skarntyde <i>Dan.</i><br>Knaptræe <i>Dan.</i> Knappräd <i>Swed.</i><br>Landisch <i>Russ.</i> Konwalia <i>Pol.</i>   |
| 140<br>702   | Winde<br>Tonderkruid  | Il vilucchio<br>La conizza   | La correguela<br>La coniza  | O liserão <i>Port.</i> Snerli <i>Dan.</i><br>A coniza <i>Port.</i> Cattuschiragum <i>Malab.</i> Troidurt <i>Dan.</i>   |
| 350  | Balsem copayve-<br>boom   | Copaiba  | Copai   | Copiba <i>Port.</i> Coaiba <i>Brasil.</i> Copaiatræe <i>Dan.</i>   |
| 466<br>150<br>732  | Moeskruid<br>Sebestenboom<br>Wantszaad  | Il sebesten  | El sebesto  | Melochia <i>Arab.</i> Madurt <i>Dan.</i><br>Sebesteira <i>Port.</i> Vidi-maram <i>Malab.</i> Sebestentræe <i>Dan.</i><br>Tægefrø <i>Dan.</i> Vægglusfrø <i>Swed.</i>   |
| 208<br>432   | Koriander<br>Lederboom  | Coriandro  | Cilantro<br>Rulda   | Coentro <i>Port.</i> Koriander <i>Russ.</i> Ghad <i>Hebr.</i><br>Lædertræe <i>Dan.</i> Läderträd <i>Swed.</i>  |
| 130<br>8<br>52<br>102  | Zee-thym<br>Wantz.-zaader<br>Trechttergras<br>Kornoe!jeboom   | Il cori<br>Corisperma<br>Cornucopia<br>Il corniola   | Hierba pinul<br>Corispermo<br>Cornucopia<br>El cornizo  | A corea <i>Port.</i> Korisurt <i>Dan.</i> Korisört <i>Swed.</i><br>Veggelussaad <i>Dan.</i><br>Frugthorn-græs <i>Dan.</i> Fruckthorn-grås <i>Swed.</i><br>Cornisolo <i>Port.</i> Kuroselepnik <i>Russ.</i>   |
| 628  | Kroonkruid  | Coronilla  | Coronilla   | Kroneurt <i>Dan.</i> Kronört <i>Swed.</i>  |
| 228<br>128   | Riempjes<br>Kortusa   | La coregiuola  | La correguela   | A correjola <i>Port.</i> Remurt <i>Dan.</i> Remört <i>Swed.</i>  |
| 792  | Hazelaar  | El nocciuolo   | El avellano   | Avelleira <i>Port.</i> Frandik <i>Turk.</i> Oreschnik <i>Russ.</i>   |
| 258<br>722<br>382<br>556<br>230<br>424<br>396<br>674<br>524<br>250<br>212<br>36<br>698 | Sariboebom<br>Koedille<br>Navelkruid<br>Zeekool<br>Dikblad<br>Haagdoorn<br>Stinkappelboom<br>Hondsbloem<br>Kalabasboom<br>Haakte!te<br>Zeevenkel<br>Saffraan<br>Rammelaar | -<br>Cotiledone<br>Crambe marina<br>Bianco spino<br>Cuiete<br>Crino<br>Crino<br>Hinojo marino<br>Zafferano<br>Crotalaria | -<br>Ombliuguera<br>Col marina<br>Espino blanco<br>Cuiete<br>Crino<br>Crino<br>Hinojo marino<br>Azafran<br>Crotalaria | Arvore dos sombreiros <i>Port.</i> Coda-panna <i>Malab.</i><br>Luudblomster <i>Dan.</i><br>Cotyledone <i>Port.</i> Rzesa wietrzna <i>Pol.</i><br>Strandkaal <i>Dan. &amp; Norw.</i><br>Tykblad <i>Dan.</i> Tjockblad <i>Swed.</i><br>Bodlak <i>Pol.</i> Bojarischnik <i>Russ.</i><br>Tapia do Brasil <i>Port.</i> Tapia <i>Brasil.</i> Nurrvala <i>Malab.</i><br>Cuiete <i>Port.</i> Kalabastræe <i>Dan.</i> Kalabasträd <i>Swed.</i><br>Crino <i>Port.</i> Krogille <i>Dan.</i><br>Funcho marinho <i>Port.</i> Seefenkel <i>Dan.</i> Sjöfenkel <i>Swed.</i><br>Açafrão <i>Port.</i> Zati-phra <i>Arab.</i> Schafran <i>Rus.</i> Szafran <i>Pol.</i><br>Crotalaria <i>Port.</i> Klapperbølge <i>Dan.</i> Skallerskida <i>Swed.</i> |
| 94   | Kruisblad   |  |   | Korsblad <i>Dan. &amp; Swed.</i>   |
| 372<br>808<br>808  | Wit been<br>Komkommer<br>Kauwoerde  | Il been bianco<br>Cetriuolo<br>La zucca  | Colleja<br>Pepino<br>Calabaza   | Herva traqueira <i>Port.</i> Skum-neglike <i>Dan.</i><br>Pepino <i>Port.</i> Kira <i>Indian.</i> Ogurzi <i>Russ.</i> Ogorek <i>Pol.</i><br>Abobara <i>Port.</i> Kabak <i>Pers.</i> Tikwa <i>Russ.</i> Tykwia <i>Pol.</i>   |
| 214<br>806<br>6  | Komyn<br>Cypresseboom<br>Kurkuma  | Comino<br>Cypresso   | Comino<br>Ciprés  | Cuminho <i>Port.</i> Timon <i>Russ.</i> Kmin <i>Pol.</i> Kummen <i>Dan.</i><br>Cypreste <i>Port.</i> Elhami <i>Arab.</i> Kyparisno derewo <i>Russ.</i><br>Mangella-kuu <i>Malab.</i> Gurgumeye <i>Dan.</i>   |
| 104  | Warkruid  |  |   | Pawiliza <i>Russ.</i> Kania przedza <i>Pol.</i>  |
| 846<br>128<br>426<br>534<br>196<br>684   | Sageboom<br>Varkensbrood<br>Kweebom<br>Bootsjesvrught<br>Worgkruid<br>Artisjok  | Il sago<br>Ciclamine<br>Cotogno<br>Cinanco<br>Carciofo   | El sagú<br>Panporcino<br>Membrillero<br>Cinanco<br>Alcachofa  | O sagúeiro <i>Port.</i> Todda-panna <i>Malab.</i> Sagutræe <i>Dan.</i><br>Pao de porco <i>Port.</i> Galtteknappe <i>Dan.</i> Svinbröd <i>Swed.</i><br>Marmeleiro <i>Port.</i> Haivah <i>Pers.</i> Armud <i>Rus.</i> Pigwa <i>Pol.</i><br>Cinanco <i>Port.</i> Hundemorder <i>Dan.</i> Hundstypare <i>Swed.</i><br>Artitschok <i>Russ.</i> Karciof <i>Pol.</i> Ärteskok <i>Dan.</i>   |
| 122<br>348<br>62<br>50   | Hondstong<br>Teefjes-klink<br>Vingerpluim<br>Cypergras  | Cinoglossa<br>Cipero   | La viniebla<br>-<br>-<br>-  | Lingua de cão <i>Port.</i> Tscherednik <i>Russ.</i> Psi iezik <i>Pol.</i><br>Hanekamsgræs <i>Dan.</i> Kam-exing <i>Swed.</i><br>Cipergræs <i>Dan.</i> Cipergrås <i>Swed.</i>   |



| Page | Nos. to Genera.     | British or Systematic Synonymes. | English Names.      | French.                                      | German.                    |
|------|---------------------|----------------------------------|---------------------|--|----------------------------|
| 766  | Cypripedium L.      | 1931                             | Ladies' slipper     | Sabot de la Vierge, or Soulier de Notre Dame | Der Venusschuh             |
| 624  | Cytisus L.          | 1566                             | Cytisus             | Le cytisse                                   | Der geiskle                |
| 62   | Dactylis L.         | 180                              | Cock's-foot grass   | Le dactyle                                   | Der knauelgras             |
| 718  | Dahlia Cav.         | 1758                             | Georgina            | -  | -                          |
| 294  | Damasonium Schreb.  | 859                              | Alisma              | Fluteau                                      | Der froschloffel           |
| 322  | Daphne L.           | 910                              | Spurge-laurel       | Laureole                                     | Der seidelbast             |
| 844  | Datisca W.          | 2099                             | Bastard hemp        | La cannabine                                 | Das streichkraut           |
| 134  | Datura L.           | 376                              | Thorn apple         | Stramoine                                    | Der stechapfel             |
| 210  | Daucus L.           | 625                              | Carrot              | La carote                                    | Die möhre                  |
| 384  | Davallia Sm.        | 2196                             | Trichomanes         | -  | -                          |
| 192  | Deeringia R. Br.    | 563                              | Celisia             | -  | -                          |
| 472  | Delphinium Tou.     | 1204                             | Larkspur            | La dauphinelle                               | Der rittersporn            |
| 370  | Dianthus L.         | 1046                             | Pink                | L'oeillet                                    | Die nelke                  |
| 354  | Dictamnus L.        | 997                              | Fraxinella          | Dictame blanc                                | Der diptam                 |
| 904  | Didymodon Hedw.     | 2230                             | Brÿum               | -  | -                          |
| 170  | Diervilla Tou.      | 477                              | Lonicera            | St. Peter's wort                             | La dierville               |
| 530  | Digitaria L.        | 1355                             | Fox-glove           | La digitale                                  | Die akadische Ionizere     |
| 52   | Digitaria Sco.      | 143                              | Finger-grass        | La digitale                                  | Der fingerhut              |
| 478  | Dillenia L.         | 1214                             | -                   | Le sialit                                    | Der rosenapfel             |
| 302  | Dimocarpus W.       | 883                              | Longan              | Litchi                                       | -                          |
| 356  | Dionaea L.          | 1009                             | -                   | Venus's fly-trap                             | L'atrape-mouche            |
| 838  | Dioscorea L.        | 2085                             | Yam                 | Igname                                       | Venus die fliegen-fängerin |
| 180  | Diósma Wnl.         | 517                              | Bucku plant         | -  | -                          |
| 870  | Diospyros L.        | 2159                             | Date plum           | Le plaqueminiere                             | Der pseudolotus            |
| 908  | Diphyscium Mohr     | 2235                             | Buxbaumia           | -  | -                          |
| 90   | Dipsacus L.         | 262                              | Fuller's thistle    | Teasel                                       | Cardere à foulon           |
| 604  | Dipterix Schreb.    | 1518                             | Tonquin bean        | -  | Die kardendistel           |
| 324  | Ditca L.            | 911                              | Leather wood        | Le bois de cuir                              | Das lederholz              |
| 128  | Dodecatheon L.      | 325                              | American cowslip    | Gyroselle de Virginie                        | Die güttergabe             |
| 616  | Dolichos L.         | 1550                             | Horse-eye bean      | Le dolie                                     | Faseln                     |
| 716  | Doronicum L.        | 1751                             | Leopard's bane      | Le doronic                                   | Gemsenwurz                 |
| 88   | Dorstenia L.        | 257                              | Contrayerva         | Dorstene                                     | Die contrayerva            |
| 544  | Draba L.            | 1405                             | Whitlow grass       | La drave                                     | Das hungerblümchen         |
| 266  | Dracæna L.          | 774                              | Dragon tree         | Le dragonier                                 | Der drachenbaum            |
| 510  | Dracoccephalum L.   | 1279                             | Dragon's head       | Dracocéphale                                 | Der drachenkopf            |
| 298  | Dracónium L.        | 868                              | Dragon              | Draconte                                     | Zehrwurz                   |
| 232  | Drósera L.          | 702                              | Sundew              | Le rosolia                                   | Der sonnentau              |
| 454  | Drÿas L.            | 1159                             | -                   | Diade  | Das silberkraut            |
| 228  | Drÿpis L.           | 687                              | -                   | La drypis                                    | Das kronkraut              |
| 210  | Echinophora L.      | 624                              | Prickly parsnep     | L'echinophore                                | Die stacheloidie           |
| 746  | Echinops L.         | 1850                             | Globe-thistle       | Echinope                                     | Die kugeldistel            |
| 146  | Echites L.          | 413                              | -                   | L'echite                                     | Der klammertrauch          |
| 124  | Echium L.           | 345                              | Viper's bugloss     | La viperine                                  | Der natterkopf             |
| 340  | Edwardsia Sal.      | 940                              | Sophora             | -  | -                          |
| 152  | Ehretia L.          | 430                              | -                   | Le cabrillet                                 | -                          |
| 90   | Elaeagnus L.        | 259                              | Oleaster            | L'olivier de Bohême                          | Der wilde oelbaum          |
| 468  | Elaeocarpus L.      | 1192                             | -                   | Le ganitre                                   | Die ganiterbaum            |
| 180  | Elaeodendrum Jac.   | 516                              | Olive wood          | -  | -                          |
| 836  | Elais Jac.          | 2077                             | Oily palm           | L'avoira de Guinée                           | Die oelpalme               |
| 790  | Elate L.            | 1984                             | -                   | L'indel asiatique                            | Die tannenpalme            |
| 828  | Elatine L.          | 931                              | Waterwort           | -  | -                          |
| 48   | Eleocharis R. Br.   | 124                              | Scirpus             | Spike rush                                   | -                          |
| 744  | Elephantopus L.     | 1843                             | Elephant's foot     | L'éléphantope                                | Der elephantenfuss         |
| 68   | Eleusine Gae.       | 900                              | Cynosurus           | -  | -                          |
| 700  | Elichrysium Pers.   | 1730                             | Xeranthemum         | -  | -                          |
| 880  | Ellobocarpus Kaulf. | 2181                             | Pteris              | -  | -                          |
| 72   | Elymus L.           | 208                              | Lyme grass          | Elyme des sables                             | Das haargrass              |
| 826  | Empetrum L.         | 2045                             | Black-berried heath | Camarine                                     | Die rauchbeere             |
| 848  | Ephedra L.          | 2115                             | Shrubby horse-tail  | L'uvette                                     | Die seebraune              |
| 760  | Epidendrum L.       | 1907                             | Vanilla             | -  | -                          |
| 358  | Epigæa L.           | 1015                             | Trailing arbutus    | L'épiggée                                    | Der grundstrauch           |
| 318  | Epilobium L.        | 903                              | Willow herb         | L'épilobe                                    | Der weiderich              |
| 100  | Epimedium L.        | 237                              | Barrenwort          | Le chapeau d'évêque                          | Die bischofsmitze          |
| 890  | Equisetum L.        | 2211                             | Horse tail          | Prêle  | Das kannenkraut            |
| 68   | Eragrostis Beauv.   | 197                              | Live grass          | -  | -                          |
| 18   | Eranthemum R. Br.   | 49                               | -                   | L'eranthème                                  | Die frühblume              |
| 488  | Eranthis Sal.       | 1236                             | Hellëborus          | -  | -                          |
| 304  | Erica L.            | 892                              | Ling                | La bruyère                                   | Die heide                  |
| 704  | Erigeron L.         | 1736                             | -                   | La vergerette                                | Das scharfe                |
| 426  | Eriobotrya Lindl.   | 1137                             | Mespilus            | Loquat                                       | -                          |
| 76   | Eriocaulon L.       | 223                              | Pipewort            | La joncinelle                                | Der kantenhalm             |
| 742  | Erioccephalus L.    | 1837                             | -                   | -  | Der wolkopf                |
| 50   | Eriophorum L.       | 125                              | Cotton grass        | La linagrette                                | Das dungras                |
| 568  | Erodium Herit.      | 1460                             | Heron's bill        | -  | -                          |
| 556  | Eruca Tou.          | 1436                             | Rocket              | -  | -                          |
| 624  | Erymus L. sp. 10421 | 1562                             | True bitter vetch   | Tare   | L'ers ervillier            |
| 558  | Erucaria Gae.       | 1445                             | Condylocarpus       | Lentillon                                    | Die linse                  |
| 210  | Eryngium L.         | 622                              | Holly               | Panicaut                                     | Die krausdistel            |
| 550  | Erysimum L.         | 1424                             | Hedge mustard       | Le vélar                                     | Der heridich               |
| 604  | Erythrina L.        | 1521                             | Coral tree          | L'erythrine                                  | Der korallenbaum           |

TABLE OF SYNONYMES.

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| Page | Dutch.               | Italian.         | Spanish.                 | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.                               |
|------|----------------------|------------------|--------------------------|--|
| 766  | Vrouweschoen         | Pantoffola       | Zueco                    | Calçado de Nuessa Senhora <i>Port.</i> Kokuschkiny Saposchki <i>Russ.</i>                                    |
| 624  | Cytisus              | Citiso           | Citiso                   |  |
| 62   | Krop-aair            | Il dattilo       | El dactilo               | O dactylo <i>Port.</i> Hvasgræs <i>Dan.</i> Exing <i>Swed.</i>   |
| 294  | Water-weegbree       | Damasonio        | -                        | Damasonio <i>Port.</i>   |
| 322  | Zwart peper-boompje  | Laureola maschio | Laureola macho           | Loireola macho <i>Port.</i>  |
| 844  | Weedaart             |                  |                          |  |
| 134  | Doornappel           | Stramonio        | Estramonio               | Estramonia <i>Port.</i> Durman <i>Russ.</i>  |
| 210  | Peen                 | Carota           | Zanahoria                | Morkow <i>Russ.</i> Marchew <i>Pol.</i>  |
| 472  | Ridderspoor          | Speronella       | Espuela de caballero     | Esporeira <i>Port.</i> Kawalerskoi spor <i>Russ.</i> Ostrozka <i>Pol.</i>                                    |
| 370  | Anjelier             | Garofano         | Clavél                   | Cravino <i>Port.</i> Gwosdika <i>Russ.</i> Gozdzik <i>Pol.</i>   |
| 354  | Diptam               | Dittamo bianco   | Chitan                   | Dictamo branco <i>Port.</i> Badan <i>Russ.</i> Dyptan <i>Pol.</i>  |
| 170  | Akadische Ionicera   | Madreselva       | Madreselva               | Madresylva <i>Port.</i>  |
| 530  | Vingerhoed           | Digitale         | Dijital                  | Digital <i>Port.</i> Naperstok <i>Russ.</i>  |
| 478  | Roosappelboom        | -                | -                        | Fruta estrellada <i>Port.</i> Syalita <i>Malab.</i>  |
| 356  | Vliegenknip          | -                | -                        | Moscapanha <i>Port.</i>  |
| 838  | -                    | -                | -                        | Oowhenote maowa <i>Otaheite.</i> Katsjil-kelengu <i>Malab.</i>   |
| 870  | Basterd-lotus        |                  |                          | Loto de Italia <i>Port.</i>  |
| 90   | Vollers kaarden      | Dissaco          | Cardencha                | Cardo penteador <i>Port.</i> Sukonnaja <i>Russ.</i> Szczeł <i>Pol.</i>                                       |
| 324  | Lederstruik          |                  |                          |  |
| 128  | Afgodskruid          |                  |                          |  |
| 616  | Slingerboom          |                  |                          |  |
| 716  | Wolverley            | Doronico         | Doronico                 | Doronico <i>Port.</i> Geede-urt <i>Dan.</i> Vildget-ört <i>Swed.</i>   |
| 88   | Contrajerva          | -                | Contrayerba              | Contraerva <i>Port.</i>  |
| 544  | Taschkruid           | Draba            | Draba                    | Hungerblomst <i>Dan.</i> Hungerblomster <i>Swed.</i>   |
| 266  | Draakboom            | Dragone          | Drago                    | Dragoneiro <i>Port.</i> Dragetrae <i>Dan.</i>  |
| 510  | Draakskop            | Dragocefalo      | Dragocefalo              | Dragocefalo <i>Port.</i> Cay co co <i>Cochinch.</i> Dragchoved <i>Dan.</i>                                   |
| 298  | Speerwortel          |                  |                          |  |
| 232  | Zonnedaauw           | Rugiada del sole | Rociada                  | A rossolina <i>Port.</i> Solneznaja trawa <i>Russ.</i> Holta-soleyy <i>Iceland.</i> Schingari <i>Tungus.</i> |
| 454  | Hertenkruid          |                  |                          |  |
| 228  | Kroondoorn           | Echinofora       | Echinofora               | Echinofora <i>Port.</i>  |
| 210  | Stekelkroon          | Echinopo         | Echinopo                 | Echinopo <i>Port.</i> Klottistel <i>Swed.</i>  |
| 746  | Morgenster           | Echite           | Echite                   | Echite <i>Port.</i>  |
| 146  | Rooswinde            | Echio            | Hierba de la viora       | Viperina <i>Port.</i> Rumian <i>Russ.</i>  |
| 124  | Slangkruid           |                  |                          |  |
| 90   | Olyfwilg             | Olivo di Boemia  | Arbol de paraiso         | Kalaf <i>Pers.</i> Lochowina <i>Russ.</i> Oliwa léсна polna <i>Pol.</i>                                      |
| 468  | Ganiterboom          |                  |                          | Perin-kara <i>Malab.</i>   |
| 836  | Palmietboom          |                  |                          |  |
| 790  | Wilde daadelboom     |                  |                          | Tamara do mato <i>Port.</i> Hinindi <i>Cey.</i> Katou-indel <i>Malab.</i>                                    |
| 744  | Otyphants-poot       |                  |                          |  |
| 72   | Zandig koorgras      | Elimo            | Elimo                    | Elimo <i>Port.</i> Sandhavre <i>Dan.</i> Strandrog <i>Swed.</i>  |
| 826  | Besheide             | -                | Camarinas                | Camarinas do reyno <i>Port.</i> Wodäniza <i>Russ.</i>  |
| 848  | Zeedruif             | -                | Hierba de las coyunturas | Stepnaja malina <i>Russ.</i> Kirsik <i>Kaimuk.</i>   |
| 358  | -                    | -                | -                        | Memecylo da Canada <i>Port.</i>  |
| 318  | Basterd-wederik      | Epilobio         | Epilobio                 | Kipre <i>Russ.</i> Karamuk <i>Tartar.</i> Abragärest <i>Lapl.</i>  |
| 100  | Muiltjesbloem        | Epimedio         | Epimedio                 | Epimedio <i>Port.</i> Ikaniso <i>Jap.</i>  |
| 890  | Akkerig paardestaart | Equiseto         | Equiseto                 | Equiseto <i>Port.</i> Ma hoang <i>Cochinch.</i> Chwostch <i>Russ.</i>  |
| 18   | Vroegbloem           | Erantemo         | Erantemo                 | Erantemo <i>Port.</i>  |
| 304  | Heide                | Erica            | Brezo                    | Weresk <i>Russ.</i> Wrzos <i>Pol.</i> Lyng <i>Dan.</i> Liung <i>Swed.</i>                                    |
| 704  | Scherp fynstraal     |                  | Olivardilla              | Blaa troldurt <i>Dan.</i>  |
| 76   | Kanthalm             |                  |                          |  |
| 50   | Wolgras              | Erioforo         | Erioforo                 | Erioforo <i>Port.</i> Ageruld <i>Dan.</i> ängull <i>Swed.</i>  |
| 624  | Erven Lins           | Ervo Lenticchia  | Yero Lenteja             | Lentilha <i>Port.</i> Tschetschewiza <i>Russ.</i> Soczewika <i>Pol.</i>                                      |
| 210  | Kruisdistel          | Eringio          | Cardo corredor           | Sinaja golownik <i>Russ.</i>   |
| 550  | Steenrakel           | Erisamo          | Jaramago                 | Gortschitza polewaja <i>Russ.</i> Gorczyca polna <i>Pol.</i>   |
| 604  | Koraalboom           | Arvore corallo   | Arbol der coral          | Arvore coral <i>Port.</i> Koraltree <i>Dan.</i>  |

| Page. | Nos. to Genera. | British or Systematic Synonymes. | English Names.      | French.                  | German.               |
|-------|-----------------|----------------------------------|---------------------|--------------------------|-----------------------|
| 270   |                 |                                  | Dog's-tooth violet  | Le dent de chien         | Der hundszahn         |
| 418   |                 |                                  | Red gum tree        |                          |                       |
| 842   |                 |                                  |                     | L'euclé                  |                       |
| 416   |                 |                                  | Rose apple          | Jambosier                | Der jambusenbaum      |
| 178   |                 |                                  | Spindle tree        | Le fusain                | Der spindelbaum       |
| 688   |                 |                                  | Hemp agrimony       | L'eupatoire              | Abkraut               |
| 400   |                 |                                  | Spurge              | L'euphorbe               | Das euphorbium        |
| 526   |                 |                                  | Eye-bright          | L'eufraise               | Der augentrost        |
| 228   |                 |                                  |                     | La liserole              | Die kriechehend winde |
| 98    |                 |                                  |                     | La gentianelle           | Die kugelrohre        |
| 850   |                 |                                  |                     | L'agalloche              | Der blendbaum         |
| 102   |                 |                                  |                     | Le fagarier              | Der fagara            |
| 354   |                 |                                  |                     |                          |                       |
| 792   |                 |                                  | Beech               | Le hêtre                 | Die buche             |
| 542   |                 |                                  |                     |                          |                       |
| 26    |                 |                                  |                     | La mâche                 | Der ackersalat        |
| 866   |                 |                                  | Elephant apple      |                          |                       |
| 220   |                 |                                  | Giant-fennel        | La férule                | Das ruthenkraut       |
| 62    |                 |                                  | Fescue-grass        | La fétuque               | Schwingel             |
| 494   |                 |                                  | Pilewort            | La petite chelidoine     | Feigen-ranunkel       |
| 872   |                 |                                  | Fig tree            | Le figuier               | Der feigenbaum        |
| 742   |                 |                                  | Cotton rose         | La cotonnière commune    | Das filzkraut         |
| 912   |                 |                                  |                     | La flagellaire           | Die peitschenpflanze  |
| 290   |                 |                                  |                     |                          |                       |
| 630   |                 |                                  |                     |                          |                       |
| 912   |                 |                                  | Water-moss          | La fontinale             | Das hüllmoss          |
| 452   |                 |                                  | Strawberry          | Le fraiser               | Die erdbeerpflanze    |
| 288   |                 |                                  | Sea heath           | La franquette            |                       |
| 868   |                 |                                  | Ash tree            | Le frêne                 | Die esche             |
| 266   |                 |                                  | Fritillary          | La fritillaire mélagre   | Das kiebitzey         |
|       |                 |                                  |                     | Fritillaire imperiale    | Die kaiserkrone       |
| 946   |                 |                                  | Sea wrack           | Varec                    | Tang                  |
| 602   |                 |                                  | Fumitory            | La fumeterre             | Der erdrauch          |
| 246   |                 |                                  |                     |                          |                       |
| 276   |                 |                                  |                     |                          |                       |
| 618   |                 |                                  |                     |                          |                       |
| 248   |                 |                                  | Snowdrop            | Perce-neige              | Schneetropfchen       |
| 634   |                 |                                  | Goat's rue          | Galega                   | Die geisraute         |
| 502   |                 |                                  | Dead nettle         | L'ortie morte des bois   | Die gelbe hanfnessel  |
| 502   |                 |                                  | Common dead nettle  | Hemp nettle              | Die taube nessel      |
| 92    |                 |                                  | Ladies' bed-straw   | Bed-straw                | Das labkraut          |
| 394   |                 |                                  |                     | Mangosteen               | Der mangostanbaum     |
| 172   |                 |                                  |                     | Cape jasmine             | Le jasmin du Cap      |
| 380   |                 |                                  |                     | La garidelle             | Die garidelle         |
| 40    |                 |                                  |                     | Tile-root                |                       |
| 172   |                 |                                  |                     | Genip tree               | Der genipabaum        |
| 610   |                 |                                  |                     | Broom                    | Der ginster           |
| 202   |                 |                                  |                     | Gentian                  | Der enzian            |
| 756   |                 |                                  |                     |                          |                       |
| 604   |                 |                                  |                     |                          |                       |
| 578   |                 |                                  |                     |                          |                       |
| 663   |                 |                                  |                     |                          |                       |
| 454   |                 |                                  |                     |                          |                       |
| 42    |                 |                                  |                     |                          |                       |
| 460   |                 |                                  |                     |                          |                       |
| 194   |                 |                                  | Sea milkwort        | Black saltwort           | Milchkraut            |
| 502   |                 |                                  |                     | Ground ivy               | Gundelreben           |
| 868   |                 |                                  | Three-thorned       | Le févier à trois épines | Der honigdorn         |
|       |                 |                                  | Acacia              |                          |                       |
| 406   |                 |                                  |                     | La ginole                | Der ginus             |
| 6     |                 |                                  |                     | Globbée                  |                       |
| 90    |                 |                                  | Blue daisy          | Madwort                  | Die kugelblume        |
| 270   |                 |                                  |                     | Superb lily              | Die prachtilie        |
| 618   |                 |                                  |                     | Kidneybean tree          | Die glycine           |
| 628   |                 |                                  |                     | Réglisse                 | Siasholz              |
| 518   |                 |                                  |                     | Gmelin                   |                       |
| 698   |                 |                                  | Cotton weed         | Everlasting              | Die ruhrpflanze       |
| 324   |                 |                                  |                     | Gnaphale                 | Das schnabelkorn      |
| 196   |                 |                                  |                     | Guidienne                |                       |
| 194   |                 |                                  | Globe Amaranth      | L'amaranthine globuleuse | Der kugelamaranth     |
| 754   |                 |                                  |                     |                          |                       |
| 592   |                 |                                  |                     |                          |                       |
| 588   |                 |                                  | Smooth loblolly bay | Le cotonnier             | Die baumwolle         |
| 866   |                 |                                  |                     | Cotton                   |                       |
| 16    |                 |                                  |                     | La liane brûlée          |                       |
| 466   |                 |                                  |                     | Hedge hyssop             | Das gnadenkraut       |
| 384   |                 |                                  |                     | Anchovy pear             | Die anschojebirn      |
| 352   |                 |                                  |                     | Lignum-vitæ tree         | Die kronranunkel      |
| 304   |                 |                                  |                     |                          | Das franzosenholz     |
| 788   |                 |                                  |                     |                          |                       |
| 350   |                 |                                  | Yellow bonduc       | Le guettard              |                       |
| 750   |                 |                                  | O'rchis             | Le bonduc                | Der schüsserbaum      |
| 482   |                 |                                  | Guilandina          | Le chicot de Canada      |                       |

TABLE OF SYNONYMES.

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| Page | Dutch.                  | Italian.         | Spanish.         | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.          |
|------|-------------------------|------------------|------------------|---|
| 270  | Hondstand               | Dente di cane    | Diente de perro  | Dente de cão <i>Port.</i> Kandik <i>Russ.</i> Hundetand <i>Dan. &amp; Sw.</i>           |
| 842  | -                       | -                | -                | Xe lin tsu <i>Chin.</i> Cay nhaoc <i>Cochinch.</i>                                      |
| 416  | Jamboesboom             | Giambosa         | Jambosa          | Bieslen <i>Bohm.</i> Swida <i>Russ.</i> Ukurgol <i>Tatar.</i>                           |
| 178  | Paapenhout              | Fusaggine        | Bonetero         | Eupatorio <i>Port.</i> Griwa konskaja <i>Russ.</i> Sadziec <i>Pol.</i>                  |
| 688  | Boelkenskruid           | Eupatorio        | Eupatorio        | Euphorbio <i>Port.</i>  |
| 400  | Euphorbium              | Euforbio         | Euforbio         | Euphorbia <i>Port.</i>  |
| 526  | Oogentroost             | Eufrasia         | Eufrasia         | Euphrasia <i>Port.</i> Otschnaja pomotsch <i>Rus.</i> Swieczki <i>Pol.</i>              |
| 228  | Kruipwinde              | -                | -                | -   |
| 98   | Kogelpypp               | Esaco            | Lsaco            | Esaco <i>Port.</i>  |
| 850  | Verblindboom            | -                | -                | -   |
| 102  | Zadelboom               | Fagara           | Fagara           | Fagara <i>Port.</i>   |
| 354  | -                       | -                | -                | Djæmdæ, Schoki <i>Arab.</i>   |
| 792  | Buikboom                | Il faggio        | La haya          | A faya <i>Port.</i> Buk <i>Russ. &amp; Pol.</i>   |
| 26   | Sprinkhaandkruid        | Valerianella     | Canonigos        | Balderjan <i>Russ.</i> Kozlki <i>Pol.</i>   |
| 220  | Holstok                 | Ferula           | Canaheja         | Canafrecha <i>Port.</i> Riisurt <i>Dan.</i> Risört <i>Swed.</i>                         |
| 62   | Dravik                  | Festuca          | Festuca          | Managras <i>Dan.</i> Svingel <i>Swed.</i>   |
| 494  | Speenkruid              | Celidonia minor  | Ficaria          | Celidonia menor <i>Port.</i> Tschistak menschoi <i>Russ.</i>                            |
| 873  | Vygeboom                | Fico             | Higuera          | Figueira <i>Port.</i> Tin <i>Arab.</i> Finik <i>Russ.</i> Figa <i>Pol.</i>              |
| 742  | Beurkruid               | -                | -                | -   |
| 290  | -                       | -                | -                | Panambu valli <i>Malab.</i> May boac <i>Cochinch.</i>                                   |
| 912  | Fonteinmoos             | Fontinale        | Fontinal         | Fontinal <i>Port.</i> Aaemoos <i>Dan.</i> Lonkemosas <i>Swed.</i>                       |
| 452  | Aardbezie               | Fragaria         | Fresera          | Morangueiro <i>Port.</i> Semljaniza <i>Russ.</i>  |
| 868  | Escheboom               | Frasino          | Fresno           | Freixo <i>Port.</i> Jas <i>Russ.</i> Jesion <i>Pol.</i> Ask <i>Dan. &amp; Swed.</i>     |
| 266  | Kievitsbloem            | Fritillaria      | La fritilaria    | A fritilaria <i>Port.</i> Vibæg <i>Dan.</i> Vipaagg <i>Swed.</i>                        |
| -    | Keiserskroon            | -                | -                | -   |
| 946  | Zeeruy                  | Fuco             | Fuco             | Fuco <i>Port.</i> Si sj <i>Jap.</i> Tang <i>Dan. &amp; Swed.</i>                        |
| 602  | Duivekervel             | Fummosterno      | Palomilla        | Fumaria <i>Port.</i> Fingosakf <i>Jap.</i> Semlanja orec <i>Russ.</i>                   |
| 246  | Boomaloe                | -                | -                | -   |
| 248  | Wittertje               | Galanto          | -                | Hó virág <i>Hung.</i>   |
| 634  | Vlakkenkruid            | Galega           | Galega           | Gallega <i>Port.</i> Pestilentsrod <i>Dan.</i> Pestilentsrot <i>Swed.</i>               |
| 502  | Geelbloemige hondsnetel | -                | -                | -   |
| 502  | Knoepige hondsnetel     | Ortica morta     | Ortiga muerta    | Ortiga morta <i>Port.</i> Rasnozwetnaja kropiwa <i>Russ.</i>                            |
| 92   | Walstroo                | Gaglio           | Cuaja leche      | Calhaleite <i>Port.</i> Roschodnik <i>Boh.</i>  |
| 172  | -                       | -                | -                | Cay deanh tau <i>Cochinch.</i> Cha tsu <i>Chin.</i>                                     |
| 610  | Brem                    | Ginestra         | Jinesta          | Giesta <i>Port.</i> Gemista <i>Dan. &amp; Swed.</i>                                     |
| 202  | Gentiaan                | La genziana      | La jenciana      | Goretschafka <i>Russ.</i>   |
| 604  | -                       | -                | -                | -   |
| 578  | Ojjevaarsbek            | Geranio          | Jerenio          | Camarinhas, Camarinheira de Brazil <i>Port.</i>   |
| 686  | Grysbard                | Geropogon        | -                | Geranio <i>Port.</i> Schuratelcini nos <i>Russ.</i> Pychawiec <i>Pol.</i>               |
| 454  | Gemeen nagelwortel      | Erba benedetta   | Islera           | Cravoilha <i>Port.</i> Grebnik <i>Russ.</i> Zarzyczka <i>Pol.</i> Nellikero <i>Dan.</i> |
| 42   | Gladiolus               | Ghiaguiolo       | Espadaña         | Schpaschnaja trawa <i>Russ.</i> Mieczyk ziele <i>Pol.</i>                               |
| 460  | Gehoorud schelkruid     | -                | -                | -   |
| 194  | Melkkruid               | -                | -                | -   |
| 502  | Aardveil                | Ellera terrestre | Hiedra terrestre | Melecznik <i>Pol.</i> Melkurt <i>Dan.</i> Mjölkört <i>Swed.</i>                         |
| -    | -                       | -                | -                | Krotowik <i>Russ.</i> Bluszcz poziemny <i>Pol.</i>                                      |
| 406  | -                       | -                | -                | Hasche <i>Arab.</i>   |
| 6    | -                       | -                | -                | Jamma mjoga <i>Jap.</i>   |
| 90   | Kogelkruid              | Globularia       | Siempre enjuta   | Globularia <i>Port.</i> Kugleblomst <i>Dan.</i> Bergskubba <i>Swed.</i>                 |
| 270  | Pragtige-leliepraal     | -                | -                | Methonika <i>Malab.</i> Junglang <i>Java.</i> Nienghala <i>Cey.</i>                     |
| 618  | Kruipboom               | Regolizia        | Regaliz          | Cam thao <i>Cochinc.</i> Dubez solotkoi <i>Rus.</i> Lakrycya <i>Pol.</i>                |
| 628  | Zoethout                | -                | -                | Tani <i>Malab.</i> Dematha <i>Cey.</i> Doery radak <i>Java.</i>                         |
| 518  | Heilpeeren              | Gnafalio         | Gnafalio         | -   |
| 636  | Droogbloem              | -                | -                | -   |
| 194  | Rondbloem               | -                | Inmortal         | Perpetua roxa <i>Port.</i> Wadapu <i>Malab.</i> Hoa nua ngai <i>Cochinch.</i>           |
| 588  | Katoen                  | Cotone           | Algoden          | Kopa <i>Indian.</i> Chloptscha taja bumaga <i>Russ.</i>                                 |
| 16   | Genadekruid             | Graziola         | Graciola         | Licharodotschnaja trawa <i>Russ.</i> Konjtrud <i>Pol.</i>                               |
| 384  | Grootbloem              | -                | -                | -   |
| 352  | Pokhout                 | Guaiaico         | Guayacan         | Guaiaico <i>Port.</i> Bakaut <i>Russ.</i> Franzostræe <i>Dan.</i>                       |
| 304  | -                       | -                | -                | Jito <i>Brazil.</i> Guara <i>Java.</i>  |
| 788  | -                       | -                | -                | Tawhannov <i>Otaheite.</i> Rava pou <i>Malab.</i>                                       |
| 350  | Balletstruik            | -                | -                | -   |

| Page | Nos. to Genera.                        | British or Systematic Synonyms. | English Names.               | French.                                     | German.                               |
|------|--|---------------------------------|------------------------------|---|---------------------------------------|
| 878  | Gymnogramma<br><i>Dess.</i>            | 2171                            | Grammitis                    |   |                                       |
| 368  | <i>Gypsophila L.</i>                   | 1044                            | - - -                        | La gypsophile                               | Die gypsflanze                        |
| 752  | <i>Habenaria R. Br.</i>                | 1861                            | O'rchis                      |   |                                       |
| 248  | <i>Hæmânthus L.</i>                    | 731                             | African tulip                | Blood flower<br>L'hémanthe                  | Die blutblume                         |
| 350  | <i>Hæmatóxylon L.</i>                  | 985                             | Campeachy wood               | Logwood<br>Le campeche                      | Das campescheholz                     |
| 394  | <i>Halesia L.</i>                      | 1081                            | - - -                        | Snowdrop tree<br>L'halesier                 |                                       |
| 524  | <i>Hallèria L.</i>                     | 1338                            | - - -                        | African fly honey-<br>suckle<br>L'haller    | Die hallerie                          |
| 630  | <i>Hállia Thun.</i>                    | 1584                            | <i>Hedýsarum</i>             |   |                                       |
| 104  | <i>Hamamélis L.</i>                    | 312                             | Black Virginian<br>pistachia | Witch-hazel<br>L'hamamelis                  | Die zauberstrauch                     |
| 870  | <i>Hamiltonia Mhl.</i>                 | 2162                            | - - -                        | Oil nut                                     |                                       |
| 188  | <i>Hédera L.</i>                       | 549                             | - - -                        | Le lierre                                   | Der epheu                             |
| 2    | <i>Hedýchium Kom.</i>                  | 6                               | - - -                        | Garland flower<br>Le gandasuli              |                                       |
| 630  | <i>Hedýsarum L.</i>                    | 1588                            | - - -                        | French honeysuckle<br>La sulla              | Die sulla                             |
|      | <i>H. Onobrychis L.</i>                |                                 | - - -                        | Sainfoin<br>Le sainfoin                     | Esparzette                            |
|      | sp. 10597                              |                                 |                              |   |                                       |
| 716  | <i>Hélienium L.</i>                    | 1755                            | - - -                        | Willow-leaved sun-<br>flower<br>L'helenie   |                                       |
| 470  | <i>Heliánthemum</i><br><i>Tou.</i>     | 1198                            | <i>Cistus</i>                | Sun rose                                    |                                       |
| 730  | <i>Heliánthus L.</i>                   | 1798                            | - - -                        | Sun flower<br>L'hélianthe                   | Die sonnenblume                       |
|      | <i>H. tuberosus L.</i>                 |                                 | - - -                        | Jerusalem arti-<br>choke<br>Topinambour     | Die erdapfel                          |
|      | sp. 12439                              |                                 |                              |   |                                       |
| 194  | <i>Helicônia L.</i>                    | 570                             | - - -                        | Le bihai                                    |                                       |
| 580  | <i>Helicteres L.</i>                   | 1466                            | - - -                        | Screw tree<br>L'helictère                   | Der schraubenbaum                     |
| 558  | <i>Heliophila L.</i>                   | 1446                            | - - -                        | - - -                                       | Die sonnenfreundin                    |
| 118  | <i>Heliotrópium L.</i>                 | 325                             | - - -                        | - - -                                       | Die sonnenwende                       |
| 488  | <i>Helléborus L.</i>                   | 1237                            | <i>Heliotrope</i>            | Turnsole<br>L'heliotrope                    | Die nieswurz                          |
| 1014 | <i>Heivélla L.</i>                     | 2387                            | - - -                        | Hellebore<br>L'hellebore                    | Der fältenschwamm                     |
|      |  |                                 | - - -                        | L'heivella en mitre                         |                                       |
| 260  | <i>Heimerocállis L.</i>                | 769                             | - - -                        | Day lily<br>L'hémérocalle                   | Die lilienaffodill                    |
| 878  | <i>Hemionitis L.</i>                   | 2170                            | - - -                        | L'hémionite                                 | Der giftigwurz                        |
| 480  | <i>Hepática Dil.</i>                   | 1225                            | <i>Anemone</i>               | - - -                                       | L'anémone hepatique<br>Die leberblume |
| 222  | <i>Heracléum L.</i>                    | 672                             | Hogweed                      | Cow-parsnep<br>La berce                     | Das heilkraut                         |
| 814  | <i>Heritièra H. K.</i>                 | 2037                            | - - -                        | Looking-glass plant                         |                                       |
| 866  | <i>Hérmas Thun.</i>                    | 2147                            | - - -                        | - - -                                       | Die stieldolde                        |
| 754  | <i>Hermátium R. Br.</i>                | 1868                            | O'phrys                      | Musk orchis                                 |                                       |
| 772  | <i>Hernandia L.</i>                    | 1942                            | - - -                        | Jack in a box<br>L'hernandier               | Die bernandie                         |
| 208  | <i>Herniària L.</i>                    | 614                             | - - -                        | Rupture-wort<br>L'herniare                  | Das bruchkraut                        |
| 532  | <i>Herpéstis R. Br.</i>                | 1367                            | <i>Gratiola</i>              |   |                                       |
| 40   | <i>Hesperántha Ker</i>                 | 98                              | <i>I'xia</i>                 | Evening flower<br>Rocket                    |                                       |
| 548  | <i>Hesperis L.</i>                     | 1421                            | Dame's violet                | La julienne                                 | Die nachtviole                        |
| 204  | <i>Heuchèra L.</i>                     | 606                             | - - -                        | L'heuchère                                  |                                       |
| 584  | <i>Hibiscus L.</i>                     | 1480                            | - - -                        | La ketmie                                   | Hibiskus                              |
| 672  | <i>Hieracium L.</i>                    | 1635                            | - - -                        | L'hépervière                                | Das habichtskraut                     |
| 628  | <i>Hippocrepis L.</i>                  | 1577                            | - - -                        | Hawkweed<br>Horseshoe vetch<br>L'hippocrepe | Die hufeisenpflanze                   |
| 812  | <i>Hippómane L.</i>                    | 2030                            | - - -                        | Manchineel<br>Le mancenillier               | Der manschinell-<br>baum              |
| 832  | <i>Hippóphæ L.</i>                     | 2058                            | Sallow thorn                 | Sea buckthorn<br>L'argoussier               | Der haftdorn                          |
| 6    | <i>Hippuris L.</i>                     | 23                              | - - -                        | Mare's tail<br>Pesse d'eau                  | Der schaffthalm                       |
| 174  | <i>Hirtèlla W.</i>                     | 499                             | - - -                        | L'hirtelle                                  | Der kräusler                          |
| 860  | <i>Hólcus L.</i>                       | 2132                            | - - -                        | Soft grass<br>Houque                        | Das darrgas                           |
| 74   | <i>Holósteum L.</i>                    | 220                             | - - -                        | Holosté                                     | Spurre                                |
| 72   | <i>Hórdeum L.</i>                      | 210                             | - - -                        | Barley<br>L'orge                            | Die gerste                            |
| 128  | <i>Hottónia L.</i>                     | 355                             | Water milfoil                | Water-violet<br>L'hottone aquatique         | Die wasserviole                       |
| 198  | <i>Hóya R. Br.</i>                     | 592                             | <i>Asclèpias</i>             |   |                                       |
| 202  | <i>Huèrnia R. Br.</i>                  | 596                             | <i>Stapèlia</i>              |   |                                       |
| 834  | <i>Hùmulus L.</i>                      | 2074                            | - - -                        | Hop<br>Houblon                              | Der hopfen                            |
| 514  | <i>Hùra L.</i>                         | 2035                            | - - -                        | Sandbox tree<br>Le sablier                  | Der streubüchsen-<br>baum             |
| 546  | <i>Hutchinsia R. Br.</i>               | 1410                            | <i>Cardámine</i>             |   |                                       |
| 284  | <i>Hyacínthus L.</i>                   | 819                             | - - -                        | Hyacinth<br>La jacinte                      | Die hyacinthe                         |
| 482  | <i>Hyænáche H. K.</i>                  | 2097                            | - - -                        | Hyæna poison                                |                                       |
| 1010 | <i>Hýdnium L.</i>                      | 2375                            | - - -                        | L'erinace                                   | Der stachelschamm                     |
| 490  | <i>Hydráctis L.</i>                    | 1241                            | Yellow root                  | Hydraste                                    |                                       |
| 842  | <i>Hydrocharis L.</i>                  | 2089                            | - - -                        | Frog-bit<br>Morene                          | Der froschbiß                         |
| 208  | <i>Hydrocótyle L.</i>                  | 658                             | - - -                        | Pennywort<br>Hydrocotyle                    | Der wassernabel                       |
| 204  | <i>Hydròlea L.</i>                     | 601                             | - - -                        | Coutarde epineuse                           | Kleber                                |
| 480  | <i>Hydropéltis L.</i>                  | 1240                            | <i>Brasènia</i>              |   |                                       |
| 132  | <i>Hydrophyllum L.</i>                 | 372                             | - - -                        | Water-leaf<br>L'hydrophyllie                | Das wasserblatt                       |
| 346  | <i>Hymenæ'a L.</i>                     | 972                             | - - -                        | Locust-tree<br>Le courbaril                 | Der heuschrecken-<br>baum             |
| 886  | <i>Hymenophýlum</i><br><i>Sm.</i>      | 2303                            | - - -                        | Filmy leaf                                  |                                       |
| 898  | <i>Hymenóstomum</i><br><i>R. Brown</i> | 2220                            | <i>Gymnóstomum</i>           |   |                                       |
| 136  | <i>Hyoscyamus L.</i>                   | 381                             | - - -                        | Henbane<br>La jusquiamé                     | Das bilsenkraut                       |
| 676  | <i>Hýóseris L.</i>                     | 1645                            | - - -                        | Swine's succory<br>Hyoséride                | Der schweinsalat                      |
| 104  | <i>Hýpécoum L.</i>                     | 313                             | - - -                        | Le cumin cornu                              | Die lappenblume                       |
| 350  | <i>Hyperanthera Vahl</i>               | 980                             | <i>Guilandina Moringa</i>    | Horseradish tree<br>Le ben oléifère         | Der behenbaum                         |
| 656  | <i>Hýpéricum L.</i>                    | 1617                            | - - -                        | St. John's wort<br>Le millepertuis          | Das Johanniskraut                     |
| 914  | <i>Hýpnum L.</i>                       | 2251                            | - - -                        | Feather moss<br>L'hypne                     | Das astmos                            |
| 676  | <i>Hýpochæ'ris L.</i>                  | 1650                            | - - -                        | Cat's ear<br>La porcelle                    | Das sauakraut                         |
| 254  | <i>Hýpoxis L.</i>                      | 750                             | - - -                        | L'hypoxis                                   | Der härling                           |
| 496  | <i>Hýssopus L.</i>                     | 1248                            | - - -                        | Hyssop<br>Hysope                            | Der isop                              |
| 546  | <i>Ibèris L.</i>                       | 1412                            | - - -                        | Candy tuft<br>L'ibéride                     | Die überpflanze                       |

TABLE OF SYNONYMES.

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| Page | Dutch.                             | Italian.                    | Spanish.               | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.                         |
|------|------------------------------------|-----------------------------|------------------------|--|
| 368  | Gipsminner                         | -                           | -                      | Perekatipole <i>Russ.</i> Gipsurt <i>Dan.</i> Gipsört <i>Swed.</i>                                     |
| 248  | Tulp van de Kaap<br>der Goede Hoop | Emanto                      | Flor de la sangre      | Flor do sangue <i>Port.</i>  |
| 350  | Kampéchehout                       | Legno di Campeggio          | Palo de Campeche       | Campecheeiro <i>Port.</i> Campeschetrae <i>Dan.</i> Campeschetrad <i>Swed.</i>                         |
| 524  | Afrikaansche kamperfolie           | -                           | -                      | -  |
| 104  | Toverhazelaar                      | -                           | -                      | -  |
| 188  | Klimop                             | Edera                       | Hiedra                 | Hera <i>Port.</i> Bjucullu <i>Pers.</i> Bljutsch <i>Russ.</i> Bluszcz <i>Pol.</i>                      |
| 630  | Sierlyk haanekop<br>Haanekammetjes | La sulla<br>La cedrangola   | Sulla<br>Esparsita     | Pipirigallo <i>Port.</i> Eparset <i>Dan. &amp; Swed.</i>   |
| 730  | Zonnebloem<br>Aardpeeren           | Girasole                    | Girasol                | Soelblomster <i>Dan.</i> Podosneschnik <i>Rus.</i>   |
| 580  | Schroevenboom                      | -                           | -                      | -  |
| 118  | Zonnewende                         | Eliotropio                  | Heliotropio            | Tornesol <i>Port.</i> Sakrán <i>Egypt.</i>   |
| 488  | Nieskruid                          | Eleboro                     | Eleboro                | Heleboro <i>Port.</i> Nyseurt <i>Dan.</i> Prustrot <i>Swed.</i>  |
| 1014 | Tolzwam                            | Pasta sciringa<br>terrestre | -                      | -  |
| 260  | Dagschoon                          | Emerocale                   | Lirio-asfodelo         | Hemerocallia <i>Port.</i> Bolschoi lädusch <i>Russ.</i>  |
| 878  | Oorvaaren                          | -                           | Mularia                | -  |
| 480  | Leverkruid                         | Anemone fegatella           | Anemone hepatica       | Hepatica nobre <i>Port.</i> Solotnikowa trawa <i>Russ.</i>   |
| 222  | Heilkruid                          | Sfondilio                   | Esfondilio             | Canabraz <i>Port.</i> Kulupär <i>Pers.</i> Putschki <i>Russ.</i>                                       |
| 772  | -                                  | -                           | -                      | Tooneenna <i>Otaheite.</i>   |
| 208  | Duizendgrein                       | Erniaria                    | Milgranos              | Herniaria <i>Port.</i> Sporyz trzeci <i>Pol.</i> Bridurt <i>Dan.</i>                                   |
| 548  | Damast                             | Esperide                    | Hespero                | Hesperina <i>Port.</i> Natfol <i>Dan.</i> Natfol <i>Swed.</i>  |
| 584  | Hibiscus                           | Hibisco                     | Hibisco                | Hibisco <i>Port.</i>   |
| 672  | Havikskruid                        | Ieracia                     | Hieracio               | Hieracio <i>Port.</i>  |
| 628  | Hoefzyer                           | Ferro di cavallo            | Hierba de la herredura | Ferradurina <i>Port.</i> Hesteskoe <i>Dan.</i> Hästsko <i>Swed.</i>                                    |
| 812  | Manceniljeboom                     | -                           | Mancanila              | -  |
| 832  | Duinbessen<br>Kattestaart          | -<br>Ippuride               | Espino amarillo        | Rakitnik <i>Russ.</i> Haftorn <i>Dan. &amp; Swed.</i><br>Hesterumpe <i>Dan.</i> Hästsvans <i>Swed.</i> |
| 860  | Zorghzaad                          | -                           | -                      | Honninggräs <i>Dan.</i> Myskgräs <i>Swed.</i>  |
| 74   | Heelbeen                           | Erba lucciuala              | -                      | -  |
| 72   | Gerst                              | Orzo                        | Cebada                 | Cevada <i>Port.</i> Jetschmen <i>Russ.</i> Jeczmién <i>Pol.</i>  |
| 128  | Waterviolier                       | -                           | -                      | Tisatschie Listnik <i>Russ.</i> Vandróllike <i>Dan.</i>  |
| 834  | Hoppe                              | Lupolo                      | Hombrecillo            | Lupulo <i>Port.</i> Hymel <i>Pers.</i> Chmel <i>Russ.</i> Chmiel <i>Pol.</i>                           |
| 814  | Ratelboom                          | -                           | -                      | Baruce <i>Indian.</i>  |
| 284  | Hyacinth                           | Il giacinto                 | Jacinto                | Jacintho <i>Port.</i> Hyacinth <i>Dan. &amp; Swed.</i>   |
| 1010 | Stekelzwamm                        | Stecherino                  | -                      | Braadsvamp <i>Dan.</i> Gaddsvamp <i>Swed.</i>  |
| 842  | Vorschenbeet                       | -                           | -                      | Liaguschnik <i>Russ.</i>   |
| 208  | Waternavel                         | -                           | Sombrera de agua       | -  |
| 204  | Waterolyf                          | -                           | -                      | Xiong fung <i>Chin.</i>  |
| 132  | Waterblad                          | -                           | -                      | -  |
| 346  | Gom animé boom                     | -                           | -                      | Jataiba, itaiba <i>Brazil.</i>   |
| 136  | Bilsenskruid                       | Giusquiamo                  | Belcño                 | Meimendro <i>Port.</i> Belena <i>Russ.</i> Bielun <i>Pol.</i> Bulme <i>Dan.</i>                        |
| 676  | Zwynenslaa                         | Trincliarella               | -                      | -  |
| 104  | Lappenbloem                        | -                           | Zadorija               | -  |
| 350  | Kellerboom                         | -                           | -                      | Moringa <i>Port.</i>   |
| 656  | St. Jans kruid                     | Pilatiro                    | Corazoncillo           | Melfurada <i>Port.</i> Swerboi <i>Russ.</i>  |
| 914  | Takmos                             | Ipno                        | Hipno                  | Hypno <i>Port.</i> Vægmosse <i>Dan.</i> Vægmos <i>Swed.</i>  |
| 676  | Biggenkruid                        | -                           | Hierba del alcon       | Kongpenne <i>Dan.</i> Véres lapu <i>Hung.</i>  |
| 496  | Hysop                              | Isopo                       | Hisopo                 | Hyssopo <i>Port.</i> Esob <i>Heb.</i> Isop <i>Dan. &amp; Swed.</i>                                     |
| 546  | Bitter scheefbloem                 | -                           | Carraspique            | -  |

| Page | Nos. to Genera. | British or Systematic Synonyms. | English Names. | French. | German. |
|------|-----------------|---------------------------------|----------------|---------|---------|
| 146  |                 | <i>Apocynum</i>                 |                |         |         |
| 146  |                 | <i>Apocynum R. Br.</i>          | 414            |         |         |
| 104  |                 |                                 | 315            |         |         |
| 192  |                 |                                 | 535            |         |         |
| 478  |                 |                                 | 1215           |         |         |
| 184  |                 |                                 | 538            |         |         |
| 220  |                 |                                 | 662            |         |         |
| 634  |                 |                                 | 1589           |         |         |
| 854  |                 |                                 | 2123           |         |         |
| 362  |                 |                                 | 1024           |         |         |
| 714  |                 |                                 | 1744           |         |         |
| 188  |                 |                                 | 541            |         |         |
| 138  |                 |                                 | 383            |         |         |
| 834  |                 |                                 | 2069           |         |         |
| 44   |                 |                                 | 115            |         |         |
| 552  |                 |                                 | 1430           |         |         |
| 760  |                 |                                 | 1903           |         |         |
| 894  |                 |                                 | 2214           |         |         |
| 48   |                 |                                 | 122            |         |         |
| 80   |                 |                                 | 230            |         |         |
| 744  |                 |                                 | 1841           |         |         |
| 188  |                 |                                 | 547            |         |         |
| 12   |                 |                                 | 39             |         |         |
| 812  |                 |                                 | 2033           |         |         |
| 298  |                 |                                 | 807            |         |         |
| 794  |                 |                                 | 1940           |         |         |
| 258  |                 |                                 | 760            |         |         |
| 843  |                 |                                 | 2113           |         |         |
| 18   |                 |                                 | 47             |         |         |
| 4    |                 |                                 | 12             |         |         |
| 356  |                 |                                 | 1011           |         |         |
| 618  |                 |                                 | 1553           |         |         |
| 668  |                 |                                 | 1628           |         |         |
| 322  |                 |                                 | 909            |         |         |
| 198  |                 |                                 | 548            |         |         |
| 54   |                 |                                 | 153            |         |         |
| 502  |                 |                                 | 1259           |         |         |
| 518  |                 |                                 | 1312           |         |         |
| 42   |                 |                                 | 103            |         |         |
| 678  |                 |                                 | 1651           |         |         |
| 806  |                 |                                 | 2014           |         |         |
| 220  |                 |                                 | 669            |         |         |
| 846  |                 |                                 | 2109           |         |         |
| 524  |                 |                                 | 1339           |         |         |
| 630  |                 |                                 | 1538           |         |         |
| 832  |                 |                                 | 934            |         |         |
| 498  |                 |                                 | 1251           |         |         |
| 584  |                 |                                 | 1475           |         |         |
| 316  |                 |                                 | 898            |         |         |
| 358  |                 |                                 | 1012           |         |         |
| 772  |                 |                                 | 1939           |         |         |
| 506  |                 |                                 | 1270           |         |         |
| 286  |                 |                                 | 825            |         |         |
| 670  |                 |                                 | 1631           |         |         |
| 700  |                 |                                 | 1723           |         |         |
| 506  |                 |                                 | 1267           |         |         |
| 552  |                 |                                 | 1423           |         |         |
| 912  |                 |                                 | 2250           |         |         |
| 626  |                 |                                 | 1572           |         |         |
| 192  |                 |                                 | 561            |         |         |
| 830  |                 |                                 | 2053           |         |         |
| 506  |                 |                                 | 1369           |         |         |
| 912  |                 |                                 | 2244           |         |         |
| 248  |                 |                                 | 733            |         |         |
| 144  |                 |                                 | 401            |         |         |
| 80   |                 |                                 | 232            |         |         |
| 188  |                 |                                 | 546            |         |         |
| 220  |                 |                                 | 665            |         |         |
| 12   |                 |                                 | 36             |         |         |
| 264  |                 |                                 | 771            |         |         |
| 298  |                 |                                 | 871            |         |         |
| 356  |                 |                                 | 1003           |         |         |
| 532  |                 |                                 | 1359           |         |         |
| 526  |                 |                                 | 1344           |         |         |
| 514  |                 |                                 | 1292           |         |         |
| 232  |                 |                                 | 701            |         |         |
| 798  |                 |                                 | 2001           |         |         |
| 628  |                 |                                 | 1575           |         |         |
| 478  |                 |                                 | 1216           |         |         |
| 754  |                 |                                 | 1876           |         |         |
| 120  |                 |                                 | 330            |         |         |

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| Page     | Dutch.            | Italian.           | Spanish.             | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.   |
|----------|-------------------|--------------------|----------------------|--|
| 104      | -                 | Agrifoglio         | Acebo                | Azevinho <i>Port.</i> Waesoscheld <i>Russ.</i>                                   |
| 192      | Schubbig hardkelk | -                  | Nevadilla            | -  |
| 478      | Steranys          | Anice stellata     | Anis de la China     | Pa co huei hiam <i>Chin.</i> Stierneanis <i>Dan.</i>                             |
| 184      | Springzaad        | Balsamina gialla   | Balsama amarilla     | Melindre naõ me toques <i>Port.</i> Springurt <i>Dan.</i>                        |
| 220      | Meesterwortel     | Imperatoria        | Imperatoria          | Imperatoria <i>Port.</i> Mestarurt <i>Dan.</i> Måstererõt <i>Swed.</i>           |
| 634      | Indigo            | Indaco             | Indigo               | Anileira <i>Port.</i> Houer <i>Arab.</i> Indigo <i>Dan.</i> & <i>Swed.</i>       |
| 362      | -                 | -                  | -                    | Hi <i>Otaheite</i>   |
| 714      | Gewoon alant      | Enula              | Enula campana        | Dewjatschik <i>Russ.</i>   |
| 138      | Trechterwinde     | Ipomea             | Ipomea               | Ipomea <i>Port.</i>  |
| 44       | Iris              | Iride              | Iris                 | -  |
| 552      | Verfweede         | Guado              | Pastel               | Ljetnjak <i>Russ.</i> Sinilo <i>Pol.</i>   |
| 894      | Priemkruid        | -                  | -                    | Braksnagrås <i>Swed.</i>   |
| 188      | Schaapskruid      | -                  | Jasione              | Jasione <i>Port.</i> Monke <i>Swed.</i>  |
| 13       | Jasmyñ            | Il gelsomino       | El jazmin            | O jasmim <i>Port.</i> Jasmim <i>Arab.</i> Jasmin <i>Dan.</i> & <i>Swed.</i>      |
| 812      | Purgeernooten     | -                  | Piñones de Indias    | Pinhoes do Brasil <i>Port.</i> Munduy guacu <i>Brazil.</i>                       |
| 794      | Oekernootenboom   | Il noce            | Nogal                | Cay Hach dao <i>Cochinch.</i> Grezkiõ orechi <i>Russ.</i>                        |
| 258      | Biezen            | Giunco             | Junco                | Junco <i>Port.</i> Trosnik <i>Russ.</i> Sit <i>Pol.</i>                          |
| 943      | Geneverboom       | Il ginepro         | El enebro            | Moschewelnik <i>Russ.</i>  |
| 18       | Adhatoda          | -                  | -                    | Wanaepala <i>Malab.</i> Adhatoda <i>Cey.</i>                                     |
| 4        | Sineesche galanga | -                  | -                    | Katssula kelengu <i>Malab.</i> Thien lien <i>Cochinch.</i>                       |
| 356      | -                 | -                  | -                    | Skedträð <i>Swed.</i>  |
| 668      | Salade            | Lattuga            | Lechuga              | Alface <i>Port.</i> Handibe <i>Arab.</i> Laktuk <i>Russ.</i> Salata <i>Pol.</i>  |
| 188      | Wilde komyñ       | -                  | -                    | Cuminho bastardo <i>Port.</i>  |
| 54       | Haazestaart       | -                  | -                    | -  |
| 502      | Doove netel       | Ortica morta       | Ortiga muerta        | Kargasina <i>Pers.</i> Rasnozvietnaja kopriwa <i>Russ.</i>                       |
| 518      | -                 | -                  | -                    | Camara <i>Brazil.</i>  |
| 578      | Akkermoes         | Lampsana           | Lampsana             | Brzokiew polna <i>Pol.</i>   |
| 806      | Lorchenboom       | Larice             | Alerce               | Listwenzia <i>Russ.</i> Lerketraee <i>Dan.</i>                                   |
| 220      | Laserkruid        | Laserpizio         | Laserpicio           | Laserpicio <i>Port.</i> Laserurt <i>Dan.</i> Laserört <i>Swed.</i>               |
| 524      | Schubwortel       | -                  | La madrona           | Dentaria bastarda <i>Port.</i> Petrow krest <i>Russ.</i>                         |
| 620      | Lathyrus          | Latiro             | Latiro               | Latiro <i>Port.</i>  |
| 332      | Laurierboom       | Alloro             | Laurel               | Bobek drzevo <i>Pol.</i> Dafnä <i>Tart.</i>                                      |
| 493      | Lavendel          | Lavendola          | Espiego              | Alfazema <i>Port.</i> Lawendul <i>Russ.</i>                                      |
| 584      | -                 | -                  | -                    | Malvaiscaõ <i>Port.</i>  |
| 316      | -                 | -                  | -                    | Alhenna <i>Arab.</i>   |
| 358      | Wilde rosmaryñ    | Ledo               | Ledo                 | Bagulnik <i>Russ.</i> Rozmarin <i>Pol.</i> Vild rosmarin <i>D.</i>               |
| 772      | Kroos             | Lenticchia d'acqua | Lentejueala aquatica | Lentilha aquatica <i>Port.</i> Riaska <i>Russ.</i> Rzesa wod                     |
| 506      | Leeuwestaart      | -                  | Aguavientos          | -  |
| 286      | Leeuwenblad       | -                  | -                    | -  |
| 670      | Paardebloem       | Piscia in letto    | Amargon              | Molotschai trawa <i>Russ.</i> Papawa ziele <i>Pol.</i>                           |
| 506      | Hartgespan        | Agripalma          | Agripalma            | Agripalma <i>Port.</i> Dikaja Yropiwa <i>Russ.</i> Serdecznik <i>Pol.</i>        |
| 552      | Peperkruid        | Lepidio            | Lepidio              | -  |
| Tuinkers | Crescione         | Mastuerzo          | Mastuerzo            | Mastruco <i>Port.</i> Kres <i>Russ.</i> Nasturcyja <i>Pol.</i>                   |
| 830      | Zilverboom        | -                  | -                    | -  |
| 248      | Tydeloos          | Leucoio            | Leucoio              | Leucoio <i>Port.</i> Tözek viola <i>Hung.</i>                                    |
| 220      | Lavaskruid        | Ligustico          | Ligustico            | Ligustico <i>Port.</i> Loestilk <i>Dan.</i>                                      |
| 12       | Liguster          | Ligustro           | Alheña               | Alfena <i>Port.</i> Ibata <i>Jap.</i> Schost <i>Russ.</i> Ptasza zob <i>Pol.</i> |
| 264      | Lelie             | Giglio             | Azucena              | Lilija <i>Russ.</i> Lilia <i>Pol.</i>  |
| 356      | -                 | -                  | -                    | Cåtutsjeri-Narregam <i>Malab.</i> San peng lac <i>Chin.</i>                      |
| 532      | Slykertje         | -                  | -                    | -  |
| 526      | -                 | Linaria            | Linaria              | Linaria <i>Port.</i> Dikol len <i>Russ.</i>                                      |
| 514      | -                 | -                  | -                    | Marislegræs <i>Dan.</i> Vindgrås <i>Swed.</i>                                    |
| 232      | Vlasch            | Lino               | Lino                 | Bad <i>Hebr.</i> Len <i>Russ.</i> & <i>Pol.</i> Hör <i>Dan.</i> Lin <i>Swed.</i> |
| 793      | Amberboom         | -                  | -                    | Liquidambreiro <i>Port.</i> Xochiocotzo-quahuitl <i>Mexico</i>                   |
| 628      | Zoethout          | Regolizia          | Regaliz              | Lakrycja <i>Pol.</i>   |
| 478      | Tulpboom          | -                  | -                    | Old wife's shirt <i>North Amer.</i>  |
| 120      | Steenzaad         | -                  | Lithospermo          | Aljofar <i>Port.</i> Worobiewa trawa <i>Russ.</i>                                |



| Page | Nos. to Genera.          | British or Systematic Synonymes. | English Names.        | French.                            | German.                     |
|------|--------------------------|----------------------------------|-----------------------|------------------------------------|-----------------------------|
| 784  | Littorélla L.            | 1967                             | Grass-leaved plantain | La littorelle                      | Der strandling             |
| 166  | Lobélia L.              | 464                              | -                     | Cardinal's flower                  | Die kardinalsblume          |
| 70   | Lolium L.                | 207                              | -                     | Darnel                             | Der jahrigelolch           |
|      | L. perenne L. sp. 1246   |                                  |                       | Ray-grass d'Angleterre             |                             |
| 84   | Lomatia R. Br.           | 945                              | Embóthrium            | -                                  | -                           |
| 882  | Lonchitis L.             | 2192                             | Aspidium              | -                                  | -                           |
| 170  | Lonicera R. & S.         | 475                              | -                     | Honeysuckle                        | Der buchtenfarn             |
| 642  | Lótus L.                 | 1601                             | -                     | Bird's-foot trefoil                | Der staubschwamm            |
| 542  | Lunaria L.               | 1395                             | Moonwort              | Le lotier                          | Kolbenmos                   |
| 640  | Lupinaster Ph.          | 1599                             | Trifolium             | La lunaire                         | Der schotenklee             |
|      |                          |                                  |                       | Trefle a feuilles de lupin        | Die mondviole               |
| 614  | Lupinus Tou.             | 1544                             | -                     | Bastard lupine                     | Der sibirische lupinenklee  |
| 258  | Luzula Dec.              | 761                              | Juncus                | Le lupin                           | Die lupine                  |
| 388  | Lychnis L.               | 1067                             | -                     | Batchelors' buttons                | Die lychnis                 |
|      |                          |                                  |                       | Lychnide                           |                             |
| 156  | Lycium L.                | 450                              | -                     | Box-thorn                          | Der wolfsdorn               |
| 1034 | Lycoperson Mx.          | 8443                             | Puff ball             | Le liciet                          | Der staubschwamm            |
| 892  | Lycopodium L.            | 2212                             | Wolf's claw           | Le vesseloup                       | Kolbenmos                   |
| 124  | Lycopsis L.              | 344                              | -                     | Club moss                          | Der krummhals               |
| 20   | Lycopus L.               | 55                               | -                     | Wild bugloss                       | Der wolfsfuss               |
| 52   | Lygeum L.               | 132                              | -                     | Water-horehound                    | Das spartogras              |
| 886  | Lysodidum Swz.           | 2206                             | -                     | Snake's-tongue                     | -                           |
| 128  | Lysimachia L.            | 356                              | Willow herb           | Loose-strife                       | Der gelbe weiderich         |
| 398  | Lýthrum L.               | 1094                             | -                     | Purple willow herb                 | Der braune weiderich        |
| 784  | Maclura Nut.             | 1969                             | Osage orange          | Salicaire                          | -                           |
| 478  | Magnolia L.              | 1217                             | -                     | Evergreen laurel-leaved tulip tree | Der gurkenbaum              |
| 380  | Malpighia L.             | 1054                             | -                     | Barbadoes cherry                   | Die malpighische pflanze    |
| 582  | Malva L.                | 1472                             | -                     | Mallow                             | Die malve                   |
| 466  | Mammia L.                | 1190                             | -                     | Mammee tree                        | Der mamaybaum               |
| 154  | Mandragora Tou.         | 447                              | A'tropa               | Mamei d'Americue                  | Der schlafapel             |
|      |                          |                                  |                       | Mandrake                           |                             |
| 180  | Mangifera L.             | 513                              | -                     | Mango tree                         | Der mangobaum               |
| 2    | Maranta L.              | 2                                | -                     | Arrow root                         | -                           |
| 50   | Mariscus Vahl            | 130                              | Schenus              | Herbe a la feche                 | -                           |
| 504  | Marrubium L.             | 1266                             | -                     | Horehound                          | Der weisse andorn           |
| 538  | Mathiola R. Br.          | 1381                             | Cheiranthus          | Le girofee                        | Das virginische krolkraut   |
| 722  | Matricaria L.            | 1771                             | -                     | Feverfew                           | Das mutterkraut             |
| 290  | Medeola L.               | 846                              | -                     | Medeole                           | Das virginische mutterkraut |
| 646  | Medicago L.              | 1605                             | Lucern                | La luserne                         | Der schneckenklee           |
|      | M. lupulina L. sp. 10898 |                                  |                       | Lupuline                           | Die hopfinluserne           |
| 652  | Melalenca L.             | 1610                             | -                     | -                                  | -                           |
| 740  | Melampodium L.           | 1828                             | -                     | -                                  | -                           |
| 520  | Melampýrum L.            | 1315                             | -                     | Cow wheat                          | Der kajaputbaum             |
| 364  | Melastoma L.            | 1029                             | -                     | American goose-berry               | Der geissfuss               |
|      |                          |                                  |                       | Melastome                          | Der wachelweizen            |
| 352  | Melia L.                 | 988                              | -                     | Bread tree                         | Der beerenbaum              |
| 514  | Melichthus L.            | 1283                             | -                     | Honey-flower                       | Der zederach                |
| 66   | Melica L.                | 193                              | -                     | Melic grass                        | Die honigblume              |
| 302  | Meliococa L.             | 884                              | -                     | Honey berry                        | Das blaue perlgas           |
| 640  | Melilotus Tou.           | 1598                             | Trifolium             | Melilot                            | Der knepier bijugus       |
|      |                          |                                  |                       | Le melilot commun                 | Der gemeine steinklee       |
| 508  | Melissa L.               | 1278                             | Calamint              | La melisse                         | Die melisse                 |
| 510  | Melittia L.              | 1280                             | Balm-leaved archangel | Le melisso                         | Das melissenblatt           |
| 322  | Memecylon L.             | 908                              | -                     | -                                  | -                           |
|      |                          |                                  |                       | Le cornouiller de Zeylan           | Der saffranbaum             |
| 844  | Menispermum L.           | 2100                             | Wendlandia           | Menisperme                         | Der mondsame                |
| 500  | Mentha L.                | 1254                             | Mint                  | La menthe                          | Die minze                   |
| 130  | Menyanthes L.            | 382                              | Marsh trefoil         | Meniante                           | Fiebersklee                 |
| 316  | Menziesia Sm.            | 893                              | Erica                 | -                                  | -                           |
| 840  | Mercurialis L.           | 2088                             | -                     | Mercury                            | Das bingelkraut             |
| 430  | Mesembryanthemum L.      | 1146                             | -                     | Fig marigold                       | Die mittagsblume            |
| 424  | Mespilus L.              | 1131                             | -                     | Medlar                             | Der miselbaum               |
| 216  | Meum Tou.               | 653                              | ethusa               | ethuse a feuilles capillaires    | Barwurzel                  |
| 480  | Michelia L.             | 1218                             | -                     | -                                  | Der schampakka-baum         |
|      |                          |                                  |                       | Le champac                         |                             |
| 72   | Microchloa R. Br.        | 211                              | Rotthollia           | -                                  | -                           |
| 196  | Microbima R. Br.         | 578                              | Ceropegia            | -                                  | -                           |
| 744  | Microbopus L.            | 1839                             | -                     | -                                  | -                           |
| 52   | Milium L.                | 141                              | -                     | Millet grass                       | Die falzblume               |
|      |                          |                                  |                       | Le petit millet                    | Das milisgras               |
| 82   | Mimetes R. Br.          | 233                              | Protea               | -                                  | -                           |
| 854  | Mimosa L.                | 2124                             | Acacia                | -                                  | -                           |
| 528  | Mimulus L.               | 1351                             | Bastard fox-glove     | Monkey flower                      | Der gaukler                 |
| 302  | Mimusops L.              | 881                              | -                     | -                                  | Die spitzenblume            |
| 118  | Mirabilis L.            | 322                              | -                     | Marvel of Peru                     | Die wunderblume             |
| 368  | Mitella L.               | 1043                             | -                     | -                                  | Die bischofsmutze          |
| 324  | Mochringia L.            | 920                              | -                     | Mountain chick-weed                | Der bergmeyer               |
| 76   | Mollugo L.               | 225                              | -                     | -                                  | Der weichling               |
| 506  | Moluccella L.            | 1271                             | -                     | Molucca balm                       | Die molukische melisse      |

TABLE OF SYNONYMES.

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| Page | Dutch.                           | Italian.                | Spanish.                 | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.   |
|------|----------------------------------|-------------------------|--------------------------|--|
| 784  | Oevergras                        | Litospermo              |                          |  |
| 166  | Kardinaalsbloem                  | Flor cardinale          | Escurripa                | Cardealina <i>Port.</i>  |
| 70   | Dolyk                            | Loglio                  | Joyo                     | Kukul <i>Russ.</i> Kakol <i>Pol.</i> Heyre <i>Dan.</i> Dårrepe <i>Swed.</i><br>Renrepe <i>Swed.</i> Pshanez <i>Russ.</i> |
| 170  | Kamperfolie                      | Madreselva              | Madreselva               | Madresylva <i>Port.</i>  |
| 642  | Rokklaver                        | Il loto                 | El loto                  | O lotoiro <i>Port.</i> Kierringtand <i>Dan.</i>  |
| 542  | Maankruid                        | Lunaria                 | Lunaria                  | Lunaria <i>Port.</i> Maaneviol <i>Dan.</i> Manefolier <i>Swed.</i>   |
| 614  | Vygeboon                         | Lupino                  | Altramuz                 | Tremoço <i>Port.</i> Temis <i>Arab.</i> Lupine <i>Dan.</i> Lupin <i>Swed.</i>  |
| 388  | Lychnis                          | Licnide                 | Cruces de Jeru-<br>salem | Cruz de Malta <i>Port.</i> Tatarskajo muilo <i>Russ.</i>   |
| 156  | Boksdooen                        | -                       | Epino africano           |  |
| 1034 | Stuifzwam                        | Licoperdo               | Licoperdo                | Licoperdo <i>Port.</i> Stüvsvamp <i>Dan.</i> Klotsvamp <i>Swed.</i>  |
| 892  | Wolfsklauw                       | Licopodio               | Licopodio                | Licopodio <i>Port.</i> Ulvefoed <i>Dan.</i>  |
| 194  | Wolfschyn                        | -                       | -                        | Liden oxetunge <i>Dan.</i> Aakerstik, Stikgras <i>Noru.</i>  |
| 20   | Wolfspoot                        | Licopo                  | Licopo                   | Licopo <i>Port.</i> Vandmarru <i>Dan.</i> Vargfot <i>Swed.</i>   |
| 52   | Nootgras                         | -                       | Albardin                 | Esparto bastardo <i>Port.</i>  |
| 128  | Weiderick                        | Lisimachia              | Lisimaquia               | Lysimachia <i>Port.</i> Werbuinik <i>Russ.</i>   |
| 398  | Partyke                          | Salicaria               | Salicaria                | Salicaria <i>Port.</i> Plakun <i>Russ.</i> Sju <i>Jap.</i> Wrona <i>Bohem</i>  |
| 478  | -                                | -                       | -                        | Köbus <i>Jap.</i>  |
| 380  | Barbados kersen                  |                         |                          |  |
| 582  | Maluwe                           | Malva                   | Malva                    | Mameoira <i>Port.</i>  |
| 466  | Mammeboom                        | -                       | -                        | Koldunowa trawa <i>Russ.</i> Pokrzyk ziele <i>Pol.</i>   |
| 154  | Appeldraagend<br>doodkruid       | Mandragola              | Mandragora               | Mangueira <i>Port.</i> Amb <i>Arab.</i> Can xu <i>Chin.</i> Po <i>Java.</i>  |
| 180  | Mangasboom                       | -                       | -                        |  |
| 504  | Gemeene malrove                  | Marrobio bianco         | Marrubio blanco          | Maroyo branco <i>Port.</i> Marrub ili schandra <i>Russ.</i>  |
| 722  | Maartel                          | Matricaria              | Matricaria               | Maruna ziele <i>Pol.</i> Moderurt <i>Dan.</i>  |
| 646  | Rupsklaver<br>Hoppige rupsklaver | Medica                  | Mielga                   | Medicagem <i>Port.</i> Gunscha <i>Pers.</i> Snegleklever <i>Dan.</i>   |
| 652  | Kajapoetie                       | -                       | -                        | Caju-kelan <i>Java.</i> Cay flam <i>Cochinch.</i>  |
| 520  | Akkerig zwart-<br>koorn          | Malampiro               | Trigo de vaca            | Trigo de vacca <i>Port.</i> Pwan <i>Russ.</i> Koehvede <i>Dan.</i><br>Skälle <i>Swed.</i>                                |
| 364  | Bessenboom                       | -                       | -                        | Fruta da Graha <i>Port.</i> Muiva <i>Brazil.</i> Kadali <i>Malab.</i>  |
| 352  | Azedarach                        | Azedarac                | El cinamomo              | Amargoseira <i>Port.</i> Zaenzalacht <i>Arab.</i> Jussura <i>Jap.</i>  |
| 514  | Honigbloem                       | -                       | Flor de miel             | Juki no fato <i>Jap.</i>   |
| 66   | Blaauwhavergras                  | -                       | -                        | Blaaetoppet gras <i>Dan.</i> Blaaebunke <i>Noru.</i> Bláslok <i>Swed.</i>  |
| 640  | Melote                           | Meliloto                | Meliloto                 | Meliloto <i>Port.</i> Tschimaeu <i>Pers.</i> Gretscha dikaja <i>Russ.</i>  |
| 508  | Melisse                          | Melissa                 | Melisa                   | Melissa <i>Port.</i> Melissa <i>Russ.</i> Melisa <i>Pol.</i>   |
| 510  | Melissebladig<br>kruisbloem      | -                       | -                        | Melissa bastarda <i>Port.</i> Vild hiertensfyd <i>Dan.</i> Sjuvo<br><i>Jap.</i>  |
| 322  | Saffraanboom                     | -                       | -                        | Walikaku <i>Cey.</i>   |
| 844  | Gulpzaad                         |                         |                          |  |
| 500  | Munt                             | Menta                   | Menta                    | Miata <i>Russ.</i> Mietka <i>Pol.</i>  |
| 130  | Driebladige ruig-<br>bloem       | Meniante                | Trifolio palustre        | Trilistnik <i>Russ.</i>  |
| 840  | Bingelkruid                      | Mercorella              | Mercurial                | Mercurial <i>Port.</i> Proleska <i>Russ.</i>   |
| 430  | Middagbloem                      | Ficoide                 | Ficoide                  | Ficoide <i>Port.</i> Ghasul <i>Arab.</i> Jisplante <i>Dan.</i> Isört <i>Swed.</i>  |
| 424  | Mespelboom                       | Nespolo                 | Nispero                  | Nespereira <i>Port.</i> Aigil <i>Pers.</i> Tschiski <i>Russ.</i> Niesplik <i>Pol.</i>                                    |
| 216  | Beerwortel                       | Meu                     | Meu                      | Meon <i>Port.</i> Medwjeschei kören <i>Russ.</i> Olesnik <i>Pol.</i>   |
| 480  | Sampaccaboom                     |                         |                          | Hapuphaha <i>Cey.</i> Hoa su nam <i>Cochinch.</i>  |
| 744  | Kleinpoot                        |                         |                          |  |
| 52   | Hirsgras                         | Gramigna mig-<br>liaria | Mijo esparcido           | Leonpodio do reyno <i>Port.</i><br>Mijo esparcido <i>Port.</i> Hirsegras <i>Dan.</i>                                     |
| 528  | Potzer                           | Mimulo                  | Mimulo                   | Mimulo <i>Port.</i>  |
| 302  | -                                | -                       | -                        | Elendi <i>Malab.</i> Munamal <i>Cey.</i> Kauki <i>Java.</i>  |
| 118  | Wonderbloem                      | Fior di notte           | Maravillas de<br>noche   | Maravilha do Peru <i>Port.</i> Hachal indi <i>Brazil.</i> Keso <i>Jap.</i>   |
| 368  | Ruigbloem                        |                         |                          |  |
| 324  | Mosachtig muur                   |                         |                          |  |
| 76   | Zagtblad                         |                         |                          |  |
| 506  | Molukje                          | Momordica               | Momordica                | Momordica <i>Port.</i> Ballesan <i>Arab.</i>   |

| Page | Nos. to Genera.     | British or Systematic Synonymes. | English Names.               | French.                      | German.                      |
|------|---------------------|----------------------------------|------------------------------|------------------------------|------------------------------|
| 808  | Momórdica L.        | 2020                             | Male balsam apple            | Momodrique                   | Der balsampfel               |
| 20   | Monárda L.          | 60                               | Oswego tea                   |                              |                              |
| 356  | Momótropa L.        | 1008                             | Primrose-scented hypophithys | Le sucepin                   | Der fichtensauge             |
| 76   | Móntia L.           | 224                              | Blinks                       | Chickweed                    | Die quellen-montie           |
| 174  | Morinda L.          | 496                              | Indian mulberry              | Morinde                      | Der indianische maulbeerbaum |
| 782  | Mórus L.            | 1959                             | Mulberry                     | Le múrier                    | Der maulbeerbaum             |
| 464  | Muntingia L.        | 1184                             |                              | Calabre soyeux               |                              |
| 944  | Mbsa L.             | 721                              | Plantain tree                | Le bananier                  | Der pisang                   |
| 284  | Muscári Desf.       | 821                              | Grape hyacinth               | Jacinte botride              | Die traubenhyaicinthe        |
| 552  | Mýagrum L.          | 1431                             | Gold of pleasure             | La caméline                  | Der leindotter               |
| 64   | Mygalúrus Lk.       | 183                              | Mouse-tail                   |                              |                              |
| 363  | Mylocáryum W.en.    | 1021                             | Buckwheat tree               |                              |                              |
| 113  | Myosótis L.         | 326                              | Scorpion grass               | Gremillet ou scor-pionne     | Vergiss mein nicht           |
| 229  | Myosúrus L.         | 707                              | Mouse-tail                   | Queue de souris              | Das máusechwánzchen          |
| 830  | Myrica L.           | 2055                             | Candleberry-myrtle           | Le cirier                    | Der wachsaubum               |
| 790  | Myriophýllum L.     | 1387                             | Water-milfoil                | Le volant d'eau              | Der federalball              |
| 850  | Myristica L.        | 2130                             | Nutmeg                       | Le muscadier                 | Die muskatnuss               |
| 212  | Mýrrhá Mor.         | 630                              | Myrrh                        |                              |                              |
| 870  | Myrsine L.          | 2160                             |                              | Myrsine d'Afrique            | Die afrikanische myrsine     |
| 416  | Mýrtus L.           | 1121                             | Myrtle                       | Le myrthe                    | Die myrte                    |
| 832  | Nagétia Gae.        | 2056                             | Myrica                       |                              |                              |
| 240  | Narcissus L.        | 711                              |                              | Narcisse                     | Die narcisse                 |
| 52   | Nárdus L.           | 137                              | Mat grass                    | Le nard serré                | Das borstengras              |
| 280  | Narthécium Mohr.    | 813                              | Anthéricum                   | Le brise-os                  | Das beinbrechgras            |
| 538  | Nastúrtium R. Br.   | 1383                             | Sisýmbrium                   | Water-cress                  | Cresson de fontaine          |
| 182  | Naúclea L.          | 521                              |                              |                              | Die brunnenkresse            |
| 912  | Neckera Hedw.       | 2247                             | Hýpnum                       |                              | Der morgenstern              |
| 864  | Negúndium Dec.      | 2144                             | A'cer                        | L'erable à feuilles de frêne | Der aeschenahorn             |
| 476  | Nelámbium J.        | 1213                             | Cýamus                       | Sacred bean                  |                              |
| 526  | Nemésia Ven.        | 1346                             | Antirrhinum                  |                              |                              |
| 850  | Nepénthes L.        | 2121                             |                              | Pitcher plant                | Nepenthe                     |
| 498  | Népeta L.           | 1249                             | Nep                          | Catmint                      | Der kappenträger             |
| 786  | Nephélium W.        | 1971                             |                              | Rambutan                     | Die nepthe                   |
| 146  | Nérium L.           | 411                              | Rose bay                     | Oleander                     | Der oleander                 |
| 694  | Neurolá'na R. Br.   | 1710                             |                              | Halberd weed                 |                              |
| 136  | Nicotiána L.        | 382                              |                              | Tobacco                      | Le tabac                     |
| 476  | Nigélla Tou.        | 1209                             | Devil in a bush              | Fennel flower                | La nielle                    |
| 396  | Nitrária L.         | 1090                             |                              | Salt tree                    | Nitree                       |
| 82   | Nivénia R. Br.      | 235                              | Prótea                       |                              | Der salpeterkúmmel           |
| 880  | Nothochlá'na R. Br. | 2177                             | Acrostichum                  |                              | Der walzerstrauch            |
| 540  | Notóceras R. Br.    | 1385                             | Erysimum                     |                              |                              |
| 464  | Nuphar Sw.          | 1176                             | Nympha'na                    | Yellow water lily            |                              |
| 12   | Nycánthos L.        | 38                               | Jasminum                     |                              | L'arbre triste               |
| 462  | Nympha'na Neck.     | 1174                             | Water rose                   | Water lily                   | Le nenuphar                  |
| 870  | Nýssa L.            | 2161                             |                              | Tupelo                       | Le tupélo                    |
| 620  | O'chrus Pers.       | 1559                             | Plsum                        |                              | Ocre                         |
| 762  | Octoméria R. Br.    | 1913                             | Dendrobium                   |                              | Die ochtererbse              |
| 510  | O'cymum L.          | 1281                             |                              | Basil                        | Basilikum                    |
| 212  | Oenánthe L.         | 632                              | Wild parsley                 | Water dropwort               | Oenanthe                     |
| 318  | Oenóthéra L.        | 901                              | Broad-leaved tree primrose   | Evening primrose             | L'onagre                     |
| 10   | O'lea L.            | 32                               |                              | Olive                        | L'olivier                    |
| 122  | Omphalódes Leh.     | 337                              | Cynoglossum                  | Venus's navelwort            |                              |
| 758  | Oncidium Swz.       | 1825                             | Epidendrum                   |                              |                              |
| 380  | Oncólea L.          | 2178                             | Osmúnda                      |                              | L'orcanette sensible         |
| 612  | Onónis L.           | 1541                             | Cammeck                      | Rest harrow                  | Der fühlfarn                 |
| 684  | Onopórdum L.        | 1666                             | Woolly thistle               | Cotton thistle               | Die hauhechel                |
| 120  | Onósmá L.           | 332                              |                              |                              | Le chardon commun            |
| 888  | Ophioglossum L.     | 2209                             |                              | Langue de serpent            | L'orcanette jaune            |
| 272  | Ophiopogon Ker.     | 790                              |                              |                              | Natterzinglein               |
| 144  | Ophiorhiza L.       | 406                              |                              | Snake's beard                | Racine de serpent            |
| 866  | Ophióxylon L.       | 2152                             |                              | Snake root                   | Die schlangenzunge           |
| 72   | Ophiúrus Beauv.     | 212                              | Rottböllia                   | Snake-wood                   | Bois de couleuvre            |
| 752  | Ophrys L.           | 1866                             |                              | Hard grass                   | Das schlangenhölz            |
| 750  | O'rchis L.          | 1859                             |                              | Insect orchis                | Ophrise                      |
| 506  | Organum L.          | 1274                             |                              | Dogstones                    | Die ophrys                   |
| 760  | Ornithidium Sal.    | 1902                             | Cymbidium                    | Marjoram                     | Die orchis                   |
| 276  | Ornithógalum L.     | 802                              |                              |                              | La marjolaine                |
| 628  | Ornithopus L.       | 1578                             |                              | Star of Bethlehem            | Ornithogale                  |
| 26   | O'rrnus Pers.       | 69                               | Fráxinus                     | Bird's foot                  | Pied d'oiseau                |
| 524  | Orobánche L.        | 1335                             | Strangle-weed                | Flowering ash                | Le frêne à fleur             |
| 618  | O'robus Tou.        | 1357                             |                              | Broom rape                   | Orobanche                    |
| 256  | Oróntium L.         | 756                              |                              | Bitter vetch                 | L'orobe                      |
| 54   | Orthopogon R. Br.   | 147                              | Pánicum                      | Floating arum                | L'oronce                     |
| 288  | Orýza L.            | 837                              |                              | Rice                         |                              |
| 886  | Osmúnda L.          | 2205                             |                              | King fern                    | Le ris                       |
| 792  | O'strya Mz.         | 1995                             | Cárpinus                     | Hop hornbeam                 | L'osmonde                    |
| 828  | Osyris Lam.         | 2051                             |                              | Poet's cassia                | Charme à fruit de houblon    |
|      |                     |                                  |                              |                              | Der italienische hag-buche   |
|      |                     |                                  |                              |                              | Die poetenkasia              |

| Page | Dutch                   | Italian.            | Spanish.            | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.           |
|------|-------------------------|---------------------|---------------------|--|
| 808  | Balsemappel             |                     |                     |  |
| 356  | Europische bladloos     | -                   | -                   | Lungört <i>Swed.</i>   |
| 76   | Bronminnende montia     | -                   | -                   | Mindste vand-arve <i>Dan.</i> Montii-ört <i>Swed.</i>                                    |
| 174  | Braamboezenboom         | -                   | -                   | Coda-pilava <i>Malab.</i> Maccondou <i>Java.</i> Baya <i>Macassar.</i>                   |
| 782  | Moerbezieboom           | Moro                | Moral               | Tatai-iba <i>Brazil.</i> Tut <i>Pers.</i> Schelkowiza <i>Russ.</i>                       |
| 464  | Shaftbloem              | -                   | -                   | Mallam-toddali <i>Malab.</i>   |
| 244  | Pisang                  | -                   | -                   | Bananeira <i>Port.</i> Meiya <i>Otaheite.</i> Palla <i>Pers.</i> Bala <i>Malab.</i>      |
| 284  | Druifhyacinth           | Il giacinto         | Jacinto             |  |
| 552  | Vlaschdotter            | Miagro              | Miagro              | Miagro <i>Port.</i> Ryschik <i>Russ.</i> Krowia <i>Pol.</i> Hörurt <i>Dan.</i>           |
| 118  | Kruidig muizenoor       | Orecchio di topo    | Miosota             | Myosota <i>Port.</i> Dukowka <i>Russ.</i> Forgjæt mig ej <i>Dan.</i>                     |
| 234  | Muizenstaartje          | Corda di topo       | Cola de raton       | Cauda de rato <i>Port.</i> Myschei chwest <i>Russ.</i> Ogonki myze <i>Pol.</i>           |
| 830  | Waschboompje            |                     |                     | Woskownik <i>Russ.</i> Pors <i>Dan.</i> Norw. & <i>Swed.</i>                             |
| 790  | Vederkruid              | -                   | -                   | Vingeur <i>Dan.</i> Fjæderört <i>Swed.</i>   |
| 850  | Nooten moskaat          | Noce moscada        | Moscada             | Moscadeira <i>Port.</i> Muskad <i>Dan.</i> Muskot-träd <i>Swed.</i>                      |
| 416  | Myrtus                  | Mirto               | Mirto               | Ankaenda <i>Cey.</i> Myrter <i>Dan.</i> Myrten <i>Swed.</i>                              |
| 240  | Narcis                  | Narciso             | Narciso             | Narciso <i>Port.</i> Narcisse <i>Dan.</i> Narsiss <i>Swed.</i>                           |
| 52   | Borstelgras             | Nardo               | Nardo               | Nardo <i>Port.</i> Belous <i>Russ.</i>   |
| 280  | Beenbreekend            | Anterico ossi-frago | Anterico ossi-frago | Anterico <i>Port.</i> Kosatki <i>Pol.</i> Beenbrud <i>Dan.</i> Ilagräset <i>Swed.</i>    |
| 538  | Waterkers               | Crescione           | Berro               | Agriad <i>Port.</i> Wodanoia kress <i>Russ.</i> Rzezucha <i>Pol.</i>                     |
| 182  | Bankalboom              |                     |                     | Katu-tsjacca <i>Malab.</i> Cay gao <i>Cochinch.</i>                                      |
| 850  | Kanaraager              | -                   | -                   | Bandura <i>Cey.</i>  |
| 498  | Kattekruid              | Gattaria            | Gatera              | Kurka <i>Malab.</i> Koschitza mehta <i>Russ.</i>   |
| 146  | Oleander                | Oleandro            | Adelfa              | Loendro <i>Port.</i> Tifla <i>Arab.</i> Oleander <i>Dan.</i> & <i>Swed.</i>              |
| 136  | Tabak                   | Tabacco             | Tabaco              | Petume <i>Brazil.</i> Tamaka <i>Indian.</i> Tabac <i>Russ.</i> & <i>Pol.</i> & c.        |
| 476  | Nigelle                 | Nigella             | Arañuela            | Nigella <i>Port.</i> Ozarnucha ziele <i>Pol.</i>   |
| 393  | Salpeterstruik          |                     |                     | Solutucha <i>Russ.</i> Diesengir <i>Kirgis.</i> Sugak <i>Turcoman.</i>                   |
| 464  | -                       | -                   | -                   | Neekblad <i>Swed.</i> Lekuta <i>Bohem.</i>   |
| 12   | -                       | -                   | -                   | Arvore triste <i>Port.</i> Manja pumeram <i>Malab.</i>                                   |
| 462  | Plompen                 | Nenufaro            | Nenufar             | Naufar <i>Egypt.</i> Wodanol lelei <i>Russ.</i>  |
| 870  | Amerikaansche waterboom |                     | Tapizot             |  |
| 620  | Italische erwt          |                     |                     |  |
| 510  | Basilicum               | Basilico            | Albahaca            | Alfavaca <i>Port.</i> Rehan <i>Pers.</i> Wasilik <i>Russ.</i> Bazylika <i>Pol.</i>       |
| 212  | Druivebloem             | Enante              | Enante              | Enante <i>Port.</i> Vand-steenbrek <i>Dan.</i>   |
| 318  | Tweejaarige             | -                   | -                   | Idegen Sárga Viola <i>Hung.</i>  |
| 10   | Olyfboom                | Ulivo               | Olivo               | Sejtun <i>Arab.</i> Oliva <i>Russ.</i> Oliwne drzewo <i>Pol.</i>                         |
| 880  | Gevoelig welkwaren      | Ononide             | Detiene-buey        | Restaboy <i>Port.</i> Iglischnik <i>Russ.</i> Lisi ogon <i>Pol.</i>                      |
| 612  | Stalkruid               | Onopordo            | Onopordo            | Onopordo <i>Port.</i> Tatarnik <i>Russ.</i> Oset poyloczny <i>Pol.</i>                   |
| 634  | Witte wegdistel         |                     |                     | Baramei jaszik <i>Russ.</i> Tambü <i>Kirgis.</i> Targa atratzel <i>Hung.</i>             |
| 120  | Ezelsreuk               |                     |                     | Lingua de serpente <i>Port.</i> Slangetunge <i>Dan.</i> Läketunga <i>Swed.</i>           |
| 888  | Adderstong              | Lingua serpentina   | Lengua de sierpe    |  |
| 144  | Slangenwortel           | Radice di serpe     | Raiz de serpiente   | Hampaddu-tanah <i>Malay.</i>   |
| 566  | Slangenhout             | Legno di serpe      | Leño serpentino     | Raiz de mongo <i>Port.</i> Ekawerya <i>Cey.</i> Slangetræe <i>Dan.</i>                   |
| 752  | Tweeblad                | Ofri                | Ophris              | Ofrío <i>Port.</i>   |
| 750  | Standelkruid            | Orchide             | Orchis              |  |
| 506  | Mariolein               | Maggiorana          | Mejorana            | Mardakusj <i>Arab.</i> Maeran <i>Russ.</i> Maieran <i>Pol.</i>                           |
| 276  | Vogelmelk               | Ornitogalo          | Ornitogalo          | Ornitogale <i>Russ.</i>  |
| 628  | Vogelpoot               | Piede d'uccello     | Serradilla          | Pê de passaro <i>Port.</i> Fuglefod <i>Dan.</i> Fogelfot <i>Swed.</i>                    |
| 26   | -                       |                     |                     | Orneiro <i>Port.</i>   |
| 524  | Leeuwstaart             | Orobancha           | Orobancha           | Zaraza <i>Pol.</i> Löverumpe <i>Dan.</i> Skierfrö <i>Swed.</i>                           |
| 618  | Erven                   | Orobo               | Orobo               | Museerter <i>Dan.</i>  |
| 256  | Dryvend kalfsvoot       |                     |                     |  |
| 288  | Ryst                    | Riso                | Arroz               | Arroz <i>Port.</i> Dachjawat <i>Ind.</i> Ptscheno <i>Russ.</i> Ryz <i>Pol.</i>           |
| 886  | Troswaren               | Osmunda             | Osmunda             |  |
| 792  | Italiaansche jukboom    | Carpino nero        | Carpe               | Carpe <i>Port.</i> Asad <i>Pers.</i> Grab <i>Russ.</i> & <i>Pol.</i> Avenbög <i>Dan.</i> |
| 828  | Witte oeyris            |                     | Retama blanca       | Mamaku <i>Jap.</i>   |

| Page | Nos. to Genera.            | British or Systematic Synonymes. | English Names.      | French.                 | German.                        |
|------|----------------------------|----------------------------------|---------------------|-------------------------|--------------------------------|
| 384  | <i>Oxalis</i> L.           | 1065                             | Wood sorrel         | Surelle                 | Der sauerklee                  |
| 172  | <i>Oxyánthus</i> Dec.      | 489                              |                     |                         |                                |
| 320  | <i>Oxycoccus</i> Pers.     | 906                              | Cranberry           | La canneberge           | Die moosbeere                  |
| 636  | <i>Oxýtropis</i> Dec.      | 1593                             |                     |                         |                                |
| 152  | <i>Pædèria</i> L.          | 439                              |                     | Danaïde fétide          | Die knackbere                  |
| 472  | <i>Pæonia</i> L.           | 1992                             | Pæony               | La pivoine              | Die pæonie                     |
| 178  | <i>Paliurus</i> Tou.       | 505                              | Christ's thorn      | Épine de Christ         | Der Christdorn                 |
| 942  | <i>Pancrætium</i> L.       | 713                              | Sea daïfodil        | Narcisse de mer         | Die machtlilie                 |
| 820  | <i>Pandanus</i> L.         | 2041                             | Screw pine          | Le baquois              |                                |
| 52   | <i>Panicum</i> L.          | 144                              | Panic grass         | Le panic                | Das panikgras                  |
| 460  | <i>Papaver</i> Tou.        | 1170                             | Poppy               | Le pavot                | Der mohn                       |
| 48   | <i>Pardánthus</i> Ker.     | 118                              |                     |                         |                                |
| 862  | <i>Parietária</i> L.       | 2137                             | Pellitory           | La pariétaire           | Das glaskraut                  |
| 323  | <i>Páris</i> L.            | 929                              | True love           | Parisetete              | Die einbeere                   |
| 350  | <i>Parkinsonia</i> L.      | 976                              |                     | Le genet epineux        | Der stachlichte ginsterbaum    |
| 228  | <i>Parnassia</i> L.        | 694                              | Grass of Parnassus  | Fleur du Parnassus      | Das einblatt                   |
| 744  | <i>Parthenium</i> L.       | 1840                             | Bastard feverfew    | Parthene                | Die melblume                   |
| 52   | <i>Paspalum</i> L.         | 139                              |                     | Le paspal               | Das pfannengras                |
| 324  | <i>Passerina</i> L.        | 914                              | Sparrow wort        | La passerine            | Der vogelkopf                  |
| 564  | <i>Passiflora</i> L.       | 1459                             | Passion flower      | La grenadille           | Die passionsblume              |
| 222  | <i>Pastinaca</i> L.        | 671                              | Parsnep             | Le panais               | Die pastinake                  |
| 323  | <i>Paullinia</i> Schum.    | 923                              | Supple Jack         | Liane à persil          |                                |
| 100  | <i>Pavetta</i> L.          | 290                              |                     |                         |                                |
| 524  | <i>Pedálium</i> L.         | 1331                             |                     | Pedale                  | Der ostindische fussangel      |
| 523  | <i>Pedicularis</i> L.      | 1349                             | Lousewort           | La pédiculaire          | Das läusekraut                 |
| 406  | <i>Pedilánthus</i> Neck.   | 1104                             | Slipper plant       |                         |                                |
| 396  | <i>Péganum</i> L.          | 1088                             | Wild Syrian rue     | Harmale                 | Die harmelstaude               |
| 568  | <i>Pelargonium</i> Herit.  | 1461                             | Stork's bill        | Pellette alliaire       | Das scheibenkraut              |
| 544  | <i>Pelària</i> L.          | 1403                             |                     |                         |                                |
| 52   | <i>Pennisetum</i> Rich.    | 135                              |                     |                         |                                |
| 580  | <i>Pentapetes</i> L.       | 1468                             | St. Helena red wood |                         | Der scharlachrothe flügelsame  |
| 384  | <i>Penthrum</i> W.         | 1062                             | American nightshade |                         | Die fünfspitze                 |
| 514  | <i>Pentstemon</i> W.       | 1297                             |                     |                         |                                |
| 696  | <i>Péntzia</i> Thun.       | 1719                             |                     |                         |                                |
| 288  | <i>Péplis</i> L.           | 836                              | Water purslane      | Péplide                 | Die zipfelblume                |
| 716  | <i>Perdicium</i> Dec.      | 1752                             |                     |                         | Bürsten                        |
| 198  | <i>Pergularia</i> L.       | 590                              |                     | Pergulaire              | Der laubenstrauch              |
| 502  | <i>Perúta</i> W.           | 1255                             |                     | Perille                 | Die indianische melisse        |
| 194  | <i>Periploca</i> L.        | 574                              | Virginian silk      | Periploque              | Schlingen                      |
| 296  | <i>Petivèria</i> L.        | 865                              | Guinea henweed      |                         |                                |
| 694  | <i>Petròbium</i> R. Br.    | 1709                             | White wood          |                         |                                |
| 544  | <i>Petrocállis</i> R. Br.  | 1404                             |                     |                         |                                |
| 80   | <i>Petròphila</i> R. Br.   | 229                              |                     |                         |                                |
| 222  | <i>Peucedanum</i> L.       | 670                              | Hog's fennel        | Peucedane               | Haarstrang                     |
| 1016 | <i>Peziza</i> Dil.         | 2390                             |                     | Oreille de Judas        | Der becherschwamm              |
| 636  | <i>Phaca</i> L.            | 1592                             |                     | Phaque                  | Das knollenkraut               |
| 58   | <i>Phalaris</i> L.         | 108                              | Canary grass        | Alpiste de Canaire      | Kanariengras                   |
| 1022 | <i>Phellus</i> Mz.         | 2479                             | Moræl               | Morille                 | Die morchel                    |
| 895  | <i>Phascum</i> L.          | 2217                             | Beard moss          |                         | Das bartmoos                   |
| 614  | <i>Phascolus</i> L.        | 1547                             | French beans        | Haricot commun          | Die gemeine bohne, or phaseole |
| 214  | <i>Phellándrium</i> L.     | 636                              | Water hemlock       | La cicutaire des marais | Pferdesaamen                   |
| 414  | <i>Philadélphus</i> L.     | 1114                             | Mock orange         | Syringa                 | Der pfeifenstrauch             |
| 192  | <i>Philoxerus</i> R. Br.   | 553                              | Gomphrena           |                         |                                |
| 58   | <i>Phlœum</i> L.           | 165                              | Timothy grass       | Fléode des pres         | Das wiesen-lieschgras          |
| 506  | <i>Phlœmis</i> L.          | 1238                             |                     | Phlœmide                | Die strauchartige phlœmis      |
| 192  | <i>Phlœx</i> L.            | 369                              | Bastard Lychnis     | Le phlox                | Die flammenblume               |
| 823  | <i>Phœnix</i> L.           | 2049                             |                     | Le dattier              | Der dattelbaum                 |
| 286  | <i>Phormium</i> L.         | 823                              | New Zealand flax    |                         |                                |
| 810  | <i>Phyllánthus</i> L.      | 2027                             |                     |                         | Die blätterblume               |
| 208  | <i>Phyllis</i> L.          | 617                              | Bastard hare's-ear  | Phyllide                | Die schöne phyllis             |
| 156  | <i>Physalis</i> L.         | 448                              | Alkekengi           | Coqueret                | Die judenkirsche               |
| 168  | <i>Phytœma</i> L.          | 465                              | Rampion             | La raponcule            | Der rapunzel                   |
| 390  | <i>Phytolacca</i> L.       | 1071                             | Mountain caloe      | Morelle à grappes       | Die scharlachbere              |
| 202  | <i>Piaránthus</i> R. Br.   | 595                              | Stapelia            |                         |                                |
| 668  | <i>Picridium</i> Pers.     | 1626                             | Sónchus             |                         |                                |
| 672  | <i>Picris</i> L.           | 1634                             | Yellow succory      | Ox tongue               | Das bitterkraut                |
| 782  | <i>Pilea</i> Lindl.        | 1961                             | Urtica              |                         |                                |
| 894  | <i>Pilularia</i> L.        | 2215                             | Pepper grass        | Pillwort                | Der pillenfarn                 |
| 212  | <i>Pimpinèlla</i> L.       | 635                              | Anise               | Burnet saxifrage        | Kleine bibernel                |
| 90   | <i>Pinguicula</i> L.       | 52                               | Yorkshire sanicle   | Butterwort              | Das fettkraut                  |
| 82   | <i>Pinus</i> L.            | 2012                             |                     | Le pin                  | Die kiefer                     |
| 28   | <i>Piper</i> L.            | 77                               |                     | Le poivrier             | Der Pfeffer                    |
| 606  | <i>Piscidia</i> L.         | 1524                             |                     | Le boisivrant           | Der fischfänger                |
| 832  | <i>Pistácia</i> L.         | 2065                             | Turpentine tree     | Le pistachier           | Der pistazienbaum              |
| 620  | <i>Pisum</i> Tou.          | 1560                             |                     | Pea                     | Die erbe                       |
| 96   | <i>Plantago</i> L.         | 278                              |                     | Plantain                | Wegerich                       |
| 798  | <i>Plátanus</i> L.         | 2002                             | Button wood         | Le platane              | Der platanus                   |
| 606  | <i>Platýbium</i> Sm.       | 1525                             |                     | Flat pea                |                                |
| 510  | <i>Plectránthus</i> Herit. | 1282                             | <i>O'cymum</i>      |                         |                                |

TABLE OF SYNONYMES.

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| Page | Dutch.                        | Italian.                   | Spanish.               | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.          |
|------|-------------------------------|----------------------------|------------------------|---|
| 384  | Klaverzuuring                 | Alleluia                   | Ale'uya                | Koganne gusa <i>Jap.</i> Saitschaitshawel <i>Russ.</i>                                  |
| 320  | Veenbessen                    | Ossiccocco                 | Vacernia la-<br>gunosa | Glukwa <i>Russ.</i> Tranbär <i>Swed.</i>  |
| 152  | Stinkende knap-<br>bessen     |                            |                        | Fakobokon, Feifuri kadsura, Kusa panja <i>Jap.</i>                                      |
| 472  | Peonie                        | Peonia                     | Peonia                 | Peonia <i>Port.</i> Thuoc duoc <i>Cochinch.</i> Pionnaja rosa <i>Russ.</i>              |
| 178  | Christdoorn                   | Paliuro                    | Paliuro                | Taken-šgatch <i>Tart.</i>   |
| 242  | Trosnarcis                    | Giglio marino              | Amores mios            |   |
| 820  | -                             | -                          | -                      | Kaida <i>Malab.</i> Cay jua <i>Coch.</i> Kadi <i>Arab.</i>                              |
| 52   | Fanik                         | Panico                     | Panizo                 | Proso <i>Russ.</i> & <i>Pol.</i> Panikgras <i>Dan.</i>                                  |
| 460  | Maankop                       | Papavero                   | Adormidera             | Papoila <i>Port.</i> Post <i>Ind.</i> Mak <i>Russ.</i> & <i>Pol.</i> Valmue <i>Dan.</i> |
| 862  | Glaskruid                     | Parietaria                 | Parietaria             | Parietaria <i>Port.</i> Noc i dzien <i>Pol.</i>   |
| 328  | Wolfsbezie                    | Uva di volpe               | Ubas de zorro          | Parisetta <i>Port.</i> Woronei glas <i>Russ.</i>  |
| 350  | Doornbremboom                 |                            |                        |   |
| 228  | Parnaskruid                   | Parnasia                   | Parnasia               | Parnasia <i>Port.</i> Pereloi trawa <i>Russ.</i> Jednolist <i>Pol.</i>                  |
| 744  | Maagdebloem                   |                            |                        |   |
| 52   | Rasgras                       |                            |                        |   |
| 324  | Paserina                      |                            | Mierdacruz             |   |
| 564  | Passiebloem                   | Granadiglia                | Granadilla             | Passionsblomster <i>Dan.</i> Passionsblomma <i>Swed.</i>                                |
| 222  | Pinsternakel                  | Pastinaca                  | Pastinaca              | Pustarnak <i>Russ.</i> Pasternak <i>Pol.</i> Pastinak <i>Dan.</i>                       |
| 328  | Praatjes                      |                            |                        | Cururu-ape <i>Braz.</i> Kaka-toddaly <i>Mal.</i>  |
| 100  | Scheelkoorn                   |                            |                        | Pavate <i>Cey.</i> Pavetra <i>Malab.</i> Ta sa <i>Chin.</i>                             |
| 524  | Oostindisch min-<br>kyzer     |                            |                        | Patiraja <i>Cey.</i> Kaki-mullu <i>Malab.</i>   |
| 528  | Luiskruid                     | Pidocchiera                | Gallarito              | Piolheira <i>Port.</i> Luusurt <i>Dan.</i>  |
| 396  | Harnel                        | Armora                     | Alharma                | Harmala <i>Port.</i> Hornaia routa <i>Russ.</i>   |
| 544  | Schyfzaad                     |                            |                        |   |
| 580  | -                             | -                          | -                      | Sjasmin <i>Malab.</i>   |
| 384  | Vyfpunt                       |                            |                        |   |
| 288  | Kleine moeras-<br>muur        |                            |                        |   |
| 716  | Patryskruid                   |                            |                        |   |
| 198  | Luiffelbloem                  |                            |                        | Huo muon, Fi si than <i>Chin.</i>   |
| 502  | -                             | -                          | -                      | Cottam <i>Malab.</i>  |
| 194  | Slingerplant                  |                            |                        | Sar modam <i>Tart.</i> & <i>Kalm.</i>   |
| 222  | Haarstreng                    | Peucedano                  | Peucedano              | Peucedano <i>Port.</i> Wolosjanka <i>Russ.</i> Wieprzyniec <i>Pol.</i>                  |
| 1016 | Judas-oor                     | Orecchio di Guida          | Oreja de Judas         | Orelha de Judas <i>Port.</i>  |
| 636  | Bootpeul                      | Faca                       | Garvancilla            |   |
| 58   | Kanary                        | Falari                     | Alpiste                | Arai <i>Jap.</i> Kanariegras <i>Dan.</i> Kanariefrö <i>Swed.</i>                        |
| 1022 | Morilje                       | Spugnola                   | Murguras               | Morilha <i>Port.</i> Smortschok <i>Russ.</i>  |
| 896  | Baardmoos                     |                            |                        |   |
| 614  | Turksche boonen               | Fagiuolo                   | Fasoles                | Feijað <i>Port.</i> Torok mame <i>Jap.</i> Bobü turezkie <i>Russ.</i>                   |
| 214  | Waterkervel                   | Felandro acua-<br>tico     | -                      | Fazoli <i>Pol.</i>  |
| 414  | Welriekende phil-<br>adelphus | Siringa bianca             | Geringuilla            | Kruszykamien-ziele <i>Pol.</i> Stäkra <i>Swed.</i>                                      |
| 58   | Weidig doddegras              | -                          | -                      | Philadelpho <i>Port.</i> Tschubuschnik <i>Russ.</i> Hvit schers-<br>min <i>Swed.</i>    |
| 506  | Heesterig vitkruid            | -                          | Aguavientos            | Arjanétz <i>Russ.</i> Donhammergras <i>Dan.</i>   |
| 132  | Vlambloem                     |                            |                        | Wetrenaja sapja <i>Russ.</i>  |
| 828  | Dadelboom                     | Palma dattilifera          | Palma                  | Palmeira de igreja <i>Port.</i> Nachl <i>Arab.</i> Palma <i>Pol.</i>                    |
| 810  | Bladbloem                     |                            |                        |   |
| 208  | Kanarische phyllis            |                            |                        |   |
| 156  | Blaaskruid                    | Alchechengi                | Alcucquenjo            | Miachounha <i>Russ.</i> Boborelka <i>Boh.</i>   |
| 168  | Raponsje                      | Raperonzolo                | Rapunculo              | Rapunculo <i>Port.</i> Rapunzel <i>Dan.</i> & <i>Swed.</i>                              |
| 390  | Lakplant                      | Planta lacca               | Hierba carmin          | Kalalio <i>Surtanam.</i>  |
| 672  | Bitterkruid                   | -                          | -                      | Läbbæjn <i>Arab.</i>  |
| 894  | Pillenkruid                   | Pilularia                  | Pilularia              | Pilularia <i>Port.</i>  |
| 212  | Kleine bevernel               | Pimpinella sassi-<br>fraga | Pimpinella<br>blanca   | Pimpinella branca <i>Port.</i> Bedrenex <i>Russ.</i>                                    |
| 20   | Smeerblad                     | Pinguicola                 | Grassila               | Grassetta <i>Port.</i> Vibefi <i>Dan.</i> Tetört <i>Swed.</i>                           |
| 802  | Pynboom                       | Il pino                    | El pino                | Sosna <i>Russ.</i>  |
| 28   | Peper                         | Pepe                       | Pimienta               | Pimenteira <i>Port.</i> Pilpil <i>Pers.</i> Perez <i>Russ.</i>                          |
| 606  | Viſchboom                     |                            |                        |   |
| 832  | Pistacheboom                  | Pistachio                  | Alfocigo               | Alfostigo <i>Port.</i> Fistuk <i>Arab.</i>  |
| 620  | Erwt                          | Ficelli                    | Fesoles                | Erwilhas <i>Port.</i> Wan <i>Jap.</i> Goroch <i>Russ.</i> Groch <i>Pol.</i>             |
| 66   | Weegbree                      | Piantaggine                | Lianten                | Kamasch <i>Pers.</i> Uschik <i>Russ.</i> Babka <i>Pol.</i>                              |
| 798  | Platanus                      | Platano                    | Platano                | Platano <i>Port.</i> Tschinar <i>Russ.</i> Tschandary <i>Georg.</i>                     |

| Page | Nos. to Genera.           | British or Systematic Synonyms. | English Names.          | French.                  | German.             |
|------|---------------------------|---------------------------------|-------------------------|--------------------------|---------------------|
| 758  | Pleurothállis R. Br. 1894 | Epidéndrum                      |                         |                          |                     |
| 118  | Plumbágo L. 324           | -                               | Leadwort                | Dentelaire               | Bleywurz            |
| 148  | Plumieria L. 415          | -                               | Red jasmine             | Le franchipanier         | Der rotte jasmin    |
| 66   | Poa L. 196                | -                               | Meadow grass            | Paturin                  | Viehgras            |
| 342  | Podalýria Lam. 948        | <i>Sophóra</i>                  |                         |                          |                     |
| 460  | Podophýllum L. 1166       | May apple                       | Duck's-foot             | -                        | Entenfuss           |
| 756  | Pogónia R. Br. 1879       | <i>Arethusa</i>                 |                         |                          |                     |
| 908  | Póhiz Hiedw. 2239         | <i>Brým</i>                     |                         |                          |                     |
| 350  | Poinciána L. 977          | <i>Cesalpinia</i>               |                         | Poincillade              | Der pfeuschwanz     |
| 132  | Polembnium L. 370         | Jacob's ladder                  | Greek valerian          | La valériane grecque     | Das speerkraut      |
| 254  | Políanthes L. 747         | -                               | Tuberosa                | La tubéreuse             | Die tuberosa        |
| 876  | Polybótrya H. & B. 2168   | <i>Acrostichum</i>              |                         |                          |                     |
| 74   | Polycárpou L. 221         | <i>Linum</i>                    | All-seed                |                          |                     |
| 602  | Polýgala Tou. 1508        | Rattlesnake root                | Milkwort                | Le polygale              | Die kreuzblume      |
| 270  | Polygónatum Desf. 789     | Convallária                     | Solomon's seal          | Le sceau de Salomon      | Die weisswurz       |
| 326  | Polýgonum L. 921          | Redshanks                       | Persicaria              | Le persicaire            | Fióhkrant           |
| 878  | Polypodium L. 2175        | -                               | Polypody                | Le polypode              | Der tüpfelfarren    |
| 56   | Polypogon Desf. 154       | <i>Agrostis</i>                 |                         |                          |                     |
| 910  | Polytrichum L. 2241       | -                               | Great golden maidenhair | La perce-mousse          | Das haarmos         |
| 754  | Ponthièva R. Br. 1872     | <i>Neóttia</i>                  |                         |                          |                     |
| 940  | Pópulus L. 2087           | Abele tree                      | Poplar                  | Le peuplier              | Die pappel          |
| 396  | Portulaca L. 1091         | -                               | Purslane                | Le pourpier              | Der portulak        |
| 228  | Portulacária Jac. 692     | <i>Claytónia</i>                |                         |                          |                     |
| 106  | Potamogeton L. 317        | -                               | Pond-weed               | Le potatom               | Das saamkraut       |
| 452  | Potentilla L. 1153        | -                               | Cinquefoil              | Quintefeuille            | Das fünffingerkraut |
| 790  | Potérium L. 1930          | -                               | Burnet                  | La pimprenelle           | Die pimprenelle     |
| 88   | Póthos L. 252             | -                               | -                       |                          | Anhängel            |
| 512  | Prásium L. 1288           | -                               | Hedge-nettle            |                          | Die nesselstande    |
| 670  | Pránanthes L. 1630        | -                               | Wall lettuce            | Condrille des murs       | Die mauerprenanthe  |
| 126  | Primula W. 350            | -                               | Primrose                | La primère               | Die schlüsselblume  |
| 286  | Prinos L. 828             | -                               | Winter berry            | Apalanche                | Die winterbeere     |
| 80   | Prótea L. 231             | -                               | -                       | L'arbre d'argent         | Der silberbaum      |
| 512  | Prunella L. 1286          | -                               | Self-heal               | Brunelle                 | Die prunelle        |
| 422  | Prúnus Tou. 1129          | <i>Cérasus</i>                  | Plum                    | Prunier                  | Der pfaumenbaum     |
|      | <i>P. Armeniaca</i>       | -                               | Apricot                 | L'abricotier             | Der aprikosenbaum   |
|      | <i>P. Cérasus</i>         | -                               | Cherry                  | Le cerisier              | Der kirschenbaum    |
|      | <i>P. Pádus</i>           | -                               | Bird cherry             | Le putief                | Die traubenkirsche  |
| 416  | Psidium L. 1181           | -                               | Guava                   | Le goyavier rouge        | Der kujava-äpfel    |
| 638  | Psoralea L. 1597          | -                               | -                       | Trefle bitumineux        | Der hartzklee       |
| 100  | Ptélea L. 298             | -                               | Shrubby trefoil         |                          |                     |
| 882  | Ptéris L. 2190            | Female fern                     | Brake                   | Fougere femelle          | Der saunfarren      |
| 129  | Pulmonaria L. 338         | Bugloss cowslip                 | Lungwort                | La pulmonaire            | Das lungenkraut     |
| 420  | Punica W. 1127            | -                               | Pomegranate             | Le grenadier             | Der granatbaum      |
| 722  | Pýrèthrum Sm. 1770        | Matricaria                      | Feverfew                | La matricaire officinale | Das mutterkraut     |
| 362  | Pýrola L. 1022            | -                               | Winter-green            | Pyrole                   | Das wintergrün      |
| 424  | Pýrus L. 1133             | -                               | Pear                    | La poirier               | Der birnbaum        |
|      | <i>P. Málus L.</i>        | -                               | Apple                   | Pommier                  | Der äpfelbaum       |
|      | sp. 7090                  | -                               | -                       |                          |                     |
| 354  | Quassia W. 1002           | -                               | Quassi wood             | Bois de quassie          | Die quassie         |
| 794  | Quercus L. 2000           | -                               | Oak                     | Le chêne                 | Die eiche           |
| 364  | Quisquális L. 1028        | -                               | -                       | Le quisqualier           | Der sonderling      |
| 132  | Ramónida Mx. 374          | <i>Verbásicum</i>               |                         |                          |                     |
| 174  | Rándia L. 490             | <i>Gardenia</i>                 |                         |                          |                     |
| 486  | Ranónculus Bauh. 1233     | Buttercups                      | Crowfoot                | Renoncule                | Die ranunkel        |
| 556  | Ráphanus L. 1443          | Charlock                        | Radish                  | Raifort                  | Der rettig          |
| 426  | Raphioliépis Lindl. 1136  | -                               | Indian hawthorn         |                          |                     |
| 154  | Rauwólfia L. 441          | -                               | -                       | Le boislait              |                     |
| 398  | Reseda L. 1102            | -                               | Mignonette              | Le réséda                | Die reseda          |
|      | <i>R. Luteola L.</i>      | Dyer's weed                     |                         | Gaude                    | Der wau             |
|      | sp. 6658                  | -                               | -                       |                          |                     |
| 828  | Réstio L. 2047            | -                               | Rope grass              |                          |                     |
| 176  | Rhánnus L. 503            | -                               | Buckthorn               | Le nerprun               | Der kreuzdorn       |
| 334  | Rhèum L. 938              | -                               | Rhubarb                 | Rhubarbe                 | Rhabarber           |
| 318  | Rhéxia L. 900             | -                               | Virginian soapwort      | Quadrètte                | Die ankerblume      |
| 524  | Rhinánthus L. 1340        | Cock's comb                     | Yellow rattle           | Cocrète des prés         | Der hahnenkamm      |
| 414  | Rhipsalis Gae. 1112       | <i>Cactus</i>                   |                         |                          |                     |
| 358  | Rhododéndron L. 1014      | -                               | Dwarf rosebay           | Le rosage                | Alprosen            |
| 224  | Rhús Tou. 681             | -                               | Sumach                  | Le sumach ordinaire      | Der sumach          |
| 48   | Rhynchóspora Vahl         | <i>Schœnus</i>                  |                         |                          |                     |
| 190  | Ribes L. 550              | -                               | Currant                 | Le grosseiller commun    | Die Johannisbeere   |
|      | <i>R. Grossulária</i>     | -                               | Gooseberry              | Le grosseiller épineux   | Die stachelbeere    |
| 814  | Ricinus L. 2034           | -                               | Palma-christi           | Le ricin ordinaire       | Der wundenbaum      |
| 626  | Robinia L. 1538           | -                               | Louistree               | Acacie commun            | Der acacienbaum     |
| 442  | Rosa Tou. 1148            | -                               | Rose                    | Le rosier                | Die rose            |
| 52   | Rosmarinus L. 61          | -                               | Rosemary                | Romarin                  | Der rosmarin        |
| 94   | Róbia L. 267              | -                               | Madder                  | La garance               | Die farberöthe      |
| 450  | Róbus L. 1149             | Blackberry                      | Bramble                 | La ronce                 | Der brombeerstrauch |
|      | <i>R. Idaeus L.</i>       | -                               | Raspberry               | Framboisier              | Der himbeerstrauch  |
|      | sp. 7524                  | -                               | -                       |                          |                     |
| 292  | Rómex L. 856              | Sorrel                          | Dock                    | L'oseille                | Der sauerampfer     |
| 846  | Róscus L. 2111            | Knee holly                      | Butcher's broom         | Le fragon piquant        | Der mausdorn        |
| 354  | Róta Tou. 998             | -                               | Rue                     | La rue                   | Die raute           |
| 130  | Sabbátia Adan. 367        | <i>Chirónia</i>                 |                         |                          |                     |
| 74   | Saccharum L. 215          | -                               | Sugar-cane              | Cannamelle               | Das zuckerrohr      |
| 106  | Sagina L. 319             | Chickweed breakstone            | Pearwort                | Sagine                   | Der vierling        |

| Page | Dutch.           | Italian.         | Spanish.            | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.                   |
|------|------------------|------------------|---------------------|--|
| 118  | Loodkruid        | Piombaggine      | Veleza              | Dentellaria <i>Port.</i> Lålgortneur <i>Dan.</i> Blyrot <i>Swed.</i>                             |
| 66   | Beemdgras        | Poa              | Poa                 | Faaregras <i>Dan.</i> Gröe <i>Swed.</i>  |
| 460  | Eendenpoot       |                  |                     |  |
| 350  | Paauwekuif       |                  |                     | Tsietti. mandaru <i>Malab.</i> Hoa phung <i>Cochinch.</i>  |
| 132  | Speerkruid       | Polemonio        | Valeriana griega    | Valeriana grega <i>Port.</i> Grezkoë baldertjan <i>Russ.</i>                                     |
| 254  | Tuberoos         | Tuberoso         | Tuberosa            | Hoa hue <i>Cochinch.</i> Tuberoze <i>Dan.</i> Tuberoso <i>Swed.</i>                              |
| 602  | Kruisbloem       | Poligala         | Poligala            | Fima fagi <i>Jap.</i> Iztod <i>Russ.</i> Wyczka konicza <i>Pol.</i>                              |
| 270  | Salomons zegel   | Il ginocchietto  | El sello de Salomon | O scello de Salomão <i>Port.</i> Kupena <i>Russ.</i>   |
| 326  | Persenkruid      | Persicaria       | Pericaria           | Ramash <i>Pers.</i> Potschednaja trawa <i>Russ.</i>  |
| 878  | Boomvaren        | Polipodio        | Polipodio           | Panna kalogo <i>Malab.</i> Osokor <i>Russ.</i> Paproc <i>Pol.</i>                                |
| 910  | Haairmos         | Politrìco        | Politrìco           | Politrìco <i>Port.</i> Kokuschnik lenn <i>Russ.</i> Jomfrueha <i>Dan.</i>                        |
| 840  | Abeelboom        | Pioppo           | Alamo               | Topol <i>Russ.</i> Topola <i>Pol.</i> Poppel <i>Dan.</i>   |
| 396  | Porselein        | Porcellana       | Verdolaga           | Beldroega <i>Port.</i> Cholsa <i>Pers.</i> Schruka <i>Russ.</i>                                  |
| 106  | Fonteinkruid     | Potamogeto       | Potamogeto          | Medwesche ucho <i>Russ.</i> Rdest wodny <i>Pol.</i>  |
| 452  | Vyfvingerkruid   | Cinquefoglio     | Cinco en rama       | Schabnik <i>Russ.</i>  |
| 790  | Gewoone pimperl  | Pimpinella       | Pimpinella          | Pimpinella <i>Dan.</i> Pimpernella <i>Swed.</i>  |
| 88   | Hangbast         |                  |                     | Potha <i>Cey.</i> Ana-parua <i>Malab.</i> Cay ray leo <i>Cochinch.</i>                           |
| 670  | Muurig knikbloem |                  |                     | Vild latuk <i>Dan.</i> & <i>Norio.</i>   |
| 126  | Sleutelbloem     | Primavera        | Primula veris       | Primavera <i>Port.</i> Bukwiza <i>Russ.</i>  |
| 80   | Zilverboom       |                  |                     |  |
| 512  | Bruinella        | Brunella         | Brunela             | Prunella <i>Port.</i> Kago noso <i>Jap.</i> Gortanaja trawa <i>Russ.</i>                         |
| 422  | Pruimboom        | Prugno           | Ciruelo             | Amexieira <i>Por.</i> Barkuk <i>Arab.</i> Sliwnik <i>Russ.</i> Sliwina <i>Pol.</i>               |
|      | Abrikoos         | Albercocco       | Albarico-queira     | Kuriga <i>Russ.</i> Morela <i>Pol.</i>   |
|      | Kersenboom       | Ciriegio         | Cerezo              | Wischnajja <i>Russ.</i> Wolsnia <i>Pol.</i>  |
|      | Vogelkersen      | Pado             | Pado                | Tocheremucha <i>Russ.</i>  |
| 416  | Gojaves-appel    |                  |                     | Xalxocotl <i>Mexico.</i> Malacca pela <i>Malab.</i>  |
| 638  |                  |                  | Culeno              | Culeno <i>Chil.</i>  |
| 882  | Randvaren        | Felce feminina   | Helecho femenino    | Feto femea <i>Port.</i> Warabi <i>Jap.</i> Wodianoi popoicnik <i>Russ.</i>                       |
| 192  | Longekruid       | Polmonaria       | Pulmonaria          | Pulmonaria <i>Port.</i> Meduniza <i>Russ.</i> Plucnik <i>Pol.</i>                                |
| 420  | Granaatboom      | Granato          | Granado             | Romeira <i>Port.</i> Rumman <i>Arab.</i> Granatnik <i>Russ.</i>                                  |
| 722  | Maartel          | Matricaria       | Matricaria          | Matricaria <i>Port.</i> Matoschnaja trawa <i>Russ.</i>   |
| 362  | Wintergroen      | Pirola           | Pirola              | Pirola <i>Port.</i> Gruscha dikaja <i>Russ.</i> Vintergrön <i>Dan.</i>                           |
| 424  | Peereboom        | Il pero          | El peral            | Kummitri <i>Arab.</i> Gruscha <i>Russ.</i> Gruszka <i>Pol.</i>                                   |
|      | Appelboom        | Melo             | Manzano             | Maceira <i>Port.</i> Iablon <i>Russ.</i> Tgflah <i>Arab.</i>                                     |
| 354  | Kwassiehout      | Legno di quassia | Leño de quassia     | Quassiatrae <i>Dan.</i> Quassiatråd <i>Swed.</i>   |
| 794  | Eik              | Quercia          | Roble               | Pélut <i>Pers.</i> Dub <i>Russ.</i> Dab <i>Pol.</i> Eeg <i>Dan.</i> Ek <i>Swed.</i>              |
| 364  | Warstruik        |                  |                     | Xi kiun su <i>Chin.</i> Cay tlu <i>Cochinch.</i>   |
| 486  | Ranonkel         | Ranuncolo        | Ranunculo           | Ranunculo <i>Port.</i> Lutik <i>Russ.</i> Ranunkel <i>Dan.</i> & <i>Swed.</i>                    |
| 556  | Tamme radys      | Rafano           | Rabano              | Daikon <i>Jap.</i> Reddikke <i>Dan.</i> Rattika <i>Swed.</i>                                     |
| 398  | Reseda           | Reseda           | Miñoneta            |  |
|      | Wouw             | Guadarella       | Gualdu              | Gauda <i>Port.</i> Vau <i>Dan.</i>   |
| 176  | Wegedoorn        | Ranno            | Ramno               | Escambreiro <i>Port.</i> Getappel <i>Swed.</i>   |
| 334  | Rhabarber        | Rabarbaro        | Ruibarbo            | Ruibarbo <i>Port.</i> Rhewen <i>Russ.</i>  |
| 318  | Ankerbloem       |                  |                     |  |
| 524  | Haanekam         | Cresta di gallo  | Cresta de gallo     | Klopownik <i>Russ.</i> Hanekam <i>Dan.</i> Skallergräs <i>Swed.</i>                              |
| 228  | Roozelaar        |                  |                     |  |
| 224  | Sumak            | Sommaco          | Zumaque             | Pjanischnik <i>Russ.</i> Schei <i>Tart.</i> Sumagre <i>Port.</i> Koschewnoe dcerewo <i>Russ.</i> |
| 190  | Aalbezie         | Ribes rosso      | Ribes rojo          | Groselheira vermelha <i>Port.</i> Smorodina krasnaja <i>Russ.</i>                                |
|      | Kruisbezie       | Uva spina        | Uva espina          | Groselheira <i>Port.</i> Krischownik <i>Russ.</i>  |
| 814  | Wonderboom       | Ricino           | Ricino              | Nhambu gacu <i>Brazil.</i> Charua <i>Arab.</i>   |
| 626  | Zoethoutboom     |                  | Falsa acacia        | Acacia bastarda <i>Port.</i>   |
| 422  | Roozeboom        |                  | Rosal               | Roseira <i>Port.</i> Kim anh tu <i>Coch.</i> Rosa <i>Russ.</i> Roza <i>Pol.</i>                  |
| 22   | Rosmaryn         | Rosmarino        | Romero              | Rosmarinho <i>Port.</i> Klil <i>Arab.</i> Rosmarin <i>Dan.</i> & <i>Swed.</i>                    |
| 94   | Mee              | Robbia           | Granza              | Mariona <i>Russ.</i> Marzana <i>Pol.</i>   |
| 460  | Braamen          | Rovo             | Zarza               | Jaschewika <i>Russ.</i> Iezyny <i>Pol.</i>   |
|      | Braamboos        | Rovo ideo        | Zarza idea          | Malinik <i>Russ.</i> Maliny <i>Pol.</i>  |
| 292  | Veldzuuring      | Acetosa          | Acedera             | Azedeira <i>Port.</i> Konnewoi schawel <i>Russ.</i>  |
| 846  | Muisdoorn        | Rusco            | Brusco              | Menschoi myschei tern <i>Russ.</i> Musetorne <i>Dan.</i>   |
| 354  | Ruite            | Ruta             | Ruda                | Schedab <i>Arab.</i> Ruta <i>Russ.</i> Rude <i>Dan.</i> Vinruta <i>Swed.</i>                     |
| 74   | Suikerriet       | Cannamele        | Caña de azucar      | Cana de assucar <i>Port.</i> Viba <i>Brazil.</i>   |
| 106  | Vetmuur          |                  |                     | Takanostme <i>Jap.</i> Grasarv <i>Norw.</i>  |



| Page | No. to Genera. | British or Systematic Synonymes.                  | English Names.            | French.                               | German.                             |                                    |
|------|----------------|---|---------------------------|---------------------------------------|-------------------------------------|------------------------------------|
| 790  |                | <i>Sagittaria L.</i>                              | Adder's tongue            | Arrow-head                            | Sagittaire                          | Das pfeilkraut                     |
|      | 1988           | <i>S. sagittifolia L.</i><br>sp. 13330            | -                         | -                                     | Flechière commune                   |                                    |
| 788  |                | <i>Sagus Gae.</i>                                 | Sago palm                 | Le cycas des Indes                    | Der sagoubaum                       |                                    |
| 6    | 22             | <i>Salicornia L.</i>                              | Glasswort                 | Salicorne                             | Glasschmalz                         |                                    |
| 798  | 2003           | <i>Salisburiæ Sm.</i>                             | Willow                    |                                       |                                     |                                    |
| 880  | 2042           | <i>Salix L.</i>                                   | -                         | -                                     | -                                   |                                    |
| 204  | 609            | <i>Salsola L.</i>                                 | Glasswort                 | Saltwort                              | Die weide                           |                                    |
| 22   | 62             | <i>Sávia L.</i>                                   | -                         | -                                     | Die so. apfhanze                    |                                    |
| 224  | 680            | <i>Sambucus L.</i>                                | -                         | -                                     | Die salbey                          |                                    |
| 168  | 471            | <i>Sambulus L.</i>                                | Pimpernel                 | Elder                                 | Der hohlander                       |                                    |
| 460  | 1165           | <i>Sanguinaria L.</i>                             | -                         | -                                     | Der samokraut                       |                                    |
| 88   | 256            | <i>Sanguisorba L.</i>                             | Burnet saxifrage          | Brook-weed<br>Puccoon<br>Great burnet | Le grande pim-<br>prenelle des prés | Der wiesenknoyf                    |
| 210  | 623            | <i>Sanicula L.</i>                                | -                         | -                                     | La sanicle                          | Der sanickel                       |
| 102  | 307            | <i>Santalum W.</i>                                | Saunders                  | Sandal wood                           | Santal                              | Der santelbaum                     |
| 694  | 1714           | <i>Santolina L.</i>                               | -                         | -                                     | Santoline                           | Der cypressenkraut                 |
| 328  | 925            | <i>Sapindus L.</i>                                | -                         | -                                     | Savonnier                           | Die seisenbeere                    |
| 370  | 1045           | <i>Saponaria L.</i>                               | -                         | -                                     | La savonniere                       | Das seisenkraut                    |
| 174  | 498            | <i>Sarcocéphalus Afr.</i>                         | -                         | -                                     | -                                   | -                                  |
| 462  | 1173           | <i>Sarracenia L.</i>                              | -                         | -                                     | -                                   | -                                  |
| 496  | 1246           | <i>Satureja L.</i>                                | -                         | -                                     | Sarriette                           | Die saturei                        |
| 750  | 1856           | <i>Satyrion L.</i>                                | O'rchis                   | -                                     | Le satyrion                         | Bocksgeilen                        |
| 298  | 872            | <i>Saururus L.</i>                                | -                         | -                                     | Lizard's tail                       | Der eidechsch.<br>wanz             |
| 366  | 1041           | <i>Saxifraga L.</i>                               | -                         | -                                     | Saxifrage                           | Der steinbrech                     |
| 90   | 264            | <i>Scabiosa Vill.</i>                             | -                         | -                                     | La scabieuse                        | Die skabiose                       |
| 208  | 619            | <i>Scandix L.</i>                                 | Chervil                   | Cicely                                | Le cerfeuil                         | Der gartenkerbel                   |
| 482  | 2093           | <i>Schinus L.</i>                                 | Peruvian mastick-<br>tree | -                                     | Le mollé                            | Der mollebaum                      |
| 898  | 2218           | <i>Schistostegia Mohr.</i>                        | Gymnóstomum               | -                                     | -                                   | -                                  |
| 48   | 119            | <i>Schœnus L.</i>                                 | -                         | -                                     | Le choïn                            | Das knopfgras                      |
| 806  | 2015           | <i>Schubertia Mir.</i>                            | Cuprèssus                 | Bog-rush                              | Cyprès distique                     |                                    |
| 278  | 803            | <i>Scilla L.</i>                                  | -                         | -                                     | La scille                           | Die meerzwiebel                    |
| 48   | 123            | <i>Scirpus R. Br.</i>                             | Bull-rush                 | Club-rush                             | Le scirpe                           | Die binse                          |
| 366  | 1037           | <i>Scleranthus L.</i>                             | -                         | -                                     | Gnaveille annuelle                  | Der wilde knauel                   |
| 68   | 199            | <i>Sclerochloa Beauv.</i>                         | Poa                       | Hard grass                            | -                                   | -                                  |
| 882  | 2198           | <i>Scolopendrium Sm.</i>                          | Asplenium                 | Hart's-tongue                         | -                                   | -                                  |
| 678  | 1659           | <i>Scölymus L.</i>                                | -                         | -                                     | L'épine jaune                       | Die golddistel                     |
| 96   | 276            | <i>Scoparia L.</i>                                | -                         | -                                     | Le balai                            | Das besenkraut                     |
| 628  | 1579           | <i>Scorpiurus L.</i>                              | -                         | -                                     | Wild liquorice                      | Der skorpionschwanz                |
| 666  | 1625           | <i>Scorzonera L.</i>                              | -                         | -                                     | Caterpillar                         | Die skorzonere                     |
| 530  | 1356           | <i>Scrophularia L.</i>                            | -                         | -                                     | Scorsonere                          | Der skorzonere                     |
| 512  | 1285           | <i>Scutellaria L.</i>                             | Hooded willow-<br>herb    | Skull-cap                             | La scrophulaire<br>La toque         | Die braunwurzel<br>Das schildkraut |
| 72   | 209            | <i>Secale L.</i>                                  | -                         | -                                     | Le seigle                           | Der rogen                          |
| 382  | 1061           | <i>Sedum L.</i><br><i>S. album L.</i><br>sp. 6451 | -                         | -                                     | La joubarte<br>Trique-madame        | Das sedum                          |
| 220  | 663            | <i>Selinum L.</i>                                 | -                         | -                                     | Le persil de marais                 | Die sumpfsilge                     |
| 406  | 1110           | <i>Sempervivum L.</i>                             | -                         | -                                     | Joubarbe                            | Die hauswurzel                     |
| 704  | 1738           | <i>Senecio L.</i>                                 | Simpson                   | Houseleek                             | Le senecion                         | Die kreuzpflanze                   |
| 754  | 1869           | <i>Serapias L.</i>                                | Heleborine                | Groundsel                             | L'heleborine                        | Die serapie                        |
| 680  | 1661           | <i>Serratula L.</i>                               | -                         | -                                     | Saw-wort                            | Die färberscharte                  |
| 82   | 234            | <i>Serraria R. Br.</i>                            | Prötea                    | -                                     | Sesame                              | Der sesam                          |
| 514  | 1296           | <i>Sesamum W.</i>                                 | -                         | -                                     | -                                   | -                                  |
| 630  | 1581           | <i>Sesbania Pers.</i>                             | Æschynomene               | Oily-grain                            | Le seseli                           | Der sesel                          |
| 214  | 642            | <i>Séseli L.</i>                                  | -                         | -                                     | Le seseli                           | Der sesel                          |
| 60   | 177            | <i>Sesleria Sco.</i>                              | Cynosurus                 | -                                     | -                                   | -                                  |
| 832  | 2057           | <i>Shepherdia Nut.</i>                            | Hippophae                 | Field-madder                          | -                                   | -                                  |
| 94   | 269            | <i>Sherardia L.</i>                               | -                         | -                                     | Single-seeded cu-<br>cumber         | Die ackerröthe                     |
| 810  | 2023           | <i>Sicyos L.</i>                                  | -                         | -                                     | -                                   | -                                  |
| 588  | 1487           | <i>Sida L.</i>                                    | -                         | -                                     | L'abutillon                         | Die sida                           |
| 498  | 1242           | <i>Sideritis L.</i>                               | -                         | -                                     | La crapaudine                       | Das gliedkraut                     |
| 100  | 292            | <i>Siderodéndrum Jac.</i>                         | -                         | -                                     | -                                   | -                                  |
| 150  | 425            | <i>Sideroxyton L.</i>                             | -                         | -                                     | L'argan                             | Das eisenholz                      |
| 374  | 1048           | <i>Silene L.</i>                                  | -                         | -                                     | Silene                              | Die silene                         |
| 554  | 1433           | <i>Sinapis Tow.</i>                               | -                         | -                                     | La moutarde                         | Der senf                           |
| 216  | 647            | <i>Sison L.</i>                                   | Stone parsley             | Honewort                              | Berle aromatique                    | Amölein                            |
| 214  | 646.           | <i>Sium L.</i>                                    | -                         | -                                     | Berle                               | Wassermerk                         |
|      |                | <i>S. Sisarum L.</i><br>sp. 3598                  | -                         | -                                     | Chervis                             | Die zuckerwurzel                   |
| 270  | 788            | <i>Smilacina Desf.</i>                            | Convallaria               | -                                     | -                                   | -                                  |
| 836  | 9081           | <i>Smilax L.</i>                                  | -                         | -                                     | Le smilace                          | Die stehwinde                      |
| 698  | 1580           | <i>Smittia H. K.</i>                              | Æschynomene               | Rough bindweed                        | -                                   | -                                  |
| 216  | 650            | <i>Smyrnium L.</i>                                | -                         | -                                     | Le maceron                          | Das smyrnenkraut                   |
| 156  | 451            | <i>Solanum L.</i>                                 | -                         | -                                     | Morelle                             | Der schwarze nach-<br>schatten     |
|      |                | <i>S. Lycopersicum W.</i><br>sp. 2517             | -                         | -                                     | Tomate                              | Liebes apfel                       |
|      |                | <i>S. tuberosum L.</i><br>sp. 2521                | -                         | -                                     | Pomme-de-terre                      | Die kartoffeln                     |
| 128  | 352            | <i>Soldanella L.</i>                              | -                         | -                                     | Soldanelle                          | Die drattelblume                   |
| 710  | 1740           | <i>Solidago L.</i>                                | -                         | -                                     | La verge d'or                       | Die goldruthe                      |
| 668  | 1627           | <i>Sonchus L.</i>                                 | -                         | -                                     | Le laiteron                         | Die sauclitel                      |
| 860  | 2151           | <i>Sorghum W. en.</i>                             | Hölcus                    | -                                     | -                                   | -                                  |
| 82   | 436            | <i>Sorocéphalus R. Br.</i>                        | Prötea                    | -                                     | -                                   | -                                  |

TABLE OF SYNONYMES.

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| Page | Dutch.                     | Italian.                 | Spanish.                    | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.  |
|------|----------------------------|--------------------------|-----------------------------|---|
| 790  | Pylkruid                   | Saetta                   | Saeta                       | Setta <i>Port.</i> Bossal <i>Jap.</i> Strel'naja <i>Russ.</i> Piilurt <i>Dan.</i>   |
| 778  | Sagoeboom<br>6 Zoudkruid   | Il sago<br>Salicornia    | El sagú<br>Salicor          | O sagúeiro <i>Port.</i> Todda-panna <i>Malab.</i> Sagutrae <i>Dan.</i><br>Salicornia <i>Port.</i> Chraesi <i>Arab.</i> Salturt <i>Dan.</i> Saltört <i>Swed.</i> |
| 820  | Wilg                       | Salcio                   | Sauce                       | Jeno ki <i>Jap.</i> Wetla <i>Russ.</i> Piił <i>Dan.</i> Pihl <i>Swed.</i>   |
| 204  | Loogkruid                  | Soda                     | Sosa                        | Solianka <i>Russ.</i> Salydyer <i>Dan.</i> Soudaört <i>Swed.</i>  |
| 22   | Salie                      | Salvia                   | Salvia                      | Salva <i>Port.</i> Schalweja <i>Russ.</i> Szalwia <i>Pol.</i>   |
| 224  | Vlierboom                  | Sambuco                  | Sauco                       | U chu yu <i>Chin.</i> Busina <i>Russ.</i> Bez <i>Pol.</i>   |
| 168  | Strandpungen               |                          |                             | Strandsamel <i>Dan.</i>   |
| 88   | Sorbenkruid                | Pimpinella mag-<br>giore | Pimpinella de<br>Italia     | Pimpinella de Italia <i>Port.</i> Tschernogolowka <i>Russ.</i>  |
| 210  | Sanikel                    | Sanicola                 | Sanicula                    | Sanicula <i>Port.</i> Zankiel <i>Pol.</i> Sanikel <i>Dan.</i>   |
| 102  | Sandelboom                 | Sandalo                  | Sandalo                     | Sandalo <i>Port.</i> Cay huynh da <i>Coch.</i> Sandeltrae <i>Dan.</i>   |
| 694  | Cypreskruid                | Santolina                | Santolina                   | Santolina <i>Port.</i>  |
| 328  | Zeeppoom                   |                          |                             | Rarak <i>Jawa.</i> Cay bon hon <i>Cochinch.</i>   |
| 370  | Zeeppkruid                 | Saponaria                | Jabonera                    | Saboeira maior ou ordinaria <i>Port.</i> Sebeurt <i>Dan.</i>  |
| 496  | Keul                       | Santoreggia              | Ajedrea                     | Segurelha <i>Port.</i> Tschabér <i>Russ.</i> Ozabr <i>Pol.</i> Saer <i>Dan.</i>   |
| 750  | Bokskulletjes              | Satyrio                  | Satyrio                     | Satyrio <i>Port.</i>  |
| 366  | Steenbreek                 | Saxifragia               | Saxifragia                  | Saxifraga <i>Port.</i> Steenbrek <i>Dan.</i>  |
| 90   | Schurftkruid               | Scabiosa                 | Escabiosa                   | Escabiosa <i>Port.</i> Cay huynh da <i>Coch.</i>  |
| 208  | Tuinkervel                 | Cerfoglio                | Perifollo                   | Cerofollo <i>Port.</i> Kerwel <i>Russ.</i> Trzebula <i>Pol.</i> Körvel <i>Dan.</i>  |
| 482  | Heilboom                   |                          | Falso pimiento              | Mulli <i>Peru.</i>  |
| 48   | Biesgras                   |                          | Escheno                     | Avnknippe <i>Dan.</i> Ag <i>Swed.</i>   |
| 278  | Zeeajulin                  | Scilla                   | Escila                      | Alvarraá <i>Port.</i> Skille <i>Dan.</i>  |
| 48   | Bies                       | Scirpo                   | Cirpo                       | Scirpo <i>Port.</i> Sitnik <i>Russ.</i> Kogleax <i>Dan.</i> Säf <i>Swed.</i>  |
| 366  | Jaarlyks hardbloem         |                          |                             | Sklerance <i>Russ.</i> Knavel <i>Dan.</i> Tangrás <i>Swed.</i> & <i>Norw.</i>   |
| 678  | Varkensdistel              | Scolimo                  | Cardillo                    | Escolymo <i>Port.</i>   |
| 96   | Bezemkruid                 |                          | Escobilla menuda            | Vassoirinha do Brasil <i>Port.</i> Tupeçava <i>Brazil.</i>  |
| 628  | Scorpioenstaart            | Scorpioide               | Escorpiuro                  | Escorpiosa <i>Port.</i>   |
| 696  | Skorzonere                 | Scorza nera              | Escorzanera                 | Escorcioneira <i>Port.</i> Skorzonera <i>Dan.</i> Skorzonera <i>Swed.</i>   |
| 530  | Skröfalkruid               | Scrofularia              | Escrofularia                | Escrofularia <i>Port.</i> Naryschnik <i>Russ.</i>   |
| 512  | Helmkruid                  | Terzanaria               | Tercianaria                 | Tercianaria <i>Port.</i> Schischak trawa <i>Russ.</i> Feberurť <i>Dan.</i>  |
| 72   | Rog                        | Segale                   | Centeno                     | Senteio <i>Port.</i> Rosch <i>Russ.</i> Rez <i>Pol.</i> Rug <i>Dan.</i> Rag <i>Swed.</i>  |
| 382  | Huislook                   | Sedo bianco              | Uvas de gato                | Steenpryd <i>Dan.</i> Helleknoppar <i>Swed.</i>   |
| 220  | Wilde eppe                 |                          | Apio lechal                 | Vandmerke <i>Dan.</i> Finsk ingfåra <i>Swed.</i> Jert <i>Lapl.</i>  |
| 406  | Donderbaard                | Semprevivo               | Simpreviva                  | Sayaó curto <i>Port.</i> Tchesnok dikoi <i>Russ.</i>  |
| 704  | Kruiskruid                 | Senecione                | Hierba cana                 | Tasaeirinha <i>Port.</i> Krestownik <i>Russ.</i>  |
| 754  | Niesblad                   | Elleborina               | Elleborina                  | Elleborina <i>Port.</i> Huullabe <i>Dan.</i>  |
| 680  | Zaagblad                   | Serratola                | Serratula de los tintoreros | Serratula <i>Port.</i> Serp <i>Russ.</i> Jeleni trank <i>Pol.</i>   |
| 514  | Vygboonen                  | Sesamo                   | Ajonjole                    | Gergelim <i>Port.</i> Kunschut <i>Pers.</i> Sesam <i>Dan.</i> & <i>Swed.</i>  |
| 214  | Bergvenkel                 | Seseli                   | Seseli                      | Seseli <i>Port.</i> Seselurt <i>Dan.</i> Seselört <i>Swed.</i>  |
| 94   |                            |                          |                             | Blaameader <i>Norw.</i>   |
| 588  | Hoornheemst                | Abutilo                  | Abutilo                     | Abutilo <i>Port.</i>  |
| 498  | Yzerkruid                  |                          |                             |   |
| 150  | Yzerboom                   |                          |                             | Svalgkrands <i>Dan.</i>   |
| 374  | Veldkars                   | Senepa                   | Mostazo                     | Kabar <i>Arab.</i> Gortschiza <i>Russ.</i> Gorkczyka <i>Pol.</i>  |
| 554  | Mosterd                    |                          |                             | Amomo da Allemanha <i>Port.</i>   |
| 216  | Kruiderige steen-<br>neppe | Sio                      | Berrera                     | Rabaça maior ou des rios <i>Port.</i>   |
| 214  | Watereppe<br>Suikerwortel  | Sisaro                   | Chirivia tordeça            | Sokkerod <i>Dan.</i>  |
| 836  | Steevende winde            | Smilace                  | Eemilace                    | Salesaparilha <i>Port.</i>  |
| 216  | Veldeppe                   | Macerone                 | Apio caballar               | Olusatro <i>Port.</i>   |
| 156  | Zwarte nagtschade          | Solatro nero             | Hierba mora                 | Herva moira <i>Port.</i> Enabeddib <i>Arab.</i>   |
|      | Appeltjes der liefde       | Albergamo                | Tomates                     | Tomateiro <i>Port.</i>  |
|      | Aardappelen                | Tartufbianci             | Batatas inglezas            | Batata da terra <i>Port.</i>  |
| 128  | Soutenelle                 |                          |                             |   |
| 710  | Goudroede                  | Verga d'oro              | Vara de oro                 | Vara d'oiro <i>Port.</i> Senbli <i>Jap.</i> Solotoschnik <i>Russ.</i>   |
| 668  | Haazenlatuw                | Sonco                    | Cerraja                     | Tschistotél <i>Russ.</i> Mleczne <i>Pol.</i> Svinetidsel <i>Dan.</i>  |

| Page | Nos. to Genera.                | British or Systematic Synonyms. | English Names.               | French.                | German.               |
|------|--------------------------------|---------------------------------|------------------------------|------------------------|-----------------------|
| 218  | <i>Spanánthe Jac.</i> 659      | Hydrocotyle                     |                              |                        |                       |
| 40   | <i>Sparaxis Ker.</i> 99        | <i>Ixia</i>                     |                              |                        |                       |
| 774  | <i>Sparganium L.</i> 1946      | -                               | Bur reed                     | Le rubannier           | Die igelsknospe       |
| 610  | <i>Spartium L.</i> 1537        | -                               | Broom                        | Le genét               | Die pfrieme           |
| 82   | <i>Spatilla R. Br.</i> 237     | <i>Pròtea</i>                   |                              |                        |                       |
| 330  | <i>Spargula L.</i> 1070        | -                               | Spurrey                      | Spergule               | Der ackerspergel      |
| 94   | <i>Spermacòce L.</i> 270       | -                               | Button weed                  |                        |                       |
| 895  | <i>Sphágnum L.</i> 2216        | -                               | Bog moss                     | Sphaigne               | Das torfmos           |
| 734  | <i>Sphenógyne R. Br.</i> 1816  | <i>Arctòtis</i>                 |                              |                        |                       |
| 134  | <i>Spigèlia L.</i> 379         | -                               | Worm grass                   |                        |                       |
| 690  | <i>Spilánthes L.</i> 1695      | -                               | -                            | Abécédaire             |                       |
| 834  | <i>Spinacia L.</i> 2070        | -                               | Spinage                      | L'épinard              | Der spinat            |
| 428  | <i>Spiraea L.</i> 1141         | Queen of the meadows            | Meadow sweet, &c.            | La reine des prés      | Die wiesenkönigin     |
| 906  | <i>Spláchnum L.</i> 2231       | -                               | -                            | Le splane              | Der schirrmos         |
| 382  | <i>Spónias L.</i> 1059         | -                               | Hog plum                     | Le monbain             | Der monbinbaum        |
| 55   | <i>Sporobolus R. Br.</i> 159   | <i>Agrostis</i>                 |                              |                        |                       |
| 504  | <i>Stachys L.</i> 1283         | -                               | Hedge nettle                 | Stachyde               | Die rossnessel        |
| 20   | <i>Stachytárfheta Vahl</i> 54  | <i>Verbena</i>                  | Bastard vervain              |                        |                       |
| 226  | <i>Staphylèa L.</i> 684        | -                               | Bladder nut                  | Staphilier             | Die pimpermuss        |
| 234  | <i>Stáctice L.</i> 706         | Thrift                          | Sea lavender                 | Statische              | Das seegras           |
| 376  | <i>Stellaria L.</i> 1049       | -                               | Stitch wort                  | La stellaire           | Das aegrentrostgras   |
| 324  | <i>Stellèra L.</i> 913         | -                               | -                            | -                      | Die sperglingszunge   |
| 814  | <i>Sterculia L.</i> 2036       | -                               | -                            | La bois caca           | Der stinkbaum         |
| 828  | <i>Stilago L.</i> 2050         | -                               | Chinese laurel               | Stipe                  | Der salamanderbaum    |
| 54   | <i>Stipa L.</i> 150            | -                               | Feather grass                | Stipe                  | Das pfriemengras      |
| 616  | <i>Stizolobium P. S.</i> 151   | <i>Dolichos</i>                 | Water aloe                   |                        |                       |
| 462  | <i>Stratiòtes L.</i> 2026      | -                               | Water soldier                | Aloides                | Die wasserfeder       |
| 270  | <i>Streptopus Mx.</i> 786      | <i>Uvularia</i>                 |                              |                        |                       |
| 880  | <i>Struthiòpteris W.</i> 2179  | <i>Osmunda</i>                  |                              |                        |                       |
| 152  | <i>Strýchnos L.</i> 437        | <i>Núx Vomica</i>               |                              |                        |                       |
| 362  | <i>Stýrax L.</i> 1025          | -                               | Storax                       | Noix vomque            | Krähenaugen           |
| 558  | <i>Subularia L.</i> 1447       | -                               | Awlwort                      | Alibousier             | Der storax            |
| 626  | <i>Sutherlandia H. K.</i> 1571 | <i>Colutea</i>                  |                              | Subulaire              | Wasserpfriemen        |
| 352  | <i>Swietènia L.</i> 990        | -                               | Mahogany tree                | Le mahagon             | Der mahagonibaum      |
| 170  | <i>Symphoria Ph.</i> 476       | <i>Lonicera</i>                 | St. Peter's wort             |                        |                       |
| 122  | <i>Symphytum L.</i> 334        | -                               | Comfrey                      | La consoude            | Der beinwell          |
| 728  | <i>Synedrella Gac.</i> 1731    | <i>Verbesina</i>                |                              |                        |                       |
| 12   | <i>Syringa L.</i> 377          | -                               | Lilac                        | Lilas                  | Der syringa           |
| 808  | <i>Tamètis Swz.</i> 2176       | <i>Pteris</i>                   |                              |                        |                       |
| 718  | <i>Tagetes L.</i> 1760         | -                               | African and French marigolds | Oeillet d'Inde         | Die sammetblume       |
| 562  | <i>Tamarindus L.</i> 1449      | -                               | Tamarind tree                | Le tamarinier          | Der tamarindenbaum    |
| 228  | <i>Tamarix L.</i> 685          | -                               | Tamarisk                     | Tamarisc               | Tamarisken            |
| 838  | <i>Tamus L.</i> 2032           | -                               | Black bryony                 | Le tamier              | Schwarzwurzel         |
| 696  | <i>Tanaetum L.</i> 1730        | <i>Costmary</i>                 | Tansy                        | Tanaisie               | Der rheinfarn         |
| 694  | <i>Tarcomanthus L.</i> 1706    | -                               | African feabane              |                        |                       |
| 948  | <i>Taxus L.</i> 2114           | -                               | Yew tree                     | If                     | Der taxus             |
| 148  | <i>Tectonia L.</i> 421         | -                               | Teak wood                    |                        | Der teakbaum          |
| 546  | <i>Teesdàlia R. Br.</i> 1411   | <i>Indian oak</i>               |                              |                        |                       |
| 228  | <i>Telèphium L.</i> 689        | <i>Ibris</i>                    |                              |                        |                       |
| 84   | <i>Telopèa R. Br.</i> 244      | <i>Sedum</i>                    |                              |                        |                       |
| 634  | <i>Tephrosia Pers.</i> 1590    | -                               | Waratah                      |                        |                       |
| 864  | <i>Terminàlia L.</i> 2140      | <i>Galèga</i>                   | Fish poison                  |                        |                       |
| 898  | <i>Tétraphis Hedw.</i> 2221    | <i>Grimmia</i>                  |                              | Le badamier de Malabar |                       |
| 494  | <i>Tèucrium L.</i> 1244        | -                               | Germander                    | Germandrée             | Bathengel             |
| 484  | <i>Thalictrum L.</i> 1229      | Feathered columbine             | Meadow rue                   | Rue des prés           | Die wiesenraute       |
| 214  | <i>Thápsia L.</i> 643          | -                               | Deadly carrot                | Tapsie                 |                       |
| 650  | <i>Theobroma L.</i> 1607       | -                               | Chocolate nut                | Le cacaoyer            | Der kakaobaum         |
| 342  | <i>Thermòpsis R. Br.</i> 944   | <i>Podalýria</i>                |                              |                        |                       |
| 194  | <i>Thesium L.</i> 569          | -                               | Bastard toadflax             | Thesium                | Das leinblatt         |
| 546  | <i>Thiápsi Dtl.</i> 1408       | Treacle-mustard                 | Shepherd's purse             | Bourse de pasteur      | Die hirtentasche      |
| 806  | <i>Thùja L.</i> 2018           | Tree of life                    | Arbor-Vitæ                   | L'arbre de vie         | Der baum des lebens   |
| 508  | <i>Thýmus L.</i> 1275          | -                               | Thyme                        | Le thym                | Der thimian           |
| 562  | <i>Tigridia Jac.</i> 1452      | -                               | Tiger flower                 |                        |                       |
| 466  | <i>Tilia L.</i> 1186           | Linden tree                     | Lime tree                    | Tilleul                | Die linde             |
| 886  | <i>Tòdea W.</i> 2204           | <i>Osmunda</i>                  |                              |                        |                       |
| 222  | <i>Tordýlium L.</i> 673        | Hedge parsley                   | Hartwort                     | Le esseli de Crete     | Das drehkraut         |
| 454  | <i>Tormentilla L.</i> 1154     | <i>Tormentil</i>                | Septfoil                     | La tormentille         | Tormentil             |
| 516  | <i>Tourrèttia Domb.</i> 1289   | <i>Dombeya</i>                  |                              |                        |                       |
| 168  | <i>Trachèlium L.</i> 466       | -                               | Throatwort                   | Herbe aux trachées     | Das halskraut         |
| 260  | <i>Tradescántia L.</i> 765     | -                               | Spiderwort                   | Ephémérix              |                       |
| 666  | <i>Tragopogon L.</i> 1621      | -                               | Goat's beard                 | Sersif                 | Der bockbart          |
| 104  | <i>Trapa L.</i> 308            | -                               | Water caltrops               | Macre flottante        | Die stachelnuss       |
| 1020 | <i>Tremèlia L.</i> 2397        | -                               | -                            | La tremelle            | Die gallerte          |
| 832  | <i>Trevirana W. en.</i> 1362   | <i>Cyrilla</i>                  |                              |                        |                       |
| 354  | <i>Tribulus Tou.</i> 966       | -                               | Caltrops                     | Tribule                | Burzeldorn            |
| 122  | <i>Trichodésma R. Br.</i> 341  | <i>Borago</i>                   |                              |                        |                       |
| 56   | <i>Trichodium Mx.</i> 157      | <i>Agrostis</i>                 |                              |                        |                       |
| 40   | <i>Trichonema Ker.</i> 96      | <i>Ixia</i>                     |                              |                        |                       |
| 50   | <i>Trichóphorum Pers.</i> 126  | <i>Erióphorum</i>               |                              |                        |                       |
| 808  | <i>Trichosánthes L.</i> 2019   | -                               | Snake-gourd                  | Anguine à fruits longs | Der sinesische kürbis |
| 236  | <i>Trientalis L.</i> 862       | -                               | Winter-green                 | Trientale              | Das sternblümchen     |
| 640  | <i>Trifolium Tou.</i> 1600     | Clover                          | Trefoil                      | Trefle                 | Der klee              |
| 280  | <i>Triglobin L.</i> 841        | -                               | Arrow grass                  | Troscart               | Das salzgras          |

TABLE OF SYNONYMES.

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| Page | Dutch.           | Italian.          | Spanish.          | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.          |
|------|------------------|-------------------|-------------------|---|
| 774  | Egelknop         | Sparganio         | Platanaria        | Pindsvünknoppe <i>Dan.</i> Träggan <i>Swed.</i>   |
| 610  | Bezembrem        | Spazio            | Retama de escobas | Giesteira menor <i>Port.</i> Gyel <i>Dan.</i> Pingstblomma <i>Swed.</i>                 |
| 390  | Akker-spurrie    | Spergola          | Espergula         | Toriza <i>Russ.</i> Knægæs <i>Dan.</i> Fryle <i>Swed.</i>                               |
| 896  | Veenmoss         | -                 | -                 | Rödmus <i>Dan.</i> Rödmossa <i>Swed.</i>  |
| 834  | Spinagie         | Spinaci           | Espináca          | Espinafre <i>Port.</i> Spinach <i>Russ.</i> Szpinak <i>Pol.</i> Spinat <i>Dan.</i>      |
| 428  | Reynette         | Ulmaria           | Ulmaria           | Medunischnik <i>Russ.</i>   |
| 906  | Parasolmos       | Splacno           | Splacno           | Spacno <i>Port.</i> Skyggeknop <i>Dan.</i> Parasolmossa <i>Swed.</i>                    |
| 382  | Varkensprium     | -                 | Hobo              | Acaja; Ibametara <i>Brazíl.</i> Oubou <i>Carib.</i>                                     |
| 504  | Andoorn          | Stachi            | Estaquis          | Ortiga morta dos bosques <i>Port.</i>   |
| 226  | Pimpernooten     | Staffilodendro    | -                 | Klekotschka <i>Russ.</i> Klokocina lesna krzak <i>Pol.</i>                              |
| 234  | Zeegras          | Statie            | Statie            | Strandblomster <i>Swed.</i>   |
| 376  | Oogentroostgras  | -                 | -                 | Ojentröst <i>Dan.</i> Perer <i>Swed.</i>  |
| 324  | -                | -                 | -                 | Moujik-koréne <i>Russ.</i> Rudzik <i>Tungus.</i>  |
| 814  | Stinkboom        | -                 | -                 | Satirião <i>Port.</i>   |
| 828  | Salamanderboom   | -                 | -                 | -   |
| 54   | Kwispelgras      | -                 | Esparto           | Esparto <i>Port.</i> Kawil <i>Russ.</i> Fejér árva <i>Hung.</i>                         |
| 482  | Ruiterskruid     | -                 | -                 | Mudores bolschoi <i>Rus.</i> Vandaloë <i>Dan.</i> Vattu-aloe <i>Swed.</i>               |
| 152  | Braaknooten      | Noce vomica       | Mataperros        | Noz vomica <i>Port.</i> Caniram <i>Malab.</i> Bræknödd <i>Dan.</i>                      |
| 362  | Styraxboom       | Storace           | Estoraque         | Storaque <i>Port.</i> Storax <i>Dan.</i> & <i>Swed.</i>                                 |
| 558  | Elskruid         | -                 | -                 | Sylblad <i>Dan.</i> Frytilje <i>Norw.</i>   |
| 352  | Nieuwblad-boom   | -                 | -                 | -   |
| 122  | Smeerwortel      | Consolida         | Consuelda major   | Consolda major <i>Port.</i> Solnoi koren <i>Russ.</i> Zywokost <i>Pol.</i>              |
| 12   | Syring           | Siringa           | Lila              | Lilaz <i>Port.</i> Serik <i>Russ.</i> Syreen <i>Swed.</i>                               |
| 718  | Afrikaan         | Tagete            | Clavel de muerto  | Tagecia <i>Port.</i> Sammetros <i>Swed.</i>   |
| 562  | Tamarindenboom   | Tamarindo         | Tamarindo         | Tammer bendi <i>Arab.</i> Tamarintræ <i>Dan.</i>  |
| 228  | Tamarisch        | Tamarisco)        | Taray             | Tamargueira <i>Port.</i> Ati <i>Arab.</i> Grebenschik <i>Russ.</i>                      |
| 838  | Vrouwenzegel     | Brionia nera)     | Tamo              | Norça preta <i>Port.</i>  |
| 696  | Reinevaren       | Tanaceto          | Tanaceto          | Tanasia <i>Port.</i> Dikaja riabina <i>Russ.</i> Wrotecz <i>Pol.</i>                    |
| 848  | Taxisboom        | Tasso             | Tejo              | Teixo <i>Port.</i> Kja raboku <i>Jap.</i> Tis <i>Rus.</i> Cis <i>Pol.</i> Id <i>Su.</i> |
| 148  | -                | -                 | -                 | Theka <i>Malab.</i> Cay sao <i>Cochinch.</i>  |
| 864  | -                | -                 | -                 | Adamaram <i>Malab.</i>  |
| 494  | Gamander         | Camedrio          | Germandrina       | Carvalhinha <i>Port.</i> Ozanka <i>Pol.</i>   |
| 484  | Waterruit        | -                 | -                 | Zolotoucha <i>Russ.</i> Wrzodowiec <i>Pol.</i>  |
| 214  | -                | -                 | Zumillo           | -   |
| 650  | Kakauboom        | Cacao             | Cacahual          | Cucuhuaquahuitl <i>Mexico.</i> Kakaotræ <i>Dan.</i>                                     |
| 194  | Vlaschblad       | -                 | -                 | Linossisty tésl <i>Russ.</i> Hörbladet naalebægær <i>Dan.</i>                           |
| 546  | Herders-taschjes | Borsa di pastore  | Bolsa de pastor   | Neko no sansin <i>Jap.</i> Jerschow glas <i>Russ.</i>                                   |
| 806  | Boom des levens  | Albero di vita    | Arbol de la vida  | Arvore da vida <i>Port.</i> Livets træ <i>Dan.</i> Livrets träd <i>Swe.</i>             |
| 508  | Gemeene thym     | Teino             | Tomillo           | Tomilho <i>Port.</i> Fimiane <i>Russ.</i> Tym <i>Pol.</i> Timian <i>Dan.</i>            |
| 562  | -                | -                 | -                 | Oceloxochitl <i>Mexico.</i>   |
| 468  | Linde            | Tiglio            | Tilo              | Uglamur <i>Arab.</i> Lipa <i>Russ., Pol., Bohem., Siber., &amp;c.</i>                   |
| 222  | Gemeen krielzaad | -                 | -                 | Seseli de Creta <i>Port.</i>  |
| 454  | Tormentil        | Tormentilla       | Tormentila        | Sabiasnoi koren <i>Russ.</i> Kurze ziele <i>Pol.</i>                                    |
| 168  | Halskruid        | -                 | Hermosilla        | -   |
| 666  | Boksbaard        | Barba di becco    | Barba cabruna     | Barba de bode <i>Port.</i> Kozlowa boroda <i>Russ.</i>                                  |
| 104  | Waternooten      | Tribulo acuatico  | Tribulo acuatico  | Tribulo aquatico <i>Port.</i> Panover-tajeraua <i>Malab.</i>                            |
| 1020 | Lilmos           | -                 | -                 | Levrehinde <i>Dan.</i> Skyfall <i>Swed.</i>   |
| 354  | Voetangel        | Tribulo terrestre | Tribulo terrestre | Tribulo <i>Port.</i> Kotewki <i>Pol.</i>  |
| 808  | -                | -                 | -                 | Tota-piri <i>Malab.</i> Kualoonin <i>Jap.</i> Muop saoc <i>Cochinch.</i>                |
| 296  | Vintergrön       | -                 | -                 | -   |
| 640  | Klaver           | Trifoglie         | Trebol            | Trilistnik <i>Russ.</i> Konicz <i>Pol.</i>  |
| 890  | Zoutgras         | -                 | -                 | Trehage <i>Dan.</i> Sälting <i>Swed.</i> Saltgræs <i>Norw.</i>                          |

| Page | Nos. to Genera.       | British or Systematic Synonyms. | English Names. | French.         | German.                       |
|------|-----------------------|---------------------------------|----------------|-----------------|-------------------------------|
| 644  | Trigonólla L.         | 1603                            | - - -          | Fenu-grec       | Das bockshorn                 |
| 66   | Triòdia R. Br.        | 191                             | - - -          | -               | -                             |
| 170  | Triòsteum L.          | 478                             | - - -          | Feverwort       | -                             |
| 60   | Tristèum Pers.        | 172                             | - - -          | -               | -                             |
| 68   | Triticum L.           | 206                             | - - -          | Wheat           | Der weitzen                   |
|      | T. Spéita L. sp. 1235 |                                 | - - -          | Spelt           | Le froment, le bled E'peautre |
| 268  | Tritóna Ker.          | 777                             | - - -          | -               | -                             |
| 40   | Tritónia Ker.         | 100                             | - - -          | -               | -                             |
| 488  | Tróllús L.            | 1234                            | - - -          | Globe flower    | Die kapulranunkel             |
| 202  | Tropæolum L.          | 875                             | - - -          | Indian cress    | Die kugelnurblume             |
| 832  | Trophis L.            | 2063                            | - - -          | Ramoon tree     | -                             |
| 266  | Tulipa L.             | 772                             | - - -          | Tulip           | Die tulpe                     |
| 540  | Turrítis Dill.        | 1389                            | - - -          | Tower mustard   | Das thurnkraut                |
| 704  | Tussilago L.          | 1737                            | - - -          | Colt's foot     | Der huffattich                |
| 774  | Typha L.              | 1945                            | - - -          | Reed mace       | Die rohrkolbe                 |
| 612  | Ulex L.               | 1540                            | - - -          | Whin            | Der europäische stechginster  |
| 208  | Ulmus L.              | 615                             | - - -          | Elm tree        | Die ulme                      |
| 940  | Uva L.                | 2308                            | - - -          | Laver           | Watt                          |
| 778  | Uncinia Pers.         | 1949                            | - - -          | -               | -                             |
| 64   | Urtica L.             | 186                             | - - -          | Seaside oat     | -                             |
| 944  | Urània Schreb.        | 722                             | - - -          | -               | -                             |
| 282  | Uropetalon Ker.       | 818                             | - - -          | -               | -                             |
| 782  | Urtica L.             | 1962                            | - - -          | Nettle          | L'ortie                       |
| 20   | Utricularia L.        | 53                              | - - -          | Hooded milfoil  | L'utriculaire                 |
| 320  | Vaccinium L.          | 907                             | - - -          | Bleaberry       | L'airelle                     |
| 34   | Valeriana L.          | 78                              | - - -          | Valerian        | La valériane                  |
| 556  | Vélla L.              | 1437                            | - - -          | Cress rocket    | -                             |
| 268  | Veltheimia Gled.      | 778                             | - - -          | -               | -                             |
| 858  | Veratrum L.           | 2128                            | - - -          | White hellebore | Hellébore                     |
| 132  | Verbascum L.          | 375                             | - - -          | High taper      | Bouillon-blanc                |
| 520  | Verbena L.            | 1322                            | - - -          | Holy herb       | Vervene                       |
| 686  | Vernonia Schreb.      | 1630                            | - - -          | Serrátula       | -                             |
| 14   | Vernonica L.          | 40                              | - - -          | Fluellen        | Véronique                     |
| 544  | Vesicaria Lam.        | 1400                            | - - -          | Alyssum         | Vesicaire                     |
| 132  | Vestia W. en.         | 371                             | - - -          | Periphragmos    | -                             |
| 224  | Viburnum L.           | 679                             | - - -          | Wayfaring tree  | Viorne                        |
| 622  | Vicia Tou.            | 1561                            | - - -          | Tare            | La vesce                      |
| 130  | Villarsia Ven.        | 363                             | - - -          | Menyánthes      | -                             |
| 344  | Viminaria Sm.         | 957                             | - - -          | Rush broom      | -                             |
| 146  | Vinca L.              | 410                             | - - -          | Periwinkle      | La pervenche                  |
| 186  | Viola Tou.            | 540                             | - - -          | Violet          | Violette de mars              |
| 342  | Virgilia Lam.         |                                 | - - -          | Sophora         | -                             |
| 830  | Viscum L.             | 2054                            | - - -          | -               | -                             |
| 520  | Vitex L.              | 1317                            | - - -          | Chaste tree     | Le gui                        |
| 174  | Vitis L.              | 501                             | - - -          | -               | Gatiler                       |
| 40   | Watsonia Ker.         | 101                             | - - -          | Gladolus        | La vigne                      |
| 294  | Wendlandia W.         | 858                             | - - -          | Mispérnum       | -                             |
| 886  | Woodia R. Br.         | 2200                            | - - -          | Acróstichum     | -                             |
| 146  | Wrightia R. Br.       | 412                             | - - -          | Nerium          | -                             |
| 786  | Xanthium L.           | 1974                            | - - -          | Lesser burdock  | Lampourde                     |
| 236  | Xanthorrhiza Herb.    | 709                             | - - -          | Yellow root     | -                             |
| 834  | Xanthoxylon L.        | 2066                            | - - -          | Toothach tree   | Le clavier                    |
| 700  | Xeranthemum L.        | 1729                            | - - -          | Everlasting     | L'immortelle                  |
| 878  | Xiphopteris Kaulf.    | 2173                            | - - -          | Grammitis       | -                             |
| 480  | Xylopa L.             | 1224                            | - - -          | Anona           | -                             |
| 268  | Yucca L.              | 781                             | - - -          | Adam's needle   | Yuca                          |
| 846  | Zamia L.              | 2108                            | - - -          | -               | -                             |
| 520  | Zapantia J.           | 1319                            | - - -          | Verbena         | -                             |
| 778  | Zea L.                | 1950                            | - - -          | Maize           | Le mais                       |
| 4    | Zingiber Gaert.       | 10                              | - - -          | Indian corn     | Der mais                      |
| 788  | Zizania L.            | 1979                            | - - -          | Ginger          | L'amome des Indes             |
| 20   | Ziziphora L.          | 57                              | - - -          | -               | -                             |
| 178  | Zizyphus Tou.         | 506                             | - - -          | -               | -                             |
| 630  | Zornia Gm.            | 1587                            | - - -          | Rhamnus         | Jujubier commun               |
| 908  | Zygodon Hook.         | 2234                            | - - -          | Hedysarum       | -                             |
| 352  | Zygophyllum L.        | 994                             | - - -          | Bean caper      | Fabagelle                     |

TABLE OF SYNONYMES.

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| Page | Dutch.            | Italian.        | Spanish.          | Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.      |
|------|-------------------|-----------------|-------------------|---|
| 644  | Hoornklaver       | Fienogreco      | Alforva           | Alforvas <i>Port.</i> Græskhøe <i>Dan.</i> Fenugrek <i>Swed.</i>                    |
| 68   | Tarw              | Grano           | Trigo             | Ptscheniza <i>Rus.</i> Búza <i>Hun.</i> Budai <i>Tar.</i> Hvete <i>Swe.</i>         |
| 488  | Drolbloem         | - - -           | - - -             | Kupalniza <i>Russ.</i> Engblomme <i>Dan.</i> Bullerblomster <i>Swe.</i>             |
| 302  | Spaansche kers    | Fior cappucino  | Capuchinas        | Mastruco do Peru <i>Port.</i> Indiansk karse <i>Dan.</i>                            |
| 266  | Tulp              | Tulipano        | Tulipan           | Tulipa <i>Port.</i> Lalé <i>Turk.</i> Tiulpan <i>Russ.</i> Tulipa <i>Dan.</i>       |
| 540  | Turrekruid        | - - -           | - - -             | Taarnspide <i>Dan.</i> Rockentraf <i>Swed.</i> Hvassennep <i>Norw.</i>              |
| 704  | Hoefblad          | Tossilaggine    | Tusilago          | Tossilagem <i>Port.</i> Dwoje listnik <i>Russ.</i>                                  |
| 774  | Lischdodde        | Tifa            | Espadana          | Tabûa <i>Port.</i> Bo hoang <i>Cochinch.</i> Paloschnik <i>Russ.</i>                |
| 612  | Heybrem           | -               | Aliaga            | Tojo <i>Port.</i> Tornblad <i>Dan.</i>  |
| 208  | Olm               | Olmo            | Olmo              | Olmo <i>Port.</i> Kasagatsch <i>Turk.</i> Ilim <i>Russ.</i> Ilim <i>Pol.</i>        |
| 940  | Watervlies        | -               | Ova               | Morskoe salo <i>Russ.</i>   |
| 782  | Brandenetel       | Ortica          | Ortiga            | Ortiga <i>Port.</i> Pokrzywa <i>Pol.</i>  |
| 20   | Neetekruid        | -               | -                 | Vandrölike <i>Dan.</i> Vassrölike <i>Norw.</i>                                      |
| 320  | Blaauwbessen      | Mirtillo        | Mirtilo           | Myrtillo <i>Port.</i> Tscherniza <i>Russ.</i> Borrowki czarne <i>Pol.</i>           |
| 34   | Valeriaan         | Valeriana       | Valeriana         | Valeriana <i>Port.</i> Fai so <i>Jap.</i> Balderjan <i>Russ.</i> Kozlki <i>Pol.</i> |
| 858  | Nieswortel        | Elleboro bianco | Vedegambre blanco | Helleboro branco <i>Port.</i> Tschemeriza <i>Russ.</i> Hvit                         |
| 132  | Wollekruid        | Tassobarbasso   | Gordolobo         | rustrot <i>Swed.</i>  |
| 520  | Yzerhard          | Verbena         | Verbena           | Verbaaco branco <i>Port.</i> Zaarskii skipetr <i>Russ.</i>                          |
| 14   | Eerenprys         | Veronica        | Veronica          | Verbena <i>Port.</i> Co roi ngua <i>Cochinch.</i> Scheelnik <i>Rusa.</i>            |
| 544  | Blaazig tanddraad | -               | -                 | Veronica <i>Port.</i> Weronika <i>Russ.</i> Erenpriis <i>Dan.</i>                   |
| 224  | Viorne            | Viburno         | Viburno           | Germeshek <i>Turk.</i> Gordowina <i>Russ.</i> Hordewid <i>Pol.</i>                  |
| 622  | Tamme vitsen      | Veccie          | Alverjanas        | Myschei goroch <i>Russ.</i> Wyka <i>Pol.</i>  |
| 146  | Maagdepalm        | Pervinca        | Pervinca          | Congosca <i>Port.</i> Barwinek <i>Pol.</i> Singrön <i>Dan.</i>                      |
| 186  | Tamme viool       | Viola marzia    | Violeta           | Pachutschsja's fialko <i>Russ.</i>  |
| 830  | Marentakken       | Vischio         | Liga              | Visgo <i>Port.</i> Omets <i>Russ.</i> Jemiel <i>Pol.</i>                            |
| 520  | Kuischboom        | Agnocasta       | Sauzgatillo       | Anhocasto <i>Port.</i> Dikoi perez <i>Rus.</i> Kydskhedstræe <i>Dan.</i>            |
| 174  | Wyngaard          | Vite            | Vid               | Enab <i>Arab.</i> Winograd <i>Russ.</i> Winna macica <i>Pol.</i>                    |
| 786  | Kleine klissen    | Lappola minore  | Lampazo pequeño   | Bardana menor <i>Port.</i> Durkoman <i>Rus.</i>                                     |
| 700  | Straalbloem       | - - -           | - - -             | Perpetua larga <i>Port.</i> Souchotzwet <i>Russ.</i>                                |
| 778  | Mays              | Gran turco      | Maiz              | Tlaoilli <i>Mexico.</i> Tyrkiek korn <i>Dan.</i>                                    |
| 4    | Gember            | Zenzero         | Jenibre           | Zenjebèl <i>Arab.</i> fel. Imbir <i>Russ.</i> Imbier <i>Pol.</i>                    |
| 788  | Wild koom         | -               | -                 | -   |
| 178  | Jobenboom         | Giuggiolo       | Azufaso           | Maceira de anafega <i>Port.</i> Unap <i>Turk.</i> Frangulina <i>Russ.</i>           |
| 352  | Haauwkappers      | -               | -                 | Stroutschkowatyè kapérsy <i>Russ.</i>   |



**FIRST**  
ADDITIONAL SUPPLEMENT  
TO  
LOUDON'S ENCYCLOPÆDIA OF PLANTS;  
COMPRISING  
THE SPECIFIC CHARACTER, DESCRIPTION,  
CULTURE, HISTORY, APPLICATION IN THE ARTS,  
AND EVERY OTHER DESIRABLE PARTICULAR RESPECTING  
ALL THE PLANTS  
ORIGINATED IN, OR INTRODUCED INTO,  
BRITAIN,  
BETWEEN THE FIRST PUBLICATION OF THE WORK IN 1829,  
AND  
**JANUARY, 1840;**  
WITH  
A NEW GENERAL INDEX TO THE WHOLE WORK.

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PREPARED BY W. H. BAXTER, JUN., UNDER THE DIRECTION OF J. C. LOUDON;  
AND REVISED BY GEORGE DON, F.L.S.

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FIRST  
ADDITIONAL SUPPLEMENT  
TO  
THE ENCYCLOPÆDIA OF PLANTS;  
BRINGING DOWN THE WORK TO MARCH, 1839.

Prepared by WILLIAM H. BAXTER, under the Direction of J. C. LOUDON;  
and finally revised by GEORGE DON, F.L.S.

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N.B. A † prefixed to genera or species indicates that such genera or species have been already registered, but are here repeated with more perfect details.

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Page 8. CLASS II. — DIANDRIA. 2 STAMENS.

Order I. MONOGYNIA. 2 Stamens. 1 Style.

2502. 47a. *Belopérone*. Calyx 5-parted. Upper lip of corolla concave, lower one trifold. Stigma subulate. Capsule compressed from the base to the middle and empty; but swollen, and containing 4 seeds at top.  
2501 64a. *Streptocarpus*. Cal. 5-cleft. Cor. tubularly funnel-shaped; Limb 5-lobed, nearly equal, oblique. Stam. 4: 2 front ones fertile; the other 2 tubercle-formed and sterile. Valves of capsule twisted. Stigma 2-lobed. Seed minute, naked.
- 

Page 30. CLASS III. — TRIANDRIA. 3 STAMENS.

Order I. MONOGYNIA. 3 Stamens. 1 Style.

2502. 80a. *Bétkia*. Cal. 1-toothed, deciduous. Cor. funnel-shaped, 5-lobed. Caps. 1-celled, 1-seeded.  
2503. 94a. *Streptanthèra*. Perianth 6-parted; tube very short. Anthers twisted round each other. Ovar. 6-angled, also a little twisted. Ovula kidney-shaped.  
2504. 107a. *Anisánthus*. Spathe 2-valved, subringent. Perianth unilabiate; limb equal, 6-parted; upper segment long, cochleariform. Stigmas 3, dilated, entire. Capsule triangular, 3-valved. Seeds cumulated, winged.  
2505. 114a. *Dietes*. Flower 6-parted, equal, spreading. Stigmas petal-like, bifid.  
2506. 114b. *Leucocóryne*. Perianth salver-shaped, 6-parted, 3 fertile combined, and the 3 sterile on the limb, fleshy, and sometimes antheriferous. Style terete. Stigma simple.  
2507. 114c. *Triteleia*. Perianth funnel-shaped, 6-cleft. Stamens 6; upper ones opposite the petals. Stigma 3-lobed. Ovarium many-seeded.  
2508. 117a. *Sisyrinchium*. Spathe 2-lyd. Calyx 0. Petals 6. Filaments connate. Style 1. Caps. 3-celled, inferior.  
2509. 117b. *Remédmia*. Perianth 6-parted. Filaments connate or distinct. Stigmas 3, involute, filiform, acute. Capsule obovate. Seeds angular.
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Page 76. CLASS IV. — TETRANDRIA. 4 STAMENS.

Order I. MONOGYNIA. 4 Stamens. 1 Style.

2510. 237a. *Conospermum*. Cal. ringent; Upper lip 2-lobed. Nut pappose, inversely cone-shaped.  
2511. 237b. *Botryceras*. Cal. 4-parted. Cor. 4-petaled. Style arcuate. Nut subulate.  
2512. 238a. *Anadèmia*. Calyx nearly regular. Gland 0. Follicle 1-seeded.  
2513. 238b. *Agdistachys*. Calyx regular. Filaments distinct. Stigma lateral. Ovary 1-seeded.  
2514. 295a. *Lipóstoma*. Limb of cal. 4-parted. Cor. tubular at base, and ventricose at throat, bearded inside. Stam. inserted in throat. Style capillary. Stigm. 2, subulate, hispid. Caps. globose, 2-celled, opercul., many-seeded, often 1-celled. Seeds small, angular, scabrous.  
2515. 306a. *Beruhâmia*. Flowers disposed in heads. Invol. of 4 petal-like parts. Cal. 4-toothed. Petals 4, flesher Fruit constituted of many pomes grown together. Endocarp 2-celled. Seeds solit. and pendul. in each cell.

CLASS I. — MONANDRIA.

MONOGYNIA.

| Systematic Name and Authority.                    | English Name.     | Habit. | Habitation in the Garden. | Popular Character. | Height in Feet. | Time of Flowering. | Colour of the Flower. | Native Country.           | Year of Introduction of Exotics, and Localities of British Species. | Reference to Figures.            |
|---|-------------------|--------|---------------------------|--------------------|-----------------|--------------------|-----------------------|---------------------------|---|----------------------------------|
| 16713 1. CA'NNA.<br>5a discolor Lindl.            | various-cld.-lvd  | ☑      | ☒                         | or                 | 10 n            |                    | S                     | Sp. 20—38.<br>Trinidad    | 1827. R r.m   | Bot. reg. 1231                   |
| 16714 15a Reev'sii Lindl.<br>16 glauca            | Reeve's           | ☑      | ☒                         | or                 | 5 my            |                    | Y                     | China                     | ? 1835. R r.m   | Bot. reg. 2004                   |
| 16715 -<br>γ rubro-lutea Hook.<br>- Achiras Gill. | yel.&red cld.-fld | ☑      | ☒                         | or                 | 4½ au           |                    | Y.R<br>D.R            | Jamaica<br>Mendoza        | ? 1834. D r.m<br>1829. D r.m  | Bot. mag. 3437<br>Bot. reg. 1358 |
| 16716 2. MARA'NTA.<br>24a bicolor Ker             | two-coloured      | ☑      | ☒                         | pr                 | ¾ ap.n          |                    | W                     | Sp. 8—15.<br>Brazil       | 1823. D p.l   | Bot. reg. 786                    |
| 16717 3. CALA'THEA.<br>25a flavescens Lindl.      | flavescent        | ☑      | ☒                         | pr                 | 1½ au           |                    | Y                     | Sp. 3—10.<br>Brazil       | 1822. D s.l   | Bot. reg. 932                    |
| 16718 25b grandifolia Lindl.                      | great-leaved      | ☑      | ☒                         | or                 | 2 year          |                    | Y                     | Rio Jan.                  | 1826. D s.l   | Bot. reg. 1210                   |
| 16719 5. PHRY'NIUM.<br>- coloratum Hook.          | coloured          | ☑      | ☒                         | or                 | 2 ap.my         |                    | O                     | Sp. 3—17.<br>Brazil       | 1828. D s.l   | Bot. mag. 3010                   |
| 16720 6. HEDY'CHIUM.<br>35a carneum Carey         | flesh-cld.-fld    | ☑      | ☒                         | or                 | 4 au            |                    | Pk                    | Sp. 10—22.<br>East Indies | 1823. D l   | Bot. mag. 2637                   |
| 16721 -<br>8. ALP'NIA.<br>- magnifica Baj.        | magnificent       | ☑      | ☒                         | spl                | 10 au           |                    | R                     | Sp. 14.—25.<br>Mauritius  | 1830. D r.l   | Bot. mag. 3192                   |
| 16722 12. KEMPFERIA<br>68a Roscoedna Rosc.        | Roscoe's elegant  | ☑      | ☒                         | or                 | 1 ½ o           |                    | W                     | Sp. 8.—9.<br>East Indies  | 1827. R s.l   | Bot. reg. 1212                   |
| 16723 -<br>- elegans Wal.                         | elegant           | ☑      | ☒                         | or                 | 1 ...           |                    | P                     | Pegu                      | 1828. D s.l   | Wal. pl. as ra. 27               |



History, Use, Propagation, Culture,

16721. *Alpntia magnifica*. Sir W. J. Hooker says of this species, that he contents himself "with laying before the

CLASS II. — DIANDRIA.

MONOGYNIA.

|  |                |   |   |    |         |  |       |                      |               |                |
|--|----------------|---|---|----|---------|--|-------|----------------------|---------------|----------------|
| 16724 31. MAYTENUS.<br>134a chilensis Dec.                           | Chilian        | ☑ | ☒ | or | 8 my    |  | G.Y   | Sp. 2—2.<br>Chile    | 1829. C p.s.l | Bot. reg. 1702 |
| 16725 36. LIGU'STRUM.<br>159a spicatum D. Don                        | spike-flowered | ☑ | ☒ | or | 8 jn.jl |  | W     | Sp. 3—3.<br>Nepal    | 1823. C p.l   | Bot. mag. 2921 |
| 16726 37. SYR'INGA.<br>160a Josikae Jac.                             | Josika's       | ☑ | ☒ | or | 8 my.jn |  | Dp.Li | Sp. 4—4.<br>Germany  | 1833. Sk co   | Bot. mag. 3278 |
| 16727 39. JASMINUM.<br>179a pubigerum D. Don.<br>Wallichianum Lindl. | down-bearing   | ☑ | ☒ | or | 10 mr.o |  | Y     | Sp. 19—35.<br>Nepal  | 1827. C. l    | Bot. reg. 1409 |
| 16728 44. SCHIZA'NTHUS.<br>272 pinnatus<br>β humilis Lindl.          | dwarf          | ○ | ☒ | or | 1 jn.o  |  | Li.C  | Sp. 5—5.<br>Valpar.  | 1831. S l.t   | Bot. reg. 1562 |
| 16729 272a Hookeri D. Don  | Hooker's       | ○ | ☒ | or | 2 jn.o  |  | Ro.Li | Chile                | 1828. S s.l   | Bot. mag. 8070 |
| 16730 273a Grahami Hook.   | Graham's       | ○ | ☒ | or | 2 jn.o  |  | Va    | Chile                | ... S l.t     | Bot. mag. 3044 |
| 16730 273b retusum Hook.   | retuse-petaled | ○ | ☒ | or | 2 jn.o  |  | Va    | Chile                | ... S l.t     | Bot. mag. 3045 |
| 16731 47. JUSTY'CIA.<br>279a ventricosa Wal.                         | ventricose     | ☑ | ☒ | or | 3 jn.jl |  | W.R   | Sp. 35.—45.<br>China | 1826. C p.l.  | Bot. mag. 2766 |
| 16732 296a speciosa Rox.   | showy          | ☑ | ☒ | or | 4 au.n  |  | P     | East Indies          | 1826. C p.l.  | Bot. mag. 2722 |

## CLASS I. — MONANDRIA.

## MONOGYNIA.

## Essential specific Character.

- 16713 Lvs. discol. Inf. petals emargin. Flws. didymous peduncul. Brac. cuneate convol. Inner limb of cor. trifid  
 16714 Probably not distinct from *C. flaccida*. The lvs. are shorter, less glauc. Inner pet. distinctly cuspid. and unequal  
 16715 Lvs. oblong-ovate abrupt acumin. Flws. mostly in pairs on short pedun. Brac. broad-ellip. concave rounded  
 16716 Stemless, Lvs. elliptic blotched above, beneath purplish  
 16717 Leaves oblong costately veined glaucous beneath, Heads sessile many-flowered  
 16718 Leaves distich. spread. horizont. oblong apicul. lucid little undul. short. th. petioles, Heads termin. obl. Brac. obtuse undul. loose short. th. flws.  
 16719 Leaves oblong-lanceolate acuminate, Scape erect rigid terete  
 16720 Leaves acuminate 2-in. broad, Bracteas ciliated 1-flowered  
 16721 Leaves few oblong-acute, Spike capitata, Bracteas of a fine deep rose-red colour margined with a white line

- 16722 Stemless, Lvs. suborbicul. acute varieg. above, Flws. few radic. fascic. erect sess. Outer limb shorter, Inner  
 16723 Lvs. oblong dimidiato-cordate petiolate, Spike termin. Outer bract or spathe elegantly nerved transv. striped  
 16725  
 16727  
 16728



and Miscellaneous Particulars.

public a figure and description, however imperfect, of one of the noblest plants that has graced the pages of the *Bot. Mag.*"

## CLASS II. — DIANDRIA.

## MONOGYNIA.

- 16724 Leaves elliptic-oblong tapering to base taper-pointed with serrated edges  
 16725 Lvs. oblong approach. ovate coriac. glossy waved acumin. Panic. term. Cal. with 4 minute imbric. bract. at  
 16726 Lvs. ellipt.-lanceol. attenuated both extrem. white and veined below wrinkled, Branches very slightly wart.  
 16727 Lvs. altern. pinnate, Leaf. 7 ovato-lanceo. or oblong acumin. Pedun. elongate. 1-fwd. Segm. of cor. 5-6  
 16728 Pedic. erect, Tube of cor. much longer than cal. Lower lip middle segm. bicornute lateral linear, Upper lip  
 16729 Tube of cor. equal in length to cal. Lat. segm. equal in length to the middle which is bifid, Upper lip ov.-acum.  
 16730 Lateral segm. of lower lip shorter than middle one which is sagittate, Upper segm. rhomboid-oblong retuse  
 16731 Spikes terminal, Bract. rounded convex entire veined, Tube of cor. a little swollen upwards  
 16732 Pedun. axill. & term. often prolif. sometimes wanting, Bract. constituting dbl. invol. Tube of cor. very long curved remark. twisted

|       |   |  |                      |          |                   |                        |  |
|-------|---|--|----------------------|----------|-------------------|------------------------|--|
| 16733 | 301a nodosa Hook.   | knotty-stmd  | ■ □ or 2 s           | R        | Brazil            | 1820. C p.l            | Bot. mag. 2914                                   |
| 16734 | 305a flavicoma R. R.  | yellow-tufted                                      | ■ □ or 2 jls         | Y        | Brazil            | 1825. C p.l            | Bot. reg. 1027                                   |
| 16735 | - carnea Lindl.   | flesh-coloured                                     | ■ □ spl 6 aus        | F        | Rio Jan.          | 1827. C l.p            | Bot. reg. 1397                                   |
| 16736 | - guttata Wal.  | spotted  | ■ □ or 1 1/2 ap.au   | Y.spot   | East Indies       | 1828. D l.p            | Bot. reg. 1334                                   |
| 16737 | - venusta Wal.  | beautiful  | ■ □ or 5 s           | P        | Bengal            | ... C l.p              | Bot. reg. 1380                                   |
| 2500. | 47a. BELOPE'RONE Nees.  | (Belos, arrow, peronc, strap; connectivum.)        |                      |          |                   |                        | Acanthaceae. Sp. 1-1.                            |
| 16738 | - oblongata Nees.   | oblong-leaved                                      | ■ □ or 3 §           | Ro.P     | Brazil            | 1832. C p.l            | Bot. reg. 1657                                   |
| 16739 | 49. ERA'NTHEMUM. ever-blowing   |  | ■ □ or 1 1/2 all sea | Li       | Brazil            | Sp. 4-11. ?1829. C p.l | Bot. reg. 1494                                   |
|       | 51. CALCEOLARIA. integrifolia   |  |                      |          |                   | Sp. 26.-32.            |  |
|       | 318 integrifolia  |  |                      |          |                   |                        |  |
|       | β angustifolia Lindl.   | narrow-leaved                                      | ■ □ or 2 au.s        | Y        | Chile             | 1822. C l.p            | Bot. reg. 1083                                   |
| 16740 | 318a viscosissima Lindl.  | clammiest  | ■ □ or 3 my.o        | Go.Y     | Chile             | 1832. C p.l            | Bot. reg. 1611                                   |
|       | integrifolia γ viscosissima Hook. in Bot. Mag. 3214;                  |  |                      |          |                   |                        | rugosa macrophylla Hort.; rugosa latifolia Herb. |
| 16741 | 318b sessilis R. & P.   | sessile-leaved                                     | ■ □ or 1 1/2 s       | Y        | Valparaiso        | 1832. C s.p            | Bot. reg. 1623                                   |
| 16742 | 318c ascendens R. R.  | ascending  | ■ □ or 1 jls         | Y        | Cordiller.        | 1826. C l.p            | Bot. reg. 1215                                   |
| 16743 | 319a Youngii Penny  | Young's  | ■ □ spl 2 my.o       | Och.D    | Eng. hb.          | 1830. D r.m            | Bot. reg. 1448                                   |
|       | 319b pallidior Penny  | paler-ld.  | ■ □ spl 2 my.o       | Y        | bright-brown-fld. | 3 atra Penny, dark-ld. |  |
| 16744 | 319b Wheeleri Swt.  | Wheeler's  | ■ □ or 1 my.o        | P        | Eng. hb.          | 1831. D p.l            | Sw.f.gar. 2.s.130                                |
| 16745 | 319c Martineauæ Swt.  | Martineau's  | ■ □ or 1 ap.au       | Y.spot   | Hybrid            | 1831. D l.r.m.         | Sw.f.g. 2.s.162                                  |
| 16746 | 319d purpurea Grah.   | purple-flowered                                    | ■ □ or 1 jls         | P        | Chile             | 1827. D l.p            | Bot. mag. 2775                                   |
|       | β elegans D. Don  | elegant  | ■ □ or 1 jls.        | Pa.P     | Chile             | 1832. C l.p            | Sw.f.gar. 2.s.199                                |
|       | γ picta D. Don  | painted-cor.                                       | ■ □ or 1 su          | W.P      | Eng. gard.        | 1827. D l.r.           | Sw.f.gar. 2.s.244                                |
| 16747 | - thyrseiflora Grah.  | thyrese-flowered                                   | ■ □ or 1 1/2 ju.s    | Y        | Chile             | 1832. C p.l            | Bot. mag. 2915                                   |
| 16748 | - polifolia Hook.   | poly-leaved  | ■ □ cu 1 jl          | Y        | Chile             | 1826. D l.p            | Bot. mag. 2897                                   |
| 16749 | - connata Hook.   | connate-leaved                                     | ■ □ or 3 jl.au       | Y        | Chile             | 1824. D l.p            | Bot. mag. 2876                                   |
|       | floribunda Lindl., Bot. reg. 1214; paniculata Herb.                   |  |                      |          |                   |                        |  |
| 16750 | - arachnoidea Grah.   | cobweb-like  | ■ □ or 1 jn.s        | P.       | Chile             | 1827. D l.p            | Bot. mag. 2874                                   |
|       | tinctoria Gill.   |  |                      |          |                   |                        |  |
|       | β alba Hort.  | white-flowered                                     | ■ □ or 1 jn.s        | W        | .....             | ... D l.p              |  |
|       | γ refugens D. Don   | refugent-cor.                                      | ■ □ or 1 jn.s.       | Bt.Ru.R  | Eng. hb.          | ?1833. D r.lc          | Sw.f.gar. 2.s.227                                |
| 16751 | 321a plantaginea Sm.  | Plantain-ld  | ■ □ or 1 au          | Y        | Chile             | 1827. C l.p            | Bot. mag. 2805                                   |
| 16752 | - bicolor Grah.   | two-colored  | ■ □ or 2 au.s        | Y.Wsh.   | Peru              | 1829. C lt             | Bot. reg. 1374                                   |
| 16753 | - angustiflora R. & P.  | narrow-ld  | ■ □ or 1 1/2 ju      | Y        | Peru              | ?1830. C p             | Bot. mag. 3034                                   |
| 16754 | - Herbertiana Lindl.  | Herbert's  | ■ □ or 2 my.o        | Y        | Chile             | 1828. S p              | Bot. reg. 1313                                   |
|       | β parviflora Lindl.   | small-flowered                                     | ■ □ or 2 ny          | Y        | Valparaiso        | 1832. C p.s.l.         | Bot. reg. 1579                                   |
| 16755 | - chilensis Lindl.  | Chiloe   | ■ □ or 2 au          | Y        | Chiloe            | 1830. C r.m            | Bot. reg. 1476                                   |
| 16756 | - crenatiflora Cav  | notched-tipped                                     | ■ □ or 1 1/2 jn.s    | Y.spot   | Chiloe            | 1831. S p.s.l.         | Bot. mag. 3255                                   |
|       | β knyersiensis D. Don   | Knypersley   | ■ □ or 3 jn.s        | Y.o.B    | Eng. hb.          | ?1834. D l.f.m.s.      | Sw.f.g. 2.s.262                                  |
| 16757 | Atkinsiana D. Don   | Atkins's   | ■ □ or 1 1/2 ju.o    | Y.R      | Eng. hb.          | 1830. D p              | Sw.f.gar. 2.s.168                                |
| 16758 | - mirabilis K & W.  | admirable  | ■ □ spl 2 ...        | P.       | Eng. hb.          | 1834. D r.m            | F1. cab. n. 17                                   |
|       | 60. MONARDA. 355 fistulosa  |  |                      |          |                   | Sp. 15-19.             |  |
|       | β fl. maculato Hook.  | spotted-tipped                                     | ■ □ or 3 su          | P.R.spot | N. Orleans        | 1832. D co             | Bot. mag. 3310                                   |
| 16759 | 364a Russelliana Sims   | Russell's  | ■ □ or 2 1/2 s       | W        | N. Amer.          | 1823. R p.l            | Bot. mag. 2513                                   |
| 16760 | 367a aristata Nut.  | awned  | ■ □ pr 2 jl.au       | Pa.Ro    | N. Amer.          | 1836. R v.l            | Bot. mag. 3526                                   |
|       | 62. SALVIA. 384a strictiflora Hook.                                   | erect-flowered                                     | ■ □ or 3 d           | Br.R     | Peru              | 1831. C lt             | Bot. mag. 3135                                   |
| 16762 | 387a involucreta Cav.   | involucrate  | ■ □ or 6 jl.au       | R        | Mexico            | 1825. C s.l            | Bot. mag. 2872                                   |
| 16763 | 387b Grahamii Benth.  | Graham's   | ■ □ or 4 jl.o        | R        | Mexico            | 1829. C s.l            | Bot. reg. 1370                                   |
| 16764 | 407a fulgens Cav.   | fulgent  | ■ □ spl 5 my.o       | S        | Mexico            | 1829. C s.l            | Bot. reg. 1356                                   |
|       | cardinalis H. B. et K., splendens var. nodva G. M. 5. p. 577. f. 116. |  |                      |          |                   |                        |  |
| 16765 | 407b dolichostachya Lag.  | long-spiked  | ■ □ or 6 au.o        | S        | Mexico            | ?1820.                 |  |
| 16766 | 408a canescens Mey.   | hoary  | ■ □ or 2 jn.au       | P        | Caucasus          | ... C co               | Bot. reg. n. s. 36                               |
| 16767 | 438a Simsiانا B. R.   | Sims's   | ■ □ or 3 jn.jl       | Pa.B     | Russia            | 1820. D p.l            | Bot. reg. 1008                                   |
|       | bracteata Bot. Mag., 2320.  |  |                      |          |                   |                        |  |
| 16768 | - foliosa Benth.  | leafy  | ○ □ or 1 1/2 all sea | B        | Mexico            | 1827. S co             | Bot. reg. 1429                                   |
| 2501. | 64a. STREPTOCAR'PUS Lindl.  | STREPTOCARPUS. (Streptos, twisted, karpos, fruit.) |                      |          |                   |                        | Bigoniaceae. Sp. 1-1.                            |
| 16769 | - Réxii Lindl.  | Rex's  | ■ □ pr 1 year        | B        | C. G. H.          | ... S p.l              | Bot. reg. 1173                                   |
|       | Didymocarpus Réxii Bot. Mag.  |  |                      |          |                   |                        |  |

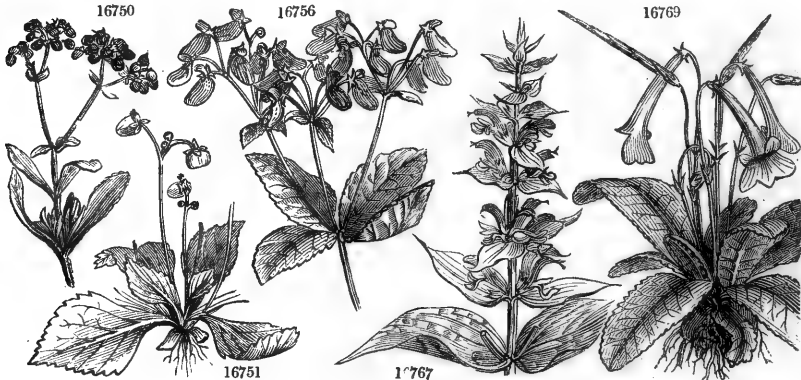


History, Use, Propagation, Culture,

51. *Calceolaria*. The varieties and hybrids of this genus, which have been raised in different parts of the country, are almost innumerable, and some of them are of very great beauty. They are all of the easiest culture, and require very little heat. Most of them continue flowering several weeks, and some of them the greater part of the summer.

- 16733 Bran. swoll. at joints, Lvs ovate.-acum. obsc. serr. Flws. in short axil. 2-3-fwd. racem. erect, Bract. 4-5 base each fl. lin.-fil. [Brac. and cal. segms. subul. short. th. cor.]
- 16734 Stem joints short tumid in middle, Lvs. obl.-lan. very acumin. wavy minutely downy, Panic. termin. crowded
- 16735 Lvs. on long pet. ovate-atten. at base sharply acumin. retic. Bract. numer. outer ovate-lanceol. inner lia. Cor. very long. Up lip erect ent. low. revol. 3-toothed.
- 16736 Lvs. obl. atten. both extrem. acute subcrenul. Racemes term. Flws. fascic. Cal. & brac. lin. thd., Cor. sptd.
- 16737 Lvs. ovate acumin. crenat. Panic. large termin. Flws. remotely fascicul. subsess. disposed in slender elongated racemes
- 16738 Spikes axill. Brac. bracteol. and leaves lanceolate, Anthers calcarate at base
- 16739 Lvs. subsess. obl.-lan. acumin. very entire, Brac. small, Cal. segms. obt. Tube bent, Spike termin. subsimp.
- 16740 Lvs. larger & broader than those of *C. integrifolia*. The whole plant clothed with viscid pubescence
- 16741 Leaves lanceolate-acumin. caescent beneath, Corymbs panicled, Pedicels elongated
- 16742 Leaves ovate petiolate denticulate pubesc. lower ones acute at base, Corymbs umbellate few-flowered
- 16743 A hybrid between *C. corymbosa* and *C. arachnoidea*, with ochraceous and dirty-purple flowers [ovate bluntish
- 16744 Lvs. obl.-ovate blunthsh much veined & rugose, hispidly hairy, Stem erect, very hairy, Segm. of cal. broadly
- 16745 Lvs. rather obtuse atten. at base velvety above beneath clothed with long hairs and small scale-lk. brist. serr. Cal. peltate deeply 4-clcft
- 16746 Stem lvs. cordate decuss. upper ones smaller entire with few long scat. hairs on their surfaces, Calyx downy [bellate
- 16747 Lvs. linear atten. at both ends lined distinct. serr. Teeth reflexed, 2-in. long 2 lines broad, Pedun. comp. um-
- 16748 Whole plant clothed with white wool, Lvs. ovate or oblong, Flws. corymbose, Calyxes 3-nerved
- 16749 Lvs. ovate acute wavy nerved, Lower ones atten. at base and connate, Upper ones nearly cord. sessile, Pan. spreading
- 16750 Herb clothed with white cobwebbed-wool, Lvs. ligulately-oblong little toothed petioles 5-in. long, Peduncles terminal twin
- 16751 Stemless, Lvs. radical ovate rhomboid rosulate serrated nerved, Scapes generally 2-3-fwd. pilose
- 16752 Leaves ovate biserrated, Branches dependent bluntly tetragonal of a rusty purple colour
- 16753 Lvs. ovate-lanceol. sharply serr. pubesc. Pedun. collected into term. panic. generally 4-fwd. shorter than lvs.
- 16754 Stem pilose, Lower lvs. ovate-oblong obtuse petiolate, Upper ones sessile, Lower lip of cor. very large [sess. Infl. cymose many-fd.
- 16755 Stem cal. & bract. beset with glandul. hairs, Stem lvs. oblong-lanceol. undul. thd.: upper ones ent. ov. acum.
- 16756 Radical lvs. many: stem lvs. few: 2 lower ones subpet.: upper ones sess. Pedic. racem. 1-fwd. Caps papery. [fulvous
- 16757 Rad. lvs. obov. rather spatul. obtuse uneq. thd. Stem lvs. ov. pointed alm. ent. Corymbs forked 10-30-fd. Ped.
- 16758 Radical lvs. ovate somewhat obtuse, Corymbs few-flowered [filif. cithd. gland. pubes.
- [Revol. obsol. 3-thd.
- 16759 Lvs. ovate-acumin. rounded at base: lower ones serr.: upper quite ent. Lower lip much wider than upper
- 16760 Lvs. obl.-lanceol. narrowed at base sharply & remotely toothed, Bract. ciliated often purplish or yellowish [gland. & viscid
- 16761 Lvs. ovate-cord. 2-3-in long glabrous obtuse rather wavy, Flws. erect oppos. subsecond, Bract. ovate acute
- 16762 Lvs. cord.-ovate acumin. toothed, Whorls 6-fwd. Bract. decid. very large broadly ovate, nerved red
- 16763 Lvs. oval obtuse rounded or cuneated at base irreg. crenated in middle nearly glabrous, Whorls 2-fwd. Cal.
- 16764 Lvs. cord.-ovate crenated hoary beneath, Bract. decid. Galea villose [usually eld.
- 16765 An undescribed species, introduced by Lagasca.
- 16766 Racemes branched, Flowers fewer & smaller than those of *S. phlomisoides*
- 16767 Lvs. ovate acum. crenate-sinuate: upperm. ent. Fls. in dist. about 6-fwd. whorls each wh. supported by 2 ov.-acum. awned concave streaked bracts
- 16768 Lvs. petiol. broadly ov. acute subcord. at base, Rac. loose verticill. few-fwd. Upper lip of cor. entire toothed: Lower acute

16769 The only species



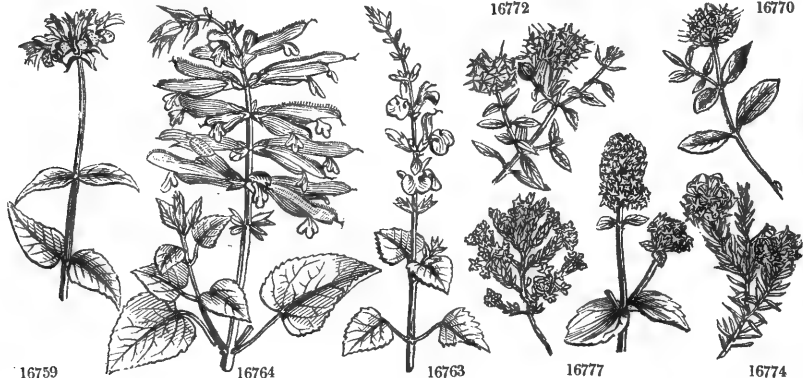
and Miscellaneous Particulars.

2501. *Streptocarpus*. This plant is very readily increased by seed, or by division of the root, and thrives best in a light rich soil. It is a very ornamental stove herbaceous plant, and well deserving of cultivation.

|       |   |                       |           |       |     |                        |             |                |
|-------|---|-----------------------|-----------|-------|-----|------------------------|-------------|----------------|
| 16770 | 73. PIMELE'A<br>491a <i>ligustrina Lab.</i> | Privet-like           | ■ □ or 10 | mr    | W   | Sp. 15—24.<br>V. D. L. | 1823. C s p | Bot. reg. 1827 |
| 16771 | 491b <i>intermedia Lindl.</i>               | intermediate          | ■ □ or 2  | mr    | Wsh | K. G. S.               | 1825. C s p | Bot. reg. 1439 |
| 16772 | 492a <i>hispidia R. Br.</i>                 | hispid-flowered       | ■ □ el    | 2     | jn  | Bh                     | N. Holl.    | 1830. C s p    |
| 16773 | 492b <i>lanata R. Br.</i>                   | woolly                | ■ □ el    | 6     | my  | W                      | V. D. L.    | 1834. C s p    |
| 16774 | 492c <i>longiflora R. Br.</i>               | long-flowered         | ■ □ or 4  | jn    | W   | N. Holl.               | 1831. C s p | Bot. mag. 3281 |
| 16775 | 492d <i>graciliflora Hook.</i>              | slender-calyced       | ■ □ or 3  | my-jn | W   | K. G. S.               | 1830. C l p | Bot. mag. 3288 |
| 16776 | 492e <i>sylvestris R. Br.</i>               | wood                  | ■ □ el    | 2     | jn  | Bh                     | N. Holl.    | 1830. C l p    |
| 16777 | 493a <i>humilis R. Br.</i>                  | humble                | ■ □ or 1  | my-jn | W   | N. Holl.               | 1824. C s p | Bot. reg. 1268 |
| 16778 | 493b <i>nivea Lab.</i>                      | white-herb.           | ■ □ pr    | 6     | ... | W                      | N. Holl.    | 1833. C s p    |
| 16779 | 493c <i>arenaria Cuv.</i>                   | sand-inhabit.         | ■ □ pr    | 1     | jl  | W                      | N. Zeal.    | 1827. C sp     |
| 16780 | - <i>hypericina Cuv.</i>                    | Hypericum- <i>led</i> | ■ □ or 3  | sp    | W   | K. G. S.               | 1830. C p   | Bot. mag. 3330 |

CLASS III. — TRIANDRIA.  
MONOGYNIA.

|       |   |   |        |      |        |                        |            |  |
|-------|---|---|--------|------|--------|------------------------|------------|--|
| 16781 | 80. VALERIANE'LLA.<br>568a <i>congesta Lindl.</i> | crowded-flwd  | ○ or 1 | jn.s | R      | Sp. 12—20.<br>Columbia | 1826 S co  | Bot. reg. 1094   |
| 2502. | 80a. BE'TCKIA Dec.                                | ( <i>M. Betcke</i> , who has described many sp. of <i>Valerianella</i> .) |        |      |        |                        |            |  |
| 16782 | māior Dec.  | larger  | ○ pr   | 1½   | jn. s. | .....                  | 1836. S co | Valerianæe. Sp. 1—2.                                   |
| 16783 | 93. CROC'US.<br>601 vérnus                        |   |        |      |        |                        |            | Sp. 18—27.<br><i>Garden Varieties.</i>                 |
|       | § 1. Purple and Lilac.                            |   |        |      |        |                        |            |  |
| 1     | <i>purpureus Sab.</i>                             | 14  |        |      |        |                        |            | 28 <i>vilcincus præ'cox Sab.</i>                       |
| 2     | <i>purpureus Sab.</i>                             | 15  |        |      |        |                        |            | § 2. Purple-feathered.                                 |
| 3     | <i>marginatus Sab.</i>                            | 16  |        |      |        |                        |            | 29 <i>pictus Sab.</i> Bot. reg. 1440.                  |
| 4     | <i>Sabini Ander.</i> H. tr. 7. 11. 17.            | 17  |        |      |        |                        |            | 30 <i>fucatus Sab.</i> H. tr. 7. 11. 14.               |
| 5     | <i>grândis Sab.</i>                               | 18  |        |      |        |                        |            | § 3. Spotted.  |
| 6     | <i>obovatus Sab.</i>                              | 19  |        |      |        |                        |            | 31 <i>dorsalis Sab.</i>                                |
| 7     | <i>concinus Sab.</i>                              | 20  |        |      |        |                        |            | 32 <i>inguis Sab.</i>                                  |
| 8     | <i>Phæthon Sab.</i>                               | 21  |        |      |        |                        |            | 33 <i>inguis māior Sab.</i>                            |
| 9     | <i>grâcilis J.C.</i>                              | 22  |        |      |        |                        |            | 34 <i>leucorhynchus Sab.</i> Bot. reg. 1416.           |
| 10    | <i>maculosus Sab.</i>                             | 23  |        |      |        |                        |            | § 4. Lilac, striped.                                   |
| 11    | <i>plumosus J.C.</i>                              | 24  |        |      |        |                        |            | 35 <i>puichellus Sab.</i> H. tr. 7. 11. 19.            |
| 12    | <i>turbinatus Sab.</i>                            | 25  |        |      |        |                        |            | 36 <i>lineatus Sab.</i>                                |
| 13    | <i>clavatus Sab.</i>                              | 26  |        |      |        |                        |            | 37 <i>striatus Sab.</i>                                |
|       | 604 <i>versicolor</i>                             |   |        |      |        |                        |            |  |
|       | § 1. Grey, striped.                               |   |        |      |        |                        |            |  |
| 1     | <i>Gawleri Sab.</i>                               | 4   |        |      |        |                        |            | § 3. Lilac, striped.                                   |
| 2     | <i>neglectus Sab.</i>                             | 5   |        |      |        |                        |            | 7 <i>violaceus Sab.</i>                                |
| 3     | <i>similis Sab.</i>                               | 6   |        |      |        |                        |            | 8 <i>Haworthii Sab.</i>                                |
|       | 610 <i>sulphureus</i>                             |   |        |      |        |                        |            | 9 <i>lineatus Sab.</i>                                 |
| 3     | <i>albidus Sab.</i>                               |   |        |      |        |                        |            |  |
| 16783 | 610a <i>lacteus Hav.</i>                          | 4   |        |      |        |                        |            |  |
|       | β   |   |        |      |        |                        |            |  |
| 2503. | 94a. STREPTANTHERA Stut.                          | cream-cld-fl'd  | ∇ △ or | ½    | f. mr  | Pa. Y                  | Moesia     | ? 1620. O co Sw.f.gar. 2.s. 194                        |
| 16784 | <i>elegans Stut.</i>                              | blue-streaked   | ∇ △ or | ½    | f. mr  | Y. B.                  | Moesia     | ... O co Sw.f.gar. 2.s. 194                            |
| 16785 | - <i>cūprea Stut.</i>                             |   |        |      |        |                        |            | ( <i>Streptos</i> , twisted, <i>anthera</i> , anther.) |
|       | 99. SPARA'XIS.                                    |   |        |      |        |                        |            | <i>Irideæ.</i> Sp. 2—2.                                |
| 16786 | 658a <i>versicolor Swt.</i>                       | party-coloured  | ∇ △ or | ½    | s      | P. v                   | C. G. H.   | 1825. R s.1 Sw.f.gar. 160                              |
| 16787 | 661a <i>pendula Ker</i>                           | pendulous   | ∇ △ or | 1    | jn     | D. P                   | C. G. H.   | 1825. O s.1 Bot. reg. 1360                             |
| 16788 | - <i>lineata Swt.</i>                             | red-lined   | ∇ △ or | ½    | sp     | W. Pk                  | C. G. H.   | ... O s.p.1 Sw.f.gar. 2.s. 131                         |
| 16789 | - <i>stellaris D. Don</i>                         | starry-flowered   | ∇ △ or | 1    | my. jl | P                      | C. G. H.   | 1836. O s.p.1 Sw.f.gar. 383                            |



History, Use, Propagation, Culture.

2502. *Betckia*. Plants with the habit of *Valerianella* and requiring the same treatment. The seeds may be sown in May, in the open ground, in a sheltered situation.

93. *Crocus*. The numerous varieties of *C. vérnus* and *C. versicolor* were, a few years ago, all in cultivation in

- 16770 Invol. 4-lvd. Leaf. ovate-oblong. Cor. pubescent, Leaves oblong lanceolate veined [within  
 16771 Invol. 2-4-lvd. shorter than flws. Lvs. small lanceol. acute at each end sess. Segm. of limb oblong obt. smooth  
 16772 Invol. 4-lvd. Leaf. roundish-ovate, Lvs. obl. lanceol. & linear, Head before expand. subglobose apiculated  
 16773 Invol. 4-lvd. Leaf. ovate with membran. margin about equal in length to the head, Cor. hairy, Lvs. lanceolate  
 16774 No distinct invol. Lvs. linear-lanceol. hairy 3-nerved, Flws. in globose heads, Perianth extern. hairy, Tube  
 very long and slender  
 16775 Invol. 6-7-lvd. Lvs. lanceol. acute dotted above, Tube of cor. long slender glabrous slightly dilated upwards  
 16776 Leaves lanceol. acute smooth on both sides, Heads many-flwd. termin. Perianth smooth, Tube infundib.  
 16777 Leaves oblong-obtuse, Floral lvs. oval, Calyx silky, Stem erect simple  
 16778 Leaves subrotund obtuse revolute beneath as well as the calyx clothed with hoary tomentum  
 16779 Lvs. decussate ovate acute nearly sess. horiz. or reflex. slightly downy above densely silky beneath, Per. ext.  
 silky, Tube contracted upw.  
 16780 Invol. 8-lvd. 4 innerm. often smaller, Lvs. distant on very short thick pet. ellipt.-obl. oft. narrower acute very  
 smth. Flws. numer. polygam.

CLASS III. — TRIANDRIA.  
 MONOGYNIA.

- 16781 Radic. leaves obov. or spatul. Stem lvs. broadly ovate sess. subdent. Flor. ones lin. oblong. Flws. mucous, Whorls cymose 2-parted: male flws. largest.  
 16782 Radic. leaves ovate acute, Stem leaves linear-lanceolate

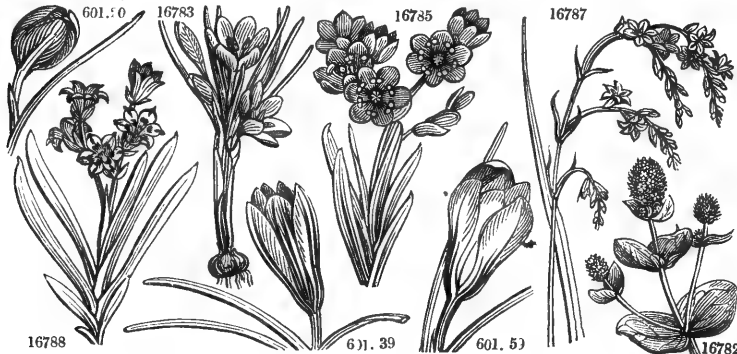
Garden Varieties.

- |                                     |                                     |                                       |
|-------------------------------------|-------------------------------------|---------------------------------------|
| § 5. Grey, striped.                 | 51 griseus Sab.                     | 63 parvulus Sab.                      |
| 38 Glorianella Sab.                 | 52 pectinatus Sab.                  | 64 unilineatus J. C.                  |
| 39 Glorianna Sab. H. tr. 7. 11. 18. | 53 incurvus Sab.                    | 65 trilineatus Sab.                   |
| 40 elegans J. C.                    | 54 lineellus Sab.                   | 66 undulatus J. C.                    |
| 41 speciosus J. C.                  | 55 obesus Sab.                      | 67 obsoletus Sab.                     |
| 42 variegatus Sab.                  | 56 spectabilis J.                   | § 7. White.                           |
| 43 propinquus Sab.                  | 57 obtusus J. C.                    | 68 albus major Sab. H. tr. 7. 11. 11. |
| 44 dentosus Sab.                    | § 6. White, striped                 | 69 albus minor Sab.                   |
| 45 decorus J. C.                    | 58 crassus Sab.                     | § 8. Purple, late flowering.          |
| 46 bicolor Sab.                     | 59 Andersoni Sab. H. tr. 7. 11. 16. | 70 delictus Sab.                      |
| 47 affinis J. C.                    | 60 penicillatus J. C.               | 71 neapolitanus Sab.                  |
| 48 emarginatus J. C.                | 61 stellatus J. C.                  | 72 alpinus Sab.                       |
| 49 tortuosus J. C.                  | 62 albidus J. C.                    | 73 aprilis Sab.                       |
| 50 reticulatus Sab.                 | Garden Varieties.                   | 74 tardiflorus Sab.                   |

- |                      |                       |                                  |
|----------------------|-----------------------|----------------------------------|
| § 4. White, striped. | 14 striatulus J. C.   | 19 pulchellus J. C.              |
| 10 vittatus J. C.    | 15 Morison Sab.       | 20 propinquus Sab.               |
| 11 floribundus Sab.  | 16 inconspicuus Sab.  | 21 affinis Sab.                  |
| 12 pectinatus Sab.   | 17 stellatus Sab.     | 22 urbanus Sab. H. tr. 7. 11. 9. |
| 13 spectabilis J. C. | 18 penicillatus J. C. | 23 pallidus J. C.                |

16783 Flowers unibracteate, Filaments incurvedly spreading puberulous geniculated above.

- 16784 Leaves ensif. bluntnish cut in the middle, Scape 1-2-flwd. Segments of perianth ovate bimaculate in the middle  
 16785 Lvs. ensif. acute mucron. striated, Scape smth. 2-4-flwd. Per. 6-parted, Segm. of limb closely imbric. ovate blunt keeled [of the perianth  
 16786 Stem leafy erect branched, Leaves nerved mucronate, Spike 3-4-flwd. Spathe awned 3 times as long as the tube  
 16787 Spathe marked with linear spots, Segm. of limb oblong, Scape many-spiked, Spikes pendulous  
 16788 Scape cylindric. smooth 2-4-flwd. Spathe 2-valved, Valves ov. lacer. membr. veined, Segm. 6 erect acute keeled  
 16789 Scape few-flowered longer than the leaves, Leaves acute, Perianth funnel-shaped, Tube filiform, Segments lanceolate acute, Branches of style elongated

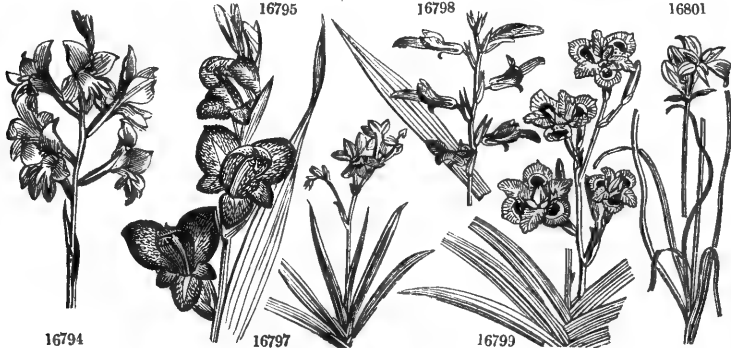


and Miscellaneous Particulars.

the Horticultural Society's garden; and they are described at length in the Society's Transactions, where, also, many of the sorts are beautifully figured.



|   |                          |  |         |                  |   |
|---|--------------------------|--|---------|------------------|---|
| 105. GLADIOLUS.   |                          |  |         | Sp. 35-40.       |   |
| 16790   | 715a hyalinus Jac.       | glassy   | ♂ Δ or  | 1 my.jn          | Y.r. C.G.H. 1895. O s.p.l Jac. ic. 2. 292     |
| 16791   | 715b tenellus Jac.       | tender   | ♂ Δ or  | ¾ my.jn          | V.a.y. C.G.H. 1825. O s.p.l Jac. ic. 2.248    |
| 16792   | 715c Colvillii Swt.      | Colvill's  | ♂ Δ pr  | 1 ju.jl          | S.v hybrid 1824. O l.s Sw.f.gar. 155          |
| 16793   | 717a cochleatus Swt.     | spoon-tipped   | ♂ Δ or  | 1 ¼ mr           | W.r. C.G.H. 1829. O s.p.l Sw.f.gar. 2.s. 140  |
| 16794   | 721a pudibundus Swt.     | blush-flowered   | ♂ Δ or  | 3 ...            | Bh Eng. hyb ... O r.l Sw.f.gar. 2.s. 176      |
| 16795   | 728a natalensis Reinw.   | Natal  | ♂ Δ spl | 4 au             | S.y Natal riv. 1830. O p.l Sw.f.gar. 2.s. 281 |
| psittacinus Hook. in Bot. Mag. 3032., and Lindl. in Bot. Reg. 1442. |                          |  |         |                  |   |
| 16796   | - Mortbnius Herb. ms.    | Morton's   | ♂ Δ or  | 1 ¼ ...          | ... S. Africa 1837. O s.p Bot. mag. 3680      |
| 106. ANOMATHECA.  |                          |  |         | Sp. 2-2.         |   |
| 16797   | 732a cruenta Lindl.      | bloody   | ♂ Δ or  | 1 my.s           | Bd C.G.H. 1830. O s.p.l Bot. reg. 1369        |
| 2504.   | 107a. ANISANTHUS Swt.    | ANISANTHUS. (Anisos, unequal, anthos, a flower.)                                     |         | Iridæe. Sp. 3-3. |   |
| 16798   | splendens Swt.           | splendid   | ♂ Δ spl | 1 ¼ my.jn        | S C.G.H. 1825. O s.p.l Sw.f.gar. 84           |
| Nos. 704. & 706. in p. 42. are also referable to this genus.        |                          |  |         |                  |   |
| 2505.   | 114a. DIETES Sal.        | DIETES. (Dis, twice, etes, an associate; related to Tris & Moræ'a.) Iridæe. Sp. 3-3. |         |                  |   |
| 16799   | - bicolor Swt.           | two-coloured   | ♂ Δ or  | 2 jl.o           | Y.B ..... D l.p Bot. reg. 1404                |
| 16800   | - catenulata Swt.        | chain-dotted   | ♂ Δ or  | 1 ¼ ap.au        | W.B Madagas. 1826. D l.p Bot. reg. 1074       |
| Moræ'a irididæe in p. 46. is also referable to this genus.          |                          |  |         |                  |   |
| 2506.   | 114b. LEUCOCORYNE Lindl. | Leukos, white, koryne, a club; sterile anthers.) Asphodèleæ. Sp. 3-3.                |         |                  |   |
| 16801   | - odorata Lindl.         | sweet-scented  | ♂ Δ or  | 1 au             | W Valparaiso 1826. O p.l Bot. reg. 1293       |
| No. 752. in p. 44. is also referable to this genus.                 |                          |  |         |                  |   |
| 2507.   | 114c. TRITELEIA Lindl.   | (Tris, three, telios, complete; ternary arrangement.) Asphodèleæ. Sp. 3-3.           |         |                  |   |
| 16802   | - grandiflora Lindl.     | great-flowered   | ♂ Δ or  | 2 jl.au          | ? W N.America 1826. O p.l                     |
| 16803   | - laxa Benth.            | loose-umbelled   | ♂ Δ or  | 1 ¼ ju.jl        | Dp.B California 1832. O p.l Bot. reg. 1685    |
| 16804   | - uniflora Lindl.        | one-flowered   | ♂ Δ el. | 1 ju             | B B. Ayres 1836. O p.l Bot. reg. 1921         |
| 115. IRIS.  |                          |  |         | Sp. 68-105       |   |
| 16805   | 75ba Humei G. Don        | Sir Ab. Hume's   | ♂ Δ or  | 2 ap.my          | B Nepal 1822. D co Bot. reg. 818.             |
| nepalensis B. R. not of D. Don.                                     |                          |  |         |                  |   |
| 762 variegata   |                          |  |         |                  |   |
| β De Berg H. Bel.   |                          | De Berg's  | ♂ Δ or  | 3 my.jn          | Y.br. Belgian hyb. D co                       |
| γ Van De Will H. Bel.   |                          | Van De Will's  | ♂ Δ or  | 3 ju.jl          | Y.br. Belgian hyb. D co                       |
| 16806   | 793a longispatha Fis.    | long-spathed   | ♂ Δ or  | 3 jl             | P Siberia 1823. R co Bot. mag. 2528           |
| 16807   | 798a longifolia Swt.     | long-leaved  | ♂ Δ or  | ¾ ap             | P.Gsh Naples 1829. D lt Sw.f.gar. 2.s. 146    |
| 16808   | 805a ténax Don.          | tough  | ♂ Δ or  | 1 ap.my          | P California 1826. D p.l Bot. reg. 1218       |
| 16809   | - Hookeri Penny          | Hooker's   | ♂ Δ or  | 1 ¼ my.jn        | P N. Amer. 1826. D co Bot. mag. 2886          |
| 2508.   | 117a. SISYRINCHIUM L.    | SISYRINCHIUM. (Sys, pig or hog, rhynchos, snout.) Iridæe. Sp. 15-26.                 |         |                  |   |
| 16810   | - chilense Hook.         | Chilean  | ♂ Δ or  | 1 ju.au          | B Chile 1826. D p.l Bot. mag. 2786            |
| 16811   | - graminifolium Lindl.   | Grass-leaved   | ♂ Δ or  | ¾ ap.my          | Y Chile 1825. D s.p Bot. reg. 1067            |
| β pumilum Lindl.  |                          | dwarf  | ♂ Δ or  | ¾ o              | Y Chile ... D s.p Bot. reg. 1915              |
| 16812   | - pedunculatum Gill.     | stalked-stud   | ♂ Δ or  | 1 s.o            | Y Chile 1827. D s.p Bot. mag. 2965            |
| 16813   | - odoratissimum L.       | sweetest-scentd  | ♂ Δ or  | 1 ju             | W S.America 1828. D s.p Bot. reg. 1283        |
| 16814   | - maculatum Hook.        | spot-petaled   | ♂ Δ or  | 1 my             | Y.spt Chile 1831. D l.p Bot. mag. 3197        |
| 16815   | - speciosum Hook.        | showy  | ♂ Δ or  | 1 ju             | B Chile 1836. D co Bot. mag. 3544             |
| 16816   | - grandiflorum Don.      | large-flowered   | ♂ Δ or  | ¾ my.jn          | D.p. N.America 1826. D p Bot. reg. 1364       |
| Nos. 833. to 840. in p. 48., are now referred to this genus.        |                          |  |         |                  |   |
| 2509.   | 117b. RENEALMIA R. Br.   | (P. & M. L. Rencaime, the first a Fr. phys., the other a bot.) Iridæe. Sp. 1-3.      |         |                  |   |
| 16817   | - grandiflora R. Br.     | large-flowered   | ♂ Δ or  | 1 ¼ ap           | W N.Zealand 1822. R p.l Sw. f. gar. 64        |



16794

16797

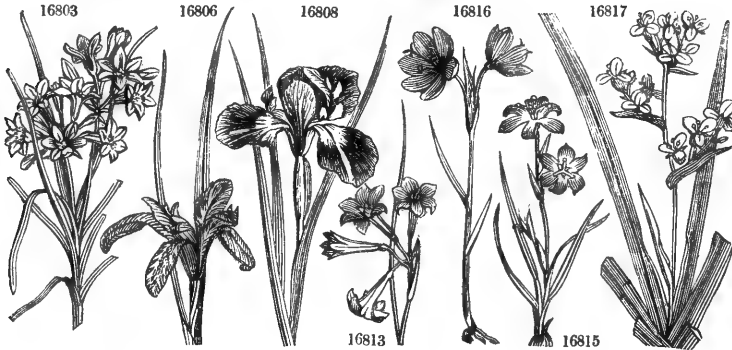
16799

History, Use, Propagation, Culture.

105. *Gladiolus*. Some valuable additions have been lately made to this beautiful genus, of which the most splendid is unquestionably *G. natalensis*, which is also very hardy, and of as easy propagation and culture as the *G. communis*.

- 16790 Lvs. 3-nerved, Scape few-flwd. Segments of cor. ringent even somewhat transparent  
 16791 Lvs. very narrow, Scape 2-flwd. Tube equal to the spathe, Segments lanceolate obtuse  
 16792 Lvs. linear ensif. ribbed slightly glaucous, Tube scarcely equal to the spathe [hollow  
 16793 Lvs. narrowly linear elong. straight rigid promin. 2-nerved, Lower segm. of fl. obovately ovate spoon-shaped  
 16794 Lvs. broadly ensif. acumin. ribbed, Spike distich. about 10-flwd. Tube shorter than outer spathe, Segm. ovate-oblong recurved and wavy  
 16795 Leaves ensif. bicostate obscured nerved, Spikes term. 10-12-flwd. Sheath dbl. convolute, Tube  $\frac{1}{4}$  length of fl. campan. spreading  
 16796 Lvs. 8-9 green nerved acute twisted
- 16797 Nearly allied to *A. Juncæa*, but differs in having longer tube to flower, greater irregularity of limb and form of spots at base of 3 anterior segments
- 16798 Scape simple erect, Lvs. ensif. linear acute smooth nerved, Flowers distichous
- 16799 Lvs. equal linear ensif. Scape round branch at top  
 16800 Lvs. distichous ensif. spirally twisted, Scape branched compressed leafy many-flowered
- 16801 Lvs. linear glaucous, Limb lacinate lanceolate, Stamens sterile subulate obtuse
- 16802 Lvs. ovate-lanceolate, Limb linear-lanceolate  
 16803 Lvs. linear glaucous, Scape longer, Involucrum with pedicels twice as snort, Umbel many-flwd.  
 16804 Lvs. linear, Involucrum sheathed: at top bifid, Peduncle filiform shorter
- 16805 Crested, Scape 2-flowered, Leaves falcate shorter, Spathe 2-leaved
- 16806 Scape nearly round ltl. flatt. twist. about 3-flwd. Spathe 3-bracts: outer nearly 1 ft. long very narr. atten. Germ. [12 furrows and 12 obtuse angles  
 16807 Sheath radical long surrounding the leaves, Lvs. very long thick quadrangular striated very glaucous  
 16808 Lvs. in tufts rigid erect linear-ensif. tough, Stem angul. leafy, Ovar. on long stalks not enclosed in flor. leaves somewh. 3-cornered, Stigm. 2-lbd. short  
 16809 Stem 3-4-flwd. Lvs. linear-ensif. striat. acumin. slightly falcate, Peduncle shorter than foliaceous spathe
- 16810 Lvs. linear-ensif. striat. Peduncs. 4-5 in. long, Pedic.  $1\frac{1}{4}$  in. long also very slender, [mucron. Caps. pear-sh. pubes.  
 16811 Foliage minutely hairy, Scape erect longer than lvs. somet. divided bearing mostly 3 fascicles of flws. Flws. with little heart-sh. spot at base  
 16812 Pedun. solit. or 2-4, Spathe diplyl. Bract. scariose convolute, Col. of fl. long densely covered with longish gland. yellow hairs [sever. very frag. nodding  
 16813 Lvs. very narrow glauc. subul. at apex, Spath. consist. of bract. membran. at margin lowerm. sharpest, Flws.  
 16814 Stem remarkably compressed, Spathe lanceol. condupl. green with broad white membr. margin. Germ. glandr.  
 16815 Bulb ovate, Lvs. mostly radic. dply. striat. sheathing, Spathe 2 unequal lvs. about 2-flwd. Pedun. 1-in. long curved, Ov. oblong glabrous  
 16816 Stem terete simple, Lvs. lanceol. veined, Spathe gener. 3-flwd. Segm. of cor. spatulate, Root bulbous

16817 Lvs. oval-oblong pointed smooth on both sides, Flowers in long racemes



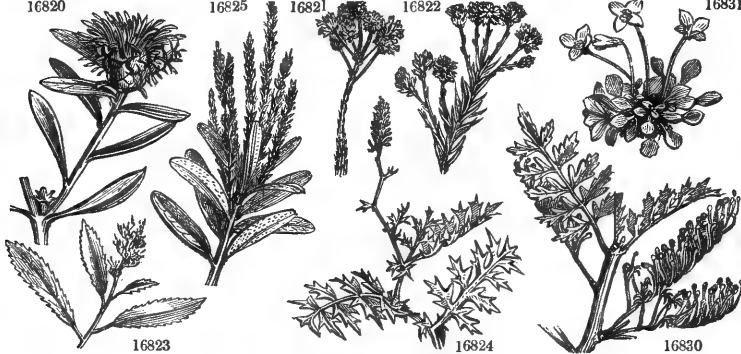
and Miscellaneous Particulars.

16815. *Sisyrinchium speciosum* is a lovely species, found about Valparaiso, on sandy hills; to be brought to perfection, it requires to be planted in dry light soil, and placed in a warm sunny situation in the green-house.

CLASS IV. — TETRANDRIA.

MONOGYNIA.

|  |  |                 |           |            |  |
|--|--|-----------------|-----------|------------|--|
| 230. ISOPOGON.   |  |                 |           | Sp. 8—14.  |  |
| 16818  | 1312a longifolius R. Br.                               | long-leaved     | ■ □ or 3  | jn.jl      | Y N. Holland 1823. C p.l Bot. reg. 900           |
| 16819  | - Baxteri R. Br.                                       | Baxter's        | ■ □ or 2  | mr.ap      | Ho N. Holland 1831. S s.p Bot. mag. 3539         |
| 16820  | - Loudoni R. Br.                                       | Loudon's        | ■ □ or 4  | sp         | P K.G.S. 1830. S s.p Bot. mag. 3421              |
|  | β linearis R. Br.                                      | linear          | ■ □ or 2  | sp         | Pa.P K.G.S. 1830. C s.p Bot. mag. 3450           |
| 2510. 237a. CONOSPERMUM R. Br. CONOSPERMUM (Koros, a cone, sperma, a seed.) Proteaceæ.         |  |                 |           | Sp. 2—9.   |  |
| 16821  | - cricifolium R. Br.                                   | Heath-leaved    | ■ □ or 3  | jn.au      | W N. Holland 1820 C s.p Lin. tr. 10. 17. 1       |
| 16822  | - taxifolium Sm.                                       | Yew-leaved      | ■ □ or 3  | jn.au      | W N. Holland 1824 C s.p Bot. mag. 2724           |
| 2511. 237b. BOTRYCERAS W. BOTRYCERAS. (Botrys, a raceme, keras, a horn.) Proteaceæ.            |  |                 |           | Sp. 1—1.   |  |
| 16823  | - laurinum W.  | Laurel-like     | ■ □ or 4  | ...        | ... N. Holland 1823. C p.s W.b.m. 10.10.1811.    |
| 2512. 238a. ANADENIA R. Br. (A, without aden, a gland; nectariferous wanting.) Proteaceæ.      |  |                 |           | Sp. 1—1.   |  |
| 16824  | - pulchella R. Br.                                     | neat            | ■ □ or 2  | ...        | ... Y N. Holland 1824. C p.l                     |
| 2513. 238b. AGASTACHYS R. Br. (Agastos, admirable, stachys, a spike.) Proteaceæ                |  |                 |           | Sp. 1—1.   |  |
| 16825  | - odorata R. Br.                                       | sweet-scented   | ■ □ or 3  | ap.s       | Pa.Y N. Holland 1826. C s.p                      |
| 239. GREVILLEA.  |  |                 |           | Sp. 18—40. |  |
| 16826  | 1409a concinna R. Br.                                  | neat            | ■ □ or 4  | ap.s       | P N. S.W. 1824 C s.p                             |
|  | 1411 linearis  |                 |           |            |  |
|  | β incarnata B. M.                                      | flesh-coloured  | ■ □ or 4  | ap.s       | F N. Holland ... C s.p Bot. mag. 2661            |
|  | γ alba Lod.  | white-flowered  | ■ □ or 4  | ap.s       | W N. Holland ... C s.p Bot. cab. 1003            |
| 16827  | 1416a pubescens Hook.                                  | pubescent       | ■ □ or 4  | ap.s       | R N. Holland 1822. C s.p Hook. ex. fl. 216       |
| 16828  | 1416b canescens R. Br.                                 | hoary-leaved    | ■ □ or 5  | ...        | ... G. taw P. Jackson 1824. C s.p Bot. mag. 3185 |
| 16829  | 1420a Caleyi R. Br.                                    | Caley's         | ■ □ or 5  | jn.s       | R P. Jackson 1829. C l.p Bot. mag. 3133          |
| 16830  | 1420b robusta Ctn.                                     | robust          | ■ □ or 80 | ...        | ... O Moreton 1830. C l.p Bot. mag. 3184         |
| 261. HOUSTONIA.  |  |                 |           | Sp. 3—6.   |  |
| 16831  | 1541a serpyllifolia Mx.                                | Wild-Thyme-lvd  | £ Δ pr    | ¼ jn.au    | W N. America 1826. D s.p Bot. mag. 2822          |
| 271. CRUCIANELLA.  |  |                 |           | Sp. 10—16. |  |
| 16832  | - stylosa Trin.  | long-styled     | £ Δ or    | 1½ jn.au   | Bt.Pk Persia ? 1836. D co Bot. reg. n. s. 55     |
| 283. PENÆA.  |  |                 |           | Sp. 3—8.   |  |
| 16833  | 1732a imbricata Grah.                                  | imbricate-lvd   | ■ □ pr    | 2 jn.jl    | Pk C.G.H. 1824. C p.l Bot. mag. 2809             |
| 295. OLDENLANDIA.  |  |                 |           | Sp. 3—1.   |  |
| 16834  | - Deppeana S. & C. Deppe's                             |                 | ■ □ cu    | 1 year     | W Mexico 1835. C l.p Flor. Cab. 1.               |
| 2514. 295a. LIPOSTOMA D. Don. (Leipo, to fall from, stoma, mouth; lid from capsule.) Rubiaceæ. |  |                 |           | Sp. 1—1.   |  |
| 16835  | - campanuliflora D. Don bell-flwd.                     |                 | ■ □ pr    | ¼ jn.au    | B Brazil 1825. C l.p Bot. mag. 2840              |
|  | Æginetia capitata Grah., Hedyotis campanuliflora Hook. |                 |           |            |  |
| 296. MANETTIA.   |  |                 |           | Sp. 2—3.   |  |
| 16836  | - glabra S & C. smooth                                 |                 | ■ □ or 5  | au.d       | S B. Ayres 1831. C p.l Sw.f.gar. 2. s. 233       |
|  | cordifolia Hook., in Bot. Mag. 3202.                   |                 |           |            |  |
| 297. EPIMEIDIUM.   |  |                 |           | Sp. 4—5.   |  |
| 16837  | 1763a diphyllum Lod.                                   | twin-leaved     | £ Δ pr    | ¾ my       | W Japan 1880? D lt.l Bot. mag. 3448              |
| 16838  | 1763b macranthum Lindl. large-flowered                 |                 | £ Δ pr    | 1? ap      | Li.P Japan 1835. D s.l Bot. reg. 1906            |
|  | grandiflorum Sieb.                                     |                 |           |            |  |
| 16839  | 1763c violaceum Sieb.                                  | Violet-coloured | £ Δ or    | ¾ ap.my    | V Japan 1835. D pl.                              |
| 2515. 306a. BENTHAMIA Lindl. (George Bentham, Secretary to the London Hort. Soc.) Cornaceæ.    |  |                 |           | Sp. 1—1    |  |
| 16840  | - fragifera Lindl. strawberry-fl'd                     |                 | ■ or 10   | su         | Ysh E. Indies 1825. L co Bot reg. 1879           |
| 16820  |  | 16825           | 16821     | 16822      | 16831  |



History, Use, Propagation, Culture.

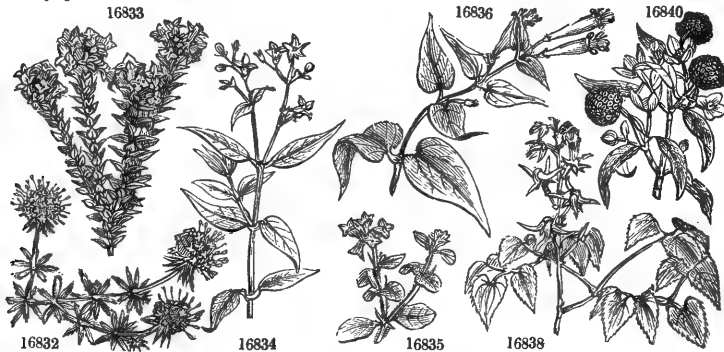
2514. *Lipostoma*. The species of this genus thrive in any kind of light soil, and cuttings root readily in the same, under a hand-glass, in a little heat.

2515. *Benthamia*. A very desirable, nearly hardy shrub, which, perhaps, might be rendered hardier by grafting it

## CLASS IV. — TETRANDRIA.

## MONOGYNIA.

- 16818 Lvs. linear-lingulate: upperm. quite entire: lower ones sub-3-fid. Calyx silky, Stigma smooth  
 16819 Lvs. hard stiff glandul. on both sides: upper 1 or 2-trifid cune. & 1 or 2ce. twisted at base, Heads of flws. crowd.  
 16820 Lvs. coriaceous lanc.-lingul. or subspatul. faintly 3-nerved, Branches & perianth smooth
- 16821 Lvs. subulat.-filif. imbricated, Spikes shorter than the axillary peduncle  
 16822 Lvs. lanceol.-linear acute mucron. slightly pubescent somewhat obliquely twisted
- 16823 Leaves lanceolate coriaceous serrated, Panicle corymbose
- 16824 Lvs. pinnatifid slightly hairy, Lobes cuneiform, Follicle viscid
- 16825 The only species
- 16826 Bran. hoary slightly angul. Lvs. lin. revol. at edge with small mucro somet. 2 or 3-fid at point densely hairy  
 ben. Cal. extern. silky
- 16827 Lvs. spatulato-oblong mucronate pubes. on both sides, Racemes corymb. Pedicels and calyx smooth  
 16828 Lvs. oblong-obovate obtuse mucron.: above pubescent: beneath very downy pale grey, Racemes recurved  
 16829 Lvs. pinn. segm. altern. lin.-obl. obt.: above downy with patent ferrug. hairs: below silky with adpressed hairs  
 16830 Lvs. pinnatif. segm. acute smooth and veiny above hoary beneath, Racemes panic. Peria. & pistil very smooth
- 16831 Cespitose bearing many rooting stems, Lvs. spatul. rather hairy, Peduncle termin. 1-fwd. elongated
- 16832 Procumbent, Lvs. 8-9 in a whorl & are as well as stems hispid, Style clavate much exerted bifid at apex
- 16833 Lvs. sessile rhomb.-ovate acute very entire imbricated or spreading, Bract. few naked.
- 16834 Lvs. petiol. ovate-lanceol. taper. into petioles firm much acuminate rather revol., Stip. white glandul. downy  
 setosely jagged, Panic. loose at ends of bran.
- 16835 Plant hairy, Lvs. roundish undulated spreading
- 16836 Lvs. cordate-acumin. shining on both sides, Bract. connate, Pedun. axill. 1-fwd. Tube clavato-funn.-shaped
- 16837 Petiol. numer. filiform dichot. sparingly hairy more abund. at swollen joints, Petals flat  
 16838 Lvs. tritern. leaf. cord.-ovate petiol. hairy, Rac. many-fwd. Sep. lin. obt. Petals ov.-lanc. inner ones spurred  
 twice long. th. outer ones  
 16839 Lvs. tritern. leaf. ovate-oblong petiol. smooth
- 16840 The only species



and Miscellaneous Particulars.

on *Cornus sanguinea*. It is readily propagated, either by seeds or by cuttings. The fruit, when ripe, somewhat resembles that of the arbutus, but is much larger. The flesh is yellowish white, rather inspid, but not unpleasant, although a little bitter; and, as Mr. Royle informs us, it is eaten by the inhabitants of the hills in the Himalayas.

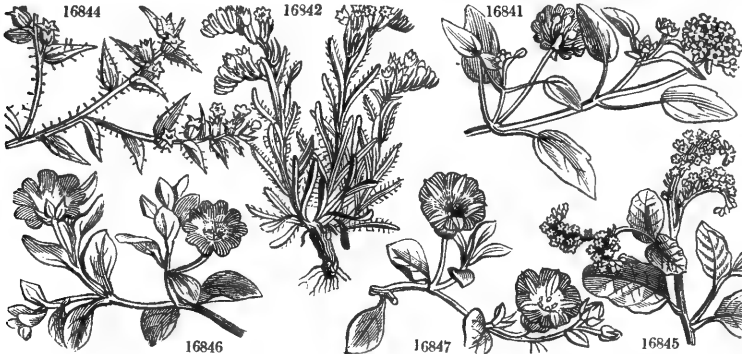
Page 108. CLASS V. — PENTANDRIA. 5 STAMENS.

Order 1. MONOGYNIA. 5 Stamens. 1 Style.

2516. 349a. *Douglasia*. Caps. cartilaginous, 1-celled, 5-valved. Cor. infundibuliform; tube ventricose; limb flat, 5-parted. Stigma a minute depressed cup. Seeds 2, peltate oblong, convex on outside, concave on inside.
2517. 369a. *Collomia*. Cal. campanulate, 5-cleft. Cor. salver-sh., tube slender, Stam. inserted towards middle of tube. Cells of caps. 1-2-seeded.
2518. 373a. *Etioca*. Cor. deciduous. Ovar. pilose. Placentas linear, 4, or many, ovulate. Caps. half 2-celled.
2519. 381a. *Nierenbergia*. Cor. with long slender tube and equal dilated limb. Stam. exserted; filamen. combined at base. Stigm. transverse or peltate.
2520. 381b. *Pediñia*. Cor. with short tube and dilated rather uneq.-limb. Stam. unequal, enclosed.
2521. 384a. *Pharbitis*. Ovarium 3-celled; cells 3-seeded.
2522. 388a. *Gilia*. Cal. campanul., 5-cleft. Cor. funnel-sh. or subcampan. Stamens inserted in throat. Cells of caps. many-seeded.
2523. 388b. *Egöchloa*. Cal. tubularly campanulate, 5-cleft. Cor. somewhat salver-shaped. Stams. inserted in the upper part of tube. Cells of caps. many-seeded.
2524. 388c. *Linanthus*. Cal. tubular, with 5 strong green nerves, terminating in subul. recurv. teeth at apex. Cor. funnel-sh. Anthers filiform, hardly sagittate at base.
2525. 388d. *Hugéña*. Cal. tubul. campanul. Cor. funnel-sh. Tube rhort, exserted. Stam. inserted at throat Anthers linear sagittate.
2526. 388e. *Leptosiphon*. Cal. tubul. campan.; lobes linear, subulate. Cor. funnel-sh.; tube very long, slender; limb campanul., 5-cleft, with oval very entire lobes. Stams. inserted at throat. Cells of caps. many-seeded.
2527. 388f. *Fenzlia*. Cal. tubul. campanul., deeply 5-cleft, with membranous sinuses and linear acutish erect segms. Cor. somewhat funnel-sh.; tube short; limb 5-parted. Anthers ovate-sagittate, a little exserted.
2528. 394a. *Mlichru*. Cal. many-bracteate. Cor. rotate or urceolate, furnished with 5 fascicles of glands near the base inside; segments half-bearded.
2529. 399a. *Sphaëtotoma*. Cal. bibracteate. Cor. salver-sh. with slender tube, coracate throat, and blunt beardless limb. Stam. epipetalous. Hypogynous scales 5. Placent. hanging from top of central column.
2530. 399b. *Trochocarpa*. Cal. bibracteate. Cor. campanul.; limb spreading, bearded. Stam. exserted. Ovarium 10-celled. Drupe baccate.
2531. 400a. *Ponceléña*. Cal. foliaceous. Cor. short, campanul., 5-cleft, beardless. Stam. hypogynous. Anther peltate below middle, with marginate dissepiment. Hypogynous scales 0. Placentas adnate to central column.
2532. 400b. *Cosmélia*. Cal. foliaceous. Cor. tubular. Stam. epipetalous, adnate to ciliated tops of filaments. Hypogynous scales 5. Placentas adnate to central column.
2533. 413a. *Pachypodium*. Stam. enclosed. Anthers nearly sess., adhering. ? Hypogynous scales 0. Cor. salver-sh., with equal, obtuse segments. Follicles ovate.
2534. 424a. *Nyciersilton*. Cal. and cor. 5-parted. Stam. 5, all fertile. Ovarium 5-celled; cells 1-seeded. Stigma obtuse, almost entire. Seeds bony, albuminous.
2535. 462a. *Wahlenbergia*. Cor 3-5-lobed at apex, rarely divided to middle. Stam. 3-5, free; filaments rather broadest at base. Style enclosed, pilose, most so towards upper part. Stigmas 2-5. Ovar. combined with tube of cal. Caps. 2-5-celled, each opening by so many valves at apex, which bear each a dissepiment in middle. Seeds very numer. minute.
2536. 464z. *Prätia*. Limb of cal. 5-toothed. Cor. cleft on back, even to base; limb 5-parted, unilabiate. Stam. combined above. Anthers cohering; two lower ones mucronate. Stigma 2-lobed. Caps. baccate, crowned.
2537. 464y. *Tüpa*. Cal. spherical, 5-parted. Cor. cleft on back almost to base; limb divided into 5 segms., which are all united at their tips. Stams. combined almost to base; anthers cohering, bearded. Stigma 2-lobed, protruding. Caps. 2-celled, many-seeded.

MONOGYNIA.

323. ABRO'NIA. honey-bearing \* Δ pr ¼ jn.au W Sp. 2-2. California 1826. D s.p Bot. mag. 2879
- 16841 1859a *mellifera* Dou. honey-bearing \* Δ pr ¼ jn.au W Sp. 9-21. Caucasus 1826. S s.p Spain 1824. S s.p
532. ONO'SMA. dyers' \* Δ el ½ ap.jn Y Sp. 7-9. Caucasus 1826. S s.p Spain 1824. S s.p
- 16842 1909a *tinctorium* Bieb. dyers' \* Δ el ½ ap.jn Y Sp. 7-9. Caucasus 1826. S s.p Spain 1824. S s.p
- 16843 1912a *tricerosperrum* Lag. 3-horn-seeded \* Δ el ½ ap.jn Y Sp. 7-9. Russia 1835. S co
343. NO'NEA yellowish-flwd ○ or 1½ my.n Ysh Sp. 9-12. Pa.Li B. Ayres 1829. C l.p Bot. mag. 3096
- 16844 1966a *flavescens* Mey. yellowish-flwd ○ or 1½ my.n Ysh Sp. 3-5. Chile 1825. S co Bot. reg 865
346. TOURNEFO'RTIA. Heliotrope-lk. □ or 2 my Pa.Li B. Ayres 1829. C l.p Bot. mag. 3096
- 16845 1998a *heliotropioides* Hook. Heliotrope-lk. □ or 2 my Pa.Li B. Ayres 1829. C l.p Bot. mag. 3096
347. NOLA'NA. paradoxical \* ○ el 1½ au B Sp. 3-5. Chile 1825. S co Bot. reg 865
- 16846 2006a *paradoxica* Lindl. paradoxical \* ○ el 1½ au B B.w.y Peru 1824. S r.l Sw.fl.gar. 2.s.305
- 16847 2006b *atriplicifolia* D.Don Atriplex-leaved \* ○ or ½ au B B.w.y Peru 1824. S r.l Sw.fl.gar. 2.s.305



2538. 464z. *Siphocampylus*. Limb of cal. 5-parted. Tube of cor. curved, undivided, ventricose in middle; limb 5-parted, bilabiate. Stams. and anthers combined; anth. bearded. Caps. 2-celled, 2-valved, dehiscent.
2539. 467a. *Leckenautilia*. Calyx superior. Cor. with tube on upper side. Anth. at first cohering. Stigma obsolete, bilabiate in bottom of indusium. Caps. prismatic, 2-celled, 4-valved. Seed cubical or nucamentaceous.
2540. 470a. *Brundnia*. Heads involucreate. Cal. 5-fid, 4-bracted. Cor. monopetalous, infundibuliform; limb 5-parted. Stam. 5, hypogynous. Anth. connate. Ovar. 1-seeded. Seed exalbuminous.
2541. 478a. *Lycycteria*. Cal. with an ovate tube, and 5-parted irregular limb, ciliated with glands. Cor. funnel-sh., tube gibbous at base, limb 5-parted and campanulate. Stigma capitate. Berry roundish, 5-celled, crowned by calyx; cells many-seeded.
2542. 491a. *Luculia*. Calyx 5-parted, segms. foliaceous. Cor. tubular; limb 5-lobed, imbricate in aestivation. Stigma bipartite. Caps. 2-celled. Seed samaroid, surrounded by jagged membranous margin.
2543. 496a. *Uncaria*. Cal. tubularly urceolate, 5-cleft. Caps. pedicellate. clavate, attenuate at base. Flws. less crowded than in *Nautclia*.
2544. 509a. *Collètia*. Calyx campanulate, coloured. Petals 0. Anth. 1-2-celled, reniform or ovate. Disk cup-sh. Style simple, elongated. Fruit dehiscent, containing 3 nuts.
2545. 509b. *Retanilla*. Calyx urceolate, 5-cleft. Petals cucullate, sessile. Stam. enclosed. Anth. reniform, 1-celled. Disk covering bottom of calyx. Style simple. Fruit containing a 3-celled nut.
2546. 509c. *Trevda*. Cal. turbinate, 5-cleft. Petals cucullate. Stamens enclosed. Anthers 1-celled, reniform. Disk almost wanting. Style long, hairy. Caps. membranous, 2-valved, 1-seeded.
2547. 518a. *Coleonema*. Cal. 5-parted. Disk adnate to base of cal. with 5-lobed margin. Petals 5, with spreading border. Anth. terminated by minute sessile gland. Caps. of 5 horned carpels.
2548. 529a. *Escallonia*. Tube of the calyx semiglobose, adnate to ovarium; limb 5-toothed or 5-lobed. Petals 5, arising from calyx. Stam. 5. Anthers ovate-oblong. Stigma peltate. Style filiform, permanent. Caps. baccate. Seeds numerous.
2549. 540a. *Eription*. In every respect the same as *Viola*, but the sepals are hardly drawn out at base, and the lower petal is not drawn out into a spur; but furnished with a small gibbosity. Anth. without appendages.
2550. 241a. *Hymenanthera*. Sepals imbricate. Petals at length reflexed. Structure of stams. as in *Viola*, but joined at base into monadelphous disk, with a scale at back of each. Caps. rather baccate, 2-celled; cells 1-seeded.
2551. 569a. *Oplotheca*. Cal. semi-5-fid, bibracteate. Cor. 0. Nectar. tubular. 5-toothed. Anth. 5, sessile at mouth of tube of nectarium, and alternate with its teeth. Utriculus 1-seeded. Style undivided. Stigma capitate.

## Order 2. DIGYNIA. 5 Stamens. 2 Styles.

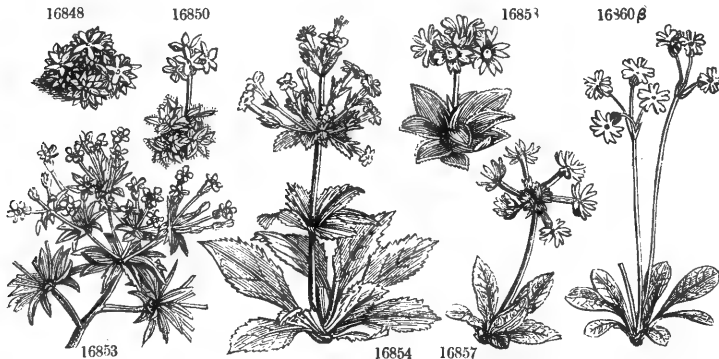
2552. 578a. *Harrisönia*. Cor. urceolate, 5-toothed, throat naked. Crown of stam. of 5 pieces, each with a fleshy process or tooth.
2553. 578b. *Tuedäia*. Calyx 5-parted. Corolla campanulate. Corona simple of 5 retuse exerted pieces opposite the petals. Pollen masses ventricose. Stigma acuminated bipartite. Gynostegium none.
2554. 579a. *Philibertia*. Corona double; outer one annular, entire, fleshy, undulated; inner one inserted on the top of the gynostegium of 5 entire fleshy segments. Cor. urceolate, sinuately 5-lobed, furnished with small teeth between the segments.
2555. 590a. *Physianthus*. Cor. tubular. Tube inflato-ventricose; limb 5-fid, connivent.
2556. 592a. *Tylophora*. Corona simple, 5-lvd.; leaflets depressed, fleshy, toothless inside, pressed to the gynostegium. Pollen masses transverse or ascending. Cor. rotate.

## Order 3. TRIGYNIA. 5 Stamens. 3 Styles.

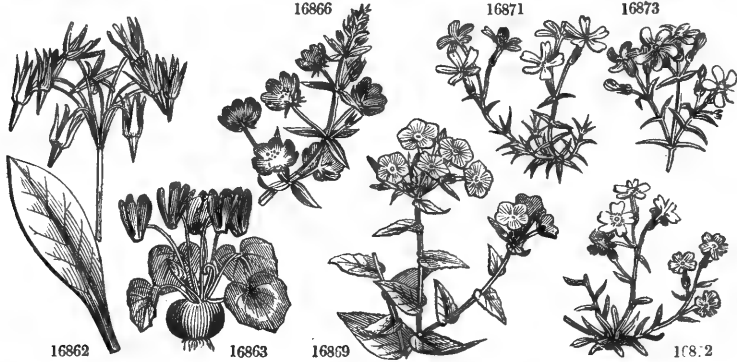
2557. 684a. *Stackhoüsia*. Calyx 5-parted. Petals 5, joined by the claws. Stamens unequal, alternating with the petals. Stigma acute, simple. Capsule trilococcus.

## MONOGYNIA.

- 16841 Lvs. ovate or ovato-oblong; somewhat sinuated glutinous, Per. 1 in. long, Tube glabr. Limb spreading waved [Films. very short
- 16842 Tubercul. hispid or strigose; hairs or strigæ spread. Stem much bran. Lvs. lanceol. upper ones dilat. at base, 16843 Strigose, Flws. drooping longer than calyx, Nut 3-horned
- 16844 Downy also beset with stiff bristles or strigæ, Stem diff. or erect bran. Lvs. obl.-lan. ac. ent. caul. ones sess. flor. ones subcord., Cor. equal to calyx [4-seeded
- 16845 Stem somewhat shrubby, Bran. herbac. hairy, Lvs. ellipt. obtuse pubesc. on both sides waved, Berry 4-celled [1-seeded
- 16846 Prostrate hairy, Lvs. ovate obtuse pilose, Segms. of cal. triangul. Cor. campanul.-funnel-sh. Drupes cumul. 16847 Procumbent rather villous, Cal. campanul. segms. ovate-lanceol. acute connivent, Lvs. spatul.: root ones large



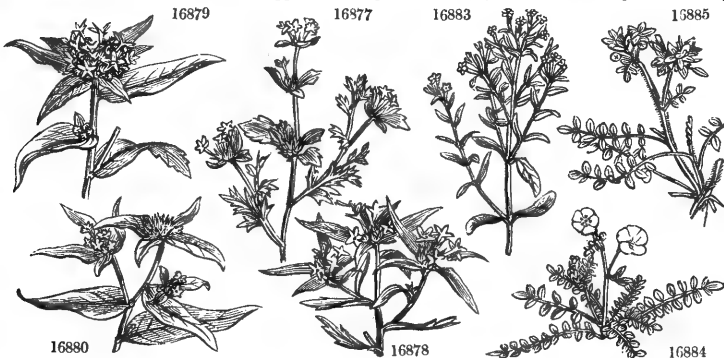
|  |                                  |                             |            |             |         |                 |                               |
|--|----------------------------------|-----------------------------|------------|-------------|---------|-----------------|-------------------------------|
| 348 ARETIA.  |                                  |                             |            | Sp. 5—5.    |         |                 |                               |
| 16848  | 2008a pubescens <i>Dac.</i>      | pubescent                   | £ Δ pr     | ½ my.jn     | W       | Switzerl. 1824. | D s.p Bot. cab. 1273          |
| 16849  | 2009a argentea <i>Gec.</i>       | silvery                     | £ Δ pr     | ½ my.jn     | W       | Switzerl. 1826. | D s.p                         |
| 349. ANDRO'SACE.   |                                  |                             |            | Sp. 13—17.  |         |                 |                               |
| 16850  | 2013a carinata <i>Torrey</i>     | keeled                      | £ Δ pr     | ½ ap        | Y       | N. Amer. 1826.  | D p.s Sw.fl.gar.2.s.106       |
| 16851  | 2015a macrocarpa <i>Led.</i>     | large-capsuled              | £ ○ pr     | ½ jn.au     | W       | Siberia 1827.   | S co                          |
| 16852  | 2017a linearis <i>Grah.</i>      | linear-leaved               | £ Δ pr     | ½ ap.my     | W       | N. Amer. 1826.  | D s.p                         |
| 2516. 349a. DOUGLASIA Lindl. DOUGLASIA. (David Douglas, the lamented bot. collector.) <i>Primulacæ.</i> Sp. 1—1. |                                  |                             |            |             |         |                 |                               |
| 16853  | 2017a nivâlis <i>Lindl.</i>      | snow-inhabiting             | £ Δ pr     | ½ ap.       | P       | Rocky M. 1827   | S s.p Bot. reg. 1886          |
| 350. PRIMULA.  |                                  |                             |            | Sp. 31.—48. |         |                 |                               |
| 2023 farinosa  |                                  |                             |            |             |         |                 |                               |
| a small red-flowered, Sw. fl. g. 2. s. 65a. β large pale-flowered, ditto 65b. γ white-flowered, ditto 65c.       |                                  |                             |            |             |         |                 |                               |
| 16854  | 2025a verticillata <i>Forsk.</i> | verticill. <i>fls. lvs.</i> | £ Δ pr     | ½ mr        | Y       | Egypt 1826.     | D s.p Bot. mag. 2842          |
| 16855  | 2025b suavæolens <i>Bert.</i>    | sweet-scented               | £ Δ pr     | ½ mr.my.Y   | Y       | Italy 1824.     | D s.l Fl. nap. 1. 13          |
| 16856  | 2025c infâta <i>Leh.</i>         | infated                     | £ Δ pr     | ½ mr.my.Y   | Y       | Hungary 1825.   | D s.l Leh. m. 2               |
| 16857  | 2027a longiflora <i>All.</i>     | long-flowered               | £ Δ pr     | ½ my.jl     | R       | Europe 1825.    | D p.l Fl. au. 5. 46           |
| 16858  | 2033a glaucescens <i>Moret.</i>  | glaucous                    | £ Δ or     | ½ jn.jl     | Pk      | Switzerl. 1826. | D p.l Sw. fl. gar. 254        |
| 2036 sinënsis  |                                  |                             |            |             |         |                 |                               |
| β flore albo   |                                  | white-flowering             | £ Δ pr     | ½ ja.o      | W       | China ...       | S s.p Sw. fl. gar. 196        |
| γ fimbriata rōsea  |                                  | frgd rose-cld-fl'd          | £ Δ pr     | 1 ja.o      | Ro      | gardens 1833.   | S s.l                         |
| δ fimbriata alba   |                                  | fringed white-fl'd          | £ Δ pr     | 1 ja.o      | W       | gardens 1833.   | S s.l                         |
| 16859  | 2039a amœna <i>Bieb.</i>         | pleasing                    | £ Δ pr     | ½ ap.jl     | P       | Caucasus 1823.  | D s.l                         |
| 16860  | 2040a sibirica <i>Jac.</i>       | Siberian                    | £ Δ pr     | ½ my.jl     | Li      | Siberia 1818.   | D p.l                         |
| β integerrima <i>Hook.</i>   |                                  | very entire                 | £ Δ or     | 1 mr.ap     | R.Li    | Altaic M. 1832. | D p.l Bot. mag. 3445          |
| 16861  | - venusta <i>Host</i>            | neat                        | £ Δ pr     | ½ ap.my     | P       | Hungary 1833.   | D s.l Bot. reg. 1983          |
| 353. DODECATHÉON.  |                                  |                             |            | Sp. 2—2.    |         |                 |                               |
| 2046 Meadia  |                                  |                             |            |             |         |                 |                               |
| α lilacina <i>Swt.</i>   |                                  | lilac-flowered              | £ Δ or     | 1 ap.jn     | Li      | Virginia 1744.  | D l Bot. mag. 12              |
| β albiliflora <i>Swt.</i>  |                                  | white-flowered              | £ Δ or     | 1 ap.jn     | W       | gardens 1824.   | D l Bot. cab. 1489            |
| γ elegans <i>Swt.</i>  |                                  | elegant                     | £ Δ or     | 1 ap.jl     | Ro      | gardens 1827.   | D l Sw. fl. gar. 2. s.60      |
| δ gigantea <i>Swt.</i>   |                                  | gigantic                    | £ Δ or     | 2 ap.jl     | Li      | gardens 1819.   | D l                           |
| 10862  | 2046a integrifolium <i>Mx.</i>   | entire-leaved               | £ Δ or     | ½ ap.jn     | L.P     | N. Amer. 1829.  | D l.p Pluk. al. 76. 6         |
| 354. CYCLAMEN.   |                                  |                             |            | Sp. 7—10.   |         |                 |                               |
| 2049 persicum  |                                  | α inodorum                  | β odoratum | γ albidum   |         |                 |                               |
| 2050 heterophyllum   |                                  | α purpurascens              | β albidum  | γ albidum   |         |                 |                               |
| 16863  | 2050a repandum <i>Sm.</i>        | repand                      | £ Δ or     | ½ ap.my     | R       | Greece 1816.    | S p.l Sw. fl. gar. 117        |
| 16864  | 2050b neapolitanum <i>Ten.</i>   | Neapolitan                  | £ Δ or     | ½ ap.my     | R       | Italy 1824.     | S p.l                         |
| 357. ANAGALLIS.  |                                  |                             |            | Sp. 6—13.   |         |                 |                               |
| 2070a indica <i>Swt.</i>   |                                  | Indian                      | ○ pr       | 1 my.s      | R       | Nepal 1824.     | S co Sw. fl. gar. 132         |
| 2073 Monelli   |                                  |                             |            |             |         |                 |                               |
| β lilacina D. Don  |                                  | Lilac-flowered              | £ Δ or     | 1 my.       | Li      | ..... 1836.     | C p.l Sw. fl. gar. 377        |
| 16866  | - Willmoreana <i>Hook.</i>       | Willmore's                  | £ Δ or     | ½ au.o      | P.B.V.R | Madeira 1834.   | C l.t Bot. mag. 3380          |
| 369. PHLOX.  |                                  |                             |            | Sp. 28—48.  |         |                 |                               |
| 16867  | 2110b reflexa <i>Swt.</i>        | reflexed                    | £ Δ or     | 3 jl.s      | R       | hybrid ...      | D p.l Sw. fl. gar. 232        |
| 2111 pyramidalis   |                                  | β penduliflora              | £ Δ or     | 3 ...       | Pa.P    | .....           | D p.l                         |
| 16868  | 2111a cordata <i>Ell.</i>        | cordate-leaved              | £ Δ or     | 3 ...       | Pa.P    | Carolina 1827.  | D p.l Sw.fl.gar.n.s. 13       |
| 16869  | 2109a Drummondii <i>Hook.</i>    | Drummond's                  | £ Δ or     | 1 su.aut    | Ro.P    | Texas 1835.     | S&C l.t Sw. fl. gar. n. s. 31 |
| 16870  | 2118a canadensis <i>Hort.</i>    | Canadian                    | £ Δ or     | 1 ap.my     | B       | N. Amer. 1825.  | D p.l Sw. fl. gar. 221        |
| 16871  | 2118b aristata <i>B. C.</i>      | awned                       | £ Δ pr     | ½ ap        | W       | Carolina 1828.  | C p.l Bot. cab. 1731          |
| 16872  | 2118c procumbens <i>Leh.</i>     | procumbent                  | £ Δ or     | ½ my        | F       | N. Amer. 1827.  | D p.l Sw. fl. gar. n. s. 7    |
| 16873  | 2118d speciosa <i>Dow.</i>       | showy                       | £ Δ or     | 1 ...       | F       | Columbia 1826.  | C s.l Bot. reg. 1351          |
| 16874  | 2117a tardiflora <i>Penny</i>    | late-flowering              | £ Δ or     | 2 au.o      | W       | N. Amer. 1825.  | D co Sw.fl.gar.n.s. 31        |
| longiflora <i>Swt.</i>   |                                  |                             |            |             |         |                 |                               |
| β purpurea   |                                  | purple-flwd.                | £ Δ or     | 2 au.s      | P       | hybrid 1836.    | D co                          |
| 16875  | 2110a odorata <i>Swt.</i>        | sweet-scented               | £ Δ or     | 3 au        | Li      | N. Amer. ...    | D p.l Sw. fl. gar. 224        |
| 16876  | 2110c scabra <i>Swt.</i>         | scabrous                    | £ Δ or     | 3 au        | Li      | N. Amer. ...    | D p.l Sw. fl. gar. 248        |
| 2517. 369a. COLLOMIA Nut. COLLOMIA. (Kolla, glue; flowers.) <i>Polemoniacæ.</i> Sp. 7—7.                         |                                  |                             |            |             |         |                 |                               |
| 16877  | - heterophylla <i>Hook.</i>      | various-leaved              | ○ or       | ½ jn.s      | Pk      | N.W.Am. 1826.   | S co Bot. mag. 2895           |



History, Use, Propagation, Culture,

369. *Phlox.* All the phloxes are elegant plants; the lower-growing sorts are most ornamental on rockwork, and the taller kinds in beds or borders. Of the latter by far the most splendid is *P. Drummondii*, which, with *Ferhena chamedrifolia*, ought to be in every flower-garden.

- 16848 Lvs. ovate acuminate pubescent crowded on the stem  
 16849 Lvs. ovate acuminate with a mucro at the point slightly pubescent and silvery
- [nearly to base persist.  
 16850 Lvs. crowded ovate-lanceol. acute keeled on upper side ciliat. Scape villous, Umbel many-flwd. Cal. 5-cleft  
 16851 Lvs. oblong acuminate smooth above and slight downy beneath, Capsule large  
 16852 Lvs. linear mucron. slightly pubescent underneath
- 16853 Lvs. lin. obtuse subamplex. closely hairy, Bran. rigid hoary subverticil., Flws. subumbell. on long pedunc.
- 16854 Lvs. oblong acute serrat. powdery beneath, Flws. verticill., Invol. leafy, Tube of cor. very long, Segms. entire  
 16855 Lvs. lanceolate smooth  
 16856 Lvs. ovate oblong  
 16857 Lvs. ovato-lanceolate  
 16858 Lvs. oblong-lanceol. acute rigid cartilaginous margin beneath glaucous, Umbel few-flowered, Calyx acum. thd.
- [than cal.  
 16859 Lvs. spatul. obl. rugose slightly hairy above densely woolly below, Umbel many-flwd. Tube scarcely longer  
 16860 Lvs. oval-subrotund petiol. very ent. or obtusely cren. Umbel few-flwd. loose nodding, Invol. 4-ldv. Leaf. spurred at base  
 16861 Lvs. obl. obovate undul. smooth repando-dentic. Flws. umbellate nodding, Cal. tubular 5-fid
- 16862 Lvs. oblong entire
- 16863 Lvs. cordate minutely toothed, Segm. of cor. oblong obtuse  
 16864 Lvs. variable either ivy-sh. hastate heart-sh. arrow-sh. or irreg. coriac. alw. plaited middle lobe somet. much extend. Cal. segs. reflex short sharp  $\frac{1}{2}$  twist  
 16865 Stem ascending branched slightly winged, Lvs. sessile cordate-ovate scabrous at the margins
- 16866 Differs from *A. Monálf* in the cor. being of brilliant blue-purple above paler and redder ben. the eye or centre yellow minutely and irregul. crenat.
- 16867 Stems downy scabr. spot. Lvs. refl. glabr. shining above; lower narr. lanceol.; upper cordate acute, Teeth of cal. lanceol. mucron. spread.  
 16868 Lvs. oblong-cordate acumin. edges scabrous, Pedic. and cal. downy, Segms. long awned  
 16869 Stem clothed with long pat. hairs, Lvs. lower oppos. oblong-spath. : upper altern. oblong acute arist. Segms. of cor. very acumin. reflexed [Cal. teeth subul. lin. Tube much long. th. cal.
- 16870 Stem rather downy, Upper lvs. broadly lanceo. oppos. and altern. lower ovate, Bran. downy few-flwd. compact,  
 16871 Procumbent, Panic. loose fastigiate, Pedic. generally twin. Cal. teeth very long subulate  
 16872 Bran. clthd. with hair-lk. down as well as pedun. and cal. Lvs. lan. acute atten. at base smoothish ciliat. Tube hairy erect twice long. than cal.  
 16873 Shrubby, Lvs. lin. acumin. pungent dilated somewh. ciliat. at base edges callous. Branches of corymb. 3-flwd.  
 16874 Stem roughish obscur. spot. Lvs. lanc.-acumin. glabr. both sides shining: upper ones broadest, Tube of cor. 3 times longer than cal.
- [corymb form thyrsoid raceme  
 16875 Lvs. lower linear: middle obl.-lan.; upper cord.-ovate, Teeth of cal. ovate shortly acumin. erect, Bran. of  
 16876 Stem glabr. at bottom downy at top, Lvs. obl.-lan. acute scabr. above undul. scabr. edges, Panic. loose, Cal. teeth subul. straight
- [crowded shorter than invol.  
 16877 Prostrate, Lower lvs. pinnatif. and cut; upper cuneate pinnatif. or cut, Invol. lvs. oblong acute entire, Flws.



## and Miscellaneous Particulars.

2517. *Collomia*. A genus of annual plants of the easiest culture, requiring only to be sown in the open ground in spring. Some of the species are pretty, and deserving of cultivation.



|   |  |                                |                  |                      |             |        |                  |                  |
|---|--|--------------------------------|------------------|----------------------|-------------|--------|------------------|------------------|
| 16878 -   | Cavanillesii H. & A. Cavanilles's            | ○ or 1 1/2 jn.n                | R.y              | Chile                | 1832.       | S co   | Bot. mag. 3468   |                  |
|   | Phlox linearis Cav. not C. linearis Nut.     | ○ or 2 jn.o                    | Saf              | C. lateritia D. Don. |             |        |                  |                  |
| 16879 -   | grandiflora Dou.                             | ○ or 2 jn.o                    | Saf              | N.W.Am.              | 1826.       | S co   | Bot. reg. 1174   |                  |
| 16880 -   | linearis Nut.                                | ○ or 1 jn.o                    | R                | N.W.Am.              | 1826.       | S co   | Bot. reg. 1166   |                  |
| 16881 -   | gillioides Benth.                            | ○ or 1 jn.o                    | Pk               | California           | 1833.       | S co   |                  |                  |
| 16882 -   | glutinoso Benth.                             | ○ or pr jn.o                   | Pk               | California           | 1833.       | S co   |                  |                  |
| 16883 -   | gracilis Dou.                                | ○ or 1/2 jn.s                  | Pk               | N.W.Am.              | 1826.       | S co   | Bot. mag. 2924   |                  |
| <b>370. POLEMONIUM.</b>   |  |                                |                  |                      | Sp. 5-12.   |        |                  |                  |
| 16884   | Richardsonii Grah.                           | Δ or 1/2 jl.o                  | Pa.B             | N. Amer.             | 1826.       | S co   | Bot. mag. 2800   |                  |
| 16885 -   | pulcherrimum Hook. prettiest                 | Δ or 1/2 jl.au                 | B                | N. Amer.             | 1827.       | S co   | Bot. mag. 2979   |                  |
| <b>373. PHACELIA.</b>   |  |                                |                  |                      | Sp. 4-6.    |        |                  |                  |
| 16886   | 2125a congesta Hook.                         | ○ or 1 1/2 jn.                 | Br.psh.B         | Texas                | 1835.       | S co   | Bot. mag. 3452   |                  |
| 16887   | - tanacetifolia Benth.                       | ○ or 2 jn.au                   | V                | Californ.            | 1832.       | S co   | Bot. reg. 1696   |                  |
| 16888 -   | vinifolia Part.                              | ○ pr 1 1/2 au.o                | Bt.B             | Texas                | 1834.       | S lt.l | Pact.mag. 3.121  |                  |
| <b>2518. 373a. EUTOCA R. BR. EUTOCA. (Eutokos, fruitful; number of seeds.) Hydrophyllaceae.</b>           |  |                                |                  |                      | Sp. 6-6.    |        |                  |                  |
| 16889 -   | Franklini R. Br.                             | ○ el 1 ap.jl                   | Pk               | N. Amer.             | 1827.       | S s.l  | Bot. mag. 2985   |                  |
| 16890 -   | multiflora Dou.                              | ○ el 1 1/2 my.jl               | Pk               | N. Amer.             | 1826.       | S s.l  | Bot. reg. 1180   |                  |
|   | Menziesii D. Don.                            |                                |                  |                      |             |        |                  |                  |
| 16891 -   | sericea Grah.                                | ○ el 1 my.jl                   | B                | N. Amer.             | 1827.       | S s.l  | Bot. mag. 3003   |                  |
| 16892 -   | divaricata Benth.                            | ○ pr ... my.jn                 | L.V              | Californ.            | 1833.       | S lt   | Bot. reg. 1784   |                  |
| 16893 -   | Wrangeliana Fis.                             | ○ el 1 au                      | B                | Californ.            | 1835.       | S s.l  | Sw.f.gar.2.s.362 |                  |
| 16894 -   | viscida Benth.                               | ○ el 2 jl                      | B.ro             | Californ.            | 1834.       | S s.l  | Bot. reg. 1808   |                  |
| <b>377. BRUGMANSIA.</b>   |  |                                |                  |                      | Sp. 3-4.    |        |                  |                  |
| 16895   | 2171a sanguinea R. & P. bloody bicolor Pers. | Δ or 20 o.n                    | R.o              | Peru                 | 1833.       | C l    | Bot. reg. 1730   |                  |
| <b>378. LISIANTHUS.</b>   |  |                                |                  |                      | Sp. 5-11.   |        |                  |                  |
| 16896   | 2174a. Russellianus Hook. D. of Bedford's    | □ or 3 l.au                    | P                | Mexico               | 1835.       | S lp.  | Bot. mag. 3626   |                  |
| <b>2519. 381a. NIEREMBERGIA Kth. (J. E. Nieremberg, a Spanish Jesuit.) Solanaceae.</b>                    |  |                                |                  |                      | Sp. 4-4.    |        |                  |                  |
| 16897 -   | calycina Hook.                               | Δ or 1 jl.o                    | W                | Uruguay              | 1834.       | C lt.r | Bot. mag. 3371   |                  |
| 16898 -   | gracilis ?                                   | Δ el 1/2 jl                    | Wsh              | Uruguay              | 1831.       | S lt.r | Bot. mag. 3108   |                  |
| 16899 -   | filicallis Lindl.                            | Δ or 1 my                      | Ll               | B. Ayres             | 1832.       | C p    | Bot. reg. 1649   |                  |
| 16900 -   | aristata D. Don                              | Δ or 1 au                      | W.P              | Parana               | 1832.       | C p.s  | Sw.f.gar.2.s.255 |                  |
| <b>2520. 381b. PETUNIA J. PETUNIA. (Petun, the name for tobacco in Brazil.) Solanaceae.</b>               |  |                                |                  |                      | Sp. 4-4.    |        |                  |                  |
| 16901 -   | nyctaginiflora J.                            | Mar. of Peru-fwd               | Δ or 1 jn.s      | W                    | S. Amer.    | 1823.  | C co             | Sw.f.gar. 119    |
| 16902 -   | intermedia D. Don                            | intermediate                   | Δ or 1 au.o      | P.Y                  | Parana      | 1832.  | S lt             | Sw.f.gar.2.s.237 |
|   | Salpiglossis linearis Hook.                  | Nierembergia intermedia Grah.  |                  |                      |             |        |                  |                  |
| 16903 -   | phoenicea D. Don                             | purple-flowered                | Δ spl 2 1/2 jn.n | C.P                  | B. Ayres    | 1831.  | C s.l            | Bot. reg. 1626   |
|   | Salpiglossis integrifolia Hook.              | Nierembergia phoenicea D. Don. |                  |                      |             |        |                  |                  |
| 16904 -   | Atkinsiana D. Don                            | Atkins's                       | ○ or 2 jl.o      | Rich P               | Eng.hyb.    | 1834.  | C lt             | Sw.f.gar.2.s.268 |
| <b>382. NICOTIANA.</b>  |  |                                |                  |                      | Sp. 19-32.  |        |                  |                  |
| 16905   | 2998a glauca Grah.                           | glaucous                       | Δ or 20 au.o     | Y.g                  | B. Ayres    | 1827.  | C l.p            | Bot. mag. 2837   |
| 16906 -   | longiflora Cav.                              | long-flowered                  | ○ or 4 jl.s      | Pk                   | Chile       | 1819.  | S co             | Fl. per. 2. 130  |
| 16907 -   | persica Lindl.                               | Persian                        | ○ or 3 s.o       | W.G                  | Persia      | 1831.  | S s.lt           | Bot. reg. 1592   |
| 16908 -   | acuminata Grah.                              | acuminate-td                   | Δ or 2 jn.s      | W                    | Chile       | 1827.  | S s              | Bot. mag. 291    |
| 16909 -   | multivalvis B. R.                            | many-valved                    | ○ or 2 jl.au     | W                    | Columb.     | 1826.  | S r.m            | Bot. reg. 105    |
| <b>383. IPOMEA.</b>   |  |                                |                  |                      | Sp. 57-116. |        |                  |                  |
| 16910 -   | Aitonii Lindl.                               | Aiton's                        | Δ or 10 ap.o     | Pa.P                 | ...         | ...    | S C r.m          | Bot. reg. 1794   |
| 16911 -   | Horsfallii Hook.                             | Mrs. Horsfall's                | Δ spl 20 d.ja    | Ro                   | Africa      | 1833.  | C p.l            | Bot. mag. 3315   |
| 16912 -   | rubro-cerulea Hook.                          | reddish-blue                   | Δ spl 78 s.n     | B.R                  | Mexico      | ?1833. | S p.l            | Bot. mag. 3297   |
| 16913 -   | bonariensis Hook.                            | Buenos Ayres                   | Δ or 10 au       | P                    | B. Ayres    | 1826.  | S r.m.           | Bot. mag. 2665   |
| 16914 -   | bignonioides Sims                            | Bignonia-like                  | Δ pr 3 jl.au     | P                    | Cayenne     | 1834.  | C p.l            | Bot. mag. 2645   |
|   | Batatas bignonioides Don's Mill.             |                                |                  |                      |             |        |                  |                  |
| <b>2521. 384a. PHARBITIS Choisy. PHARBITIS. (Farbe, colour, Ger.; beauty of flowers.) Convolvulaceae.</b> |  |                                |                  |                      | Sp. 4-4     |        |                  |                  |
| 16915 -   | diversifolia Lindl.                          | various-leaved                 | Δ or 5 jn.s      | B.R                  | Mexico      | ?1836. | S lt.r           | Bot. reg. 1988   |
|   | Nos. 2240, 2244, and 2245, in p 133.         | are referable to this genus.   |                  |                      |             |        |                  |                  |



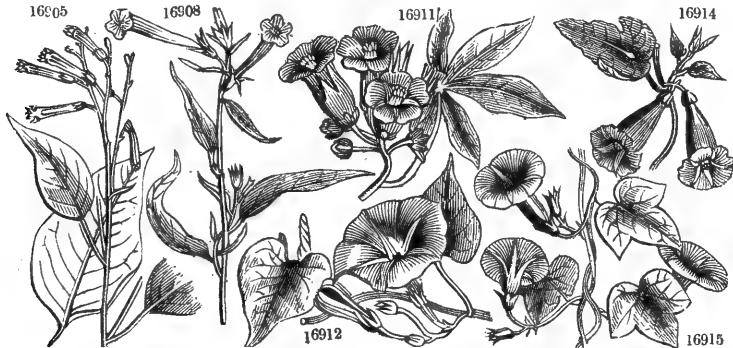
History, Use, Propagation, Culture,

2518. *Eutoca*. A genus of showy hardy annuals. They succeed best on rockwork, in dry, sandy, or gravelly soil.

2519. *Nierembergia*. All the species are exceedingly elegant when in blossom. In the open border they succeed well from May to Sep., and in large patches have a very pleasing appearance. In the autumn it is necessary to pot a

- 16878 Lvs. lanceol. linear ; upper one ovate lanceol. entire or deeply 2-4-toothed at apex
- 16879 Lvs. obl. lanceol. entire shining ciliat. with glands, Cal. villous glandul. Cor. ventricose
- 16880 Lvs. ovate-lanceol. quite entire opaque uniform, upper ones downy beneath
- 16881 Lvs. pinnate, Leaf. linear entire, Cal. deeply 5-cleft, Stamens enclosed
- 16882 Procumb., Lvs. deeply pinnatif. almost pinnate, Segms. oblong linear entire or slightly cut, Cal. nearly 5-part.
- 16883 Lvs. lanceol.-oblong obtuse, Cal. clothed with black glands, Segments long, subulate
- 16884 Lvs. pinnate, Leaf. ovate-roundish mucronulate, Segms. of corolla obtuse crenulated
- 16885 Lvs. pinnate, Leaf. ovate-obtuse glabrous, Segments of corolla ovate acutish
- [lateral and term. Rac. corymb.
- 16886 Lvs. pinnate, Leaf. altern. very uneq. obl.-ovate some sess. others petiol. pinnatif. lobed & cut pubes.
- 16887 Lvs. bipinnatifid, Leaf. oblong dentately pinnatifid, Cal. segments oblong-linear hispid
- 16888 Stem slender branching, Calyx linear 5-cleft, Corolla spreading 5 ovate obtuse lobes
- 16889 Lvs. pinnatifid or bipinnatifid, Ovula 20 or more to each placenta
- 16890 Lvs. linear or lanceol. quite entire sometimes trifid or bipinnatif. Placenta 20 or many ovulate
- [several abortive
- 16891 Lvs. silky on both sides pinnatif. : upper leaves linear entire, Stam. 3 times as long as cor. Plac. many-ovul.
- 16892 Stem dichotomously divaricate, Leaves all ovate undivided, Placent. 12-20-ovulate
- 16893 Lvs. ovate acute quite entire, Cor. about twice as long as calyx, Placenta 8-10-ovulate
- 16894 Herb clothed with clammy pill, Lvs. cordate ovate rather angul. serrat. Racemes elongated forked and simple
- 16895 Lvs. sinuately lobed sub-tomentose as well as petiol. and bran. Points of corolla elongated, Calyx 2-3-lobed
- [of pedun. Cal. dply. 5-partite
- 16896 Glabr. & glauc. Lvs. oppos. & connate ovate or ov.-obl. 3-5-nrvd. very acute passing into subul. bracts. at base
- [segms. obov. 3-nerved
- 16897 Herb clothed with glandul. pubesc. Lvs. oppos. & altern. roundish-obov. petiol. Cal. large campan. foliaceous
- 16898 Herb downy, Lvs. linear subspathul. obtuse, Cal. segms. linear bluntish much short. than tube of corolla
- 16899 Herb glabrous erect filiform, Lvs. lin.-lanceol. acute or obtuse, Tube of cor. glandul. as are the filaments
- 16900 Herb smoothish, Lvs. linear acumin., Cal. segms. acumin. much shorter than tube of cor.
- [times long. than cal.
- 16901 Lower lvs. altern. ovate-oblong obt. pubesc. attenuated, Floral lvs. sess. cord.-ovate oppos. Tube of cor. 3-4
- 16902 Lvs. linear obt. Cor. funnel-sh. tube scarcely longer than cal. Segms. emarginate, Style clavate
- 16903 Lvs. ovate on short petioles acute, Cor. ventricose, Segms. ovate acute, Flws. axillary solitary pedunculate
- [twice as long as cal.
- 16904 A hybrid between *P. nyctaginiflora* & *P. intermedia*, with ovate acutish lvs. Cal. segms. ligulate, & tube of cor.
- [cup-shaped
- 16905 Arboreous, Lvs. uneq. cord.-ovate naked on long petiol. Tube of cor. slightly curv. mouth contract. limb small
- 16906 Lvs. stem-clasping cord.-lanc. acumin. Tube of cor. long filif. 5 times longer than foliac. cal. Lobes of cor-ovate-lanc. acute
- [Seg. ov. obt. emar. somew. uneq.
- 16907 Root lvs. obl. spathul. stem lvs. sess. half-stem-clasp. acumin. hardly repand. Cor. salver-sh. Tube long clav.
- 16908 Lvs. broad-lanc. acumin. undul. on longish petiol. Panic. few-flwd. Tube of cor. elong. Segms. roundish obt.
- 16909 Lvs. fleshy ov.-lan., lower petiol. Flws. axill. solit. Cal. many parted, Caps. many-celled, Segms. of cor. obt. deeply veined
- [thickened
- 16910 Lvs. cord. roundish 3-lbd. Lobes acute, Pedun. many-flwd. longer than petioles, Cor. campanulate, Tube
- 16911 Lvs. quinately digit. leaf. lanc. quite ent. margins undulat. Pedun. as long as petiol. Infer. cymose, Sep. imbric. obt. eq. Cor. funnel-sh. [to petiol. Pedun. axil. 3-4-flowered somewh. racem
- 16912 Lvs. altern. membran. truly cord. deep broad sinus at base sharply acumin. wavy on surf. much veined ab. eq.
- 16913 Lvs. cord. petiol. with very dp. sinus at base 3-5-lbd. in palmated manner, lobes very uneq. Petiol. much short. th. lvs. Pedun. axill. solit. 5-7-flwd.
- 16914 Tuberos, Lvs. trilob. lower lobe rounded at base imbricated, Pedun. axill. many-flwd. Petiol. short. Cor. infundib. limb crispate

16915 Lvs. cord.-acumin. pubesc. ent. & 3-lobed auricul. divergent, Pedun. leafy subbif. Sepals ovato-lanceol. acu'e



and Miscellaneous Particulars.

few plants of each species, and preserve them in the green-house through the winter. They seldom ripen their seeds but are all readily propagated by cuttings, and thrive best in light rich soil.

2520. *Pentdria*. Culture, propagation, &c., same as that of *Nierembergia*.

2521. *Pharbitis*. A genus of very showy, tender, twining annuals. They thrive best in light rich soil, or a mixture of loam and decayed leaves.

|                  |                          |                |   |
|------------------|--------------------------|----------------|---|
| 386. NEMO'PHILA. |                          | Sp. 5-5.       |   |
| 16916            | 2293a parviflora Dou.    | small-flowered | ○ or 1 fl.au B N. Amer. 1826. S p.1                     |
|                  | †2294 phacelioides Bart. | Phacelia-like  | ✕ ○ cu 1½ fl.au B N. Amer. 1822. S co Bot. mag. 2373    |
| 16917            | 2294a aurita Lind.       | ear-leaved     | ✕ ○ or 1 my.au P California. 1831. S p.1 Bot. reg. 1601 |
| 16918            | 2294b insignis Benth.    | showy          | ✕ ○ or 1 jn.o B California. 1833. S r.m Bot. reg. 1713  |
| 16919            | 2294c atomaria Fis.      | speckled       | ✕ ○ el ½ jn.o W.spot Calif. 1836. S p.1 Bot. reg. 1940  |

2522. 388a. GYLIA Cav. GYLIA. (P. S. Gillo, a Spanish botanist.) Polemoniaceæ. Sp. 14-14.

I. DACTYLOPHY'LLUM. — Lower leaves opposite, all sessile and palmately cut. Flowers solitary on long footstalks. Corolla's tube very short, its limbs spreading. Perhaps the species of this section are properly a genus. — Benth.

|       |                       |                |                                       |
|-------|-----------------------|----------------|---------------------------------------|
| 16920 | - Æniflora Benth.     | Linum-flwd     | ○ pr ½ ... .. California. 1833. S s.1 |
| 16921 | - pharnacoides Benth. | Phar.saceum-lk | ○ pr ½ ... .. California. 1833. S s.1 |
| 16922 | - pusilla Benth.      | dwarf          | ○ cu ½ ... .. Chile 1833. S s.1       |

II. IPOMOÏSIS. Leaves alternate, pinnately cut or pinnatifid. Flowers solitary or associated. The corolla's tube lengthened and protruded far beyond the calyx.

|       |                       |                      |   |
|-------|-----------------------|----------------------|---|
| †2300 | coronopifolia Pers.   | Coronopus-lvd        | ○ spl 2½ jl.s S Carolina 1726. C 1.p Bot. reg. 1691   |
|       | Ipomopsis elegans Sm. | not of Lindl.        | Bot. reg. 1281, nor Mx.                               |
| 16923 | - pulchella Dou.      | pretty               | ○ spl 2½ jl.s S NW.Am. 1826. C 1.p Bot. reg. 1281     |
|       | aggregata D. Don.     | Cantua aggregata Ph. |   |
| 16924 | - tenuiflora Benth.   | slender-corol.       | ○ or 2 au Ro.V. California. 1833. S co Bot. reg. 1888 |
| 16925 | - arenaria Benth.     | sand-inhab.          | ○ or 1 ... B California. 1833. S s.1                  |
| 16926 | - crassifolia Benth.  | thick-leaved         | ○ or 2 ... Yeh Chile 1832. S s.1                      |

III. EUGYLIA. — Leaves alternate, pinnately cut or pinnatifid. Flowers more or less strictly solitary, or more usually grouped in heads. Corolla's tube as short as, or shorter than, the calyx.

|       |                          |                           |  |
|-------|--------------------------|---------------------------|--|
| †2301 | inconspicua Dou.         | inconspicuous             | ○ or 2 au B N. Amer. 1793. S co Bot. mag. 2883         |
|       | parviflora Spr.          | Ipomopsis inconspicua Sm. | Cantua parviflora Ph.                                  |
| 16927 | - tricolor Benth.        | three-ld.cor.             | ○ or 1 jl.s Li.r California. 1833. S co Bot. reg. 1704 |
|       | β fl. albicanibus D. Don | whitish-flwd              | ○ or ½ jl.s Wsh.O Calif. 1833. S co Sw.fl.gar.2.s. 264 |
| 16928 | - laciniata R. & P.      | cut-leaved                | ○ cu ¼ jl ... Pk Chile 1831. S co Fl. per. 123         |
| 16929 | - multicaulis Benth.     | many-stemmed              | ○ or 2 ... B California. 1833. S co                    |
| 16930 | - achilleifolia Benth.   | Milfoil-leaved            | ○ or 1½ au.d P California. 1833. S co Bot. reg. 1682   |
| 16931 | - capitata Dou.          | headed-inflor.            | ○ or 2½ jn.n B N. Amer. 1826. S co Bot. mag. 2698      |
|       | β corollia-alba Denis.   | white-corollaed           | ○ or 2½ jn.n W gardens 1829. S co                      |

2523. 388b. EGO'CHIOA Benth. (Aiz, a goat, chloa, a green herb; some species fetid.) Polemoniaceæ. Sp. 1-5.

|       |                  |                |   |
|-------|------------------|----------------|---|
| 16932 | - pungens Benth. | prickly-leaved | ○ cu 1½ jn.s B California. 1826. S s.1 Bot. mag. 2977 |
|-------|------------------|----------------|---|

2524. 388c. LIN'A'NTHUS Benth. (Linon, flax, anthos, flower; resemblance.) Polemoniaceæ. Sp. 1-1.

|       |                     |              |                                   |
|-------|---------------------|--------------|-----------------------------------|
| 16933 | - dichotomus Benth. | forked-bran. | ○ or 1½ Pk California. 1833. S co |
|-------|---------------------|--------------|-----------------------------------|

2525. 388d. HUGELIA Benth. HUGELIA. (Baron Chas. de Hügel of Vienna.) Polemoniaceæ. Sp. 4-4.

|       |                     |                 |   |
|-------|---------------------|-----------------|---|
| 16934 | - densifolia Benth. | crowded-lvd     | ○ or ? ½ ... B California. 1833. S co                   |
| 16935 | - elongata Benth.   | elongated-bran. | ○ or ? 1 ... Dp.B California. 1833. S co                |
| 16936 | - virgata Benth.    | twiggy          | ○ or ? ½ ... Dp.B California. 1833. S co Hook. ic. 200. |

2526. 388e. LEPTOSIPHON Benth. LEPTOSIPHON. (Leptos, slender, siphon, tube.) Polemoniaceæ. Sp. 5-5.

|       |                       |                |                                     |
|-------|-----------------------|----------------|-------------------------------------|
| 16938 | - grandiflorus Benth. | large-flowered | ○ or 1½ au.o B.go Calif. 1833. S co |
|-------|-----------------------|----------------|-------------------------------------|

16939 - androsaceus Benth. Androsace-like ○ or 1 au.o Dp.B.G Calif. 1833. S co Bot. reg. 1710.

|       |                      |                  |  |
|-------|----------------------|------------------|--|
| 16940 | - luteus Benth.      | yellow-flwd      | ○ or 1½ au.o Dp.Y Calif. 1833. S co            |
|       | β                    | pale-yellow-flwd | ○ or 1½ au.o Pa.Y Calif. 1833. S co            |
| 16941 | - parviflorus Benth. | small-flowered   | ○ or 1½ au Y Calif. 1833. S co                 |
| 16942 | - densiflorus Benth. | clustered-flwd   | ○ el ¾ ap.o P Calif. 1833. S co Bot. reg. 1725 |
|       | β corollia alba      | white-corol.     | ○ el ¾ ap.o W Calif. 1833. S co Bot. reg. 1725 |

2527. 388f. FE'NZLIA Benth. FENZLIA. (Dr. Fenzl, author of a monograph of Alsineæ.) Polemoniaceæ. Sp. 1-1

|       |                       |               |   |
|-------|-----------------------|---------------|---|
| 16943 | - dianthiflora Benth. | Dianthus-flwd | ○ or 1½ au P.v Calif. 1833. S co Hook. ic. 199. |
|-------|-----------------------|---------------|---|



History, Use, Propagation, Culture,

2522. Gylia. Elegant hardy annuals of the easiest culture, the seeds requiring only to be sown in the open border in spring. The larger the quantity of each grown together, the more showy their appearance.

2523. Egochloa. A genus of singular, but by no means showy, plants, requiring the same treatment as those of Gylia.

2524. Linanthus. Culture, propagation, &c., the same as those of Gylia.

16916 Lvs. pinnatif. lobes few broad little-toothed, Cor. scarcely longer than calyx, Placentas 2-ovulate  
 †2294 Nearly related to *N. parviflora*, but differs in flws. being twice the size & calycine append. being larger & longer  
 16917 Petioles auriculately dilat. at base, Cor. twice as long as cal. Lvs. while oppos. connate at base  
 16918 Lvs. 3-4-lbd. on each side entire or cut, Petiol. without append. Cor. twice as long as cal. Placent. 10-12-ovul.  
 16919 Lvs. oppos. pinnatif. lobes 5-9 alm. ent. Cor. rotate very pilose bottom & obov. segms. Placent. about 10-ovul.  
 Seed strophiolate smooth

16920 Corolla 3 times longer than the calyx  
 16921 Corolla twice longer than cal. Flws. one half smaller than those of *G. finiflora*  
 16922 Corolla hardly exceeding the calyx, Habit of *Arenaria tenuifolia*

†2300 Lvs. pectin.-pinn. Leaf. linear acumin. Tube of cor. 5 times longer than cal. Limb spread. Segms. acute obl. [or ovate flat  
 †2300 Lvs. pectin.-pinn. clthd. cobwebbed villi as are bract., Leaf. or segms. lin. mucron. Segms. of limb ov.-lanc. [acumin. channelled

16924 Lvs. glabr. bipinn. Flws. usually solit. Corymbs loose on long pedunc. Cor. 4 times longer than calyx  
 16925 Lvs. pinnatif. Lobes ovate, Flws. somewhat glomer. Cor. 3 times longer than the cal.  
 16926 Lvs. pinnatif. rather woolly at length glabr. Segm. oblong lanc. ent. or cut, Flws. nearly solit. divaric. panic.  
 Cor. twice long. than cal.

†2301 Lvs. pinnatif. lower ones bipinnate, Segms. linear, Flws. solit. term. panic. Cor. about twice length of calyx

16927 Lvs. bipinnate, Leaf. or segms. linear subul. Corymbs 3-6-flwd. virgately panic. Corolla about 3 times longer  
 than calyx.

16928 Lvs. pinnatif. Segms. narrow obl. sinuat., Pedun. axill. solit. 1-3-flwd. Cor. tubular hardly long. than cal. [Cal. segms. subul.  
 16929 Lvs. somewh. bipinnate smoothish, Segms. linear, Corymbs 3-10-flwd. Pedun. very long, Cor. hardly twice  
 longer than cal. [than cor.

16930 Lvs. 2 or 3-pinn. Segms. or leaf. linear subul. Cal. rather woolly, Cor. twice longer than cal. Stam. shorter  
 16931 Lvs. bipinnatif. Segms. linear cut, Flws. sess. dispersed in dense heads, Cor. longer than cal. Stam. shorter  
 than cor.

16932 Lvs. pinnate, Leaf. ent. or cut lobes lanc. lin. very acute spinose, Cal. segms. lanceol. Flws. glomerate termin.

16933 Lvs. opposite sessile palmate, with 3 to 5 linear-subulate segments

16934 Lvs. numerous nearly all pinnatif. glabr. Tube of cor. longer than cal. Stam. about equal in length to cor.

16935 Lvs. short simple or furnished with 1-2-segm. on each side toment. Tube of cor. exerted, Stam. exceeding cor.

16936 Lvs. elongated simple or pinnatif. clothed with loose white wool, Tube of cor. longer than cal. Stam shorter  
 than cor.

16937 Lvs. lower elongated simple glabr. upper short pinnatif. woolly, Tube of cor. shorter than cal. Stam equal  
 to cor.

16938 Lvs. 7-11-cleft, Segms. subul. straight margins revolute, Tube of cor. hardly twice longer than limb, Filam.  
 very short

16939 Lvs. 5-7-cleft, Segms. oblong-linear, Tube of cor. 2 or 3 times longer than limb, Stam. 3 times shorter than limb  
 of cor.

16940 Lvs. ditto, Tube of cor. about 4 times longer than limb, Style scarcely equal to corolla

16941 Lvs. ditto, Tube of cor. 4 times longer than limb, Stams. hardly  $\frac{1}{2}$  shorter than limb of cor. Style little exerted

16942 Lvs. 9-11-cleft, Segms. subul. erect margins revolute, Tube of corolla shorter than limb

16943 Herb nearly simple glabr. or downy, Lvs. oppos. lin. ent. Flws. 1-3 together pedunculate, Cor. nearly 1 in. long



and Miscellaneous Particulars.

2525. *Hugbilla*. Culture, propagation, &c., the same as those of *Gilia*.  
 2526. *Leptosiphon*. All the species of this genus are very pretty showy plants, and are well worth cultivating in  
 every garden. Culture, &c., of *Gilia*.  
 2527. *Fenzlilla*. Culture and propagation the same as those of *Leptosiphon*.

390. *HOPZIA mexicana* Lam.; syn. No. 2302. In p. 142., *Loeselia coccinea* G. Don, *Cántua Hoitzia* W., *C. coccinea* Poir.

|  |                            |   |  |
|--|----------------------------|---|--|
| 393. E'PACRIS.   |                            | Sp. 14—18.  |  |
| 16944  | 2308a campanulata B. C.    | bell-flowered   | ☐ or 3 f.mr Dp.Bh N.Holl. 1830. C s.p Bot. cab. 1925     |
|  | β alba B. C.               | white-flwd  | ☐ or 2 mr W N.S.W. 1830. C s.p Bot. cab. 1931            |
| 16945  | 2308b impressa Lab.        | impressed   | ☐ or 3 ap.jl C N.Holl. 1824. C s.p Sw. au. 4             |
| 16946  | 2308c variabilis B. C.     | variable  | ☐ or 2 ja.f Bk N.S.W. 1829. C s.p Bot. cab. 1816         |
| 16947  | 2308d nivialis B. C.       | snowy-flwd  | ☐ or 3 mr W N.Holl. 1829. C s.p Bot. cab. 1829           |
| 16948  | 2308e ceræiflora Grah.     | wax-flowered  | ☐ or 2 mr.ap W V.D.L. 1831. C s.p Bot. mag. 3243         |
| 16949  | 2309a paludosa R. Br.      | marsh   | ☐ or 3 ap.jl Pa.R N.Holl. 1825. C s.p                    |
| 16950  | 2309b onosmæiflora Cus.    | Onosma-flwd   | ☐ or 2 ap.jl R N.Holl. 1823. C s.p                       |
| 16951  | 2310a mucronulata R. Br.   | small-pointed   | ☐ or 3 ap.jl R N.Holl. 1824. C s.p                       |
| 2528.  | 394a. ME'LICHRUS R. Br.    | ( <i>Melichros</i> , honey-coloured; glands of flowers.)        | <i>Epaerideæ</i> . Sp. 2—2.                              |
| 16952  | - rotatus R. Br.           | rotate  | ☐ or 1½ ap.au S N.Holl. 1824. C s.l.p Cav. ic. 4. 349. 1 |
| 16953  | - medius Cus.              | middle  | ☐ or 2 ap.my S N.Holl. 1824. C s.l.p                     |
| 2529.  | 399a. SPHENOTOMA Swt.      | ( <i>Sphen</i> , wedge, <i>tome</i> , segment; corolla.)        | <i>Epaerideæ</i> . Sp. 2—2.                              |
| 16954  | - græcilis Sut.            | slender   | ☐ or 2 ap.my W N.Holl. 1823. C s.p Sw. au. 44            |
| 16955  | - capitata R. Br.          | spike-headed  | ☐ or 1 ap.my W N.S.W. 1830. C s.p Bot. reg. 1515         |
| 2530.  | 399b. TROCHOCARPA R. Br.   | ( <i>Trochos</i> , a wheel, <i>karpos</i> , fruit; cells.)      | <i>Epaerideæ</i> . Sp. 1—1.                              |
| 16956  | - latiflora R. Br.         | Laurel-leaved   | ☐ or 25 ap.au W N.Holl. 1823. C s.p Bot. mag. 3324       |
| 2531.  | 400a. PONCELETIA R. Br.    | PONCELETIA. ( <i>M. Poncelet</i> , a French botanist.)          | <i>Epaerideæ</i> . Sp. 1—1.                              |
| 16957  | - sprengeloides R. Br.     | Sprengelia-like   | ☐ or 1 my.jn S N.Holl. 1826. C s.p                       |
| 2532.  | 400b. COSMELIA R. Br.      | COSMELIA. ( <i>Kosmeo</i> , to adorn; beauty.)                  | <i>Epaerideæ</i> . Sp. 1—1.                              |
| 16958  | - rubra R. Br.             | red-flowered  | ☐ or 1½ R N.Holl. 1826. C s.p Bot. reg.                  |
| †403.  | AZALEA D. Don. AZALEA.     | ( <i>Azaleos</i> , dry, arid; habitation.)                      | <i>Ericaceæ</i> . Sp. 1—1.                               |
| †2339  | procumbens Lk.             | trailing  | ☐ or ¼ ap.my Pk. Britan sc.mo L s.p Eng. bot. 865        |
| The genus <i>Azalea</i> W., in p. 144., is by modern botanists included under <i>Rhododendron</i> , in p. 1190 |                            |   |  |
| 2533.  | 413a. PACHYPODIUM Lindl.   | ( <i>Pachys</i> , thick, <i>podion</i> , peduncle; footstalks.) | <i>Apocynaceæ</i> . Sp. 2—2.                             |
| 16959  | - tuberosum Lindl.         | tuberous-rooted   | ☐ or 1 su W.R C.G.H. 1813. C s.l Bot. cab. 1679          |
| 16960  | - succulentum Lindl.       | succulent   | ☐ or 1 ap.jn W.R C.G.H. 1820. C s.l Bot. reg. 1312       |
| 415. PLUMIERIA.  |                            | Sp. 10—23.  |  |
| 16961  | 2366a purpurea R. & P.     | purple  | ☐ or 4 jl.au P Peru 1820. C r.m Fl. per. 2. 137          |
| 16962  | 2366b incarnata R. & P.    | flesh-coloured  | ☐ or 5 jl.au F Peru 1820. C r.m Fl. per. 2. 138          |
| 16963  | - Lambertiana Lindl.       | Lambert's   | ☐ or 10 my.au W Mexico 1824. C r.m Bot. reg. 1378        |
| 418. TABERNEMONTANA.   |                            | Sp. 6—15.   |  |
| 16964  | 2380a gratissima Lindl.    | most grateful-scld  | ☐ or 6 my.s W E. Indies 1824. C p.l Bot. reg. 1084       |
| 16965  | - densiflora Wal.          | dense-flowered  | ☐ or 4 jn W E. Indies 1824. C p.l Bot. reg. 1273         |
| 2534.  | 424a. NYCTERISTION R. & P. | ( <i>Nycteris</i> , a bat, <i>sition</i> , food; flower.)       | <i>Sapoteæ</i> . Sp. 1—1.                                |
| 16966  | - ferrugineum R. & P.      | rusty   | ☐ or fr 30 ... W. S. Amer. 1823. C r.m Fl. per. 2. 187   |
| 428. CORDIA  |                            | Sp. 10—23.  |  |
| 16967  | - grandiflora Lindl.       | great-flowered  | ☐ or ... au W S. Amer. 1827. C l.p Bot. reg. 1491        |
| 425. ARDISIA.  |                            | Sp. 14—25.  |  |
| 16968  | - odontophylla Wall.       | tooth-leaved  | ☐ or 6 jl Pa.Sal. Bengal 1834. C s.p Bot. reg. 1892      |
| 444. SOLANDRA.   |                            | Sp. 3—5.  |  |
| 16969  | 2458a guttata D. Don       | spotted-flwd  | ☐ or 12 jn.jl Pa.Y Mexico 1830. C r.m Bot. reg. 1551     |
| 451. SOLANUM.  |                            | Sp. 84—153.   |  |
| 16970  | 2521a etuberosum Lindl.    | tuberless   | ☐ Δ or 2 jl.o Dp.P Chile 1833. D co Bot. reg. 1712       |
| 16971  | 2539a Tweediana Hook.      | Tweedie's   | ☐ or 1½ o W.P B. Ayres 1833. S co Bot. mag. 2385         |
| 16972  | 2553a coriaceum Hook.      | coriaceous  | ☐ or 4 jl.au P.B ..... 1820. C p.l Bot. mag. 2708        |
| 16973  | - fragrans Hook.           | fragrant  | ☐ cu 14 jn P S. Brazil 1835. C p.l Bot. mag. 3694        |
| 16974  | - Herbertianum Hort.       | Herbert's   | ☐ or 2 jn.au P.y ..... 1833. C l.s Fax. mag. 5. 269      |



History, Use, Propagation, Culture,

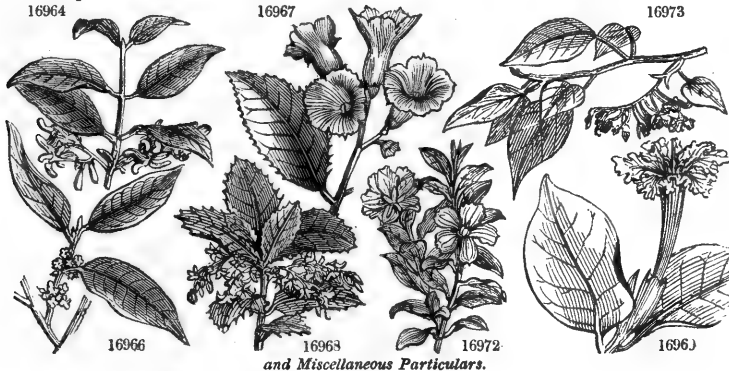
2528. *Melichros*. Fine shrubs, bearing elegant flowers, and therefore desirable plants for all collections. They thrive best in an equal mixture of sand, loam, and peat; cuttings of the young wood root readily in sand under a bell-glass.

2529. *Sphenotoma*. Culture, &c., the same as those of *E'pacriss*.

2530. *Trochocarpa*. Culture and propagation as for *Andersonia*.

2531. *Ponceletia*. Culture and propagation the same as for *E'pacriss*.

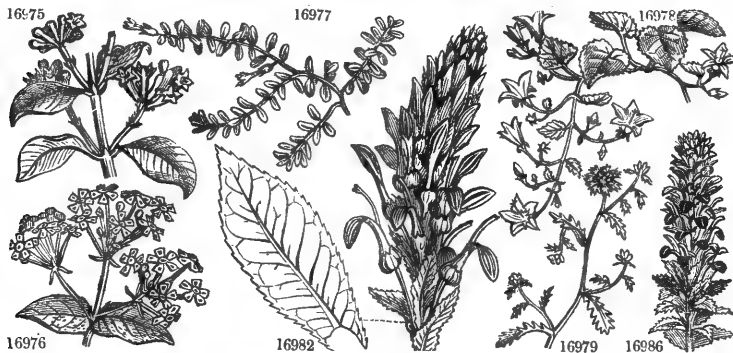
- 16944 Lvs. ovate reflexed, Flowers axill. whole forming spike, Cor. 2-3 times longer than cal. campanulate  
 16945 Lvs. lanc. nearly sess. atten. at apex mucron. Pedun. 3 times shorter than cal. Tube of cor. <sup>long. than ciliat. cal.</sup>prismatic twice  
 16946 Lvs. ovate sessile tapering to apex, Corolla 3 or 4 times longer than calyx  
 16947 Lvs. ovate-lanceol. very spreading, Flws. spicate axill. solit. secund, Tube of cor. campan. much long. than  
 segms. of calyx  
 16948 Lvs. lanceol. very spreading, Flws. spreading axill. solit. secund, Tube of cor. ovate segms. of cal. acute ciliated  
 16949 Lvs. narrow-lanceol. acumin. flat striat. beneath margins scabr. Cal. segms. very acute naked eq. to tube of cor.  
 16950 Lvs. ellip.-lanc. acumin. cucull. concave 5-nrvd. mucron. petiol. marg. ciliat. Cor. cylind. ventric. Tube exceed.  
 very acute cal.  
 16951 Lvs. lanceol. very acute erectly spread. ending in pungent pellucid mucro, Cal. segms. acute, margins naked  
 16952 Cor. rotate, Cal. villous, Lvs. lanceol. lin. pilose on both sides and on margins  
 16953 Cor. urceol. Cal. pilose, Lvs. lanc. atten. very acute mucron. concave many-nrvd. with membran. dentic. edges  
 [fringed with long hairs  
 16954 Flor. branch much long. than ovate spikes. Caul. lvs. lanc.-subul. spread or recurv. Bran. lvs. address. Lvs.  
 16955 Flor. branch much long. than ovate spikes. Caul. lvs. lanc.-ensif. erectish. Branch lvs. addressed  
 16956 The only species  
 16957 The only species  
 16958 The only species  
 +2339 The only species  
 16959 Stems tuberous at base, Lvs. oblong toment. beneath glabr. above, Prickles straight subulate  
 16960 Lvs. linear or lanceol. toment. beneath glabr. above, Prickles filiform setaceous  
 16961 Lvs. oblong-ovate with revolute edges, Flws. terminal cymose  
 16962 Lvs. ovate-oblong acute, Flws cymose, Cymose subumbellate  
 16963 Lvs. oblong-acumin. flat, Segms of limb. broad-rhomboid obtuse  
 16964 Lvs. oblong-lanceol. undul. glabr. Cal. teeth or. Segms. of cor. convex. crenul. Cymes divaricate  
 16965 Lvs. lanceol.-acumin. approxim. sometimes 3 in a whorl. Cymes many-flwd. Cal. segms. & bract. lin. lanc. acute  
 16966 Lvs. oblong-ovate with emarg. acumen shining ab. clthd. with silky rusty down ben. as are cal. & branchlets  
 16967 Lvs. ov.-acumin. narr. at base serr. clthd. silky strigæ ab. and dense fuscus. pili ben. Heads glob. on long  
 pedun. Stams enclosed  
 16968 Lvs. lanc.-obl. acute both ends on long pet. sharply toothed puberul. Racemes axill. much short. than lvs.  
 Pedic and Pedun. velvety  
 16969 Lvs. ellipt.-obl. acute downy beneath, Flws. termin. solit. Segms. of cor. crispately crenat. spread. Tube twice  
 long. than 3-lobed tubul. cal.  
 16970 Leaf. uneq. complic. much undul. approxim. altern. ones minute, Pedic. articul. Cal. & Cor. 5-angled glabrous  
 16971 Plant clothed with clammy down, Lvs. cordate angul. toothed at base on long petioles, Racemes umbellate  
 16972 Lvs. petiol. obl. coriac. shining entire rather veiny, Pedun. term. & axill. gener. 1-flwd., Lobes of cor. blunt and  
 plicæ mucron. long. than lobes [campanul. segms. reflex. Stigma. dilat. concave  
 16973 Arborescent, Lvs. twin ovate and cordate very entire, Rac. solit. from axill. of bran. secund. Cor. fleshy rotate-  
 16974 Shrubby evergreen, Stem erect, branched, ferrugin. pubescent, Lvs. petiolate ovate-oblong blunt green above  
 brownish pubescent beneath



and Miscellaneous Particulars.

2532. *Cosmètia*. Culture and propagation resembling those of *E'pactic*.  
 2533. *Pachypodium*. Very pretty succulent shrubs. They succeed best in a mixture of lime-rubbish, sand, and loam. Cuttings root readily in sand under a hand-glass. The plants should be kept moderately dry, when in a dormant state.  
 2534. *Nycteristion*. Propagation and culture same as those of *Chrysophyllum*.

|  |   |                               |   |
|--|---|-------------------------------|---|
| 455. SPERMADICTYON.  |   | Sp. 2—2.                      |   |
| 16975  | 2611a <i>azureum</i> Lindl. azure   | ■ □ or 4 ja                   | Pa.B Nepal 1823. C l.p Bot. reg. 1285         |
| 460. RONDELLETIA.  |   | Sp. 4—11.                     |   |
| 16976  | - odorata Jac. scented  | ■ □ or 3 jl.au                | R W. Indies 1836. C s.p Fl. cab. 36           |
| 2535.  | 462a. WAHLENBERGIA Sch. ( <i>G. Wahlenberg, M.D.,</i> author of <i>Fl. Lap.</i> ) <i>Campanulidææ.</i> Sp. 6—6.         |                               |   |
| 16977  | rèpens creeping   | ■, Δ pr ½ jn.o                | Wsh ..... 1830. D co Dec. Camp. 15            |
| Nos. 2634. 2651. 2671, and 2692, are also referable to this genus. |   |                               |   |
| 463. CAMPANULA.  |   | Sp. 76—834.                   |   |
| 16978  | 2635a gargarica   | Mount St. Angelo Δ or ½ jl.au | Pa.B. M. St.A. 1830. S p.l Sw.f.l.gar.2.s.252 |
| 2536.  | 464a. PRATIJA Gaud. ( <i>M. Prat-Bernon,</i> of the Fr. navy, accomp. Freycenet.) <i>Lobelidææ.</i> Sp. 2—              |                               |   |
| 16979  | - corymbosa B. M. corymbose   | ■, Δ or ½ jn.au               | R C. G. H. 1824. D pl Bot. mag. 2693          |
| 16980  | - begoniæfolia Wal. Begonia-leaved  | ■, Δ pr ½ jn.jl               | Pa.B Nepal 1827. D co                         |
| 2537.  | 464y. TUPAGA Don. (Name applied by the Indians of Chile to a sp. of this gen.) <i>Lobelidææ.</i> Sp. 6—                 |                               |   |
| 16981  | blanda D. Don charming  | ■, Δ or 3 ...                 | Pk Chile ... D lt.l Sw.f.l.gar.2.s.308        |
| 16982  | - Feuillèi Gaud. Feuillèe's   | ■, Δ spl 8 s.o                | S J. Fernan. 1824. R co Bot. mag. 2550        |
| Lobelia Tupa L.  |   |                               |   |
| 16983  | - purpurea Lindl. purple  | ■, □ or 1 jn.o                | P Valpar 1825. C p.l Bot. reg. 1325           |
| 16984  | - arguta B. R. sharp-notched  | ■, Δ or 2 s                   | Y Chile 1824. D l.p Bot. reg. 973.            |
| 16985  | - Cavanillesiana Cavanilles's   | ■, Δ yr 3 au.o                | Bt.C Chile 1831. D l.p Bot. mag. 3207         |
| 16986  | - polyphylla H. & A. many-leaved  | ■, Δ or 4½ s                  | D.P Valpar. 1829. D lt.r Sw.f.l.gar.2.s.242   |
| 2538.  | 464z. SIPHOCA'MPYLOS D. Don. ( <i>Siphon,</i> tube, <i>kampylos,</i> curved; <i>corolla,</i> ) <i>Lobelidææ.</i> Sp. 2— |                               |   |
| 16987  | - bicolor D. Don two-coloured   | ■, pr 3 ap                    | R.Y Georgia 1835. C s.p Sw. fl. gar. 389      |
| No. 2720, in p. 166. is also referable to this genus.              |   |                               |   |
| 464. LOBELIA.  |   | Sp. 51—102.                   |   |
| 16988  | 2076a robusta Fis. robust   | ■, Δ or 3 au                  | P Haiti 1830. D s.l Bot. mag. 3138            |
| 2719 syphilitica   |   |                               |   |
| β hybrida Hook. hybrid   |   |                               |   |
| L. speciosa and L. Müller Hort. coloured-leaved                    |   |                               |   |
| 16989  | 2719a colorata Sot.   | ■, Δ or 5 ...                 | B.o N. Amer. 1832. D p.l Sw.f.l.gar.2.s.180   |
| 16990  | 2714a caerulea B. M. blue   | ■, Δ or 1½ jn.jl              | B C. G. H. 1824. D p.l Bot. mag. 2701         |
| 16991  | Krausii Grah. Kraus's   | ■, Δ or 1½ ja.f               | ... Dominica 1828. D l.p Bot. mag. 3019       |
| 16992  | - Bridgesii Hook. Bridges's   | ■, □ or 4 jn                  | Pk Chile 1836. S p.l Bot. mag. 3671           |
| 2539.  | 467a. LECHENAU'LTIA R. Br. ( <i>M. Lechenault,</i> a French bot. and trav.) <i>Goodeniæ.</i> Sp. 2—2.                   |                               |   |
| 16993  | - formosa R. Br. handsome   | ■, □ pr 1 jn.                 | S N. Holl. 1824. C p.l Sw. au. ic. in         |
| 16994  | - oblata Sot. oblate  | ■, □ pr 1 jn.jl               | O N. Holl. 1824. C p.l Sw. au. 46             |
| Baxteri G. Don, formosa B. M. and B. R. not R. Br.                 |   |                               |   |
| 2540.  | 470a. BRUNONIA Sm. ( <i>Robt. Brown, Esq.,</i> a learned systematic bot.) <i>Goodeniæ.</i> Sp. 1—1.                     |                               |   |
| 16995  | - australis R. Br. southern   | ■, Δ or 1 ...                 | B N. Holl. 1834. ?D ?l Bot. reg. 1833         |
| 474. CAPRIFOLIUM.  |   | Sp. 17—17.                    |   |
| 16996  | 2785a Douglasii Lindl. Douglas's  | ■, 3 or 20 jls                | O N. Amer. 1824. C co                         |
| 16997  | 2785b hirsutum Dens. hairy-leaved   | ■, 3 or 20 my.jn              | Y Canada 1822. C co Bot. mag. 3103            |
| 16998  | 2785c occidentale Lindl. western  | ■, 3 or 20 jn.au              | O Ft. Vancouv. 1824. C co Bot. reg. 1458      |
| 16999  | 2785d ciliatum Ph. ciliated   | ■, 3 or 6 jn                  | Y Missouri 1825. L co                         |
| 17000  | 2789a longiflorum Sal. long-flowered  | ■, 3 or 20 jls                | Y.w China 1826. C co Bot. reg. 1232           |
| 17001  | - hispidulum Lindl. rather-hispid   | ■, 3 or ... jl                | Ro N.W.Am. 1827. C p.l Bot. reg. 1761         |
| 2541.  | 478a LEYCESTERIA Wal. LEYCESTERIA. ( <i>W. Leicester,</i> chief judge at Bengal.) <i>Caprifoliidææ.</i> Sp. 1—1.        |                               |   |
| 17002  | - formosa Wal. handsome   | ■, □ or 4 a.us                | W.P Nepal 1824. C r.m Bot. mag. 3692          |



History, Use, Propagation, Culture,

2535. *Wahlenbergia*. The seeds of the annual sp. of this genus require to be raised on a hot-bed; and, when sufficiently strong, planted into the open border, in a sheltered situation. The perennial sp. grow freely in loam, peat, and sand, and strike root readily under a hand-glass.

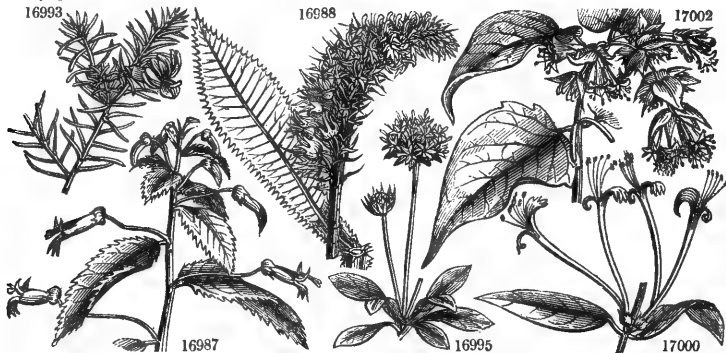
2536. *Pratia*. Plants of this genus are readily increased by division of the root, or by seed; and thrive best in a mixture of loam, peat, and sand.

2537. *Tupa*. The species of this genus are deserving cultivation in every collection, on account of the beauty and singularity of their flowers. They are generally raised from imported seeds; and, when the plants are sufficiently strong, may be planted in the border under a south wall, but require to be potted in the autumn, and placed in the green-house during winter. *T. Feuillèi* yields a dangerous poison in Chile.

- 16975 Lvs. ovate-lanc. short-acumin. scabrous on both surfaces rounded at base, Cal. segms. linear villous
- 16976 Lvs. scarcely petiolate ovate or subcordate scabrous above and on the nerves beneath, Corymbs terminal
- 16977 Stem creeping
- 16978 Stems diffused, Lvs. reniform-cordate deeply serrated, Peduncle usually 2-flwd. Segms. of calyx toothed, [Cor. rotate
- 16979 Glabrous, Stems branched, lower lvs. roundish ; upper ones linear spatulate deeply serrated, Pedunc. corym.
- 16980 Stems filif. creeping hairy, Lvs. roundish-cord. serr. petiol. hairy both surfs. oblique at base, Pedic. solit. Cal. segms. lin. subul.
- 16981 Lvs. lanceolate cuspidate, doubly serrated, decurrent at the base, Bracts convolute, Calyx toothed subulate, Anthers glabrous
- 16982 Stem erect thick suffrut. at base simple leafy, Lvs. ov.-lanc. sess. decurrent clothed sof. whitish down, Raceme term. spicate
- 16983 Glabrous, Lvs. lanceolate serrulated, Flowers racemose, Calyx spherical 5-toothed
- 16984 Stem suffrut. simple glabr. Lvs. lin.-lanc. serrul. quite glabr. both surfs. Pedic. axill. shorter than lvs.
- 16985 Stem villous, Lvs. sess. ovate-oblong serrul. mucron. downy glauc. Raceme short leafy, Cor. downy
- 16986 Lvs. ov.-lan. mucron. sharply serrat. quite glabr. Racemes term. leafy, Tube of cor. little long. than cal. 2 lower anth. beard.
- 16987 Lvs. lan. acumin. unequally serrated attenuated at base, Flowers axillary solitary pedunculate
- 16988 Lvs obovate-lanceol. acumin. coarsely toothed glabrous shining, Rac. termin. simple secund
- 16989 Glabrous, Lvs. lanceol. acumin. erosely toothed, Raceme leafy, Peduncles naked, Segms. of cal. linear subulate
- 16990 Stem short decumb. at base densely leafy, Lvs. lanc. dentately pinnatif. downy atten. at base, Pedun. term. very long. Segms. of cor. long. th. lvs. [subul. little toothed spread.
- 16991 Lvs. sess. lanceol. decur. sharply serrat. glabr. Pedic. axill. solit. long. th. lvs. Rac. termin. leafy, Cal. segms. 16992 Lvs. 5-6 in. long lanceol. much acumin. closely and acutely serrated
- 16993 Flws. axill. solit. bractless droop. Cor. bilabiate glabr. upper lip of cor. rounded ent. : lower tripart. segms. 16994 Flws. axill. and term. bractless somewh. droop. Cor. bilab. downy outside : upper lip 2-lobed ; lower tripart. Segms. obovate
- 16995 Lvs. undivided villous beneath as are scapes hairy spread. Cal. segms. longitud. feathered apex somewhat acute

- 16996 Whorls capit. Lvs. oval acute both ends petiol. glabr. ciliat. toment. on outside upper ones connate
- 16997 Lvs. large ovate-ellipt. waved rath. acute on short petiol. upper sess. lower connate-perfol. downy glauc. ben. ciliat. on margin [beneath
- 16998 Flws. in verticill. heads, Cor. glabr. with elongated gibbous tube, Lvs. oval almost sess. glabr. ciliat. glauc.
- 16999 Spikes approx. vertic. heads of nearly sess. flws. Tube of cor. hairy ventric. in middle, Lvs. coriac. retic. ov. on short ped. glauc. ben. ciliat.
- 17000 Glabrous, Lvs. petiol. obl.-lanc. shining above pale ben. Pedun. short 2-flwd. Tube of cor. very long filiform
- 17001 Hispid-pilose, Umbels pedunculate, Lvs. petiolate cordate ovate obtuse underneath glaucous

17002 The only species



and Miscellaneous Particulars.

2538. *Siphocampylus*. The sp. of this genus have all large, showy, scarlet, or red flowers, and well deserve a place in every stove. They are of easy culture. A mixture of loam, sand, and peat soil suits them best ; in which cuttings strike readily under a hand-glass in heat.

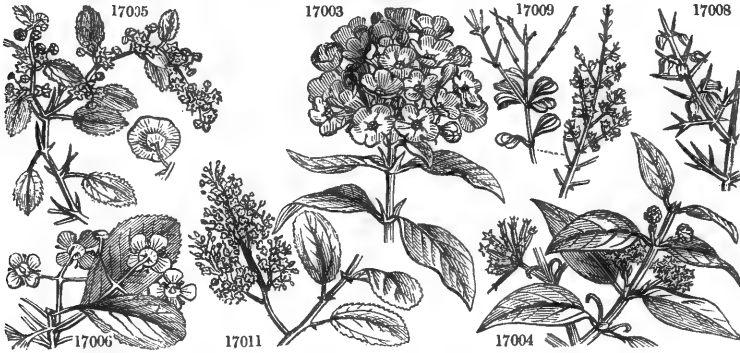
2539. *Lechenaultia*. Elegant plants when in blossom. A mixture of turfy loam, peat, and sand suits them best ; and cuttings of the young wood root freely in the same kind of soil under a hand-glass.

2540. *Brundia*. Culture and propagation as for *Scævola* in p. 169.

2541. *Lycestertia*. This is a beautiful shrub when in a flowering state, from the contrast between the deep green hue of its stem and lvs. and the reddish purple of its large bracteas and berries. It is easily propagated by cuttings, or by seeds, which it produces in abundance.



|         |       |  |   |  |                      |                                |
|---------|-------|--|---|--|----------------------|--------------------------------|
| 2542.   | 491a. | <i>LUCULIA</i> Swt.                          | LUCULIA.  | ( <i>Luculi</i> Swa of Nepal.)                         | <i>Rubiaceæ.</i>     | Sp. 1—1.                       |
| 17003 - | -     | <i>gratissima</i> Swt.                       | most grateful   | ■ □ or 9 a.us R Nepal                                  | 1823                 | C p.l Sw. fl. gar. 145         |
| 2543.   | 496a. | <i>UNCARIA</i> Gae.                          | UNCARIA.  | ( <i>Uncus</i> , a hook; old petioles.)                | <i>Rubiaceæ.</i>     | Sp. 1—2.                       |
| 17004 - | -     | <i>Gambier</i> Wal.                          | Gambier   | ■ □ or 10 ... Pa.R E. India                            | 1825.                | C p.l Lin. tr. 9. 22           |
| 17005   | 505.  | <i>PALIURUS.</i>                             | twiggly   | ■ or 15 a.us G.y                                       | Sp. 2—2.             | 1817. L co Bot. mag. 2535      |
|         | 2896a | <i>virgatus</i> D. Don                       |   |  | Sp. 7—19.            |                                |
|         | 509.  | <i>EUONYMUS.</i>                             |   |  |                      |                                |
|         | 2912  | <i>europæus</i>                              |   |  |                      |                                |
|         |       | <i>β latifolius</i> Lo. C.                   | broad-leaved  | ■ or 15 my.jl W  | .....                | ... L s.l                      |
|         |       | <i>γ leucocarpus</i> Dec.                    | white-fruited   | ■ or 12 my.jl W  | Britain              | ... L co                       |
| 17006   | 2911a | <i>grandiflorus</i> Wal.                     | large-flowered  | ■ □ or 8 my.jl W                                       | E. Indies            | 1824. C s.p                    |
| 17007   | 2911b | <i>Hamiltonianus</i> Wal.                    | Hamilton's  | ■ □ or 20 mr W   | Nepal                | 1825. L r.m                    |
| 2544.   | 509a. | <i>COLLETTIA</i> Com.                        | COLLETTIA.  | ( <i>Collet</i> , a French botanist.)                  | <i>Rhâmneæ.</i>      | Sp. 1—3.                       |
| 17008 - | -     | <i>horrida</i> Brong.                        | horrid  | ■ □ cu ... my.jn                                       | Gah.W.P Chile        | 1832. S s.l Bot. reg. 1776     |
|         |       | <i>ferox</i> of Gill. & Hook. in Bot. misc., | not the <i>horrida</i> of W.                            |  |                      |                                |
| 2545.   | 509b. | <i>RETANILLA</i> Brong.                      | RETANILLA.  | (Its name in Peru.)                                    | <i>Rhâmneæ.</i>      | Sp. 1—1.                       |
| 17009 - | -     | <i>obcordata</i> Brong.                      | obcordate- <i>lvd.</i>                                  | ■ □ or 2 ... Y   | Peru                 | 1822. C l.p Ven. cels. 92      |
| 2546.   | 509c. | <i>TREVOA</i> Cav.                           | TREVOA.   | ( <i>Trevo</i> , the name of some botanist.)           | <i>Rhâmneæ.</i>      | Sp. 1—2.                       |
| 17010 - | -     | <i>tripinervis</i> Gill.                     | triple-nerved   | ■ □ or 4 ... G.y                                       | Chile                | 1828. C p.l                    |
|         | 510.  | <i>CEANOTHUS.</i>                            |   |  | Sp. 9—23.            |                                |
|         | 2925  | <i>azureus</i>                               |   |  |                      |                                |
|         |       | <i>β flore albo</i> Hort.                    | white-flowered  | ■ □ or 10 ap W   | .....                | ... C p.l                      |
| 17011   |       | <i>collinus</i> Dou.                         | hill  | ■ □ or 1 mr.s  | Li N. Amer.          | 1827. C p.l Bir. bot. g. 13    |
|         | 515.  | <i>BILLARDIERA.</i>                          |   |  | Sp. 6—7.             |                                |
| 17012   | 2936a | <i>ovalis</i> Lindl.                         | oval-leaved   | ■ □ pr 20 my   | Gah.Y V. D. L.       | 1833. S s.p Bot. reg. 1719     |
| 17013   | 2937a | <i>heterophylla</i> Lindl.                   | various-leaved  | ■ □ or 6 jl  | B N. Holl.           | 1830. C p.l Bot. reg. 1466     |
|         |       | <i>Söllya heterophylla</i> Lindl.            |   |  |                      |                                |
| 2547.   | 518a. | <i>COLEONEMA</i> B. & W.                     | COLEONEMA.  | ( <i>Koleos</i> , a sheath, <i>nema</i> , a filament.) | <i>Rutidææ.</i>      | Sp. 1—2.                       |
| 17014 - | -     | <i>pálchrum</i> Hook.                        | beautiful   | ■ □ or 6 ap.my   | Ro C. G. H.?         | ... C p.l Bot. mag. 3340       |
|         |       | <i>Diósma angustifolia</i> of the gardens.   |   |  |                      |                                |
| 2548.   | 529a. | <i>ESCALONIA</i> Mutis.                      | ( <i>Escallon</i> , a Spaniard and American traveller.) |  | <i>Escallonidææ.</i> | Sp. 7—8.                       |
| 17015 - | -     | <i>discolor</i> Mutis                        | two-coloured- <i>lvd.</i>                               | ■ □ or 6 ...   | S. Amer. 1820.       | C l.p Ven. ch. 54              |
| 17016 - | -     | <i>montevideñsis</i> Dec.                    | Monte Videan  | ■ □ or 6 au W  | M. Video 1827.       | C p.l Bot. reg. 1467           |
| 17017   |       | <i>pulverulenta</i> Pers.                    | dusted  | ■ □ or 8 jl W  | Chile 1831.          | C p.l Sw.fl.gar.2.s. 310       |
| 17018   |       | <i>viscosa</i> Lk. & Otto                    | viscous   | ■ □ or 5 ... W   | Mendoza 1829.        | C p.l                          |
| 17019   |       | <i>glandulosa</i> Sm.                        | glandular   | ■ □ or 3 s R   | Chile 1827.          | C l.p Bot. cab. 1291           |
| 17020   |       | <i>rubra</i> Pers.                           | red-flowered  | ■ □ or 3 s R   | Chile 1827.          | C l.p Bot. mag. 2890           |
| 17021   |       | <i>illinita</i> Presl                        | varnished   | ■ □ or 5 a.us W  | Chile 1830.?         | C p.l Bot. reg. 1900           |
|         | 540.  | <i>PTOLA.</i>                                |   |  | Sp. 54—112.          |                                |
|         | 3022  | <i>pedata.</i>                               |   |  |                      |                                |
|         |       | <i>β habellata</i> D. Don                    | fan-leaved  | ■ △ or ½ o   | Li.P Georgia         | 1831. D p Sw.fl.gar.2.s. 247   |
| 17022   | 3029a | <i>præmorsa</i> Dou.                         | bitten-rooted   | ■ △ or ½ my.jl   | R Columbia           | 1826. D co Bot. reg. 1254      |
| 17023   | 3040a | <i>suaavis</i> Bieb.                         | fragrant  | ■ △ fra ½ s  | Pa.B Ukraine         | 1823. D co Sw.fl.gar.2.s. 126  |
| 17024   | 3042a | <i>flavicornis</i> Sm.                       | yellow-horned   | ■ △ or ½ my.jl   | Y.B Britain          | ch.pl D co Eng. Bot. 2736      |
| 17025   | 3064a | <i>palmaënsis</i> P. B.W.                    | Palma   | ■ □ or 1 my.jl   | B Palma              | ?1836. C l.p                   |
| 2549.   | 540a. | <i>ERPECTION</i> Swt.                        | SPURLESS VIOLET.  | ( <i>Erpetos</i> , trailing, <i>ion</i> , a violet)    | <i>Violidææ.</i>     | Sp. 1—2.                       |
| 17026 - | -     | <i>reniformis</i> Swt.                       | reniform  | ■ △ pr ½ my.o  | P.B N. Holl.         | 1823. D s.p.l Sw. fl. gar. 170 |
| 2550.   | 541a. | <i>HYMENANTHERA</i> R. Br.                   | ( <i>Hymen</i> , membrane, <i>anthera</i> , an anther.) |  | <i>Violidææ.</i>     | Sp. 1—1.                       |
| 17027 - | -     | <i>dentata</i> R. Br.                        | toothed-leaved  | ■ □ or 6 ap.my   | Y N. Holl.           | 1820. C. p.l Bot. mag.         |



History, Use, Propagation, Culture,

2542. *Luculia gratissima*. It is impossible to conceive any thing more beautiful than this tree, when covered with its numerous cymes of fragrant flowers. A good rich light soil suits it best; and cuttings may, though with great difficulty, be rooted in sand, under a hand-glass.

2543 *Uncaria Gambier*. Gambier is the Malay name of an extract prepared from the leaves of this plant, and one of the drugs, if not the only one, formerly called *Terra Japonica* in Europe. It is chewed by the natives, mingled with opet leaf and areca, after the manner in which the cutch is used on the continent of India. (*Don's Mill.*)

2544. *Colletia*. A mixture of loam and peat appears to suit the plants of this genus best; and cuttings of the young wood will root freely in sand, under a hand-glass.

2545. *Retanilla*. Propagation, culture, &c., as for *Colletia*.

2546 *Trevoa*. For propagation, culture, &c., see *Colletia*.

17003 The only species.

17004 Lvs. ov-obl. acute on short pet. smooth both surfs. Stips. ovate, Pedun. axill. solit. oppos., Bracteol. in middle: lower sterile convert. int. hooked spines

17005 Branches smooth, Lvs. obliq. cord. or ellipt. 3-nerved shining, Wing of fruit entire

17006 Bran. terete smooth, Lvs. obov.-obl. obt. acutely serrat. tapering and ent. at base, Pedun. slender flatten. about  
17007 Bran. smooth terete, Lvs. lanceol. finely serrat. Pedun. dichotom. 6-fwd. Flws. tetrandrous, Petals 4-lanceol. cordate

17008 Spines strong awl-sh., Fascicles scattered, Cal. oblong-cylindrical, Anth. nearly sess.

17009 Lvs. obcord. quite entire 3-nrvd. Flws. sess. spiked rising from axillæ of scales

17010 Lvs. 3-nerved

17011 Lvs. ovate roundish hairy

17012 Branchlets pubesc. Lvs. lin. obl. obtuse, Peduncle 1-fwd. glabrous, Petals straight bluntish

17013 Branchlets glabrous, Lvs. ovato-lanc. lower ones serrated upper ones quite entire, Cymes opposite the leaves

17014 Bran. twiggy pendent, Lvs. filif. acumin. flat above ben. semiterete, Flws. axill. solit. on short pedun. with several subul. imbric. bracts

17015 Branchl. rath. pubesc. Lvs. cuneif.-lanc. somewh. crenul. quite ent. middle nerve hairy, Panic. termin. many-  
17016 Lvs. obl. cuneate at base acutish finely serrat. full of resin. dots ben. Panic. term. many-fwd. crowded  
intermixed with foliac. bract. Petals obov.-obl. [term. spike-formed erect, Petals obovate

17017 Hairy, Bran. somewh. trigon. Lvs. ellipt. obtuse on short petioles serrul. rather clammy above when young, Rac.  
17018 Lvs. oblong hairy viscid

17019 Lvs. oval acuminate smooth on both sides

17020 Lvs. obov.-lanceol. acute doubly serrat. glandul. at the base tapering at petiole, Pedun. simple or branched,  
17021 Lvs. oblong-lanceolate serrulate clammy varnished, Corymbs 3-fwd. racemose, Corol. cylind. Limb spreading

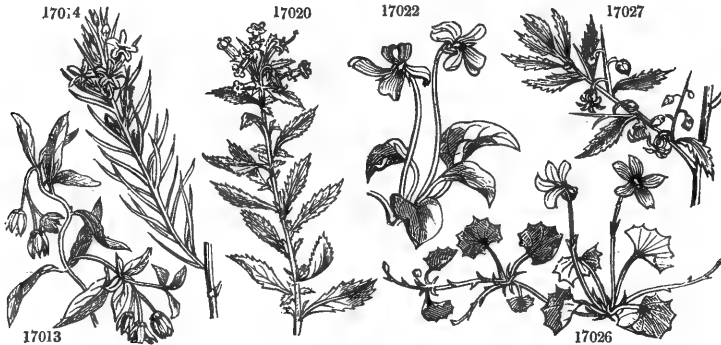
17022 Stem simple erect, Lvs. ovato-obl. petiol. entire hairy, Caps. pubesc. Stip. lanceolate ent. Pedun. about twice  
17023 Distinguished from *V. odorata* by its paler green herb. larger and paler flws. upper petals longer and narrower  
and lower broader and more distinctly emargin. Stip. also narrower

17024 Stem woody somew. angul. much bran. Lvs. cord. coriac. smooth even, Stip. and brac. fringed, Sepals lanceol

17025 Lvs. ovate acum. lbd. smth. above and slightly hairy beneath. [Pedun. erect. Caps. short. and round th. *V. canina*

17026 Lvs. crowded renif. repandy toothed punct. Stips. lin.-awl.-sh. acumin. Petals reflex. 2 lateral ones bearded on upper side

17027 Lvs. oblong denticulated



and Miscellaneous Particulars.

2547. *Colônema pulchrum*. A beautiful little shrub, which thrives in a mixture of peat and sand, with a little loam. The tops of the young shoots, made into cuttings, and planted in sand under a bell-glass, root readily without heat.

2548. *Escallonia*. The species are fine evergreen half-hardy shrubs, and thrive best in a mixture of peat, sand, and loam. Cuttings strike readily in the same kind of soil, or in sand under a hand-glass.

2549. *Erythron*. Elegant little plants, that deserve to be cultivated in every garden. They are well adapted for rockwork, and are easily increased by separating their runners. They require the protection of a frame during winter.

2550. *Hymenanthera*. A mixture of loam and peat suits the species of this genus best, and cuttings root readily in sand under a bell-glass.

†550. *RI'BES* L. (*Ribes* of the Arabian physicians, found to be the *Rhëum Ribes*.) *Grossulacæe*. Sp.41—41.

I. GROSSULA'RIE. — *Gooseberries*.

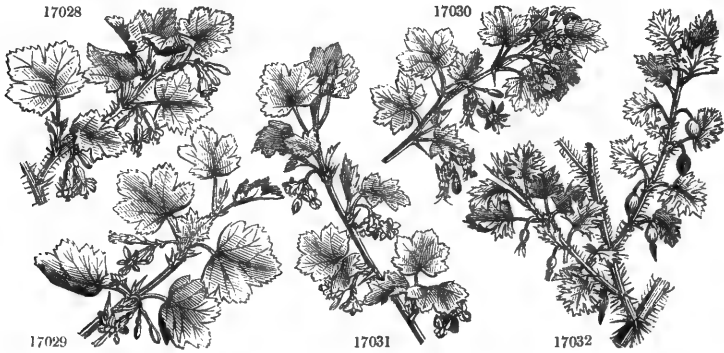
|       |  |   |                          |           |                 |   |     |  |
|-------|--|---|--------------------------|-----------|-----------------|---|-----|--|
| 3107  | <i>oxyacanthoides L.</i>                     | Hawthorn- <i>lod</i> 纒  | or 3                     | ap.my G.W | N. Amer. 1705.  | C   | co  | Di. el. 139. 166   |
| 17028 | 3107a <i>setosum Lindl.</i>                  | bristly 纒   | or 4                     | ap.my G.W | N. Amer. 1810.  | C   | co  | Bot. reg. 1237   |
|       | 3108 <i>triflorum W.</i>                     | three-flowered 纒  | or 4                     | ap.my G.W | N. Amer. 1812.  | L   | r.l | W. h. b. 1. 61   |
| 17029 | 3108a <i>niveum Lindl.</i>                   | snowy-flowered 纒  | or 5                     | ap.my W   | N. Amer. 1826.  | L   | co  | Bot. reg. 1692   |
|       | 3109 <i>Cynósbati L.</i>                     | Dog-bramble 纒   | or 4                     | ap W      | Canada 1759.    | C   | s.l | Schm. ar. 98   |
| 17030 | 3109a <i>divaricatum Dou.</i>                | spreading-bran. 纒   | or 7                     | ap W      | N. Amer. 1826.  | C   | co  | Bot. reg. 1359   |
| 17031 | 3109b <i>irriguum Dou.</i>                   | well-watered 纒  | or 4                     | ... G.W   | N. Amer. 1820.  | C   | co  | A. b. f. 721.  |
|       |  | <i>Cynósbati, divaricatum, and irriguum</i> are probably only varieties of triflorum. |                          |           |                 |   |     |  |
|       | 3110 <i>hirtellum Mx.</i>                    | slightly hairy 纒  | or 4                     | ap.my G.W | Canada 1812.    | L   | s.l |  |
|       | 3111 <i>grácile Mx.</i>                      | slender-bran. 纒   | or 4                     | ap.my G.W | N. Amer. 1812.  | L   | s.l |  |
| 17032 | 3111a <i>aciculáre Sm.</i>                   | acicular-spined 纒   | or ...                   | ... W     | Siberia ...     | L   | co  | Led. fl. alt. 230  |
|       | 3112 <i>Grossulária L. common Gooseberry</i> | 纒   | fr 4                     | mr.ap G.W | Britain         | hed.                                      | C   | r.m Eng. bot. 1292   |
|       | β <i>Uva-crispa Eng. bot. 2057.</i>          | 纒   | γ spinosíssima Berl. ms. |           |                 | δ reclinata Berl. ms. No. 3126 of p. 160. |     | ζ subinermis Berl. ms. η macrocarpa Dec. θ bractæata Berl. ms. |
| 17033 | 3112a <i>speciosum Ph.</i>                   | showy-flowered 纒  | or 4                     | ap.jn R   | Californ. 1829. | L   | r.l | Sw.fl.gar.2.s. 149   |
|       | <i>stamineum Smith.</i>                      |   |                          |           |                 |   |     |  |

II. BOTRYCNA'RPA. — *Plants intermediate between Gooseberries and Currants.*

|       |   |                 |      |            |                |   |     |               |
|-------|---|-----------------|------|------------|----------------|---|-----|---------------|
| 17034 | 3113 <i>orientále Poir.</i>                         | Eastern 纒       | or 4 | my.jn G.y  | Syria 1824.    | C | co  |               |
|       | 3113a <i>saxátile Poir.</i>                         | rock 纒          | fr 4 | ap.my G    | Siberia 1819.  | C | co  | Led. alt. 239 |
|       | 3114 <i>Diacántha L. fl.</i>                        | twin-prickled 纒 | or 4 | my.jn G.y  | Siberia 1781.  | L | r.l | Schm. ar. 97  |
|       | 3115 <i>lacústre Poir.</i>                          | lake-side 纒     | or 4 | ap. my G.y | N. Amer. 1812. | C | p.l | A. b. f. 724  |
|       | <i>oxyacanthoides Mx. and echinatum Douglas ms.</i> |                 |      |            |                |   |     |               |

III. RIBE'SIA. — *Currants.*

|       |   |   |                                  |                |                                 |   |                 |                  |
|-------|---|---|----------------------------------|----------------|---------------------------------|---|-----------------|------------------|
|       | 3116 <i>ròbrum L.</i>                                 | common red 纒                                    | fr 4                             | ap.my G        | Britain riv.ba                  | C | r.m             | Eng. bot. 1289   |
|       | α <i>sylvèstre Dec.</i>                               | β <i>hortense Dec.</i>                          | γ <i>carneum Berl. ms.</i>       |                | flesh-cld-berried.              | δ | variegatum Dec. |                  |
|       | <i>striped-berried.</i>                               | ε <i>silbum At. white-berried.</i>              | ζ <i>fol. luteo varieg. Duh.</i> |                | η <i>fol. albo varieg. Duh.</i> |   |                 |                  |
|       | 3117 <i>alptum L.</i>                                 | alpine 纒  | or 3                             | ap.my G        | Britain woods                   | C | co              | Eng. bot. 704    |
|       | β <i>pùmulum Lindl.</i>                               | dwarf 纒   | cu 2                             | ap.my G        |                                 | C | co              | A. b. f. 726     |
|       | γ <i>fol. variegatis Hort.</i>                        | variegated-lvd 纒                                | or 4                             | ap.my G        | Britain gard.                   | C | co              |                  |
|       | 3118 <i>petræum Wulf.</i>                             | rock 纒  | or 4                             | my R           | England mount                   | C | co              | Eng. bot. 705    |
|       | 3119 <i>spicatum Robs.</i>                            | spiked-flwd. 纒                                  | or 4                             | ap.my G        | England mo.wo                   | C | co              | Eng. bot. 1290   |
| 17035 | 3119a <i>carpathicum Kit.</i>                         | Carpathian 纒                                    | or 4                             | ap.my G        | Carpathia 1318.                 | C | co              |                  |
|       | 3120 <i>multiflorum Kit.</i>                          | many-flowered 纒                                 | or 5                             | ap.my G        | Hungary 1822.                   | C | co              | Bot. mag. 2368   |
|       | 3121 <i>procumbens Pall.</i>                          | procumbent 纒                                    | or 1/2                           | my.jn P        | Dahuria 1804.                   | L | m.s             | Pal. ros. 2. 65  |
|       | 3122 <i>prostratum L.</i>                             | prostrate 纒                                     | or 1/2                           | ap.my Y        | Newfou. 1812.                   | L | s.l             | Schm. ar. 95     |
|       | β <i>laxiflorum A. B.,</i>                            | <i>R. laxiflorum Ph., R. affine Douglas ms.</i> |                                  |                |                                 |   |                 |                  |
|       | 3123 <i>resinosum Ph.</i>                             | resinous 纒                                      | or 3                             | ap.my Y.G      | N Amer. 1800.                   | L | co              | Bot. mag. 1583   |
|       | 3124 <i>trifidum Mx.</i>                              | trifid-calyzed 纒                                | or pros.                         | ap.my          | Quebec 1823.                    | L | co              | Bot. mag. 2368   |
| 17036 | 3124a <i>albinervum Mx.</i>                           | white-nrvd-lvd 纒                                | fr 4                             | ap.my G        | N. Amer. ...                    | C | co              |                  |
| 17037 | 3124b <i>punctatum R &amp; P.</i>                     | dotted-leaved 纒                                 | cu 3                             | ap.my G.y      | Chile 1826.                     | C | co              | Bot. reg. 1278   |
| 17038 | 3124c <i>glandulosum R. &amp; P.</i>                  | <i>glandular-cal.</i> 纒                         | or 6                             | ap.my G.y      | Peru 1820.                      | C | co              | Fl. per. 233. b  |
|       | 3125 <i>nigrum L.</i>                                 | black 纒   | fr 5                             | ap.my Wsh      | Britain m.hed                   | C | r.m             | Eng. bot. 1291   |
|       | β <i>bacca flavida G. M.</i>                          | γ <i>bacca virida Hort.</i>                     | δ <i>fol. variegatis Hort.</i>   |                |                                 |   |                 |                  |
| 17039 | 3125a <i>triste Pall.</i>                             | sad-cld-flwd 纒                                  | or 3                             | ap.my Brah.R.y | Siber. 1820.                    | C | co              | Pal. p. 10       |
|       | 3126 <i>floridum Herit.</i>                           | flowery 纒                                       | or 4                             | ap.my Y        | N. Amer. 1729.                  | C | co              | Di. el. 244. 315 |
|       | β <i>grandiflorum Hort. syn. R. rigens Mx.</i>        | γ <i>parviflorum Hort.</i>                      |                                  |                |                                 |   |                 |                  |
| 17040 | 3126a <i>inèbrians Lindl.</i>                         | intoxicating 纒                                  | cu 3                             | ap Gsh.W       | N. Amer. 1827.                  | C | co              | Bot. reg. 1471   |
| 17041 | 3126b <i>cèrum Don.</i>                               | waxy-leaved 纒                                   | or 2                             | ap W           | N. Amer. 1827.                  | C | co              | Bot. reg. 1263   |
| 17042 | 3126c <i>viscosissimum Ph.</i>                        | very clammy 纒                                   | or 4                             | ap.my Y        | N. Amer. 1826.                  | C | co              | Hook. am. 74     |
|       | <i>Coreóssima viscosissima Spach.</i>                 |   |                                  |                |                                 |   |                 |                  |
| 17043 | 3126d <i>hudsonianum Rich.</i>                        | Hudson's Bay 纒                                  | or 4                             | ... W          | Huds.Bay ...                    | C | co              |                  |
|       | <i>petiolàre Douglas in Hort. Soc. Trans. 7. 514.</i> |   |                                  |                |                                 |   |                 |                  |
| 17044 | 3126e <i>glaciàle Wal.</i>                            | icy 纒   | or 6                             | ap.my W        | Nepal 1823.                     | C | co              |                  |



17028

17031

17032

i. — *Flowers greenish white.*

- [Pedun. short. 1-2-flwd. Berry glob. glabr.  
 3107 Infra-axill. prickl. larger most solit. smaller ones scattered, Lvs. glabr. lobes dent. petioles vill. rather hisp.  
 17028 Prickles uneq. sub. Lvs. round. cord. at base pub. 3-5-lbd. dply. cren. Pedun. 2-flwd. somet. bract. Berries hisp  
 3108 Infra-axill. prickl. solit. Lvs. glabr. 3-5-lbd. incisely dent. Pedun. 1-3-flwd. Pedic. long. Bract. membr. sheathing,  
 Petals spatul. obov.  
 17029 Prickles solit. in 2s. or 3s. Lvs. glabr. round. ent. at base: 3 blunt cren. cut lobes, Ped. obt. 2-flwd. Sepals reflex.  
 3109 Infra-axill. prickles 1-2, Lvs. 3-4-lbd. softly pubesc. Pedun. 2-3-flwd. Petals small much short. th. stigm. and  
 Stam. Berry prickly [glabr. Pedun. 3-flwd. Style and Stam. exser.  
 17050 Bran. divaric. bristly at length naked, Spines 1-3 togeth. axil. deflex. large, Lvs. roundish 3-lbd. dply. thd. nrvd.  
 17031 Prickl. axill. ternary, Lvs. cord. somewh. 5-lbd. thd. ciliat. pilose both surf. nrvd. Pedun. 3-flwd. glandul. Cal.  
 segms. equal to tube  
 3110 Spines infra-axill. Branch. spngly. hisp. with short hairs, Lvs. small: cleft. 4 down into 3 dent. lbs. Ped. 1-flwd.  
 3111 Infra-axill. spine very short, Lvs. on slend. stalks pub. on. bth. sides: lbs. acute cut and toothed, Pedun. slend.  
 upright. about 2-flwd. [middle. Berries bractless  
 17032 Very prickly, Prickles stip. 3-5-parted, Lvs. rath. pub. nrly. orbic. 3-5-lbd. Pedun. usually 1-flwd. bracteel. in  
 3112 Prickles 2-3 under each bud, Bran. otherwh. smth. spread. or erect, Pedic. 1-2-flwd. Lvs. 3-5-lbd. rath. vill.  
 Bract. close togeth. Style downy

ii. — *Flowers red.*

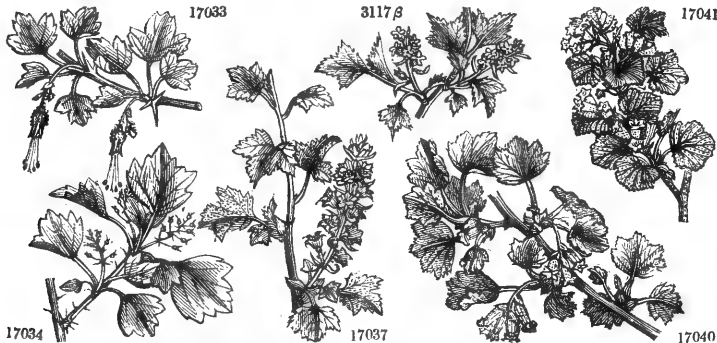
- 17033 Infra-axill. prickl. triple, Bran. hisp. Pedun. longer than lvs. 1-3-flwd. Cal. cylind. 4-parted, Pets. eq. to and  
 Stams. twice long. than cal. [Bract. long. than fws.  
 3113 Rather prickly, Lvs. 3-5-lbd. somew. renif. orbic. cut hairy; lbs. rath. deep obtuse, Racemes erectish few-flwd.  
 17034 Prickles scat. Lvs. roundish-cuneif. bluntly 3-lbd. Racemes erect, Bract. shorter th. pedic. Cal. flat. scabr. Sep.  
 small, Petals spatul. [Ovate or globose  
 3114 Stipul. prickl. twin, Lvs. wedge-sh. glabr. parted into 3 dent. lobes, Racemes erect, Brac. length of fws. Berry  
 3115 Infra-axill. prickl. manifold, Stem hisp. with minute prickl. Lvs. lbd. beyond middle glabr. ben. rath. pilose ab.  
 Pedun. 2-3-flwd.

i. — *Flowers greenish or greenish yellow, or reddish; and fruit, in a wild state, red.*

- 3116 Lvs. cord. bluntly 3-5-lbd. pubes. ben. wh. young usually rath. toment. glabr. ab. Racemes droop. Petals obovrd.  
 Fruit. quite glabr.  
 3117 Lvs. with 3-5-obl. lbs. hairy ab. shining ben. Racemes grouped, Brac. lanceol. infat. sparingly glandul. mostly  
 larger than flowers [Racemes pendul. Brac. short than pedic.  
 3118 Lvs. acumin. 3-5-lbd. rath. cord. dply. serrat. on long. pet. pilose ab. Racemes erect crowd. pubes. Fruit.  
 3119 Lvs. roundish-cord. 3-5-lbd. hairy above toment. ben. Racemes erect, Flws. more or less pedicel. Brac. obt.  
 toment. much short, than pedic. [Petals flattish smaller than calyx  
 17035 Stem erect, Lvs. 5-lbd. cord. Racemes pendul. pubesc. as are calyxes, Petals flattish smaller than calyx  
 3120 Lvs. 5-lbd. cord. toment. beneath, Racemes very long pendul. Brac. short. than fws. Petiol. length. of lvs.  
 Petals wedge-sh. [rising from cal.  
 3121 Lvs. bluntly lobed, Lobes serrat. lateral ones little cut, Racemes erect, Pedunc. long setaceous, Anther hardly  
 3122 Lvs. dply. cord. 5-7-lbd. glabr. Lobes acutely cut. dply. serr. naked both surf. Cal. rotate, Pedic. germ. and  
 berries beset with glandul. bristles.  
 3123 Glandul. hairy, Lvs. 3-5-lbd. roundish, Rac. erect, Cal. flattish, Petals bluntly rhomb. Brac. lin. long. th. pedic.  
 [Petals spatul. round at apex  
 3124 Lvs. smooth moderately lbd. Rac. loose many-flwd. pubesc. Cal. segms. rath. trifid, Berries hairy, Rac. weak,  
 17036 Lvs. short petiol. dply. & acutely lbd. smoothish with white nerves, Rac. recurved, Flws. small, Ber. glabr.  
 17037 Lvs. 3-lbd. serrat. beset with resin. glands ben. as are bracteas, Rac. long. than lvs. droop. or erect, Berries  
 oblong hairy red & dotted  
 17038 Lvs. cord. bluntly 3-lbd. dply. serrat. rugged, Racemes short, Calyx glandular pubescent

ii. — *Flowers greenish yellow, sometimes with the tip of the sepals and petals red. Fruit black.*

- 3125 Lvs. dotted from glands beneath, 3-5-lbd. Rac. loose, Brac. minute subul. or obt. much short. th. pedic. Petals  
 obl. Cal. segms. reflexed. [flattish, Petals revolute, Root creeping  
 17039 Lvs. 5-lbd. Bran. simple twiggy bearing lvs. & fws. at apex, Rac. pendul. both when in flw. & fruit. Cor.  
 3126 Lvs. full of resinous glands 3-5-lbd. cord. dply. serrat. Rac. pendul. pubesc. Brac. lin. long. th. pedic. Cal. tub.  
 campanul. glabr. segms. obt. length reflexed [Flws. aggreg. Cal. tubul. gland.  
 17040 Lvs. roundish dply. 3-5-lbd. & dply. toothed truncate at base gland. on both surf. Pedun. 3-5-flwd. pendul.  
 17041 Lvs. small cord. fbd. serr. glandul. pubescent glabr. glauc. full of white glands above, Rac. pendul. rath. capit.  
 Flws. nearly sess. cylind. [tubul. campan. segms. spread. obt.  
 17042 Lvs. cord. obt. 3-5-lbd. dply. crenated viscid & gland. pubesc. glands on both surfaces, Rac. erect corymb. Cal.  
 17043 Lvs. 3-lbd. quite glabr. above full of resin. dots beneath villous as are petiol. Germ. dotted, Rac. erect pubesc.  
 Brac. short, Berries glob. glabr. [droop. Petals long. th. cal.  
 17044 Lvs. glabr. above with few scattered bristly hairs beneath cord. at base 3-5-lbd. at apex lobes acute serrat. Rac.



17045 3126/sanguineum Ph. bloody-*cid-flwd* 或 6 ap.my Bd N. Amer. 1826. C co Bot. reg. 1349  
*malvaceum Sm.*, Calobótrya sanguinea Spach.  
 β glutinosum Benth.; syn. R. angustum Don. ms. γ malvaceum Benth. has dark pink flowers.  
 δ atro-rubens Hort. has dark red flowers.

IV. SYMPHO'CALYX.—*Calyses tubular and yellow. Racemes many-flowered. Unarmed shrubs.*

3127 adreum Ph. golden-flowered 或 8 ap.my Y Missouri 1832. C r.m Bot. reg. 125  
 α praecox Lindl. β villosum Dec. syn. longiflorum Fraser's Cat. γ serotinum Lindl. A. b. f. 743  
 17046 3127a tenuiflorum Lindl. slender-flwd 或 6 ap.my Y N. Amer. 1812. C co Bot. reg. 1274  
 adreum Colla, flavum Berl., missouriensis Hort., Chrysobótrya Lindleyana Spach.  
 α fructu nigro A.B. blackish-berried. β fructu luteo A.B. yellow-berried.  
 17047 3127b flavum Colla yellow-flwd 或 6 ap.my Y N. Amer. 1812. C co Col. h. rip. 1. D  
 adreum γ sanguineum Lindl., palmatum Desf., adreum Ker not Ph., Chrysobótrya intermedia Spach.

2551. 565a. OPLOTHE'CA Nut. (Oplon, armour, theca, a sheath; capsules.) *Amaranthaceae.* Sp. 1—  
 17048 - - floridana Nut. Florida. 或 Δ or 3 s W N. Amer. 1824. R p.l Bot. mag. 2603  
 No. 3180. in p.194. is also referable to this genus.

570. HELICO'NIA.

17049 3190a brasiliensis Hook. Brazilian 或 Δ spl 8 au S Sp. 6—11. Brazil 1820. D p.l Hook. ex. fl. 190  
 - bicolor Botanist two-coloured 或 Δ cr 3 ... W.c Brazil ?1828. D p.l Botanist, no. 101  
 17051 - - pulverulenta Lindl. dusted-leaved 或 Δ or 2 jl G.s ?S.Amer. 1830.? D p.l Bot. reg. 1648  
 570a. not 721. MU'SA. Sp. 5—10.  
 17052 4090a Cavendishii Paxt. Cavendish's 或 □ or 6 .. S China 1829. Sk r.l Pax.mag.3.51  
 chinensis Swt.

DIGYNIA.

2552. 578a. HARRISO'NIA Hook. (Mrs Harrison, of Aighburgh, near Liverpool.) *Asclepiadaceae.* Sp. 1—1.  
 17053 - - loniceroides Hook. Loncera-like 或 □ or 6 jl.au S Brazil 1825. C s.l Bot.mag. 2699  
 2553. 578b. TWEE'DIA Hook. TWREDIA. (Mr. Tweedie, a botanical collector.) *Scrophulariaceae.* Sp. 2—2.  
 17054 - - caerulea D. Don. blue-flowered 或 Δ or 3 ... B B. Ayres 1837.? C s.l Sw. fl. gar. 407  
 versicolor Hook.

2554. 579a. PHILIBE'RTIA Kth. PHILIBERTIA. (M. Philibert, a botanical author.) *Asclepiadaceae.* Sp. 1—1.  
 17055 - - gracilis D. Don. slender 或 Δ el 6 ju Y.w B. Ayres 1836. C s.l Sw.fl.gar.2.s. 403  
 grandiflora Bot. Mag. 3618.

2555. 590a. PHYSIA'NTHUS Mart. PHYSIANTHUS. (Physa, bladder, anthos, flower.) *Asclepiadaceae.* Sp. 1—1.  
 17056 - - albens Mart. whitish-leaved 或 □ or 20 au W B. Ayres 1830. S l.p Mart. br. 54. 32

2556. 592a. TYLO'PHORA R. Br. (Tylos, a wart, phorce, to bear; lys, of corolla.) *Asclepiadaceae.* Sp. 1—1.  
 17057 - - exilis Colb. slender 或 □ or 10 jn.jl Pa.P E. Indies 1823. C p.l Lin. tr. 12. 16

600. GENTIA'NA. Sp. 30—59.  
 17058 3365a quinqueflora Pers. five-flowered Δ or 1 1/4 o Li N. York 1834.? S s.l Bot. mag. 3496  
 17059 - - clavata B. M. studded 或 Δ el 1/2 ... B 1820. D p.l Bot. mag. 2303

606. HEU'CHERA. Sp. 5—10.  
 17060 - - cylindracea Lindl. cylindric-panic. 或 Δ el 2 my G N. Amer. 1835. D l.p Bot. reg. 1924  
 615. U'LMUS. Sp. 16—21.  
 3460 campestris

- 1. vulgaris A. B. 5. stricta Hort. A. b. f. 230. 9. tortuosa A. B.
- 2. latifolia Hort. 6. virens Hort., The Kidbrook. 10. fol. varieg., white varieg.-lvd.
- 3. alba Mast. 7. cornubiensis Hort.; syn. U. stricta L. 11. betulaefolia A. B.
- 8. acutifolia Mast. 8. umbellata A. B. 12. vitifolia A. B. A. b. p. 231.

- 3461 suberosa 1. vulgaris A. B. 2. fol. variegatis Lod. 3. alba A. B., white-barked.

- 3463 glabra 1. vulgaris 2. vegeta, Huntingdon; syn. Chichester Elm, American Elm of some, ?Scampston Elm. 3. major A. B.

17061 3463a major E. B. greater 或 4 tm 40 ap.my Br Britain ... G co Eng. bot. 2542



History, Use, Propagation, Culture,

2552. *Harrisoidia*. A mixture of loam and peat suits this plant best, and ripened cuttings root in sand under a hand-glass.

iii. — *Flowers deep red. Fruit black.*

17045 Lvs. cord. somewhat 5-lbd. serrat. veiny smthsh. ab. toment. ben. Rac. drooping pubesc. twice length of lvs. Brac. obov. spatul. Berries turbinate hairy

3127 Quite glabr. Lvs 3-lbd. lobes divaric. with few deep teeth short. th. petioles ciliat. at base, Cal. tubul. long th. [pedic. Tube slender. Segms. obl. obt. glabr. long. th. pedic. Petals quite ent.

17046 Quite glabr. Lvs. roundish 3-lbd. mealy lbs. bluntly toothed at apex, Rac. pendul. many-flwd. Cal. tubul.

17047 Quite glabr. Young lvs. 3-lbd. adult ones usually 5-lbd. dply. toothed about eq. to the ciliat. petioles, Rac. [short 4-5-flwd. Brae. elliptic

17048 Stem erect, Spike crowded oppos. : lower spikes distant, Cal. globose very densely woolly

17049 Lvs. oblong smooth shining

17050 Lvs. narrow at base acuminate nerved, Spathe lanceolate scarlet 4-5-flwd.

17051 Lvs. blunt or cord. at the base and acute at the apex powdery beneath, Spathes 3 few-flwd. shorter than the bracteal leaf

17052 Spadix nodding, Spathes spotted with white, Male flws. deciduous, Lvs. obtuse, Stigma globose

DIGYNIA.

17053 The only species

17054 Lvs. oppos. on short petioles oblong cordato-hastate at base, Pedun. axil. bearing 3-4-flwd. umbel, Cal. dply. cut into 5 erect lanceol. segms.

17055 Pubesc. Cor. rotately campanulate, Leaflets of corona gibbous beaked depressed at top, Stigma bifid

17056 Lvs. oppos. very ent. acute cordato-truncate below : undulat. & pruinose above, Pedun. later rarely axil. subdi- [cot. cymose 4-8-flwd.

17057 Glabrous, Lvs. ov. lanceol. acumin. Panic. large composed of umbels, Stigma apiculated [of corona broad ellipt. very obtuse

17058 Stem. bran. square winged, Flws. clust. at ends of stem & bran. 3-5 together, Cal. very short acute, Cor. clav. [5-fid, Lvs. amplexic. deltoid-cord. 3-5-nerved

17059 Lvs. obov.-obl. 3-nrvd. Flws. termin. aggreg. Cal. foliac. uneq. Cor. ventric. 5-fid.

17060 Apetalous, Panics. very much contracted

13. parvifolia A. B. ; syn. U. microph.

Pers., pumila W.

14. planifolia A. B. A. b. pl. 232.

15. chinensis A. B.

16. cucullata Hort.

17. concavifolia Hort.

18. fol. aureis Hort., yellow-varieg.-lwd.

19. viscosa Hort.

20. nana Hort.

4. erecta Lod.

5. var. The broad-leaved Hertfordshire.

6. var. The narrow-leaved Hertfordshire

5. latifolia Lindl.

6. microphylla Lindl.

7. pendula A. B.

8. variegata H. S.

9. ramulosa Booth.

17061 Lvs. rough uneq. & rather bluntly serrat. Flws. nearly sess. 4-cleft. Samara obov. slightly cloven glabr. Bran. droop. Bark corky



and Miscellaneous Particulars.

2554. *Philibertia*. Culture, propagation, &c., as of *Pergularia*, in p. 198.

2556. *Tylophora*. Culture and propagation as for *Hoya*, in p. 199.

|       |  |   |   |   |
|-------|--|---|---|---|
|       | 3464 montana<br>1 vulgaris A. B.<br>2 rugosa Mast.                                     | 3 major Mast. A. b. pl. 238.<br>4 minor Mast. | 5 cevenensis Hort.<br>6 nigra Hort., Irish.   | 7 australis Hort.   |
| 17062 | 3464a carpinifolia Lindl.  | Hornbeam-lvd $\frac{1}{2}$                    | tm 40 ap.my Br  | Britain hed L co  |
| 17063 | 3464b effusa W.<br>3465 americana<br>1 rubra Ait., red-branched.                       | spreading-flwd. $\frac{1}{2}$                 | tm 40 ap.my Br  | Britain ... L co A. b. pl.  |
|       | 657. BUPLEURUM.<br>364a adreum Fis.  | golden  | $\frac{1}{2}$ $\Delta$ pr 1 my.jn. Y  | Sp. 23—37.<br>Siberia 1820. D co  |
|       | 672. HERACLEUM.<br>3735a asperum Bieb.<br>3735b pubescens Bieb.<br>3735c gigantum Fis. | rough<br>pubescent<br>gigantic                | $\frac{1}{2}$ $\bigcirc$ or 12 jl<br>$\frac{1}{2}$ $\bigcirc$ or 4 jl<br>$\frac{1}{2}$ $\bigcirc$ or 12 jn.jl | W<br>W<br>W<br>Sp. 13—30.<br>Caucasus 1818. S co<br>Caucasus 1823. S co<br>Siberia 1820. S co |

TRIGYNIA.

|  |   |                           |  |  |
|--|---|---------------------------|--|--|
|  | 679. VIBURNUM.<br>17068 3763a cotinifolium D. Don.<br>17069 3774a orientale Pall. | Cotinus-lvd<br>oriental   | $\frac{1}{2}$ or 10 my.jn W.pk<br>$\frac{1}{2}$ or 10 jl W | Sp. 25—29.<br>Himalay. 1803? L 1 Bot. reg. 1650<br>Caucasus 1827. L p.l    |
|  | 2557. 684a. STACKHOUSIA R. Br.<br>17070 - monogyna Lab.                           | STACKHOUSIA<br>one-styled | $\frac{1}{2}$ $\Delta$ pr 1 ap                             | (M. Stackhouse, a British botanist.)<br>V. D. L. 1835. D co Bot. reg. 1917 |

PENTAGYNIA.

|  |   |  |  |  |
|--|---|--|--|--|
|  | 701. LNUM.<br>17071 3918a monogynum Forst.<br>17072 3937a Cumingi B. C.<br>17073 - Berendieri Hook. | concrete-styled<br>Cuming's<br>Berendier's | $\frac{1}{2}$ $\Delta$ or 2 jn.au W<br>$\frac{1}{2}$ $\square$ or $\frac{1}{2}$ su Y<br>$\bigcirc$ or 2 au Y.o | Sp. 28—49.<br>N. Zeal. 1832. S s.l Sw.fl.gar.2.s.27Q<br>Chile 1830. C p.l Bot. cab. 1969<br>Bejar 1835. S s.l Bot. mag. 3480 |
|  | 706. STA'TICE.<br>17074 3960a binervosa G. E. Sm.   | 2-nerved                                   | $\frac{1}{2}$ $\Delta$ or 1 jn.s B   | Sp. 33—61.<br>England ch.cl S l.p Eng. bot. 2663   |



History, Use, Propagation, Culture,

2557. *Stackhousia*. An interesting plant, as forming the type of a very small natural order bearing its name. See Lindl. *Nat. Sys.* ed. 2 p. 118.

Page 236. CLASS VI. — HEXANDRIA. 6 STAMENS.

Order I. MONOGYNIA. 6 Stamens. 1 Style.

- 2558. *Ismene*. Perianth 6-parted. Corona staminiferous, tube curved, cylindrical. Filaments short. Seeds fleshy, round. Scape solid.
- 2559. *Chordis*. Perianth with a nearly straight cylindrical tube, and a spreading limb. Corona spreading. Filaments converging. Anthers versatile.
- 2560. *Coburghia*. Perianth drooping, with a long curved cylindrical tube, and a short half-spreading equal limb. Filaments equal. Stamens equal, connected by tubular membrane. Stigma blunt. Ovarium 3-sulcate. Scape solid.
- 2561. *Stenomisson*. Flowers drooping. Perianth with a nearly straight tube, constricted in the middle, and ventricose at the apex. Limb short, regular. Corona short. Stamens straight. Capsule ovate, 3-furrowed.
- 2562. *Barbacenia*. Perianth funnel-shaped, 6-cleft, adnate to the ovarium. Filaments bifid. Anthers fixed to the back of the filaments in the division. Ovarium furnished with 6 rows of tubercles. Capsule 3-celled, many-seeded.
- 2563. *Pourrètia*. Calyx 3-parted, inferior. Corolla 3-parted, naked at base. Capsule 3-celled. Seeds naked.
- 2564. *Dyckia*. Calyx 3-parted. Segments concave. Corolla urceolately campanulate. Petals erect, fleshy at the base. Stamens monadelphous at the base. Ovarium tripartite. Cells many-seeded. Stigmas fringed.
- 2565. *Billbergia*. Calyx 3-parted, unibracteate. Petals 3, convolute, with scales at the base. Stigmas 3, convolute. Capsule 3-celled, many-seeded.
- 2566. *Acia*. Perianth drooping, campanulate, 6-parted. Stigma obsoletely 3-lobed. Capsule 3-celled. Seeds fleshy angular. Spathe 2-valved.
- 2567. *Chloea*. Perianth tubular, 6-parted, deciduous. Segments imbricate; outer shorter than inner. Stam. equal inserted in orifice of tube. Anth. versatile. Ovarium inferior, 3-celled, many-seeded. Fruit berried indehiscent, 1-seeded from abortion. Seeds very smooth, transparent.
- 2568. *Pyrolitron*. Flowers sessile, funnel-shaped, erect. Segments equal, recurved at ends. Spathe bifid, equal. Stamens spreading in the throat. Ovarium 3-celled. Segments of stigma dilated. Scape 1-flowered, hollow.
- 2569. *Hippodistram*. Perianth declinate, 6-parted; tube short, stamens declinate. Capsule 3-valved, 3-celled. Scape hollow, many-flowered.
- 2570. *Sceptránthes*. Perianth funnel-shaped, with a long cylindrical tube, 6-parted spreading limb. Capsule 3-gonal, seeds in two rows.

8 péndula *A.B.* A. b. pl. 239.; syn. *U.* 9 fastigiata *Hort. Exeter*; syn. *U. ex-* 10 crispa *A.B.*  
 horizontalis rubra *H. S.* oniensis & Fördii *Hort.*

17062 Lvs. ov.-acumin. coriac. strongly veined simply cren. serr. slightly oblique & cord. at base. shining but rather scabr. ab.; smooth ben. Bran. near sin.  
 17063 Lvs. smooth on upper side uneq. at base doubly serrat. Flws. on droop. stalks, Stams. 6-8, Samara ellipt. dply. clav. strongly frin. with coarse dense hairs  
 4 incisa *H. S.*, A. b. pl. 242.

17064 Rad. lvs. ov. ov.-oblong obov. atten. Stem lvs. ov. acute amplexic. Involucrum 3-5-lvd. ellipt. orbicul. mucron. [Involucels 5-lvd. conform. to those of involucr.  
 17065 Stem rough from strigæ, Lvs. dply. lbd. serrat. acute scabrous above; pubes. beneath, Umbels of 40 rays, In- [volucr. lvs. setaceous  
 17066 Stem lvs. ternate, Leaf. somewh. palmately pinnatif. toothed, Segms. acute, Umbels many-rayed, Involucra 1- [2-lvd. Involucels short coriac. few-lvd.  
 17067 Stem lvs. ternate, Leaf. pinnatifid deeply toothed, Umbels many-rayed, Stem from 10 to 12 feet high

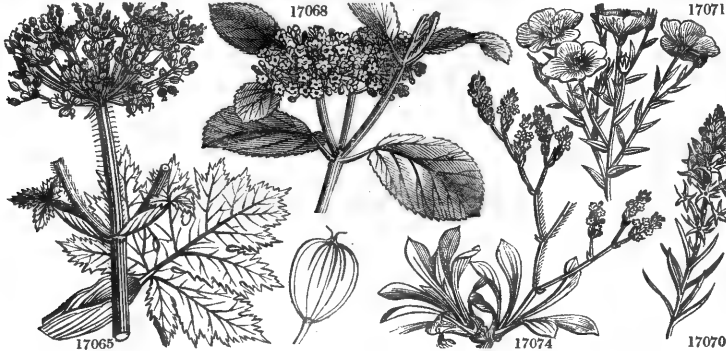
## TRIGYNIA.

17068 Lvs. roundish oval quite ent. clthd. with stellate tomentum both surfs. grey ben. as well as bran. Corymbs term. [woolly  
 17069 Lvs. 3-lbd. acumin. coarsely & bluntly dent. Petiol. glandless glabr. Corymbs termin. not radiant, Fruit obl. compressed

17070 Lvs. linear-lanceolate, Spike cylindrical elongated at top acutely conical, Segments acute, Stamens unequal

## PENTAGYNIA.

17071 Glabr. erect, Lvs. lanceol. acute 3-nrvd. Flws. corymbose, Cal. lvs. ov.-lanceol. acute keeled, Styles connate [longer than ovarium  
 17072 Lvs. oblong lanceolate slightly hairy [racem. Brac. & sepals lanceol.-acumin.  
 17073 Bran. angul. Lvs. scat. linear  $\frac{3}{4}$  in. in length mucron. glabr. quite ent. slightly glauc. Flws. subcorymb. Fruit [Cal.-ribs termin. about base of 5 blunt membran. segms.  
 17074 Lvs. spatul. 3-5-nrvd. below: coarsely reticul. above, Panic. bran.: bran. angul. in front rounded behind



17067 *Heracleum giganteum*, when growing on deep loamy soil, and liberally supplied with water when it is sending up its flower stalk will attain the height of 12 to 15 feet.

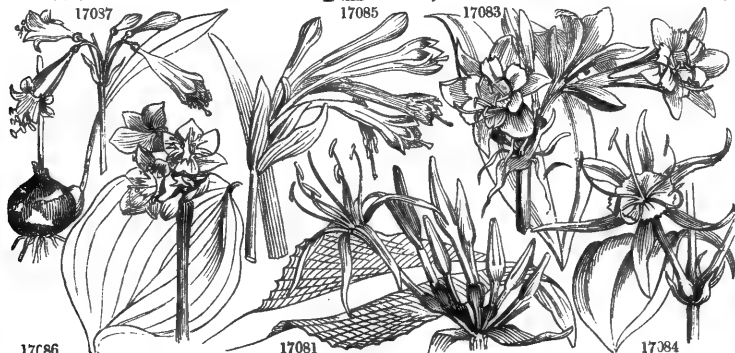
2571. *Haylbeckia*. Perianth cylindrical, with a widened throat and a half-spreading limb. Stamens conniving. Stigmas 3, recurved at ends. Capsule 3-gonal.  
 2572. *Cunningia*. Perianth campanulate, 6-cleft, deciduous, alternate. Segments ciliated. Anthers emarginate at the base, conniving. Stigma pruinose dot. Capsule 3-celled, few-seeded.  
 2573. *Funkia*. Perianth funnel-shaped, deciduous. Stamens and styles declinate. Stigma clavate, 3-gonal. Capsule 3-celled, many seeded. Seeds disposed in two rows in each cell, winged at end.  
 2574. *Cyclobotrys*. Flowers drooping. Sepals glabrous, petals bearded, with a nectary, hollow in the middle. Capsule 3-winged. Seeds in single rows.  
 2575. *Rhinopetalum*. Perianth 6-leaved, deciduous; each leaf furnished with a naked nectariferous hollow at the base, upper one horned on the back. Filaments bearded. Ovarium 3-gonal, 3-celled, many-seeded.  
 2576. *Charlwoodia*. Perianth 3-parted. Filaments thickened in the middle. Stigma 3-cleft. Ovarium 3-celled.  
 2577. *Calliprora*. Perianth campanulate, 6-parted. Filaments petaloid, 2-lobed. Anthers sessile between the lobes. Ovarium stipitate, 3-celled, many-seeded. Stigma 3-lobed. Capsule 3-winged.  
 2578. *Laxmannia*. Corolla 6-parted, persistent. Filaments subulate, smooth, inserted in the base of corolla. Anther peltate. Capsule 3-celled. Seeds sub-solitary, peltate.  
 2579. *Barnardia*. Perianth 6-parted, spreading, persistent. Stamens dilated at base. Ovarium 3-celled, 3-seeded. Stigma simple.  
 2580. *Daubénysa*. Inflorescence umbellate, sessile. Perianth tubular. Limb bilabiate. Upper lip short, 3-dentate, lower one tripartite. Ovarium 3-celled.  
 2581. *Camassia*. Perianth spreading, 6-lvd. upper leaf ascending, lower one deflexed. Stamens equal ascending. Ovarium 3-celled, many seeded. Stigma 3-toothed. Seed 6 in each cell.  
 2582. *Trichopetalum*. Calyx recurved. Petals bearded along the margins. Stamens equal. Stigma 3-angular. Capsule 3-celled, many-seeded. Seeds reniform.  
 2583. *Stypandra*. Perianth 6-parted, spreading, deciduous. Filaments curved, bearded, and swollen at top. Stigma simple. Capsule 3-celled, few-seeded.  
 2584. *Tricoryne*. Perianth 6-parted, spreading, deciduous. Stamens bearded. Ovarium tripartite; lobes 2-seeded. Stigma simple. Pericarpis 3, clavate, 1-seeded.  
 2585. *Herreria*. Sepals 6, recurved. Style trigonal. Stigma sessile, 3-lobed, papillose. Capsule 3-winged, 3-celled, many-seeded. Seeds winged.



2586. *Geitonopeltium*. Perianth 6-parted, spreading, deciduous. Filaments curved at apex. Anthers sagittate, conniving, longer than the filaments. Style 3-sulcate. Stigma simple. Berry few-seeded. Seeds nearly globose.  
 2587. *Mahonia*. Sepals 6, guarded on the outside by 3 scales. Petals 6, without glands on the inside. Stamens furnished with a tooth on each side at top of the filament. Berries 3-9-seeded.  
 2588. *Schraddera*. Cal. with ovate tube, and short truncate or sub-denticulated limb. Cor. funnel-sh., tube terete. Anth. 5-8 sess. lin. inserted into throat of cor., hardly exserted. Style short, bifid. Berries pea-sh., 3-4-sided. 2-4-celled. Cells many-seeded. Seeds minute.

MONOGYNIA.

|   |                           |  |     |             |         |        |  |
|---|---------------------------|--|-----|-------------|---------|--------|--|
| 711. NARCYSsus.   |                           |  |     | Sp. 61—86.  |         |        |  |
| 17075   | 3893a stellaris Haw.      | starry-sepaled   | ♂ Δ | or          | 1 my    | W.c    | 1629. O co Sw.fl.gar.2.s.132           |
| 17076   | 4008a Cypri Haw.          | Cyprian  | ♂ Δ | or          | 1 mr.ap | W.y    | Cyprus ... O co Sw.fl.gar.2.s.92       |
|   | β corōna plena Haw.       | full-crowned   | ♂ Δ | or          | 1 mr.ap | W.y    | gardens ... O co                       |
| 17077   | 4031a conspicua D. Don.   | conspicuous-fl'd   | ♂ Δ | or          | 1 my    | Y      | ... O co Sw.fl.gar.2.s.326             |
| 17078   | 4036a cernuus Haw.        | drooping   | ♂ Δ | or          | 1 mr.ap | Crea.W | Spain? ... O co Sw.fl.g.2.s.101.3      |
|   | β corōna plena Haw.       | full-crowned   | ♂ Δ | or          | 1 mr.ap | Crea.W | Spain? ... O co Sw.fl.g.2.s.101.4      |
| 17079   | 4037a maximus D. Don      | largest  | ♂ Δ | or          | 1 ap    | Y      | ... O co Sw.fl.gar.2.s.285             |
| 17080   | 4038a albicans Haw.       | whitish  | ♂ Δ | or          | 1 ap    | W      | Spain ... O s.l Sw.fl.gar.2.s.165      |
| 712. PANCRATIUM.  |                           |  |     | Sp. 25.—29. |         |        |  |
| 17081   | 4078a platicūm Liv.       | plaited-ld   | ♀ Δ | or          | 1 jl.au | W      | Mexico 1827. O r.m Bot. mag. 2908      |
| 2558.   | *712a. ISMENE Sal.        | ISMENR. (The daughter of Œdipus and Jocasta.)              |     |             |         |        | Amaryllidæe. Sp. 2—5.                  |
| 17082   | Knight's K. & W.          | Knight's   | ♀ Δ | el          | 2 mr    | W      | Florida 1836. O r.m Fl. cab. 251       |
| 17083   | Macleana Herb.            | M'Lean's   | ♀ Δ | or          | 2 jn    | W      | Lima 1837. O s.p Bot. mag. 3675        |
| Nos. 4058, 4059, and 4060, in p. 242. are also referable to this genus. |                           |  |     |             |         |        |  |
| 2559.   | *712 b?. CHORETIS Herb.   | CHORETIS. (Choretis, rustic.)                              |     |             |         |        | Amaryllidæe. Sp. 1.                    |
| 17084   | glauca Herb.              | glaucous   | ♀ Δ | or          | 1 au    | W      | Mexico 1837. O s.p Fl. cab. 2. 101     |
| 2560.   | *712c. COBURGHIA Swt.     | COBURGHIA. (Prince Coburgh.)                               |     |             |         |        | Amaryllidæe. Sp. 1—2.                  |
| 17085   | - fálva Herb.             | tawny-flwd   | ♀ Δ | or          | 1 f     | Taw    | S. Amer. 1829. O l.r.m Bot. reg. 1497  |
| 714. EURYCYLES.   |                           |  |     | Sp. 3—4.    |         |        |  |
| 17086   | 4078a Cunninghamii Lindl. | Cunningham's   | ♀ Δ | el          | 1 mr.ap | W      | N. Holl. 1830. O p.l Bot. reg. 1506    |
| 2561.   | *717a. STENOMESSON Domb.  | (Stenos, narrow, messon, middle; flower.)                  |     |             |         |        | Amaryllidæe. Sp. 1.                    |
| 17087   | - crœcum Red.             | saffron-cl'd   | ♀ Δ | or          | 1 my    | O      | Peru 1820. O s.l Bot. mag. 3615        |
| 720. ANIGOZANTHOS.  |                           |  |     | Sp. 3—4.    |         |        |  |
| 17088   | - Manglesi D. Don         | Mangles's  | ♀ Δ | or          | 3 my    | G      | Sw.River 1833. D p.l Sw.fl.gar.2.s.265 |
|   | β angustifolia Lindl.     | narrow-leaved  | ♀ Δ | or          | 3 mys   | G.R    | N. Holl.? 1836. D p.l Bot. reg. 2012   |
| 17089   | coccinea Lindl.           | scarlet  | ♀ Δ | or          | 5 jn    | S      | Sw.River 1837. D p.l Pax. mag. 5. 271  |
| 2562.   | *720a. BARBACENIA Van.    | BARBACENIA. (Barbacena, gov. of Minas Geraes.)             |     |             |         |        | Hæmodoræceæ. Sp. 1.                    |
| 17090   | - purpurea Hook.          | purple   | ♀ Δ | or          | 1 ½ jl. | P      | Brazil 1825. D s.p Bot. mag. 2777      |
| 728. PITCAIRNIA.  |                           |  |     | Sp. 12—16.  |         |        |  |
| 17091   | 4128a flammæ B. R.        | flame-cl'd   | ♀ Δ | or          | 2 u     | F      | R.Janeiro 1825. Sk s.p Bot. reg. 1092  |
| 17092   | 4130a albiflora Herb.     | white-flowered   | ♀ Δ | or          | 3 s     | W      | Brazil 1824. Sk p.l Bot. mag. 2642     |
| 17093   | 4130b suavæolens B. R.    | sweet-scented  | ♀ Δ | or          | 2 jl.au | Y      | Brazil 1824. Sk r.m Bot. reg. 1069.    |
| 2563.   | *728a. POURRETTIA R. & P. | POURRETTIA. (M. Pourret, a French botanist.)               |     |             |         |        | Bromeliæceæ. Sp. 1—3.                  |
| 17094   | - pyramidata R. & P.      | pyramidal  | ♀ Δ | or          | 1 jn.jl | Y      | Peru 1822. Sk s.p Fl. per. 3. 257      |
| 2564.   | *728b. DYCKIA Sch. fil.   | (Prince of Salm-Reifferscheid-Dyck, a lover of gardening.) |     |             |         |        | Bromeliæceæ. Sp. 1.                    |
| 17095   | - rariflora Sch. fil.     | scattered-flwd   | ♀ Δ | or          | 2 jn    | O      | Brazil 1832. O.S s.p Bot. reg. 1782    |
| 729. TILLA'NDSLA.   |                           |  |     | Sp. 14—31.  |         |        |  |
| 17095   | 4142a psittacina Hook.    | parrot-lk.-flwd  | ♀ Δ | el          | 2 jl    | S      | R.Janeiro 1826. Sk s.p Bot. mag. 2841  |
| 17097   | 4144a acutilis Lindl.     | stemless   | ♀ Δ | pr          | ½ au    | W      | R.Janeiro 1826. Sk s.p Bot. reg. 1157  |
| 17099   | - rōsea Lindl.            | Rose-headed  | ♀ Δ | or          | 1 my    | Fk     | Brazil ... Sk s.l Bot. reg. 1397       |



History, Use, Propagation, Culture,

17088. *Anigozanthus Manglesi* is a singularly beautiful plant, for which, and for a number of other plants of rarity and beauty, the public is indebted to Robert Mangles, Esq., of Whitmore Lodge, Berks.

2590. *Stephania*. Cal. 2-lobed. Petals 4. Torus small. Ovarium stipitate, oblong.

Order 3. TRIGYNIA. 6 Stamens. 3 Styles.

2590. *Calochortus*. Calyx 3-lvd. Petals 3, bearded inside. Stigmas petaloid. Capsule 3-valved, 3-gonal. Seeds flat, inserted by single rows.

2591. *Merendéra*. Perianth funnel-shaped, of 6 sepals. Petals on very long claws. Stamens inserted in the petals above the claws.

2592. *Livistonia*. Perianth double, both tripartite. Ovaria 3. Styles 3, combined. Stigma undivided. Berry 1-seeded.

### MONOGYNIA.

17075 Perian. petal-lk. tube bluntly tetragon. thick, Segms. spreadg. like star quite distinct at base, cuneat.-obov. mucronate somewhat reflexed twice as long as the cup-shaped truncate yel. corona. [cron. tapering very much to base

17076 Scape slender 4-fwd. Segms. perian. obov. mucronate somewhat reflexed twice as long as the cup-shaped truncate yel. corona.

17077 Corona plicate repand longer than the segms. Style longer than the corona, Leafs erect, Scape compressed.

17078 Lvs. lorately linear channelled on upper side keeled at back, Crown cylindr. curled 6-lobd. Lbs. round entire, Segms. of perian. obliq. ovate

17079 Segms. perian. ovate spreading, Corona funnel-shaped length of segms. Limb spreading deeply crenated

17080 Lvs. 9-10 in. long erect little spreadg. glauc. striat. and keeled at back upper side somewh. concave margin thickened, Segs. of perian. ov. or obov.-lanceol. cup  $2\frac{1}{2}$  in. long

17081 Lvs. expanded into a wing above the base, Wing plaited

17082 Lvs. 8 or 10 linear-oblong striated, Scape 2-edged 10-12-fwd. longer than lvs. Spathe lanceolate Segms of perian. [linear-lanceol. 6, Corona spreading rotate closely toothed

17083 Perian. yellowish marked with green, Tube slender, Limb and Style exceeding the Corona, Ovarium pedicellate

17084 Glauous, Scape 3-fwd. Tube long green, Limb white, Corona white rotate with a jagged border

17085 Lvs. glaucous acutish, Scape compressed green, Stamens enclosed

17086 Lvs. oblong-cord. Umbel 6-fwd. Segms. of perianth obl.-lanceol. Lateral teeth of filament very much elongat. and sometimes 2-lb. [into cylind.-campan. limb

17087 Scape terete bearing umbel of about 7 fws. Spathe of 2 membranac. lvs. Perian. cylindric gradually widening

17088 Stem erect clthd. with short thick crimson persistent velvety down, Flws. in short termin. spiked raceme, Stigma capit. project. beyond tube

17089 Deep green, Flws. paniced, Perianth swelling towards the summit hairy, Segms. a little reflexed

17090 Lvs. linear keeled with spiny serratures, Ovarium elongated tuberculated

17091 Lvs. lanceol. very ent. acumin. glauc. and wooly ben. Pedic. shorter th. brac. quite smooth as is cal. Petals [straight 1-sided long. th. stom.

17092 Lvs. lin.-lanceol. very entire smooth acumin.  $\frac{1}{4}$  in. broad, Stem simple, Segms. of cor. revol. white, Stigma 3-fid. white [and rachis pubes. Brac. much long. th. pedic.

17093 Raceme many-fwd. elongat. Petals oblong-lanceol. obtuse twisted to one side concave with galeat. spur, Cal.

17094 Lvs. lanceol.-linear elongated ciliato-spinulose furfuraceous beneath, Racemes paniced villous

17095 The only species

17096 Lvs. lin.-ligul. ent. invol. at base, towards extrem. plane recurved acute, Spike simple, Rachis zigzag, Flws. [remote, Brac. ab. eq. to flws.

17097 Lvs. oblongo-lanceol. acuminate undulated recurved, Flowers aggregate sessile

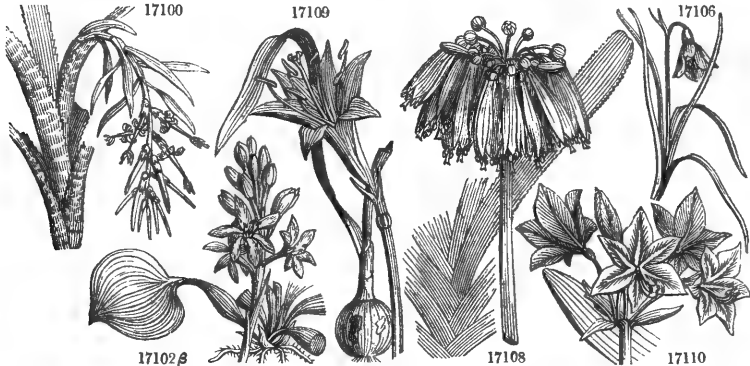
17098 Lvs. ligulate acumin. furfuraceous, Spike ovate solitary scarcely higher th. lvs. Brac. ovate concave bright pink



and Miscellaneous Particulars.

2864. *Dyckia*. "The dry stove seems to suit it, for there it produces its rich orange flowers in great perfection, and retains them in all their freshness and beauty for several weeks." (*Bot. Reg.*)

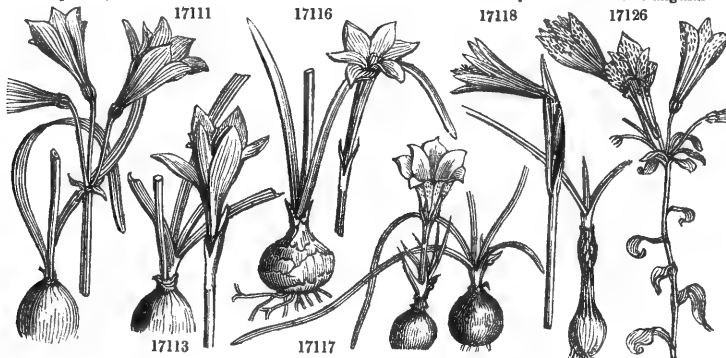
2565. \*720a. *BILLBERGIA* Thun. (*J. G. Billberg*, a Swedish Botanist.) *Bromeliaceae.* Sp. 3—10.  
 17099 - - *tridifolia* B. R. Iris-leaved  $\frac{3}{4}$  [X] or 1 var S.B.Y R. Janeiro 1825. Sk s.p Bot. reg. 1068  
 17100 - - *zebrina* Lindl. zebra-streaked  $\frac{3}{4}$  [X] or 1 $\frac{1}{2}$  jn ... S. Amer. 1820. Sk r.m Bot. mag. 2686  
 17101 - - *fasciata* B. R. banded  $\frac{3}{4}$  [X] or 1 $\frac{1}{2}$  au B.R. Janeiro 1825. Sk r.m Bot. reg. 1130  
 Nos. 4115, 4123, and 4136. in p. 246-8. are now referred to this genus.
730. *PONTEDERIA.* Sp. 7.  
 17102 4145z *caerulea* Maund blue-flwd  $\frac{3}{4}$  [X] or 2 au B N. Amer. 1830. D h Bot. gar. 551  
 2 azulra Swz. fine-blue  $\frac{3}{4}$  [X] or 1 $\frac{1}{2}$  jl.au B Jamaica 1824. O 1 Bot. mag.  
 17104 4145y *crassipes* Mart. thick-petioled  $\frac{3}{4}$  [X] or  $\frac{3}{4}$  s.o B Guiana 1825. O 1 Mart. br. 4.
2566. \*733a. *A'CI'S* Sal. ACIS. (*Acis*, a shepherd, son of Faunus.) *Amaryllidaceae.* Sp. 2—3.  
 17105 - - *roseus* Swz. rose-cld  $\frac{3}{4}$  [X] pr  $\frac{1}{2}$  au.s R Corsica 1820. O s.l Sw. fl. gar. 297  
 17106 - - *grandiflorus* Red. great-flowered  $\frac{3}{4}$  [X] pr  $\frac{1}{2}$  au.s W Numidia 1820. O s.l Bot. reg. 544  
 Nos. 4168, and 4169. in p. 248. are also referred to this genus.
735. *CRINUM.* Sp. 27—66.  
 17107 4187a *elegans* Carey elegant  $\frac{3}{4}$  [X] or 4 s W E. Indies 1823. O s.l Bot. mag. 2592
2567. \*736a. *CLIVEA* Lindl. (Named in compliment to the Duchess of Northumberland.) *Amaryllidaceae.* Sp. 1.  
 17108 - - *nobilis* Lindl. noble  $\frac{3}{4}$  [X] spl 1 $\frac{1}{2}$  my.au R.Y C. G. H. 1823. O r.m Bot. reg. 1182  
*Imatophyllum* Aiton Hook. Bot. mag. 2856.
2568. \*738a. *PYROLIRION* Herb. (*Pyrr*, fire, *lirion*, lily; colour of perianth.) *Amaryllidaceae.* Sp. 1.  
 17109 - - *aureum* Herb. golden-perianth'd  $\frac{3}{4}$  [X] or 1 ap Go Peru 1833. O p.l Bot. reg. 1724
2569. \*738b. *HIPPEA'STRUM* Hook. KNIGHT'S STAR. (*Hippeus*, a knight, *astron*, a star.) *Amaryllidaceae.* Sp. 2.  
*ambiguum*  
 $\beta$  longiflorum Hook. long-flowered  $\frac{3}{4}$  [X] or ... W.R Lima 1836. O r.m Bot. mag. 3542  
 17110 - - *breviflorum* Herb. short-flowered  $\frac{3}{4}$  [X] or 3 ap W.R B.Ayres 1836. O r.m Bot. mag. 3549  
*adlicum*; syn. *Amaryllis adlica*, No. 4235. in p. 252.
739. *AMARYLLIS.* Sp. 34—113.  
 4236 *psittacina*  
 $\beta$  hybrida Hook. hybrid  $\frac{3}{4}$  [X] spl 1 $\frac{1}{2}$  ap R.G Eng. hyb. 1820. O r.m Bot. mag. 3528  
*psittacina* Johnsoni Gowan in Hort. tr. 5. p. 361.; A. Griffin Swt. hort. brit. p. 509.  
 17111 4240a *kermania* Booth carmine-perianth'd  $\frac{3}{4}$  [X] or 1 ... Car Brazil 1833. O l.p.s Bot. reg. 1638  
 4242 *pulverulenta*.  
 $\beta$  longipedunculata Lindl. long-ped.  $\frac{3}{4}$  [X] or 2 mr.ap O Mexico 1826. O r.m Bot. reg. 1188
743. *ZEPHYRANTHES.* Sp. 7—11.  
 17112 4272a *Sporforthiana* Herb. Spofforth  $\frac{3}{4}$  [X] or  $\frac{1}{2}$  my Ro hybrid 1833. O r.m Bot. reg. 1746  
 17113 4273a *carinata* B. M. keeled  $\frac{3}{4}$  [X] pr  $\frac{1}{2}$  my.jn Pk Mexico 1824. O s.l Bot. mag. 2594  
 17114 4273b *verecunda* Herb. blushing  $\frac{3}{4}$  [X] pr  $\frac{3}{4}$  ap.my Pa.R Mexico 1824. O s.l Bot. mag. 2683  
 17115 4273c *striata* Herb. channelled  $\frac{3}{4}$  [X] pr  $\frac{3}{4}$  ap.my W Mexico 1824. O s.l Bot. mag. 2593
2570. \*743a. *SCEPTRANTHES* Grh. (*Skeptron*, a sceptre, *anthos*, a flower.) *Amaryllidaceae.* Sp. 1.  
 17116 - - *Drummondii* D. Don. Drummond's  $\frac{3}{4}$  [X] or 1 $\frac{1}{2}$  jl W.Pk Texas 1835. O r.m Sw.fl.gar.2.s.328  
*Zephyranthes Drummondii* D. Don.
2571. \*743b. *HAYLOCKIA* Herb. (*Matthew Haylock*, gard. to Mr. Herbert.) *Amaryllidaceae.* Sp. 1.  
 17117 - - *pusilla* Herb. dwarf  $\frac{3}{4}$  [X] or  $\frac{1}{2}$  s Str B. Ayres 1829. O s.l Bot. reg. 1371
744. *HABRANTHUS.* Sp. 7—14.  
 4276 *gracilifolius*  
 $\beta$  *Boothianus* Herb. Booth's  $\frac{3}{4}$  [X] pr  $\frac{1}{2}$  o Pk B. Ayres 1836. O s.l Bot. reg. 1967  
 17118 4276a *angustus* Herb. narrow  $\frac{3}{4}$  [X] pr  $\frac{1}{2}$  s R Brazil 1822. O p.l Bot. mag. 2639  
 17119 4276b *bifidus* Herb. two-cleft  $\frac{3}{4}$  [X] or  $\frac{3}{4}$  jn Pk B. Ayres 1823. O s.l Bot. mag. 2597  
 17120 - - *Bagnoldii* Herb. Bagnold's  $\frac{3}{4}$  [X] or 1 n Y Chile 1829. O s.l Bot. reg. 1396  
 17121 - - *Andersonii* Herb. Anderson's  $\frac{3}{4}$  [X] or 1 ap.my Y.R Mt. Video 1829. O s.l Bot. reg. 1345  
 $\beta$  *texanus* Herb. Texian  $\frac{3}{4}$  [X] or 1 ... Y Texas 1834. O s.l Bot. mag. 3596  
 17122 - - *miniatus* D. Don red-flowered  $\frac{3}{4}$  [X] or 1 jl R Chile 1832. O lt.s Sw.fl.gar.2.s.213
748. *ALSTROEMERIA.* Sp. 12—21.  
 7123 4286a *ovata* Cav. ovate  $\frac{3}{4}$  [X] or 4 jn.jl R.G.Y Chile 1824. R l.s.p Cav. ic. 1. 76  
 17124 4286b *acutifolia* Lk. & O. acute-leaved  $\frac{3}{4}$  [X] or 6 au.o R.Y.G Mexico 1829. O l.p Sw.fl.gar.2. s.77
- 17125 4286c *hirtella* Kth. rather hairy  $\frac{3}{4}$  [X] or 4 jl R.Y.G Mexico 1824. S p.l Sw. fl. gar. 228.  
 17126 4286d *psittacina* Leh. parrot  $\frac{3}{4}$  [X] el 6 s.o C.P Mexico 1829. O l.p Sw.fl.gar.2. s.15



History, Use, Propagation, Culture,

2567. *Clivia.* A splendid green-house plant of easy culture, and may be propagated either by seeds or suckers.  
 748. *Alstroemeria.* All the species of this genus have showy and beautiful flowers, and they may all be cultivated in

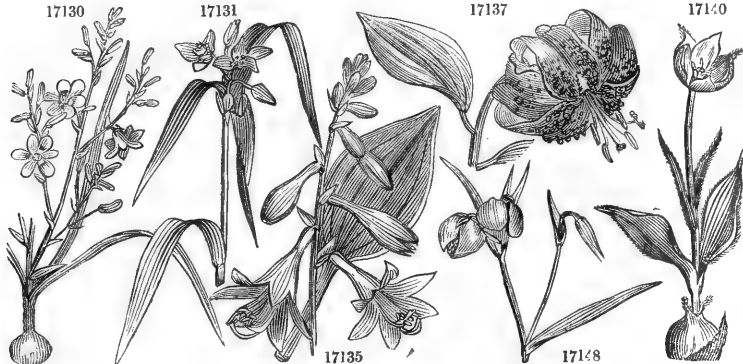
- 17099 Lvs. lanceol.-ensiform undulat. acumin. rather spinous, Spike pend. many fwd. Flws. solit. Brac. very entire  
 17100 Leaves most singularly barred at uncertain intervals with white  
 17101 Rad. lvs. glauc. erect recurved channelled ligul. obt. with a little point spinous serratures and cross. with white downy bands, Spike capit. prolifer.
- 17102 Erect lvs. cordate lanceol. Flws. in crowded spikes  
 17104 Floating lvs. reniform cordate acuminate, Petioles inflated, Flws. in spikes
- 17105 Spathe 1-fwd. Leaflets of the perianth obl. bluntish entire, Lvs. narrow linear obtuse glaucous spreading  
 17106 Petals entire
- 17107 Limb longer than the tube much shorter than the style
- 17108 Lvs. distichous coriac. strap-sh. sheathg. at base retuse and oblique at apex margin rough, Flws. 48-50 in pendulous umbel
- 17109 The only species
- 17110 Scape ab. 3 ft. high rounded glauc. Spathe 2 lanceol. membran. lifts. Umbel 6-fwd. scentless. Germ. obovate 3-gonous, Style short. than perianth
- 17111 Lvs. linear obtuse shorter than scape, Umbel 3-fwd. Flws. nearly erect funnel-sh. Pedic. round slender 2-3 inches long, Spathe 2-valved acumin.
- 17112 Hybrid, Scape 5½ in. high, Spathe brownish-green, Pedun. 1 in. long, Lvs. not ¼ in. wide acute keeled, Style [much declined long. than filam.  
 17113 Lvs. ligulate channeled keeled acute red near the base, Spathe 1-lvd. cells of ovarium many seeded, Style robust  
 17114 Lvs. linear bluntish channeled purplish at the base, Spathe bifid, Style thick [declinate  
 17115 Lvs. linear blunt channeled, Spathe reddish oifid
- 17116 Limb of the perianth coarctate 3 times shorter than tube, Segms. ovate mucron. with involute margins, Capsules [somewhat 3-lobed Lvs. glaucous shorter than scape
- 17117 Lvs. narrow lying on the ground rising in autumn after the flowers
- 17118 Lvs. narrow obtuse, Scape 2-fwd.  
 17119 Lvs. narrow, Scape 4-fwd. Spathe bifid  
 17120 Lvs. obtuse glaucous umbel 6-fwd.  
 17121 Lvs. narrow, Scape 1-fwd. Spathe divided at apex
- 17122 Umbel 2-5-fwd. Perianth campanul. Limb 6-parted thrice longer th. tube, Throat beard. Scape very smooth [rather long. than lvs.
- 17123 Lvs. obl. acumin. petiol. villose above, Pedun. umbellate, Bract. loose, Segms. of cor. connivent  
 17124 Stem twining, Leaves obl. lanceol. acumin. many-nerved twisted at the base, Nerves pilose above, Umbel many-fwd. peduncles hispid [shorter
- 17125 Stem smooth, Lvs. obl. acumin. striated petiolate pubesc. ben. Umbel many fwd. Outer segments of cor.  
 17126 Stem erect spotted, Lvs. obl. lanceol. acute twisted at the base, Umbel many-fwd. Peduncles angular



and Miscellaneous Particulars.

deep dry sandy soil in a warm situation in the open air, provided they receive the protection of a frame, or of dry litter or leaves, during winter.

- 4298 pulchella Sims; syn. Hookeri Swt.  
 β pilosa Lindl. hairy-leaved ♀ Δ spl 1 aut S Chile ... S l.s.p. Bot. reg. 1410  
 17127 4298a Neillii Gill. Neill's ♀ Δ el 2 jn Pa.Ro Mendoza 1827. O l.p Bot. mag. 3105  
 17128 4298b hamantha R. & P. blood-eld-flwd ♀ Δ or 1 ½ jl Dp.O.R Chile 1830. O l.s.p Sw.f.gar.2.s.159  
 17129 - aurantiaca R. & P. orange-eld-sep. ♀ Δ spl 2 jn S.otpot Chile 1831. D l.s.p Sw.f.gar.2.s.205
2572. \*749a. CUMMINGIA D. Don. (*Lady Gordon Cumming*, of Altyre, Forres, N.B.) *Asphodèleæ*. Sp.1-3.  
 17130 - trimaculata D. Don three-spotted ♀ Δ el ½ d B Chile 1829. O p.l Sw.f. gar.2. s.88
765. TRADESCANTIA. Sp.14-26.  
 17131 4361a caricifolia Hook. Sedge-leaved ♀ Δ or 1 aus B Texas 1835. D r.m Bot. mag. 3546  
 17132 4364a pilosa Lch. hairy ♀ Δ cu 2 ½ aut B.P Louisiana 1832. D co Bot. mag. 3294
2573. \*769a. FUNCKIA Spr. FUNCKIA. (*Henry Funk*, a German cryptogamist.) *Hemerocallidææ*. Sp.3-7.  
 17133 - Sieboldiana Dens. Siebold's ♀ Δ or 1 jn Li Japan 1830. D r.l Bot. cab. 1869  
 17134 - lanceifolia Dens. lance-leaved ♀ Δ or 2 jl.au Li Japan 182. D s.l Bot. cab. 1658  
 17135 - albo-marginata Hook. white-margd ♀ Δ or 1 ½ jl L Japan 1837.? D s.l Bot. mag. 3657  
 Nos. 4383, and 4384. in p. 260. are referable to this genus.
771. LYLIUM. Sp.23-35.  
 17137 4436b speciosum Thun. showy ♀ Δ spl 2 au C Japan 1833. O p.l Bot. reg. 2000  
 superbum Thun. Fl. Jap. 134.; Kasbiago vulgō Konokho Juri Kämpf. Amoen. 871.; lancifolium Hort.  
 β. Tameiōmo Sieb. Tametoma ♀ spl 4 jl.au W Japan 1834. O r.m
- 17138 4503a tenuifolium Fis. slender-leaved ♀ Δ or 1 jn.jl S Siberia 1820. O p.l Sw.f.gar.2. s.275
772. TULIPA. Sp.15-24.  
 4506 oculis solis.  
 β persica Lindl. Persian sun's eye ♀ Δ spl 1 mr S.bk Persia 1826. O co Bot. reg. 1143  
 17139 4507a montana B. R. mountain ♀ Δ or 1 jl S Persia 1826. O r.m Bot. reg. 1106  
 17140 4508a præcox Ten. early-flowering ♀ Δ or 1 ap.my S Italy 1825. O r.m Sw. f. gar.157
- 17141 4508b pubescens W. pubesant ♀ Δ or 1 ap.my R ..... 1824. O r.m Sw. f. gar. 78  
 17142 4508c Bonarotiana Rebol Bonarotia's ♀ Δ or 1 ½ ap.my R.Va Italy 1827? O co Sw.f. g. 2.s.116
- 17143 4509a stellata B. M. starred ♀ Δ or 2 ½ mr.ap W Kumana 1827. O r.m Bot. mag. 2762  
 17144 - scabriscapa Str. rough-stemmed ♀ Δ or 2 ap.my R.y Italy 1837. O r.m Bot. reg. 1990
2574. \*773a. CYCLOBOTHRA Swt. (*Kyklos*, a circle, *bothros*, a pit; each sepal.) *Tuitipacææ*. Sp. 4.  
 17145 - purpurea Swt. purple ♀ Δ or 3 aus P.g Mexico 1827. O p.l Sw. f. g. 2. s. 20  
 17146 - elegans Ph. elegant ♀ Δ pr ½ jn.jl W Columbia 1826. O s.p Hort. tr. 7. 9  
 Calochortus elegans Ph.  
 17147 - pulchella Benth. pretty-flwd ♀ Δ or 1 aus Y Californ. 1832? O p.l Bot. reg. 1662  
 17148 - alba Benth. white-petaled ♀ Δ or 1 aus W Californ. 1832? O p Bot. reg. 1661
2575. \*773b. RHINOPE'TALUM Fis. (*Rhin*, nose, *petalon*, petal; base of upper sepal.) *Liliidææ*. Sp. 1.  
 17149 - Karelini Fis. Kafeline's ♀ Δ pr ½ ja Pa.Pk.Spt.Ural 1834? O p.l Sw.f.g.2. s.283
2576. \*773c. CHARLWOODIA Swt. (*G. Charwood*, F.L.S., an enthusiastic Eng. bot.) *Asphodèleæ*. Sp. 1-4.  
 17150 - stricta Swt. upright ♀ □ or 10 mr B N. Zeal. 1820. C p.l Bot. reg. 956  
 Dracæna stricta B. M.
774. DRACÆNA. Sp.8-21.  
 17151 4529a terminalis Jac. terminal ♀ □ or 10 jn.jl W E. Indies 1820. C p.l Bot. reg. 1749
782. ERYTHRONIUM. Sp.4-5.  
 17152 4573a grandiflorum Ph. large-perianthd ♀ Δ or ½ my Y N.W.A. 1826? O p Bot. reg. 1786  
 17153 - gigantæum Lindl. gigantic ♀ Δ spl ..... N.W.A. .... O p
2577. \*795a ? CALLIPRO'RA Lindl. (*Kale*, pretty, *prora*, front; its beauty.) *Asphodèleæ*. Sp. 1-  
 17154 - lutea Lindl. yellow-flwd ♀ Δ or ½ jl Y N. Califor. 1831? O p Bot. reg. 1590
2578. \*798a. LAXMAN'NNIA R. Br. (*E. Laxmann*, a Siberian traveller.) *Asphodèleæ*. Sp. 1-  
 17155 - gracilis R. Br. slender ♀ Δ or ½ jn.jl P.w N. Holl. 1824. D s.p
803. SCILLA. Sp.25-33.  
 17156 4754a præbracteata Haw. long-bracted ♀ Δ or 1 my.jn B S.Europe ..... O s.l Bot. mag. 749  
 peruviana Hort. not of L.  
 17157 4755a Cupaniæna Guss. Cupani's ♀ Δ or 1 jn Dl.P Sicily 1834? O s.l Bot. reg. 1878  
 17158 4758a amœnula W. pretty ♀ Δ pr ½ mr.ap B Russia 1822. O s.l Bot. mag. 2408  
 17159 4759a villōsa Desf. villous-ld ♀ Δ or ½ ..... Li Tripoll 1831. O p.l Bot. mag. 3211



History, Use, Propagation, Culture,

772. Tulipa. It appears to us highly probable that the greater number, and indeed perhaps the whole, of the above names, are only varieties.

17127 Lvs. spatul. about 7-nerved central rib hardly promin. behind in upper half reflect. at point and sides glauco. [pruinose ent. Pedun. 2-flwd.  
 17128 Erect, Lvs. lin.-lanceol. twisted margins ciliated. Pedunc. bran. umbellate, Perianth 6-lvd. 3 outer ones ovato-  
 17129 Stem erect, Lvs. lanceol. obtuse obsolete denticulated, Umbels many-flwd. Pedunc. angular [lanceol. serrated

17130 Limb of the perian. longer than tube with 3 blk. spots in the centre

[Sheaths ciliat. on margins  
 17131 Stem erect simple or bran. rounded glabr. jointed, Lvs. lin.-acuminated glabr. striated sheathing at base,  
 17132 Stem dichotom. bran. and jointed: lower part glabr. upper densely hairy, Lvs. scarcely sheath. lanceol. wavy  
 striat. : lower downy, upper densely hairy

[wider in proportion  
 17133 Lvs. all radic. ov. acumin. striat. Bractees lanceol. lower ones longer th. flws. upper one gradually smaller and  
 17134 Lvs. lanceol. nerved, Corolla campanulate [flwd. Brac. ov. twice as long as pedic.  
 17135 Lvs. all radic. petiol. ov.-lanceol. very acute elegantly margined with white, Petiol. longer th. lvs. Rac. 12-14

17136 Stem glabrous, Leaves scattered lanceolate 3-nerved attenuated at both ends, Corolla tubularly campanulate

[volute papilloso bearded  
 17137 Stem erect smooth, Lvs. scattered ovato-obl. nerved petiol. Bran. 1-flwd. Flws. drooping reflexed, Cor. re-

17138 Lvs. very narrow linear scattered, Perianth smooth revolute, Capsule turbinate

[Lifts. ov. flat acute  
 17139 Stem leafy 1-flwd. Lower lvs. obl.-lanceol. channeled acumin. undul. glauc. Upper ones lin. flat, Perian. oval.  
 17140 Stem 1-flwd. glabrous, Flws. erect, Petals ovate lanceol. acuminated bearded at the apex, Lvs. ovate lanceol.  
 ciliate, Bulbs woolly

17141 Stem pubescent 1-flwd. 3 outer petals acute 3 inner ones obtuse and mucronate, Lvs. obl. lanceolate pubescent  
 17142 Stem pubescent longer than that on lvs. Perianth campanulately spread. Segms. ellipt.-lanceol. acute bearded  
 at apex margin involute [Filam. subulate

17143 Lvs. lin.-lanceol. subconvolute glauc. Petals lanceol. obtuse very spreading 3 outer ones longest, Stam. equal  
 17144 Scape pubescent scabrous, Lvs. flaccid, Segms. of perian. acumin. Stem 1-flwd.

[acute glab. inner ones blunt ciliated  
 17145 Glauous, Stem few-flwd. Lvs. channeled acuminated upper ones dilated at the base, Outer segms. of perianth  
 17146 Stem 3-flowered one-leaved, Inner petals woolly

[ovate-lanceol. acumin.  
 17147 Umbel 2-3-flwd. Pedun. shorter than bract. Petals ovate obtuse serrulato-fimbriate, Flws. globose, Sepals  
 17148 Umbel 2-3-flwd. Pedun. shorter than bract. Petals ovate very obtuse margin naked, Sepals ovate-lanceol. half  
 length of petals

17149 Lvs. lanceol. subconvolute, Flws. terminal solitary

17150 Stem upright simple densely leafy, Lvs. lin.-lanceol. cuspid. recurv. patent ent. Rac. terminal many-flwd.

17151 Stem arborescent, Lvs. attenuated at both ends, Branches of panicle divaricate, Flws. nearly sessile

[3-parted  
 17152 Lvs. obl.-lanceol. subcomplic. obtuse, Segms. of perian. ovate-lanceol. acumin. reflex. nearly from base, Stigma  
 17153 Lvs. obl. or lanceol. Scape irregularly bran. 5-flwd. Segms. of perian. acumin. reflex. from middle, Stigma  
 3-lobed

17154 Habit of *Allium*

17155 The only species

17156 Lvs. broad linear longer than the scape, Bractees equal in length to pedicels, Flowers disposed in a large sub-  
 conical corymb. Perian. spreading persistent [few-flwd. Caps. rotate

17157 Lvs. lanceol. flat very smooth and densely ciliated (edged with broken cartilaginous margin *Lindl.*), Corymbs

17158 Scape 5-angled, Racemes 3-flwd. Pedunc. drooping, Cor. campanulate-patent, Bractees very short

17159 Lvs. lanceolate sparingly villous, Racemes corymbose 5-7-flwd. Bractees lanceol. equal to peduncles



and Miscellaneous Particulars.

2577. *Calliprora*. A handsome hardy bulbous plant, growing freely in a shaded peat border.

2579. \*803a. BARNARDIA Lindl. (*E. Barnard*, F.L.S., Vice-Sec. Hort. Soc. London.) *Asphodèleæ*. Sp. 1.  
 17160 - scilloïdes B. R. Scilla-like  $\nabla \Delta$  or  $\frac{1}{2}$  jl.au P China 1825. O p.l Bot. reg. 1029
2580. \*805a. DAUBENYA Lindl. (*Dr. Charles Daubeny*, Prof. of Chem. & Bot. at Oxford.) *Asphodèleæ*. Sp. 1.  
 17161 - adrea Lindl. golden-*clad-fld*  $\nabla \Delta$  or  $\frac{1}{2}$  jn Y C.G.H. 1832? O s.l Bot. reg. 1813  
 Massônia lutea Hort.
2581. \*809a. CAMASSIA Lindl. (*Quamash*, or *Cumas*, native name in N.W. Amer.) *Asphodèleæ*. Sp. 1.—  
 17162 - esculénta Lindl. esculent  $\nabla \Delta$  or  $1\frac{1}{2}$  jl D.P Columbia 1827. O p Bot. reg. 1486
2582. \*809b. TRICHOPE'TALUM L. (*Thrix*, hair, *petalon*, a petal; inner perianth fringed.) *Asphodèleæ*. Sp. 2—2  
 17163 - grácilis Lindl. slender  $\nabla \Delta$  cu 3 jn.au W.G.H Chile 1829. D r.m Bot. reg. 1535  
 17164 - stellátum Lindl. starry-flowered  $\nabla \Delta$  cu 1 ap W Chile 1829. D co Bot. mag. 3084  
 Anthéricum plumosum *Bot. mag.* 3084., *Loud. Hort. Brit., R. & P.?*
2583. \*810a. STYPAN'DRA R. Br. STYPANDRA. (*Stype*, tow, *ancr*, an anther.) *Asphodèleæ*. Sp. 1—5.  
 17165 - propinqua Cun. near akin  $\nabla \Delta$  or 1 sp azure N.S.W. 1823. C s.p.l Bot. mag. 3417
2584. \*810b. TRICOR'YNE R. Br. TRICORYNE. (*Treis*, three, *koryne*, a club; capsules.) *Asphodèleæ*. Sp. 1—3.  
 17166 - elátior R. Br. taller  $\nabla \Delta$  or 2 jn.jl W. N. Holl. 1824. D r.m
2585. \*816a. HERRER'IA A. & P. (*C. A. de Herrera*, a Spanish agriculturist.) *Asphodèleæ*. Sp. 1—2.  
 17167 - parviflora B. R. small-flwd  $\nabla \Delta$  or 8 jn.jl G.v Brazil 1824. C r.m Bot. reg. 1042
2586. \*816b. GEITONOPLES'IUM Cun. (*Geiton*, neighbour, *plesion*, near; affinity & habitat.) *Aspho.* Sp. 3—1.  
 17168 - cymosa R. Br. cymose  $\nabla \Delta$  pr 3 my.jn G N. Holl. 1825. C p.l Bot. mag. 3131  
 Luzuriaga cymosa *Brown in Prod.*

822. LACHENAL'IA. Sp. 31—36.  
 17169 4888a anguinea Swt. serpent  $\nabla \Delta$  pr 1 jn.jl W C.G.H. 1825. O s.l Sw. fl. gar. 179  
 17170 4888b illiiflora Jac. Lily-flowered  $\nabla \Delta$  pr 1 ap.jl W C.G.H. 1825. O s.l Jac. ic. 2. 387  
 17171 4883a mutabilis changeable  $\nabla \Delta$  el  $\frac{1}{2}$  n B C.G.H. 1825. O s.l Bot. cab. 1076  
 17172 4889a purpurea Jac. purple  $\nabla \Delta$  or  $\frac{1}{2}$  mr.my P C.G.H. 1826. O s.l Jac. ic. 2. 353  
 17173 4889b glauca B. R. glaucous  $\nabla \Delta$  or  $\frac{1}{2}$  my F.G Persia 1825. O s.l Bot. reg. 1085

829. BERBERIS. Sp. 14—24.  
 4922 vulgaris  $\delta$  lutea Dec., yellow-fruited  $\delta$  purpurea Dec., purple-fruited  
 17174 4922a ibérica Fis. Iberian  $\delta$  or 5 ap.my Y Iberia 1818. L r.m  
 17175 4924a floribunda Wal. many-flowered  $\delta$  or 10 ..... Nepal ..... L r.m
- 17176 4924b asiática Ros. Asiatic  $\delta$  or 4 ..... Y Nepal 1823. L r.m  
 17177 4930a dealbata Lindl. whitened-lvd  $\delta$  or 10 d Y Mexico 1830? L r.m Bot. reg. 1750

2587. \*829a. MAHON'IA Nut. (*Bernard M' Mahon*, of N. Amer., a lover of botany.) *Berberidææ*. Sp. 5.  
 17178 - fasciculâris Dec. bundled-flwd  $\delta$  or 10 ap.my Y Californ. 1819. L co Bot. mag. 2396  
 No. 4929. in p. 286.  
 17179 - Aquifolium Nut. Holly-leaved  $\delta$  or 6 ap.my Y N. Amer. 1824. G r.m Bot. reg. 1425
- 17180 - nervosa Nut. nerved-leaved  $\delta$  or 10 o Y N. Amer. 1826. G r.m Bot. reg. 1426  
 17181 - glumacea Dec. glumacea Dec.  $\delta$  or 2 ap Y N. Amer. 1824. R r.m Bot. reg. 1176  
 17182 - tenuifolia Lindl. slender-lvd  $\delta$  or ..... ... V. Cruz 1838? L r.m

2588. \*833a. SCHRA'DERA Vahl. SCHRADERA. (*Henr. A. D. Schrader*, a German bot.) *Rubiaceæ*. Sp. 1—  
 17183 - cephalotes W. round-headed  $\delta$  or 4 jl.au R Jamaica 1820. C l.p  
 Fuchsia involucreta Swz.

2589. \*836a. STEPHA'NIA Dec. STEPHANIA. (*F. Stephan*, a professor at Moscow.) *Capparidææ*. Sp. 1.  
 17184 - cleomoides Dec. Cleome-like  $\delta$  or ..... ... Caraccas 1823. C l.p Jac. sc. 111  
 Capparis paradoxa Jac.



History, Use, Propagation, Culture,

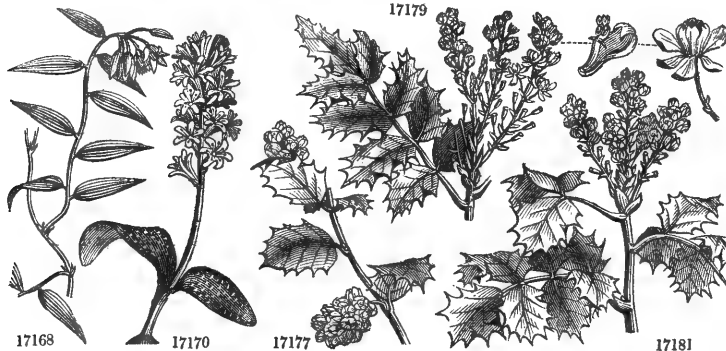
2581. *Camassia* 17162 *esculénta*. "This plant is known by the natives under the name of *Quamash*; and the bulbs are carefully collected by them, and baked between hot stones, when they assume the appearance of baked pears, and are of an agreeable sweet taste. They form a great part of their winter stores. Though an agreeable food to Governor Lewis's party, they occasioned bowel complaints if eaten in any quantity. It is perfectly hardy, requiring to be planted in a peat border, and may be propagated either by seeds or bulbs. (*Pursh.*)

2585. *Herreria*. A singular, but desirable, hot-nouse climber, growing freely in any good soil.

2587. *Mahonia*. "The species are elegant evergreen shrubs, with yellow flowers and pinnate leaves. The latter

- [Segms. obl.-concave narrowed at base  
 17160 Lvs. weak lin. channel. cuspid. rather angul. extern. Scape erect 6-angled, Rac. simple conic. Perian. 6-leaved,  
 17161 Habit of *Massônia*, Umbel sessile  
 17162 Bulb ov. about size of hazel nut, Lvs. lin. acumin. channel. short. than scape broken back from weakness, Pedic. filif.  $\frac{1}{4}$  in. long, Perian. 6-lvd. 2 in. in diam.  
 17163 Stem paniculate, Petals and sepals revolute, Flowers nodding  
 17164 Scape 2-4-flowered rather leafy, Petals bearded capsules elongated  
 17165 Glaucous, Lvs. distinct twisted  
 17166 Stem terete leafy, Leaves flat, Umbels 5-7-flowered  
 17167 Lvs. lanceolate, Segments of perianth ovate obtuse  
 17168 Cymes terminal bipartite, Branches terete, Branchlets striated glabrous  
 17169 Flws. campanulate stalked drooping, Stamens exerted descending, Leaf long solitary fasciate underneath  
 17170 Lvs. twin lanceol. pustulate, Scape erect, Corolla spreading reflexed, Petals nearly linear [broader at base  
 17171 Lvs. obl.-lanceol. acute channeled smooth margins undul. Flws. subsess. horizont. Brac. very small acumin.  
 17172 Lvs. twin lanceolate crenulated, Flowers pedunculate spreading, Corolla subcylindrical  
 17173 Flws. turbinate, Rac. loose pyramidal many-flwd. Lvs. broadly acuminate glaucous

- ♂ *nlgra* Dec., black-fruited      ♀ *aspérma* Dec., seedless      ♂ *dúlcis* A. B., sweet-fruited  
 17174 Spines simple and 2-parted, Lvs. obovate oblong quite entire, Racemes many-flwd. Petals entire  
 17175 Spines 3-parted and very stiff, Lvs. oblong or obl.-lanceol. nearly ent. toothed in various degrees somewt. deeply and coarsely veined. Rac. slend. long loose [Rac. short many-flwd. corymbose  
 17176 Spines trifid or simple, Lvs. oval cuneat. or ellipt. mucron. smooth under surf. glauc. ent. or spinulosely thd.  
 17177 Spines scarcely any, Lvs. roundish coarsely toothed rather glauc. white ben. Rac. very short compact pendulous  
 17178 Lvs. 3-6 pairs with odd one lowest pair near base of pet. Leaf. ov.-lan. rath. distant 1-nrvd. 4 or 5 spiny teeth on each side, Rac. nearly erect  
 17179 Lvs. 4 pairs with odd one lowest pair distant from base of pet. Leaf. ov. approxm. cordate at base 1 nrvd. 9 or 6 spiny teeth on each side, Rac. erect [somewhat 3-5-nrvd. Rac. elongated  
 17180 Lvs. 5-6 pairs with odd one lower pair dist. from base of pet. Leaf. ov. acumin. 12 or 14 teeth on each side  
 17181 Lvs. 2-3 pairs with odd one roundish-ov. opaque spiny toothed, Rac. diffuse, Root creeping  
 17182 Lvs. pinnate and ternate, Leaflets ovate oblong acute thin flat and quite entire  
 17183 Lvs. obl.-acuminated, Pedunc. termin. solit. short, Heads of flws. surrounded by ent. involucre. Cor. 7-8-lobed  
 17184 Lvs. obl.-lanceol. acuminate scarcely longer than pedicels



and Miscellaneous Particulars.

resemble pretty much those of the ash, and hence, doubtless, the name of Ash-berberry. Natives of the N. W. coast of Amer., and also of Nepal, and perhaps Japan. Though some botanists think that the characters ascribed to this genus, and those ascribed to *Berberis*, are not sufficient to keep them separate as genera; yet the habits of the species of one, as to the mode of growth, foliage, and inflorescence, are so distinct from those of the other, as to induce us to adopt *Mahônia*. The species in British gardens are all of comparatively slow growth, and admit of but slow multiplication by layers, and scarcely at all by cuttings. Some of them, however, seed freely, and are readily propagated in that way." (*Arb. Brit.* vol. ii. p. 309.)



TRIGYNIA.

2590. \*845a. CALOCHORTUS PA. CALOCHORTUS. (*Kalos*, handsome, *chortos*, grass.) *Liliacæ*. Sp. 4—6.  
 17185 - macrocarpus Dou. long-fruited ♂ Δ spl 2 au P Californ. 1826. O s.p Bot. reg. 1152  
 17186 - splendens Dou. splendid-cor. ♂ Δ spl 1½ au.s Li Californ. 1832? O s.p Bot. reg. 1676  
 17187 - venustus Dou. handsome-cor. ♂ Δ spl 1½ au.s W.spt Californ. 1832? O s.p Bot. reg. 1669  
 17188 - luteus Dou. yellow-petaled ♂ Δ or 1 s.o Y.G.spt Californ. 1834. O s.p Bot. reg. 1567  
 2591. \*851a. MERENDE'RA Bieb. (A name given to Colchicum by the Spaniards.) *Melanthacæ*. Sp. 1.  
 17189 - - caucásica Bieb. Caucasian ♂ Δ or ½ au P Caucasus 1823. O s.p Bot. mag. 3690  
     Bulbocodium trigynum Adams, *Cólichicum caucásicum* Spr.  
 855. S'BA L.  
 17190 4996a Blackburniana Lo.C. Blackburn's ♂ □ or ... .. G Sp. 2—5. tropics 1825. S s.l G. m. v. f. 10.  
 2592. \*855a. LIVISTON'IA R. Br. (*Patrick Murray*, of *Levistone*, near Edinburgh.) *Pálmae*. Sp. 1—2.  
 17191 inermis R. Br. unarmed ♂ □ or 40 ... .. N. Holl. 1824. S r.m Mart. Palm. t.

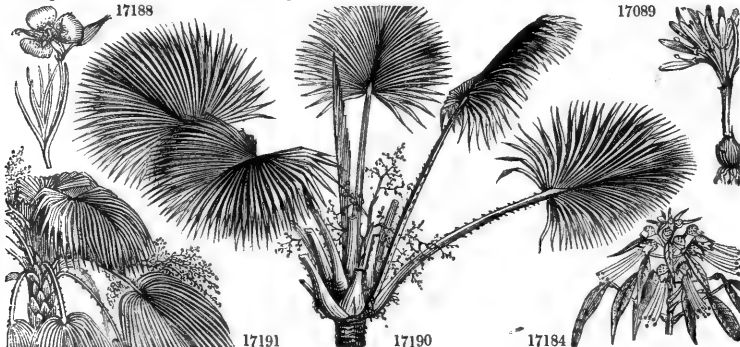
Page 296. CLASS VII. — HEPTANDRIA. 7 STAMENS.

Order 1. MONOGYNIA. 7 Stamens. 1 Style.

2593. Pàvia. Capsule smooth. That of *Æ'sculus* is echinated.

MONOGYNIA.

2593. \*866a. PAVIA Boer. PAVIA. (*Pierre Paw*, professor of botany at Leyden.) *Æsculacæ*. Sp. 6—8.  
 †5058 rùbra Lam. red-flowered ♂ or 6 my.jn S N. Amer. 1711. G s.l Den. br. 120  
     *Æ'sculus Pàvia* L. No. 5058. in p. 296.  
     β argùta Bot. reg. 993, yellow ♂ or 20 my.jn Y sublaciniàta Den. br. 120, Den. br. 163  
     *Æ'sculus flàva* H. K. No. 5060. in p. 296. ♂ or 20 my.jn Y N. Amer. 1764. G s.l  
 † 5059 discolor Swt. two-rid-flo'd ♂ or 5 my R.Y N. Amer. 1812. G s.l Bot. reg. 310  
     *Æ'sculus discolor* PA. No. 5059. in p. 296.  
 17192 - - neglecta G. Don neglected ♂ or 20 my.jn Pa.Y ..... 1823? G co Bot. reg. 1009.  
 17193 - - macrocarpa Hort. long-fruite d ♂ or 20 ... R.Y ..... 1826. G co A.b.vol.5, pl.52  
 17194 - - macrostachya Dec. long-spiked ♂ or 6 jn.jl W N. Amer. 1820. G co A.b. f. 137  
     parviflora Walt. *Æ. macrostachya* Mx.



History, Use, Propagation, Culture,

2590. *Calochórtus*. A genus of very handsome bulbous plants, which may be planted in a warm border in the open air during the summer, but should be taken up as soon as the leaves are withered, and kept dry till they begin to shoot, when they may be potted and kept in the green-house till the spring frosts are over.

Page 300. CLASS VIII. — OCTANDRIA. 8 STAMENS.

Order 1. MONOGYNIA. 8 Stamens. 1 Style.

2594. *Chymocárpus*. Calyx persistent, valved in aestivation. Petals 2. Fruit baccate, composed of 3 1-seeded carpels.  
 2595. *Arthrostemma*. Cal. turbinate or campanulate, usually beset with bristles or scales on outside, 4-lobed. Petals 4. Stigmas 8, glabrous. Anthers oblong; having their connectives rather long, and bluntly bicariculate at base. Ovarium bristly at apex. Capsule 4-celled.

TRIGYNIA.

- 17185 Stem 3-5-lvd. 2-flwd. Petals beautifully bearded at base, Capsule erect linear-oblong
- 17186 Stem 3-5-flwd. Sepals revol. Petals with wart-like tuft of very short firm hairs
- 17187 Stem few-lvd. sub-2-flwd. Sepals erect, Petals with oblong tuft of rather loose hairs a short distance above base
- 17188 Stem sub-3-flwd. Lvs. convolute shorter th. pedun. Petals cuneate rounded at apex transv. bearded about middle

17189 Anthers versatile, Lvs. lanceol.-linear spreading, Flowers rising at the leaves

17190 Leaves fan-shaped, Spathe divided, Flowers paniced

17191 Segments of fronds connected by threads, Stipes unarmed

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CLASS VII. — HEPTANDRIA.

MONOGYNIA.

†5058 Leaf. 5 ellipt.-obl. tapering at both ends smooth as is pet. axils of nvs. hairy on under surf. of lvs. Petals 4 longer than stams.

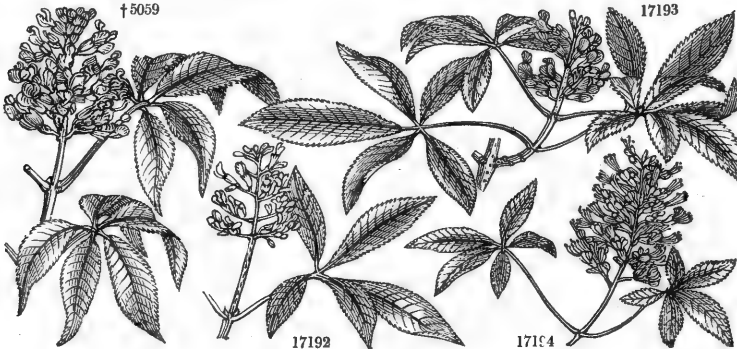
†5060 Leaf. 5-7 pubesc. beneath and above upon nerves, Petioles pubescent flattish towards the tip

†5059 Whole plant including young wood covered with pubescence, Flws. large and snowy

17192 Lvs. with rufous down on veins on upper side smooth beneath : rather plicate [petals less spreading]

17193 Lvs. large smooth on upper surface and shining, Flws. nearly as large as those of *Æsculus Hippocastanum* but

17194 Stamens much longer than corolla, Racemes very long, Root stoloniferous



and Miscellaneous Particulars.

2593. *Pavia*. Middle-sized deciduous trees or shrubs, distinguishable from the horsechestnuts by the smoothness of their fruit, and the comparative smallness of their flowers, which have their petals erect and narrower. The leaves, also, are generally smaller and smoother. (*Arb. Brit.* p. 469.) Budding and grafting are the most usual modes of propagation, though they are frequently increased from seed.

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2596. *Godénia*. Limb of calyx reflexed. Capsule opening at angles. Placenta persistent. Stamens all alike. Chalaza of the seed crowned round the margin by a fringe.

2597. *Clarkia*. Limb of calyx 4-parted. Petals 4, tripartite. Caps. 4-celled. Seeds not pappous.

2598. *Eucharidium*. Tube of calyx above the ovarium, elongated, filiform, with a 4-parted deciduous limb. Petals 4, clawed, trifid. Capsule 4-celled, 4-valved, dehiscent. Seeds numerous.

2599. *Francoëa*. Calyx 4-parted. Petals 4. Stamens distinct, 16, 8 of which are fertile. Anthers 2-celled. Capsule 4-gonal, 4-celled.

MONOGYNIA.

|                         |                            |                                    |   |              |  |     |           |
|-------------------------|----------------------------|------------------------------------|---|--------------|--|-----|-----------|
| 875. <i>TROPÆOLUM</i> . |                            |                                    |   | Sp. 10—11.   |  |     |           |
| 5083                    | mājus                      |                                    |   |              |  |     |           |
|                         | γ <i>atrosanguineum</i> D. | Don                                | dark red  | ✱            | ○  | or  | 3 jn.au   |
| 17195                   | 5086a                      | polyphyllum Cav.                   | many-leaved   | ✱            | △  | or  | 3 jn.jl   |
| 17196                   | 5086b                      | Jarrattii Youell                   | Jarratt's   | ✱            | △  | el  | 12 .....  |
| 17197                   | 5086c                      | tricolorum Swt.                    | three-coloured  | ✱            | △  | el  | 12 jn.s   |
| 17198                   | 5086d                      | brachyceras Hook.                  | short-spurred   | ✱            | △  | pr  | 12 au     |
| 17199                   | 5086e                      | tuberosum Maund                    | tuberous-rooted                                       | ✱            | △  | esc | 3 s       |
| 2594                    | *875a.                     | CHYMOCA'RPIUS D. Don.              | (Chymos, juicy, karpos, fruit; berry.)                |              |  |     |           |
| 17200                   | -                          | pentaphyllum D. Don                | five-leaved   | ✱            | △  | or  | 4 au.o    |
|                         | -                          | <i>Tropæolum pentaphyllum</i> Lam. |   |              |  |     |           |
| 892. <i>ERICA</i> .     |                            |                                    |   | Sp. 320—562. |  |     |           |
| 17201                   | 5114a                      | penicillata Sal.                   | pencilled   | ✱            | △  | or  | 2 va.sea  |
| 17202                   | 5127a                      | carinata Loä                       | keeled  | ✱            | △  | or  | 1½ s      |
| 17203                   | 5127b                      | carinula Loä                       | flesh-coloured  | ✱            | △  | or  | 1 jl.s    |
| 17204                   | 5127c                      | chloroloma Lindl.                  | green-fringed   | ✱            | △  | or  | 2 n       |
| 17205                   | 5128a                      | rigida Loä                         | stiff   | ✱            | △  | or  | 2 jl.au   |
| 17206                   | 5134a                      | epistomia Nois.                    | spout-flowered  | ✱            | △  | or  | 2 my.jn   |
| 17207                   | 5184a                      | pseudo-vestita Bot.                | hybrid-clothed  | ✱            | △  | pr  | 2 my.     |
| 17208                   | 5205a                      | calæstoma Loä                      | pretty-mouthed  | ✱            | △  | or  | 1 my.jn   |
| 17209                   | 5212a                      | Russelliana Loä                    | Russell's   | ✱            | △  | el  | 1½ my.jn  |
| 17210                   | 5237a                      | cónica Lo. C.                      | conical   | ✱            | △  | or  | 2 my.au   |
| 17211                   | 5284a                      | codonodes Lindl.                   | bell-formed   | ✱            | △  | or  | 12 f.m    |
|                         | 5352                       | Tétralix                           |   |              |  |     |           |
|                         | γ                          | cárnea                             | flesh-coloured  | ✱            | △  | or  | 1 jn.au   |
|                         | δ                          | Mackalana A.B.                     | Mackay's  | ✱            | △  | or  | 1 jn.au   |
| 17212                   | 5358a                      | laciniiflora Loä                   | milk-flowered   | ✱            | △  | or  | 2 jn.s    |
| 17213                   | 5359a                      | villositiscula B. C.               | slightly villous                                      | ✱            | △  | or  | 1½ my     |
| 17214                   | 5372a                      | recurvata Belf.                    | recurved  | ✱            | △  | or  | 2 my      |
| 17215                   | -                          | rübida Loä                         | red   | ✱            | △  | or  | 2 jl.au   |
| 17216                   | -                          | crinita Loä                        | hairy   | ✱            | △  | or  | 2 .....   |
| 17217                   | -                          | Beaumontiana Roll.                 | Beaumont's  | ✱            | △  | or  | 1 jn      |
| 17218                   | -                          | vernalis B. C.                     | vernal  | ✱            | △  | or  | 3 mr.ap   |
| 17219                   | -                          | undulata B. C.                     | waved-tubed   | ✱            | △  | or  | 1½ su     |
| 17220                   | -                          | quadrata B. C.                     | square-mouthed  | ✱            | △  | or  | 1½ my     |
| 17221                   | -                          | hispida B. C.                      | hairy-leaved  | ✱            | △  | or  | 1½ jn.jl  |
| 17222                   | -                          | cantharifórmis B. C.               | cantharis-flwd  | ✱            | △  | or  | ... my.jn |
| 17223                   | -                          | dichrómata B. C.                   | two-coloured  | ✱            | △  | or  | 3 aut.w   |
| 17224                   | -                          | verecúnda B. C.                    | ruddy-flowered  | ✱            | △  | or  | 3 su.aut  |
| 17225                   | -                          | Willmorei K. & W.                  | Willmore's  | ✱            | △  | or  | 3 jl      |
| 2595                    | *900a.                     | ARTHROSTE'MMA Pav.                 | (Arthron, joint, stemma, crown; anth. jointed on fl.) |              |  |     |           |
| 17226                   | -                          | nítidum Grab.                      | glossy-leaved   | ✱            | △  | or  | 2 jl      |
| 17227                   | -                          | versicolor Dec.                    | various-cld   | ✱            | △  | or  | ½ s       |
| 901. <i>ÆNOTHERA</i> .  |                            |                                    |   |              | Sp. 41—70. (including 8 sp. of Godétia.) |     |           |
| 17228                   | 5437a                      | salicifolia Desf.                  | Willow-leaved   | ✱            | ○  | or  | 2 jn.au   |
| 17229                   | 5446a                      | serrulata Nut.                     | serrulated  | ✱            | △  | pr  | 1 jn      |
| 17230                   | 5446b                      | cheiranthifolia Hort.              | Choir.-leaved   | ✱            | △  | or  | 1½ jn.au  |
| 17231                   | 5446c                      | Drummondii Hook.                   | Drummond's  | ✱            | △  | or  | ¼ au.s    |
| 17232                   | 5446d                      | serótina Hort.                     | late-flowering  | ✱            | △  | or  | 1½ au.s   |
|                         | 5447                       | fruticosa                          |   |              |  |     |           |
|                         | β                          | ambigua Hook.                      | ambiguous   | ✱            | △  | or  | 1 jl      |
| 17233                   | 5448                       | missouriensis B. M.                | Missouri  | ✱            | △  | or  | 1 jn.au   |
|                         | 17197                      | 17200                              |   |              |  |     |           |
|                         | 17206                      | 17209                              |   |              |  |     |           |



History, Use, Propagation, Culture,

875. *Tropæolum* 17199 *tuberosum*. This species may be considered about as hardy as the potato, and, like it, produces eatable and agreeably flavoured tubers. Mr. Lambert was the first, we believe, who grew these tubers in England, and presented them as table. When boiled, the tubers are of a soft pulpy substance, and, Mr. Cameron says, in flavour resemble sea-kale, mixed with the hot taste of garden cress. The council of the Caledon. Hort. Soc. considers the tubers to be of a very delicate flavour, resembling the richest asparagus. Mr. Young of Epsom found the

## MONOGYNIA.

- [quite entire  
 17196 Leaflets 5-10 obl. or obovate little-toothed cuneated at base, Petals unguicul. rather longer than cal obtuse  
 17196 Leaflets 7 obovate lanceolate, Segments of calyx blunt  
 17197 Tuberos, Stem slender climbing branched, Lvs. peltately divided, Segms. 6-7 obov. ent. cuspid. Petioles cirrhose  
 17198 Lvs. peltate, Segms. 6-7 oblong-obov. ent. sess. Petals cuneif. Cal. segms. obtuse, Spur very short and very blunt  
 17199 Lvs. peltate nerved 5-lobed transversely truncate at base smooth, Petals almost length of calyx

17200 Leaflets 5 ovate or ov.-lanceol. ent. stalked, Petals 2 sessile acute quite ent. shorter than calyx

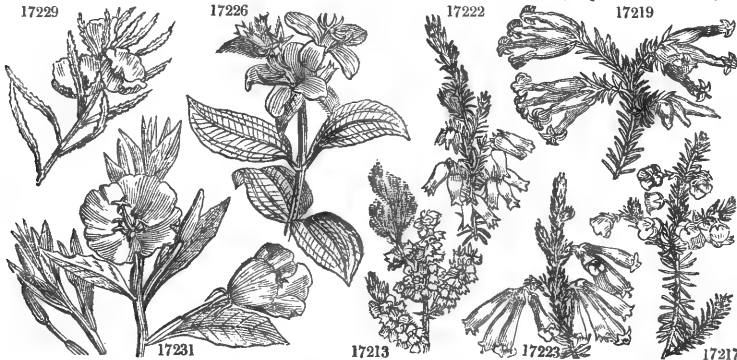
- 17201 Lvs. linear, Peduncles axillary 1-flwd. Stamens much exerted, Ectasis [Crests of anths. plumose  
 17202 Lvs. 5 in whorl reflexed woolly, Flws. termin. Bract. remote from cal. Tube of cor. cylind. inflated ribbed,  
 17203 Lvs. 3-4 in whorl linear glabr. Flws. termin. racemose, Cal. bracteate, Cor. with inflated tube and short limb  
 17204 Lvs. linear 5 in a whorl pubescent, Branchlets pilose, Corolla cylindrical fascicles constricted at apex, Syringodea  
 17205 Glabr. Lvs. 4 in whorl linear spread. Flws. termin. pedicellate, Cor. ventricose tubular, Border blunt, Bract.  
 remote from cal. [Stam. and pist. enclosed aristate  
 17206 Lvs. glabrous, Flws. termin. Bract. remote from and close to cal. Cal. large inflated, Tube of cor. obl. inflated,  
 17207 Lvs. acerose, Corolla cylindrical, Limb short spreading [white limb  
 17208 Glabrous, Lvs. lin. 4 in whorl, Flws. termin. crowded, Cor. with elongate ventricose tube dark neck and  
 17209 Lvs. 4 in whorl lin. glabr. Flws. termin. Bract. remote from cal. Cor. ov.-globose with large open segments  
 17210 Lvs. 4 in whorl linear glabrous, Flws. axillary racemose, Stam. and pist. enclosed  
 17211 Branch. villose, Lvs. in threes very narrow, Cor. campanulate, Style exerted, Stigma simple

- 17212 Lvs. 4 in whorl as well as bran. scabr. Flws. termin. erectish, Cor. ovate, Bract. remote from cal. Anth. crested  
 17213 Hairy, Lvs. acicular ciliated with long hairs, Flws. in racemose terminal fascicles, Cor. campanulate  
 17214 Lvs. 6 in whorl lin. flexuous recurved, Flws. termin. nearly sess. drooping capit. Bract. sess. Cor. curved ov.-  
 obl. Anth. mutic [little exerted  
 17215 Lvs. 4 in whorl lin. glabr. Flws. termin. and axill. Bract. distant from cal. Cor. tubular drooping  
 17216 Lvs. 6 in whorl crowded lanceol. each termin. by a hair, Flws. nrly. termin. drooping, Cor. cylindric contract.  
 at neck [white limb  
 17217 Glabrous, Lvs. lin. 5-6 in whorl, Flws. axill. and termin. drooping, Pedic. many-bracted, Cor. campanul. Style  
 17218 Glabrous, Lvs. 3 in whorl, Flws. terminal, Cor. campanulate, Style exerted  
 17219 Lvs. linear obtuse Corymbs 4-flwd. Cor. tubularly ventricose, Limb spreading, Stamens enclosed, Callista  
 17220 Lvs. short blunt, Branchlets 3-4-flwd. Cor. ovate, Stamens enclosed, Erica [urceol. globose  
 17221 Lvs. 4 in whorl hispidly ciliated lin. spread. obt. Flws. termin. racemose pendul. Bract. remote from cal. Cor.  
 17222 Lvs. obtuse, Flws. terminal, Pedicels about 3 together, Cal. reflexed, Cor. ovate ventricose  
 17223 Lvs. short obtuse, Branchlets 3-4-flwd. Cor. tubular inflated towards the top Stamens enclosed, Syringodea  
 17224 Lvs. 4 ? in a whorl lin. obt. Flws. lateral verticillate, Cor. with ventricose tube and spreading limb  
 17225 Lvs. linear 3 in a whorl, Flws. early, Cor. tubular ventricose constricted at the mouth, Anthers enclosed

- [axill. 3-flwd. longer than pet.  
 17226 Shrubby erect 4-gonally winged as are bran. Lvs. ov. acute serrul. glabr. on both surfs. shining above, Pedum.  
 17227 Suffrutic pilose, Lvs. petiol. ov. serrul. 5-nrvd. discoloured beneath, Flws. termin. solit. Lobes of cal. 4 serrated  
 at apex

- 17228 Lvs. oblong-lanceol. acute nrly. ent. rath. pilose thickish, Stem tall simple angul. Caps. oblong tetragonal  
 17229 Stem branched pubesc. Lvs. obl. linear serrulated mucronate pubesc. beneath, Flws. sessile, Calyx angular,  
 Petals entire [somet. obl. somet. ov. rath. cord. all obt.  
 17230 Lvs. glauc. pubesc. of several shapes, lower spatulate on long pet. distant : upper close together. somewh. sess.  
 17231 Lvs. obl. ellipt. somewh. obtuse slightly sinuately toothed atten. at base, Stem bran. succulent soft with down  
 as is fol. [of stigma blunt spread.  
 17232 Stems ascend. bran. pubesc. Lvs. lanceol. acute dentic. glabr. atten. at base, Petals wrinkled or plaited, Segms.

- [Caps. 4-winged  
 17233 Stem simple downy decumb. Lvs. lanceol. tapering at both ends margin. and slightly ciliat. Petals broad oboverd.



and Miscellaneous Particulars.

tubers, when boiled, superior in flavour to any potato, though disposed to be watery and not boiling firm. (Gard. Mag. xiv. p. 254.)

2594. *Chymocarpus*. For culture, &c., see *Tropæolum*.

2595. *Arthrostemma*. Propagation, &c., the same as recommended for *Melastoma*.

|       |  |   |                            |    |    |       |        |             |        |    |     |                     |
|-------|--|---|----------------------------|----|----|-------|--------|-------------|--------|----|-----|---------------------|
| 17234 | 5457a taraxacifolia Hort.  | Dandelion-lyd   | Δ                          | or | ‡  | my.au | W      | Peru        | 1825.  | S  | co  | Sw. fl. gar. 294    |
| 17235 | 5467a densiflora Lindl.  | close-flowered!   | ○                          | or | 3  | aut   | .....  | N. Califor. | 1831.  | S  | s.1 | Bot. reg. 1593      |
| 17236 | 5468a pallida Lindl.   | pale-flowered   | Δ                          | or | 1‡ | jn.s  | W.r    | America     | 1826.  | D  | p.1 | Bot. reg. 1142      |
| 2596. | *901a. GODETIA Spach.  | (Unexplained, but, doubtless, a Latinised proper name.) | <i>Onagræceæ.</i> Sp.11—3. |    |    |       |        |             |        |    |     |                     |
|       | †5450 purpurea Cur.  | purple-flowered   | ○                          | or | 1  | my.au | P      | N. Amer.    | 1794.  | S  | co  | Bot. mag. 352       |
|       | Ænothëra purpurea, No. 5450. in p. 318.;                                   |   | ○                          | or | 1  | jn.au | P      | N. Amer.    | 1817.  | S  | co  | Bot. reg. 562       |
| 17237 | - Romanzovii Led.  | Romanzow's  | ○                          | or | 1  | jn.au | P      | N. Amer.    | 1817.  | S  | co  | Bot. reg. 562       |
| 17238 | - decumbens Dou.   | decumbent   | ○                          | pr | 1  | jn.n  | P      | Californ.   | 1827.  | S  | co  | Bot. mag. 2889      |
| 17239 | - rðseo-álba Bernh.  | red & white   | ○                          | or | 1  | my.au | R.w    | Nepal       | 1827.  | S  | co  | Loud.fl.g.pl.8.f.8  |
| 17240 | - quadrivittata Dou.   | 4-spotted-petaled                                       | ○                          | or | 1‡ | s     | Pk     | N. Amer.    | 1826.  | S  | co  | Bot. reg. 1119      |
| 17241 | - Lindleyana Dou.  | Lindley's   | ○                          | or | 1‡ | jn.n  | P      | N. Amer.    | 1826.  | S  | co  | Bot. mag. 2832      |
|       | †5463 tenella Fl. per.   | delicate  | ○                          | pr | ‡  | ap.au | P      | Chile       | 1822.  | S  | co  | Bot. mag. 2424      |
|       | Ænothëra tenella, No. 5463. in p. 318.                                     |   |                            |    |    |       |        |             |        |    |     |                     |
| 17242 | - viminea Dou.   | twiggly   | ○                          | pr | 3  | jn.s  | P      | Californ.   | 1826.  | S  | co  | Bot. mag. 2873      |
| 17243 | - rubicunda Lindl.   | ruddy   | ○                          | or | 2  | jl.au | P.Fl.a | Californ.   | 1834?  | S  | co  | Bot. reg. 1856      |
| 17244 | - lepida Lindl.  | pretty  | ○                          | pr | 1‡ | au.s  | Pk     | Californ.   | 1835.  | S  | co  | Bot. reg. 1859      |
| 17245 | - vlnosa Lindl.  | wine- <i>old-fwd</i>                                    | ○                          | pr | 2  | jl.au | Bh     | Californ.   | 1835.  | S  | co  | Bot. reg. 1880      |
| 2597. | *902a. CLARKIA Ph.   | (Capt. Clark, accomp. Capt. Lewis to Rocky Mountains.)  | <i>Onagræceæ.</i> Sp. 3.   |    |    |       |        |             |        |    |     |                     |
| 17246 | - pulchella Ph.  | pretty  | ○                          | pr | 1‡ | jn.o  | P      | N. Amer.    | 1826.  | S  | co  | Bot. reg. 1100      |
|       | β fl. álbo Swt.  | white-flowered  | ○                          | pr | 1‡ | jn.o  | W      | N. Amer.    | 1826.  | S  | co  | Loud.fl.g.pl.9.f.2  |
| 17247 | - elegans Dou.   | elegant   | ○                          | pr | 2  | jl.s  | Ro.P   | Californ.   | 1832.  | S  | co  | Bot. reg. 1575      |
|       | Phæostoma Douglasiæ Spach.   |   |                            |    |    |       |        |             |        |    |     |                     |
|       | β rðsea Hort.  | rose- <i>old-fwd</i>                                    | ○                          | pr | 2  | jl.s  | Pa.R   | gardens     | .....  | Ro | co  | Loud.fl.g.pl.9.f.4  |
|       | γ fl. plèno Hort.  | double- <i>fwd</i>                                      | ○                          | pr | 2  | jl.s  | Pa.R   | gardens     | .....  | S  | co  |                     |
| 17248 | - rhombóidea Dou.  | rhomboid  | ○                          | pr | 1  | au.   | P      | Californ.   | 1834.  | S  | co  | Bot. reg. 1981      |
|       | gauróides Dou. ms. Sw. fl. g. 379.   |   |                            |    |    |       |        |             |        |    |     |                     |
| 2598. | *902b. EUCHARIDIUM F. & M. (Eucharis, agreeable; appearance of the plant.) |   | <i>Onagræceæ.</i> Sp. 1.   |    |    |       |        |             |        |    |     |                     |
| 17249 | - concinnum F. & M. neat   |   | ○                          | pr | 1  | ap.s  | P      | N. Amer.    | 1836.  | S  | pl  | Bot. reg. 1962      |
| 904.  | FUCHSIA.   |   |                            |    |    |       |        |             |        |    |     |                     |
| 17250 | 5490c macrostemon Fl. per.   | long-stamened   | ■                          | or | 3  | ilo   | S.P    | Chile       | 1823.  | C  | p.1 | Bot. cab. 1062      |
|       | α discolor Lindl.  | two-coloured  | ■                          | or | 3  | au    | R.v    | P. Famine   | 1830?  | C  | p.1 | Bot. reg. 1805      |
|       | β cónica D. Don  | conic   | ■                          | or | 4  | jn.o  | S.P    | Chile       | 1825.  | C  | p.1 | Bot. reg. 1062      |
|       | F. cónica Lindl.   |   |                            |    |    |       |        |             |        |    |     |                     |
|       | γ globosa D. Don   | globose- <i>fwd</i>                                     | ■                          | or | 5  | jn.s  | C.P    | Eng. hyb.   | 1830?  | C  | p.1 | Bot. reg.           |
|       | F. globosa Hort.   |   |                            |    |    |       |        |             |        |    |     |                     |
|       | subv. elegans Pax.   | elegant- <i>fwd</i>                                     | ■                          | or | 6  | jn    | S      | Eng. hyb.   | ?1836? | C  | p.1 | Pax. mag. 75        |
|       | δ grácilis D. Don  | slender   | ■                          | or | 8  | my.o  | S.P    | Chile       | 1823.  | C  | p.1 | Bot. reg. 847       |
|       | F. grácilis Lindl., F. decussata Grah.                                     |   |                            |    |    |       |        |             |        |    |     |                     |
|       | ε recurvata Hook.  | recurved- <i>sep.</i>                                   | ■                          | or | 7  | ...   | R.P    | Ir. hyb.    | 1835.  | C  | p.1 | Bot. mag. 3521      |
| 17251 | 5490d microphylla Kth.   | small-leaved  | ■                          | pr | 6  | jn.s  | S.P    | Mexico      | 1828.  | C  | p.1 | Sw. fl. g. 2. s. 16 |
| 17252 | 5490e bacillaris Lindl.  | rod-branched  | ■                          | or | 5  | su    | Ro     | Mexico      | 1829.  | C  | p.1 | Bot. reg. 1490      |
| 17253 | 5492a parviflora B. R.   | small-flowered  | ■                          | or | 4  | my.o  | R      | Mexico      | 1824.  | C  | p.1 | Bot. reg. 1048      |
| 17254 | 5492b thymifolia Kth.  | Thyme-leaved  | ■                          | or | 6  | my.o  | R      | Mexico      | 1827.  | C  | p.1 | Bot. reg. 1284      |
| 17255 | 5492c arboræscens Moc.   | arborescent   | ■                          | or | 16 | o     | Pk     | Mexico      | 1824.  | C  | p.1 | Bot. reg. 943       |
| 17256 | - cylindracea Lindl.   | cylindrical- <i>fwd</i>                                 | ■                          | or | 2  | au    | S      | Mexico      | 1837.  | C  | p.1 | Bot. reg. n.s. 66   |
| 17257 | - fulgens Dec.   | glowing   | ■                          | or | 4  | my.o  | R      | Mexico      | 1837.  | C  | p.1 | Bot. reg. n.s. 1    |
| 916.  | COMBRETUM.   |   |                            |    |    |       |        |             |        |    |     |                     |
| 17259 | 5563a grandiflorum G. Don  | large-flowered  | ■                          | or | 5' | f.jl  | S      | S. Leone    | 1824.  | C  | r.m |                     |
| 17259 | 5563b paniculatum G. Don   | paniculate  | ■                          | or | 50 | ja.jn | S      | Guinea      | 1824.  | C  | r.m |                     |
| 17260 | 5563c elegans Kth.   | elegant   | ■                          | or | 15 | ap.jl | S      | Brazil      | 1820.  | C  | r.m |                     |

TETRAGYNIA.

|       |                      |  |                          |    |    |       |      |       |       |   |     |                        |
|-------|----------------------|--|--------------------------|----|----|-------|------|-------|-------|---|-----|------------------------|
| 2599. | *932a. FRANCOA Cav.  | (M. Franco, of Valentia, a promoter of botany in the 16th cent.) | <i>Galactnææ.</i> Sp. 3. |    |    |       |      |       |       |   |     |                        |
| 17261 | - appendiculata Cav. | appendiced   | Δ                        | or | 3  | my.jn | Ro.C | Chile | 1831. | S | p.1 | Bot. reg. 1834         |
| 17262 | - sonchifolia Feu.   | Sowthistle-lyd   | Δ                        | or | 2‡ | jl.au | Ro.P | Chile | 1830. | S | r.1 | Bot. cab. 1864         |
| 17263 | - ramosa D. Don      | branch- <i>inflo.</i>  | Δ                        | or | 2‡ | jl.au | W    | Chile | 1831. | S | p.1 | Sw. fl. gar. 2. s. 233 |



History, Use, Propagation, Culture,

2596. *Godetia*. A genus of highly ornamental plants, separated by Spach from the genus *Ænothëra*. It contains all the species with purple flowers, which Dr. Lindley informs us will not mix with the yellow-flowered kinds, so as to form hybrids; neither do they close their petals in the sunshine, and thus forfeit all title to the name of Evening Primrose. Culture, &c., same as recommended for *Ænothëra*.

2597. *Clarkia*. A genus of very ornamental annuals, requiring the same treatment as that of the annual *Ænothëra*.

- 17234 Procumb. Lvs. pubes. altern. interruptedly pinnatif. sinuately toothed ent. at apex, Tube of cor. very long, Petals large obov. ent. 5-nrvd.
- 17235 Tomentose, Lvs. linear lanceol. toothed, Ovarium cylindrical, Petals 2-lobed, Stamens 4 fertile 4 sterile
- 17236 Glabrous, Stems decum. Lvs. linear lanceol. toothed, Capsules linear twisted, Root creeping
- †4540 Lvs. lanceol. atten. at both ends bluntish, Tube of cal. short, Caps. ovate triquetrous sess. angul. pilose
- 17237 Lvs. lanceol.-obl. mucron. tapering into petioles, Caps. obl.-cylindric. somewh. tetragonal pilose
- 17238 Lvs. glauc. quite ent. pubesc. lower ones broadly ov. : upper ov.-lanceol. Caps. bluntly 4-gonal tapering from base villous
- 17239 Lvs. lanceol. bluntish slightly toothed glauc. Stem round, Caps. cylindrically tetragonal [villous
- 17240 Lvs. linear-lanceol. somewh. denticul. puberulous, Stem bran. weak puberulous, Caps. 4-gonal atten. at apex
- 17241 Lvs. linear-lanceol. quite entire glabr. Stem ascending diffuse bran. Caps. round elongat. acute larger th. lvs.
- †4563 Lvs. linear spatulate, Stem bran. erect, Caps. furrowed cylindric. curved downy longer than bracteas
- 17242 Lvs. lanceol. glauc. ent. Caps. cylindric. atten. furrowed pubescent, Bran. long slender rod-like
- 17243 Lvs. linear-lanceol. slightly toothed, Anthers fiery red yellow at apex, Caps. linear sess. truncated
- 17244 Lvs. ovate-lanceol. ent. Caps. sess. ovate-oblong hairy
- 17245 Lvs. linear-oblong subdentated glabrous, Anthers crimson yellowish at summit
- 17246 Leaves linear, Petals deeply 3-lobed
- 17247 Leaves ovate dentated & entire, Petals rhomboid undivided
- β Has the flowers of a pale brick-red rather than rose colour
- γ Has the flowers semidouble
- 17248 Leaves lanceolate, Petals rhomboid entire
- 17249 Pubescent, Lvs. petiolate ovate entire, Flws. axillary solitary [spreading petals, Stigma 4-lobed
- 17250 Bran. glabr. Lvs. 3 in whorl ov. acute denticul. on short petioles, Lobes of cal. oblong acute exceeding obov.
- α
- β Lvs. 3-4 in whorl, Flws. pendul. solit. Petals equal to cal. Tube of cor. conical, Stigma ovate
- γ Lvs. in threes ovate toothed smooth as are bran. Calyx glob. half length of pendul. smooth filif. red pedun.
- δ Lvs. oppos. glabr. on long petioles remotely denticul. Pedic. axill. nodding puberul. length of cal. Cal. lobes obl. acute exceeding pets. Stigm. ent.
- 17251 Lvs. oppos. small ellipt.-obl. acutish dent. glabr. little ciliat. Pedic. axill. shorter th. flws. Cal. funnel-sh. lbs. ov. acumin. Stigm. 4-lbd.
- 17252 Bran. erect slender rod-like, Lvs. pale green thin, Cal. segms. very narrow & subulate
- 17253 Bran. smoothish, Lvs. scatter. & oppos. petiol. ov.-cord. or oval quite ent. glauc. & glabr. Pedic. sub-aggreg. [short th. flws. Stig. undiv. Cal. lbs. reflexed, Stig. thick 4-lbd.
- 17254 Bran. puberul. Lvs. about oppos. small ov. or roundish ov. obt. almost ent. hairy above glabr. ben. Pedic. axill.
- 17255 Glabr. Lvs. 3 in a whorl ov.-obl. acumin. at both ends petiol. quite ent. Panic. trichotom. nrly. naked, Cal. lbs.
- 17256 Diccious, Lvs. obovate, Calyx cylindrical, Petals roundish apiculated, Anthers enclosed [ov. acute reflexed
- 17257 Lvs. oppos. petiol. ov.-cord. acute denticul. glabr. Pedic. axill. short. th. flws. : upper ones racemose, Cal. lbs. ov.-lanceol. acute exceeds petals
- 17258 Lvs. oblong, Spikes short axillary & terminal, Cal. pubescent, Petals obovate obtuse, Stamens long
- 17259 Lvs. obl. obtuse, Panic. terminal branched hairy, Cal. pubescent, Bract. very short, Flws. pedicellate
- 17260 Lvs. ellipt. acute acumin. puberul. above : clothed with yellowish tomentum ben. Spks. simple, Pedun. short, Petals lanceol. acute hairy

## TETRAGYNIA.

- 17261 Stemless, Lvs. petiolate, Racemes loose secund, Calycine segments lanceolate acute
- 17262 Caulescent, Lvs. sess. Rac. loose nodding, Cal. segms. dilated, Petals with involute margins
- 17263 Caulescent, Lvs. petiolate, Rac. spirate erect, Cal. segms. lanceol. obtuse nerveless



and Miscellaneous Particulars.

2598. *Eucharidium*. A pretty and very neat little plant, seeds of which may be sown at any period of the spring or summer, as they will generally flower in about six weeks after sowing.



2599. *Francoa*. A genus of ornamental perennials, which are, however, found to be most useful if treated as half-hardy annuals, because, as perennials, they are too tender to endure the winter in the open air without protection, Besides this, they can only be propagated by seeds.

Page 332. CLASS IX. — ENNEANDRIA. 9 STAMENS.

Order 1. MONOGYNIA. 9 Stamens. 1 Style.

2600. *Tetranthèra*. Involucrum of umbel 4-5-lvd., deciduous. Limb of perianth 4-6-parted. Stamens 6-15. Anthers 4-celled. Stigma dilated, sub-lobate very naked.

MONOGYNIA.









2600. \*934a. **TETRANTHÈRA Jac.** TETRANTHÈRA. (*Tetra*, four, *aner*, an anther.) *Lavinae*. Sp. 1-8.  
 17264 - - *aurifolia Jac.* Laurel-leaved  or 6 my.jn G China 1822. C p.l Bot. reg. 893  
*Litsea chinensis Lam.*  
 937. **ERIOGONUM.** Sp. 3-5.  
 17265 - - *compositum Dou.* compound   $\Delta$  pr  $1\frac{1}{2}$  my.jn Ysh.W New Alb. ... C m.s Bot. reg. 1774

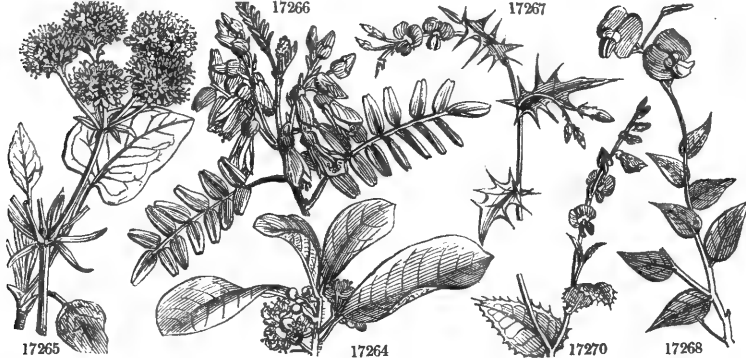
Page 338. CLASS X. — DECANDRIA. 10 STAMENS.

Order 1. MONOGYNIA. 10 Stamens. 1 Style.

2601. *Castanospèrnum*. Calyx somewhat bilabiate, with short tube; upper lip bifid, lower one 3-fid. Petals 5, papilionaceous, with wings and keel nearly equal in length. Legume stipitate, large, oblong-cylindrical, 2-valved, usually 4-seeded. Valves coriaceous, spongy inside.  
 2602. *Reichardtia*. Sepals 5, joined into campanulate crenulated calyx. Petals 6-10, somewhat papilionaceous. Stam. declinate, distinct, cohering together beneath middle by beard. Style filiform. Stigma dilated. Legume samaroid, ending in oblong wing.  
 2603. *Eriostemon*. Calyx 5-parted. Petals 5, marcescent. Stamens unequal, free, fringed, tapering into a thread which bears the anthers. Fruit of 5, rarely 1-2, carpels.  
 2604. *Phebdium*. Calyx 5-cleft. Petals 5. Stamens unequal, smooth. Style and stigma 5-furrowed. Fruit of 5 capsular, 2-valved, 1-seeded carpels, girded by calyx.  
 2605. *Pieris*. Calyx 5-parted. Corolla tubular or ovate, with a contracted, 5-toothed, revolute mouth. Filaments dilated, furnished with two bristles at the tip. Anthers with short incumbent cells that open lengthwise. Style 5-cornered. Stigma truncate. Leaves coriaceous. Flowers drooping, terminal, racemose.  
 2606. *Pernettia*. Corolla globose, with a revolute limb. Anthers with the 2-cells 2-lobed at the tip; the lobes bifid. Hypogynous scales 10, 3-lobed, surrounding the ovary. Berry with 5 cells, the dehiscence loculicidal.  
 2607. *Limnanthes*. Calyx 5-parted. Petals 5. Stamens 10. Nucule 5.  
 2608. *Chaetogàstra*. Calyx turbinate, pilose or scaly, 5-lobed. Petals 5. Filam. 10, glabrous. Anthers oblong, having connectives drawn out into simple or bifid spur, and sometimes only into 2 blunt tubercles. Ovarium bristly at apex. Capsules 5-celled.  
 2609. *Ceratopetalum*. Limb of calyx 5-parted, permanent. Petals 5, linearly multifid, permanent or wanting. Anthers beaked. Capsule 1-seeded from abortion, dehiscing at apex. Leaves simple or ternate.  
 2610. *Darwinia*. Tube of calyx drawn out into membranous deciduous limb, throat dilated. Lobes roundish, cordate. Stamens free. Ovarium 1-celled, 1-ovulate.

MONOGYNIA.

940. **EDWA'RDSIA.** Sp. 4-6.  
 17266 5670a chilensis *Miers* Chilian  or ... ap.my Y Chile 1822. L 1 Bot. reg. 1628  
 949. **CHORO'ZEMA.** Sp. 7-9.  
 17267 5703a triangulàre *Lindl.* three-angled  or  $\frac{3}{4}$  ap S N. Holl. 1830. C s.p Bot. reg. 1513  
 17268 5704a ovatum *Lindl.* ovate-leaved  el 1 my S N. Holl. 1830. C s.p Bot. reg. 1528  
 17269 5704b Henchmanni R.Br. Henchmann's  spl 2 ap.jn S N. Holl. 1824. C s.p Bot. reg. 986  
 17270 - cordatum *Lindl.* cordate-leaved  pr 2 ap R N. S. W. ... C s.p Bot. reg. n. s. 10  
 950. **PODOLO'BIMUM.** Sp. 3-5.  
 17271 5705a staurophyllum *Dec.* cross-leaved  pr 2 mr Y N. Holl. 1822. C p.l Bot. reg. 959  
 17272 5705b scandens *Dec.* climbing  or 3 ap.jn Y N. Holl. 1824. C s.p  
     *humifusum Dec.* trailing  or 1 ap.jn Y N. Holl. 1823. C s.p  
     *Davearia humifusa Sm.*



History, Use, Propagation, Culture,

1737. *Eriogonum*. A hardy herbaceous plant, which thrives in any common soil kept damp, and somewhat shaded. It is readily increased by cuttings of the well ripened shoots, planted in sand and peat, and covered with a bell-glass.

## CLASS IX. — ENNEANDRIA.

## MONOGYNIA.

17264 Lvs. obovate obl. glabrous above : pilose beneath as well as petioles & branches, Involucre 4-lvd. tomentose

17265 Lvs. approximate at the base of the stem ovate rounded or cordate at the base clhd. with white wool beneath, [Peduncle scapiform, Involucre many-flwd.

## Order 2. DIGYNIA. 10 Stamens. 2 Styles.

2611. *Pachynema*. Stamens 7 or 10, free. Filaments broad and thick at base. Ovaries 2. Styles awl-shaped. Sepals and petals 5, but the petals soon fall off.

2612. *Adánia*. Limb of calyx with 5 short teeth. Petals 5. Styles ending in rather club-sh. 2-lobed stigmas. Berry crowned by teeth of calyx, somewhat 5-celled, many-seeded.

2613. *Tillima*. Free part of calyx inflated, 5-toothed, the adhering part conical. Petals 5, jagged. Styles 2-3, distinct. Capsule 1-celled, 2-valved at apex.

## Order 3. TRIGYNIA. 10 Stamens. 3 Styles.

2614. *Stigmaphilum*. Calyx 5-parted, 4 of the segments biglandular at the base. Petals unequal. Stamens unequal. Styles floraceous at apex. Samar. usually 3, one-seeded, winged at end.

2615. *Thryállis*. Petals roundish, unguiculate. Stamens awl-shaped. Caps. triquetrous, separable into 3 parts ; cells opening by outer angles.

2616. *Galphimia*. Calyx glandless. Petals unguiculate. Stamens nearly free. Drupe containing 3 1-seeded nuts, which open on the back.

2617. *Deutzia*. Calyx 5-cleft. Petals 5. Filaments flattened, tridentate at apex, middle tooth bearing the anther. Capsule 3-4-celled.

## Order 5. PENTAGYNIA. 10 Stamens. 5 Styles.

2618. *Echevèria*. Cal. 5-parted. Sepals erect, referable to leaves, united at very base, erect, thick, stiffish, thickest at middle nerve, and nearly 3-gonal at base, acute. Stamens shorter than petals, adnate to them at base. Carpels 5, ending each in subulate style.

2619. *Babísia*. Calyx 5-leaved, involucred by 10 lineal bracteas. Petals spreading, obtuse. Stigma 5-lobed, sessile. Capsule 5-lobed, many-seeded. Seeds compressed.

2620. *Viscària*. Calyx cylindrical, 5-toothed, naked. Petals 5, unguiculate, scales in the throat. Capsule 5-celled.

## MONOGYNIA.

17266 Lvs. 13-19 elliptic obl. obtuse silky beneath, Upper petal length of the lateral ones, Legume 2-jointed wingless

17267 Lvs. subhastate pinnatifidly spinous, Pedicels with bracteas at base

17268 Stems weak ascending, Lvs. ovate acute, Peduncles long terminal naked 3-flwd

17269 Plant hoary, Lvs. acicular, Flowers axillary

17270 Lvs. sessile cordate obtuse spiny-toothed, Flowers racemose drooping, Calyx pubescent

17271 Leaves opposite trifid, Lobes about equal entire spiny at apex, Ovary smooth

17272 Leaves opposite oblong-elliptic quite entire mucronate, Ovary villous



and Miscellaneous Particulars.

949. *Chortzema*. All the species are small shrubs, profusely covered with beautiful flowers ; one of the handsomest is *C. Henchmännii*, which grows freely in sandy peat.



|        |   |                 |   |     |    |       |      |   |                              |   |       |                    |
|--------|---|-----------------|---|-----|----|-------|------|---|------------------------------|---|-------|--------------------|
| 17273  | 955. BURTONIA.<br>5720a conferta Dec.                                   | clustered, flwd | ■ | □   | or | 2     | jl.s | V | Sp. 2-4.<br>S.W.Aus. 1830.   | C | s.p   | Bot. reg. 1600     |
| 17274  | 965. PULTENEYA.<br>- rosmarinifolia Lindl. Rosemary-ldd                 | ■               | □ | or  | 2  | ap.jn | Y    |   | Sp. 16-47.<br>N. Holl. 1824. | C | s.l.p | Bot. reg. 1584     |
| 17275  | - cordata Grah. cordate-leaved  | ■               | □ | or  | 2  | ap    | O    |   | V. D. L. 1832.               | C | s.p.l | Bot. mag. 3443     |
| 17276  | - subumbellata Hook. subumbellate                                       | ■               | □ | or  | 1  | ap    | O.V  |   | V. D. L. 1831.               | C | s.p.l | Bot. mag. 3254     |
| 17277  | 967. MIRBELIA.<br>speciosa Steb.  | ■               | □ | or  | 2  | my.jl | P    |   | Sp. 4-6.<br>N. Holl. 1824.   | C | s.l.p |                    |
| 17278  | - grandiflora B. M. large-flowered                                      | ■               | □ | or  | 2  | my.jl | P.o  |   | N. Holl. 1825.               | C | s.l.p | Bot. mag. 2771     |
| 2601.  | *972a. CASTANOSPERMUM Cun. (Castanea, chestnut, sperma, seed.)          |                 |   |     |    |       |      |   | Leguminosæ. Sp. 1.           |   |       |                    |
| 17279  | - australe Cun. southern  | ↑               | □ | ir  | 40 | ...   | Saf. |   | N. Holl. 1828.               | L | l     | Bot. mes. 51, 52   |
| 17280  | 977. POINCIANA.<br>- régia Bqj. royal                                   | ■               | □ | spl | 40 | ...   | C    |   | Sp. 4-5.<br>Madagas. 1828.   | C | r.m   | Bot. mag. 2884     |
| 17281  | - Gillièsii Hook. Gillies's   | ■               | □ | spl | 10 | jl    | Y    |   | S. Amer. 1829.               | C | r.m   | Sw.fl.gar. 2.s.311 |
| 2602.  | *978a. REICHA'RDIA Roth. (J. J. Reichard, a celeb. French botanist.)    |                 |   |     |    |       |      |   | Leg. Ces. Cass. Sp. 1.       |   |       |                    |
| 17282  | - hexapétala Roth. six-petaled  | ■               | □ | or  | 10 | ...   | Y    |   | E. Indies 1824.              | S | p.l   |                    |
| 2603.  | *999a. ERIOSTEMON Sm. (Erion, wool, stemon, stamen; fringed filaments.) |                 |   |     |    |       |      |   | Ruticææ. Sp. 2.              |   |       |                    |
| 17283  | - salicifolius Sm. Willow-leaved  | ■               | □ | or  | 3  | ap.jl | Pk   |   | N. Holl. 1824.               | C | s.p.l | Lin. tr. 1126      |
| 17284  | - cuspidatus Cun. cuspidate   | ■               | □ | or  | 3  | ap.jl | Pk   |   | N. Holl. 1824.               | C | s.p.l | Bot. cab. 1247     |
| 2604.  | *999b. PHEBALIUM Ven. PHEBALIUM. (Phibaleæ, a myrtle; appearance.)      |                 |   |     |    |       |      |   | Ruticææ. Sp. 1-6.            |   |       |                    |
| 17285  | - squamulosum Ven. squamulose   | ■               | □ | or  | 2½ | ap.jl | Y    |   | N. Holl. 1824.               | C | s.l.p | Ven. mal. 102      |
| †1014. | RHODODE'NDRON L. (Rhodon, a rose, dendron, a tree.)                     |                 |   |     |    |       |      |   | Ericicææ Rhododææ. Sp. 32.   |   |       |                    |

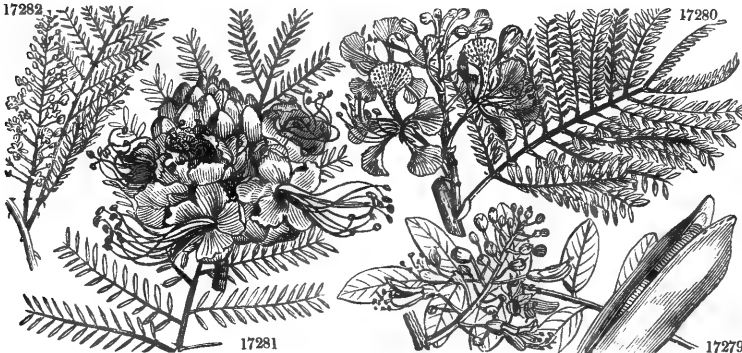
I. PONTICUM. — Limb of calyx short, 5-lobed. Corolla campanulate. Stamens 10. Ovary 5-celled. Leaves coriaceous, evergreen. (Don's Mûl. iii. p. 843.)

|      |                      |               |   |     |     |       |               |           |       |     |                    |               |
|------|----------------------|---------------|---|-----|-----|-------|---------------|-----------|-------|-----|--------------------|---------------|
| 5923 | pónticum L.          | Pontic        | ■ | spl | 12  | my.jn | P             | Gibraltar | 1763. | L   | s.p                | Bot. mag. 650 |
|      | β obtusum            | obtuse        | ■ | spl | 4   | my.jn | P             | Armenia   | 1763. | L   | s.p                | Den. br. 162  |
|      | γ myrtifolium        | Myrtle-leaved | ■ | or  | 4?  | my.jn | P             | Gibraltar | 1763. | L   | s.p                | Bot. cab. 908 |
|      | δ Smithii            | Smith's       | ■ | spl | 12? | my.jn | P.spot hybrid | ...       | L     | s.p | Sw.fl.gar. 2. s.50 |               |
|      | ε Löwii              | Low's         | ■ | spl | 6?  | my.jn | W.spot hybrid | ...       | L     | s.p |                    |               |
|      | ζ azaleoides         | Azalea-like   | ■ | spl | 3   | jn.au | Pk hybrid     | ...       | L     | s.p | Bot. rep. 379      |               |
|      | subv. odoratum Lo.C. | sweet-sctd    | ■ | spl | 3   | jn.au | Pk hybrid     | 1820.     | L     | s.p |                    |               |

Nursery Varieties.

|   |                |    |              |    |                   |
|---|----------------|----|--------------|----|-------------------|
| 1 | álbum          | 6  | bullatum     | 11 | flore pleno       |
| 2 | angustifolium  | 7  | casinefolium | 12 | foliis argenteis  |
| 3 | angustissimum  | 8  | cærulescens  | 13 | foliis aureis     |
| 4 | arbutifolium   | 9  | contortum    | 14 | foliis marginatis |
| 5 | bromelæefolium | 10 | crispum      | 15 | frondosum         |

|      |                         |                        |   |     |          |                  |                      |          |       |   |     |               |
|------|-------------------------|------------------------|---|-----|----------|------------------|----------------------|----------|-------|---|-----|---------------|
| 5924 | máximum L.              | largest                | ♀ | spl | 20       | jn.au            | Pk                   | N. Amer. | 1736. | L | s.p | Bot. mag. 951 |
|      | β álbum Hort.           | has pure white flowers | ♀ | γ   | hybridum | Bot. mag., 3454. | has fragrant flowers |          |       |   |     |               |
| 5925 | purpureum G. Don        | purple-flwd            | ♀ | spl | 25       | jn.au            | P                    | N. Amer. | ...   | L | s.p |               |
|      | máximum γ purpureum Ph. | in p. 358.             |   |     |          |                  |                      |          |       |   |     |               |
| 5926 | Pürshii G. Don          | Pursh's                | ♀ | or  | 20       | jn.au            | W                    | N. Amer. | 1811  | L | s.p |               |
|      | máximum β álbum Ph.     | in p. 358.             |   |     |          |                  |                      |          |       |   |     |               |



History, Use, Propagation, Culture,

2601. *Castanospermum*. The seeds are eaten by the natives about Moreton Bay on all occasions, and, when roasted, have somewhat the flavour of Spanish chestnuts; and even Europeans, who have subsisted on them for three or three days together, have found no bad effects from them when roasted. For culture and propagation, see *Ceratonia*.

977. *Poinciana régia* is a magnificent tree, no less remarkable for its extreme beauty than for its rarity, having been found only in Madagascar, near Foul Point, where it is known by the name of *Tanahou*.

1781. *Gillièsii*. The flowers of this species have a disagreeable smell, and are considered by the common people of Chile to be injurious to the sight; hence the vernacular name *mat de ojos*. The shrub will not grow unless in irrigated places. (*Don's Mûl.* v. 2. p. 453.)

2602. *Reichardia*. Culture and propagation the same as for *Poinciana*.

2603. *Eriostemon*. A genus of beautiful shrubs with pink flowers, which deserve a place in every collection of green-house shrubs. They require the same treatment as *Phebalium*.

2604. *Phebalium*. An equal mixture of loam and peat suits this genus of plants, but care must be taken not to overwater them, or crowd them amongst other plants. Cuttings root freely in sand under a bell-glass, without heat.

1014. *Rhododéndron*. "Under this genus, Professor D. Don has included the *Azalea*, which, however technically correct, appears to us injudicious in a practical point of view; and though we have followed his arrangement in this article, yet we have indicated two sections, containing the Indian or tender, and the Asiatic and American, or hardy, *azaleas*, which those who cultivate extensive collections of these shrubs may, if they choose, consider as constituting the genus *Azalea* as heretofore. Such persons, therefore, may view the genus *Azalea* as remaining exactly as it is in

- 17273 Leaves simple very crowded linear subulate with revolute margins smooth as are branches
- 17274 Heads many-flwd. Bract. shorter th. cal. Lvs. linear mucron. with revolute margins pubescent beneath
- 17275 Lvs. cordate ovate acute mucronate glabrous, Stipules scarious, Heads terminal
- 17276 Bran. cimer. pilose, Lvs. linear obtuse smooth both sides, Heads termin. subumbell. many-flwd. Brac. very short setaceous feathered
- 17277 Leaves linear acutish with revolute quite entire margins, Spikes interrupted terminal leafy
- 17278 Pubescent, Lvs. alternate ovate lanceolate, Flws. axillary twin
- 17279 The only species
- 17280 Unarmed, Lvs. abruptly bipinnate 11-18 pairs of pinnae which are 4 in. long horizontally patent, Petals orbicul. [crenate at marg. involute at base
- 17281 Unarmed, Lvs. bipinnate, Leaflets oblong, Petals glandular denticul. ciliat at apex, Legume acnacf. glandul. 1-seeded dry
- 17282 Cor. 6-petaled, Lvs. abruptly bipinnate prickly as are stems
- 17283 Lvs. linear lanceol ent. smth. Bran. triquetrous, Flws. axill. almost sess. solit. Cal. & pels. hoary on outside, [Filam. hispida
- 17284 Lvs. obl.-lanceol. acute glauc. ending in hooked mucro, Racemes umbellate 4-5-flwd. axillary or terminal
- 17285 Lvs. linear lanceol acute scaly beneath, Flws. terminal umbellate, Stamens exerted

5923 Lvs. oblong-lanceol. glabr. both surfs. wide lanceol. streak on upper side, Segms. of cor. ovate, acute, or lanc. <sup>[obtusely]</sup>

β Leaves subcordate coriaceous obtuse

γ Leaves small

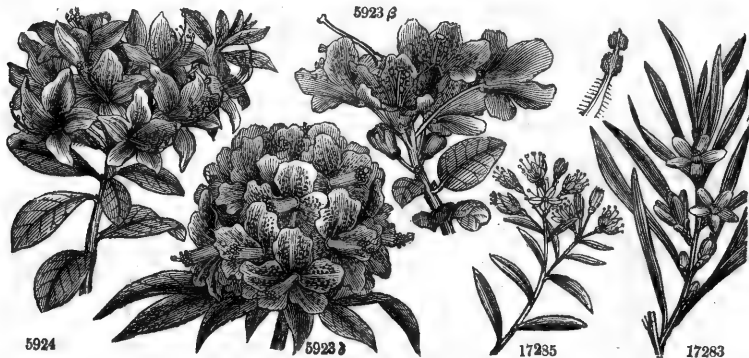
δ Leaves lanceol. clothed with white tomentum beneath, Corymbs many-flwd. Ovarium tomentose 10-celled

ε Ocorolla white marked by a few dull scarlet spots

Nursery Varieties.

|                  |              |                 |
|------------------|--------------|-----------------|
| 16 grandiflorum  | 21 nivaticum | 25 roseum       |
| 17 incarnatum    | 22 obtusum   | 26 salicifolium |
| 18 intermedium   | 23 ovatum    | 27 spectabile   |
| 19 kalmiaefolium | 24 pygmaeum  | 28 violaceum    |
| 20 macrophyllum  |              |                 |

- 5924 Arboresecent, Lvs. ellipt.-oblong acute convex bluntish at base whitish or rusty beneath glabr. Cal. segms. oval
- 5925 Arboresecent, Lvs. large obl.-elliptic flattish acute bluntish at base glabr. both surfs. Segms. of cor. oblong & <sup>[obtusely]</sup>
- 5926 Arboresecent, Lvs. cuneate-lanceol. flat glabr. gradually tapering to base paler ben. Segms. of cor. roundish-oblong.



and Miscellaneous Particulars.

our *Hortus Britannicus*." (*Arb. Brit.* vol. ii. p. 1130.) "Of all the genera in existence," G. Don observes, "Rhododendron" (under which he includes the Azalea) "comprises the most handsome, elegant, and showy shrubs for adorning shrubberies or planting singly on lawns." Though in Britain these plants are solely cultivated as ornamental, yet, in their native countries, they are not without their other uses. "The Rhododraea," Mr. Royle observes, abound in stimulant, and even deleterious, properties. Thus *Rhododendron ponticum*, *R. maximum*, *R. ferrugineum*, and *R. chrysanthum*, are poisonous to cattle which feed on them; and yet, in moderate doses, are used in medicine, for the cure of rheumatism, &c. *Azalea procumbens* L. and *Ledum palustre* are accounted diuretic; and *L. latifolia*, being more stimulant, is used as a tea, under the name of Labrador tea, but determines to the head. *Kalmia latifolia* is accounted poisonous, and honey collected by bees from its flowers is of a deleterious nature, as is that of *Azalea pontica*, which was so injurious to the soldiers in the retreat of the Ten Thousand. In the Himalayan species, *R. arboreum* is more remarkable for its use as a timber tree than the other species. The flowers are eaten by the hill people, and formed into a jelly by European visitors. The leaves of *R. campanulatum*, being used as a snuff by the natives of India, are imported from Cashmere, under the names of *hookah-kashmeree* (Cashmere snuff) and *burg-i-tibbut* (Thibet leaf), though easily procurable within the British territories. It is remarkable that De Candolle mentions the employment in the United States, for a similar purpose, of the brown dust which adheres to the petals of kalmias and rhododendrons. The leaves of *R. lepidotum* (a species not yet introduced into Europe) are highly fragrant, and of a stimulant nature." (*Royle III.* 219.) Culture, propagation, and other particulars, see p. 144, and p. 358, 360.

|       |                               |                        |   |       |       |    |  |       |       |                  |
|-------|-------------------------------|------------------------|---|-------|-------|----|--|-------|-------|------------------|
| 5927  | catawbiense <i>Ms.</i>        | Catawba                | ■ | or 4  | jn.au | P  | N. Amer. 1809.   | L     | s.p   | Bot. mag. 1671   |
|       | β Russellianum                | has                    |   |       |       |    | fls. of a bt. rosy red, approaching to crimson. A splendid var. but somewhat tender. |       |       |                  |
| 5928  | chrysanthum <i>Pall.</i>      | yellow-flwd.           | ■ | or ½  | jn.jl | Y  | Siberia 1796.  | L     | s.p   | Par. Ion. 60.    |
|       | officinale <i>Sal.</i>        |                        |   |       |       |    |  |       |       |                  |
| 5929  | caucasicum <i>Pall.</i>       | Caucasian              | ■ | or 1  | au    | P  | Caucasus 1808.   | L     | s.p   | Bot. mag. 1146   |
|       | β stramineum <i>Bot. mag.</i> | 3422., straw-cld flws. |   |       |       |    | γ pulcherrimum <i>Bot. reg.</i>  | 1820. | f. 2. | "most beautiful" |
| 5930  | punctatum <i>Andr.</i>        | dotted-leaved          | ■ | or 4  | jn.au | Pk | N. Amer. 1786.   | L     | s.p   | Bot. reg. 36     |
|       | β majus                       | larger                 | ■ | or 4  | jn.au | Pk | N. Amer. 1786.   | L     | s.p   | Bot. reg. 37     |
| 5931  | ferrugineum <i>L.</i>         | rusty-leaved           | ■ | or 1½ | my.jl | S  | Switzerl. 1752.  | L     | s.p   | Bot. cab. 65     |
|       | β album                       | white-flwd             | ■ | or 1½ | my.jl | W  | Switzerl. 1752.  | L     | s.p   |                  |
| 5932  | hirsutum <i>L.</i>            | hairy-leaved           | ■ | or 1½ | my.jl | S  | Switzerl. 1656.  | L     | s.p   | Bot. mag. 1853   |
|       | β variegatum                  | variegated-leaf        | ■ | or 1½ | my.jl | S  | ..... 1860.  | L     | s.p   |                  |
| 17286 | 5932a setosum <i>D. Don</i>   | bristly                | ■ | or 1  | ...   | P  | Nepal 1825.  | L     | s.p   |                  |

II. LEPI'PHERUM *D. Don.* (*Lepis*, a scale, *phero*, to bear; lvs. covered with small scales.)—*Limb of calyx dilated, 5-lobed. Corolla campanulate or rotate. Stamens 10. Ovarium 5-celled. Leaves membranous; sometimes deciduous, but generally persistent.*

|       |                                |            |   |      |       |   |               |   |     |               |
|-------|--------------------------------|------------|---|------|-------|---|---------------|---|-----|---------------|
| 17287 | 5932b lappunculum <i>Wahl.</i> | Lapland    | ■ | or ½ | mr.my | R | Lapland 1810. | L | s.p |               |
|       | 5933 dauricum <i>L.</i>        | Daurian    | ■ | or 2 | mr.d  | P | Siberia 1780. | L | s.p | Bot. mag. 636 |
|       | β atrovirens                   | deep-green | ■ | or 2 | mr.d  | P | Siberia ...   | L | s.p |               |

III. CHAMÆCISTUS *D. Don.* (*Chama*, on the ground, and *cistus*, the rock rose; plants with the habit of *Helianthemum*.)—*Limb of calyx foliaceous, 5-cleft. Corolla rotate. Stamens 10. Ovarium 5-celled.*

|      |                            |               |   |      |       |      |                |   |     |                |
|------|----------------------------|---------------|---|------|-------|------|----------------|---|-----|----------------|
| 5934 | camtschaticum <i>Pall.</i> | Kamtschatka   | ■ | or 2 | jl    | P    | Kamtsch. 1802. | L | s.l | A. b. fig. 940 |
| 5935 | Chamaecistus <i>L.</i>     | Ground Cistus | ■ | or ½ | my.jn | Pa.P | Austria 1786.  | C | s.p | Bot. mag. 488  |

IV. PENTANTHERA *D. Don.* (*Pente*, five, *anthera*, an anther; flowers pentandrous.)—*Limb of calyx short, 5-lobed. Corolla funnel-shaped. Stamens 5. Ovarium 5-celled. Leaves deciduous.*

|       |  |  |   |      |       |      |                              |   |     |                                    |
|-------|--|--|---|------|-------|------|------------------------------|---|-----|------------------------------------|
| 5936  | flavum <i>G. Don</i>                   | yellow-flowered  | ■ | or 6 | my.jn | Y    | Turkey 1793.                 | L | s.p | Bot. mag. 433                      |
|       | Azalea pontica <i>L.</i>               |  |   |      |       |      |                              |   |     |                                    |
|       | 2 album <i>Lo. C.</i>                  | 4 crocatum <i>Lo. C.</i>   |   |      |       |      | 6 flamineum <i>Lo. C.</i>    |   |     |                                    |
|       | 3 aurantium <i>Lo. C.</i>              | 5 cupreum <i>Lo. C.</i>  |   |      |       |      | 7 fulgens <i>Lo. C.</i>      |   |     |                                    |
| 5936a | nudiiflorum <i>Torr.</i>               | naked-flowered   | ■ | or 3 | my.jn | S.pk | N. Amer. 1734.               | L | s.p | A. b. fig. 943                     |
|       | 1 album <i>D. Don</i>                  |  |   |      |       |      | 9 coloratum <i>Lo. C.</i>    |   |     | 17 floridum <i>Lo. C.</i>          |
|       | 2 album et rubrum <i>Lo. C.</i>        |  |   |      |       |      | 10 conspiciuum <i>Lo. C.</i> |   |     | 18 globosum <i>Lo. C.</i> [f. 964  |
|       | 3 amœnum <i>Lo. C.</i>                 |  |   |      |       |      | 11 crispum <i>Lo. C.</i>     |   |     | 19 Govenianum <i>D. Don.</i> A. b. |
|       | 4 blandum <i>Lo. C.</i>                |  |   |      |       |      | 12 cœmulum <i>Lo. C.</i>     |   |     | 20 grandiflorum <i>Lo. C.</i>      |
|       | 5 carneum <i>D. Don</i> '              |  |   |      |       |      | 13 discolor <i>Lo. C.</i>    |   |     | 21 incanum <i>Lo. C.</i>           |
|       | 6 carolinianum <i>Lo. C.</i>           |  |   |      |       |      | 14 extimium <i>D. Don</i>    |   |     | 22 incarnatum <i>Lo. C.</i>        |
|       | 7 Coburgii <i>Lo. C.</i>               |  |   |      |       |      | 15 fastigiatum <i>Lo. C.</i> |   |     | 23 mirabile <i>Lo. C.</i>          |
|       | 8 cocineum <i>D. Don</i>               |  |   |      |       |      | 16 fibre pleno <i>Lo. C.</i> |   |     | 24 montanum <i>Lo. C.</i>          |
| 5936b | bicolor <i>G. Don</i>                  | two-coloured flwd  | ■ | or 4 | my.jn | St.  | N. Amer. 1734.               | L | s.p |                                    |
| 5936c | calendulaceum <i>Torr.</i>             | Marigold-flwd  | ■ | or 4 | my.jn | O    | N. Amer. 1806.               | L | s.p |                                    |
|       | β Morterii <i>Swt. f. g. 2. s. 10.</i> | subvar. 1 carneum, with flesh-cld. cor. with upper segment orange-coloured edged with flesh-colour |   |      |       |      |                              |   |     |                                    |
| 5936d | canescens <i>G. Don</i>                | canescent  | ■ | or 3 | my.jn | R    | N. Amer. 1842.               | L | s.p |                                    |
| 5936e | viscosum <i>Torr.</i>                  | clammy   | ■ | or 2 | jl.au | W    | N. Amer. 1734.               | L | s.p | A. b. f. 947.                      |

A. Varieties.

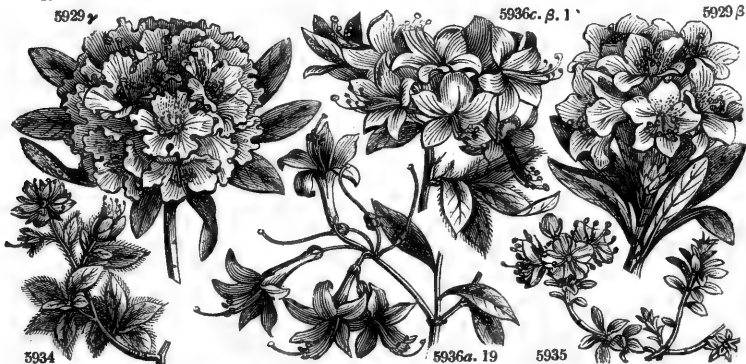
|           |                |             |
|-----------|----------------|-------------|
| 2 album   | 4 dealbatum    | 6 præcox    |
| 3 crispum | 5 penicillatum | 7 pubescens |

B. Hybride attenuateses.

|                |                    |                 |
|----------------|--------------------|-----------------|
| 11 amœnum      | 16 calor6ryphe     | 21 eûprepes     |
| 12 actinatum   | 17 Cartonium       | 22 Govenium     |
| 13 Auroræ      | 18 chariessa       | 23 Herbertianum |
| 14 basillsum   | 19 cocineum nobile | 24 imperatrix   |
| 15 calodendron | 20 eudæmon         | 25 inclytum     |

C. Hybride belgicæ.

|                 |                           |                     |
|-----------------|---------------------------|---------------------|
| 25 Agate        | 40 ardens                 | 45 cardon           |
| 26 albo pleno   | 41 atro-rubens            | 46 cocineum maximum |
| 27 anabile      | 42 aurantium maximum      | 47 speciosum        |
| 28 amarantinum  | 43 blandinum              | 47 concinnum        |
| 29 amantissimum | 44 calendulaceum globosum | 48 cortiscans       |



- 5927 Lvs. short-oval rounded and obtuse at both ends glabr. different colour ben. Cal. segms. elongated oblong  
 γ tigrinum, much resembles var. β, but with obvious spots on the inside of the corolla
- 5928 Lvs. acutish attenuated at base obl. glabr. reticulately veined & rusty ben. Flws. & buds cithd. with rusty  
 toment. Cal. hardly any
- 5929 Lvs. ovate-obl. cithd. with rusty toment. ben. rugged & green above, Bracteas elongated toment. Cor. rotate.  
 δ Nobleænum Bot. reg. 1820. f. 1. differs from var. γ in having deep and brilliant rose-coloured flowers
- 5930 Leaves oval-lanceol. acute at both ends glabr. beset with rusty resinous dots ben. Segms. of cor. ovate little  
 β Leaves and flowers larger [undul. Cal. teeth short
- 5931 Leaves oblong atten. at both ends glabr. thickly beset with rusty dots beneath, Cal. segms. dentately ciliated,  
 Filam. hairy at bottom [Cal. segms. fringed and bearded
- 5932 Leaves ovate-lanceol. or ellipt. acutish ciliat. with rusty hairs on margins, Glabr. ab. dotted and hairy ben.  
 β Leaves edged with yellow
- 17286 Branchl. beset with bristles, Lvs. ov. bristly on margins and under surfs. ¼ in. long, Cal. segms. rounded  
 coloured naked crenulated
- [undulat. Stains 5-8 equal to cor
- 17287 Procumbent, Lvs. obl. obt. stiff. beset with honeycomb-like dots yellowish & scaly ben. Segms. of cor. uneq.
- 5933 Lvs. obl. atten. at both ends glabr. but sprinkled with rusty scales especially ben. ferrugin. ben. Limb of cal.  
 5-toothed, Cor. rotate

- 5934 Lvs. obov. acutish 5-nrvd. naked ciliat. Peduncles hairy usually twin, Cal. segms. ciliated foliaceous
- 5935 Lvs. obl. lanceol. atten at both ends stiffish glandularly ciliat. Pedun. usually twin. beset with glandul. hairs  
 as are calcs.

- 5936 Flws. leafy clammy, Lvs. ovate obl pilose ciliated, Corolla funnel-sh. Stamens very long

- |                    |                       |                    |
|--------------------|-----------------------|--------------------|
| 8 glaucum Lo. C.   | 10 ochroleucum Lo. C. | 12 tricolor Lo. C. |
| 9 ignescens Lo. C. | 11 pallidum Lo. C.    |                    |
- 5936a Lvs. lancd.-obl. nrly. smth. ciliat. on margins, Midrib bristly ben. woolly above, Tube of cor. long. th. segms.
- |                           |                                |                      |
|---------------------------|--------------------------------|----------------------|
| 25 ochroleucum Lo. C.     | 33 purpureum Lo. C.            | 41 stamineum Lo. C.  |
| 26 pallidum Lo. C.        | 34 roseum Lo. C. A. b. f. 945. | 42 stellatum Lo. C.  |
| 27 pallidosum Lo. C.      | 35 ruberrimum                  | 43 tricolor Lo. C.   |
| 28 papilionaceum D. Don   | 36 rubicundum                  | 44 varium Lo. C.     |
| 29 partitum D. Don        | 37 rubrum Lo. C.               | 45 variabile Lo. C.  |
| 30 periclymenoides Lo. C. | 38 rufum Lo. C.                | 46 versicolor Lo. C. |
| 31 polyandrum D. Don      | 39 rutilans Lo. C.             | 47 violaceum Lo. C.  |
| 32 purpurascens Lo. C.    | 40 serotinum Lo. C.            |                      |

- 5936b Lvs. oblong clothed with fine hoary pubescence on both surfs. Tube of cor. hardly longer than segments
- 5936c Lvs. oblong pubescent on both surfs. but afterwards hairy, Cal. teeth obl. Tube of cor. hairy short. th. segms.  
 subvar. 2 præ'stans has pale copper-cld. flws. tinged with bluish [rounded obtuse.  
 γ fulgida Hook. has orange-red-cld. flws.
- 5936d Lvs. obov.-obl. downy above tomentose ben. Tube of cor. hardly shorter th. segms. Cal. teeth very short
- 5936e Lvs. obl.-obov. acute smooth and green on both surfs. ciliat. Midrib bristly, Flws. clammy leafy hairy, Tube  
 of cor. as long as segms.

- A. Varieties.
- |              |            |                 |
|--------------|------------|-----------------|
| 8 variegatum | 9 vittatum | 10 Violaæ odbræ |
|--------------|------------|-----------------|
- B. Hybrids raised at High Clerc.
- |                |                     |                 |
|----------------|---------------------|-----------------|
| 26 jasminodrum | 30 ponticum Howard. | 32 regale       |
| 27 lépidum     | hexaplum            | 33 rugens       |
| 28 ochroleucum | 31 pulchellum       | 34 thyrsiflorum |
| 29 poikilum    |                     |                 |

- C. Hybrids raised in Belgium.
- |             |                   |                   |
|-------------|-------------------|-------------------|
| 49 crœcum   | 52 cup. splendens | eléc. maximum     |
| globosum    | 53 decoratum      | rubrum            |
| 50 cruentum | 54 decus hortorum | 56 elegantissimum |
| 51 cœprium  | 54 dulcèdo        | 57 exquisitum     |
| rubrum      | 55 elèctum        | 58 Ferröckii      |



|                               |                        |  |
|-------------------------------|------------------------|--|
| 59 flamboyante                | glor. mín. máxima      | 69 maritimum incarnatum                      |
| 60 fúlgidum                   | minor                  | 70 miniatum                                  |
| insigne                       | 63 Gullélmus primus    | 71 mirabile                                  |
| növum                         | 64 hybridum cocciferum | 72 mixtum triúmphans                         |
| supèrbum                      | coccineum              | 73 Mortèrii                                  |
| álbum                         | niveum                 | 74 nè plúis últra                            |
| legans                        | 65 incarnatum maximum  | 75 nóbile                                    |
| exinium                       | rúbrum                 | 76 nóritas antilléscens                      |
| globosum                      | 66 lépidum             | 77 noritum                                   |
| 61 fúlvum                     | 67 lúteum rubicundum   | 78 óptimum                                   |
| 62 glória múnđi               | 68 magníficum          | 79 ornatum pállidum                          |
| 5936f glaciúm G. Don          | glaucous-leaved        | or 2 ju W N. Amer. 1734. L s.p Den. br. 15   |
| 5936g hispidum Torr.          | hispid                 | or 15 ju W N. Amer. 1734. L s.p Den. br. 6   |
| 5936h ntidum Torr.            | shining-ld             | or 4 jl W N. Amer. 1812. C l.p Bot. reg. 414 |
| 17288 5236i speciosum G. Don  | showy                  | or 4 my.jn S N. Amer. ... L p.l Den. br. 116 |
| 17289 5936k arboréscens Torr. | arborescent            | or 10 jl R N. Amer. 1818. L s.p.             |

V. RHODORA D. Don. (*Rhodon*, a rose; colour of flws.) — *Limb of calyx 5-toothed. Corolla bilabiate; upper lip broadest, and 2-3-cleft; lower one bicrenate. Stamens 10. Capsule 5-celled, 5-valved. Leaves deciduous.*

|                       |         |   |
|-----------------------|---------|---|
| 5936l Rhodora G. Don  | Rhodora | or 2 ap.my P N. Amer. 1767. L p.l Bot. mag. 474 |
| Rhodora canadensis L. |         |   |

VI. BOO'RAM. (Name of *R. arboreum* in Nepal.) — *Limb of calyx 5-lobed. Corolla campanulate. Evergreen trees.*

|                                 |   |  |
|---------------------------------|---|--|
| 5936m arboreum Sm.              | tree  | ♂   spl 20 ap.my S Nepal 1820. L s.p Bot. reg. 896 |
| 1 sanguineum Bot. reg. 890.     | 2 rdssem Sw. fl. g. 2. s. 382., Bot. reg. 1240. | 3 niveum Swt.                                      |
| 17290 5936n campanulatum D. Don | campanulate                                     | or 4 ap.my Pa.Pk Nepal 1825. L s.p A. b. f. 953.   |

VII. POGONA'NTHUM. (*Pogon*, a beard, and *anthos*, a flower; throat woolly inside.) — *Limb of calyx short, 5-lobed. Corolla salver-sh. with cylindrical tube, and a spreading limb. Stamens 5, enclosed. Ovarium 5-celled. Evergreen. Leaves coriaceous.*

|                              |              |   |
|------------------------------|--------------|---|
| 17291 5936o anthonpón D. Don | bearded-flwd | or 1 ap.my P Nepal 1820. L s.p A. b. f. 954 |
|------------------------------|--------------|---|

VIII. TSUTSU'RSI D. Don. (Chinese name of *Azalea indica*.) — *Limb of calyx foliaceous, 5-cleft. Corolla campanulate. Stamens 5-10. Ovarium 5-celled. Evergreen. Leaves membranous, hispid from hairs. Indian azaleas of British gardens.*

|                                   |                                  |   |
|-----------------------------------|----------------------------------|---|
| 5936p indicum Swt.                | Indian                           | or 4 mr.my S China 1808. C p.l Bot. mag. 1480 |
| 2 pheniceum Swt. fl. g. 2. s. 128 | 5 pulchrum Swt. fl. g. 2. s. 117 | 8 luteum Swt.                                 |
| 3 fibre plèno Bot. mag. 2509      | 6 ignescens Swt.                 | 9 spathulatum Blum.                           |
| 4 ledifolium Bot. mag. 2901       | 7 aurantiacum G. Don             | 10 grandiflorum Blum.                         |
| 17292 5936q sinènsis Swt.         | Chinese                          | or 3 my Y China 1823. L s.p Bot. cab. 885     |
| β flavescens Swt. fl. g. 290.     |                                  | γ macranthum Don's Mill. 3. p. 846            |

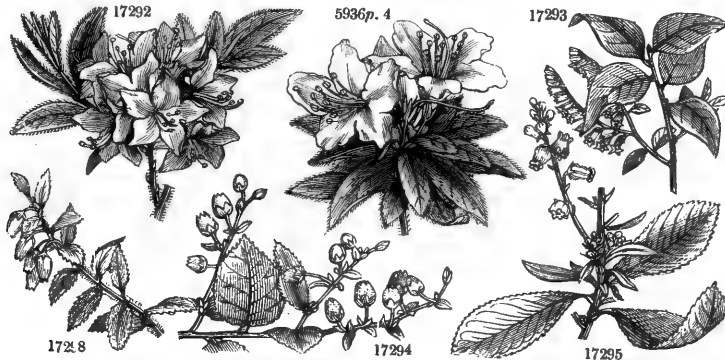
|                              |  |   |
|------------------------------|--|---|
| 2605. *1016a. PIERIS D. Don. | PIERIS. ( <i>Pieris</i> , a general appellation of the Muses.) | <i>Ericicææ. Sp. 1.</i>                       |
| 17293 ovalifolia D. Don      | oval-leaved  | ♂   or 20 my W Nepal 1825. C s.p A. b. f. 913 |

|                   |         |                                   |
|-------------------|---------|-----------------------------------|
| 1018. GAULTHERIA. | Shallon | or 4 my W Sp. 2-4.                |
| 5963a Shillon Ph. |         | N. Amer. 1826. L s.p A. b. f. 926 |

|                           |                     |  |
|---------------------------|---------------------|--|
| 1019. A'RIBUTUS.          |                     | Sp. 10-16.   |
| 17295 5965a procèra Dou.  | tall                | or 15? my Gsh.W N.W.Am. 1827. L s.p Bot. reg. 1753 |
| 17296 5965b tomentosa Ph. | woolly bran. & pet. | or 4? mr W California 1826. L p.l Bot. mag. 3320   |

|   |  |   |
|---|--|---|
| 2606. *1019a. PERNÉ'TTYA Gaud.            | ( <i>Dom Pernetty</i> , author of a Voy. to Falkland Isles.) | <i>Ericicææ. Sp. 2.</i>                         |
| 17297 - mucronata Gaud.                   | mucronate  | or 6? my.jl W Magellan 1828. L p Bot. reg. 1675 |
| A'rbutus mucronata L. fl. Bot. mag. 3093. |  |   |
| 17298 - pilosa G. Don                     | pliose   | or 3 my W Mexico 1829. L p Bot. mag. 3177       |
| A'rbutus pilosa Grah.                     |  |   |

|                                  |  |   |
|----------------------------------|--|---|
| 2607. *1026a. LIMNA'NTHES R. Br. | ( <i>Limne</i> , lake, <i>anthos</i> , flower; habit.) | <i>Limnánthææ. Sp. 1-</i>                               |
| 17299 Douglassi R. Br.           | Douglas's  | ♂   fra 1 aut Y.w California 1833. S m.s Bot. reg. 1673 |



History, Use, Propagation, Culture.

2605. *Pieris*. Plants with the habit of, and requiring the same treatment as, those of *Andróméda*.  
 2606. *Pernettya*. Propagation, culture, &c., as for *A'rbutus*.

|                       |                    |                     |
|-----------------------|--------------------|---------------------|
| 80 picturatum         | 89 robustum        | 98 splendidum       |
| 81 ponticum globbosum | 90 rubrum aurantum | 99 sulphureum       |
| kanink                | fulvum             | 100 superbum        |
| tricolor var.         | 91 rubricatum      | 101 tricolor Jacobi |
| 82 praestantissimum   | 92 sanguineum      | Wolff               |
| 83 pulchellum         | 93 Saturni         | 102 triumphantis    |
| 84 puniceum           | 94 severum         | 103 variegatum      |
| 85 recui              | 95 speciosum       | 104 venustum        |
| 86 regina belgica     | 96 speciosissimum  | 105 venustissimum   |
| 87 restantissimum     | 97 splendens       | 106 versicolor      |
| 88 rigidum incarnatum |                    |                     |

- 5936f Branchl. hispid, Lvs. obl. lanceol. acute glabr. on both surfs. glauc. ben. ciliated, Midrib bristly, Tube of cor. twice long. th. segms. [cor. wide scarcely long. th. segms.]
- 5936g Branches straight very hispid, Lvs. long-lanceol. hispid ab. smooth ben. ciliated, Nerves bristly ben. Tube of cor. smoothish, Lvs. obl. lanceol. rather mucron. coriac. smooth on both surfs. shining ab. Margins revolute ciliat. Tube of cor. little long. th. segms.
- 17288 Bran. hairy, Lvs. lanceol. ciliated acute both ends, Cor. silky with obtuse ciliated lanceol. undulated segms.
- 17289 Lvs. obovate rather obtuse smooth on both surfs. glauc. ben. ciliated, Midrib almost smooth, Tube of cor. longer th. segms.

5936l Lvs. oval quite entire pubesc. & glauc. ben. Flws. in termin. clusters or racemose umbels protruded before lvs.

- 5936m Lvs. lanceol. acute silvery ben. tapering to base, Pedunc. & cals. woolly, Segms. of cor 2-lobed with crenul. [curled margins] 4 cinnamomeum 5 venustum Sw. fl. g. 2. s. 285.
- 17290 Lvs. ellipt.-obl. mucron. rusty ben. rather cordate at base, Segms. of cor. flat emarginate, Ovarium 6-celled glabr.

17291 Branchl. downy, Lvs. oval rusty ben. from lepidoted toment. ending in reflexed mucro, Cor. with woolly throat

- 5936p Bran. strigose, Lvs. cuneate-lanceol. finely crenulat. strigose atten. at both ends, [obtuse ciliated spreading] Cal. teeth long-lanceol.
- 11 angustifolium Blum. 13 Danielsianum Pax. mag. 15 variegatum Blum.
- 12 floribundum Blum. 14 lateritium Bot. reg. 1700 16 speciosum D. Don

17292 Lvs. ellipt. acutish pilosely pubesc. feather-nrvd. ciliated canesc. beneath subevergreen, Cor. downy, Stams. eq. to limb of cor.

17293 Lvs. oval. acumin. 2-4 in. long 1-2 in. broad rounded at base entire, Racemes lengthened leafy many-flwd. Cal. [segms. ovate & acute]

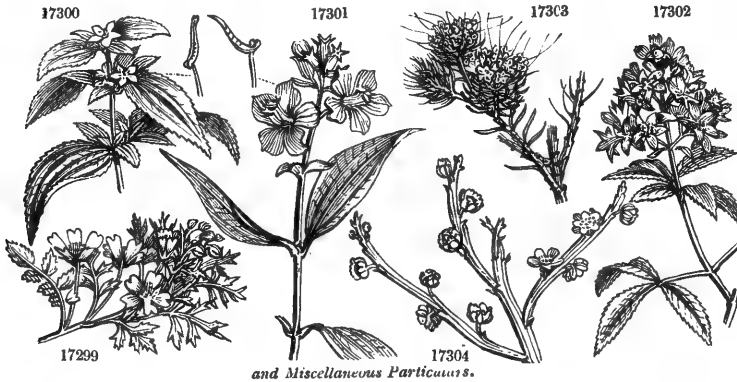
17294 Procumbent. Stems hairy, Leaves ovate subcordate serrated glabr. [secund bracteate clthd. with rusty down on both surfs. abruptly acumin. Racemes

- 17295 Lvs. obl. serrated or entire glabrous, Racemes terminal panicled secund
- 17296 Whole p'ant except flws. downy while young, Bran. hispid, Lvs. ov. acute subcord. at base clthd. with white toment. ben. Midrib hispid

17297 Lvs. ovate cuspid. denticul. serrulate stiff shining on both surfs. Pedicels axill. bracteate about eq. in length [to leaves

17298 Stem pilose procumb. Lvs. ov.-elliptic ciliate serrulate coriac. without mucro & callous at point, Cor. ovate with blunt revolute teeth

17299 Glabr. much bran. especially nr. base decumb. Lvs. altern. on long pet. pinnated 1-3 pairs of obl. or lanceol. [lfts. with odd one, Pedun. axill. 1-flwd.]



and Miscellaneous Particulars.

2607. *Limnathes*. A sweet-scented ornamental annual, requiring to be sown or planted in a damp border.

2608. \*1029a. *CHÆTOGA'STRA* Dec. CHÆTOGASTRA. (*Chaite*, hair, *gaster*, belly; ovary.) *Melastom.* Sp. 2—2.  
 17300 - - *lancoollata* Dec. lanceolate-*lvd* ☐ pr 1 ja W Trinidad 1820. S p.1 Bot. mag. 2835  
 17301 - - *gracilis* Hook. slender ☐ pr 1 jn R.Li Brazil 1834. S p.1 Bot. mag. 3481  
 2609. \*1034a. *CERATOPE'TALUM* Sm. CERATOPETALUM. (*Keras*, a horn, *petalon*, a petal.) *Cunoniaceæ.* Sp. 1.  
 17302 - *gummiiferum* Sm. gum-bearing ♀ ☐ or 50 ... Y N. Holl. 1820. C p.1 Sm. n. h. 1. 3.  
 2610. \*1034b. *DARWINIA* Rud. (*Dr. Darwin*, author of the Botanic Garden, a poem.) *Rhamnaceæ.* Sp. 1—2.  
 17303 - - *fasciculata* Rud. fascicled ♂ ☐ or 29 my.jl ... N. Holl. 1820. C s.p.1 Lin. tr. 11. 22

DIGYNIA.

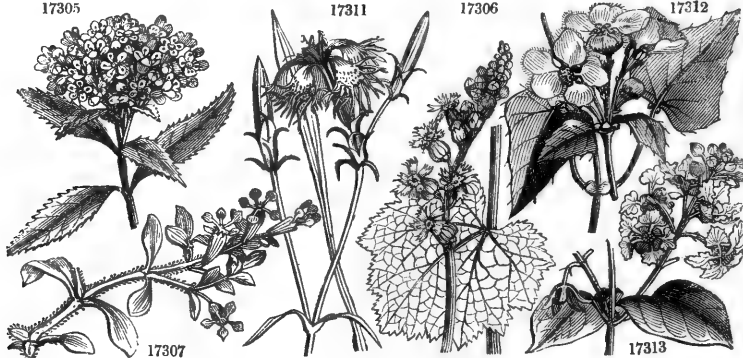
2611. \*1037a. *PACHYNE'MA* R. Br. (*Pachys*, thick *nema*, a filament; stamens.) *Dilleniaceæ.* Sp. 1.  
 17304 - - *complanatum* R. Br. flat-branched ♂ ☐ or 1½ ... N. Holl. 1825. C s.1 Deless. 1. 73  
 2612. \*1039a. *ADA'MIA* Wal. (*Dr. J. Adam*, of Calcutta.) *Caprifoliaceæ* & *Hydrangeaceæ.* Sp. 1.  
 17305 - - *cyanea* Wal. blue-berried ☐ ☐ or 4 Pk ... Nepal 1829. C 1.p.s Bot. mag. 3046  
 2613. \*1043a. *TE'LLIMA* R. Br. TELLIMA. (*Anagram* of *Mitella*; separated from it.) *Saxifrageæ.* Sp. 1.  
 17306 - - *grandiflora* Dou. great-flowered ♀ Δ cu 1 ap.my Pk N. Amer. 1826. D s.p Bot. reg. 1178  
 1045. *SAPONA'RIA.* Sp. 8—13.  
 17307 6132a *cerastioides* Fie. Cerastium-like ○ pr ½ jn.s Pk Russia? 1833. S co  
 17308 6132b *calabrica* Guss. Calabrian ○ or ½ jn.s R Calabria 1830. S co Sw. fl. g. 2. s. 79  
 1046. *DIA'NTHUS.* Sp. 63—103.  
 17309 6140a *aggregatus* Poir. aggregate ♀ ○ or 1 jn.jl P ..... 1817. S s.1  
 β *flöre pleno* double-flowered ♀ Δ or 1 jn.au G gardens ?1832. C r.1  
 17310 6145a *gigantæus* Urv. gigantic ♀ Δ or 3 jl.au P Greece 1824. S co  
 17311 6194a *Libanotis* Lab. Rosemary ♀ Δ or 4 au W.spt Mt. Leb. 1830. C 1.p Bot. reg. 1584

TRIGYNIA.

2614. \*1055c. *STIGMAPHY'LLUM* Hil. (*Stigma*, stigma, *phylon*, leaf; stigma foliaceous.) *Malpigh.* Sp. 1—2.  
 17312 - - *aristatum* Lindl. awned-*leafed* ☐ ☐ or 20 jn.au Y Brazil 1832? C p.s.1 Bot. reg. 1659  
 2615. \*1055b. *THRYA'LLIS* L. THRYALLIS. (Greek name for a plant of the Mullein kind.) *Malpighiaceæ.* Sp. 1.  
 17313 - - *brachystachys* Lindl. short-spiked ☐ ☐ el 10 s.o Y Rio Jan. 1823. C p.s Bot. reg. 1162  
 2616. \*1055c. *GALPHIMIA* Cav. GALPHIMIA. (*An anagram* of *Malpighia*.) *Malpighiaceæ.* Sp. 1—2.  
 17314 - - *glauca* Cav. glaucous ☐ ☐ or 8 ... Y Mexico 1829. C 1.p Cav. ic. 5. 489  
 2617. \* - *DEUTZIA* Thun. DEUTZIA. (*John Deutz*, sheriff of Amsterdam; a bot. patron.) *Philadelphææ.* Sp. 1.  
 17315 - - *scabra* Thun. rough-*leaved* ♂ or 6 my W Japan 1833. C co Bot. reg. 1718

PENTAGYNIA.

2618. \*1060a. *ECHEVE'RIA* Dec. ECHEVERIA. (*Echeveri*, a botanical draughtsman.) *Crassulacæ.* \* Sp. 2—6.  
 17316 - *grandifolia* Haw. great-*leaved* ♂ ☐ or 2 o O Mexico 1828. C s.1 Sw. fl. gar. 272  
 17317 - *gibbiflora* Dec. gibbous-flwd ♂ ☐ or 2 jl.o Y.Pk Mexico 1826. C s.1 Bot. reg. 1247  
 Nos. 6410. & 6414. are also referable to this genus.  
 1061. *SE'DUM.* Sp. 44—76.  
 17318 - *Ewersii* Led. Ewer's ♀ Δ or ½ jl.au Ro Siberia 1829. C.D.s.1.ru Bot.gard. 513  
 17319 - *Sieboldii* Siebold's ♂ Δ or ½ jn.au B Japan 1835. C 1.r  
 17320 - - *caeruleum* blue-*flowered* ♂ Δ or ½ ..... B Tumis 1822. C s.1.ru Bot. reg.  
 1065. *O'XALIS.* Sp. 87—121.  
 17321 6464a *crenata* Jac. notched-*petal* ♀ ♂ Δ esc 3 s Y Lima 1829. C s.1 Sw. fl. g. 2. s.125  
 17322 6469a *Simsii* Swt. Sims's ♀ Δ or ½ ap.jn C Chl: 1822. O s.p Bot. mag. 2415  
*rosea* of *Bot. mag.*, not of others.



History, Use, Propagation, Culture,

2608. *Chaetogastra*. The species require a mixture of loam, peat, and sand; and young cuttings root readily in heat, under a hand-glass.  
 2609. *Ceratopetalum*. A mixture of peat and loam suits this plant, and ripened cuttings root readily in sand, under a hand-glass.  
 2610. *Darwinia*. Singular plants, requiring to be grown in a mixture of loam, peat, and sand; and young cuttings root readily in sand, under a hand-glass.  
 2611. *Pachynema*. This shrub thrives well in a mixture of loam and peat, and cuttings root freely in sand, under a hand-glass.  
 2612. *Adamia*. This shrub requires a mixture of loam, peat, and sand, and cuttings root readily in the same kind of soil, under a hand-glass. It is called *Bansook* by the natives.

- 17300 Stem somewhat 4-gonal clothed with adpressed villi, Lvs. petiol. broad lanceol. acumin. serrulately ciliated 5-  
 17301 Erect nearly simple, Stem 4-gonally terete villous, Lvs. almost sess. lanceol.-lin. acute quite enf. 3-5-nrvd.  
 villous, Pedic. axill. 1-flwd.  
 17302 Leaves ternate, Flowers with petals  
 17303 Leaves acerose, Receptacle chaffy, Style 3 times length of flowers, Calyx red

*DIGYNIA.*

- 17304 A little leafless shrub with the habit of *E'phedra*. The only species  
 17305 The only species  
 17306 Lvs. cordate lobed dentately serrated, Racemes elongated, Petals oblong-linear pinnatifidly jagged  
 17307 Lvs. ovate acute serrat. pilose, Racemes termin. tomentose rather compound at the base, Flws. usually trigynous  
 17308 Stem erect dichotom. branched, Lvs. obovate spatulate nrvly. smth. ciliat. on margins, Flws. axill. solitary  
 17309 Flws. aggreg. sess. Cal. scales broad mucronate with membranaceous margins longer than tube, Lvs. lanceol.  
 many-nerved [lin. very long comate at base  
 17310 Flws. numerous sess. in hemispherical heads leafy bracts at base, Cal. scales ov. acumin. pressed to cal. Lvs.  
 17311 Stem erect, Flws. rather aggregate, Calycine scales 6 acuminate divaricating shorter than tube, Petals mul-  
 tifold bearded, Lvs. lanceol.

*TRIGYNIA.*

- 17312 Lvs. glabr. sagittately hastate angular acute, Hind lobes truncate margined horned, Petiole biglandular at apex  
 17313 Lvs. ovate lanceol. glauc. green above white ben. Racemes short paniced, Petioles biglandul. at apex  
 17314 Lvs. ovate obtuse smooth glaucous beneath 1 tooth on each side at base, Petioles without glands  
 17315 Lvs. ovate acute sharply serrated pilose, Rac. terminal tomentose, Flowers usually trigynous

*PENTAGYNIA.*

- 17316 Lvs. orbicularly cuneated, Petiole thick, Flws. in spicate panicles  
 17317 Lvs. flat cuneiform acutely mucron. crowded at tops of branches, Pedic. spreadg. Flws. on short pedic. along  
 bran. of panicle  
 [compound, Petals lanceol. acute little long. th. stams.  
 17318 Lvs. oppos. obsolete denticul. adnate: inferior ones broadly ellipt. superior sess. cord. Corymbs termin.  
 17319 Lvs. opposite orbiculate denticulate  
 17320 Stem flat on ground at base ascending, Lvs. obl. altern. obt. loosened at base, Cymes bifid glabrous, Petals 7  
 [obtuse

- 17321 Stem erect leafy, Pedun. umbelliferous 5-6-flwd. longer than lvs. Leaflets obovate, Petals crenated  
 17322 Stem erect branched, Pedun. long, Flws. subumbellate drooping before expansion, Leaflets 3 orbicordate sessile

*and Miscellaneous Particulars.*

2614. *Stigmaphilum*. A handsome climber, propagated by cuttings.  
 2615. *Thryallis*. A mixture of loam and peat will suit this plant, and ripened cuttings will root in sand under a hand-glass, in heat.  
 2616. *Galphimia*. A genus of rather handsome shrubs, requiring the same treatment as *Thryallis*.  
 2617. *Dcutia*. A very showy free-flowering shrub, which deserves a place in every collection. It is readily propagated by cuttings or layers. According to Kempfer, the wood is used by the cabinetmakers in Japan for making their very finest pegs, for which its hardness and toughness render it well adapted.  
 2618. *Echenheria*. Culture, propagation, &c., see *Crassula*, in p. 230.  
 1065. *O'salis* 17321 *crenata*. "The tubers of this plant are produced in considerable plenty, and are often 2 in. long and 1 in. in diameter. When raw, they are slightly subacid, but on being boiled they lose it entirely, and taste



|       |  |   |          |    |       |       |          |       |       |                   |
|-------|--|---|----------|----|-------|-------|----------|-------|-------|-------------------|
| 17323 | 6469 <i>b</i> <i>rb</i> sea <i>Jac.</i>  | rosy  | ♂ Δ   pr | ½  | mr.jn | Ro    | Chile    | 1826. | O s.p | Bot. mag. 2830    |
| 17324 | 6473 <i>a</i> <i>f</i> ilgida <i>B. R.</i>   | fulgid  | ♂ Δ   pr | ½  | s.n   | C     | C.G.H.   | 1820. | O s.p | Bot. reg. 1073    |
| 17325 | 6480 <i>a</i> <i>c</i> drepa <i>B. C.</i>  | copper-eld  | ♂ Δ   pr | ½  | ap.ju | Cop   | C.G.H.   | 1822. | O s.p | Bot. cab. 824     |
| 17326 | 6482 <i>a</i> <i>t</i> ortubsa <i>Lindl.</i>   | twisted   | ♂ Δ   or | ½  | jn.au | Y     | Chile    | 1825. | C s.l | Bot. reg. 1249    |
| 17327 | 6482 <i>b</i> <i>m</i> auritiāna <i>B. C.</i>  | Mauritian   | ♂ Δ   or | ½  | s.o   | Pa.Ro | Maurit.  | 1810. | O s.p | Bot. cab. 1780    |
| 17328 | 6482 <i>c</i> <i>p</i> unctāta <i>B. M.</i>  | dotted  | ♂ Δ   or | ½  | ap.jn | P     | C.G.H.   | ....  | O s.p | Bot. reg. 2781    |
| 17329 | 6492 <i>d</i> <i>b</i> ipunctāta <i>Grah.</i>  | 2-spotted   | ♂ Δ   pr | ½  | ap.jn | Li    | Brazil   | 1825. | O s.l | Bot. mag. 2781    |
| 17330 | 6482 <i>e</i> <i>D</i> éppei <i>B. C.</i>  | Deppe's   | ♂ Δ   el | ½  | mr.n  | Cop.R | Mexico   | 1827. | O s.p | Sw.fl.gar.2.s.96  |
| 17331 | 6482 <i>f</i> <i>f</i> loribūnda <i>Leh.</i>   | many-flowered   | ♂ Δ   or | ½  | ap.s  | Ro    | Brazil   | 1829. | O s.l | Sw.fl.gar.2.s.54  |
| 17332 | 6482 <i>g</i> <i>C</i> ommerŝoni <i>Pers.</i>  | Commerson's   | ♂ Δ   pr | ½  | o.n   | Y     | Brazil   | ...   | O s.p |                   |
| 17333 | 6524 <i>a</i> <i>D</i> arwalliāna <i>Westc.</i>  | Darwall's   | ♂ Δ   pr | ½  | ...   | Pa.C  | .....    | ...   | O s.p |                   |
| 17334 | - <i>C</i> umfingii <i>Herb.</i>   | Cuming's  | ♂ Δ   pr | ½  | au.s  | Go    | Chile    | 1831. | S s.l | Bot. reg. 1545    |
| 17335 | - <i>d</i> ivērgens <i>Benth.</i>  | diverging   | ♂ Δ   or | ½  | jn.s  | W     | Mexico   | 1829. | O p.l | Bot. reg. 1620    |
| 2619. | *1065 <i>a</i> . <i>B</i> ALBISIA <i>Cav.</i> ( <i>John Baptist Balbis</i> , a botanical author.)                            | <i>Ficoidea</i> <i>D. Don</i> , <i>Oxalidea</i> <i>Dec.</i> |          |    |       |       |          |       |       | Sp. 1.            |
| 17336 | - <i>p</i> edunculāris <i>D. Don</i> long-pedunc.  |   | ♂ Δ   or | 1  | au    | Y     | Chile    | 1829. | C s.l | Bot. reg. 1392    |
|       | <i>L</i> edocārpon <i>pedunculāre Lindl.</i> , Bot. reg. 1392; <i>C</i> ruickshānkia <i>cistiflōra Hook.</i> , Bot. mis. 90. |   |          |    |       |       |          |       |       |                   |
|       | 1066. <i>A</i> GROSTE'MMA.   |   |          |    |       |       |          |       |       | Sp. 7.—           |
| 17337 | 6537 <i>e</i> <i>B</i> ungēna <i>D. Don</i> Bunge's  |   | ♂ Δ   or | 1½ | jl    | S     | As. Rus. | 1834. | C.D.R | Sw.fl.gar.2.s.317 |
|       | <i>L</i> ychnis <i>Bungēna Hort.</i>   |   |          |    |       |       |          |       |       |                   |
| 17338 | - <i>p</i> yrēnaica <i>G. Don</i> Pyrenean   |   | ♂ Δ   pr | ½  | jn.jl | Pa.Ro | Pyrenees | 1819. | D p.l | Sw.fl.gar.2.s.202 |
| 17339 | - <i>s</i> uētica <i>Maudsl.</i> Swedish   |   | ♂ Δ   pr | ½  | jn.s  | Pk    | Sweden   | 1824. | D co  | Bot. gar. 576     |
| 2620. | *1066 <i>a</i> . <i>V</i> ISCA'RIA <i>Roehler</i> . ROCK LYCHNIS. ( <i>Viscus</i> , birdlime; stems glutinous.)              | <i>Caryophyllæ</i> .  |          |    |       |       |          |       |       | Sp. 3.            |
| 17340 | - <i>n</i> eglecta <i>G. Don</i> neglected   |   | ♂ Δ   or | ½  | my.jl | W     | .....    | 1807. | D co  | Bot. gard. 523    |
|       | <i>L</i> ychnis <i>Viscāria albiiflōra Hort.</i>   |   |          |    |       |       |          |       |       |                   |

Page 392. CLASS XI. — DODECANDRIA. 12 STAMENS.

Order 1. MONOGYNIA. 12 Stamens. 1 Style.

2621. *C*alandrīna. Calyx 2-parted. Petals 3-5, free or rather connate at base. Stamens, 4-15. Style very short, tripartite at the apex. Lobes clavate. Capsule oblong-elliptic, 3-valved. Seeds wingless.

MONOGYNIA.

|       |   |                     |          |    |       |       |             |       |         |                |
|-------|---|---------------------|----------|----|-------|-------|-------------|-------|---------|----------------|
| 17341 | 6618 <i>a</i> <i>g</i> rāndiflōra <i>Hook.</i>  | great-flowered      | ♂ Δ   or | ½  | jn.jl | Y.P   | Chile       | 1827. | S s.l   | Bot. mag. 2885 |
| 17342 | - <i>G</i> illiesii <i>Hook.</i>  | Gillies's           | ♂ Δ   or | ½  | jn.jl | R.P   | Mendoza     | 1827. | C s.l   | Bot. mag. 3064 |
| 2621. | *1092 <i>a</i> . <i>C</i> ALANDRINIA <i>H. &amp; B.</i> ( <i>J. L. Calandrinia</i> , a Genoese botanist.) | <i>Portulidææ</i> . |          |    |       |       |             |       |         | Sp. 6-10.      |
| 17343 | - <i>g</i> rāndiflōra <i>Lindl.</i>   | great-flowered      | ♂ Δ   or | 1  | jn.jl | P     | Chile       | 1826. | C.S p.l | Bot. reg. 1194 |
| 17344 | - <i>s</i> peciosa <i>Lindl.</i>  | showy               | ♂ Δ   or | ½  | my.o  | D.P   | N. Califor. | 1831. | S s.l   | Bot. reg. 1598 |
| 17345 | - <i>d</i> icolor <i>Schr.</i>  | two-colored         | ♂ Δ   or | 1½ | il.au | Bt.Ro | Chile       | 1834. | C.S s.l | Bot. mag. 3357 |
| 17346 | - <i>a</i> renāria <i>Lindl.</i>  | sand-inhabiting     | ♂ Δ   cu | ½  | jl    | O.ro  | Valpar.     | 1831. | S s.l   | Bot. reg. 1605 |
|       | No. 6624. in p. 396. is also referable to this genus.   |                     |          |    |       |       |             |       |         |                |



History, Use, Propagation, Culture

very much like the potato, for which they might form occasionally an agreeable substitute at table. It is a native of Peru, and is cultivated abundantly in the gardens about Lima, as a salad, for which purpose its succulent stems, and acid flavour, seem strongly to recommend it. It grows freely in the open border, and is readily increased by cuttings, as well as by the tubers, which require to be taken up and treated as potatoes. (*Sw. Fl. Gar.*, 2. s. 125.)  
 2619. *B*albisia. A showy conservatory plant, which may be increased by cuttings, but is apt to damp off; if kept in health, it is very handsome.

- 17323 Stem erect fleshy leafy, Pedun. bifid corymbosely racem. at apex 4 times longer th. lvs. Lfts. obcord. Petals crenated at apex [very long cal. Styles
- 17324 Stem decumb. bran. Leaflets. lin. sess. acute, Pedun. much higher than lvs. Bract. approaching cal. Styles [middle
- 17325 Hairy nearly stemless, Scape 1-fwd. drooping before expansion, Leaflets 3 orbordate
- 17326 Stem fleshy scaly, Leaflets. lin. obt. pilose beneath, Flws. umbellate, Pedicels and petioles twisted fleshy.
- 17327 Stemless, Scapes 2-3-fwd. Leaflets. 3 orbordate [lvs. with 2 bracts ab. middle
- 17328 Stemless, Lfts. roundish orbord. bright purple and dotted with shining golden dots beneath, Scapes longer th. truncate uneq. cren.
- 17330 Bulb large scaly stemless, Lfts. 4 large orbord. pilose glauc. ben. on short pilose petioles, Umbels many-fwd. 17331 Tuberos, Lfts. 3 roundish-obov. deeply emarginate hairy leprous ben. on margins, Scape many-fwd. Filam. [middle and styles bearded.
- 17332 Stem very short leafy, Lfts. 6 ovate clothed with close-pressed villi, Scapes longer than lvs. with 2 bracts in
- 17333 Stem very short leafy, Flowers pale crimson
- 17334 Stipe fleshy, Leaflets 3 orbordate ciliated pubesc. Scape 3-5-fwd. bifurcate, Calyx ciliated
- 17335 Stemless smooth, Lfts. 3 cuneate 2-lobed, Lobes diverging, Scape many-fwd. Sepals ovate
- 17336 Lvs. usually alternate with linear pilose segms. Peduncles much longer than lvs.
- 17337 Lvs. ovate and lanceolate pubescent, Flowers solitary, Petals cut [lvs. spatul. on long footst. Stem lvs. cord. sess.
- 17338 Stems tufted diffuse, Flws. in dichotom. bundles 1-fwr. in each fork on long peduncles, Lvs. leathery, Radic. [middle
- 17339 Lvs. linear channelled, Stem ones opposite subulate, Petals jagged
- 17340 Stems not clammy, Petals entire, Lvs. lanceol. linear ciliated at base

Order 3. TRIGYNIA. 12 Stamens. 3 Styles.

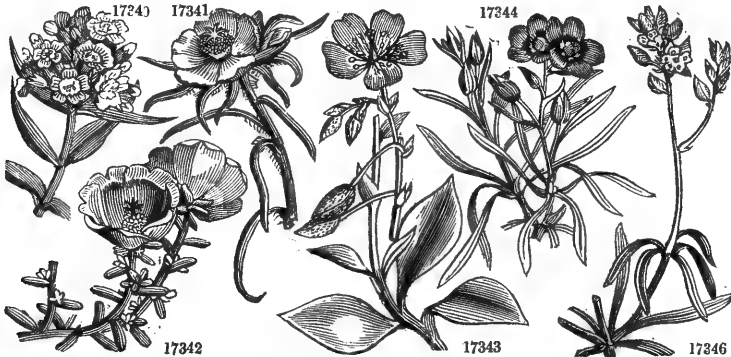
2622. *Poinsettia*. Involucrum 1-ld, androgynous, 5-celled at base, appendiculate outside, nectariferous. Flowers pedicellate, naked; male ones monandrous, in two rows; female ones solitary. Germen 3-lobed. Lobes 1-seeded.

Order 6. DODECAGYNIA. 12 Stamens. 12 Styles.

2623. *Cephalotus*. Calyx coloured, 6-cleft. Stamens 12. Anthers didymous, glandular on the back. Ovaries 6, distinct. Styles terminal. Chenia 1-seeded.

MONOGYNIA.

- 17341 Stem diffuse bran., Lvs. scattered cylindr. acute with pilose axils, Flws. 3-4-together termin. crown surround. [by whorl of lvs. and crowned hairs.
- 17342 Stem erectish bran. at base, Lvs. obl.-cylindr. rather compressed obtuse dotted axillary fascic. of hairs erect adpressed, Flws. termin. usually solit.
- 17343 Glaucous, Lvs. fleshy rhomboid acute petiolate, Raceme simple loose, Calyx spotted, Petals orbordate.
- 17344 Glabrous diffuse, Lvs. spatul. acute elongat. at base, Flws. racemose, Pedicels and bractees very short
- 17345 Lvs. fleshy obovate-obtuse elongat. into petiole somew. d scoured ben., Rac. bending, the pedicel drooping after the falling of the petals [bose, Pedic. little long. th. brac.
- 17346 Glauc., Stems numer. prostrate leafy, Lvs. linear, Common pedunc. termin. naked simple or bran., Rac. corym.



and Miscellaneous Particulars.

2620. *Viscaria*. Culture as in the common catchfly.

2621. *Calandrinia*. A genus of ornamental succulent plants, generally treated as annuals, although properly they are not so, as they may be preserved in the green-house through the winter, and in time, so treated, *C. grandiflora* will become shrubby. They require to be planted in hot dry exposed places.

FRIGYNIA.

|                         |                                       |                    |                                     |              |  |
|-------------------------|---------------------------------------|--------------------|-------------------------------------|--------------|--|
| 1103. <b>EUPHORBIA.</b> |                                       |                    |                                     | Sp. 139—223. |  |
| 17347                   | 6703a splendens <i>Boj.</i>           | shining            | ■ □ spl 4 jn.s                      | Ap           | I. France 1826. C p.l Bot. mag. 2902   |
| 17348                   | 6703b Bojeri <i>Hook.</i>             | Bojer's            | ■ □ spl 4 n.f                       | Ap           | Madagas. .... C p.l Bot. mag. 3527     |
| 17349                   | - fulgens <i>Karw.</i>                | fulgent            | ■ □ spl 4 jl.s                      | Ap           | Mexico 1836. C s.p Pax. mag. 4. 31     |
| 17350                   | - <i>Jacquiniaeflora Hort.</i>        | rigid              | ■ □ spl 4 jl.s                      | Ap           | Mexico 1836. C s.p Pax. mag. 4. 31     |
|                         | - <i>biglandulosa Desf.</i>           | rigid              | ■ □ rk ½ my.jn                      | Ap           | S. Europe 1829. D ru Bot. reg. n.s. 43 |
| 2622.                   | *1103a. <b>POINSETTIA</b> <i>Gra.</i> | <b>POINSETTIA.</b> | (M. Poinsett, a Mexican traveller.) |              | <i>Euphorbiaceae.</i> Sp. 1—1.         |
| 17351                   | - pulcherrima <i>Gra.</i>             | fairest            | ■ □ spl 4 ja.mr                     | Ap           | Mexico 1834. C s.l Bot. mag. 3493      |
|                         | β albidula <i>Hensl.</i>              | white-bracted      | ■ □ or 4 d                          | Ap           | Mexico 1834. C s.l Botanist, 70        |

HEXAGYNIA.

|       |                                       |  |                  |  |
|-------|---------------------------------------|--|------------------|--|
| 2623. | *1109a. <b>CEPHALOTUS</b> <i>Lab.</i> | ( <i>Kephale</i> , head, <i>ous</i> , ear; glandular-headed <i>stam.</i> ) | <i>Rosaceae.</i> | Sp. 1—1.                                       |
| 17352 | - follicularis <i>Lab.</i>            | follicled  | ■ □ Δ cu 1       | ..... W N. Holl. 1822. S bog Lab. n. h. 2. 145 |

P. 408. CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

Order 1. MONOGYNIA. Many perigynous Stamens. 1 Style.

2624. *Melocactus.* Tube of calyx adhering to ovarium. Lobes 5-6, petaloid, crowning the young fruit. Petals 5-6, united into a long tube along with the sepals. Stamens disposed in many series. Stigma 5-rayed. Fruit smooth.
2625. *Echinocactus.* Sepals numerous, imbricate, adhering to the ovarium; outer ones in the form of an involucrem; inner ones petaloid. Style multifid at the apex, very scaly from the remains of the sepals.
2626. *Mammillaria.* Tube of calyx adhering to the ovarium. Lobes 5-6, coloured, crowning the young fruit. Petals 5-6, hardly distinguishable from the sepals. Stamens disposed in many series. Stigmas 5-7-cleft, very smooth.
2627. *Cereus.* Sepals numerous, imbricate, adhering to the base of the ovarium, united into an elevated tube. Outer sepals like a calyx; middle ones longer and coloured; innermost ones petaloid. Style multifid at the apex. Berry areolate, tubercular, or scaly.
2628. *Epiphyllum.* Tube of calyx long, furnished with remote scale. Limb of cor. multifid, rosaceous, or ringent.
2629. *Opuntia.* Sepals numerous, foliaceous, adnate to the ovarium; upper ones flat and short; inner ones petaloid. Stigmas numerous, erect. Berry oval, umbilicate, tubercled, or spiny

MONOGYNIA.

|       |  |  |                                 |                          |                                 |
|-------|--|--|---------------------------------|--------------------------|---------------------------------|
| 2624. | *1111a. <b>MELOCACTUS</b> <i>C. Bauh.</i>  | <b>MELON THISTLE.</b>                                      | (Melo, melon, cactus; shape.)   |                          | <i>Cactaceae.</i> Sp. 2—6.      |
| †6848 | communis <i>L. &amp; O.</i>  | common   | ■ □ gr ½ jl.au                  | R W. Indies 1698.        | O s.p Plant. grass. 112         |
|       | <i>Cactus Melocactus</i> , No. 6848. in p. 410; No. 6853. is also referable to this genus. |  |                                 |                          |                                 |
| 2625. | *1111b. <b>ECHINOCACTUS</b> <i>L. &amp; O.</i>   | ( <i>Echinus</i> , the sea urchin, <i>cactus</i> ; spiny.) |                                 |                          | <i>Cactaceae.</i> Sp. 9—32.     |
| 17353 | - Eyriesii <i>Otto</i>   | Eyries's   | ■ □ fra 1 va.sea                | W.Y Mexico 1829.         | O s.p Bot. reg. 1707            |
| 17354 | - mammillarioides <i>Hook.</i>   | Mammil.-lk.  | ■ □ gr ½                        | ..... Y.u Chile 1836.    | O s.p Bot. mag. 3558            |
| 17355 | - Mackleana <i>Hook.</i>   | Mackie's   | ■ □ gr ½                        | ..... Y.w Chile 1836.    | O s.p Bot. mag. 3561            |
| 17356 | - oxygona <i>Lk. &amp; O.</i>  | sharp-angled   | ■ □ gr 1                        | ..... Pa.Ro Brazil 1831. | C s.l Bot. reg. 1717            |
| 17357 | - tubiflora <i>Hort.</i>   | tube-flowered  | ■ □ gr ½                        | ..... W Mexico 1836.     | O s.p Bot. mag. 3637            |
|       | Nos. 6841. 6844. 6150. & 6852. in p. 410. are also referable to this genus.                |  |                                 |                          |                                 |
| 2626. | *1111c. <b>MAMMILLARIA</b> <i>Haw.</i>   | <b>MAMMILLARIA.</b>  | (Mamma, the nipple; tubercles.) |                          | <i>Cactaceae.</i> Sp. 9—34.     |
| 17358 | - pulchra <i>Haw.</i>  | pretty   | ■ □ gr ½ jn                     | Ro Mexico 1826.          | O ru Bot. reg. 1329             |
| 17359 | - tenuis <i>Dec.</i>   | slender  | ■ □ gr ½ iny                    | Pa.Y                     | ..... 1830. O ru Bot. reg. 1523 |
| 17360 | - atrata <i>Hort.</i>  | dark green   | ■ □ gr ½                        | ..... Pk                 | ..... O s.p Bot. mag. 3642      |



History, Use, Propagation, Culture,

2622. *Poinsettia.* "Nothing can be more ornamental in the stove. The rose-like whorls of bractæ which terminate the branches have been seen on the large plants cultivated at Philadelphia as much as 20 in. across, and equal in colour to the finest tints of *Hibiscus Rosa sinensis.*" (*Bot. Mag.*) A mixture of sand and loam suits this plant, and cuttings root readily in sand under a bell-glass in heat.

TRIGYNIA.

- 17347 Much bran. cithd. with numer. long and strong straight spines, [scarlet roundish united and concave at base  
 17349 Stem obtusely and irregul. angul. smth. pale gray-ld., Lvs. coriac. on short petioles obov.-obl. retuse with  
 mucro each lf. situat. betw. 2 strong spines, Brac. brick scarlet  
 17349 Glabrous, Lvs. lanceol acum. entire uppermost ones reddish, Peduncles axillary racemose few flowered  
 17350 Stems diffuse, Lvs. stiff obov. acute glaucous, Umbel multifid, Bracteas roundish cordate, Segms. of involucre  
 biglandular  
 17351 The only species

HEXAGYNIA.

- 17352 The only species

2630. *Pereskia*. Sepals numerous, foliaceous, adnate to the ovarium. Cor. rotate. Stigmas aggregate, spiral. Berry globose or ovate.

2631. *Purshia*. Lobes of calyx obovate, obtuse. Petals and stamens arising from the calyx. Stamens about 20. Carpels 1-2, ovate-oblong, tapered into a short style, pubescent; each includes 1 ovule inserted into its base, and opens by a longitudinal cleft.

2632. *Coumbia*. Cal. 5-cleft. Petals 5. Ovaries 5-14. Ovule erect. Styles terminal, continuous. Achenia awned with the plumose persistent styles. Embryo erect.

Order 2. DI-PENTAGYNIA. Many perigynous Stamens. 2 to 5 Styles.

2633. *Stranva'sia*. Cal. 5-toothed. Petals 5, concave, sessile, spreading, villous at base. Stamens 20, spreading, Ovary villous, superior, 5-celled. Cells containing 2 ovules. Fruit spherical, enclosed by the calyx, containing the superior, 5-valved, hard, brittle, dehiscent capsule. Seeds oblong, compressed. Testa cartilaginous. Radicle exserted. Leaves simple. Flowers corymbose.

2634. *Kagenéckia*. Cal. saucer-shaped, furnished with a ring a little elevated on the inside, girding the ovaries. Petals wanting? Stamens 15, 5 of which alternate with the lobes of the calyx, the rest by pairs opposite the lobes.

MONGYNIA.

- 17353 Subglobose umbilicate, Ribs 13 continuous somewhat undulated, Tubercles woolly bearing many short stiff  
 straight spines, Petals acute  
 17354 Roundish cylindrical, Mammillae lrgc. conical rather angular disposed along 16 rather spiral ribs, Spines slender  
 [spreading  
 17355 Obovate, Mammillae lrgc. conical depressed disposed along 16-17 ribs, Spikes 8-10 long slender spreading  
 17356 Nearly globose glaucescent, Ribs 14 acute, Spines unequal spreading, Flowers very long  
 17357 Nearly globose umbilicate, Ribs 9-10 undulated, Spines 5-6 straight black, Petals acuminate

- 17358 Oblong cylindrical, Spines 6-7 upper ones largest brown  
 17359 Cylindrical proliferous, Axils naked, Spines 20 equal spreading [Petals nearly equal  
 17360 Simple oval cylindrical, Mammillae large conical obtuse, Spines 8-10 stiffish straight nearly equal spreading,



and Miscellaneous Particulars.

2623. *Cephalotus*. This plant grows best in turfy peat soil, and should be kept rather damp. If moss is allowed to grow on the surface of the soil it helps the growth and health of the plant. It is increased by seed.  
 1111. *Cactus* to 2630. *Pereskia*. For propagation, culture, and other particulars relating to *Cactee*, see p. 410-415.; also, for some excellent remarks on the general treatment of *Cactee*, see *Gard. Mag.*, vol. xv. p. 83.

- 17361 - - floribunda Hook. copious flwg  $\square$  gr  $\frac{1}{2}$  ..... Pk Chile ..... O s.l Bot. mag. 3647
- 17362 - - Lehmanni Hook. Lehmann's  $\square$  cu  $\frac{1}{2}$  ..... Y Mexico ..... O ru Bot. mag. 3634  
Also Nos. 6839, 6840, & 6842. are referable to this genus.
2627. \*1111d. CEREUS Haw CERÆUS. (Cereus, a torch or taper; resemblance.) *Cactaceæ.* Sp 25—68.
- 17368 6870a Napoleonis Grah. Napoleon's  $\square$  spl 6 s W ..... ?1825. C s.l Bot. mag. 3458  
Cactus Napoleonis Hort. Cereus triangularis var. major *Salm-Dyck.*
- 6887 speciosissimus.  
 $\beta$  lateritius Lindl. brick-red  $\square$  or 2 my.s Bri.R Eng. hyb. 1831. C lt Bot. reg. 1596
- 17364 6875a Mallisoni Hort. Mallison's  $\square$  or 6 ..... C Eng. hyb. 1830. C p.l.s Bot. reg. 1565
- 17365 - - setosus B. C. bristled  $\square$  or  $\frac{1}{2}$  au Pk Brazil 1829. C lt.l Bot. cab. 1887  
*pentelobus Dec.*
- $\beta$  subarticulatus Pf. subarticulate  $\square$  or 1 ..... L Mexico ..... C s.p Bot. mag. 2651  
Nos. 6868, 6869, 6854, 6855, 6856, 6857, 6858, 6878, 6876, 6872, 6871, 6857, 6859, 6861, 6162, 6863, 6807, 6865, 6860, 6874, 6873, and 6875. are also referable to this genus.
2628. \*1111e. EPIPHYLLUM Haw EPIPHYLLUM. (Epi, upon, phyllon, a leaf; flowers.) *Cacticæ.* Sp 7—8.
- 17366 6901a Hookeri Haw. Hooker's  $\square$  or 2 ju.jl W S. Amer. .... C s.p Bot. mag. 2692  
Cactus Phyllanthus Hook., not of Haw.
- 17367 6901b speciosum Haw. showy  $\square$  or 3 ju.jl R Brazil 1810. C s.p Bot. reg. 304  
 $\beta$  Jenkinsoni Hort. Jenkinson's  $\square$  spl 3 ap.my C Eng. hyb. .... C s.p  
 $\gamma$  lateritia Hemsl. brick-red  $\square$  spl 3 ju R Eng. hyb. 1838. C s.p Botanist, 12
- 17368 6901c Ackermanni Haw. Ackermann's  $\square$  or 2 ju S Mexico 1829. C s.p Bot. mag. 3598
- 17369 6903c crispatum Haw. curled  $\square$  gr 1 aut Y Brazil 1829. C s.l  
Nos. 6901, 6902, and 6903. are also referred to this genus.
2629. \*1111f. OPU'NTIA Haw. INDIAN FIG. (Plentiful near Opus, a city of Locris.) *Cacticæ.* Sp. 25—43.
- †6884 vulgaris Haw. common  $\square$  fr 2 jl.au Y S.Europe 1596. C s.l Bot. mag. 2393  
Cactus Opuntia L. No. 6884. in p. 412.
- 17370 6887a Ficus Indica Haw. Indian Fig  $\square$  gr 2 ju.jl Y S. Amer. 1731. C s.p  
To this genus Nos. 6877. to 6901. inclusive, are referred.
2630. \*1112a. PERE'SKIA Haw. BARBADORS GOOSEBERRY. (N. F. Peireskius, a lover of bot.) *Cacticæ.* Sp. 2—2.
- †6904 aculeata Haw. prickly  $\square$  fr 5 o.n W W. Indies 1696. C s.p Di. el. 227. 294  
Cactus Pereskia L. No. 6904. in p. 414.
- 17371 - - Bleo H. & K. Bleo  $\square$  fr 5 o.ja Ro Mexico 1827. C p.l Bot. reg. 1473
1113. BARTONIA  
17372 - - albescens Gill. whitish O cu 2 jl.n Pa.Y Chile 1831. S s.l Sw.fl.gar.2.s.182
- 17373 - - aurea Lindl. golden-flowered O or 2 jl.n Go Californ. 1833. S m.s.l Bot. reg. 1831
1114. PHILADELPHUS.  
17374 6915a Zeyheri Schrad. Zeyher's  $\square$  or 4 ju W Sp. 9—15.  
N. Amer. .... L co Sc. phil. ic.
- 17375 6915b latifolius Schrad. broad-leaved  $\square$  or 6 ju W N. Amer. .... L co A. b. fig. 676
- 17376 6915c floribundus Schrad. bundle-flwd  $\square$  or 6 ju W N. Amer. .... L co Sc. phil. ic.
- 17377 6915d laxus Schrad. loose-growing  $\square$  or 4 ju W N. Amer. 1830. L co Sc. phil. ic.
- 17378 6917a tomentosus Wall. woolly-leaved  $\square$  or 6 ju.jl W Nepal 1822. L co Royle ill. 46. 1  
nepalensis L. C. ? triflorus Royle. The P. verrucosus Schrad. is syn. with P. grandiflorus Bot. reg. 570.  
and P. grandiflorus W. is the P. inodorus Hort. and P. laxus L. C.
- 1121 MY'RTUS. Sp. 11—15.  
6974 communis double-flwd  $\square$  or 6 jl.au W S. Europe 1597. C r.m  
 $\beta$  flore pleno variegated-lvd  $\square$  or 6 jl.au W S. Europe 1597. C r.m  
 $\gamma$  variegata blotched-lvd  $\square$  or 6 jl.au W S. Europe 1597. C r.m  
 $\delta$  maculata doubtful  $\square$  or 6 ju.au W Maranh. 1823. C s.p Bot. reg. 1044
- 17379 5980a obscura B. R.
2631. \*1130a. PURSHIA Dec. PURSHIA. (T. Pursh, author of Fl. Amer. Sept.) *Rosacæ.* Sp. 1—1.
- 17380 - - tridentata Dec. 3-toothed-lvd  $\square$  or 2 my.ju Y N. Amer. 1826. C l.p Bot. reg. 1446  
*Tigarea tridentata Ph.*
2632. \*1135a. COWA'NIA D. Don. COWANIA. (James Cowan, an English merchant.) *Rosacæ.* Sp. 1—1.
- 17381 - - plicata D. Don plaited-leaved  $\square$  or 2 ju R Mexico ..... L s.p Sw. fl. gar. 400



History, Use, Propagation, Culture,

2631. Purshia. A dry light soil suits this plant, and cuttings of the young wood will root in sand under a hand-glass.

- 17361 Globose subcylindrical, Mammillæ lrg. conical obtuse, Spines 14—16 strong straight nearly equal, Petals very unequal  
 17362 Oblong subcylindrical, Mammillæ lrg. subtetragonal, Spines 7—8 straight slender one longer than rest, Petals [acuminate

17363 Branches diffuse creeping triangular, Spines 4—5 stiff spreading.

- 17364 Hybrid between *C. speciosissimus* and *C. labellifórmis* [linear obtuse  
 17365 Stems creeping triangular, Spines numerous bristle-shaped, Flowers solitary from the centre of the bristles, Petals

17366 Branches deeply serrated naked, Tube of flower very long slender, Segms. of cor. lin. lanceol.

17367 Stem serrated repand, Tube of cor. short scaly unarmed

- 17368 Branches seldom with any spines except when young, Cor. large ringent nearly four times longer than tube, [Petals keeled  
 17369 Branches cuneate oblong undulated, Margins appearing curled from large crenatures

6884 Proliferous loose, Joints ovate, Spines setaceous

17370 Joints ovate oblong blunt at both ends, Spines setaceous length of the wool

6904 Lvs. ellipt. Prickles solitary in axils of lvs. fascicled on stems, Flowers paniced, Fruit globose

17371 Lvs. ellipt. acute tapering into short footstalks, Spines fascicled, Upper axils bearing thick rounded fleshy  
 3-5-flwd. pedunc., Petals obov. retuse soon reflected

17372 Stem with white shining epidermis, Lvs. sinuately toothed, Capsule naked 3-valved, Seed broadly marginate.  
 Flws. in leafy panic.

17373 Stem branched hispid, Lvs. ovate lanceol. pinnatifid, Bract. pinnatifid, Petals 5 obovate cuspidate

17374 Lvs. ov. acumin. serrately denticul. rounded at the base 3-nerved, Flws. fewer and larger than in *P. vulgáris*  
 and scentless [minute

17375 Bark whitish, Lvs. broad-ovate acumin. toothed about 5-nrvd. hairy ben. Infor. racemose, Lobes of cal. acu-

17376 Lvs. ovate-oval with long acuminate tip serrat. toothed 3-nrvd. hairy ben. Infor. subracemose, Flws. 5-7 showy  
 slightly scented [level with stamens

17377 Lvs. oval-ovate with long acuminate tip toothed pubes. ben. Flws. solitary or 2-3 together, Stigmas about

17378 Lvs. ovate acuminated denticulated toment. ben. Racemes termin., Pedicels oppos. Lobes of cal. ovate acute

17379 Peduncles angular short usually solitary, Lvs. ovate lanceol. acum. Calyx hairy 4-cleft, Petals hairy outside

17380 Subdecumbent, Lvs. grouped wedge-sh. ending in 2-3 teeth villose ab. toment. ben. Buds scaly, Stipules none,  
 or minute

17381 Leaves wedge-shaped oblong pinnatifid plaited, Ovaries 14



and Miscellaneous Particulars.

2632. *Cowánia*. A handsome evergreen hardy shrub, with large showy blossoms resembling a small rose.

DI-PENTAGYNIA.

†1132. *CRATÆGUS*. *L.* (*Kratos*, strength; hardness and strength of wood.) *Rosicæ* † *Pèmeæ*. Sp. 27—27.

I. COCCINEÆ.—Leaves cordate, lobed, acutely serrated. Flowers and Fruit large. Plants large and of free and vigorous growth.

†7063 *coccinea* *L.* scarlet-fruited † or 20 my.jn W N. Amer. 1683. B co Den. br. 62  
*æstivâlis* *Booth*, *Mespilus æstivâlis* *Wall.*, *M. coccinea* *Müll.*  
 β *corâllina* A. b. f. 565.; syn. *C. corâllina* *Lod.*, *C. pyriformis* of some.

†7067 *glandulosa* *W.* glandular † or 15 my.jn W N. Amer. 1760. B co Den. br. 58  
*Mespilus rotundifolia* *Ehrh.*, *Pyrus glandulosa* *Mench.*, *C. rotundifolia* *Booth.*  
 β *succulenta* *Fis.* γ *subvillôsa* A. b. f. 568.; syn. *C. subvillôsa* *Fis.*

II. PUNCTATÆ.—Leaves not lobed, large, with many nerves. Bark white or ash-coloured. Fruit large or small.

†7070 *punctata* *Ait.* dotted-fruited † or 15 my.jn W N. Amer. 1746. B co Den. br. 57  
*Crûs-gâlli* *Duroi.*, *Mespilus cuneifolia* *Ehrh.*, *M. punctata* *Link.*, *M. cornifolia* *Lam.*  
 α *rûbra* A. b. f. 569.; syn. *C. edûllis* *Ronalds.*

†7065 *pyrifolia* *Ait.* Pear-tree-lyd † or 20 jn W N. Amer. 1765. B co Bot. reg. 1877  
*leucophlœos* *Mench.*, *radiata* *Lod.*, *tomentosa* *Duroi.*, *Mespilus latifolia* *Lam.*, *M. Calpodendron* *Ehr.*,  
*M. pyrifolia* *Link.*, *M. cornifolia* *Poir.*, *Booth.*, *C. latifolia* *Ronalds.*

III. CRÛS-GÂLLI.—Leaves without lobes. Fruit small or middle-sized, round, dark green till nearly ripe, when ripe scarlet. Spines very long, and bent like the spur of a cock.

†7071 *Crûs-gâlli* *L.* Cock's-spur † or 20 my.jn W N. Amer. 1691. S co Den. br. 56  
*lucida* *Wang.*, *cuneifolia* *Lod.*, *Mespilus lucida* *Ehrh.*, *M. Crûs-gâlli* *Poir.*, *M. hyemâlis* *Wall.*, *M. cunei-*  
*folia* *Mench.*  
 β *spléndens* *Dec.*; syn. *C. arbutifolia* and *C. spléndens* *Ait.*  
 γ *pyracanthifolia* *Dec.* A. b. f. 580.; syn. *C. pyracanthifolia* *Lod.*, *M. lucida* *Dum.*

17382 - *ovalifolia* *Horn.* oval-leaved † or 30 my.jn W N. Amer. 1810. B co Bot. reg. 1860  
*Crûs-gâlli ovalifolia* *Lindl.*, *elliptica* *Lod.*

17383 - *prunifolia* *Bosc* Plum-tree-lyd † or 20 my.jn W N. Amer. 1818. B co Bot. reg. 1868  
*Crûs-gâlli prunifolia* *Lindl.*, *caroliniana* *Lod.*, *Mespilus prunifolia* *Poir.*  
 β *ingestria* *A. B.* *Ingestrie* † or 20 my.jn ... Eng. hyb. .... B co

IV. NIGRÆ.—Leaves middle-sized, deeply lobed. Lobes pointed. Fruit round, black or purple. Tree rather fastigate, with few or no spines. Bark smooth.

†7083 *nigra* *W. & K.* black-fruited † or 20 ap.my W Hungary 1819. B co Den. br. 64  
*Mespilus nigra* *W.*, *carpatica* *Lod.*

17384 - *purpurea* *Bosc* purple-bran. † or 15 my.jn W AltaicM.? 1822. B co Den. br. 60  
 β *altâica* *A. B.* *Altâic* † or 15 my.jn W Altaic M. .... B co A. b. f. 583

V. DOUGLASSI.—Leaves small, and not lobed as in the preceding section. Spines rather numerous and rigid. Fruit small, and dark purple. Pulp soft and watery.

17385 - *Douglâssi* *Lindl.* Douglas's † or 15 my W N.W. Am. 1830. S.B co Bot. reg. 1810

VI. FLAVÆ.—Leaves small, obovate, slightly lobed, and serrated. Flowers frequently solitary. Spines numerous, straight, and more slender than in division. Fruit top, or pear, shaped; yellow; or greenish-yellow.

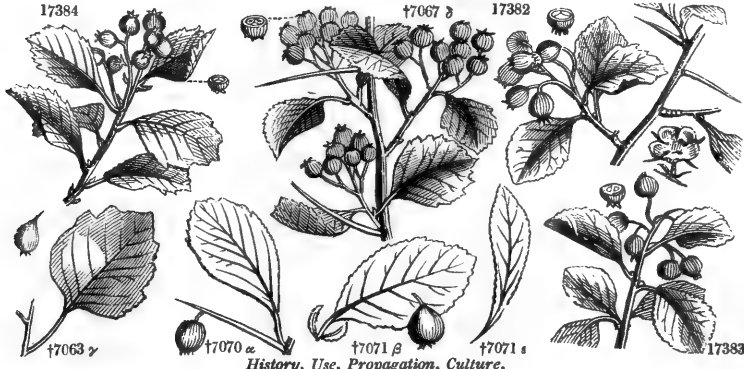
17386 - *flava* *Ait.* yellow-fruited † or 20 my W N. Amer. 1724. B co Den. br. 59  
*glandulosa* *Mx.* not of *Wall.*, *Mespilus Michauxii* *Fers.*, *C. caroliniana* *Poir.*, *C. flavissima* *Hor.*

17387 - *lobata* *Bosc* lobed-leaved † or 15 my.jn W ..... B co A. b. f. 554 & 586  
*Mespilus lobata* *Poir.*, *C. lutea* *Hort.*

17388 - *trilobata* *Lod.* three-lobed-lyd † or 15 my.jn W hybrid 1820.? B co Bot. cab. 1100?  
*spinosissima* *Lee.*

VII. APIFOLIÆ.—Leaves deltoid, or somewhat resembling those of the common thorn. Fruit also of the same colour. But the tree has a totally different habit, having the shoots loose and spreading, weak, and almost without thorns.

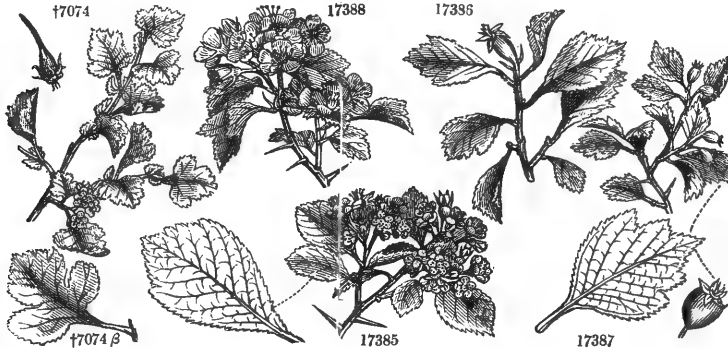
†7074 *apifolia* *Mx.* Parsley-leaved † or 15 my.jn W N. Amer. 1812. B co A. b. f. 589  
*Oxyacantha* *Wall.*, *apifolia* *major* *Lod.*  
 β *minor* *A. B.* less or ... my.jn W ..... B co A. b. f. 588



1132. *Crataegus*. "Of all the genera of hardy deciduous ligneous plants in cultivation in British gardens, there is not one which, taking it altogether, can be compared with the genus *Crataegus*. . . They are not only highly beautiful when in flower (a period which extends from the beginning of April to the end of July, commencing with *C. purpurea*, and ending with *C. cordata*), but also when they are covered with ripe fruit, which includes a period commencing with *C. purpurea* and *C. nigra*, in the beginning of July, and continuing till the following spring or summer;

DI-PENTAGYNIA.

- 7063 Lvs cord.-ovate angled with lobes acutely serrated glabr. Petiol. & cal. pubes. glanded, Petals orbicul. Styles 5, Fruit eatable  
 ♂ máxima *Lod.*; syn. *C. c. spinosa Godfrey.*  
 ♀ neapolitana *Hort.*; syn. *Mésplus constantinopolitana Godfrey.*
- 7067 Lvs. obov.-wedge-sh. angled glabr. glossy, Petioles stipules & sepals glanded, Fruit oval scarlet, Nuts 4-5, Flesh hard and dry  
 ♂ macracantha *A. b. f. 572.*; syn. *C. macracantha Lod., C. spina longissima Lee.*  
 subvar. minor *A. b. f. 573*
- 7070 Lvs. obov.-wedge-sh. glabr. serrat. Cal. rather villose, Sepals awl.-sh. entire, Fruit usually dotted  
 ♀ aurea; syn. No. 7068. in p. 424., *C. dulcis Ronalds, C. edulis Lod., C. pentagyna flava Godfrey.*  
 ♂ brevispina *Don, A. b. f. 2462* [Sep. lin-lanceol.
- 7065 Spiny or spineless, Lvs: ovate-ellipt. incisely serrat. obscurely plaited rather hairy, Styles 3, Cal. slightly villose, [somewh. serrat. Styles 2
- 7071 Spines long, Lvs. obov.-wedge-sh. nrly. sess. glossy glabr. falling off late, Stipules linear, Cal. lobes lanceol.  
 ♂ salicifolia *Dec. A. b. f. 578*  
 ♀ linearis *Dec. A. b. f. 577.*; syn. *M. linearis Desf.*  
 ♂ nana *Dec. A. b. f. 552.*; syn. *M. nana Dum.*
- 17382 Lvs. oval serrat. rather pilose on both surfs. shining on upper one, Stipules sub-cord. incisely serrat. with glanded serratures
- 17383 Lvs. broadly ovate uneq. serrated & glabr. Petioles bearing few glands, Sepals with glanded serratures, Pedun. and cal. little vill.
- 7083 Lvs. sinuately lobed serrat. somew. wedge-sh. truncately so at base villose ben. Stip. obl. serrately cut, Cal. vill. Styles 5, Fruit black [serratures
- 17384 Lvs. ovate cuneate at base lobed serrat. glabr. or pubes. ben. Stip. somewhat circular serrated with glanded
- 17385 Spines straightish short and long, Lvs. obovate and oval gashedly serrated acute cuneate at base glabr. in autumn leathery purplish and shining
- 17386 Lvs. obov.-cuneat. slightly lobed crenately serrate on short petioles, Stip. glanded, Nuts 4 in a fruit [bose
- 17387 Bran. rather vill. Lvs. ovate uneq. serrat. or lobed slightly downy bent on short petioles, Stip. cut, Inflor. corym-
- 17388 Lvs. ovate-cuneate notched and serrat. Petioles slender, Branches small thickly beset with slender thorns
- 7074 Lvs. cut into acute and incisely toothed lobes, Pedic. in corymb vill. mostly simple, Cal. tube vill. Sepals obscurely serrated



and Miscellaneous Particulars.

*C. mexicana, C. virginica*, and some other species, retaining their fruit all the winter. . . . All the species may be trained either as small, handsome, exceedingly picturesque trees, or as beautiful and picturesque shrubs, at the pleasure of the cultivator." (*Arb. Brit.*, p. 814.) "Most of the species would make excellent hedges. . . . All the species will grow on any soil that is tolerably dry; but they will not grow vigorously in a soil that is not deep and free, and rich rather than poor." (*Ib.*)



VIII. MICROCA'RPÆ.—Fruit small, round, red. Flowers small, produced in corymbs, later in the season than in any of the other species. Spines few, but sometimes very large.

- †7064 cordata Mil. heart-leaved  $\frac{1}{2}$  or 20 jn J W N. Amer. 1738. B co Bot. reg. 1151
- populifolia Walt. Mespilus acerifolia Poir. dict.
- †7073 spatulata Ell. spatula-shaped  $\frac{1}{2}$  or 15 my Jn W N. Amer. 1806. B co Bot. reg. 1846
- microcarpa Lindl. Bot. reg.

IX. AZARO'LI.—Fruit large, round or pear-shaped; yellow or red; eatable. Leaves wedge-shaped, 3 cleft, or more shining, pubescent, or hairy. Spines few or none.

- †7078 Azarolus L. Azarole  $\frac{1}{2}$  or 15 my Jn W S. Europe 1640. B co Bot. reg. 579
- 17389 - maroccana Pers. Morocco  $\frac{1}{2}$  or 15 my Jn W Morocco 1822. B co A. b. f. 594
- 17390 - Aronia Bosc Aronia  $\frac{1}{2}$  or 15 my Jn W S. Europe 1810. B co Poc. or. 85
- Mespilus Aronia W., N. DuR. ; C. Azarolus  $\beta$  Willd. sp., C. fissa Lod. ; M. orient. apifol. subtus hirsuta Poc.
- †7080 orientalis Bosc Eastern  $\frac{1}{2}$  or 15 my Jn W S. Europe 1810. B co Bot. rep. 590
- odoratissima Bot. rep. and No. 7080. in p. 424., Mespilus orientalis Poir.
- $\beta$  sanguinea A. B. blood-cl-d- $\frac{1}{2}$  or 15 my Jn W Crimea 1810. B co Bot. reg. 1852
- C. orientalis Lindl. Bot. reg., C. sanguinea Schrad., C. tanacetifolia  $\beta$  taurica Dec.
- †7079 tanacetifolia Pers. Tansy-ld  $\frac{1}{2}$  or 15 my Jn W Greece 1789. B co Bot. rep. 591
- M. tanacetifolia Poir. dict., N. DuR. ; M. pinnata Dum. ; M. Celsiana Dum. ?
- $\beta$  glabra Lod. A. b. f. 598.  $\gamma$  Leodna A. b. f. 599. ; syn. C. incisa Lee.

X. HETEROPHY'LLÆ.—Leaves cuneate and subsistent. Fruit long, middle-sized, and crimson.

- 17391 - heterophylla Flug. various-leaved  $\frac{1}{2}$  or 20 my Jn W N. Amer. 1816. B co Bot. reg. 1847

XI. OXYACA'NTHE.—Leaves obovate, trifid, or variously cut. Flowers numerous, in corymbs. Fruit generally red.

- †7075 Oxyacantha L. Sharp-thorn  $\frac{1}{2}$  or 15 my Jn W Britain hed. S co Eng. bot. 2054
- 2 obtusata Dec., B. r. 1128.; syn. C. oxyacanthoides 10 Oliveriana A. B., Bot. reg. 1933.; syn. C. Oli-
- Thuill. vèria and orientalis Lo. C.
- 3 sibirica A. B.; syn. C. monogyna L. 11 melanocarpa A. B., Bot. reg. 1874.; syn. C. fissa
- 4 transylvanica Hort.; syn. C. O. 3 sibirica ? Lee, platyphylla B. R.
- 5 quercifolia Booth, A. b. f. 608 12 aurea Hort., A. b. f. 610.; syn. No. 7075.  $\xi$  in
- 6 laciniata A. b. f. 603.; syn. C. laciniata Lo. C. p. 424
- 7 pterifolia A. b. f. 604.; syn. C. pectinata Hort. 13 aurantiaca Booth
- 8 eriocarpa Lindl., A. b. f. 607.; syn. No. 7076 in 14 leucocarpa A. B.
- p. 424 15 multiplex Hort., A. b. f. 609.; syn. No. 7075.
- 9 purpurea (purple-shoots) A. b. f. 611 s in p. 424

XII. PARVIFO'LIÆ.—Leaves small, ovate, serrated or notched, but scarcely lobed. Fruit green or greenish yellow; rather large and hard.

- †7069 parvifolia Ait. small-leaved  $\frac{1}{2}$  or 6 my Jn W N. Amer. 1704. B co Den. br. 65
- Mespilus axillaris Pers., M. tomentosa Poir., M. xanthocarpus L. fil., M. parvifolia Wats., C. tomentosa
- L. sp., C. uniflora Duroi, C. viridis, axillaris, betulifolia, florida, and linearis Lo. C.
- $\beta$  florida Lod. Florida  $\frac{1}{2}$  or 6 my Jn W N. Amer. .... B co A. b. f. 613
- $\gamma$  grossularifolia A. B. Gooseb.-ld  $\frac{1}{2}$  or 6 my Jn W ..... B co A. b. f. 616
- C. linearis Lo. C.
- 17392 - virginica Lod. Virginian  $\frac{1}{2}$  or 5 my Jn W Virginia 1812. B co A. b. f. 615

XIII. MEXICA'NA.—Leaves large, oval lanceolate, notched and serrated. Fruit large, green or greenish yellow.

- 17393 - mexicana M. & S. Mexican  $\frac{1}{2}$  or 15 my Jn W Mexico 1823. B co Sw. fl. gar. 2. s. 300
- stipulacea Lo. C., Lambertiana Hort.

XIV. PYRACA'NTHA.—Leaves oval, lanceolate, glabrous, entire, small, evergreen. Fruit numerous, of a bright coral colour.

- †7072 Pyracantha Pers. Pyracantha  $\frac{1}{2}$  or 10 my. W S. Europe 1629. S s J A. b. f. 561
- crenulata A. B. crenulata  $\frac{1}{2}$  or 10 my Jn W Nepal 1830. B s J
- C. crenulata Rox. ms., Lindl. in Lin. trans., Don's Mill.; Mespilus crenulata D. Don.

2633. \*1132a. STRANVÆ'SIA Lindl. (Hon. W. Fox Strangways, a learned botanist.) Rosæcæ. Sp. 1—1.

17394 - glaucescens Lindl. grey-leaved  $\frac{1}{2}$  or 20 Jn W Nepal 1828. B co Bot. reg. 1956



History, Use, Propagation, Culture,

2633. Stranvæ'sia. This plant succeeds perfectly when grafted on the common hawthorn.

7064 Lvs. cord.-ovate angled by lobes glabr. Petioles and calyxes glandless, Styles 5

7073 Lvs. fascicled obl. cuneat. 3-cleft lobed and cuneat. smth. shining, Corymbs many-fld. Cal. smth. Segms. ovate ent. Fruit 5-celled

7078 Lvs. pubes. trifid, Lobes blunt and with few large teeth, Branchlets corymbs and calyxes pubes. Sep. obtuse, [Styles 1-3  
17389 Lvs. 3-lobed and pinnatif. glabr. glandless, Stip. cut rather palmately, Pedunc. long, Corymbs termin. Sepals obtuse, Styles 2  
17390 Branchlets pubes. Lvs. pubes. on under surf. Lobes obtuse entire each ending in 3 obtuse mucron. teeth, Fruit [yellow

7080 Branches toment. Lvs. 3-lobed downy ben. 2 side lbs. ovate with tooth-lk. incisions at tip middle 1-3-fid, Stip.  $\beta$  Fruit of a very dark purplish red or port wine colour [broad and cut

7079 Lvs. pinnatifidly cut hairy, Lbs. obl. acute having few teeth, Sepals acutish reflexed hairy, Styles 5, Fruit globose yellowish green

17391 Lvs. lanceol.-cuneat. toothed at apex 3-cleft, Segms. serrate, Cal. tube fusiform, Cymes many-flwd. Style 1, Stips. large and pinnatifid

7075 Lvs. obov.-cuneate almost ent. or 3-fid or cut glabr. rather glossy, Corymbs of several flws. Sepals glandless acute, Styles 1-3

16†*rdsea* Hort., A. b. f. 612

17 *punica* Bot. cab. 1363; syn. *C. O. rdsea* *supérba* Hort.

18 *punica* fl. pl. Hort.

19 fól. *aureis* Lod.

20 fólis *argenteis* Hort.

21 *stricta* Lod., A. b. pl. 152; syn. *C. O. rígida* *Ronaldi*

22 *Celsiana* Hort.

23 *péndula* Lod.

24 *regina* Hort. (Queen *Mary's* Thorn) A. b. p. 153

25†*præ'cox* Hort. (*Glastonbury* Thorn)

26 *monógyna* A. B.; syn. No. 7077. in p. 424

27 *apétala* Lod.

28 *lúcida* A. B.

29 *capitata* Sm. of *Ayr*

30 *flexúsa* Sm. of *Ayr*

7069 Lvs. oval-lanceol. incisely serrat. pubes. Flws. mostly solit. Branlts. and cal. vill. Stip. urstle-lk. Sep. serrat. Fruit alm. top-sh., Nuts 5

$\beta$  Has the leaves and fruit somewhat smaller and rounder than those of the species

$\gamma$  Has the leaves lobed, and somewhat like those of the gooseberry

17392 Lvs. obov. cuneat. glabr. shining notched not lobed small, Fruit round rather larger than a common haw dark green

17393 Lvs. oval-lanceol. notched and serrat. acumin. somewhat ciliated at base, Petiol. short channeled, Margin winged, Stams. 10-15, Styles 2 rarely 4

7072 Lobes of cal. obtuse, Styles 5, Fruit globose

17394 Lvs. lanceol. coriac. serrat. pointed at base midrib and nrvs. on under side and young twigs hairy Corymbs somew. woolly, Pedic. 3-4 times as long as bud



†7080. *Crataegus orientalis*  $\beta$  *sanguinea* has large fruit of a port wine colour, and is one of the handsomest species of the genus. *C. Oxyacantha eriocarpa* forms a handsome tree of the middle size.

|                   |  |                        |   |  |   |
|-------------------|--|------------------------|---|--|---|
| 1133. PYRUS.      |  |                        |   | Sp. 32—47.   |   |
| 7086              | communis   |                        |   |  |   |
|                   | <i>α</i> <i>A</i> chras <i>Wallr.</i> ( <i>entire leaved</i> )   |                        |   | <i>γ</i> foliis variegatis   |   |
|                   | <i>β</i> <i>Pyraster Wallr.</i> ( <i>serrated-leaved</i> )   |                        |   | <i>δ</i> fructu variegato (fruit variegated with yellow and white) |   |
| 17395             | 7087 <i>a</i> crenata <i>D. Don</i>  | crenated               | ♀ | or 15 my.jn W  | Nepal 1820. G co Bot. reg. 1655           |
| 17396             | 7087 <i>b</i> variolosa <i>Wall.</i>   | variable- <i>lvd</i>   | ♀ | or ... ap.my Pksh. Nepal   | 1825. G co A. b. pl. 170                  |
|                   | <i>P. Pashia</i> Ham. mss.   |                        |   |  |   |
| 7096              | <i>A</i> 'ria  |                        |   |  |   |
|                   | <i>α</i> obtusifolia <i>Dec.</i>   | blunt- <i>lvd</i>      | ♀ | tm 40 my.jn W  | Europe ... G co Fl. dan. 302              |
|                   | <i>β</i> acutifolia <i>Dec.</i>  | sharp- <i>lvd</i>      | ♀ | tm 40 my.jn W  | Europe ... G co Duh. no. 34               |
|                   | <i>γ</i> undulata <i>Lindl.</i>  | winkled- <i>lvd</i>    | ♀ | tm 30 my.jn W  | S. Europe ... G co A. b. pl. 139 <i>a</i> |
|                   | <i>δ</i> angustifolia <i>Lindl.</i>  | narrow-leaved          | ♀ | tm 30 my.jn W  | S. Europe ... G co                        |
|                   | <i>ε</i> rugosa <i>Lindl.</i>  | wrinkled               | ♀ | tm 30 my.jn W  | S. Europe ... G co                        |
|                   | <i>ζ</i> cretica <i>Lindl.</i>   | Cretan                 | ♀ | tm 30 my.jn W  | Crete? ... G co                           |
|                   | <i>η</i> bullata <i>Lindl.</i>   | blistered              | ♀ | tm 30 my.jn W  | S. Europe ... G co                        |
| 17397             | 7097 <i>a</i> vestita <i>Wall.</i>   | clothed                | ♀ | or 30 my.jn W  | Nepal 1820. G co A. b. pl. 391            |
|                   | 7101 aucuparia   |                        |   |  |   |
|                   | <i>β</i> fructu luteo  |                        |   | <i>γ</i> foliis variegatis   | <i>δ</i> fastigiata                       |
| 17398             | 7000 <i>a</i> lanuginosa <i>Dec.</i>   | woolly-leaved          | ♀ | or 25 my.jn W  | Hungary ... S co A. b. pl. 146            |
| 17399             | 7085 <i>a</i> floribunda <i>Lindl.</i>   | bundle-flwd            | ♀ | or 4 my.jn W   | China 1818. G co Bot. reg. 1006           |
| 17400             | 7085 <i>b</i> depressa <i>Lindl.</i>   | depressed              | ♀ | or 14 my.jn W  | N. Amer. ... L co                         |
| 17401             | 7085 <i>c</i> pubens <i>Lindl.</i>   | downy-bran.            | ♀ | or 5 my.jn W   | N. Amer. 1810. B co                       |
| 17402             | 7085 <i>b</i> grandifolia <i>Lindl.</i>  | great-leaved           | ♀ | or 5 my.jn W   | N. Amer. 1810. B co Bot. reg. 1154        |
| 2634.             | *1137 <i>a</i> . KAGENE/CKLA R. & P. ( <i>M. De Kageneck</i> , a German statesman.)  |                        |   |  | <i>Rosdoce</i> & <i>Quillajæ.</i>         |
| 17403             | - - <i>cratægifolia Lindl.</i>   | Hawthorn- <i>lvd</i>   | ♂ | or 10 jn W   | Chile 1830. L l Bot. reg. 1836            |
|                   | <i>cratægoides D. Don.</i>   |                        |   |  |   |
| 1138 AMELANCHIER. |  |                        |   | Sp. 5—6.   |   |
| 17404             | 7120 <i>a</i> sanguinea <i>Dec.</i>  | bloody                 | ♂ | or 4 ap.my W   | N. Amer. 1824. L co Bot. reg. 1171        |
|                   | <i>Pyrus sanguinea Ph.</i> , <i>Arónia sanguinea Nutt.</i> , <i>Méspilus canadensis</i> <i>γ</i> rotundifolia <i>Mx.</i>                                       |                        |   |  |   |
| 17405             | 7121 <i>a</i> albida <i>Lindl.</i>   | flowery                | ♀ | or 12 my.jn W  | N. Amer. 1826. L co Bot. reg. 1589        |
| 1139 COTONEASTER. |  |                        |   | Sp. 10—10.   |   |
| 17406             | 7123 <i>a</i> laxiflora <i>Jac.</i>  | loose-flowered         | ♂ | or ... ap Pk   | ..... 1826. L co Bot. reg. 1305           |
| 17407             | 7123 <i>b</i> frígida <i>Wall.</i>   | frigid                 | ♀ | or 10 ap.my W  | Nepal 1824. G l Bot. reg. 1229            |
| 17408             | 7125 <i>a</i> nummularia <i>Lindl.</i>   | money- <i>lk.-lvd</i>  | ♀ | or 15 ap.my W  | Nepal 1824. G l A. b. pl. 122 <i>b</i>    |
|                   | <i>elliptica Hort.</i> , <i>Eriobótrya elliptica Lindl.</i> , <i>Méspilus Cuite Hort.</i>  |                        |   |  |   |
| 17409             | 7125 <i>b</i> rotundifolia <i>Wall.</i>  | round-leaved           | ♂ | or 3 ap.my W   | Nepal 1825. L co Bot. reg. 1187           |
|                   | <i>microphylla β</i> U'va-úrsi <i>Lindl. Bot. Reg.</i> , <i>U'va-úrsi Hort.</i>  |                        |   |  |   |
| 17410             | 7125 <i>c</i> microphylla <i>Wall.</i>   | small-leaved           | ♂ | or 6 ny.jn W   | Nepal 1824. L co Bot. reg. 1114           |
| 17411             | 7125 <i>d</i> buxifolia <i>Wall.</i>   | Box-leaved             | ♂ | or 6 my.jn W   | Neelgher. 1824. L co                      |
| 1141. SPIRÆA.     |  |                        |   | Sp. 28—46.   |   |
| 17412             | 7127 <i>a</i> arifolia <i>Sm.</i>  | White-Beam- <i>lvd</i> | ♂ | or 5 jn.jl Ysh.W   | N. Am. 1827. C co Bot. reg. 1365          |
|                   | 7128 salicifolia   |                        |   |  |   |
|                   | <i>α</i> cárnea <i>Ait.</i>  | flesh-cld- <i>flwd</i> | ♂ | or 5 jn.au F   | Britain? m. n Sk co Eng. bot. 1408        |
|                   | <i>β</i> alpéstris <i>Pall.</i>  | alpine                 | ♂ | or 2 jn.au W   | Russia 1820. Sk co Pall. ros. 1. 22.      |
|                   | <i>γ</i> paniculata <i>W.</i>  | paniced                | ♂ | or 5 jn.au W   | N. Amer. ... Sk co Mil. ic. 257. 2.       |
|                   | <i>δ</i> latifolia <i>W.</i>   | broad-leaved           | ♂ | or 5 jn.au W   | Europe ... Sk co A. b. f. 441             |
|                   | <i>S. carpinifolia Willd. enum.</i> , No. 7129. in p. 428.; <i>S. obovata Raf.</i> , not of W. & K.  |                        |   |  |   |
|                   | <i>ε</i> grandiflora <i>A. B.</i> large-flowered   |                        | ♂ | or 5 jn.au Pk  | Kamtsch. 1826. Sk co A. b. f. 442.        |
|                   | 7132 hypericifolia   |                        |   |  |   |
|                   | <i>α</i> urálcensis <i>Ser.</i> , syn. No. 7136. p. 428. <i>β</i> Plukenetiana <i>Ser.</i> , syn. No. 7132. p. 428. <i>γ</i> acuta <i>Ser.</i> , A. b. f. 434. |                        |   |  |   |
| 17413             | 7144 <i>a</i> vacciniifolia <i>D. Don</i>  | Strawberry- <i>lvd</i> | ♂ | or 2 jl.au W   | Nepal 1820. C p.l A. b. f. 439            |
| 17414             | 7149 <i>a</i> palmata <i>Thun.</i>   | palmate                | ♂ | or 2 jl.au R   | China 1823. D p.l                         |
| 17415             | 7149 <i>b</i> digitata <i>W.</i>   | digitate               | ♂ | or 2 jl.au R   | Siberia 1823. D p.l Pal. ros. 1. 27.      |

POLYGYNIA.

|              |   |           |   |                |                                  |
|--------------|---|-----------|---|----------------|----------------------------------|
| 1148. RO'SA. |   |           |   | Sp. 77—121.    |                                  |
| 17416        | 7478 <i>a</i> Dicksoni <i>Lindl.</i>  | Dickson's | ♂ | or 5 my.jn D.R | Ireland ... L co Eng. bot. 2707. |
| 17417        | 7478 <i>b</i> dahúrica <i>Pall.</i>   | Dahurian  | ♂ | or 6 my.jl Pk  | Siberia 1824. L r.m              |
|              | 7480 alpina   |           |   |                |                                  |
|              | <i>δ</i> pimpinellifolia <i>Lindl.</i> , syn. <i>R. glandulosa Bel.</i> , <i>ε</i> lagenaria <i>Ser.</i> , <i>flask-sh-<i>ld.</i></i> <i>ζ</i> sorbinella <i>Ser.</i> |           |   |                |                                  |
|              | <i>η</i> hispidella <i>Ser.</i> , syn. <i>R. a. coronata Desv.</i> <i>θ</i> lævis <i>Ser.</i> , A. b. f. 483. <i>ι</i> pyriformis (pear-shaped-fruited)               |           |   |                |                                  |
|              | 17395   |           |   | 17396          | 17398                            |



History, Use, Propagation, Culture,

2634. *Kageneckia* 17403 *cratægifolia*. The leaves of this plant are intensely bitter, and they are used by the

- † sanguinolenta (flesh of fruit red or reddish)      † jáspida (bark striped with yellow)  
 ‡ flore pleno      † sativa Dec. [woolly, Sepals ovate subacute]
- 17395 Branls. whitely toment. Lvs. oval acute crenat. glabr. ab. toment. ben. when young, Corymbs simple and  
 17396 Lvs. ovate acumin. crenat. glabr. in adult state when young clthd. with yellowish toment. ben. Umbels termin.  
 Pedic. and cal. woolly
- α Leaves broadly ovate and obtuse  
 β Leaves ovate-oblong acute  
 γ Leaves flat oval-lanceol. broad undulat. unequally and deeply serrated, acumin. and cobwebbed above  
 δ Leaves oval obtuse concave somewhat simply serrated woolly above  
 ε Leaves large ovate-elliptic doubly serrated shining above and wrinkled, white beneath [webbed  
 ζ Lvs. flat orbicularly ellipt. crenately serrat. retuse cuneated at base, smooth ab. hoary ben. Bran. cob.  
 η Lvs. concave elliptic acumin. blistered; closely serrated at apex, but entire at base
- 17397 Lvs. cymes, and young bran. clthd. with white toment. Lvs. ellipt. or obov.-ellipt. acumin. serrat. towards apex,  
 Corymbs branched and termin.
- 17398 Buds woolly, Lifts. serrat. woolly ben. Petiole woolly, Pome globose [flwd. and long th. leaves  
 17399 Bran. cinereous, Lvs. obl.-lanceol. acute on long pets. toment. ben. as well as cal. Fruit spheric. Corymbs many-  
 17400 Stem humble reclin. Lvs. obl. obt. toment. ben. as well as cal. Fruit pear-sh. Corymbs length of leaves  
 17401 Erect, Bran. pubes. Lvs. obl. or obov. abruptly acumin. smth. Fruit spherical as well as cal. quite glabr.  
 Corymbs lax many-flwd. [with vill. dist.]  
 17402 Lvs. obl. or obov. acute glabr. Fruit spherical and as well as cal. glabr. Corymbs few-flwd. coarctate, Fruit
- 17403 Lvs. oval-lanceol. smooth glaucous, Male and female flowers produced separately on the same plant
- 17404 Lvs. oval obt. at both ends mucronate finely serrat. sub-cord. at base, Rac. few-flwd. Cal. glabr. Fruit eatable
- 17405 Lvs. obl. obt. at both ends coarsely serrate in terminal portion glabr. Bract. and stipules feathery at tip soon  
 falling off, Rac. upright many-flwd.
- 17406 Lvs. obl. obt. at both ends smooth ab. woolly ben. Cymes panicled pilose, Cal. quite smooth  
 17407 Branls. hairy, Lvs. ellipt. mucron. coriac. crenulat. glabr. woolly ben. when young, Corymbs panicul.  
 termin. white and woolly
- 17408 Lvs. orbicul. or ellipt. ending in mucro sometimes emargin. Stips. lin.-lanceol. membran. soon falling off,  
 Cymes axill. few-flwd.
- 17409 Lvs. roundish pilose ben. evergreen, Peduncles 1-flowered
- 17410 Lvs. oblong obtuse pubescent beneath evergreen, Peduncles usually 1-flowered  
 17411 Lvs. ovate woolly beneath evergreen, Peduncles 2-3-flowered woolly
- 17412 Lvs. elliptical oblong more or less lobed toothed pale villose beneath, Panicle villose, Flws. very numerous
- α Lvs. lanceol. Panicles consisting of racemes more or less spicated, Bark of branches yellowish  
 β Leaves shorter than those of var. α, Branches very short  
 γ Leaves ovate-oblong, Petals white, Bark of branches red  
 δ Leaves ovate-oblong, Petals white, Bark of branches reddish
- † Flowers nearly twice as large as those of the species
- 7132 † crenata Ser. syn. S. obovata W & K. † savránica Ser. A. b. f. 436 † Besseriána Ser. syn. S. crenata Bess.  
 17413 Branls. hairy, Lvs. ellipt. acute serrated at tip glabr. glauc. ben. Cymes termin. tomentose few-flowered  
 17414 Lvs. 5-7 lobed, Lobes oblong acumin. acutely & doubly serrated, Panic. cymose decomposed  
 17415 Lvs. pinnate toment. ben. Termin. lift. largest 7-lobed lateral ones 5-lbd. Corym. bran. contract. Carpels  
 parallel villos

POLYGYNIA.

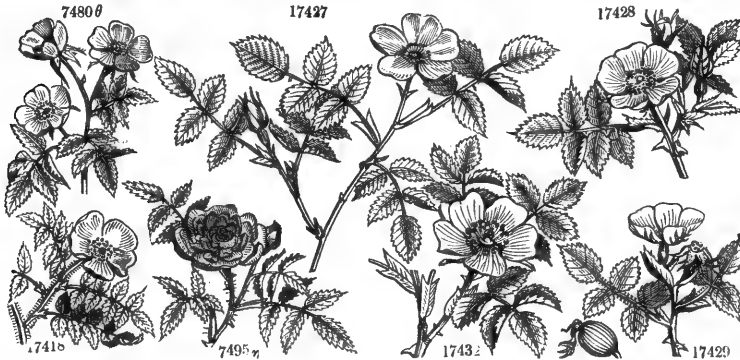
- 17416 Bran. flexuous setiger. Prickles few slender scattered, Lifts. folded together, uneq. with coarse dbl. serrat. Stips.  
 pets. and sepals compound [ben. dply. serrat. Fruit ovate red]
- 17417 Bran. slender coloured, Prickles stipular spreading little recurved, Stips. linear, Lifts. obl. wrinkled toment.
- α setosa Ser. (bristly-calysed) λ globosa Desv. (globular-fruited) μ hellebórina Ser. ν pilósula Ser. (pilose-  
 nuduncled) ξ turbináta Desv. (top-sh.-fld), syn. R. inérnis Del. ε speciosa Hort. (Drummond's thornless)



and Miscellaneous Particulars.

inhabitants of Chile to cure intermittent fevers. It strikes readily by cuttings, and may probably be grafted on the  
 common hawthorn. The plant thrives in loam, peat, and sand.

|                  |              |   |                       |   |                               |       |       |           |                    |       |                              |                     |
|------------------|--------------|---|-----------------------|---|-------------------------------|-------|-------|-----------|--------------------|-------|------------------------------|---------------------|
| 17415            | 7480a        | suavis W.   | sweet                 | ♂ | or 4                          | jn.jl | Pk    | .....     | 1818               | L r m | A. b. f. 484                 |                     |
| 17419            | 7492a        | Wilsoni Bor.  | Wilson's              | ♂ | or 3                          | jn.jl | D.Pk  | Britain   | ...                | L co  | Eng. bot. 2723               |                     |
|                  | 7495         | gállica   |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | γ arvlina Lindl., syn. R. arvlina Kr. sil.                    |                       | ♂ | inapérta Ser. (Vilmorin Rose) |       |       |           |                    |       | A'gatha Red (Agatha Rose)    |                     |
| 17420            | 7495a        | pulchélla Spr.  | neat                  | ♂ | or 2                          | jn.jl | R     | France    | 1824.              | L r m |                              |                     |
| 17421            | 7494a        | grácilis Woods  | slender               | ♂ | or 8                          | jn.jl | R     | Britain   | Highl.v.           | L r m | Eng. bot. 583                |                     |
| 17422            | 7499a        | Sherárdi Dav.   | Sherard's             | ♂ | or 6                          | jn.jl | Pk    | Britain   | hed.               | L co  |                              |                     |
| 17423            | 7499b        | sylvéstris Lindl.   | wood                  | ♂ | or 7                          | jn.jl | ..... | Britain   | hed.               | L co  |                              |                     |
|                  | 7503         | rubiginósa  |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | β Vaillantiana Red.   |                       | ♂ | aculeatissima Dup.            |       |       |           |                    |       | ζ γ umbellata Lindl. ros. 87 |                     |
|                  |              | γ rotundifolia Lindl. ros. 88                                 |                       | ♂ | memorális Red.                |       |       |           |                    |       | γ púbera Ser.                |                     |
| 17424            | 7503a        | suavdolens Raf.   | sweet-smelling        | ♂ | or 6                          | my.jl | Pk    | N. Amer.  | 1800.              | L r m |                              |                     |
| 17425            | 7503b        | Ibérica Stev.   | Iberian               | ♂ | or 6                          | my.jl | Pk    | Iberia    | 1820.              | L r m |                              |                     |
| 17426            | 7505a        | Klúkti Bes.   | Kluk's                | ♂ | or 6                          | my.jl | W     | Tauria    | 1819.              | L r m |                              |                     |
|                  |              | rubiginósa Bieb., floribúnda Stev., balsámea Bes.             |                       |   |                               |       |       |           |                    |       |                              |                     |
| 17427            | 7505b        | Montezumæ H. & B. Montezuma's                                 |                       | ♂ | or 3                          | jn.jl | Pk    | Mexico    | 1825.              | C r m | Red. ros. 1. 16              |                     |
|                  | 7507         | canina  |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | β surculósa Woods   |                       |   |                               |       |       |           |                    |       | ε ægyptiaca Lindl.           |                     |
|                  |              | γ núda Woods  |                       |   |                               |       |       |           |                    |       | ζ burboniána Desv.           |                     |
|                  |              | δ aciphýlla Lin., A. b. f. 501, 502                           |                       |   |                               |       |       |           |                    |       | η ntens Desv.                |                     |
| 17428            | 7507a        | Fórsteri Sm.  | Forster's             | ♂ | or 6                          | jn.jl | Pk    | Britain   | hed.               | L co  | Eng. bot. 2611               |                     |
| 17429            | 7507b        | dumefórum Thuil.  | thicket               | ♂ | or 6                          | jn.jl | Pk    | Britain   | hed.               | L co  | Eng. bot. 2610               |                     |
| 17430            | 7507c        | bractescens Woods   | bractescent           | ♂ | or 6                          | jn.jl | Pk    | Britain   | hed.               | L co  | Eng. bot. 2610               |                     |
| 17431            | 7507d        | bracténtacea Suz.   | twiggy                | ♂ | or 8                          | jn.jl | Pk.w  | Britain   | hed.               | L co  | Cur. lon. 5. 34              |                     |
| 17432            | 7507e        | cañla Sm.   | grey                  | ♂ | or 8                          | jn.jl | Pk.w  | Scotland  | hed.               | L co  | Eng. bot. 2367               |                     |
| 17433            | 7507f        | Bórreri Woods   | Borrer's              | ♂ | or 6                          | mr.jl | Pk    | Britain   | hed.               | L co  | Eng. bot. 2579               |                     |
|                  | 7509         | indica  |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | ζ Noissetána  | Noisette's            | ♂ | or 10                         | mys.  | W     | hybrid    | ...                | C p l | A. b. f. 505                 |                     |
|                  |              | η caryophýllea Red.   | clove-scented         | ♂ | or ...                        | ...   | ...   | ...       | ...                | C p l |                              |                     |
|                  |              | θ pannósa Red.  | pannose               | ♂ | or ...                        | ...   | P.Bo  | .....     | ...                | C p l |                              |                     |
|                  |              | ι cruénta Red.  | bloody                | ♂ | or ...                        | ...   | ...   | .....     | ...                | C p l |                              |                     |
|                  |              | κ Fraseriána H. B.  | Fraser's              | ♂ | or 4                          | mys.  | P     | .....     | ...                | C p l |                              |                     |
|                  |              | λ rúga  | wrinkled              | ♂ | or 19                         | ...   | Bh.w  | Italy     | hyb.               | C p l | Bot. reg. 1389               |                     |
|                  |              | μ ochroleúca  | yellowish-white       | ♂ | or 2                          | mys.  | Crea  | China     | 1824.              | C p l |                              |                     |
|                  |              | ν Bláiri D. Don   | Blair's               | ♂ | or 5                          | jn.   | R     | hybrid    | 1830.              | C p l | Sw. fl. gar. 406             |                     |
|                  |              | ξ Smithi Swt.   | Smith's yel.-N.       | ♂ | or 5                          | sp.su | Y     | Eng.hyb.  | 1829.              | C r l | Sw. fl. gar. 2.s.159         |                     |
|                  |              | ζ nívea D. Don  | snowy-abl.-fd         | ♂ | or 3                          | jl.   | W.R   | gardens   | 1831.              | C l   | Sw. fl. gar. 2.s.229         |                     |
| 7515             | sempervirens |   |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | β Russelliana A. B. Russell's                                 |                       | ♂ | or 20                         | jn.jl | Bh    | Eng. hyb. | ...                | L p l |                              |                     |
|                  |              | γ Clárei Lindl. Rose Clare                                    |                       | ♂ | or ...                        | jn.jl | Dp.R  | Eng. hyb. | ...                | L p l | Bot. reg. 1438               |                     |
|                  |              | δ Leschenaultiana Red. Lesch.'s                               |                       | ♂ | or 2.                         | or 60 | jn.jl | V         | Neelgher.          | ...   | L p l                        |                     |
| 7516             | multiflora   |   |                       |   |                               |       |       |           |                    |       |                              |                     |
|                  |              | β Grevillei Hort. Grev. 7-Sisters                             |                       | ♂ | or 20                         | ap.jl | Psh   | China     | ...                | C p l | A. b. f. 513                 |                     |
|                  |              | γ R. Grevillei Hort., R. Roxbúrght Hort., R. platyphýlla Red. |                       | ♂ | or ...                        | ...   | ...   | ...       | ...                | C p l |                              |                     |
|                  |              | δ Boursálti G. Don Boursalt's                                 |                       | ♂ | or 13                         | mys   | Pk    | hybrid    | 1821.              | C p l |                              |                     |
|                  |              | R. Boursólti Hort.  |                       |   |                               |       |       |           |                    |       |                              |                     |
| 1153 POTENTVLLA. |              |   |                       |   |                               |       |       |           |                    |       |                              |                     |
| 17434            | 7580a        | atrosanguinea-pedata Maund (hyb.)                             |                       | ♂ | Δ or                          | 1     | jn.s  | Dp.O      | Eng. hyb           | 1831. | D co                         | Bot. gard. 385      |
| 17435            | 7580b        | ferruginea Paxi.  | rusty-ald             | ♂ | Δ or                          | 1     | jl.au | O.s       | hybrid             | 1835. | D co                         | Pax. mag. 5.223     |
| 17436            | 7581a        | memoráli-formósa (hybrid)                                     |                       | ♂ | Δ or                          | 1     | my.n  | O.s       | Irish hyb.         | 1829. | D r                          |                     |
| 17437            | 7581b        | Mackayana Swt.  | Mackay's              | ♂ | Δ or 1½                       | su.au | Y.pk  | Eng. hyb. | ...                | D l   | Sw. fl. gar. 2.s.43          |                     |
| 17438            | 7581c        | Russelliana Swt.  | Russell's             | ♂ | Δ spl                         | 1½    | jn.au | S         | hybrid             | ...   | D co                         | Sw. fl. gar. 279    |
| 17439            | 7581d        | Hopwoodiana Swt.  | Hopwood's             | ♂ | Δ or                          | 1½    | jn.jl | B.no      | Eng. hyb.          | 1829. | D co                         | Sw. fl. gar. 2.s.61 |
| 17440            | 7584a        | glandulósa Lindl.   | glandulose            | ♂ | Δ cu                          | 1     | au    | Y         | Californ.          | 1830. | D co                         | Bot. reg. 1583      |
|                  |              | β inclsa Lindl.   | cut-leaved            | ♂ | Δ cu                          | 1     | jn    | Y         | Californ.          | 1835. | D co                         | Bot. reg. 1973      |
|                  | 7609         | réptans   |                       |   |                               |       |       |           |                    |       |                              |                     |
| 17441            | -            | grácilis Don  | β flore pléno slender | ♂ | Δ or                          | 1     | jn.au | Y         | variegata N. Amer. | 1827. | S co                         | Bot. mag. 2984      |
| †1156.           | KE'RRIA      | Dec. KERRIA. (W. Ker, a collector of plants for Kew Gardens.) |                       |   |                               |       |       |           |                    |       | Sp. 1-1.                     |                     |
| †7629            | japónica     | Dec. Japan  |                       | ♂ | or 6                          | year  | Y     | Japan     | ?1834.             | L co  | A. b. f. 2446                |                     |
|                  |              | β flore pléno   | double-flowered       | ♂ | or 6                          | year  | Y     | Japan     | 1700.              | L co  | Bot. mag. 1296               |                     |
|                  |              | Córchorus japónicus L., No. 7629. in p. 454.                  |                       |   |                               |       |       |           |                    |       |                              |                     |



- 17418 Stem hispíd. Lvs. glabr. glaucescent ben. Pedunc. and petioles clothed with glandular bristles. Petals dply 2-lobed. Fruit obl. glabr. [Fruit ovato-urceol.
- 17419 Prickles crowde duneq. straight intermixed with setæ, Lfts. simply serrat. hairy, Disk eglandulose, Cal. simple,
- ζ inermis Ser.                      η parvifolia Ser. (small-lyd *Burgundy*) ; syn. *R. parvifolia Ehrh.*, Bot. reg. 452
- 17420 Ovaries roundish-obov. Pedunc. & cal. beset with glandul. bristles, Petioles clothed with glandul. pubes. un-armed. Caul. prickles scattered [Lfts. dbly. serrat. hairy, Fruit globular
- 17421 Pedunc. usually in pairs bristly often bracteate, Bran. fruit, & cal. bristly. Larger prickles curved usually twin, [Lfts. dbly. serrat. hairy, Fruit globular
- 17422 Prickles conic. hooked compressed, Lfts. ellipt. acute downy both surfs. Sepals pinnate, Fruit globul. abrupt rather bristly [ellipt. bristly
- 17423 Prickles hooked, Lfts. oblong acute hoary both surfs. Sepals diverging deciduous before fruit is ripe, Fruit
- ♂ grandiflora Lindl.                      x spinulifolia Ser.                      μ parvifolia Lindl. ros. 145
- ι majoser.                                  λ flexuosa Lindl.                      ν Lyónii.
- 17424 Prickles scattered straight, Pets. beset with glandul. bristles, Lfts. ovate serrat. sparingly glandul. ben. Flws. usually solit. Fruit ovate [glandul. on both surfs.
- 17425 Cauline prickles scat. hooked dilat. at base, Pets. glandul. and prickly, Lfts. broad ovate glandularly serrat.
- 17426 Caul. prickles strong compressed dilat. at base recurved, Pets. vill. & prickly, Lfts. small ellipt. acute biserr. vill. ab. rusty & glandul. ben. [Cal. tube ellipt. glabr.
- 17427 Pets armed with little hooked prickles, Bran. unarmed, Lfts. ovate sharply serrat. glabr. Flws. solit. termin.
- λ pilosiflora Desv.                      ξ microcarpa Desv.                      ρ squarrosa Rau.
- μ fastigiata Desv.                      ο Meratiána Ser.                      σ rubiflora Ser.
- η hispidá Desv.                      ζ ambigua Desv.
- 17428 Prickles scatter. conic. hooked, Lfts. simply serrat. smth. ab. hairy on ribs ben. Sepals dbly. pinnate, Fruit elliptic smooth as are flour. stalks [slightly hairy, Fruit ellipt. smth.
- 17429 Prickles numer. scat. hooked, Lfts. simply serrat. hairy on both surfs. Sepals pinnate decid. Pedun. aggreg.
- 17430 Calyx tube globose, Prickles hooked, Lfts. simply serrat. downy beneath, Bractæas overlapping the fruit
- 17431 Prickles hooked, Lfts. ovate dbly. serrat. smooth glandul. Pedun. aggreg. smth. or minutely bristly, Sepals pinnate decid. Fruit broad-ellipt. [nate decid. Fruit ellipt.
- 17432 Prickles hooked uniform, Lfts. ellipt. somewh. dbly. serrat. glauc. hairy ben. glandless, Sepals distantly pin-
- 17433 Prickles hooked, Lfts. ovate dbly. serrat. hairy glandless, Sepals pinnate often dbly. pinnate decid. Flw. stalks aggregate hairy
- ♂ Stem firm as well as bran. prickly, Stips. nrly. ent. Flws. paniced very numer. semidouble, Styles exerted
- ζ Has the flowers in a kind of panicle, and the leaflets large and thin [ther drooping
- η Stem & bran. prickly, Lfts. ovate red ben. Stips so finely denticul. as to appear fringed or panose, Flws. ra-
- ♂ Differs from var. η principally in having the stems & branches almost unarmed & the stipules almost entire
- ι Has double pink flowers
- x Has double bluish, changing to white, sweet-scented flowers, and is of rapid growth
- λ Has large cream-coloured flowers, deepening almost into yellow in the centre
- μ Has fine double crimson flowers with a yellowish tinge
- ν Has very double pale yellow flowers
- ξ Very beautiful white-flowered variety
- 7515
- β Is a very strong-growing variety, quite deciduous, with blush flowers
- γ Is an elegant variety with deep red flowers
- δ Germens ovate, Pedunc. hispíd with glanded hairs, Stems & pet. prickly violaceous, Lfts. ovate-lanceol.
- 7516
- β Is a beautiful variety, with much larger & more double flowers than those of the species, Stipules fringed
- γ A vigorous-growing climber
- δ A remarkable variety from its petals having a reticulated appearance
- 17434 Decumb. clthd. with silky villi, Lvs. tern. petiol. Lfts. obov. dply. serrated toment. ben. Stip. ov. lanceol, [ent. or bifid
- 17435 Hybrid between *P. pedata* and *P. atrosanguinea*
- 17436 Hybrid between *P. nemoralis* and *P. formosa*
- 17437 Villous, Stems ascend. bran. Lvs. flaccid radic. ones quinate, Lfts. obl.-cuneat. coarsely and bluntly toothed, Stem lvs. ternate few-toothed [rather silky ben., Stip. adnate ov. lanceol. acumin.
- 17438 Villous, Stems bran. diffuse, Radic. lvs. petiol. 3-4-5-nate, Lfts. ov. or obov. obt. dply. serrat. feather-nrvd.
- 17439 Villous, Stems ascend. Lower lvs. 5-6 lfts. upper ones ternate, Lfts. obl.-cuneif. coarsely thd. hairy on both surfs. Cal. segms. ov.-acumin. [Panicles dichotomous few flow.
- 17440 Stems erect covered with glandular hairs, Radic. lvs. pinnate upper ones sessile ternate, Stp. round membran.

17441 Stem erect hairy corymbosely panic. at apex, Lvs quinate lower ones petiolate upper alm. sess. Lfts. lanceol, [dply. serrat. toment. ben

7629 The only species  
β The only form known in British gardens previously to about 1834.



Page 456. CLASS XIII. -- POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

Order 1. MONOGYNIA. Stamens many, hypogynous. Style 1.

- 2635. *Ryðnea*. Flowers hermaphrodite, apetalous, with petaloid urceolus between the stamens and pistil. Fruit baccate, indehiscent.
- 2636. *Achlys*. Sepals 0. Petals 0. Flowers naked, disposed in a dense spike. Stamens numerous. Stigma dilated, hence concave. Ovary ovate, smooth, 1-celled, 1 ovule fixed to bottom of cell.
- 2637. *Hunnemània*. Petals 4. Stamens indefinite. Stigma peltate, 4-furrowed, slightly 4-lobed. Capsule siliquiformed, rather compressed, 10-ribbed, 1-celled, 2-valved.
- 2638. *Ludia*. Calyx permanent, 5-7-parted; lobes oval. Petals 0. Stamens numerous, inserted in the disk. Anthers roundish. Ovary 1, ovate. Style filiform. Stigma 3-fid, rarely 4-fid. Berry dry, globose, pointed by the style, 6-8-seeded.
- 2639. *Azara*. Calyx 4-5-parted. Petals 0. Style awl-shaped. Stigma obtuse. Berry many-seeded.
- 2640. *Lætia*. Calyx 5-parted, marcescent. Petals 5, or wanting. Stamens indefinite, hypogynous. Anthers roundish. Capsule fleshy, 3-5-valved, small, globose, acuminate with the style.
- 2641. *Godofya*. Calyx of many deciduous sepals. Petals 5. Stamens numerous, disposed in many rows, or collected into five bundles. Anthers long, biparose. Style simple. Capsule 3-5-valved, 3-5-celled, with the edges of the valves bent inwards, forming the dissepiments, many-seeded. Seeds winged.
- 2642. *Dendromècon*. Sepals 2, caducous. Petals 4. Stamens numerous, filif. Anthers linear. Stigmas 2, sessile, short. Capsule siliquiformed, 1-celled, 2-valved. Placentæ marginal, filif. Seeds many, pear-shaped, smooth.

MONOGYNIA.

- 2635. \*1162a RYA'NEA Vahl. (*John Ryan, M.D., F.R.S., a corresp. of Vahl's.*) *Flacourtiaceæ*. Sp. 1—1.
- 17442 - - *speciosa Vahl* showy  $\blacksquare$   $\square$  or 10 ... W Trinidad 1823. C s.l Vahl ec. 1. 9
- Patrinia pyriferica Rich.*
- 2636. \*1166a. ACHLYS Dec. (*Achlys, the goddess of obscurity; genus obscure.*) *Podophyllaceæ*. Sp. 1—1.
- 17443 - - *triphylia Dec.* three-leaved  $\blacktriangle$   $\triangle$  or 2½. ap.jn W N. Amer. 1827. D s.l.p Hook. am. 12
- 1170 PAPA'VER. Sp. 16—24.
- 17444 7659a persicum *Lindl.* Persian  $\circ$  or 1½ ju.jl Bri Persia 1830? S co Bot. reg. 1570
- 17445 7662a rubro-aurantiacum *Fis.* red-orange  $\blacktriangle$   $\triangle$  or ¾ jl.au R.o Dahuria 1822. S s.l Bot. mag. 2344
- 17446 7667a horridum *Dec.* horrid  $\circ$  or 2 jl.au R N. Holl. 1826. S co Sw. fl. gar. 173
- 17447 7667b setigerum *Dec.* bristle-bearing  $\circ$  or 2 jl.au W S. Europe 1825. S co Sw. fl. gar. 172
- 17448 - - *gariepinum Burch.* South African pr 4 jn R S. Africa 1835. S co Bot. mag. 3628
- 1172. ARGEMONE. Sp. 3—5.
- 17449 7672a ochroleuca *Swt.* yellowish white  $\circ$  or 2 jl.au S.w Mexico 1827. S co Sw. fl. gar. 242
- 17450 7672b grandiflora *Swt.* great-flowered  $\blacktriangle$   $\triangle$  or 3 jl.au W Mexico 1827. S co Sw. fl. gar. 226
- 1175. LIMNOCHARIS. Sp. 2—2.
- 17451 7687a Humboldtii *Rich.* Humboldt's  $\cong$   $\triangle$  or 1½ ap Pa.Y B. Ayres 1831. D m.s Bot. mag. 3248
- 2637. \*1176a. HUNNEMANIA *Swt.* (*John Hunneman, a zealous botanist.*) *Papaveraceæ*. Sp. 1—1.
- 17452 - - *fumarifolia Swt.* Fumaria-lvd  $\blacktriangle$   $\triangle$  or 2 ... Y Mexico 1827. S r.m Sw. fl. gar. 276
- 2638. \*1179a. LUDIA *Lam.* (*Ludo, to sport; in shape of lvs. in young and old plant.*) *Biraceæ*. Sp. 1—2.
- 17453 - - *heterophylla Lam.* various-lvd  $\blacksquare$   $\square$  or 4 jl.au Y Mauritius 1823. C s.l.p Lam. II. 466. 1, 2
- 2639. \*1179b. AZARA R. & P. (*Jos. Nich. Azara, a Spanish promoter of science.*) *Hamatinaceæ*. Sp. 2—2.
- 17454 - - *dentata R. & P.* toothed-leaved  $\blacksquare$  fra 10 ... Y Valpar. 1830. L.C.s.p. Bot. reg. 1788
- 17455 - - *integrifolia R. & P.* entire-leaved  $\blacksquare$  fra 18 ... ... Conception 1832. C l.p Fl. per. 5. 466
- 2640. \*1179c. LÆTIA L. (*J. de Laet, of Antwerp, author of a history of America.*) *Biraceæ*. Sp. 1—1.
- 17456 - - *Thamnia Swz.* Thamnia  $\blacksquare$   $\square$  or 4 ju.au W W. Indies 1824. C s.l.p Br. jam. 25. 2



History, Use, Propagation, Culture,

2635. *Ryðnea* 17442 *speciosa* is a beautiful and singular plant, deserving a place in every stove. Ripened cuttings root freely in sand, under a bell-glass, in heat. The plant thrives in vegetable mould with a little sand.  
 2636. *Achlys* 17443 *triphylia*. This plant succeeds well in common garden soil, and is increased by division of the root.  
 2637. *Hunnemania*. For culture, &c., see *Fachschtöltzia*, p. 1218.

2643. *Platystemon*. Sepals 3, caducous. Petals 6. Stamens numerous. Filaments dilat. Membrane cordate. Anthers linear. Ovaria numerous, linear, each terminated by a linear sessile stigma. Capsules distinct, torulose, articulated, indehiscent, transversely many-celled, hispid. Seeds pendulous, solitary in the cells.

2644. *Platystigma*. Sepals 3, ovate, deciduous, hairy. Petals 4-5. Stamens numerous. Filaments thread-like. Anthers linear, 2-celled, opening sideways. Stig. 3, ovate, acute, erect, divergent. Caps. oblong, attenuated at base, 1-celled. 3-furrowed, 3-valved, opening from top to base. Seeds numerous, minute, egg-shaped, black, smooth, shining.

2645. *Cálythris*. Calyx drawn out into a cylindrical tube; lobes ending in a long bristle each. Stamens 10-30, free. Fruit dry, indehiscent, 1-celled.

Order 2. DI-TRIGYNIA. Stamens many, hypogynous. Styles 2-3.

2646. *Pleurán dra*. Stamens 5-20, all leaning to one side, and fertile. Ovaries 2. Styles filiform. Sepals and petals 5.

Order 3. TETRAGYNIA. Stamens many, hypogynous. Styles four.

2647. *Eschschóltzia*. Stamens indefinite. Stigmas 4, 2 short and 2 long. Caps. elongated, silique-formed, 2-valved, 1-celled. Cal. calyprate. Recept. expanded.

Order 5. POLYGYNIA. Stamens many, hypogynous. Styles many.

2648. *Talaúma*. Carpels disposed in spikes, 1-2-seeded, joined together into a strobile-like fruit opening valvately and irregularly on the outside. Calyx of 3 sepals.

MONOGYNIA.

17442 Under surface of the leaves stellately hairy on the ribs, Peduncles 1-fwd.

17443 Lifts. with very unequal sides upper side or front coarsely sinuate-toothed or lobed, Lobes blunt finely rayed with nerves

17444 Caps. hispid oval, Sepals hairy, Lvs. pinnatif. hairy lacinated part often terminating in bristles, Stems bran. and leafy [Lbs. cut, Lobules termin. by a bristle

17445 Caps. hispid obov.-obl. Sepals bristly. Pedun. rad. very long covered with adpressed hairs, Lvs. pinnately lbd. 17446 Caps. smooth ellipt. Sepals hairy, Stem few-fwd. covered with stiff bristles, Lvs. somew. stem-clasp. glauc. sinuately pinnatif. [terminated by a bristle

17447 Caps. smooth obov. Sepals rather setose, Stem smooth few-fwd. Lvs. stem-clasp. glauc. toothed each tooth 17448 Lvs. smooth obov.-obl. Sepals hairy, Stem covered with numer. bristly hairs, Lvs. sess. hispid sinuately pinnatif. Lbs. ov. and distant

17449 Lvs. profoundly sinuat. or pinnatif. glaucescent, Nrvs. with prickly bristles, Flws. solit. Caps. oblong dply. 5-6-furrowed covered with smoothish reflex. prickles

17450 Lvs. sinuated smooth spiny-toothed, Nrvs. unarmed, Flws. panic. polyandr. Caps. bluntly quadrangul. almost unarmed

17451 Lvs. petiol. roundish-ov. obtuse 7-nrvd. central one remarkably swollen below, Petioles terete, Pedunc. elongat. 1-fwd. Petals twice length of cal. Pistils 6

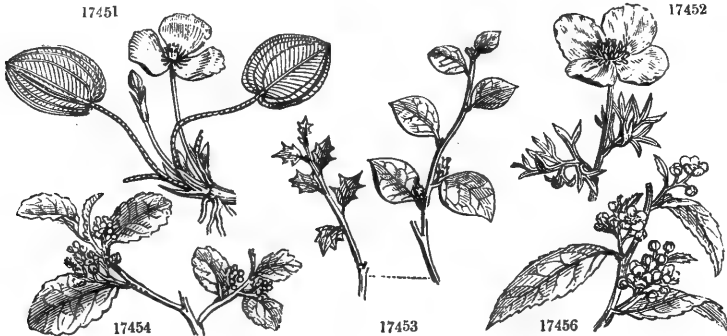
17452 Leaves decomposit triternate glaucous, Lifts. linear bluntisn

17453 Lvs. obov. shining velvny those of the young plants small and spinosely-toothed those of adult ones larger and quite entire

17454 Leaves in pairs toothed larger one elliptical smaller one roundish, Flws. umbellate

17455 Lvs. in pairs quite entire larger one obovate smaller one roundish, Flws. in drooping spikes

17456 Flws. apetalous, Pedun. axill. many-fwd. sub-divided, Lvs. oblong acute somewhat crenated shining



and Miscellaneous Particulars.

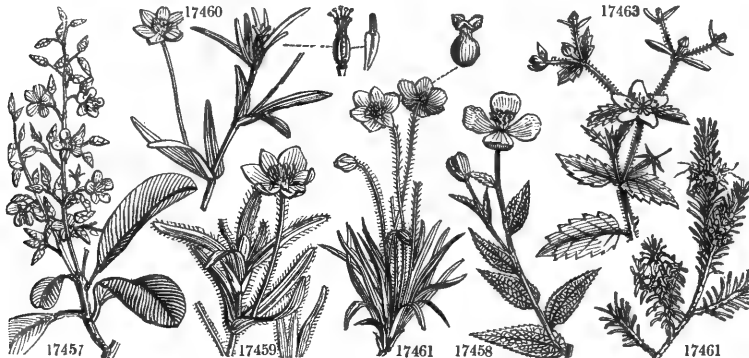
2638. *Lúdia*. Shrubs with lateral, almost sessile, flowers, which thrive in a mixture of loam, sand, and peat; and ripened cuttings root freely in sand, under a hand-glass, in heat. The native name of *L. heterophýlla* is *Bois sans écorce*.

2639. *Azára*. For propagation and culture see *Lúdia*.

2640. *Læ'tia*. Propagation and culture as recommended for *Lúdia*.



|         |         |  |  |                                   |                      |              |               |                    |                                   |
|---------|---------|--|--|-----------------------------------|----------------------|--------------|---------------|--------------------|-----------------------------------|
| 2641.   | *1190a. | GODOY'A R. & P. GODOYA.                                | ( <i>Em. de Godoy, Prince of the Peace.</i> )                | <i>Gutierrez.</i>                 | Sp. 1—1.             |              |               |                    |                                   |
| 17457 - | -       | -gemmiflora Mart.                                      | bud-like-flowered  | ■ □ or 8                          | .....                | Y            | Brazil        | 1820.              | C s.l.p Mart. br. 74              |
| 2642.   | *1190b. | DENDROME'CON. Benth.                                   | ( <i>Dendron, tree, mekon, poppy; hab. and affn.</i> )       | <i>Papaveraceae.</i>              | Sp. 1—1.             |              |               |                    |                                   |
| 17458 - | -       | -rigida Benth.   | stiff-habited  | ±                                 | —  or 2              | .....        | Y             | Californ.          | 1833. S s.l Hook. ic. 1. 37.      |
| 2643.   | *1190c. | PLATYSTEMON Benth.                                     | ( <i>Platys, broad, stemon, stamgn.</i> )                    | <i>Papaveraceae.</i>              | Sp. 2—2.             |              |               |                    |                                   |
| 17459 - | -       | -californicus Benth.                                   | Californian  | ○                                 | or 1 au              | Y            | Californ.     | 1833. S s.l        | Bot. reg. 1679                    |
| 17460 - | -       | -Boothia californica Douglas ms.                       |  |                                   |                      |              |               |                    |                                   |
| 17460 - | -       | -leiocarpus F. & M.                                    | smooth-fruited   | ○                                 | or 1 jn.au           | W.Y          | Siberia       | 1837. S s.l        | Fl. cab. 2. p. 129                |
| 2644.   | *1190d. | PLATYSTIGMA Benth.                                     | PLATYSTIGMA.   | ( <i>Platys, broad, stigma.</i> ) | <i>Papaveraceae.</i> | Sp. 1—1.     |               |                    |                                   |
| 17461 - | -       | -lineare Benth.  | linear-leaved  | ¥                                 | —  pr ½              | ...          | Y             | Californ.          | 1833. C s.l Hort. tr. 2.s. 406-7  |
| 2645.   | *1193a. | CA'LYTHRIX Lab.  | ( <i>Kalyx, calyx, thrix, hair; terminations of calyx.</i> ) | <i>Myrtaceae.</i>                 | Sp. 1—3.             |              |               |                    |                                   |
| 17462 - | -       | -virgata Cun.  | twiggy-bran.   | ■                                 | —  or 2 ap.au        | W            | N. S. W.      | 1823. C. s.p       | Bot. mag. 3323                    |
|         |         | -ericoides Cun.  | in Field's New South Wales, p. 350.                          |                                   |                      |              |               |                    |                                   |
|         |         | 1194. MENTZELIA.                                       |  |                                   |                      |              |               |                    |                                   |
| 17463   | 7736a   | hispid   | hispid   | ¥                                 | —  Δ                 | or 1 ½ jn.jl | Y             | Sp. 4—5.           | Mexico 1820. S s.l Bot. mag. 3205 |
| 17464 - | -       | -stipitata Dec.  | stalked  | ¥                                 | —  Δ                 | or 2 o       | Y             | Mexico             | 1835. C s.l Botanist, 34          |
|         |         | 1197. CYSTUS.  |  |                                   |                      |              |               |                    |                                   |
| 17465   | 7740a   | Clusii Dun.  | Clusius's  | ■                                 | or 3 jn.jl           | W            | Spain         | 1810. C s.p        | Sw. cist. 32                      |
| 17466   | 7742a   | oblongifolius Swt.                                     | oblong-leaved  | ■                                 | or 3 jn.jl           | W            | S. Europe     | ... C co           | Sw. cist. 67                      |
| 17467   | 7742b   | asperifolius Swt.                                      | rough-leaved   | ■                                 | or 2 jn.jl           | W            | S. Europe     | ... C s.l          | Sw. cist. 87                      |
| 17468   | 7742c   | psillospalus Swt.                                      | smooth-sepalcd   | ■                                 | or 3 jn.jl           | W            | .....         | ... C s.l          | Sw. cist. 33                      |
| 17469   | 7745a   | latifolius Swt.  | broad-leaved   | ■                                 | —  or 4 jn           | W            | Barbary       | 1656. C p.l        | Sw. cist. 16                      |
| 17470   | 7746a   | forentinus Lam.  | Florentine   | ■                                 | —  or 3 jn.jl        | W            | Italy         | 1825. C s.l        | Sw. cist. 59                      |
| 17471   | 7748a   | cymosus Dum.   | cymose   | ■                                 | or 3 jn.jl           | P            | .....         | ... C s.l          | Sw. cist. 90                      |
| 17472   | 7750a   | obtusifolius Swt.                                      | obtuse-leaved  | ■                                 | —  or 3 jn.jl        | W            | .....         | ... C s.l          | Sw. cist. 42                      |
| 17473   | 7750b   | Cupanius Presl   | Cupani's   | ■                                 | —  or 2 jn.jl        | W            | Sicily        | ... C s.l          | Sw. cist. 70j                     |
|         |         | β acutifolius Swt.                                     | acute-leaved   | ■                                 | or 1 my.s            | W            | S. Europe     | ... C s.l          | Sw. cist. 78                      |
|         |         | C. acutifolius Swt., C. salviifolius β humifolius Dec. |  |                                   |                      |              |               |                    |                                   |
|         |         | 1198. HELIA'NTHUM                                      |  |                                   |                      |              |               |                    |                                   |
| 17474   | 7759a   | rugosum Dun.   | wrinkled- <i>lvd</i>   | ■                                 | —  or 3 jn.jl        | Y.           | spt. Portugal | 1800 C s.p         | Sw. cist. 65                      |
| 17475   | 7763a   | cheiranthoides Pers.                                   | Stock-leaved   | ■                                 | —  or 3 jn.jl        | Y            | Portugal      | 1818. C s.p        | Sw. cist. 107                     |
| 17476   | 7763b   | candidum Swt.  | white-leaved   | ■                                 | —  or 3 jn.jl        | Y            | Spain         | ... C s.l          | Sw. cist. 25                      |
|         |         |  |  |                                   |                      |              |               |                    |                                   |
| 17477   | 7764a   | glomeratum Lag.  | glomerate  | ■                                 | —  or 1 jn.jl        | Y            | Mexico        | 1823. C s.p        | Sw. cist. 113                     |
| 17478   | 7764b   | brasiliense Pers.                                      | Brazilian  | ■                                 | —  Δ                 | or ½ jn.jl   | Y             | Mexico 1823. C s.p | Sw. cist. 110                     |
|         |         |  |  |                                   |                      |              |               |                    |                                   |
| 17479   | 7764c   | lignosum Sint.   | woody  | ■                                 | —  or 1 jn.jl        | Y            | .....         | 1806. C s.p        | Sw. cist. 46                      |
| 17480   | 7773a   | arabicum Pers.   | Arabian  | ■                                 | —  or 1 jn.jl        | Y            | S. Europe     | 1826. C s.p        | Sw. cist. 97                      |
| 17481   | 7777a   | dichotomum Dun.  | dichotomous  | ■                                 | —  or 1 jn.au        | Y            | Spain         | 1826. C s.p        | Cav. ic. 3. 262. 2                |
| 17482   | 7778a   | pulchellum Swt.  | neat   | ■                                 | —  or ½ my.jl        | Y            | S. Europe     | 1820. C co         | Sw. cist. 74                      |
| 17483   | 7778b   | alpêtre Dum.   | alpine   | ■                                 | —  or ½ jn.jl        | Y            | Germany       | 1818. C s.l        | Cr. au. 6. 1                      |
| 17484   | 7779a   | vineale Pers.  | vine   | ■                                 | —  or ½ jn.jl        | Y            | Germany       | 1817. C s.l        | Sw. cist. 77                      |
| 17485   | 7784a   | barbatum Pers.   | bearded- <i>stipul.</i>                                      | ■                                 | —  or 1 jn.jl        | Y            | S. Europe     | ... C co           | Sw. cist. 73                      |
| 17486   | 7793a   | macranthum Swt.  | long-flowered  | ■                                 | —  or 1 my.jl        | Crea.W       | .....         | ... C co           | Sw. cist. 103                     |
|         |         | β multiplex Swt.                                       | manifold   | ■                                 | —  or 1 my.jl        | Crea.W       | .....         | ... C co           | Sw. cist. 104                     |
| 17487   | 7793b   | rhodanthum Dun.  | red-flowered   | ■                                 | —  or ½ my.jl        | R            | Spain         | 1800. C s.p        | Sw. cist. 7                       |
| 17488   | 7793c   | canescens Swt.   | canescent  | ■                                 | —  or ½ my.jl        | R            | S. Europe     | 1800. C s.p        | Sw. cist. 51                      |
| 17489   | 7793d   | lanceolatum Swt.                                       | lanceolate- <i>lvd</i>                                       | ■                                 | —  or ½ my.au        | W.y          | hybrid        | 1818. C s.p        | Sw. cist. 100                     |
| 17490   | 7798a   | variegatum Swt.  | variegated   | ■                                 | —  or ½ my.jl        | R.w          | S. Europe     | ... C s.p          | Sw. cist. 38                      |
| 17491   | 7798b   | versicolor Swt.  | party-colored  | ■                                 | —  or 1 jn.jl        | R.w          | S. Europe     | 1800. C s.p        | Sw. cist. 26                      |
| 17492   | 7803a   | hyssopifolium Tcn.                                     | Hyssop-leaved  | ■                                 | pr ¼                 | my.jn        | Y             | Italy              | ... C s.l                         |



History, Use, Propagation, Culture,

2641. *Godoya* is a genus of elegant trees worth cultivating. A mixture of sandy loam and peat suits them, and ripened cuttings root freely in sand, under a hand-glass, in heat.  
 2642. *Dendromecon*. Requires some care to keep it through the winter,  
 2643. *Platystemon*. Remarkable for the peculiar pale yellowish white colour of its flowers.

- 17457 Lvs. oblong bluntish obsolete serrul. Racemes axill. or termin. compound elongated, Cal. of 10 sepals, Stamens about 40
- 17458 The only species
- 17459 Whole plant hairy spreading, Lvs. lanceolate in threes, Scape solit. Carpels hairy
- 17460 Carpels smooth
- 17461 Stems very short and densely covered with leaves, Lvs. linear ent. amplexic. 1-nrvd. Pedunc. 1-fwd. slightly hairy erect.
- 17462 Lvs. on short petioles scattered lax patent (less so and more crowd. in young bran.) tereti-filif. acute dotted, Tube of cal. elongat. very narrow upwards
- 17463 Petals obov. mucronately acumin. longer th. cal. Stam. 30-35, Lvs. and flws. nearly sessile
- 17464 Petals oval mucronately cuspidate much longer than cal. Stamens 30-40, Flowers and leaves stipitate
- 17465 Lvs. somew. 3-nrvd. linear margins revolute canes. ben. Cal. 3-5-sepaled pilose, Sepals ovate acute, Capsules [5-celled
- 17466 Erect. Bran. hispid vill. Lvs. on short footstalks obt.-lanceol. obl. pubes. and waved at margins veins ben. Pedunc. cymose [acute
- 17467 Lvs. alm. sess. ovate-lanceol. acute 3-nrvd. wrinkled smthish. ciliat. netted with veins ben. Nrvs. and veins [rough, Flowers cymose
- 17468 Lvs. on short footstalks obl.-lanceol. 3-nrvd. acute undulat. somewhat denticul. and ciliat. rather hairy, Petals broad cuneat. Imbric. [broad cord. villose
- 17469 Lvs. broadly cord. acute, Margins waved denticul. ciliat. Pedun. bracteate somewhat cymose pilose, Sepals [acute
- 17470 Lvs. narrow-lanceol. wrinkled reticul. ben. almost sess. Peduncles villose generally 3-fwd.
- 17471 Lvs. broad-ovate twisted at top acutish wrinkled and hoary ben. Footst. dilat. at base somewhat sheathing, Cymes 5 or 10-flowered [acute
- 17472 Lvs. alm. sess. tapering to base ov-obl. obt. wrinkled clthd. with starry pubes. Outer sepals broadly cordate [acute
- 17473 Lvs. stalked cord.-ov. 3-nrvd. reticul. veined scabr. ab. clthd. with fasciated hairs ben. Margin fringed, Pedun. pilose 2-3-flowered [acute
- β Lvs. pubescent on both surfaces, Branches twiggy diffuse and rather prostrate

- 17474 Bran. rath. hairy clthd. with leprous toment. scabr. brownish grey, Lvs. sess. tapering to base obov-obl. rath. [oblique hoary ben.
- 17475 Young bran. vill. toment. hoary, Lvs. toment. hoary obl.-lanc. tapering to base, Ped. very short 2-fwd. Cal. 5-sep. [acute
- 17476 Bran. leprously white, Lvs. obov.-lanceol. white on both surfs. tapering to base pilose ab. scabr. from papillae [acute
- ben. Sepals 3 or 5 acute [Racemes axill. or termin. many-flowered
- 17477 Somewhat dichotom. bran. Bran. rather tomentosely cinereous, Lvs. lanceol.-obl. tapering to base hoary ben. [Racemes axill. or termin. many-flowered
- 17478 Bran. lts. simple hairy, Lvs. ovate-obl. acute sess. hairy, Pedun. and cal. hairy caescent, Pedun. solit. 1-fwd inner sepals ovate acumin. [caescent nrvd. ben. furrowed ben.
- 17479 Stem 4-gonal, Bark rough scaly, Bran. hispidly hairy, Lvs. ov.-obl. ending in petiole 3-nrvd. hispidly hairy [caescent nrvd. ben. furrowed ben.
- 17480 Bran. twiggy, Lvs. altern. lin.-obl. hairy alm. sess. Pedun. solit. 1-fwd. almost oppos. the lvs. rameal or termin. Cal. hairy [slender few-flowered
- 17481 Bran. dichotom. smthish. Lvs. minute ovate acute glabr. margins revolute on short footstalks, Racemes [Hairs cinereous
- 17482 Bran. clthd. with hoary toment. Lvs. roundish or ovate obt. green and beset with hisp. hairs ab. and hoary toment. ben. Rac. simple, Cal. pilose [Hairs cinereous
- 17483 Procumb. Bran. pilosely hairy, Lvs. green on both surfs. obl. ellipt. rather glabrous or with hairs in fascicles, [Hairs cinereous
- 17484 Procumb. Bran. ascend. pilosely toment. caescent. Lvs. ov.-obl. green and strigosely pilose ab. hoary toment. [Rac. long hairy bearded many-flwd.
- ben., Rac. simple few-flowered [Rac. long hairy bearded many-flwd.
- 17485 Bran. clothed with fasciated hairs, Lvs. hairy green both surfs. lower ones roundish-ovate upper ones ellipt. [Rac. long hairy bearded many-flwd.
- 17486 Bran. procumb. rather toment. Lvs. flat ov.-obl. acutish smth. ab. densely toment. ben. pale cinereous, Stips. rath. pilose about eq. to petioles [Stips. awl-sh. pilose and bristly at tip
- 17487 Procumb. Bran. rath. toment. and hoary, Lvs. obl. revolute margins hoary toment. ben. greenish glauc. ab. [Stips. awl-sh. lin. longer than pets.
- 17488 Bran. rath. toment. Lvs. flat or hardly revolute at margins toment. hoary ben. greenish glauc. ab. lower lvs. [Stips. awl-sh. lin. longer than pets.
- ov.-obl. obt. upper lanceol. acute [Stips. awl-sh. lin. longer than pets.
- 17489 Bran. hoary toment. at apex, Lvs. lanceol. acute margins revolute green and smthish ab. hoary toment. ben. [at top somewh. longer than lvs.
- 17490 Bran. toment. rath. hoary, Lvs. lanceol. acute flattish hoary toment. ben. green and rath. scabr. ab. Stips. lin. ciliat. longer than pets. Cal. clthd. with violac. toment. [at top somewh. longer than lvs.
- 17491 Lvs. oblong flat or concave above hoary-toment. beneath green and glabr. above, Stips. obl.-lin. ciliat. bristly [at top somewh. longer than lvs.
- 17492 Bran. hairy-tomentose, Lower lvs. oval upper ones oblong-lanceol. green on both surfs. flat hairy, Cal. hairy, Petals Imbricate



and Miscellaneous Particulars.

2644. *Platystigma*. A pretty little hardy annual, and requiring the usual treatment of such.
2645. *Cúythrís*. A genus of singular plants, requiring the same treatment as that recommended for *Lúdia*,

|       |                                 |                |   |      |       |      |           |       |       |              |
|-------|---------------------------------|----------------|---|------|-------|------|-----------|-------|-------|--------------|
|       | <i>α</i> crocātum <i>Swt.</i>   | saffron-cld    | ♀ | or ½ | my.jl | Saf. | Europe    | ...   | C co  | Sw. cist. 92 |
|       | <i>β</i> cūpreum <i>Swt.</i>    | copper-cld     | ♀ | or ½ | my.jl | Cop. | Naples    | ...   | C s.l | Sw. cist. 58 |
|       | <i>γ</i> múltiplex <i>Swt.</i>  | double-flwd    | ♀ | or ½ | my.jl | Cop. | Italy     | ...   | C s.p | Sw. cist. 72 |
| 17493 | 7803b cūpreum <i>Swt.</i>       | copper-cld     | ♀ | or ½ | jn.jl | Cop. | hybrid    | 1825? | C co  | Sw. cist. 66 |
| 17494 | 7803c venētum <i>Swt.</i>       | beautiful      | ♀ | or ½ | jn.jl | R    | S.Europe  | 1800. | C s.p | Sw. cist. 10 |
| 17495 | 7803d Múlleri <i>Swt.</i>       | Miller's       | ♀ | or ½ | my.jl | Cop. | S.Europe? | ...   | C co  | Sw. cist. 10 |
| 17496 | 7805a diversifólium <i>Swt.</i> | divers-leaved  | ♀ | or ½ | my.jn | R    | Europe    | ...   | C co  | Sw. cist. 95 |
| 17497 | 7805b eriosépalon <i>Swt.</i>   | woolly-sepaled | ♀ | or ½ | my.jl | Y    | S.Europe  | ...   | C s.p | Sw. cist. 76 |

DIGYNIA.

|       |                                 |  |   |   |                              |  |
|-------|---------------------------------|--|---|---|------------------------------|--|
| 2646. | *1201a. PLEURA'NDRA <i>Lab.</i> | ( <i>Pleura</i> , rib, <i>aner</i> , anther; stamens.)       |   |   | <i>Dilleniaceæ.</i> Sp. 1—6. |  |
| 17498 | - - bracteata <i>R. Br.</i>     | bracteate  | ♂   | □ | or 2                         | my.jn Y N. Holl. 1823. C s.p Deless. 1. 78     |
|       | 1902. PÆO'NIA.                  | Sp. 19—22.   |   |   |                              |  |
|       | 7812 <i>Moñtan</i>              | <i>δ</i> Annelési ( <i>pink-flowered</i> ) Hort. tr. 6. 7    | <i>γ</i> rósea-plèno (double-rose) And. rep. 373      |   |                              |  |
|       |                                 | <i>α</i> Hùmei ( <i>purple-flowered</i> ) Bot. reg. 379      | <i>δ</i> Rawèsi ( <i>pale pink-flowered</i> )         |   |                              |  |
|       |                                 | <i>ζ</i> rósea-semiplèna (semidouble-rose)                   | <i>ι</i> cárnea-plèna (double-flesh-coloured)         |   |                              |  |
|       | 7813 albiflóra                  | <i>α</i> vestális ( <i>white-flowered</i> ) Bot. rep. 64     | <i>α*</i> cándida ( <i>flesh-coloured-flowered</i> )  |   |                              |  |
|       | 7816 officinális                | <i>δ</i> anemoniflóra ( <i>red-flowered</i> ) Bot. mag. 3175 | <i>ι</i> Sabini ( <i>dark-crimson</i> ) B. cab. 1075. |   |                              |  |
|       | 7821 arietina                   | <i>β</i> oxoniénsis ( <i>pale-blush-flowered</i> )           | subvar. <i>flóre-álbo</i> ( <i>white-flowered</i> )   |   |                              |  |
| 17499 | 7823a Rússi <i>Biv.</i>         | Russ's   | ♂   | Δ | or 2                         | my.jn C Sicily ... R s.l Sw. fl. gar. 122      |
| 17500 | 7823b púbens <i>B. M.</i>       | downy  | ♂   | Δ | or 2                         | my.jn R ..... R s.l Bot. mag. 2264             |
| 17501 | 7823c villósa <i>Swt.</i>       | villous  | ♂   | Δ | or 2                         | my.jn R S. Europe 1816. R s.l Sw. fl. gar. 113 |
| 17502 | 7823d Brównii <i>Dou.</i>       | Brown's  | ♂   | Δ | or 3                         | my.jn R N. Amer. 1826. R s.l                   |
|       | 7826 tenuifólia                 | <i>β</i> flóre-plèno (double-flowered)                       | <i>γ</i> latifólia (broad-leaved)                     |   |                              |  |

TRIGYNIA.

|       |                                  |                        |   |    |       |   |
|-------|----------------------------------|------------------------|---|----|-------|---|
|       | 1204. DELPHINIUM.                | Sp. 47—53.             |   |    |       |   |
| 17503 | 7830a Menziési <i>Dec.</i>       | Mensies's              | ♂                                       | Δ  | spl 2 | jn.jl B N. Amer. 1826. D p.l Bot. reg. 1192   |
| 17504 | 7831a virgátum <i>Poir.</i>      | twiggy                 | ♂                                       | Δ  | or 1½ | jn.jl B Syria 1823. S co Deless. 1. 55        |
| 17505 | 7834z Oliveriántum <i>Dec.</i>   | Oliver's               | ○                                       | or | 1½    | jn.jl B S. Europe 1826. S co Deless. 1. 51    |
|       | 7837 grandifórum                 | <i>δ</i> álbum plèno   | <i>ι</i> pállidum <i>δ</i> rùbrum       |    |       |   |
|       | <i>γ</i> álbum                   | <i>β</i> leptostáchyum | <i>γ</i> pállidum <i>Bot. reg.</i> 1969 |    |       |   |
|       | 7838 chellánthum                 | <i>α</i> pilosíssimum  | ♂                                       | Δ  | or 5  | jl.au B Hungary 1816. D co W. & K. 3. 246     |
| 17506 | 7840a alpinum <i>W. &amp; K.</i> | alpine <i>Bee</i>      | ♂                                       | Δ  | or 4  | jl.au B Hungary 1816. D co W. & K. 1. 81      |
| 17507 | 7842a fissum <i>W. &amp; K.</i>  | cleft                  | ♂                                       | Δ  | or 4  | jl.au B Italy 1819. D co                      |
| 17508 | 7842b velútinum <i>Bert.</i>     | velvety                | ♂                                       | Δ  | or 4  | jl.au B                                       |
| 17509 | 7842c pentágynum <i>Lam.</i>     | five-styled            | ♂                                       | Δ  | or 2  | jl.au B S. Europe 1819. D co Desf. at. 1. 111 |
| 17510 | 7842d élegans <i>Dec.</i>        | elegant                | ♂                                       | Δ  | or 1½ | jl.au B N. Amer. ... D co                     |
|       | <i>β</i> flóre plèno             | double-flwd            | ♂                                       | Δ  | or 1½ | jn.jl B N. Amer. 1741. D co Fl. con. 43       |
| 17511 | 7842e amce'nun <i>Stev.</i>      | pleasing-blue          | ♂                                       | Δ  | or 2  | jl.au Pa.B Siberia 1818. D co Gm. si. 4. 77   |
| 17512 | 7843a palmatífidum <i>Dec.</i>   | palmate-cleft          | ♂                                       | Δ  | or 3  | jl.au B Siberia 1824. D co Gm. si. 4. 79      |
|       | <i>β</i> glabéllum <i>Dec.</i>   | smoothish              | ♂                                       | Δ  | or 3  | jl.au B Siberia 1817. D co Gm. si. 4. 75      |
| 17513 | 7851a montánum <i>Dec.</i>       | mountain               | ♂                                       | Δ  | or 4  | jl.au B Switzerl. 1819. D co                  |
|       | <i>β</i> bracteosum <i>Dec.</i>  | bracteose              | ♂                                       | Δ  | or 3  | jl.au B S. Europe 1816. D co                  |
| 17514 | 7851b dasycárpum <i>Stev.</i>    | thick-fruited          | ♂                                       | Δ  | or 4  | jl.au B Caucasus 1819. D co                   |



History, Use, Propagation, Culture,

2646 *Pleura'ndra*. A genus of pretty small green-house shrubs. A mixture of loam, peat, and sand suits them. Cuttings root readily under a hand-glass.

- α Has flowers saffron-ld., with more or less of a ferruginous tint, and may represent the species
- β Has flowers of a reddish copper colour
- γ Has double flowers of a reddish copper colour [Stips. lanceol. acute ciliat. bristly at apex
- 17493 Bran. rath. toment. adult ones glabr. Lvs. obl.-lanceol. channelled green and hairy ab. hoary toment. ben.
- 17494 Bran. glabr. warted somewh. toment. at apex, Lvs. obl.-lanceol. acute flat or hardly revolute marg. hoary toment. ben. green and shining ab. [Cal. hairy
- 17495 Bran. hoary-toment. Leaves oblong bluntish flat green on both surf. hairy, Stips. falcate longer than petioles,
- 17496 Bran. rath. toment. Lvs. stalked green hairy ab. hoary tomentose ben. lower ones oval or obl. obt. flat upper lin. lanceol. ciliat. 3-4 times longer than pet. [hairs, Cal. clthd with woolly hairs
- 17497 Stems hoary at apex, Lvs. lanceol. acute margins somewh. revolute green on both surf. and beset with starry

DIGYNIA.

- 17498 Lvs. obl. smthish mucronulate, Bracteas crowded about the sess. flws. which are villous on the outside Ovaries very hairy
- 7812
  - α albidaplena (double-white)
  - λ variegata (white and purple) Sw. fl.gar.2.s.238
  - μ lacera (bright rose-red-ld-flwd) Bot. reg. 1771
  - ν punicea (carmine-coloured) Sw. fl. gar. 2. s. 297
  - ξ pedicba (showy pink-flowered)
- 7813
  - ι Pöttsii (crimson-flowered) Bot. reg. 1436
  - κ Reeveäsi (pink-flowered)
- 7816
  - α Bäxteri (crimson)
  - λ variegata (variegated-leaved)
- 7821
- 17499 Carpels hairy. Segments of leaves elliptical entire hardly puberulous beneath
- 17500 Lvs. bitern. Lfts. lanceol. acumin. densely clthd. with soft pubescence ben. Ovaries toment. each crowned with somewh. orbic. stigma [somew. bitern. upper ternate, Lfts. pinn.
- 17501 Carpels densely toment. erect but somewh. incurv. at apex, Lvs. villous pubes. and whitish glauc. ben. lower
- 17502 Carpels 5 quite smooth erect, Lvs. smooth on both surf. Lfts. ternately divid. or pinnatif. jagged, Segments obl. those of upper lvs. very blunt

TRIGYNIA.

- 17503 Petioles hardly dilated at base, Lvs. 5-parted with entire linear lobes, Brac. trifid, Root grumose
- 17504 Stem erect bran. from base, Lvs. smooth lower ones 3-fid. with toothed lbs. those of bran. and flws. ent. and acute, Rac. loose [Caps. smooth
- 17505 Stem smooth a little bran. Bran. hardly diverging, Flws. few loosely racemose, Pedicels length of bracteas,

- δ cærulëscens Bot. reg. 1984
- ε ranunculifolium
- ζ laxum
- 17506 Petioles not dilat. Lvs. cordate 5-7-cleft upper ones 3-lobed, Racemes branched
- 17507 Petioles dilat. at base, Lvs. many-parted linear lobes, Racemes elevated, Spur straight longer than flower
- 17508 Petioles dilat. and sheathing at base, Lvs. 5-parted multifid with lin. lbs. Rac. lax clthd. with soft down as are the stems, Spur curved, lower brac. long. th. flws. [Pet. shorter than cal.
- 17509 Pet. ditto, Lower leaves 5-lobed, lobes cut and bluntish at apex upper ones 5-parted many cleft into linear lbs.
- 17510 Pet. hardly dilat. at base, Lvs. smth. 5-parted with 3-5-cleft lobes and linear lanceol. ac. lobules, Rac. lax few-flwd. Spur curved short. th. sepals [th. cal. Spur straight
- 17511 Pet. ditto, Lvs. pubes. ben. 5-part. with lanceol. pinnatif. lbs. and linear acute lobules, Rac. bran. Petals shorter
- 17512 Petioles not dilated at base, Lvs. ciliat. 5-cleft somewh. truncate at base lbs. cut at apex upper lvs. of 3 ent. 3-fid lbs. Brac. caps. and cal. smooth
- 17513 Petioles not dilat. at base, Lvs. pubes. 5-lb. Lbs. wedge-sh. at base but 3-fid and cut at apex, Rac. simple, Brac. cal. and caps. pubesc. Spur bent inwards [as long as brac. Spur straight
- 17514 Pet. ditto, Lvs. pubes. 5-lb. Lbs. lanceol. somewh. trifid dply. toothed at apex, Rac. simple pubes. Pedic. thrice



and Miscellaneous Particulars.

*Pedonia* Moÿtan. The varieties of this species have lately been greatly increased, in consequence of plants having ripened seeds in various parts of France; and also as the result of cross-fecundation with the herbaceous peony, both on the Continent and in England.

|       |                              |                  |   |    |   |       |    |          |       |   |     |                  |
|-------|------------------------------|------------------|---|----|---|-------|----|----------|-------|---|-----|------------------|
| 17515 | 7851c <i>speciosum</i> Bieb. | showy            | △ | or | 4 | jl.au | B  | Caucasus | 1816. | D | co  | Deless. 1. 62    |
| 17516 | 7851d <i>triste</i> Fis.     | sad              | △ | or | 2 | jl.au | Br | Dahuria  | 1819. | D | co  |                  |
| 17517 | 7852a <i>albiflorum</i> Dec. | white-flowered   | △ | or | 4 | jl.au | W  | Armenia  | 1823. | D | co  | Deless. 1. 59    |
| 17518 | - <i>tenuissimum</i> Sibth.  | slenderest-bran. | ○ | or | 1 | au    | P  | Greece   | 1835. | S | r.m |                  |
| 17519 | - <i>vimineum</i> D. Don     | wand-like        | △ | pr | 4 | au    | B  | N. Amer. | 1835. | D | p.l | Sw. fl. gar. 374 |

TETRAGYNIA.

|       |                                    |  |   |    |   |      |     |                      |          |   |    |                  |
|-------|------------------------------------|--|---|----|---|------|-----|----------------------|----------|---|----|------------------|
| 2647. | *1205a. <i>ESCHSCHOLTZIA</i> Cham. | (Dr. <i>Eschscholtz</i> , a botanist.) |   |    |   |      |     | <i>Papaveraceæ</i> . | Sp. 3—3. |   |    |                  |
| 17520 | - <i>californica</i> Cham.         | Californian                            | △ | or | 1 | jl.o | Y   | Californ.            | 1825.    | S | co | Sw. fl. gar. 265 |
| 17521 | - <i>cræcea</i> Benth.             | Saffron-cold                           | △ | or | 1 | jl.o | Saf | Californ.            | 1833.    | S | co | Bot. mag. 3496   |
|       | β <i>fibre-pleno</i>               | double-flwd                            | △ | or | 1 | jl.o | Saf | gardens              | 1837?    | D | co |                  |
| 17522 | - <i>compacta</i> Lindl.           | compact                                | △ | or | 1 | jl.o | Y   | California           | .....    | S | co | Bot. mag. 1948   |

PENTAGYNIA.

|       |  |                |   |    |    |       |       |  |       |   |     |                     |
|-------|--|----------------|---|----|----|-------|-------|--|-------|---|-----|---------------------|
| 1208. | <i>AQUILEGIA</i> .   |                |   |    |    |       |       | Sp. 14—18.   |       |   |     |                     |
| 7882  | <i>vulgaris</i>  |                |   |    |    |       |       |  |       |   |     |                     |
|       | β <i>corniculata</i> (small-horn double blue & white flwd) |                | γ |    |    |       |       | <i>inversa</i> (inverted double blue & white flwd) |       |   |     |                     |
| 17523 | 7882a <i>sibirica</i> Lam.                                 | Siberian       | △ | or | 1½ | my.jl | B.w   | Siberia  | 1806. | D | co  | Deless. 1. 47       |
| 17524 | 7882b <i>Garnieriana</i> Swt.                              | Mrs Garnier's  | △ | or | 1½ | my.jl | P.Str | Eng. hyb.  | 1829. | D | co  | Sw. fl. g. 2. s.103 |
| 17525 | 7884a <i>davurica</i> Patr.                                | Dahurian       | △ | or | 1½ | my.jl | P     | Dahuria  | 1827. | D | co  | Deless. 1. 49.      |
| 17526 | 7885a <i>anemoneoides</i> W.                               | Anemone-like   | △ | or | 1  | my.jl | P     | Altai  | 1827. | D | co  |                     |
| 17527 | 7886a <i>grandiflora</i> Patr.                             | great-flowered | △ | or | 1½ | my.jl | B     | Siberia  | 1818. | D | s.p |                     |
| 17528 | 7887a <i>formosa</i> Fis.                                  | beautiful      | △ | or | 1½ | my.jl | R.o   | Kamsch.  | 1822. | D | s.p |                     |

POLYGYNIA.

|       |   |   |   |     |     |       |         |                      |          |   |     |                  |
|-------|---|---|---|-----|-----|-------|---------|----------------------|----------|---|-----|------------------|
| 1217. | <i>MAGNOLIA</i> .                       |   |   |     |     |       |         | Sp. 14—18.           |          |   |     |                  |
| 7904  | <i>grandiflora</i>                      |   |   |     |     |       |         |                      |          |   |     |                  |
|       | β <i>ferruginea</i> B. M.               | rusty   | ● | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | l.p |                  |
|       | β <i>exoniensis</i>                     | Exeter  | ● | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | l.p | Bot. cab. 1814   |
|       | γ <i>rotundifolia</i>                   | round-leaved                                      | ● | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | l.p |                  |
|       | γ <i>praecox</i>                        | early-flowering                                   | ● | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | l.p |                  |
|       | β <i>crispa</i>                         | curled  | ● | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | l.p |                  |
|       | β <i>angustifolia</i>                   | narrow-leaved                                     | ● | or  | 20  | jn.o  | W       | Paris                | 1825.    | L | l.p |                  |
| 7905  | <i>glauca</i>                           |   |   |     |     |       |         |                      |          |   |     |                  |
|       | β <i>Thompsoniana</i>                   | Thompson's  | ♀ | or  | 26  | jn.c  | W       | hybrid               | 1817.    | L | l.p | Bot. mag. 2164   |
|       | γ <i>longifolia</i>                     | long-leaved                                       | ♀ | or  | 20  | jn.o  | W       | N. Amer.             | ...      | L | p.l |                  |
| 7907  | <i>conspicua</i>                        |   |   |     |     |       |         |                      |          |   |     |                  |
|       | β <i>Soulangeana</i>                    | Soulange's  | ♂ | or  | 3   | ap.my | P.w     | hybrid               | 1826.    | C | p.l | Sw. fl. gar. 260 |
|       | γ <i>Alexandrina</i>                    | Empress Alex.                                     | ♂ | or  | 3   | mr.my | P.w     | Fr. hyb              | 1831.    | C | p.l |                  |
|       | β <i>speciosa</i>                       | showy   | ♂ | or  | 3   | ap.my | P.w     | Fr. hyb              | ...      | C | p.l |                  |
|       | β <i>citriodora</i>                     | lemon-scented                                     | ♂ | or  | 3   | ap.my | P.w     | Fr. hyb              | ...      | C | p.l |                  |
| 7915  | <i>acuminata</i>                        |   |   |     |     |       |         |                      |          |   |     |                  |
|       | β <i>Candollei</i> Savi                 | De Candolle's                                     | ♀ | or  | 60  | my.jl | Gsh     | .....                | ...      | L | s.l | Bib. it. 224     |
|       | γ <i>maxima</i>                         | largest   | ♀ | or  | 60  | my.jl | Ysh.G   | .....                | ...      | L | s.l |                  |
| 2648. | *1217a. <i>TALAU' MA</i> J.             | (The vernacular name of the South Amer. species.) |   |     |     |       |         | <i>Magnoliaceæ</i> . | Sp. 2—3. |   |     |                  |
| 17529 | - <i>Plumieri</i> Dec.                  | Plumier's   | □ | fra | ... | ...   | W       | Antilles             | 1829.    | L | p.l |                  |
| 17530 | - <i>Candollei</i> Blume                | De Candolle's                                     | □ | fra | 15  | f.mr  | Cr.taw. | Java                 | 1827.    | L | p.l | Bot. reg. 1709   |
|       | <i>Magnolia odoratissima</i> Reinwardt. | No. 7910. is also referable to this genus.        |   |     |     |       |         |                      |          |   |     |                  |

|       |                               |                 |   |    |   |       |   |            |       |   |     |                |
|-------|-------------------------------|-----------------|---|----|---|-------|---|------------|-------|---|-----|----------------|
| 1223. | <i>AST MINA</i> .             |                 |   |    |   |       |   | Sp. 4—4.   |       |   |     |                |
| 17531 | 7932a <i>grandiflora</i> Dun. | large-flowering | ♂ | or | 3 | ap.jl | W | Georgia    | 1820. | L | p.l | Dun. mon. 11   |
|       | 1226. <i>ANEMONE</i> .        |                 |   |    |   |       |   | Sp. 31—45. |       |   |     |                |
| 17529 | 7944a <i>vitifolia</i> Buc.   | Vine-leaved     | △ | or | 3 | s     | W | Nepal      | 1829. | S | l   | Bot. reg. 1385 |
| 17533 | 7948a <i>Fischeriana</i> Dec. | Fischer's       | △ | or | ½ | ap.my | W | Siberia    | 1827. | D | co  |                |



History, Use, Propagation, Culture,

2647. *Eschscholtzia*. The generic name *Chrysis* has been applied to this genus by Dr. Lindley, under the supposition that the name *Eschscholtz* was the same as that of *Elsholtz*, after whom another genus had been named. It has, however, since been proved that the names are quite distinct, therefore we retain that of *Eschscholtzia*. Showy flowers, which, though they will occasionally last several years as perennials, are grown as annuals, and are desirable for the flower-garden.

- 17515 Pet. ditto, Lvs. pubes. 5-lbd. lbs. dply. serrat. Brac. lanceol. villous clammy, Spur curved, Capsule smooth  
 17516 Pet. ditto, Lvs. 3-5-parted, Lbs. narrow somew. pinnatif. acute upper lvs. 3-parted with entire lobes, Rac. lax, Caps. pubes. [long. th. pedicel.  
 17517 Pet. dilat. and sheathing at base, Lvs. many-parted, Lbs. linear, Rac. elongat. crowded, Spur straight blunt rather  
 17518 Stem erect slender a little bran. and rather pubes. at apex, Pedic. much longer than the awl-sh. bracteas  
 17519 Lvs. petiolate tripartite segms. lin.-cuneate ent. or dply. and uneq. bifid, upper ones narrowest, Rac. lax elongat. Rachis and pedicels downy

TETRAGYNIA.

- 17520 Stigmas 4 two longer than the others, Seeds globose almost black  
 17521 Stem branching and leafy, Segms. of lvs. linear, Peduncle with funnel-shpd. appendage, Limb much dilated, Cal. long and acum. [large nearly flat  
 17522 Stem dwarf densely bran. Segms. of lvs. linear wedge-sh. tridentate at apex, Cup of pedunc. funnel-sh. Limb

PENTAGYNIA.

- ♂ stellata (starred double blue & white flwd) ♀ dégener (degenerate double blue & white flwd)  
 17523 Spur incurved, Caps. very smooth, Stem 1-2-flwd. almost naked smooth, Sepals very blunt  
 17524 Hybrid between *A. sibirica* and *A. vulgaris*  
 17525 Spur straight equal in length to petals, Stamens equal in length to petals, Styles protruding  
 17526 Spur straight very short equal in length to pet. Petals thrice as long as cal. Pedun. radic. 1-flwd. almost naked  
 17527 Spur straight length of limb, Sepals oval, Stem few-flowered, Lvs. deeply divided [longer than petals  
 17528 Spur straight much longer than petals and very short stamens, Styles not protruding, Sepals lanceol. much

POLYGYNIA.

- ♂ Differs from var. ♀ in having rather broader leaves and larger flws., and forms a broader and more compact  
 ♀ Lvs. oblong-elliptical generally rusty beneath, Flws. somewhat contracted [tree or bush  
 ζ Has roundish leaves  
 η Lvs. oval-oblong, Flws. fully expanded  
 θ Lvs. lanceol. pointed at both extremities wavy  
 β Is a supposed hybrid between *M. glauca* and *M. tripétala*  
 γ Lvs. ellipt. acute at both ends resembling those of *M. tripétala* but thicker smaller and glaucous beneath  
 β Hardly distinguishable from *M. conspicua* except by the flws. which resemble in form those of *M. purpurea*  
 γ Closely resembling var. β from which it differs in flowering somewhat earlier [var. gracilis  
 δ A hybrid scarcely differing from var. γ  
 β Leaves ovate oblong acute, Flws. greenish  
 γ Leaves much larger than those of the species

- 17529 Lvs. ovate roundish somew. cuneated at base, Petals 12 thick oblong obtuse  
 17530 Lvs. oblong acum. at both ends, Flws. 9-12 petaled outer ones short, Pedun. 1-flwd. rather droopg. cithd. as are petioles of young lvs. with ruf. vill.  
 17531 Lvs. cuneate-obov. obt. under surf. as well as bran. cithd. with brown pubes. Flws. sess. Outer petals obov. much larger than cal. [ab. bluntly cord. 5-lbd. 3-lvd.  
 17532 Lvs. large cord. 5-lbd. woolly ben. Lbs. broad ov. cut and cren. those of involucr. stalked woolly ben. smth.  
 17533 Lvs. bitern. those of involucr. on very short stalks, Lbs. elongat. acum. Pedic. 2 pubescens, Sepals 5 elliptical



2648. *Talauma* is a genus of magnificent trees and shrubs, resembling magnolias. A mixture of loam, peat, and sand suits them. They may be increased by layers or inarching on *Magnolia obovata*, and ripened cuttings will root in sand, under a hand-glass, in heat.

|       |  |                  |   |    |    |       |        |           |       |   |     |                   |  |
|-------|--|------------------|---|----|----|-------|--------|-----------|-------|---|-----|-------------------|--|
|       | 7949 nemorosa                                  |                  |   |    |    |       |        |           |       |   |     |                   |  |
|       | β ßora-pleno (double-flowered)                 |                  |   |    |    |       |        |           |       |   |     |                   |  |
| 17534 | 7950a cærleä Dec.                              | blue             | Δ | or | ↓  | my.jn | B      | Siberia   | 1826. | R | ap  | Deless. 1. 14     |  |
| 17535 | 7952a umbellata W.                             | umbelled         | Δ | or | ↓  | my    | W      | Levant    | 1824. | S | s.l | Deless. 18        |  |
|       | 1227. CLÉMATIS.                                |                  |   |    |    |       |        |           |       |   |     |                   |  |
|       | 7970 florida                                   |                  |   |    |    |       |        |           |       |   |     |                   |  |
|       | γ Sieboldii D. Don Siebold's                   |                  | ↓ | or | 10 | jn    | Gsh.&P | Japan     | 1836. | L | s.l | Sw.fl.gar. 396    |  |
|       | C. florida bicolor Lindl., Bot. reg. n. s. 25. |                  |   |    |    |       |        |           |       |   |     |                   |  |
| 17536 | 7974a campaniflora Brot.                       | bell-flowered    | ↓ | or | 6  | jn.s  | W      | Spain     | 1810. | L | s.l | Bot. cab. 987     |  |
| 17537 | 7981a grandiflora Dec.                         | large-flowered   | ↓ | or | 12 | f.my  | Y.g    | S. Leone  | 1823. | L | p.l | Bot. reg. 1234    |  |
| 17538 | 7981b dahurica Pers.                           | Dahurian         | ↓ | or | 12 | s     | Y.g    | Dahuria   | 1820. | L | p.l |                   |  |
| 17539 | - grata Wal.                                   | grateful-scented | ↓ | or | 12 | o.n   | W      | E. Indies | 1831. | S | f   | Wal.asiat.1.98.   |  |
| 17540 | - cærleä Lindl.                                | blue-flowered    | ↓ | or | 10 | ap    | V      | Japan     | 1836. | L | s.l | Bot. reg. 1955    |  |
| 17541 | - montana Ham.                                 | mountain         | ↓ | or | 20 | my    | W      | Nepal     | 1831. | L | l   | Sw.fl.gar.2.s.253 |  |
|       | nepalensis Dec.                                |                  |   |    |    |       |        |           |       |   |     |                   |  |

Page 490. CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

Order 1. GYMNOSPERMIA. Pericarpium divided into four lobes resembling naked seeds.

- 2649. *Lophanthus*. Calyx equal, or oblique, or sublimate, usually 15-nerved; superior teeth the largest. Corolla bilabiate. Stamens ascending, or diverging.
- 2650. *Aphanochilus*. Corolla tubular. Limb short, bilabiate. Anthers versatile. Cells divaricate. Lobes of gynophore shorter than ovarium.
- 2651. *Dysophylla*. Anthers terminal, also the younger ones confluent 1-celled. Stamens somewhat declinate. Corolla almost regular.
- 2652. *Pycnostachys*. Lower segment of corolla elongated, concave. Teeth of fructiferous calyx subulately spinose. Whorls of flowers spicate.
- 2653. *Sphæcele*. Calyx reticulately veined, 5-toothed, limb not dilated, teeth nearly equal. Tube of corolla ample. Cells of anthers linear, diverging.
- 2654. *Peridonia*. Achenia membranously winged. Segments of corolla flattish. Gynophore elongated, incurved, oblique at apex. Lips of calyx entire.
- 2655. *Roglea*. Calyx tubular at base, 10-nerved. Segment 5, equal, oblong, membranous.
- 2656. *Micromeria*. Tube of corolla rarely exserted. Calyx nearly equal. Superior stamens antheriferous.
- 2657. *Gardoquia*. Calyx tubular, somewhat incurved, with an equal or sub-bilabiate mouth. Tube of corolla much exserted. Stamens 1-3, now and then sterile.
- 2658. *Physotegia*. Calyx obscurely veined, inflated after inflorescence. Corolla much exserted, with an ample throat.
- 2659. *Cbleus*. Fructiferous calyx toothed, not spiny, with an open mouth. Filaments monadelphous. Lower segment of corolla elongated, concave.
- 2660. *Chiodia*. Upper lip of calyx entire, tube short, 13-nerved, lower one bifid. Anthers mutic, 2-celled.

Order 2. ANGIOSPERMIA. Seeds several, enclosed in an undivided pericarpium.

- 2661. *Pentaraphia*. Calyx adnate to the ovarium. Corolla superior. Ring of glands hardly present. Anthers connected by pairs.
- 2662. *Rytidophyllum*. Calyx adnate to the ovarium. Corolla superior. Epigynous ring thick and sinuated. Leaves stipulate.
- 2663. *Sinningia*. Corolla oblique, ringent, with only one gibbosity at base. Calyx adnate to the ovarium, angularly winged.
- 2664. *Amphicome*. Calyx tubular, 5-toothed. Corolla tubular, ventricose near base. Limb 5-lobed, ciliated. Stamens 4, didynamous, with rudiment of a fifth. Stigma bilamellate. Capsule silique-formed. Seeds winged at both ends, and bearded.

GYMNOSPERMIA.

|       |                        |              |   |    |   |       |   |         |       |   |     |  |  |
|-------|------------------------|--------------|---|----|---|-------|---|---------|-------|---|-----|--|--|
|       | 1242. A'JUGA.          |              |   |    |   |       |   |         |       |   |     |  |  |
| 17542 | 8093a bracteosa Wall.  | long-bracted | Δ | or | ↓ | jl.au | B | Nepal   | 1821. | D | s.l |  |  |
| 17543 | 8096a australis R. Br. | southern     | Δ | or | ↓ | my.jl | B | N.Holl. | 1822. | D | s.l |  |  |

|  |       |       |       |       |
|--|-------|-------|-------|-------|
|  | 17532 | 17537 | 17539 | 17534 |
|--|-------|-------|-------|-------|

17534 Leaves of involucrem 3-5 cleft on short stalks with deeply toothed segments, Sepals 4-5 oval [umbellate  
 17535 Radic. lvs. 3-5-parted segms. trifid very entire densely villous at margins those of involucre. undivided, Flws.

γ Is a very beautiful var. The sepals are cream-coloured, suffused with violet spots, Lvs. and bran. more hairy than those of the sp. [spreading at apex wavy

17536 Pedunc. 1-flwd. somewhat long, than lvs. Lvs. biternately decompose, Lfts. ent. or 3-lobed, Sepals half-  
 17537 Pedunc. 1-flwd. Flws. campanulate tomentose, Sepals oblong, Lvs. pinnate, Leaflets ovate serrated pilose

17538 Pedunc. 3 1-flwd. Lvs. ternate smooth leaflets ovate entire flws. drooping  
 17539 Flowers axillary panicled, Leaves subternate villous, Leaflets cordate acuminate serrated 3-lobed, Sepals obtuse. [naceous margin distend.

17540 Lvs. spreading hairy ternate, Segms. ovate acute ent. Pedunc. 1-flwd. Sepals 6-8 obl. lanceol. acute membra-  
 17541 Pedunc. 1-flwd. not bractd. several togeth. Lvs. ternately parted, Segms. ovate-obl. acumin. incisedly toothed, Sep. ellipt.-obl. mucronul. spreading

2665. *Filidzia*. Calyx 5-parted, enclosed in spathe-formed bractea, which is cleft on one side. Corolla tubularly ventricose. Limb equal, 5-lobed, sub-bilabiate. Stamens 5; 4 fertile exerted, sterile one enclosed. Stigma bilamellate. Berry spongy, longer than calyx.

2666 *Tecoma*. Calyx 5-toothed. Corolla with short tube and campanulate throat. Limb 5-lobed, sub-bilabiate. Lobes of anthers divaricate. Capsule silique-formed; dissepiment contrary. Seeds disposed in 2 rows, imbricate, winged, transverse.

2667. *Salpiglossis*. Calyx 5-angled, 5-cleft. Corolla funnel-shaped, 5-lobed. Lobes 2-lobed. Stamens didynamous, with rudiment of a fifth between the 2 longer ones. Style tongue-shaped at apex. Stigma truncate, transverse.

2668. *Calispermis*. Calyx semi-5-cleft. Corolla with tubular base, ventricose throat, and a contracted 5-lobed limb. Stamens 4, didynamous, without any rudiment of a fifth. Lobes of anthers obtuse, divaricate, distinct at apex. Wings of seeds repandly sinuated, emarginate at base.

2669. *Eccremocarpus*. Calyx membranous, 5-cleft, coloured. Corolla tubular, with an equal throat, and a 5-lobed equal limb. Stamens 4, didynamous, with the rudiment of a fifth. Anthers versatile. Cells parallel, combined. Wings of seeds repandly sinuated, nerved.

2670. *Strobilanthes*. Calyx 5-parted. Corolla funnel-shaped. Anthers erect, with parallel cells. Capsule 4-seeded in the middle. Seeds small.

2671. *Goldfussia*. Calyx 5-parted. Corolla funnel-shaped. Limb nearly equal. Anthers erect, 2-celled. Stigma subulate, crenulate on one side. Capsule 6-angled, 2-valved. Cells 2-seeded at bottom. Seeds discoid.

2672. *Calophanes*. Calyx 5-parted, equal. Corolla funnel-shaped. Throat ventricose. Limb bilobed, nearly equal. Stamens enclosed. Cells of anthers parallel, spurred at the base. Stigmas simple. Cells of ovarium 2-seeded. Capsules sessile, almost cylindrical.

2673. *Amasônia*. Calyx 5-cleft, bracteate. Bractea coloured. Corolla tubular, 5-cleft, equal. Style bifid. Drupe 2-4-seeded.

2674. *Geisoméria*. Calyx 5-parted. Sepals glumaceous, equal. Corolla tubular, clavate. Limb nearly equal, lower segment bearded. Cells of anthers parallel, hairy at apex. Ovarium 2-celled. Cells 2-seeded. Stigma funnel-shaped.

2675. *Chloanthus*. Calyx 5-cleft. Corolla tubular; upper lip bifid, lower one tripartite. Stamens exerted. Stigma bifid. Drupe containing 3 nuts.

2676. *Lophospermum*. Corolla bilabiate. Tube wide, gibbous at base. Capsule dehiscing irregularly under the apex.

2677. *Seyméria*. Calyx deeply 5-cleft. Corolla with a short tube, and a subrotate spreading limb. Stamens a little longer than the corolla. Cells of anthers nearly equal.

2678. *Diplacus*. Calyx prismatic, 5-cleft. Corolla ringent, 5-cleft. Lobes emarginate. Stigma bilamellate. Capsule 2-celled. Placenta broad. Seeds subulate at both ends.

2679. *Torenia*. Calyx plicate, obliquely 5-toothed. Two lower filaments appendiculate, or gibbous at base.

2680. *Collinsia*. Corolla gibbous above the base. Limb very irregular. Capsule 2-valved. Valves bipartite.

2681. *Franciscoa*. Calyx 5-toothed. Corolla salver-shaped. Stigma 2-lobed. Capsule 2-celled; dissepiment parallel with the valves, separating from the parietes at the base.

GYMNOSPERMIA.

17542 Diffuse without stolones, Branches pilose, Lvs. ovate sinuately-toothed or entire villous, Upper whorls of flowers [spike  
 17543 Lvs. narrow-obl. narrowed at base quite ent. or sinuat. rather vill. Lower whorls of flws. remote upper subspic. Teeth of cal. short

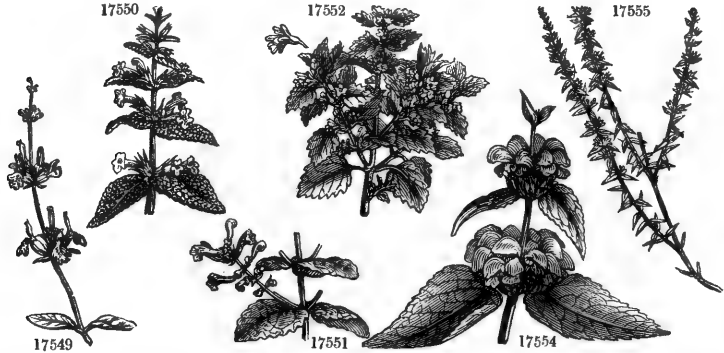




2649. \*1248a. *LOPHANTHUS* Benth. (*Lophos*, crest, *anthos*, flower; appearance of flowers.) *Labiaceæ*. Sp. 5-5.  
 17544 - *anisatus* Benth. Anise-scented  $\Delta$  or 3 jl.s B N. Amer. 1825. S co Bot. reg. 1282  
 Nos. 8162, 8163, 8164. and 8189. are also referable to this genus.
2650. \*1254a. *APHANOCHYLUS* Benth. (*Aphanos*, obscure, *chylus*, a lip; lip of flower.) *Labiaceæ*. Sp. 1-2.  
 17545 - *incisus* Benth. cut  $\Delta$  or 2 s W Nepal 1824. D co Fl. rar. gen. 23. t. 8.  
*Mentha blanda* Lindl., but not of Wal.
2651. \*1254b. *DYSOPHYLLA* Blume. (*Dysodes*, fetid, *phyllon*, leaf; smell?) *Labiaceæ*. Sp. 1-2.  
 17546 - *pumila* Benth. dwarf  $\Delta$  cu  $\frac{1}{2}$  jl.s P Nepal 1826. D co Bot. mag. 2907  
*Mentha pumila* Grah., *verticillata* D. Don.
2652. \*1256a. *PYCNOSTACHYS* Poir. *PYCNOSTACHYS*. (*Pyknos*, dense, *stachys*, a spike.) *Labiaceæ*. Sp. 1-1.  
 17547 - *cærulea* Hook. blue  $\Delta$  [ ] or 3 au B Madagas. 1825. S co Hook. ex. fl. 202
1259. *LAMIUM*. Sp. 12-17.  
 17548 8272a *longiflorum* Ten. long-flowered  $\Delta$  or 1 mr Pk S. Europe ..... D co Eng. bot. 2550  
*maculatum* Eng. bot., but not of *Flora Græca*.  
 *$\beta$  album* white  $\Delta$  or 1 mr W gardens ..... D co
1263. *STACHYS*. Sp. 38-57.  
 8299 *germânica*  
 *$\beta$  pubescens* Lindl. pubescent  $\Delta$  spl 2 au.o P Germany 1826. D p.l Bot. reg. 1289  
 17549 - *inflata* Benth. inflated-calyx  $\Delta$  or 2 jl.au Pk N. Africa 1832. C s.l Bot. reg. 1697
2653. \*1263a. *SPHACELE* Benth. *SPHACELE*. (*Sphakele*, Greek name for Sage.) *Labiaceæ*. Sp. 1-2.  
 17550 - *Lindleyi* Benth. Lindley's  $\Delta$  un 2 au Pk Chile 1825. C l.r Bot. reg. 1226  
*Stachys Sálvia* Lindl.
2654. \*1264a. *PERILOMIA* H. & K. (*Peri*, around, *loma*, margin; fruits with membran. border.) *Labiaceæ*. Sp. 1-1.  
 17551 - *ocymoides* Kth. Basil-like  $\Delta$  or 3 au.s P Peru 1829. C s.l Bot. reg. 1394
2655. \*1265a. *ROYALEA* Wal. (*Dr. Royle*, superintend. of Bot. Gard. Saharampoor.) *Labiaceæ*. Sp. 1-1.  
 17552 - *elegans* Wal. elegant  $\Delta$  or 2 jl.au P Nepal 1824. C s.l Wal. pl. as. 1.  
*Ballota cinerea* D. Don.
1268. *PHLOMIS*. Sp. 16-25.  
 17553 8356a *floccosa* D. Don floccose  $\Delta$  or 2 jl.o Y Egypt 1828. D s.l.p Bot. rep. 1300  
 17554 8361a *Russelliana* Lag. Russell's  $\Delta$  or 3 jn.jl Br Levant 1821. D r.m Bot. mag. 2542
2656. \*1275a. *MICROMERIA* Benth. *MICROMERIA*. (*Mikros*, small, *meris*, a part.) *Labiaceæ*. Sp. 1-1  
 17555 *Teneriffæ* Benth. Teneriffe  $\Delta$  or 1 jn.jl P Teneriffe 1829. C co  
*Thymus Teneriffæ* Pers.
2657. \*1277a. *GARDOQUIA* R. & P. *GARDOQUIA*. (*D. Diego Gardoqui*, a noble Spaniard.) *Labiaceæ*. Sp. 2-3.  
 17556 - *Gilliesi* Grah. Gillies's  $\Delta$  pr  $\frac{3}{4}$  jn.s L.Y Chile 1828. C p.s Bot. reg. 1812  
 17557 - *multiflora* R. & P. many-flowered  $\Delta$  pr 1 jn.s S Chile ..... C s.l.p Botanist, 6
2658. \*1279a. *PHYSOSTEGIA* Benth. (*Physa*, a bladder, *stega*, a covering; calyx.) *Labiaceæ*. Sp. 6-7  
 17558 - *imbricata* Hook. imbricated-flwd  $\Delta$  or 6 st. aut Pa.P Texas 1833. D co Bot. mag. 3386  
 17589 - *truncata* Benth. truncate-calyx  $\Delta$  or 1 ..... Pa.Pk S. Felipe 1834. D lt.l Bot. mag. 3494  
 To this genus Nos. 8435, 8436, 8437. and 8450. may be referred.
2659. \*1282a. *COLEUS* Lou. *COLEUS*. (*Koleos*, a sheath; united stamens.) *Labiaceæ*. Sp. 3-3.  
 17560 - *aromaticus* Benth. aromatic  $\Delta$  fra 1  $\frac{1}{2}$  mr. my Pa. V India 1826. C p.l Bot. reg. 1520  
 Nos. 8476. and 8477. also belong to this genus.
2660. \*1283a. *CHILLODEA* R. Br. (*Cheilos*, lip, *odous*, tooth; tip of lower lip of cal. bifid.) *Labiaceæ* Sp. 1-1.  
 17561 - *scutellaroides* R.Br. Scutellaria-lk.  $\Delta$  pr  $2\frac{1}{2}$  va. sea V N.S.W 1829. S p.l Bot. mag. 3405

ANGIOSPERMIA.

1290. *GE'SNERIA*. Sp. 21-28.  
 17562 - *Douglasii* Lindl. Douglas's  $\Delta$  [ ] or 1  $\frac{1}{2}$  s R.Y Rio Jan. 1326. R p.l Bot. cab. 1929  
 17550 17552 17555



History, Use, Propagation, Culture,

2649. *Lophanthus*. Plants which prefer a light dry soil, and may be increased by division of the root, or by seed.  
 2650. *Aphanochilus*. Plants of easy culture, and will grow in any light rich soil.  
 2651. *Dysophylla*. The species grow well in the open air in summer, if planted in a cistern or pond, but require the protection of a green-house or stove during winter. Readily increased by division.  
 2652. *Pycnostachys*. Plants of easy culture and propagation, thriving in a light rich soil.  
 2653. *Sphacele*. Free growers and flowerers. Any light rich soil will suit them, and cuttings root freely under a hand-glass.  
 2654. *Perilomia*. Any light rich soil suits this genus, and cuttings of the young wood root readily under a hand-glass.  
 2655. *Royalea*. For propagation and culture see *Sphacele*, above.

- 17544 *Glabrous, Lvs. ov. or ov.-lanceol. acute crenate, Spikes cylindric. Interrupt. at base, Cal. segms. lanceol.-acute, Stamens exerted*
- 17545 *Nearly glabrous, Lvs. petiol. rhomboid-ov. dply. serrat. Whorls equal loose, Spikes panicled, Cor. hardly exceeding the calyx*
- 17546 *Glabr. Lvs. 4 in. whorl lower ones usually 6 ellipt.-lin. narrowed at both ends remotely serrat. Flor. lvs. ov. Cal. villous*
- 17547 *Stem and bran. 4-gonal. Lvs. sess. obl.-lin. or lanceol. acute remotely serrat. narrowed at base, Spikes dense termin. 1-2 in. long*
- 17548 *Leaves heart-shaped pointed deeply serrated, Whorls 10-fwd.*
- 17549 *Lvs. nrly. sess. obl. obt. quite ent. little wrinkled toment. ben. Whorls 6-fwd. Flws. sess. Cal. inflately campanul. with ov. bluntish mutic teeth*
- 17550 *Bran. floccose, Lvs. ov. cordate at base bullately wrinkled woolly ben. Rac. dense, Whorls many-fwd. Cor. twice as long as cal.*
- 17551 *Glabr. or hardly pubes. Lvs. petiol. ov. crenat. roundedly truncate at base. Rac. elongat. Cor. 4-5 times longer than calyx*
- 17552 *Cal. tubular at base 10-nrvd. Limb 5-cleft, Segms. erect oblong membranaceous reticulately veined equal*
- 17553 *Bran. floccose, Lvs. ov.-obl. cord at base much wrinkled and floccose ben. Whorls densely many-fwd. Cal. [teeth subul. stiff glabr. hooked*
- 17554 *Bran. alm. simple, Rad. lvs. ov. dply cord. at base as well as stem-lvs. wrinkled canes. ben. Whorls 40-50-fwd. Cal. teeth spread*
- 17555 *Lvs. sess. ovate acute rigid glabr. flat lower ones broader and somewh. plicate upper alm. lanceol. Cal. teeth setaceous about equal to cor.*
- 17556 *Lvs. obl.-linear or cuneated obtuse quite ent. 3-6 in. long, Whorls few many-fwd. rather loose and irreg. Cal. [teeth lanceol.-subul. nrly. equal*
- 17557 *Lvs. petiol. ov. bluntish crenat. little rounded at base, Whorls loose subsecund, Cymes pedunc. Cal. teeth acute*
- 17558 *Lvs. ellipt.-lanceol. coarsely serrated, Spikes panicled 4-gonal, Flws. erect densely imbricat. Upper lip of cor. [concave*
- 17559 *Calyx truncate obscurely 3-5-lobed, Lobes very broad denticulated*
- 17560 *Lvs. petiol. broad-ov. crenat. rounded at base or cuneat. very thick hispid or clothed with white villi, Whorls remote 20-30-fwd.*
- 17561 *Bran. pubes. Lvs. sess. lin. lanceol. acute quite ent. with subrevolute edges, Flor. lvs. exceeding flws. Cal. ciliated*

## ANGIOSPERMIA.

- 17562 *Pubesc. Lvs. falsely verticill. 4-5-6 rarely oppos. ov. acute crenately toothed, Cyme termin. Hypogynous glands twin behind*



17558  
and Miscellaneous Particulars.

2656. *Micromeria* is a genus of plants which thrive, during the summer, on rockwork, but require the protection of a frame in winter.

2657. *Gardoquia*. The species are well deserving of cultivation; they thrive in a mixture of sand, loam, and peat, and cuttings root readily in sand, under a hand-glass.

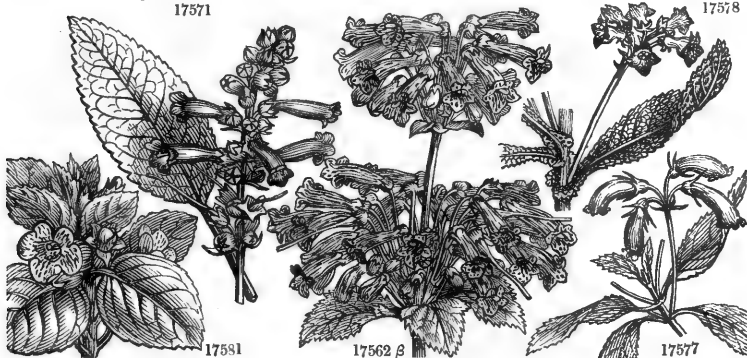
2658. *Physostegia*. Elegant plants of easy culture, well adapted to the flower border. They may be readily increased by division of the root, and will thrive in common garden soil.

2659. *Coleus*. A mixture of peat and loam suits this plant, and cuttings root readily in sand, in a gentle heat.

2660. *Chilodía*. For propagation and culture see *Coleus*, above.

1290. *Gésnera*. Very showy plants while in flower. A light rich soil, or a mixture of loam, peat, and sand, suits them. Most of the species increase readily by cuttings, and by tubers of the root. While dormant, they require to be kept dry.

|         |  |  |                 |         |               |       |         |                               |
|---------|--|--|-----------------|---------|---------------|-------|---------|-------------------------------|
| 17563 - | <i>β verticillata Hook.</i>  | verticillate   | ✱ ⊠ or 2 sp     | R.B     | Rio Jan.      | 1826. | R p.l   | Bot. mag. 3612                |
| 17564 - | - <i>Sellowii Mart.</i>  | Sellow's   | ✱ ⊠ or 2 jl     | S       | Brazil        | 1835. | O p.l   | Fax. mag. 4. 27               |
|         | - <i>fauciális Lindl.</i>  | wide-mouthed   | ✱ ⊠ or 2 jl     | S       | Brazil        | 1833? | O p.l   | Bot. reg. 1785                |
| 17565 - | - <i>macrostachya Lindl.</i>   | long-spiked  | ✱ ⊠ spl 2 year  | S       | Rio Jan.      | 1825. | C p.l   | Bot. reg. 1202                |
| 17566 - | - <i>elongata Hum.</i>   | elongated  | ✱ ⊠ or 2 s      | S       | S. Amer.      | 1835. | C p.l   | Botanist, 27                  |
| 17567 - | - <i>corymbosa Swz.</i>  | corymbose  | ✱ ⊠ or 2 jn.au  | S       | Jamaica       | 1822. | C p.l   |                               |
|         | - <i>scéptrum</i>  |  |                 |         |               |       |         |                               |
|         | <i>β igneum Hook.</i>  | fiery-flowered   | ✱ ⊠ or 3 s      | Rsh. Y  | Brazil        | 1835. | C p.l   | Bot. mag. 3576                |
| 17568 - | - <i>spicata L. &amp; O.</i>   | spiked-inflor.   | ✱ ⊠ or ... ..   | .....   | .....         | 1831. | O p.l   |                               |
| 17569 - | - <i>allagophylla Mart.</i>  | changing-ldv   | ✱ ⊠ or 1½ jl    | O       | Brazil        | 1834. | C p.l   | Bot. reg. 1767                |
| 17570 - | - <i>rutila Lindl.</i>   | brilliant red  | ✱ ⊠ spl 2 au.s  | S.Y     | Brazil        | 1825. | C p.l   | Bot. reg. 1158                |
| 17571 - | - <i>Lindleyi Hook.</i>  | Lindley's  | ✱ ⊠ spl 2 jn.jl | S.Y     | Brazil        | 1825. | C p.l   | Bot. mag. 3692                |
| 17572 - | - <i>elmifolia Hum.</i>  | Elm-leaved   | ✱ ⊠ or 2 jn.au  | S       | S. Amer.      | 1820. | C p.l   | Bot. reg. 1032                |
| 17573 - | - <i>hirsuta H. &amp; B.</i>   | hairy  | ✱ ⊠ or 1 jn.au  | S       | Cumana        | 1826. | C p.l   |                               |
| 17574 - | - <i>Suttoni Booth</i>   | Capit. Sutton's  | ✱ ⊠ or 2 jl     | S       | Rio Jan.      | 1833. | C r.l   | Bot. reg. 1637                |
| 17575 - | - <i>Cooperi Pax.</i>  | Cooper's   | ✱ ⊠ or 2 my.jn  | S       | Brazil        | 1829? | C s.l.p | Bot. mag. 3041                |
| 17576 - | - <i>lateritia Lindl.</i>  | brick-red  | ✱ ⊠ or 2 jn     | R       | Brazil        | 1834. | O p.l   | Bot. reg. 1950                |
| 2661.   | *1290a. <i>PENTARAPHIA Lindl.</i>  | PENTARAPHIA. ( <i>Pente</i> , five, <i>raphis</i> , a spike.)              |                 |         |               |       |         | <i>Gesneriaceæ.</i> Sp. 1-1.  |
| 17577   | - <i>longiflora Lindl.</i>   | long-flowered  | ✱ ⊠ or 1½ jn.jl | ...     | Jamaica       | 1823. | C p.l   |                               |
|         | - <i>Gesneria ventricosa Swz.</i>  |  |                 |         |               |       |         |                               |
| 2662.   | *1290b. <i>RYTIDOPHYLLUM Mart.</i>   | ( <i>Rytis</i> , wrinkle, <i>phyllon</i> , leaf; surface.)                 |                 |         |               |       |         | <i>Gesneriaceæ.</i> Sp. 2-2.  |
| 17578 - | - <i>auriculæum Hook.</i>  | auricled   | ✱ ⊠ or 5 n      | Y.G.B   | Brazil        | 1836. | C p.l   | Bot. mag. 3562                |
|         | No. 8521. in p. 512. is also referable to this genus.                            |  |                 |         |               |       |         |                               |
| 2663.   | *1290c. <i>SINNINGIA Nees.</i>   | ( <i>W. Sinning</i> , gardener to the University of Bonn.)                 |                 |         |               |       |         | <i>Gesneriaceæ.</i> Sp. 5-5.  |
| 17579 - | - <i>Helleri Nees</i>  | Heller's   | ✱ ⊠ or 1 jn.jl  | W.G     | Rio Jan.      | 1820. | C p.l   | Bot. reg. 997                 |
|         | - <i>Schottii Mikan.</i>   |  |                 |         |               |       |         |                               |
| 17580 - | - <i>guttata Lindl.</i>  | spotted  | ✱ ⊠ or 1½ my.jl | Y.B.W   | Brazil        | 1827. | C p.l   | Bot. reg. 1112                |
| 17581 - | - <i>velutina Lindl.</i>   | velvety  | ✱ ⊠ or 1½ my.jl | Y       | Brazil        | 1827. | C p.l   | Bot. cab. 1398                |
| 17582   | - <i>villosa Lindl.</i>  | villous  | ✱ ⊠ or 1½ my.jl | Y.G     | Brazil        | 1827. | C p.l   | Bot. cab. 1629                |
|         | 1291. <i>GLOXINIA.</i>   |  |                 |         |               |       |         | Sp. 4-5.                      |
|         | 15343. <i>speciosa</i>   |  |                 |         |               |       |         |                               |
|         | <i>β álba</i>  |  |                 |         |               |       |         |                               |
| 17583   | 8527a <i>caulescens B. R.</i>  | caulescent   | ✱ ⊠ or ¾ jl.au  | P       | Pernamb.      | 1826. | D p.l   | Bot. reg. 1127                |
| 17584   | 8527b <i>hirsuta B. M.</i>   | hairy  | ✱ ⊠ or ¼ jn.au  | B       | S. Amer.      | 1824. | D s.p   | Bot. mag. 2690                |
| 2664.   | *1294a. <i>AMPHYCOME Royle.</i>  | ( <i>Amphi</i> , around, <i>kome</i> , hair; seeds.)                       |                 |         |               |       |         | <i>Bignoniaceæ.</i> Sp. 1-1.  |
| 17585   | - <i>arguta Boyle</i>  | finely cut   | ✱ ⊠ pr 1 au     | L       | Himalayas     | ...   | C l.p   | Bot. reg. n. s. 19            |
| 2665.   | *1294b. <i>FIELDIA Cun.</i>  | ( <i>Baron Field</i> , some time chief judge in N. S.W.)                   |                 |         |               |       |         | <i>Bignoniaceæ.</i> Sp. 1-1.  |
| 17586   | - <i>austrális Cun.</i>  | southern   | ✱ ⊠ or 1 jl.au  | W       | N. Holl.      | 1826. | C s.l   | Ex. fl. 232                   |
| 2666.   | *1294c. <i>TECOMA J. Tecoma.</i>   | ( <i>Tecomaxochitl</i> , the Mexican name.)                                |                 |         |               |       |         | <i>Bignoniaceæ.</i> Sp. 6-14. |
| 17587   | - <i>capensis B. R.</i>  | Cape   | ✱ ⊠ or 8 jl.s   | O       | C.G.H.        | 1823. | C p.l   | Bot. reg. 1117                |
|         | Nos. 8547. 8559. 8550, 8551. and 8554., in p. 514., are referable to this genus. |  |                 |         |               |       |         |                               |
| 2667.   | *1294d. <i>SALPIGLOSSIS R. &amp; P.</i>  | <i>SALPIGLOSSIS.</i> ( <i>Salpigx</i> , a tube, <i>glossa</i> , a tongue.) |                 |         |               |       |         | <i>Solanaceæ.</i> Sp. 1-9.    |
| 17588   | - <i>sinuata R. &amp; P.</i>   | sinuated-leaved  | ○ or 1½ au.s    | P.o.str | Chile         | 1824. | S lt    | Bot. mag. 2811                |
|         | - <i>atropurpurea Graham.</i>  |  |                 |         |               |       |         |                               |
|         | <i>β picta Sut.</i>  | painted  | ○ spl 2 my.jn   | Va      | Chile         | 1820. | S co    | Sw. fl. gar. 258              |
|         | <i>γ straminea Hook.</i>   | straw-coloured   | ○ or 1½ jn.au   | Creab.  | Chile         | 1824. | S p.l   | Hook. ex. fl. 229             |
|         | <i>δ Barclayana Penny Barclay's S. intermedia Sut.</i>                           |  | ○ or 3 jn.s     | Br.y    | Eng. hyb. ... |       | S lt    | Sw. fl. gar. 2.s. 112         |
| 2668.   | *1294e. <i>CALAMPPELIS D. Don.</i>   | <i>CALAMPPELIS.</i> ( <i>Kalos</i> , pretty, <i>ampelis</i> , a vine.)     |                 |         |               |       |         | <i>Bignoniaceæ.</i> Sp. 1-1.  |
| 17589   | - <i>scabra D. Don</i>   | scabrous   | ✱ ⊠ pr 10 jl.s  | O       | Chile         | 1824. | C l.s   | Sw. fl. g. 2. s. 30           |
|         | - <i>Ecremocarpus scaber R. &amp; P.</i>   |  |                 |         |               |       |         |                               |



History, Use, Propagation, Culture.

2661. *Pentaraphia.* For propagation and culture see *Rytidophyllum*.  
 2662. *Rytidophyllum.* A light rich earth, vegetable mould, or a mixture of loam, sand, and peat, suits the species; and cuttings root readily in heat.  
 2663. *Sinningia.* For culture, &c., see *Rytidophyllum*, above.  
 2664. *Amphicome.* For culture, &c., see *Rytidophyllum*, above.  
 2665. *Fieldia.* Culture, &c., as recommended for *Rytidophyllum*.  
 2666. *Tecoma.* For propagation and culture see *Bignonia*, in p. 514.

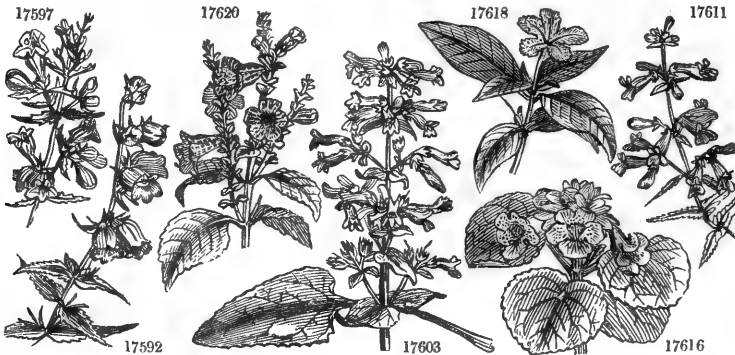
- 17563 Stem pilose, Lvs. oppos. on short petioles cord.-ov. acute serrat. hairy ab. hoary toment. ben. Cymes thyrsoid  
 17564 Lvs. nearly sessile cord. obl. cren. tomentose, Rac. terminal, Bract. reflex. Cor. tomentose upper lip obl. 2-lobed throat wide [later. many-flwd. Hypogynous glands 4  
 [glands twin behind  
 17565 Downy, Stem simple, Lvs. oppos. petiol. cord.-ov. crenated wrinkled, Cymes axill. many-flwd. racemose, Hypog. axill. 4-flwd. elongat.  
 17566 Bran. 4-gonal clthd. with woolly hairs, Lvs. oppos. obl. acumin. acute at base somew. crenat. rufes. ben. Pedunc. [Whorls 10-flwd.  
 17567 Lvs. petiol. oppos. ov. acute serrat. scarious rough toment. ben. Pedunc. termin. and axill. many-flwd. corymb.  $\beta$  Villosus, Lvs. on short pets. oppos. or 3 in whorl  $1\frac{1}{2}$ -2 in. long obtuse rarely crenat. pubes. ben. and canes. [Hyp. glands 5  
 Hyp. glands 4-5  
 17568 Stem simple pilose, Lvs. 3 in whorl petiol. lanceol.-obl. acumin. crenat. pilose ab. toment. ben. Whorls 10-flwd.  
 17569 Stem usually 3-gonal, Lvs. villosus nry. sess. 3 in whorl or, oppos. or scattered lin.-oblong or spatul. obtuse crenat. Limb equal, Hyp. gl. 2 behind [out, Hyp. gl. 2 behind  
 17570 Villosus, Lvs. oppos. obl.-lanceol. acutish at both ends coarsely crenat. Pedunc. axill. Upper lip of cor. drawn  
 17571 Pubesc. rather scabrous, Lvs. pet. ovate obl. cren. Rac. terminal compound, Limb of cor. oblique upper lip largest  
 17572 Bran. subtrigonal and pilose, Lvs. oppos. ov.-acute obliquely cord. at base crenat. blistered ab. pubes. ben. [twin, Hypog. gl. hairy  
 Ovarium girded by yellow ring  
 17573 Bran. very hairy, Lvs. oppos. obl.-ov. acumin. rounded at base pilose ab. toment. ben. Pedun. axill. 1-flwd.  
 17574 Stem terete toment. Lvs. ov.-cord. crenat. toment. Pedun. axill. solit. 1-flwd. Upper lip of cor. oblong undu-  
 lated lower small revolute [bifid erect lower one small and reflexed  
 17575 Pubescently tomentose, Lvs. oppos. cord.-ovate crenate-serrate, Panicle termin. Upper lip of cor. very long  
 17576 Lvs. petiolate roundish ovate cord. crenate hairy axillary, Flws. solitary terminal ones twin stem-clasping, Upper lip of corolla obl. concave  
 17577 Lvs. ellipt. acuminat. glabr. Pedun. usually 4-flwd. Cal. segms. subul. elongat. Cor. cylindric. incurved  
 17578 Lvs. broadly lanceol. somewhat obliquely falcate crenate-serrate sessile auricul. at base very wrinkled and bullate ab. beautifully reticul. ben.  
 17579 Lvs. glabrous cordate-ovate serrated ciliated, Cal. turbinate twice as long as ovarium [as ovarium  
 17580 Lvs. obl.-lanceol. atten. at base pubes. lucid serrat. Cor. spotted, Cal. cylindrically campanul. 3 times as long  
 17581 Leaves oblong subcordate velvety, Cal. cylindrically-campanul. 3 times as long as ovarium  
 17582 Stem and leaves villosus, Cal. 5-parted length of ovarium, Flowers aggregate  
 $\delta$  pallida máxima  $\zeta$  Menzièssi  $z$  violacea  
 17583 Lvs. ov. crenat. obt. toment. edges revolute, Pedun. axill. elongat. Cor. downy, Segms. nry. equal middle one cord.-ov. all undul.  
 17584 Stemless very hairy, Lvs. ov.-roundish wrinkled hispid rath. cord. at base, Scapes and pedunc. aggreg. 1-flwd. Cor. funnel-sh.  
 17585 Lfts. oppos. on short pets. 3-4 pairs lanceol. acumin. unequal at base dentately serrated  
 17586 The only species  
 17587 Glabr. Bran. terete, Lfts. 9 ovate serrat. bearded in axils of veins ben. Rac. termin. on long pedunc. Limb of cor. 4-parted  
 17588 Clthd. with glandul. hairs, Lower lvs. petiol. ellipt. obl. sinuat. upper sess. lanceol.-lin. ent. Bran. dichotom. Filam. glandul. pilose  
 $\beta$  Corolla elegantly variegated with yellow and bluish purple  
 $\gamma$  Corolla cream-coloured veined with blue  
 $\delta$  Corolla striped with brown and yellow  
 17589 Lvs. 2 pairs of pinnae, Lfts. altern. obliquely cord. ovate serrat. or ent. Stems angul. clthd. with short stiff pellucid hairs when young, Cor. hairy



2667. *Salpiglossis*. A genus of very showy handsome plants, which succeed well if sown in the open border early in spring, or they may be sown in autumn, if preserved in the green-house or frame during winter, where they will require a free admission of air and light.

2668. *Calampelis* 17589 *scabra* is a beautiful climber, generally raised from seeds in spring, on a hot-bed. The plants succeed well if trained in a conservatory, or in the open ground against a wall or house with a south exposure.

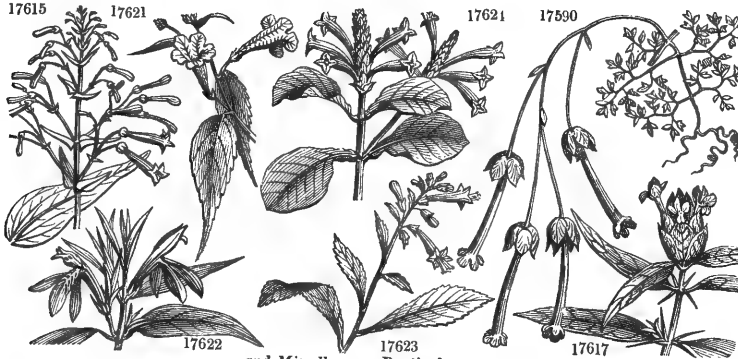
|   |  |  |                       |  |
|---|--|--|-----------------------|--|
| 2669.   | *1294f. ECCREMOCA <sup>R</sup> PUS R. & P.                                 | ( <i>Eckremes</i> , pendent, <i>karpos</i> , fruit.)                   | <i>Bigoniidæe.</i>    | Sp. 1—1.                                       |
| 17590 -   | - longiflorus Hum.   | long-flowered  | ♁ Δ pr 6 jl.au O      | Peru 1825. C s.l.p H. & B. 65                  |
| 1297. PENTSTEMON.   |  |  |                       |  |
| 17591 -   | - atropurpureum G. Don   | dark purple  | ♀ Δ or 1½ jl.o D.P    | Sp. 32—40. Mexico 1827. D p.l Sw. fl. gar. 235 |
| 17592 -   | - pulchellum Lindl.  | pretty   | ♀ Δ pr 1½ jn.au Li    | Mexico 1827. D p.l Bot. reg. 1138              |
|   | - elegans G. Don   | Chelidone elegans Kth.   | ♀ Δ or 1½ ..... R     | Mexico 1825. D p.l Sw. fl. gar. 230            |
| 17593 -   | - roseum G. Don  | roseate  | ♀ Δ or 1½ ..... R     | Mexico 1825. D p.l Sw. fl. gar. 230            |
| 17594 -   | Künthii G. Don   | Kunth's glandular  | ♀ Δ or 1½ ..... P     | Mexico 1825. D p.l H. & B. 2173                |
| 17595 -   | - glandulosum Dou.   | glandular  | ♀ Δ or 2 jn.au Pa.P   | N. Amer. 1827. D co Bot. reg. 1262             |
| 17596 -   | - venustum Dou.  | graceful   | ♀ Δ or 2 jls P        | N. Amer. 1827. D co Bot. reg. 1309             |
| 17597 -   | - Richardsonii Dou.  | Richardson's   | ♀ Δ or 1½ jn.s D.P    | Columbia 1825. D p.l Bot. reg. 1121            |
| 17598 -   | - Scofieldi Dou.   | Scouler's  | ♀ Δ or 3 my.jn P.B    | N. Amer. 1827. D co Bot. reg. 1277             |
| 17599 -   | - speciosum Dou.   | showy  | ♀ Δ or 3 jls B        | N. Amer. 1827. D co Bot. reg. 1270             |
| 17600 -   | - acuminatum Dou.  | acuminate  | ♀ Δ or 1 jn.au P      | N. Amer. 1827. D co Bot. reg. 1285             |
| 17601 -   | - Cobcea Nutt.   | <i>Cobcea-flwd</i>   | ♀ Δ or 2½ aut W.P.Y.R | Texas 1835. S s.l Bot. mag. 3465               |
| 17602   | - digitalis Nutt.  | finger   | ♀ Δ or 1½ jls W       | Arkansa 1824. D.p.l Sw. fl. gar. 120           |
| 17603   | - ovatum Dou.  | ovate-leaved   | ♀ Δ spl 4 jn.au B     | N. Amer. 1826. D p.l Bot. mag. 2903            |
| 17604   | - procerum Dou.  | tall   | ♀ Δ or 1 jn.au P      | N. Amer. 1827. D p.l Bot. mag. 2954            |
| 17605   | - confertum Dou.   | crowded-flwd   | ♀ Δ or 2 jl.au Pa.Y   | N. Amer. 1827. D p.l Bot. reg. 1260            |
| 17606   | - glaucum Grah.  | glaucous   | ♀ Δ or 1 jn.au Pa.Li  | N. Amer. 1827. D p.l Bot. reg. 1286            |
| 17607   | - deustum Dou.   | blasted  | ♀ Δ or 1 ..... P      | N. Amer. 1827. D co                            |
| 17608 -   | - attenuatum Dou.  | tapering   | ♀ Δ or 1½ jl.au Pa.Y  | N. Amer. 1827. D co Bot. reg. 1295             |
| 17609 -   | - diffusum Dou.  | diffuse  | ♀ Δ or 1½ in.n        | N. Amer. 1826. D p.l Bot. reg. 1132            |
| 17610 -   | - triphyllum Dou.  | three-leaved   | ♀ Δ or 1½ jl.au Pk    | California 1827. D p.l Bot. reg. 1245          |
| 17611 -   | - gracile Nutt.  | slender  | ♀ Δ or 1 jls B        | N. Amer. 1824. D co Bot. mag. 2945             |
| 17612 -   | - Murrayanum Hook.   | Murray's   | ♀ Δ or 3 aut S        | S. Felipe 1835. D p.l Bot. mag. 3472           |
| 17613 -   | - crassifolium Lindl.  | thick-leaved   | ♀ Δ or 1 jn B         | N. Amer. .... D co Bot. reg. n. s.16           |
| 1298. CHELO <sup>N</sup> E.   |  |  |                       |  |
| 17614   | 8573a nemorosa Dou.  | grove  | ♂ Δ or 1 jls P        | Sp. 6—8. N. Amer. 1827. S r.m Bot. reg. 1211   |
| 17615   | 8574a centranthifolia Benth.   | Cent.-leaved   | ♀ Δ or 7 jl.n S       | California 1834? D co Bot. reg. 1737           |
| 1300. MARTY <sup>N</sup> IA.  |  |  |                       |  |
| 17616   | 8579a lutea Lindl.   | yellow   | ☐ or 1½ au Y          | Sp. 5—4. Brazil 1825. S co Bot. reg. 934       |
| 1302. BARLE <sup>R</sup> IA.  |  |  |                       |  |
| 17617   | - lupulina Lindl.  | Hop-headed   | ♂ ☐ or 2 au Y         | Sp. 9—13. Mauritius 1824. C p.l Bot. reg. 1493 |
| 1304. RUE <sup>P</sup> LLA.   |  |  |                       |  |
| 17618 -   | - picta B. C.  | painted  | ♂ ☐ or 1 ap.au B      | Sp. 20—31. Domingo 1826. C p.l Bot. cab. 1448  |
| 17619 -   | - ciliatiflora Hook.   | fringed-flwd   | ♀ ☐ or 1½ s Pa.P      | B. Ayres 1838. C co Bot. mag. 3718             |
| 2670.*  | 1304a. STROBILA <sup>N</sup> THES Nees.                                    | ( <i>Strobilos</i> , pine cone, <i>anthos</i> , flower; in bud state.) |                       | <i>Acanth.</i> Sp. 1—1.                        |
| 17620 -   | - Sabina <sup>n</sup> a Nees   | Sabine's   | ♂ ☐ or 4 w B.P        | Nepal 1826. C p.l Bot. mag. 3517               |
|   | - Ruellia Sabina <sup>n</sup> a Wall., Hort. Brit.                         |  |                       |  |
| 2671.* 1304b. GOLDFU <sup>S</sup> SSIA Nees. ( <i>Dr. Goldfuss</i> , professor of nat. hist., at Bonn.) <i>Acanthææ.</i> Sp. 1—1.         |  |  |                       |  |
| 17621   | - anisophylla Nees   | unequal-leaved   | ☐ or 3 ju.au B        | Silhet 1823. C l.p Bot. mag. 3404              |
|   | - Ruellia anisophylla Wall., R. persicifolia B. R., R. amygdalæfolia Hort. |  |                       |  |
| 2672.* 1304c. CALO <sup>P</sup> HEANES D. Don. ( <i>Kalos</i> , beautiful, <i>phaino</i> , to appear; flowers.) <i>Acanthææ.</i> Sp. 1—1. |  |  |                       |  |
| 17622 -   | - oblongifolia D. Don  | oblong-leaved  | ♀ Δ or 1 au B         | Carolina 1832. D l.p Sw.f. g. 2. s. 181        |
|   | - Ruellia oblongifolia Michaux.  |  |                       |  |
| 2673.* 1305a. AMASO <sup>N</sup> IA L. AMASONIA. ( <i>Thomas Amason</i> , an American traveller.) <i>Verbenææ.</i> Sp. 1—2.               |  |  |                       |  |
| 17623 -   | - punicea Vahl.  | scarlet  | ♀ Δ pr 1½ au.s Y      | Trinidad 1825. Sk. s.l. Aub. gul. 252          |
| 2674.* 1306a. GEISSOME <sup>R</sup> IA B. R. ( <i>Geisson</i> , penthouse, <i>meris</i> , part; calyx imbric.) <i>Acanthææ.</i> Sp. 1—1.  |  |  |                       |  |
| 17624   | - longiflora B. R.   | long-flowered  | ♂ ☐ el 3 jl.au S      | Brazil 1826. C l.p Bot. reg. 1045              |



History, Use, Propagation, Culture.

2669. *Eckremocarpus*. See Calámpelis for propagation and culture.  
 2670. *Strobilanthes Sabina* is a very handsome plant, easily propagated by cuttings.  
 2671. *Goldfussia*. A pretty stove plant, easily propagated by cuttings in any rich moist soil.

- 17590 Lvs. abruptly tripartite, Lfts. oval entire rarely bifid or trifid sess. Stem furrowed, Pedun. pendulous 3-4-fwd. [both ends upper ov. acumin. stem-clasp.]  
 17591 Stem rath. flexuous shining glandul. pili at top, Lvs. sess. sharply serrul. glabr. lower ones lanceol. atten.  
 17592 Stem pubes. Lvs. sess. ovate-lanceol. serrul. glabr. Pedun. 1-2-fwd. Corolla rather pliose glandless
- 17593 Lvs. sess. glabr. ov.-lanceol. sharply serrulat. acumin. upper lvs. broader, Pedunc. usually 3-fwd. Cor. rath. hairy, Lower lip bearded [lip densely bearded at base]  
 17594 Stem and lvs. glabr. Lvs. linear sharply serrul. spreadingly recurv. Pedun. 1-2-fwd. hairy, Cor. downy, Lower  
 17595 Plant clthd. with glandul. pubes. Rad. lvs. ovate coarsely toothed, Stem lvs. stem-clasp. acute nrly. ent. Cal. segs. ov. Cor. ventricose  
 17596 Lvs. sess. ov.-lanceol. acumin. denticul. glabr. Pedun. many-fwd. Cal. glabr. Cor. ventricose ciliated  
 17597 Lvs. sess. pinnatif. Pedun. few-fwd. Cal. clthd. with glandul. pubes. segms. ovate-acute, Cor. ventric. Ster. filam. with few hairs at apex [woolly]  
 17598 Lvs. obov.-lanceol. serrul. upper lvs. quite ent. Pedun. 1-fwd. racemose, Cal. downy segms. acumin. Anthers  
 17599 Glauc. glabr. Lvs. quite ent. rad. ones spatul. caul. ones lanceol. sub-undulat. sess. Flws. verticillately panicled, Ster. fil. quite glabr. [stem-clasp. Cor. with funnel-sh. tube]
- 17600 Glabr. and very glauc. Rad. lvs. ov.-obl. on long pets. ent. rath. coriac. Caul. lvs. and brac. cord. acumin. sess.  
 17601 Clthd. with glandul. pubes. Lvs. sharply serrul. shining, Rad. lvs. lanceol. petiol. Stem lvs. ov. ultim. ones sub-plex. Throat of cor. inflat. naked [campanul.]  
 17602 Glabr. Caul. lvs. lanceol. acumin. repandly denticul. Cal. clammy segms. acumin. reflexed, Cor. large sub-  
 17603 Flws. stems and pedun. glandul. hairy, Lvs. ov.-cord. amplex. glabr. coarsely toothed, Upper lvs. on long pets. Pedun. axill. subcorymb. Cor. tubular [lately spicate, Whorls. diat.]
- 17604 Stem erect nrly. simple, Lvs. lanceol. quite ent. lower ones petiol. upper sess. subconnate, Flws. verticil-  
 17605 Lvs. quite ent. glabr. rad. ones spatul. acumin. on long pets. upper sess. ov. acumin. Upper flor. lvs. reduced to jagged serrat. bracteas [sess. amplex. Panic. thyrsoid]  
 17606 Stem smthsh. Lvs. all glabr. rad. ones lanceol. petiol. quite ent. or denticul. Stem lvs. and brac. ov.-lanceol.  
 17607 Stem alm. simple glabr. Lvs. dply. toothed rad. ones ov.-obl. those near them spatul. Stem lvs. obl. acute segs. upper ones alm. quite ent. [cal. and cor. downy]
- 17608 Stem erect pliose at top, Rad. lvs. ellipt. acute petiol. upper ovate-obl. amplex. all quite glabr. and ent. Panic.  
 17609 Stem bran. Lvs. ov.-obl. glabr. uneq. serrat. Pedun. axill. many-fwd. forming termin. panic. Cal. turbinate with jagged segms. [Pedun. 2-3-fwd. cobwebbed]
- 17610 Humble, Lvs. 3-4 in whorl glabr. bluntly cut lower ones obl. Flor. lvs. ent. lin.-lanceol. usually ternate,  
 17611 Stem smth. and slend. Lvs. smth. lin. acute sub-plex. sharply serrul. Panic. simple few-fwd. Cor. smth. inside, Cal. segs. lin.-obl. [very glabrous, Tube sub-cylindr.]
- 17612 Lvs. very glauc. quite ent. obl. lower lvs. spatul. upper lvs. or brac. connato-perfoliate, Flws. racemose, Cor.  
 17613 Glabrous, Lvs. obovate lanceol. entire rac. terminal few-fwd. secund, Anthers very villous
- 17614 Bran. glabr. Lvs. ov. acumin. serrat. upper ones amplexic. cord. Pedun. 3-fwd. downy, Cal. segms. and brac. subul. downy as is cor. [subul. pendul. glabr.]  
 17615 Glabr. glauc. Lvs. ov.-lanceol. quite ent. cordately stem-clasp. at base, Pedun. axill. many-fwd. panicul. Cor.
- 17616 Stem bran. clthd. with glandul. down, Lvs. oppos. cord.-orbicul. toothed clthd. with gland. down, Beaks much long. th. pericarp.
- 17617 Lvs. lanceol. quite entire, Spines simple spreading, Spikes ovate, Bracteas ovate concave imbricated
- 17618 Lvs. ovate ellipt. Flws. sessile solitary axil. Segms. of cor. undulated  
 17619 Lvs. petiol. ovate uneq. serrated more or less hairy, Panic. termin. leafless. Cal. long and narr. pubescent glandul. Segms. subul. uneq. Limb spreading [ben. Spikes axill. and termin.]
- 17620 Bran. erect glabr. younger one quadrangul. Lvs. oppos. uneq. oval acumin. obliq. obscurely cren.-serrat. purple
- 17621 Lvs. obl. cordato-acuminate dark green with prominent nerves above paier ben. with sunken nerves oppos. or abortive leaf very small
- 17622 Lvs. spatulate, Tube of cor.  $\frac{1}{4}$  longer than calyx
- 17623 Stem erect, Flowers yellow
- 17624 The only species



and Miscellaneous Particulars.

2672. *Calophanes*. A very beautiful plant, increased by cuttings or division of the root.  
 2673. *Amasonia*. See *Ruellia* for propagation and culture.  
 2674. *Geissomeria*. A splendid free-flowering stove plant, easily propagated by cuttings. Requires a rich moist soil.

|   |                                     |  |         |                            |   |
|---|-------------------------------------|--|---------|----------------------------|---|
| 1308. THUNBERGIA.   |                                     |  |         | Sp. 6-8.                   |   |
| 17625 -   | - alba <i>Lod.</i>                  | winged   | ☐ or 4  | my.s                       | Y E. Indies 1823. C p.l   |
| 17626 -   | - angulata <i>Boj.</i>              | angular  | ☐ or 4  | my.s                       | B Madagas. 1823. C p.l  |
| 17627 -   | - coccinea <i>Wal.</i>              | scarlet  | ☐ or 4  | my.s                       | S Nepal 1823. C p.l   |
| 17628 -   | - <i>Hawtayneana</i> Wal.           | Hawtayne's   | ☐ spl   | 10 ...                     | P Nepal 1826. C p.l   |
| 1312. LANTA'NA  |                                     |  |         | Sp. 18-30.                 |   |
| 8639 nivea  |                                     |  |         |                            |   |
| β mutabilis <i>Hook.</i>  |                                     | changeable- <i>hue</i>                             | ☐ or 5  | my.jn                      | Y.ro ..... C l.p. Bot. mag. 3110  |
| 17629 -   | - <i>Sellovidna</i> L. & O.         | Sellow's   | ☐ or 1  | d.ja                       | Psh.R Montevid.1822. C p.l Bot. mag. 2981                                   |
| 1314. LYPPA   |                                     |  |         | Sp. 2-2.                   |   |
| 17630 -   |                                     | - dulcis <i>Trev.</i>                              | sweet   | ☐ pr ½                     | jn.s W Trinidad 1827. D p.l Bot. cab. 1573                                  |
| 2675. *1317a. CHLOA'NTHE'S R. Br.   |                                     | (Chloos, greenish yellow, <i>anthos</i> , flower.) |         | <i>Verbena</i> œ. Sp. 1-3. |   |
| 17631 -   | - <i>Stœchadis</i> R. Br.           | <i>Stœchas-like</i>                                | ☐ or 2  | jn.au                      | G.y N. Holl. 1822. C s.p Bau. n. h.   |
| 1322. VERBENA.  |                                     |  |         | Sp. 31-41.                 |   |
| 17632   | 8678a alata <i>Lk. &amp; O.</i>     | winged-stem  | ☐ Δ     | or 5                       | au.o Ro.R Mon. Vid. 1823. S lt Sw.f.gar.2.s.41.                             |
| 17633   | 8679a scabra <i>Vahl</i>            | scabrous   | ☐ Δ     | or 4                       | jl.au R Mexico 1825. D r.m  |
| 17634   | 8683a polystachya <i>Kth.</i>       | many-spiked  | ☐ Δ     | or 4                       | jl.au R Mexico 1820. D p.l  |
| 17635   | 8683b diffusa <i>Desf.</i>          | diffuse  | ☐ Δ     | or 3                       | jl.au B N. Amer. 1818. D p.l  |
| 17636   | 8683c <i>veronicaefolia</i> H. & B. | <i>Veronica-lvd</i>                                | ☐ Δ     | or ½                       | jl.au B Mexico 1825. S co   |
| 17637   | 8684a lasi stachys <i>Lk.</i>       | hairy-spiked                                       | ☐ Δ     | or 2                       | jl.au P Californ. 1826. S co  |
| 17638   | 8684c trifida <i>Hum.</i>           | trifid   | ☐ Δ     | or 1                       | jl.au P Mexico 1818. S s  |
| 8685 Anblètia   |                                     |  |         |                            |   |
| β Drummondii Lindl.   |                                     | Drummond's   | ☐ Δ     | or 1½                      | jl L Texas ..... D co Bot. reg. 1925  |
| 17639   | 8685a pulchella <i>Swt.</i>         | neat   | ☐ Δ     | or 1                       | jn.s P B. Ayres 1827. S co Sw. fl. gar. 295                                 |
| β cor. albidia  |                                     | whitish corol.                                     | ☐ Δ     | or 1                       | jn.s Wsh ..... C co   |
| 17640   | 8686a <i>chamadriifolia</i> Sm.     | <i>Germander-lvd</i>                               | ☐ Δ     | or 1                       | jn.s S B. Ayres 1827. C co Sw. fl. gar. 2. s. 9                             |
| β <i>Meknates</i> Gill  |                                     |  |         |                            |   |
| 17641   | 8686b <i>Tweediæna</i> Hook.        | <i>Tweediæ's</i>                                   | ☐ Δ     | or 1½                      | jn.s S Brazil 1834. ? C p.l Bot. mag. 3541                                  |
| 17642   | 8686c <i>inca</i> Hook.             | <i>cut-lvd</i>                                     | ☐ Δ     | or 2                       | jn.s R Panama 1836. C p.l Bot. mag. 3628                                    |
| 17643   | 8686d <i>rugosa</i> D. Don          | wrinkled- <i>lvd.</i>                              | ☐ Δ     | or 2                       | jl V B. Ayres 1833. ? D lt.l Sw. fl. gar. 2.s.318                           |
| 17644   | - <i>teucroides</i> G. & H.         | <i>Germander-like</i>                              | ☐ Δ     | or 2                       | au W.pk S. Amer. 1837. D co Bot. mag. 3694                                  |
| 8687 Lambèrtii  |                                     |  |         |                            |   |
| β <i>rõsea</i> D. Don   |                                     | <i>rosy-flwd</i>                                   | ☐ Δ     | or 1½                      | jl Pk Carolina ..... D co Sw. fl. gar. 2.s.347                              |
| 17645   | 8689a <i>sorõria</i> D. Don         | sister   | ☐ Δ     | or 2                       | jl.au P Nepal 1824. S r.m Sw. fl. gar. 202                                  |
| 17646   | 8691a <i>erinoides</i> W.           | <i>Erinus-lik.</i>                                 | ☐ Δ     | or ½                       | jl.au B Peru 1818. S co   |
| β <i>Sabinæ</i> D. Don  |                                     |  |         |                            |   |
| β <i>Sabinæ</i> D. Don  |                                     | <i>Sabine's</i>                                    | ☐ Δ     | or 1                       | jn.o Chile 1834. C l.co Sw. fl. gar. 2.s.363                                |
| 17647 -   | - <i>venõsa</i> G. & H.             | <i>strong-veined</i>                               | ☐ Δ     | or 2½                      | my.s Ro B. Ayres 1830. S s.l Bot. mag. 3127                                 |
| 1325. CLERODENDRUM.   |                                     |  |         | Sp. 17-39.                 |   |
| 8698 squamatum <i>Vahl</i> ; syn. C. speciosissimum <i>Paxl. mag. 3. p. 217.</i>                            |                                     |  |         |                            |   |
| 17648   | 8699a <i>emirnense</i> <i>Boj.</i>  | Emire  | ☐ or 3  | f.mr                       | W Madagas. 1822. C p.l Bot. mag. 2925                                       |
| 17649   | 8702a <i>pubescens</i> Lindl.       | pubescent  | ☐ or 4  | jl.au                      | W W. Indes 1824. C l.p Bot. reg. 1035                                       |
| 1343. ANTIRRHINUM.  |                                     |  |         | Sp. 6-13.                  |   |
| 8756 majus  |                                     | ☐ fl. alb. plèno                                   | ☐ or 2  | au.s                       | ☐ caryophylloides ☐ variegatum R.p.y California 1834. ? L co Bot. reg. 1093 |
| 17650 -   | - <i>rytidocarpum</i> <i>Fis.</i>   | wrinkled-fruited                                   | ☐ or 2  | au.s                       | R.p.y California 1834. ? L co Bot. reg. 1093                                |
| glandulosum Lindl., Bot. Reg. 1893.   |                                     |  |         |                            |   |
| 1346. NEMESIA.  |                                     |  |         | Sp. 4-4.                   |   |
| 17651 -   | - <i>horibunda</i> <i>Benth.</i>    | many-flowered                                      | ☐ or 1  | jn.au                      | W.y C. G. H ... S s.l Bot. reg. n. s. 89                                    |
| 2676. *1346a. LOPHOSPERMUM D. Don. (Lophos, crest, sperma, seed; crested seeds.) <i>Scroph.</i> Sp. 3-3.    |                                     |  |         |                            |   |
| 17652 -   | - <i>erubescens</i> D. Don          | blushing   | ☐ or 10 | jn.o                       | Ro Jalapa 1830. C s.l Bot. reg. 1381  |
| 17653 -   | - <i>scandens</i> D. Don            | climbing   | ☐ or 10 | jn.o                       | P Mexico 1835. C s.l Sw. fl. gar. 2.s.401                                   |
| 17654 .   | - <i>atrosanguineum</i> <i>Zuc.</i> | dark-bloody  | ☐ or 10 | jn.o                       | D.P Mexico 1835. C p.l Sw. fl. gar. 2.s.250                                 |
| Rhodochiton volubile <i>Zuccarini</i> , <i>Lophospermum Rhodochiton D. Don.</i>                             |                                     |  |         |                            |   |
| 1347. MAURA'NDYA.   |                                     |  |         | Sp. 3-3.                   |   |
| 17655   | 8803a <i>Barclayana</i> Lindl.      | Barclay's  | ☐ or 10 | year                       | B.w Mexico 1825. C l.p Bot. reg. 1108                                       |
| 2677. *1348a. SEYMERIA Ph. SEYMERIA. (Henry Seymer, an English naturalist.) <i>Scrophulariæna.</i> Sp. 1-2. |                                     |  |         |                            |   |
| 17656   | - <i>pectinata</i> Ph.              | pectinated   | ☐ pr 1  | jl.au                      | Y N. Amer. 1820. S s.p  |



History, Use, Propagation, Culture,

2675. *Chloanthes*. For propagation, culture, &c., see *Verbena*.  
 2676. *Lophospermum*. For propagation, culture, &c., see *Calampelis*.

- 17625 Lvs. cord. triangular sinuately toothed five-nerved, Petioles winged  
 17626 Lvs. cord. triangular entire five-nerved, Petioles wingless  
 17627 Lvs. cord. entire, Flowers scarlet  
 17628 Lvs. cord. entire coriaceous, Flowers purple

β Has beautiful heads of changeable-coloured flowers which open yellow, outer ones gradually becoming pink, the whole dying off of a delicate rose-colour [Involucr. cord. smaller th. heads

- 17629 Lvs. subsess. or petiol. oppos. ovate somewh. acute crenate-serrate. pubes. on both sides, Heads subglobose,

- 17630 Lvs. oblong acute serrate rough, Flowers white

- 17631 Stem erect, Flowers greenish yellow

[strigose, Spikes crowded paniced

- 17632 Stem erect branched glabrous, Branches tetragonal winged when young hispid, Lvs. lanceol. sessile 8-nerved  
 17633 Stem erect, Whole plant scabrous  
 17634 Stem erect, Spike branched  
 17635 Stem erect, branched, Flowers blue  
 17636 Stem trailing  
 17637 Stem erect hairy  
 17638 Lvs. trifid, Flowers purple

- 17639 Ascend. branched, Branches hairy, Lvs. 3-partite pinnatifid, Corymbs terminal, Calyx elongated

- 17640 Ascend. hispid, Lvs. obl. acute serrated upper ones almost entire, Corymbs terminal, Calyx elongated, Segms. of cor. cun. emarg. [cun. emarg.

- 17641 Erect pubesc. Lvs. ovate lanceol. acumin. coarsely serrated, Corymbs spiked, Calyx elongated, Segms. of cor. cun. bifid  
 17642 Erect pubesc. Lvs. cord. obl. pinnatifid upper ones lanceol. Corymbs terminal, Calyx elongated, Segms. of cor. cun. bifid

- 17643 Erect hairy, Lvs. cord. obl. serrated, Spikes dense short, Cor. hairy, Segms. cun. emarginate  
 17644 Erect branched, Lvs. pinnatifid scabrous, Spikes filif. paniced, Pedunc. and calyx covered with glandul. hairs

- 17645 Prostrate hairy, Lvs. multifid, Segms. narrow ciliated, Spikes capitate, Flws. tetrand. Cor. pubesc. Segms. emarg.  
 17646 Erect hispid, Stem acutely tetragonal, Lvs. obl. lanceol. sessile subcordate coarsely serrated, Spikes paniced

- 17647 Erect branched pilose, Lvs. obl. or lanceol. sessile deeply cut, Spikes elevated, Calyx elevated

- 17648 Lvs. opposite alternate ovate acute entire or serrated, Corymbs terminal. Tube of cor. slender, Calyx 5-toothed  
 17649 Pubesc. Lvs. obl. lanceol. acumin. entire, Pedun. axil. 3-fid, Tube of cor. short, Calyx 5-toothed

- 17650 Covered with glandular pili, Lvs. ovate lanceol. Raceme dense leafy, Lobes of calyx lin. lanceol. unequal

- 17651 Erect nearly glabrous, Lvs. ovate serrated lower ones petiolate upper ones nearly sessile, Spur bluntish equal in length to lower lip of cor. [for deeply serrat. Pedic. vill. bractless

- 17652 Bran. clthd. with articul. short viscid hairs, Lvs. cord. more or less distinctly 5-lobd. downy, Lvs. mucron. crenat.  
 17653 Lvs. cordate acuminat dply. serrated hairy 5-nrvd. Pedunc. bractless, Stem herbaceous, Flws. pendulous  
 17654 Lvs. cordate acuminat coarsely and dentately serrated, Cal. semiquinquefid spreading, Cor. tubular, Filam. simple

- 17655 Lvs. cordate acuminat young ones somewhat hastate, Cal. segms. lin.-lanceol. very acute clthd. with glandular hairs

- 17656 Downy, Lvs. pinnatifid with linear obtuse rather cut segments, Capsule downy obtuse



and Miscellaneous Particulars.

2677. *Seymèria*. For culture and propagation see *Gerardia*, in p. 528.



|       |                                      |   |                            |         |                          |        |                        |
|-------|--------------------------------------|---|----------------------------|---------|--------------------------|--------|------------------------|
|       | i351. <i>MYMULUS</i> .               |   |                            |         | p. 13-18.                |        |                        |
| 17657 | 8829a <i>Lewisii</i> Ph.             | Lewis's   | ♂ Δ pr $\frac{2}{3}$ au    | Pa.P    | Missouri                 | 1824.  | D p.l Ph. am. 2. 20    |
| 17658 | 8829b <i>cardinalis</i> Dou.         | scarlet   | ○ spl 2 jl.s               | S       | N.W.Am.                  | 1835.  | S co Bot. mag. 3560    |
| 17659 | 8829c <i>roseus</i> Lindl.           | rosy-flwd   | ♂ Δ l or 1 jl.au           | Ro      | N. Calif.                | 1831.  | C p.l Bot. reg. 1591   |
|       | 8833 <i>luteus</i>                   |   |                            |         |                          |        |                        |
|       | β <i>rivularis</i>                   | rivulet   | ♂ Δ pr $\frac{2}{3}$ jn.s  | Y       | Chile                    | 1826.  | D p.l                  |
|       | γ <i>Wilsoni</i>                     | Miss Wilson's   | ♂ Δ pr $\frac{1}{2}$ jl    | Y.spt.P | hybrid                   | 1836.? | D p.l Sw. fl. gar. 406 |
|       | δ <i>Youngianus</i>                  | Young's   | ♂ Δ or $\frac{2}{3}$ jl.au | Y.spt   | Chile                    | 1833.? | D p.l Bot. mag. 3363   |
| 17660 | 8833b <i>variegatus</i> Dou.         | variegated-flwd.  | Δ or 1 au                  | Pa.Y.P  | Chile                    | 1831.  | S lt.l Bot. cab. 1872  |
| 17661 | 8833c <i>Smithii</i> Lindl.          | Smith's   | ♂ Δ or $\frac{2}{3}$ jn    | Y.      | N. Amer.                 | 1827.  | D p.l Bot. reg. 1330   |
| 17662 | 8833d <i>roseo-cardinalis</i> Hens.  | rosy-scarlet  | ♂ Δ or 2 jl.s              | Y.spot  | Eng. hyb.                | 1832.  | D p.l Bot. reg. 1674   |
| 17663 | 8833e <i>moschatuus</i> Dou.         | musk-scented  | ♂ Δ pr $\frac{2}{3}$ jl.s  | R       | hybrid                   | 1837.  | S co Botanist, 51      |
| 17664 | 8833f <i>floribundus</i> B. R.       | bundle-flwd   | ○ or $\frac{2}{3}$ au.     | Y       | N. Amer.                 | 1826.  | S co Bot. reg. 1125    |
| 2678. | *1351a. <i>DYPLACUS</i> Nut.         | (Dis, two, <i>plax</i> , <i>plakos</i> , a placenta; capsule.)      |                            |         | <i>Scrophulariaceæ</i> . |        | Sp. 1-1.               |
| 17665 | - <i>punicus</i> Nut.                | scarlet-flwd.   | ♂ □ or 4 year              | S       | Californ.                | 1837.  | C r.m Bot. mag. 3655   |
| 2679. | *1353a. <i>TORËNIA</i> L.            | <i>TORËNIA</i> . (Rev. <i>Olof Torën</i> , a Swedish botanist.)     |                            |         | <i>Scrophulariaceæ</i> . |        | Sp. 2-4.               |
| 17666 | - <i>scabra</i> Gray.                | rough-leaved  | ♂ □ or 3 jn.au             | Pa.B    | Moretn.Bay               | 1830.  | C r.l Bot. mag. 3104   |
| 17667 | - <i>cordifolia</i> Rox.             | heart-leaved  | ♂ □ or $\frac{1}{2}$ o     | Pa.Li   | Samulcot.                | 1838.  | S r.l Bot. mag. 3715   |
|       | 1364. <i>RUSSELLIA</i> .             |   |                            |         |                          |        | Sp. 2-4.               |
| 17668 | - <i>juncea</i> Zuc.                 | rushy-bran.   | ♂ □ or 3 jl.au             | S       | Mexico                   | 1833.? | C s.l Bot. reg. 1773   |
| 2680. | *1368a. <i>COLLINSIA</i> Nut.        | ( <i>Zaccheus Collins</i> , a vice-pres. of Ac. Nat. Sc. Philadel.) |                            |         | <i>Scrophul.</i>         |        | Sp. 6-5.               |
| 17669 | - <i>vérna</i> Nut.                  | spring  | ○ el 1 my.jn               | B.P     | N. Amer.                 | 1826.  | S lt. Sw. fl. gar. 220 |
| 17670 | - <i>parviflora</i> B. R.            | small-flowered  | ○ or $\frac{1}{2}$ my.jl   | P.B     | Colombia                 | 1826.  | S lt. Bot. reg. 1082   |
| 17671 | - <i>sparsiflora</i> F. & M.         | scattered-flwd  | ○ or $\frac{1}{2}$ ju.jl   | V.P     | Californ.                | 1826.  | S lt.                  |
| 17672 | - <i>grandiflora</i> B. R.           | large-flowered  | ○ or 1 my.jl               | Pk.B    | Colombia                 | 1826.  | S lt. Bot. reg. 1107   |
| 17673 | - <i>bicolor</i> Benth.              | two-cld-flwd  | ○ or 1 $\frac{1}{2}$ my.s  | W.P     | Californ.                | 1833.  | S lt. Bot. reg. 1734   |
| 17674 | - <i>heterophylla</i> Nut.           | various-lvd   | ○ or 1 $\frac{1}{2}$ jl.au | P.w     | Colombia                 | 1833.  | S lt. Bot. mag. 3695   |
| 2681. | *1375a. <i>FRANCISCEA</i> Pohl.      | <i>FRANCISCEA</i> . ( <i>Francis</i> , emperor of Austria.)         |                            |         | <i>Solanaceæ</i> .       |        | Sp. 1-1.               |
| 17675 | - <i>uniflora</i> Pohl               | one-flowered  | ♂ □ or 3 jn.au             | W.P     | Brazil                   | 1826.  | C l.p Bot. cab. 1332.  |
|       | <i>Hopeana</i> Hook. Bot. mag. 2828. |   |                            |         |                          |        |                        |

P. 536. CLASS XV. — TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

2682. *Streptanthus*. Silique very long, angular, compressed. Seeds flat, marginate, disposed in 1 row. Cotyledons accumbent.

|       |                                    |  |                            |       |                     |       |                       |
|-------|------------------------------------|--|----------------------------|-------|---------------------|-------|-----------------------|
| 2682. | *1390a. <i>STREPTANTHUS</i> Nut.   | ( <i>Streptos</i> , twisted, <i>anthos</i> , flower; claws of petals.) |                            |       | <i>Cruciferae</i> . |       | Sp. 2-2.              |
| 17676 | - <i>obtusifolius</i> Hook.        | blunt-leaved   | ○ or 1 $\frac{1}{2}$ au.s  | Ro    | Arkans              | 1833. | S s.l Bot. mag. 3317  |
| 17677 | - <i>hyacinthoides</i> Hook.       | <i>Hyacinth-flwd</i>   | ○ or 3 au                  | Bsh.P | Texas               | 1834. | S s.l Bot. mag. 3516  |
|       | 1399. <i>AUBRIETIA</i> .           |  |                            |       |                     |       | Sp. 2-3.              |
| 17678 | 9051a <i>purpurea</i> Dec.         | purple   | ♂ Δ pr $\frac{1}{2}$ mr.jn | P     | Greece              | 1820. | D co Fl. gr. 643      |
| 2683. | *1400a. <i>SCHIVERECKIA</i> Andrz. | ( <i>Andr. Schivereck</i> , a Russian botanist.)                       |                            |       | <i>Cruciferae</i> . |       | Sp. 1-1.              |
| 17679 | - <i>podolica</i> Andrz.           | Podolian   | ♂ Δ or $\frac{1}{2}$ my.jl | W     | Podolia             | 1821. | D sp. Sw. fl. gar. 77 |



History, Use, Propagation, Culture,

2678. *Diplacus*. See *Mimulus* for propagation and culture.  
 2679. *Torënia*. The species require a moist soil. They are readily increased by division.  
 2680. *Collinsia*. All the species are very desirable showy annual plants, and have a good appearance if sown in large patches

- 17657 Plant downy, Lvs. sess. obl.-lanceol. acute nrvd. mucron. denticul. Flws. few termin. on very long pedics. Cal. acuminate
- 17658 Villous, Lvs. amplexic. ovate with erose toothed margins, Pedunc. long th. lvs. Cal. large inflately tubul. hardly plicate with ov.-acute teeth
- 17659 Pubescent, Lvs. amplexic. obl. little-toothed 5-nerved, Pedunc. shorter th. lvs. Cal. large subinfl. tubul. with ov.-acute nrly. eq. teeth  
 $\beta$  Cauliscent many-flowered  
 $\gamma$  Flowers yellow spotted with purple  
 $\delta$  Decumbent, deep yellow, Segms. of limb with a large blood-coloured spot on each  
 $\epsilon$  Stem erect, Corolla pale yellow, each segment stained with a large purple spot
- 17660 Clothed with glandular pubesc. Stems decumb. round, Lvs. ovate toothed upper ones sessile, Peduncles axil.
- 17661 Hybrid, *M. variegatus* and *M. luteus rivularis* [lary 1-flwd. shorter than lvs.
- 17662 Hybrid between *M. roseus* and *M. cardinalis*
- 17663 Diffuse clthd. with woolly villi, Lvs. petiol. ovate or ov.-lanceol. little-toothed rounded at base rath. pilose and clammy, Cal. teeth uneq. lanceol. [very short acute
- 17664 Diffuse loosely pilose clammy, Lvs. petiol. broad-ovate little-toothed truncate at base or rounded, Cal. teeth
- 17665 Clammy glabrous, Lvs. lanceol. serrul. rather connate at base, Segms. of cal. unequal
- 17666 Lvs. lanceol.-ovate serrated scabrous, Stem erect pubescent, Calyx 5-toothed equal
- 17667 Lvs. ovate-cord. Pedunc. axill. subsalsced or solitary, Cor. about twice length of cal. which is ovate and rounded at base
- 17668 Branches tetragonal erect rushy, Lvs. small ovate, Peduncles filif. generally 2-flwd.
- 17669 Lvs. lanceol. Pedicels axill. solit. much long. th. flws. Cal. downy about equal in length to corolla
- 17670 Lvs. ov.-obl. nrly. ent. downy, Pedic axill. solit. much long th. flws. Segms. of cor. acutish entire, Cal. downy
- 17671 Diffuse, Lvs. all oppos. Flws. solitary, Pedicels little longer than calyx, Capsule globose [about eq. to cor.
- 17672 Lower lvs. spatulate, upper ones oblong-linear, Pedic. verticill. shorter than flws. Cor. segms. dilated retuse, Cal. glabr.  $\frac{1}{2}$  length of cor.
- 17673 Erect downy, Lvs. glabr. ov.-lanceol. subcordate at base, Pedicels verticillate racemose
- 17674 Lower lvs. 3-lobed upper ones ov. Cal. clth. with glandular pubesc. Segms. of cor. crenated at apex
- 17675 Bran. diffuse spreading, Lvs. ellipt. acute, Bract. lanceol. glabrous as are calyxes, Flws. solitary

2683. *Schivereckia*. Silicle ovate; valves convex, somewhat depressed lengthwise in the middle. Seeds numerous Calyx equal at base. Petals entire. Larger stamens toothed.

- 17676 Lvs. elliptic very obtuse dply. 2-lobed at base amplexicaul, Petals obov. on long and at length twisted claws, Filam. short subul. [abortive linear anther
- 17677 Lvs. oblong-linear acumin. Petals linear with reflex. limb, Filam. combined forked at apex bearing each an
- 17678 Pedicels shorter than the calyx, Lvs. oblong entire or toothed hispid with stellate down
- 17679 The only species



and Miscellaneous Particulars.

2681. *Franciscea*. For cultivation, &c., see *Brunfelsia*, in p. 534.
2682. *Streptanthus*. This genus requires the usual treatment of other hardy annuals.
2683. *Schivereckia* 17679 *podolica* is a very pretty little rock plant, and thrives well if grown in a small pot in light sandy soil.

|       |   |                 |               |     |                         |             |                      |
|-------|---|-----------------|---------------|-----|-------------------------|-------------|----------------------|
| 17680 | 1412. <i>IBERIS</i> .<br>9120a <i>coronaria</i> D. Don              | crown-flowering | ○ or 1 jn     | W   | -Sp. 17—23.<br>.....    | 1836. S co  | Sw. fl. gar. 2.s.359 |
| 17681 | 1424. <i>ERYSIMUM</i> .<br>- <i>Perowskianum</i> F. & M. Perowski's |                 | ○ or 1½ jn    | O.s | Sp. 16—47.<br>Palestine | 1838. S co  | Fl. cab. 19          |
| 17682 | 1448. <i>CLEOME</i> .<br>- <i>dendröides</i> Schult.                | tree-like       | ■   or 5 ...  | P   | Sp. 17—21.<br>Brazil    | 1828. S s.1 | Bot. mag. 3296       |
| 17683 | - <i>speciosissima</i> Deppe  | most showy      | ○ or ... jn.s | P   | Mexico                  | 1827. S co  | Bot. reg. 1312       |

Page 560. CLASS XVI. — MONADELPHIA.

Order 1. TRIANDRIA. Stamens 3.

2684. *Orthrosánthes*. Spathe many-flowered, 2-valved. Perianth 6-parted, equal, with a short triangular tube. Stamens 3, combined at the base. Stigmas 3, fringed at top. Capsule oblong, trigonal, many-seeded.
2685. *Cypélla*. Spathe 2-leaved. Perianth 6-parted, concave at the base; outer segments large, spreading; inner ones small, convolute, reflexed at apex. Stamens 3, monadelphous. Style slender. Stigma 3-lobed, the lobes 3-fid and appendiculate. Capsule oblong, 3-celled, 3-valved, many-seeded. Seeds angular.
2686. *Herbérria*. Perianth 6-parted, tube very short, 3 outer segments much smaller than the inner ones. Stamens 3, monadelphous. Anthers linear. Stigmas 3, bifid. Capsule oblong, 3-celled, many-seeded. Seeds angular.
2687. *Spatalánthus*. Spathe rigid, 2-valved, 1-flowered. Perianth spreading, with a very short tube, and a 6-parted regular limb. Stamens 3, short, monadelphous. Anthers oblong, sagittate. Ovarium warty at apex. Stigmas 3, bifurcate.
2688. *Homéria*. Perianth 6-parted, alternate segments smaller, tube very short. Stamens 3, monadelphous. Stigmas 3-fid, the segments bifid and fringed.

Order 2. PENTANDRIA. Stamens 5.

2689. *Mahérnia*. Cal. naked, campanulate, 5-cleft. Petals 5, with an obovate limb, spirally twisted, and straightish claws. Filaments monadelphous at base, dilated into a cordate tubercle, or a cup-formed process in the middle. Styles 5, sometimes joined into 1. Capsule 5-celled, 5-valved, many-seeded.
2690. *Máeshérbia*. Cal. tubular, membranous, inflated, 5-lobed. Filaments filiform, distinct, or connected with the stipe of the ovarium. Anthers versatile. Ovarium superior, stipitate, 1-celled, with the placentas at the base, from which the ovules arise by the intervention of umbilical cords. Styles 3, filiform. Stigmas clavate. Fruit capsular, 1-celled, 3-valved. Testa crustaceous, brittle, with a fleshy crest and no arillus. Embryo round, in the centre of fleshy albumen, with the radicle next the hilum.
2691. *Clinidmia*. Limb of cal. 5-cleft. Cor. bilabiate, with hardly any tube. Anthers cohering; 2 superior ones bearded. Capsule siliqua-formed, triangular, dehiscing by 3 loriform valves, many-seeded. Seeds attached to two parietal placentas.

Order 6. DODECANDRIA. Stamens 12.

2692. *Philothéca*. Cal. 5-parted. Petals 5, unguiculate. Stamens 10, unequal, connate at base, with tube smooth and free, part of the filaments hairy. Fruit of 5 1 seeded carpels. Leaves alternate, linear.

TRIANDRIA.

|       |                                    |  |
|-------|------------------------------------|--|
| 2684  | *1450a. <i>ORTHROSA'NTHES</i> Swt. | ORTHROSANTHES. ( <i>Orthros</i> , morning, <i>anthos</i> , flower.) <i>Irideæ</i> . Sp. 1— |
| 17684 | - <i>multiflora</i> Swt.           | many-flowered Δ   or 1 jn.jl B N. Holl. 1820. D s.p Bot. reg. 1090                         |
|       | 1451. <i>FERRARIA</i> .            | Sp. 5—8.   |
| 17685 | 9342a <i>obtusifolia</i> Swt.      | obtuse-leaved ♂ Δ   pr ½ my.jl Br C. G. H. 1825. O s.p Sw. fl. gar. 148                    |
| 17686 | 9342b <i>uncinifera</i> Swt.       | hooked ♂ Δ   pr ½ my.jl Br C. G. H. 1825. O s.p Sw. fl. gar. 161                           |
| 17687 | 9342c <i>divaricata</i> Swt.       | divaricate ♂ Δ   pr ½ my.jl Br C. G. H. 1825. O s.p Sw. fl. gar. 192                       |
|       | 1452. <i>TIGRIDIA</i> .            | Sp. 2—2.   |
| 17688 | 9343a <i>conchiflora</i> Swt.      | shell-flowered ♂ Δ spl 1 my.s D.Y Mexico 1823. O s.p Sw. fl. gar. 128                      |
|       | 17624                              | 17680  |



History, Use, Propagation, Culture,

1424. *Ergsimum* 17081 *Perowskianum*. A very splendid annual, of the easiest culture.

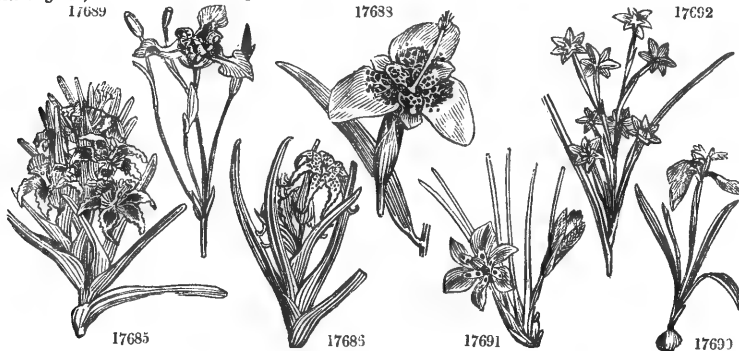
- 17680 Pubescent, Lvs. wedge-sh. obtusely dent. Pods corymbose acutely 2-lbd. margins gnawed crenat. Seeds winged, Stem strictly branched  
 17681 Lvs. lanceol. toothed, Petals obov. Stigmas globose, Fruit silique 4-sided  
 17682 Velvety-pubescent somewhat clammy, Lfts. 7 with 20 veins on each side of each leaflet  
 17683 Unarmed, Lfts. 5-7 lanceol. acuminate pilose, Brac. ovate, Petals length of pedicels, Pedicel of fruit long

2693. *Omphalidium*. Cal. 5-parted. Petals 5, imbricate in aestivation. Stamens monadelphous, or somewhat polyadelphous at base. Carpels 5, each bearing a style. Capsules 1-5, legume-formed, 2-valved, dehiscent. Seeds twin, or solitary, exalbuminous. Leaves trifoliate, or impari-pinnate.  
 2694. *Párkia*. Flowers hermaphrodite. Calyx tubular, bilabiate, imbricate in aestivation. Legume compressed, many-seeded. Seeds covered with farinaceous substance.  
 2695. *Sarcocaulon*. Sepals 5, equal. Petals 4, equal. Stamens 15, monadelphous at base.  
 2696. *Montezúma*. Calyx hemispherical, truncate, sinuately toothed. Stamens numerous, twisted around the style, monadelphous, with 5 distinct furrows. Capsules globose, 4-5-celled. Cells many-seeded. Leaves entire.  
 2697. *Assônia*. Calyx girded by a 3-crenate 1-leaved involucl. Antheriferous filaments 15; 3 fertile between each sterile one. Styles 5, very short. Carpels 5, 2-seeded, closely connected into a single capsule. Seeds rather triquetrous, not winged.  
 2698. *Flagánthus*. Calyx 5-cleft. Petals 5, 2 of which are approximate, remote from the rest. Stigma clavate.  
 2699. *Nutidáa*. Cal. naked, 5-cleft. Anth. numerous. Stig. numerous, filiform. Carp. numerous, disposed into a ring, or whorl; 1-seeded, not opening spontaneously.  
 2700. *Lebretonia*. Cal. 5-parted, girded by a shorter 5-parted involucl. Petals 5, exerted in part, twisted in aestivation, with a spreading limb. Styles 10. Carp. 5, or only 4 from abortion, 1-seeded, indehiscent.  
 2701. *Abútilon*. Cal. naked, 5-cleft, usually angular. Styles multifid at apex. Carp. capsular, 5-30, many-seeded, usually bladderly, disposed into a whorl around the axis, so closely connected with each other as to form a many-celled capsule.  
 2702. *Erioleína*. Cal. tomentose, girded by a 5-leaved involucl. Leaflets jagged, 3 inner ones largest, all shorter than the calyx. Petals unguiculate. Stam. disposed in many series, monadelphous, outer ones shortest, all fertile. Style solitary, villous, crowned by numerous aggregate small stigmas.  
 2703. *Reevésia*. Flowers hermaphrodite. Stam. monadelphous. Anth. 15, sessile on the top of the tube. Caps. stipitate, 5-celled, 5-valved. Cells 2-seeded. Seeds winged at base.  
 2704. *Stravádium*. Limb of calyx 4-parted. Ovarium semilocular. Cells 2-ovulate. Otherwise agreeing with *Barringtonia*, in p. 561.  
 2705. *Morisónia*. Cal. obovate, bifid. Petals 4. Stams. 20, somewhat monadelphous at base? Berry stipitate,  $\zeta$  globose.

TRIANDRIA.

- 17684 The only species  
 17685 Stem erect-branched many-flwd. Lvs. distich. ensiform obtuse keeled on both sides  
 17686 Stem short-branched shorter than the lvs. Lvs. linear striated hooked at top, Spathe 2-flwd. Segms. of perianth [acuminate involuted at apex  
 17687 Stem branched at top, Lvs. linear acute glaucescent, Spathe many-flwd.

- 17688 Stem angular, Outer leaflets of the perianth oblong-ovate acutish mutic inner ones short acute concave beneath



and Miscellaneous Particulars.

2684. *Orthrosáñthes*. Equal proportions of loam and peat suit this genus, and the species are increased by offsets.

2685. \*1453a. *CYPE'LLA* Herb. *CYPE'LLA*. (*Kypellon*, a kind of cup; shape of flower.) *Iridææ*. Sp. 1—2.  
 17689 - *Herbérta* B. M. *Herbérta*'s  $\frac{1}{2}$   $\Delta$  or 1 jn.au Ve B. Ayres 1823. O s.p Bot. mag. 2599  
*Tigrídia* *Herbérta* B. M., *Móræ'a* *Herbérta* B. M.
2686. \*1453b. *HERBE'RTIA* Swt. (*Hon. & Rev. W. Herbert*, an assiduous botanist.) *Iridææ*. Sp. 1—1.  
 17690 - - *pulchélla* Swt. neat  $\frac{1}{2}$   $\Delta$  or  $\frac{1}{2}$  jl B.P Chile 1827. O s.p Sw. fl. gar. 222
2687. \*1453c. *SPATALA'NTHUS* Swt. *SPATALANTHUS*. (*Spatalos*, delicate, *anthos*, flower.) *Iridææ*. Sp. 1—1.  
 17691 - - *speciosus* Swt. showy  $\frac{1}{2}$   $\Delta$  spl  $\frac{1}{2}$  jn.au R C. G. H. 1825. O s.l Sw. fl. gar. 300
2688. \*1453d. *HOMER'IA* Ven. *HOMERIA*. (*Homer*, the father of epic poetry.) *Iridææ*. Sp. 4—10.  
 17692 - - *miniáta* Swt. red *spot-flwd*  $\frac{1}{2}$   $\Delta$  or 1 my.jn Ve C. G. H. 1825. O s.p Sw. fl. gar. 152  
 Nos. 806, 807, and 816., in p. 46., are referable to this genus.

PENTANDRIA.

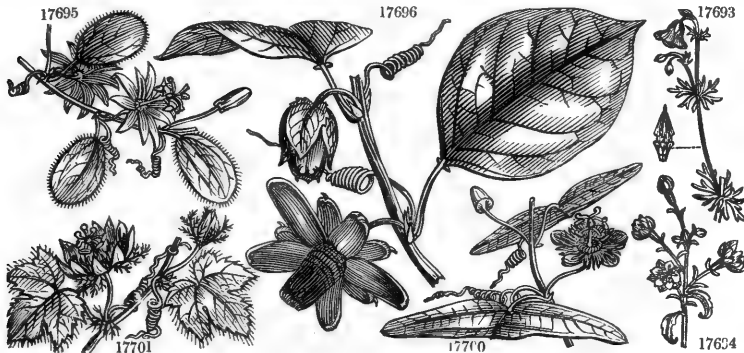
2689. \*1455a. *MAHE'RNIA* L. *MAHERNIA*. (An anagram of *Hermannia*; affinity.) *Byttneriææ*. Sp. 2—14.  
 17693 - - *verticilláta* L. whorled  $\frac{1}{2}$   $\square$  or 2 jn.au Y C. G. H. 1820. C l.p Cav. dis. 6.176.1  
*heterophýlla* is synonym with No. 9379. in p. 564.

2690. \*1459z. *MALESHE'RBIA* R. & P. (*De Malesherbes*, a French patron of botany.) *Malesherbiææ*. Sp. 1—2.  
 17694 - - *linearifolia* Poir. linear-leaved  $\square$  or 1  $\frac{1}{2}$  aut P.B Chile 1831. S l.t Bot. mag. 3362  
*paniculáta* *Dou*, in Ed. ph. Journ. 1827; *coronáta* *Dou*, in Swt. fl. gar. 2. s. 167., *Gynopleúra*  
*linearifolia* *Cav*.

1459. *PASSIFLO'RA*. Sp. 58—80.  
 17695 9392a *Cavanillesi* Dec. *Cavanilles's*  $\frac{1}{2}$   $\square$  or ... jl.o Cop Caribees 1822. C l.p Cav. dis. 273  
 17696 9396a *phœnicea* Lindl. *phœnicea-flwd*  $\frac{1}{2}$   $\square$  spl 20 s C ..... 1831. C l.p Bot. reg. 1603
- 17697 9397a *ligularis* J. *ligular*  $\frac{1}{2}$   $\square$  or 20 s Gy.P N. Gran. 1819. C p.l Bot. mag. 2967  
 17698 9398a *coccinea* Aub. *scarlet*  $\frac{1}{2}$   $\square$  or 20 jl.n S Guiana 1820. C p.l Aub. gul. 3.324  
 17699 9404a *Andersónii* Dec. *Anderson's*  $\frac{1}{2}$   $\square$  or ... jl.o Str Sw. T. Lucia 1823. C l.p
- 17700 9405a *discolor* Lk. *sundry-eld*  $\frac{1}{2}$   $\square$  or 8 my.jn ... S. Amer. 1800. C p.l Bot. reg. 597  
*vespertilio* *Bot. reg.* *Maximiliána* Bory.
- 17701 9423a *nigelliflora* Hook. *Nigella-flwd*  $\frac{1}{2}$   $\square$  or 10 s W.G B. Ayres 1835. C p.l Bot. mag. 3635
- 17702 9424a *vitifolia* H. & B. *Vine-leaved*  $\frac{1}{2}$   $\square$  or 10 ... S. Amer. 1823. C p.l  
 17703 9425a *gossypifolia* Desv. *Cotton-tree-lyd*  $\frac{1}{2}$   $\square$  cu 8 au W W. Indies 1831. C r.l Bot. reg. 1634  
 17704 - - *tucumanensis* Hook. *Tucuman*  $\frac{1}{2}$   $\square$  or 10 jl W Chile 1836. C p.l Bot. mag. 3636
- 17705 9431a *onychina* Lindl. *Lieut. Sullivan's*  $\frac{1}{2}$   $\square$  or 10 n B B. Ayres 1827. C l.p Bot. reg. n. s. 21  
 17706 9431b *kermesina* L. & O. *crimson*  $\frac{1}{2}$   $\square$  spl 20 all sea C ..... 1831. L r.l Bot. reg. 1633  
 17707 9431c *Loudoni* *Loudon's*  $\frac{1}{2}$   $\square$  spl 20 ... P ..... L.C r.l  
 17708 9431d *bicolorata* *two-coloured*  $\frac{1}{2}$   $\square$  or 20 jl.au W.B ..... C r.l
2691. \*1460a. *CLINTO'NIA* Dou. (*De Witt Clinton*, late governor of the State of N. York.) *Lobeliææ*. Sp. 2—2.  
 17709 - - *elegans* Dou. elegant  $\square$  pr  $\frac{1}{2}$  jl.au B Colombia 1827. S co Bot. reg. 1241  
 17710 - - *pulchélla* Lindl. pretty  $\square$  el  $\frac{1}{2}$  jl.au B.w.y Colombia 1831.? S co Bot. reg. 1909

DECANDRIA.

1463. *GERA'NIUM*. Sp. 48—63.  
 17711 9662a *Lamberti* Swt. *Lambert's*  $\frac{1}{2}$   $\Delta$  or 1  $\frac{1}{2}$  jl.s R Nepal 1824. D s.l Sw. ger. 338  
 17712 9665a *erianthum* Dec. *woolly-flowered*  $\frac{1}{2}$   $\Delta$  or 1  $\frac{1}{2}$  su Wsh N.Amer. 1827. D co  
*albiflorum* *Stev.*
- 17713 9673a *cristatum* *Stev.* *crested*  $\frac{1}{2}$   $\Delta$  or 1  $\frac{1}{2}$  jn.jl R Iberia 1820. D s.l Bot. mag. 3732  
*albànium* *Bieb.*
2692. \*1463a. *PHILOTHE'CA* Rud. (*Psilos* (err. *philos*), smooth, *theke*, sheath; tube of stam.) *Ruticææ*. Sp. 1—1  
 17714 - - *austrális* Rud. southern  $\frac{1}{2}$   $\square$  or 2 ap W N. Holl. 1824. C p.l Lin. tr. 11. 21



History, Use, Propagation, Culture.

2685. *Cypella*. Soil and propagation as recommended for *Orthosanthos* above.  
 2686. *Herbertia*. Soil and propagation, see *Tigridia*.  
 2687. *Spatalanthus*. Thrives in a mixture of turfy loam, peat, and sand, in pots kept in a frame.  
 2688. *Homeria*. For soil and propagation, see *Gladiolus*.  
 2689. *Mahernia* is a genus of pretty little shrubs, which thrive in loam and peat, and cuttings of the young wood root readily under a hand-glass.

- 17689 Lvs. plicate obl-lanceol. acute, Stem flexuose bifurcate branched, Branches 1-flwd. Outer segms. perlan. dilat. at top
- 17690 Lvs. linear ensif. acute at both ends plicate, Segms. of perianth bearded at the base
- 17691 The only species
- 17692 Lvs. linear striated glaucous, Scape kneed branched, Segms. of perianth bearded acutish at base

## PENTANDRIA.

- 17693 Lvs. disposed in whorls entire or trifid linear ciliated, Stem decumbent, Pedunc. 1-2-flwd. involucreted
- 17694 Glandularly pubes. Lvs. lin. obt. toothed recurved with pair of 3-partite stips. at base, Mouth of cal. dilat. Ovary subglobose
- 17695 Leaves glabrous ovate glandless ciliated, Petioles glandless, Pedicels solitary
- 17696 Lvs. smooth oblong cuspid. ent. Petiol. with 2 glands at the upper end, Stips. lin.-lanceol. Brac. cord.-ovate serrated at base [ab. with about 6 filiform clay. glands, Stip. ov. acumin.]
- 17697 Involuc. of 3 large ovato-acumin. serrat. lfts. little distant from fl. Lvs. glabr. cord. very ent. Petiol. grooved
- 17698 Leaves glabrous ovate toothed and acutish, Petioles bearing 4-6 glands, Bractees ovate subserrated velvety
- 17699 Leaves glabrous glandular beneath rounded at the base 3-nerved truncate at the apex sublunate, Pedicels twin, Petioles glandless
- 17700 Lvs. cuneif. 2-lob. acum. divaricate 2-glandular at base, Petioles glandless, Involucr. wanting
- 17701 Clhd. with silky pili. Lvs. cordate 5-lob. hairy or almost silky on both surfs. sharply serrat. Invol. close ben. Cal. of 3-pinnatif. lvs. Segms. tipped with gland [toothed]
- 17702 Lvs. cord. downy beneath deeply 3-lob. toothed, Lobes bigland. in the sinuses, Petioles bigland. Bractees gland.
- 17703 Velvety. Lvs. cordate. 3-lobed, Lobes ovate obtuse or acumin. a little toothed, Ovarium villous
- 17704 Glabr. Lvs. broadly cord. dply. 3-lob. Lbs. spreading obl. or nrly. ov. or lanceol. glandulose-serrate at base, Pedun. solit. 1-flwd. Brac. 3 ov.-cord. waved
- 17705 Glabr. Lvs. cord. 3 lbd. Segms. obl. obtuse obscurely serrulated, Petioles bearing 4-6 glands, Ovarium tomentose
- 17706 Glabr. Lvs. cord. 3-lob. denticulated wine-cld. beneath, Petioles 2-glandular
- 17707 Lvs. cord. 3-lob. wine-coloured beneath, Flowers purple
- 17708 Lvs. cord. 3-lob. Flowers white and blue [long acumin.]
- 17709 Glabrous, Stem procumb. branched rather angular, Lvs. sess. ovate 3-nrvd. Flws. solit. axill. sess. Ovary sess.
- 17710 Lvs. and sepals obtuse, Upper segms. of cor. ovate acute divaricate mid. segm. of lower lip longest

## DECANDRIA.

- 17711 Stem diffuse geniculately bran. elongat. Lvs. oppos. cord. 5-lob. pilose both surfs. Lbs. cuneif. cut bluntly [toothed, Pedun. 3-flwd.]
- 17712 Stem erect almost simple naked below, Lvs. 5-7-lob. deeply serrated, Peduncles short, Calyx villous, Petals entire, Filaments villous
- 17713 Stem flaccid simple, Lvs. renif. 7-lob. Lbs. trifid, Lobules 3-toothed, Pedun. elongat. hispid as are cals. Carpels crested
- 17714 Leaves very numerous linear somewhat imbricate convex beneath, Pedicels axillary



and Miscellaneous Particulars.

2690. *Malesherbia* is a genus of singular and ornamental plants, at present somewhat rare in collections, but nevertheless well deserving cultivation.

2691. *Clintonia* is a genus of tender annuals, and requires the treatment of such. The flowers are elegant; but the plants are very thinly clothed with foliage.

2692. *Phlœtheca*. The soil most suitable to this genus is a mixture of sandy loam and peat, and the plants require to be placed in an airy situation, and not crowded amongst other plants. Cuttings root freely in sand, under a bell-glass.

2693. \*1463b. OMPHALOBIUM *Gae.* OMPHALOBIUM. (*Omphalos*, a navel, *lobos*, a pod.) *Connaræacæ.* Sp. 1—2.  
 17715 - *africanum Dec.* African  $\blacksquare$  or 8 ... Pa.R Guinea 1822. C p.l Cav. dis. 7. 221
2694. \*1464a. PA'RKIA R. Br. (*Mungo Park*, the celebrated African traveller.) *Legumin. Mimibæacæ.* Sp. 1—2.  
 17716 - *biglobosa R. Br.* biglobular  $\uparrow$   $\square$  esc 30 mr.ap Ve Guinea 1822. S r.m Beau. ow. 2. 90

DODECANDRIA.

2695. \*1465a. SARCOCAULON *Dec.* SARCOCAULON. (*Sarz*, flesh, *kaulos*, stem.) *Geraniæacæ.* Sp. 2—3.  
 17717 - *Pattersonii Dec.* Patterson's  $\square$  or 2 $\frac{1}{2}$  my.jn ... C. G. H. R ... 1822. C s.l Patters. 14  
 S. L'Heritièri *Dec.* is syn. with No. 9693, in p. 580.
2696. \*1467a. MONTEZUMA M. & S. MONTEZUMA. (*Montezuma*, a Mexican sovereign.) *Bombacæacæ.* Sp. 1—1.  
 17718 - *speciosissima M. & S.* showiest  $\uparrow$   $\square$  or 30 ... R Mexico 1827. C s.l
2697. \*1467b. ASSO'NIA *Cav.* ASSONIA. (*Ignatius de Asso*, a Spanish botanist.) *Byttneriæacæ.* Sp. 1—2.  
 17719 - *populnea Cav.* Poplar-leaved  $\uparrow$   $\square$  or 10 ... W Bourbon 1820. C s.l Cav. dis. 3. 42. 3
2698. \*1470a. PLAGIA'NTHUS *Forst.* PLAGIANTHUS. (*Plagios*, oblique, *anthos*, flower.) *Bombacæacæ.* Sp. 1—1.  
 17720 - *divaricatus Forst.* divaricated  $\blacksquare$  or 8 jn.jl R N. Zeal. 1822. C s.l Forst. 43

POLYANDRIA.

1472. MA'LVa. Sp. 59—78.  
 17721 9730a purpurata Lindl. empurpled  $\nabla$   $\Delta$  or 1 $\frac{1}{2}$  jn.o P.R And. Chile 1825. S co Bot. reg. 1362  
 17722 9753a Creeæna Hook. Cree's  $\nabla$   $\Delta$  or 2 jl.o R Hybrid 1835. C co Bot. mag. 3698  
 miniata  $\beta$  Creeæna Penny.  
 17723 9753b Munroæna Dou. Munro's  $\nabla$   $\Delta$  or 2 jl.au S Columbia 1828. S co Bot. reg. 1306
2699. \*1472a. NUTTA'LLIA *Dick.* (*Thomas Nuttall*, prof. min. Cambridge, N. Eng.) *Malvæacæ.* Sp. 2—5.  
 17724 - *Papaver Grah.* Poppy-flowered  $\nabla$   $\Delta$  or 3 au R.P Louisiana 1833. S p.l Bot. mag. 3287  
 17725 - *cordata Lindl.* heart-leaved  $\nabla$   $\Delta$  pr 2 au Pk N. Amer. 1835. R p.l Bot. reg. 1938
1474. ALTHÆA. Sp. 11—17.  
 17969 hirsuta W. hairy  $\circ$  or 2 jn.jl W Britain ch.pl S co Eng. bbt. 2674
1477. URENA. Sp. 5—13.  
 17726 - *speciosa Wal.* showy  $\blacksquare$  or 3 n Pk Ava 1828. S s.l Wal. pl. as. ra. 26
2700. \*1479a. LEBRETO'NIA *Schrank.* (*Manuel le Breton*, a French botanist.) *Malvæacæ.* Sp. 1—1.  
 17727 - *coccinea Schk.* scarlet  $\blacksquare$  or 10 jn.jl S Brazil 1823. C s.l Sch. mo. 90
1480. HIBISCUS. Sp. 53—90.  
 17728 9836a crinitus Wal. long-haired  $\nabla$   $\Delta$  spl 3 s.o Y.R Promé 1828. S p.l Wal. pl. as. ra. 44
- 17729 9837a Lindlei Wal. Lindley's  $\blacksquare$  spl 3 d P India 1828. C l.p Bot. reg. 1395  
 17730 9840a Æliiflorus Cav. Lily-flowered  $\blacksquare$  or 6 jn.jl S Bourbon 1822. C s.p Cav. dis. 3. 57. 1  
 $\beta$  hybrid  $\blacksquare$  spl 10 jl S Mauritius 1828. C s.p Bot. mag. 2891  
 17731 9840b Genevii Boj. Geneve's  $\blacksquare$  spl 15 jn.jl Ro Mauritius ... C \*l.p Bot. mag. 3144
- 17732 9840c rødens Thore Rose-coloured  $\nabla$   $\Delta$  or 4 jl.s Pk Italy 1827. D p Sw. fl. gar. 277  
 17733 9840d splendens Fra. splendid  $\blacksquare$  spl 10 my W Ro N. Holl. 1828. C r.m Bot. mag. 3025
- 17734 9849a africanus Roth. African  $\circ$  or 2 jn.o W.P Africa 1826. S co
2701. \*1487a. ABU'TTILON *Kth.* (Arabic name of a plant analogous to the marsh-mallow.) *Malvæacæ.* Sp. 25—36.  
 17735 - *pulchellum Swt.* pretty  $\blacksquare$  fra 8 sp W N. S. W. 1821. C p.l Sw. fl. gar. 2. s. 287  
*Sida pulchella Bonp.* Nos. 9897. to 9921. inclusive are referable to this genus.



History, Use, Propagation, Culture,

2693. *Omphalobium.* For soil and propagation, see *Philotheca*, above.  
 2694. *Parkia.* The species of this genus may be increased by cuttings of the young wood, planted in sand under a bell-glass, in heat. "In Soudan the seeds of *P. africana* are roasted as we roast coffee, then bruised, and allowed to ferment in water; when they begin to become putrid they are well washed and pounded, the powder made into cakes somewhat in the manner of our chocolate. They form an excellent sauce for all kinds of food. The farinaceous matter surrounding the seeds is made into a kind of sweetmeat." (*Don's Mill.*, 2. 396.)  
 2695. *Sarcocaulon* is a genus of curious spiny shrubs, which bear beautiful large flowers. They may be increased by cuttings and slips of the roots, in good soil, under a bell-glass.  
 2696. *Montezuma* 17718 *speciosissima* is a very showy tree, thriving in a mixture of loam and peat. Full-grown cuttings (not too old) will root freely in sand, under a bell-glass, in a moist heat.  
 2697. *Assonia.* A light rich soil, or a mixture of loam and peat, suits this genus; and young cuttings root freely, under a hand glass, in heat.

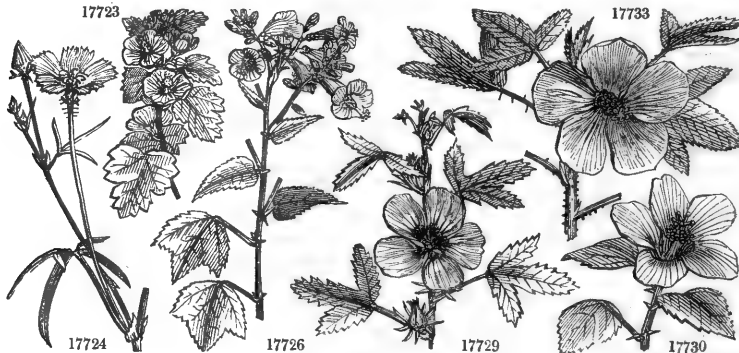
- 17715 Lfts. 3 oval acuminate smooth on both surfs. somewh. membran. and feather-nrvd. Flws. panicled, Carpels solit. stipitate
- 17716 Lvs. with about 20 pairs of pinnae, Each pinna ab. 30 pairs of obt. pubes. lfts. Flower heads biglobular

## DODECANDRIA.

- 17717 Lvs. oblong cuneate blunt entire some of them almost sessile others on short petioles
- 17718 Lvs. smooth cord. acute entire stalked, Pedic. 1-flwd. rising from the brans. beneath the lvs. The only species
- 17719 Lvs. cordate acuminate smooth a little serrated, Peduncle scarcely longer than the petioles
- 17720 Leaves small in bundles linear, Flws. solitary. The only species

## POLYANDRIA.

- 17721 Pubes. Lower lvs. 5-cleft upper ones 3-fid, Segms. usually 3-fid, Lbs. forked obt. Pedun. axill. solit.
- 17722 Brans. clthd. with harsh stell. hairs, Petiol. somewh. flatten. ab. hairy like stem, Upper lvs. trilob. central lb. elongat. lower less dply. lbd. Invol. of 3 filif. lvs.
- 17723 Toment. Lvs. roundish cord. somewhat 5-lbd. crenate, Involucel setaceous, Pedun. axill. and termin. Panic. 3-5-flwd. [Involuc. 5-lyd. Lfts. lanceol.
- 17724 Root lvs. lobed or pedate, Lower stem lvs. palmato-pedate upper digit. or simple, Cal. segms. ov.-acute ciliat.
- 17725 Rad. lvs. cord. obtuse deeply lobed, Stem lvs. tripartite and simple, Bracteas and calyx pilose at apex
- 17726 Lvs. cord. rough with hairs lower ones obtusely upper ones acutely lbd. and toothed, Stem hispid, Pedunc. 1-flwd.
- 17727 Lvs. 3-nrvd. denticul. hoary-toment. ben. with gland on each nrv. ben. Lower lvs. roundish acutely somewh. 3-lbd. upperm. ones lanceol. nrvly. sess.
- 17728 Lvs. ovate acuminate serrated, Pedic axill. 1-flwd. longer than petioles, Cor. twice as long as involucel.
- 17729 Setosely hispid, Lvs. roundish cord. acumin. toothed obtusely 5-angled, upper ones sagitt. Rac. few-flwd. Involuc. 12-parted ciliat. Stips. lin. filiform [Flws. axill. solit. Invol. 8-10 lin. hisp. ciliat. 2-lbd. lfts.
- 17730 Petiol. and pedun. scabr. and prickly, Lvs. roundish cord. palmately 3-7 parted, Lbs. lanceol. acumin. serrat.
- 17731 Lvs. lanceol.-obl. ent. or rarely trifid, Invol. 5-lyd. shorter than 5-toothed cal. Petals rather velvety on outside
- β A splendid hybrid from *H. multiflorus* impregnated with the pollen of *H. mutabilis*
- 17732 Lvs. roundish-ovate ent. at base unequally toothed at apex, Petals obovato-cuneate spread. Seeds subtrigon. [the middle convex on back clthd. appressed hairs
- 17733 Lvs. cord. toothed somewh. 3-lbd. hoary from down ben. Pedic. axill. free from petioles 1-flwd. jointed above
- 17734 Bark clthd. with stell. pubes. intersp. with short spreadg. nrvly. straight tubul. aculei, Lvs. palmat. 3-5-lbd. with harsh stell. pubes. on both surfs. [full of nerves
- 17735 Lvs. cord. ov.-lanceol. coarsely and uneq. crenat. somewh. downy ben. from stell. pubes. scabr. ab. Rac. axill. few-flwd. Carpels 5 2-awned



and Miscellaneous Particulars.

2698. *Plagiánthus*. A shrub which, if planted in a warm sheltered situation, will stand our winters; and cuttings of young wood root freely in sand under a hand-glass.










2699. *Nuttálla* is a genus of very elegant plants when in blossom, well deserving a place in every collection. Peat with a little sand suits them best. They may be increased by division or by seed.

1477. *Urëna* 17726 *speciosa*. "This is a very elegant plant, with large pink flowers, which are disposed in a kind of terminal racemose panicle. It differs so much in habit from all the other species of this genus, that we doubt its being a genuine species of *Urëna*." (*Don's Mill.*, 1. 47.)

2700. *Lebretómia*. The species of this genus deserve to be cultivated in every collection, on account of their showy scarlet blossoms. A mixture of loam and peat suits them best. Cuttings taken off close to the stem of the plant root readily in sand under a hand-glass. None of the leaves should be taken off, or shortened above the sand.

2701. *Abtíon*. Some of the species of this genus are rather ornamental when in flower. They thrive in any light rich soil, and are readily increased by cuttings, which should be placed in a gentle heat.



|       |   |  |                      |                                      |
|-------|---|--|----------------------|--------------------------------------|
| 2702  | *1489a. <i>ERIOLE'NA</i> Dec.                                       | <i>ERIOLE'NA.</i> ( <i>Erion</i> , wool, <i>Lena</i> , cloak; calyx woolly.)                                       | <i>Byttneriaceæ.</i> | Sp. 1—2.                             |
| 17736 | - Wallichii Dec.  | Wallich's  or 6 ...               | R                    | E. Indies 1823. C s.p Mém. m. 10. 5. |
| 2703. | *1489b. <i>REEVE'SIA</i> Lindl.                                     | <i>REEVESIA.</i> ( <i>John Reeves</i> of Canton.)  | <i>Byttneriaceæ.</i> | Sp. 1—1.                             |
| 17737 | thyrsoidæ Lindl.  | thyrsè-like- <i>flwd</i>  or 4 ja | W                    | China 1826. C p.1 Bot. reg. 1236.    |
|       | 1596. <i>CAME'LLIA.</i>   |  |                      | Sp. 9—8.                             |
| 17738 | 9953y euryoides B. R.   | Eurya-like  or 4 my.jn            | W                    | China 1824. I p.1 Bot. reg. 983      |
| 17739 | 9953z Kissi Wal.  | Kissi  or 10 my.jl                | W                    | Nepal 1823. I p.1 Ab. f. 99          |
|       | 9953 <i>Sasinqua.</i>   |  |                      |                                      |
|       | γ plèna álba  | double white  pr 4 f.n            | W                    | China 1824. I p.1 Bot. reg. 1091     |
|       | δ semiplèna álba  | semidouble white  pr 4 f.n        | W                    | China 1811. I p.1 Bot. reg. 12       |
| 17740 | 9953a reticulata Lindl.   | reticulated  spl 6 ap.jl          | R                    | China 1824. I p.1 Bot. reg. 1078     |
|       | 9984 japónica   |  |                      |                                      |
|       | 19 Carnation-flwd Warratah  | 28 Scarlet   |                      | 37 Hollyhock-flwd                    |
|       | 20 Pale yellow  | 29 Great-flwd red  |                      | 38 Coral-flowered                    |
|       | 21 Fringed white  | 30 Dwarf   |                      | 39 Splendid                          |
|       | 22 Thick-nerved   | 31 Incarnate   |                      | 40 Flowery                           |
|       | 23 Expanded red   | 32 Blush Warratah  |                      | 41 White Anemone-flwd.               |
|       | 24 Shell-flwd   | 33 Ross's  |                      | 42 Chandler's striped Warratah       |
|       | 25 Lady Campbell's red-stmd   | 34 Spatulate   |                      | 43 Grey's spotted                    |
|       | 26 Long-leaved  | 35 Straw-coloured  |                      | 44 Rose of the World                 |
|       | 27 Aucuba-leaved  | 36 Alton's large single red  |                      | 45 Press's single red                |
| 2704. | *1497a. <i>STRAVADIUM</i> J.  | <i>STRAVADIUM.</i> ( <i>Tsjeria Samstravadi</i> , its Malabar name.)   | <i>Myrtacææ.</i>     | Sp. 1—2.                             |
| 17741 | - acutangulum J.  | sharp-angled  or 20 ...           | P                    | E. Indies 1822. L s.p R. mal. 4. 7   |
|       | Barringtonia acutangula Rox., Eugenia acutangula L., S. rubrum Dec. |  |                      |                                      |
| 2705. | *1499b. <i>MORISONIA</i> Plu.                                       | ( <i>R. Morison</i> , professor of botany at Oxford, d. 1683.)   | <i>Capparidææ.</i>   | Sp. 1—1.                             |
| 17742 | - americana L.  | American  or ... ..               | W                    | W Indies 1824. C p.1 Jac. am. 97     |
|       | Capparis Morisoni Swz.  |  |                      |                                      |

Page 598. CLASS XVII. — DIADELPHIA. STAMENS united in two separate parcels.

Order 3. OCTANDRIA. Stamens 8.

2706. *Monnina*. Flws. resupinate. Sepals 5, deciduous, 2 inner ones wing-formed, 3 outer ovate, 2 of these usually united. Petals 3-5, connate at base, middle one concave, 3-toothed. Stams. 8, rather pilose, united into a tube at base, which is cleft on one side. Drupe or capsule 2-celled, 2-seeded, or 1-celled, 1-seeded, girded by a membranous wing, or without. Seed hanging from the top of the cell. Albumen sparing.



Order 4. DECANDRIA. Stamens 10.

2707. *Ambérstia*. Cal. tubular, 5-toothed, with the stamens inserted in it near the apex, bibracteate at base, valvate in æstivation. Petals unequal; upper one large, unguiculate, obcordate; lateral ones wedge-shaped; 2 lower ones awl-shaped. Stams. 10, 9 joined and 1 free, adhering to the pedicel of the ovary. Anth. versatile. Legume stalked, flat, oblong, few-seeded.

2708. *Rudóphia*. Cal. tubular, bilabiate; upper segment obtuse, lower one acute, 2 lateral ones very short. Vexillum oblong-linear, very long. Wings shorter than calyx, very narrow. Legume compressed, many-seeded.

2709. *Láloge*. Calyx bracteate, bilabiate; upper lip bifid, lower one tripartite. Vexillum flat, round, emarginate. Keel obtuse. Stamens all connected.

OCTANDRIA.

|                            |              |   |   |  |
|----------------------------|--------------|---|---|--|
| 1508. <i>POLY'GALA.</i>    | Thesium-like |  or $\frac{2}{3}$ jl | B | Sp. 29—44.                             |
| 17743 9986a thesioides W.  | attenuated   |  or 3 my.v           | P | Valpar. 1832. C p.s.1 Sw.fl.g. 2.s.215 |
| 17744 9991a attenuata Lod. |              |   |   | C. G. H 1820. C s.p Bot. cab. 1000     |
|                            | 17740        |   |   | 17738                                  |



History, Use, Propagation, Culture,

2702. *Eriolæ'na*. Any light rich soil, or a mixture of loam, peat, and sand, suits this genus; and cuttings of the young wood, not deprived of their leaves, root readily in the same soil, if placed under a hand-glass, in heat.

2703. *Reevesia*. Ripened cuttings, not deprived of their leaves, root readily in sand, under a hand-glass, in a moist heat. Soil as for *Eriolæ'na*, above.

[5. lvd.

17736 Lvs. stalked cord. acumin. toothed pubes. ab. villous ben. Pedic. villous 1-fwd. 3 times as long as petioles, Invol.

17737 The only species

17738 Lvs. ovate-lanceol. acumin. serrated sulcate ben. Branches hairy. Pedunc. lateral 1-fwd. scaly

17739 Lvs. ellipt. serrulat. bluntly acumin. Flws. sess. axill. generally solit. and somewh. termin. usually 4-pet. and with 3 distinct furrowed woolly styles

17740 Lvs. obl. acumin. serrat. flat reticulated, Flws. axill. solit. Calyx 5-sepaled coloured, Ovary silky

46 Press's Eclipse  
47 Single red-spotted  
48 Chinese Rose  
49 Rawes's showy  
50 Elegant  
51 Imbricated  
52 White semidouble  
53 Neat  
54 Colvill's

55 Sweet's  
56 Reeves's  
57 Compact-flowered  
58 Donkeläer's  
59 Rose-like-fwd  
60 Parks's  
61 Sabine's  
62 Choice  
63 Lady Wilton's

64 Woods's  
65 Rosy-coloured  
66 Epsom  
67 Knight's  
68 Elphinstone's  
69 Susanna  
70 Martha  
71 Wadie's

17741 Lvs. cuneatè-obl. acuminat. obsolete serrulated, Rac. very long pendulous, Drupe acutely 4-angled

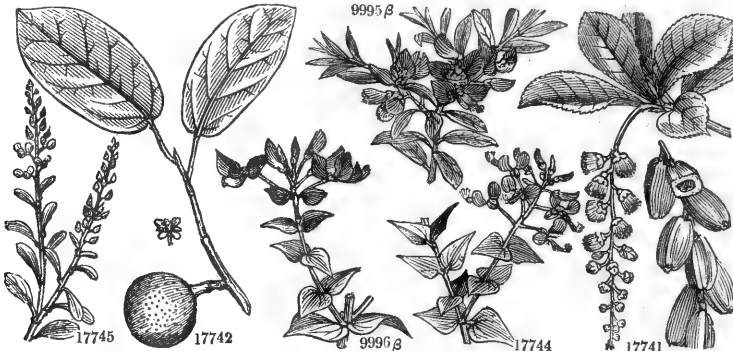
17742 The only species

2710. *Vilmorinia*. Cal. cylindrical, 4-toothed, somewhat bilabiate. Wings shorter than the keel. Style acute. Legume stalked, lanceolate, compressed, tapering.2711. *Barbèria*. Cal. tubular, 5-cleft, bibracteate at base, Wings shorter than keel, and keel shorter than vexillum. Style bearded at apex. Stigma obtuse. Legume linear, villous, many-seeded.2712. *Dumasia*. Cal. obliquely truncate, toothless, bibracteate at base. Claws of petals length of calyx. Keel obtuse. Legume tapering to the base, compressed, few-seeded.2713. *Neurocárpum*. Cal. tubular, with 5 acuminated nearly equal teeth, and furnished with 2 bracteas at base. Vexillum large, roundish. Keel obtuse. Legume stipitate, compressed, sub-tetragonal from the middle nerve of the valves being rather prominent; 4-8-seeded.2714. *Cologania*. Cal. tubular, 5-cleft, bibracteate at base, somewhat bilabiate. Vexillum roundish. Ovary stipitate, linear, very hispid, girded by the disk. Style smooth, obtuse.2715. *Cliánthus*. Calyx campanulate, 5-toothed, 5-cleft. Vexillum ovate-lanceolate, acuminate, rather short, the keel reflexed. Wings lanceolate, spreading. Keel cymbiform. Anthers incumbent. Style filiform. Stigma truncate. Legume oblong, swollen, coriaceous.2716. *Adésmia*. Cal. 5-cleft; lobes acute. Vexillum complicated above the wings when young. Keel curved and truncate at base. Stams. distinct, but approximate. Legume compressed, many-jointed.2717. *Hosáckia*. Cal. campanulate, 5-cleft. Wings equal in length to vexillum. Keel beaked. Stigma capitate. Legume cylindrical, or rather compressed, straight.

## OCTANDRIA.

17743 Stems many erect, Lvs. obl.-lin. crowded, Rac. 8-12-fwd. Capsule somewhat 2-horned at apex

17744 Lvs. narrow tapering to both ends acute and as well as twigs smooth, Rac. elongat. Brac. decid. Pedunc. longer than flws. Wings obtuse



and Miscellaneous Particulars.

2704. *Stravádium*. For culture, &c., see *Barringtonia*, in p. 597.2705. *Morisonia* 17742 *americana*. A mixture of loam, peat, and sand suits this plant; and cuttings of the young wood should be planted in sand, and placed under a hand-glass in heat. It is called in Martinique *Bois Mabonia*.

- 9995 *myrtifolia*  
*β grandiflora* Hook. large-flowered  $\square$  or 4 my.o P C. G. H. 1818. C s.p Bot. mag. 3616  
 9996 *oppositifolia*  
*β major* Lindl. larger  $\square$  or 3 my.au P C. G. H. ... C p.l Bot. reg. 1146  
 2706. \*1510a. MONNINA R. & P. MONNINA. (*Monnina*, Count de Flora Blanca.) *Polygalæe*. Sp. 1—1.  
 17745 - *obtusifolia* H. & K. obtuse-leaved  $\square$  or 2 ju Rsh.P Peru 1830. S p.l Bot. mag. 3122

DECANDRIA.

2707. \*1520. AMHERSTIA Wall. (*Countess Amherst* and her daughter *Lady Sarah*.) *Legumin.* Sp. 1—1.  
 17746 - *nobilis* Wall. noble  $\square$  or spl 40 mr Ve.w.y Martaban 1837. S lt.r.m Wal.pl.as.ra.1  
 1521. ERYTHRINA.  
 17747 10043a *laurifolia* Jac. Laurel-leaved  $\square$  or spl 4 jls S S. Amer. 1800. S r.m Sw. fl. gar. 142  
 2708. \*1521a. RUDOLPHIA W. RUDOPHIA. (*W. J. H. Rudolph*, a bot. of Jena.) *Leg. Pap. Phacol.* Sp. 1—2.  
 17748 - *rosea* Tus. roseate  $\square$  or 6 ... R W. Indies 1826. C s.l Pl. am. 102. 1?  
 1525. PLATYLOBIUM.  
 17749 10050a *obtusangulum* Hook. obtuse-angled  $\square$  or 1 my Y.a V. D. L. 1832? S s.p Bot. mag. 3258  
 17750 10050b *Murrayanum* Hook. Murray's  $\square$  or 1 my Y.a V. D. L. 1832. S s.p Bot. mag. 3259  
 2709. \*1525a. LA'LAGE Lindl. LALAGE. (*Lalage*, a lively dame in Horace; appearance.) *Legumin.* Sp. 1—1.  
 17751 - *ornata* Lindl. gay-flowering  $\square$  or 2 ap Y.bd.p N.Holl. 1830. C p Bot. reg. 1722  
 1530. CROTALARIA.  
 17752 - *striata* Hook. striated-flwd  $\square$  or 3 ... Y.a Maur. ? 1831. S l.p Bot. mag. 3200  
 1532. SCOTTIA.  
 17753 10128a *angustifolia* Lindl. narrow-leaved  $\square$  or 6 ju.n Pk.y N. Holl. 1826. C p.l Bot. reg. 1266  
 17754 10128b *laevis* Lindl. smooth-bran.  $\square$  or 3 ju.s Y.s N. Holl. 1833. C s.p Bot. reg. 1652  
 1536. HOVEA.  
 17755 10137a *villbœa* Lindl. shaggy  $\square$  el 3 ap Li N. Holl. 1829. C s.p Bot. reg. 1512  
 17756 - *Manglesi* Lindl.  $\square$  pr 1 ja P Swan Riv. 1836. C co Bot. reg.n.s.62  
 1537. SPARTIUM.  
 17757 10139a *acutifolium* Lindl. sharp-leaved  $\square$  or 6 jls Y Turkey 1836. S co Bot. reg.n.s. 1974  
*junceum* var. *odoratissimum* ? *Sw. fl. gar.* 390.  
 1540. ULEX *foi185 europœa*.  
*β fl. pleno* double-flowered  $\square$  or 6 ap.jn Y Sp. 2—4.  
 Britain gard. C co  
 1544. LUPINUS.  
 - *bracteolaris* Desv. bracted  $\circ$  or  $\frac{1}{4}$  jl.au B Sp. 51—53.  
 Mon. Vid. 1820. S co  
 17758 - *pusillus* Ph. little  $\circ$  or  $\frac{1}{4}$  jl.au Pa.B N. Amer. 1817. S co  
 17760 - *bicolor* B. B. two-coloured  $\circ$  or  $\frac{1}{4}$  jl.au Pa.B N. Amer. 1826. S co Bot. reg. 1109  
 17761 - *micranthus* Dou. small-flowered  $\square$  or  $\frac{1}{4}$  my.jl P.B N. Amer. 1826. S co Bot. reg. 1251  
 17762 - *polypyllus* B. R. many-leaved  $\Delta$  spl 4 ju.jl B Colombia 1826. S co Bot. reg. 1096  
*β albiflorus* white-flowered  $\Delta$  spl 4 ju.jl W Colombia 1826. S co Bot. reg. 1377  
 17763 - *rivularis* Lindl. river-side  $\Delta$  or 3 my.s W.b.p Californ. 1831. S co Bot. reg. 1595  
 17764 - *macrophyllus* Benth. large-leaved  $\Delta$  spl 4 ju.jl B ..... S s.l Sw. fl.g. 2.s.356  
 17765 - *laxiflorus* Dou. loose-flowered  $\Delta$  or 1 au B.pk Columbia 1826. R co Bot. reg. 1140  
 17766 - *lepidus* Dou. pretty  $\Delta$  or  $\frac{1}{2}$  au.s B.pk Columbia 1826. S co Bot. reg. 1149  
 17767 - *ornatus* Dou. ornamental  $\Delta$  or 2 my.jn B.pk Columbia 1826. S co Bot. reg. 1216  
 17768 - *albifrons* Benth. hoary-herbage'd  $\square$  or 3  $\frac{1}{2}$  s.n Dp.B Californ. 1833. C s.l Bot. reg. 1642  
 17769 - *littoralis* Dou. shore  $\Delta$  or 1 ju.o B.pk Columbia 1826. S co Bot. reg. 1198  
 17770 - *aridus* Dou. arid  $\Delta$  or 1 au.s P.B N. Amer. 1827. S co Bot. reg. 1242  
 17771 - *plumbosus* Dou. feathery  $\Delta$  or 3 ju.jl B Californ. ... S co Bot. reg. 1217



History, Use, Propagation, Culture,

2706. *Monnina*. A genus of plants not worth cultivation for ornament. A mixture of loam and peat suits them; and cuttings of the young wood root readily in sand, under a hand-glass, in heat.  
 2707. *Amherstia* 17746 *nobilis* is a native of the Burman empire, in the garden of a decayed kioun, a sort of monastery, 2 miles from the right bank of the Salven river, and 27 miles from the town of Martaban, but its native place of growth is still unknown, as the trees found in the garden have undoubtedly been planted there. The flowers are large, of a fine vermilion colour, diversified with yellow spots. This tree, when in foliage and blossom, is the most superb object that can possibly be imagined, and not surpassed by any plant in the world. The Burmese name of the tree is *Thoka*.

17745 Lvs. oblong obtuse cuneate at base obsolete veined rather leathery glabrous as are branchlets, Rac. solitary

DECANDRIA.

17746 The only species

17747 Stem suffrutic. bran. Bran. glabr. rather prickly, Lfts. petiol. obl. acumin. Petioles rath. prickly glandul. Cal. truncate unident.

17748 Bran. smooth glabrous, Lvs. ovate-oblong glabrous acuminate, Racemes pedunculate

17749 Lvs. oppos. rather remote deltoid subcoriac. angles rath. obt. and mucronate, Pedunc. very short concealed by

17750 Much branched, Bran. erect flexuous somewh. wiry, Lvs. deltoid angles acute and mucron. Pedum. filif. longer th. lf. with about 6 small distich. bract. at base

17751 The only species

17752 Stipules wanting, Lfts. ellipt. obt. mucron. nrly. glabr. Rac. termin. and nrly. oppos. lvs. Bract. sefaceous deciduous

17753 Leaves opposite lin.-oblong truncate at base, Flws. solitary on very short pedicels

17754 Lvs. ovate truncate at base unequally denticulated, Branches smooth

17755 Lvs. linear obl. obtuse mucronulate glabr. reticulated above very villous beneath as well as branches, Pedicels twice shorter than petioles villous

17756 Lvs. linear mucron. with revolute margins glabr. above pilose beneath, Flowers twin sess.

17757 Lvs. acumin. Racemes loose

17758 Flws. altern. pedicell. bracteol. Upper lip of cal. bipartite lower trifid, Stip. ov. lanceol. Lfts. 5-6 obov.-obl. vil. on both surfs. [as are stems and pets. Leg. very hairy

17759 Flws. altern. without bracteoles, Upper lip of cal. bipart. lower ent. Lfts. 5-7 lin.-ellipt. glabr. ab. hairy ben.

17760 Clthd. with silky pil. Lfts. 5-7 lin. spatulate, Flws. few verticill. Upper lip of cal. bifid lower elongat. and ent. Wings longer than vexillum [6-seeded transversely furrowed

17761 Flws. somewh. verticill. bracteol. sess. Upper lip of cal. bifid lower ent. Lfts. 5-7 lin. spatulate ciliat. Leg. 17762 Flws. rath. verticill. without bracteoles pedicill. Lfts. 11-15 lanceol. hairy ben. Both lips of cal. quite entire, Stems pilose [Vexillum sessile

17763 Silky, Leaflets 7 pubes. beneath, Racemes verticillate, Cal. bractless, Lips entire upper one gibbous at the base, 17764 Hairy leaflets 12-15 lanceol. acute, Whorls many-fwd. contiguous, Cal. bractless, Lips entire, lower one lanceol. acute

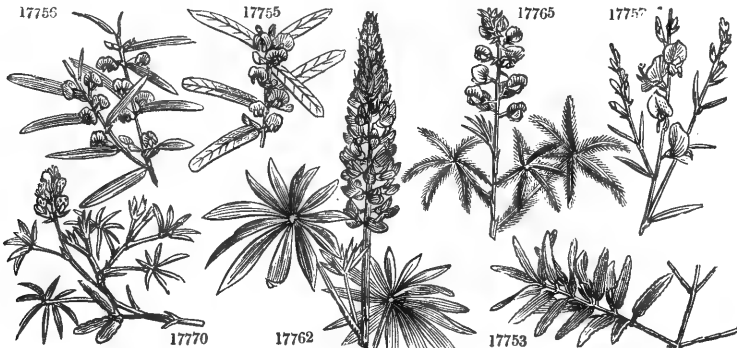
17765 Pilose, Flws. altern. without bracteol. Upper lip of cal. ent. saccate at base lower longer ov. and acumin. Keel beardless, Lfts. 7-9 lin.-lanceol. [lanceol. silky on both surfs.

17766 Flws. altern. pedicell. without bracteol. Cal. villous upper lip bipart. lower acumin. and elongat. Lfts. 5-7

17767 Flws. verticill. appendicul. Upper lip of cal. bifid, lower ent. elongat. Lfts. 7-12 lin.-lanceol. clthd. with silvery silky down, Leg. 4-5-seeded [slender racemes

17768 Stem and lvs. clthd. with silvery silky down, Lfts. obovato-oblong narrowed at base, Flws. verticill. in long 17769 Flws. verticill. pedic. without brac. Lips of cal. ent. Lfts. 5-7 lin. spatulate silky both surfs. Leg. 10-12-seeded transversely furrowed [Stipules subulate

17770 Very hairy, Flws. verticill. pedicell. bracteol. Upper lip of cal. bifid lower ent. Lfts. 5-9 lin.-lanceol. villous, 17771 Very villous, Flws. altern. on short pedic. bracteol. Upper lip of cal. bifid lower ent. Lfts. 5-7 lanceol. silky, Leg. glabr. 3-5-seeded



and Miscellaneous Particulars.

Handfuls of flowers were presented as offerings in the cave before the images of Buddha. Along with this tree were found some trees of *Mesua ferruga* and *Jonesia Asoca*. It is not a little remarkable, that the priests of these parts should have manifested so good a taste as to select three sorts of trees, as ornaments to their objects of worship, which can hardly be surpassed in beauty. A light loamy soil suits this tree; and large cuttings root in sand, under a hand-glass, in heat.

2709. *Lalago* 17751 *ornata* is a very gay flowering shrub, which requires to be kept in a well-aired green-house, in peat soil, and may be multiplied by cuttings.

|   |   |                  |            |        |        |            |       |     |        |                               |
|---|---|------------------|------------|--------|--------|------------|-------|-----|--------|-------------------------------|
| 17772   | - leucophyllus Dou.   | white-leaved     | △ or 2     | s.o    | Pk     | Columbia   | 1826. | S   | co     | Bot. reg. 1124                |
| 17773   | - Sabiniānus Dou.   | Sabine's         | △ or 3     | my     | Y      | Columbia   | 1827. | S   | s.l    | Bot. reg. 1436                |
| 17774   | - sericeus Ph.  | silky            | △ or 1     | my.jn  | P      | N. Amer.   | 1826. | D   | s.p    |                               |
| 17775   | - argēteus Ph.  | silvery          | △ or 1     | my.jn  | W      | N. Amer.   | 1826. | S   | s.l    |                               |
| 17776   | - ēlegans H. & K.   | elegant          | ○ or 2     | jn     | V.ro   | Mexico     | 1831. | S   | s.l    | Bot. reg. 1581                |
| 17777   | - arbūstus Dou.   | shrub            | □ or 1     | jl.au  | Pa.P   | Californ.  | 1826. | S   | co     | Bot. reg. 1230                |
| 17778   | - multiflorus Desv.   | many-flowered    | ■ □ or 4   | jl.s   | B      | Mte. Vid.  | 1810. | C   | s.l    |                               |
| 17779   | - incānus Grah.   | hoary-herbaged   | ■ □ or 3   | jn.o   | Pa.Li  | B. Ayres   | 1832. | S   | s.l    | Bot. mag. 3283                |
| 17780   | - mutābilis Swt.  | changeable       | ■ □ or 5   | jl.s   | B      | Bogota     | 1819. | C   | s.l    | Sw. fl. gar. 130              |
| 17781   | - canaliculātus Swt.  | channeled        | ■ □ or 4   | jn.au  | B      | B. Ayres   | 1828. | C   | p.l    | Sw. fl. gar. 283              |
| 17782   | - versicolor Swt.   | party-coloured   | ■ □ or 5   | jl.s   | Pk.B   | Mexico     | 1825. | C   | s.l    | Sw. fl. gar. 2.s.1            |
| 17783   | - pulchēllus Swt.   | pretty           | ■ □ or 3   | jn.o   | B.P    | Mexico     | 1828. | C   | s.l    | Sw. fl. gar. 2.s.67           |
| 17784   | - leptophyllus Benth.   | narrow-leafleted | ○ or 1     | jl.s   | B.li   | Californ.  | 1833. | S   | s.l    | Bot. reg. 1670                |
| 17785   | - bimaculātus Hook.   | twin-spotted     | △ or ...   | s      | B      | Texas      | 1835. | S   | lt.s.l | Sw. fl. gar. 2.s.314          |
| 17786   | - tomentōsus Dec.   | tomentose        | ■ □ or 6   | jn.jl  | Pk.w   | Peru       | 1825. | C   | co     | Sw. fl. gar. 261              |
| 17787   | - Marshallianus Swt.  | Marshall's       | ■ □ or 5   | jl.o   | B      | Eng. hyb.  | 1830. | C   | s.l    | Sw. fl. g. 2. s.139           |
| 17788   | - Hartwegii Lindl.  | Hartweg's        | ○ or 3     | jn.o   | D.B.pk | Mexico     | 1838. | S   | co     | Bot. reg. n.s. 1839.31        |
| 17789   | - densiflorus Benth.  | dense-inflor.    | ○ or 3     | jl.s   | W.pk   | Californ.  | 1838. | S   | s.l    | Bot. reg. 1689                |
| 17790   | - latifolius Lindl.   | broad-leaved     | △ or 1     | 1/2 jl | B      | Californ.  | 1834. | S   | l.p    | Bot. reg. 1891                |
| 17791   | - subcarinōsus Hook.  | subcarinose-ld   | ○ or 1     | jl     | Dp.B.w | Texas      | 1835. | S   | s.l    | Bot. mag. 3467                |
| 17792   | - texēnsis Hook.  | Texas            | ○ or 1     | 1/2 jl | Dp.B   | Texas      | ...   | S   | s.l    | Bot. mag. 3492                |
| 1553. KENNE'DY A. Sp. 10—16.  |   |                  |            |        |        |            |       |     |        |                               |
| 17793   | 10315a nigricans Lindl.   | dark-corollaed   | ■ □ or 3   | f.jn   | D.P.s  | N. Holl.   | 1832? | C   | s.p    | Bot. reg. 1715                |
| 17794   | 10317a Marryatæ Lindl.  | Mrs. Marryatt's  | ■ □ or 4   | jn.jl  | S      | Australia  | 1834. | S   | s.p    | Bot. reg. 1790                |
| 17795   | 10317b Stirlingi Lindl.   | Stirling's       | ■ □ or 3   | ap     | S      | Swan R.    | 1834. | C   | s.p    | Bot. reg. 1845                |
| 17796   | 10318a macrophylla Lindl.   | long-leaved      | ■ □ or 15  | ...    | P      | Swan R.    | 1835. | C   | s.p    | Bot. reg. 1862                |
| 10319 monophylla. β longeracemōsa Lindl. lg-racemed ■ □ or 3 mr.au Pk N.S.W. 1828. S l.p Bot. reg. 1336 |   |                  |            |        |        |            |       |     |        |                               |
| 2710.   | *1555a. VILMORINIA Dec. (M. Vilmorin, memb. of Agric. Soc., Paris.)       |                  |            |        |        |            |       |     |        | Leg. Pap. Lot. Clit. Sp. 1—1. |
| 17797   | - multiflōra Dec.   | many-flowered    | ■ □ or 6   | ...    | P      | W. Indies  | 1820. | C   | s.p    |                               |
| 2711.   | *1555b. BARBIÈRIA Dec. (J. B. G. Barbier, M.D. a French botanist.)        |                  |            |        |        |            |       |     |        | Leg. Pap. Lot. Clit. Sp. 1—1. |
| 17798   | - polyphylla Dec.   | many-leaved      | ■ □ or ... | ...    | P      | S. Amer.   | 1818. | C   | s.p    | Dec. leg. 5. 39               |
| 2712.   | *1555c. DUMA'SIA Dec. (M. Dumas, one of the edit. of Annals of Nat. His.) |                  |            |        |        |            |       |     |        | Leg. Pap. Lot. Clit. Sp. 1—2. |
| 17799   | - pubēscens Dec.  | pubescent        | ■ □ or 6   | au.d   | Y      | Nepal      | 1824. | C   | s.l    | Bot. reg. 962                 |
| 2713.   | *1556a. NEUROCARPUM Desv. (Neuron, nerve, karpos, fruit.)                 |                  |            |        |        |            |       |     |        | Leg. Pap. Lot. Clit. Sp. 1—2. |
| 17800   | - guianēse Desv. Guiana   |                  | ■ □ or 2   | ...    | P      | Guiana     | 1826. | C   | p.l    | Aub. gul. 2.305               |
| Crotalāria guianēnsis Aub. lon girōlia Lam.   |   |                  |            |        |        |            |       |     |        |                               |
| 2714.   | *1556b. COLOGANIA Kth. COLOGANIA. (The family of Cologan, in Teneriffe.)  |                  |            |        |        |            |       |     |        | Leg. Pap. Lot. Clit. Sp. 1—2. |
| 17801   | angustifōlia Kth. narrow-leaved   | ■ □ or 3         | ...        | ...    | V      | Mexico     | 1827. | C   | p.l    | Kth. mim. 58                  |
| 1557. O'ROBUS. Sp. 21—36.   |   |                  |            |        |        |            |       |     |        |                               |
| 17802   | 10333a Fischeri Swt.  | Fischer's        | ■ □ or 1   | my.jl  | P      | Siberia    | ...   | S   | co     | Sw. fl. gar. 289              |
| 17803   | 10343a formōsus Stev.   | beautiful        | ■ □ or 3   | my.jl  | P      | Caucasus   | 1818. | R   | p.l    | Lin. tr. 11. 36               |
| 17804   | 10344a atropurpureus Desf.  | dark-purple      | ■ □ or 1   | my     | P      | Algiers    | 1826. | S   | sl     | Bot. reg. 1763                |
| 17805   | 10344b stipulāceus Hook.  | stipulaceous     | ■ □ or 6   | my     | P      | N. Amer. ? | ...   | D   | co     | Bot. mag. 2937                |
| 17806   | - pisifōrmis Maund  | pea-formed       | ■ □ or 1   | my     | P      | S. Europe  | 1822. | R   | s.l    | Bot. gar. 634                 |
| 1558. LA'THYRUS. Sp. 34—53.   |   |                  |            |        |        |            |       |     |        |                               |
| 17807   | 10368a magellānicus Magellan  |                  | ■ □ or 10  | jn.au  | P.B    | Brazil     | 1829. | S.C | lt.sl  | Bot. gar. 526                 |
|   | †10371 rotundifolius W. round-leaved                                      |                  | ■ □ or 3   | ap.my  | Pk     | Tauria     | 1822. | R   | co     | Sw. fl. g. 2. s.333           |
|   | rotundifolius var. ellipticus D. Don in Swt. fl. gar. 2. s. 333.          |                  |            |        |        |            |       |     |        |                               |

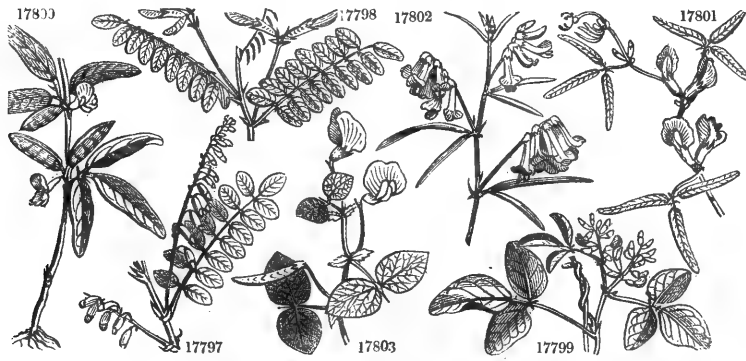


History, Use, Propagation, Culture,

2710. *Vilmorinia*. A mixture of peat, loam, and sand suits this genus; and cuttings will root in sand, under a bell-glass, in heat; but the most ready mode of increasing it is by seed.

2711. *Barbieria*. For soil and propagation see *Vilmorinia*, above.

- 17772 Very villous, Flws. altern. pedicell. bracteol. Upper lip of cal. bifid lower ent. Lfts. 7-9 obl.-lanceol. Stipules subul. woolly
- 17773 Flws. somewh. verticill. without bracteoles, Rac. many-fwd. Cal. villous, Upper lip ov. and acute lower boat-sh. Lfts 7-12 lan.-acumin.
- 17774 Flws. rath. verticill. without bracteoles, Upper lip of cal. cut lower ent. Lfts. 7-8 lanceol. acute silky both
- 17775 Flws. altern. without brac. Upper lip of cal. obtuse lower ent. Lfts. 5-7 lin. lanceol. acute glabr. ab. clthd. silky silvery down. ben. [lanceol.-acute, Stipules setaceous]
- 17776 Clthd. with soft pill, Rac. elongat. peduncul. Flws. somewh. verticill. Lower lip of cal. acute and ent. Lfts. 17777 Flws. altern. pedicell. bracteol. Upper lip of cal. bifid lower one ent. acute, Lfts. 7-13 obov.-obl. silky on both surfs. Leg. 3-4-seeded [villi]
- 17778 Flws. altern. almost sess. bracteol. Upper lip of cal. bifid lower tridentate, Lfts. lanceol. covered with silky
- 17779 Silky, Lvs. digit. Lfts. about 9 lin.-lanceol. carin. below ent. very acute, Pedic. scatt. over rachis or within a little way of base, Brac. small subul. adpress. inconspic. [Upper lip of cal. bifid lower keeled acute ent.]
- 17780 Bran. spreadg. glauc. glabr. Lfts. 7-9 glauces. rath. pubes. ben. lanceol. blunthsh, Flws. somewh. verticill.
- 17781 Clthd. with silky toment. Flws. altern. pedicell. bracteol. Cal. appendicul. Upper lip bifid lower ent. and acumin. Lfts. 8-9 lin. canalicul. obt. [caducous sprdg. silky ciliat. long. th. silky cal.]
- 17782 Bran. and lvs. pubes. Lfts. 7-9 lanceol.-spatul. blunthsh somewh. mucron. smthsh. ab. pubes. ben. Bract. 17783 Bran. erect clthd. with silky pubes. Lfts. 5-7 obl.-lanceol. acute mucron. pubes. ben. Stip setaceous, Rac. peduncul. Flws. verticill. Brac. caducous and setaceous
- 17784 Bran. angul. clthd. adpress. pubes. Lfts. 9 lin. acute few silky hairs on both surfs. Stip. foliac. lin. Flws. in lax peduncul. racemes somewh. verticill. Lips of cal. ent.
- 17785 Sarmentose and hoary, Flws. somewh. verticill. tern. pedicel. bracteolate. Vexillum bicalous at base
- 17786 Clthd. with silky toment. Flws. verticill. pedicell. bracteol. Both lips of cal. ent. Lfts. 8-10 obl. blunthsh mucronul. tapering to base, Ovary very hairy [lanceol. acute, Brac. long and alend. extending beyond flws.]
- 17787 Clthd. with soft woolly and silky hairs, Lower lvs. of 9-14 lfts. upper ones 8-5 lfts. varying from ellipt. to
- 17788 Pilose, Stipules setaceous, Lfts. 7-9 obl. obtuse, Raceme long. many-fwd. Bractees setaceous plumose, Keel 17789 Lvs. of 7-9 oblongo-spatul. lfts. Whorls 6-10-flowered, Legume villous 2-seeded [beardless]
- 17790 Glabr. Lfts. 5-7 obov. narrowed at base, Whorls few-fwd. Cal. bractless silky, Lips nearly entire
- 17791 Stem downy, Lvs. on long ptes. of five obov.-lanceol. singularly thick and alm. fleshy retuse lfts. Lfts. of lower lvs. shortest and broadest glabr. ab. somewh. silky ben.
- 17792 Lvs. of 5 lanceol. acute lfts. very smooth ab. silky ben. Stip. subulate, Lower lip of cal. always entire [straight, Vexill. remarkably retrofracted]
- 17793 Lvs. broadly ov. almost cord. at base retuse at apex sometimes tern. Flws. erect secund racemose, Keel nearly
- 17794 Villous, Leaflets 3 obl. obtuse undulate, Stipules and bractees cord. Pedunc. 4-fwd.
- 17795 Leaflets 3 roundish ov. mucron. almost glabr. Petioles and stems pilose, Stipules ovate acute, Bractees nearly
- 17796 Leaflets 3 ovate obl. retuse mucron. Stip. setaceous, Racemes many-fwd. [fascicles or whorled, Pedun. 2-fwd.]
- 17797 Stem erect glabr. Lvs. pinnate with 5 or 6 pairs of ovate lfts. which are pubes. beneath, Racemes shorter than leaves
- 17798 The only spectes
- 17799 Branches petioles peduncles and leaves pubescent, Lfts. ovate, Legume 4 times longer than calyx
- 17800 Stem erect shrubby, Lvs. sess. trifoliolate, Lfts. obl. obt. and somewh. mucron. pubes. as are brans. Flws. 2-3 on very short peduncles
- 17801 Twining, Lfts. linear obtuse rather strigose on both surfaces, Calyx covered with hispid pill
- 17802 Stem tetragonal alm. simple, Lfts. lin. blunthsh mucronul. rather silky ben. Stip. lin. acute little-toothed auricle at base, Flws. secund, Leg. 6-7-seeded [axill. about 2-fwd. Leg. lanceol. glabr]
- 17803 Quite smooth, Lfts. ovate mucronul. Stip. small semisagitt. acute denticul. with diverging nrvs. Pedunc.
- 17804 Stem striat. or angul. Lvs. with 3 pairs of lin. acute lfts. Stip. semisagitt. very narrow awned, Pedun many-fwd. Leg. compressed somewh. ellipt. [axill. and termin. few-fwd.]
- 17805 Stem erect angul. bran. ab. Lvs. with 2-3 pairs of lin. attenuat. very long lfts. Stip. large semisagitt. Pedun.
- 17806 Leaflets 6 linear, Stipules broad sagitt. Pedun. 2-4-fwd. [tate, Tendrils 3-fid, Pedunc. 3-7-fwd.]
- 17807 Glabrous glaucous, Stems branch. 4-gonal, Lvs. with one pair of ovate obl. leaflets, Stipules broad cordate sagit-
- 10371 Pedunc. many-f. Tendrils 2-ldv. Leaflets roundish, Joints membranous



and Miscellaneous Particulars.

2712. *Dumasia*. Soil and propagation as recommended for *Vilmorinia*, above.
2713. *Neurocarpum*. Propagation, &c., the same as that of *Vilmorinia*.
2714. *Cologania* requires the same treatment as that recommended for *Vilmorinia*.

|  |        |                     |              |                  |       |             |       |   |     |               |      |
|--|--------|---------------------|--------------|------------------|-------|-------------|-------|---|-----|---------------|------|
| 17808  | 10877a | decaphyllus Ph.     | ten-leaved   | ⚥ Δ or 4 jn      | R.li  | N. Amer.    | 1829. | S | co  | Bot. mag.     | 3123 |
| 17809  | 10878a | mutabilis Swf.      | changeable   | ⚥ Δ or 4 jn.au   | P.R   | Siberia     | 1825. | S | co  | Sw. fl. gar.  | 192  |
| 17810  | 10878b | californicus B. R.  | Californian  | ⚥ Δ or 4 jn.jl   | P     | California  | 1826. | S | co  | Bot. reg.     | 1144 |
| 1566. <i>CY'TISUS</i> .  |        |                     |              |                  |       |             |       |   |     |               |      |
| 17811  | 10453a | æolius Guss.        | Strombolo    | ⚥ or 7 my        | Y     | Sp. 26—38.  |       |   |     | Bot. reg.     | 1902 |
| 2715. *1571a. <i>CLIA'NTHUS Sol.</i> ( <i>Kleios</i> , glory, <i>anthos</i> , flower; noble aspect.) <i>Leguminæcæ</i> . Sp. 1—1.          |        |                     |              |                  |       |             |       |   |     |               |      |
| 17812  | -      | punicus Sol.        | crimson-cor. | ⚥ Δ or 4 my.jn   | C     | N. Zeal.    | 1832? | C | p   | Bot. reg.     | 1775 |
| Dónia punicæ G. Don, Parrot's bill.  |        |                     |              |                  |       |             |       |   |     |               |      |
| 1573. <i>COLU'TEA</i>  |        |                     |              |                  |       |             |       |   |     |               |      |
| 17813  | 10485a | nepalensis B. M.    | Nepal        | ⚥ or 5 au.s      | Y     | Nepal       | 1822. | S | co  | Bot. mag.     | 2622 |
| 2716. *1583a <i>ADE'SMIA Dec.</i> ( <i>A</i> , without, <i>desmos</i> , a bond; <i>stam</i> , free.) <i>Leg. Pap. Hed. Euhed.</i> Sp. 5—8. |        |                     |              |                  |       |             |       |   |     |               |      |
| 17814  | -      | microphylla Hook.   | small-leaved | ⚥ Δ or 2 vasea   | Y     | Valparai.   | 1830. | S | s.l | Bot. cab.     | 1692 |
| 17815  | -      | péndula Dec.        | pendulous    | ⚥ Δ or 1 jn.jl   | O.v   | B. Ayres    | 1825  | S | s.l | Sw.fl.gar.2.s | 222  |
| 17816  | -      | Loudônia H. & A.    | Loudon's     | ⚥ Δ or 2 my.jn   | Y     | Chile       | 1832. | S | p.l | Bot. reg.     | 1720 |
| Loudônia anthyllodes Bertero Mss.  |        |                     |              |                  |       |             |       |   |     |               |      |
| 17817  | -      | viscosa G. & H.     | clammy-herb. | ⚥ Δ or 12 my.o   | Y.taw | Chile       | 1832. | C | l.t | Sw.fl.gar.2.s | 230  |
| 17818  | -      | uspallatensis Gill. | Uspallatan   | ⚥ Δ or 1 jl      | Y     | Chile       | 1832. | C | s.l | Sw.fl.gar.2.s | 222  |
| 1589. <i>INDIGO'FERA</i> .   |        |                     |              |                  |       |             |       |   |     |               |      |
| 17819  | -      | atropurpurea Ham.   | dark purple  | ⚥ Δ or 5 au      | D.P.C | Nepal       | 1816. | C | s.p | Bot. reg.     | 1744 |
| 17820  | -      | violacea Rox.       | violet-cor.  | ⚥ Δ or 5 ...     | P.R   | E. Indies   | 1819. | C | s.l | Bot. mag.     | 3348 |
| 1597. <i>PSORA'LEA</i> .   |        |                     |              |                  |       |             |       |   |     |               |      |
| 17821  | 10756a | brachiata Dou.      | brachiata    | ⚥ Δ esc 1½ jn.jl | W.B   | P. Rocky M. | 1828. | D | p.l | Hook. am.     | 53   |
| 17822  | 10763a | macrostachya Dec.   | long-spiked  | ⚥ Δ or 3 jl      | P     | Californ.   | 1833. | S | s.l | Bot. reg.     | 1769 |
| 17823  | -      | orbicularis Lindl.  | round-leaved | ⚥ Δ or ½ jn.jl   | P     | Californ.   | 1835. | R | p.l | Bot. reg.     | 1971 |
| 2717. *1601a. <i>HOSA'CKIA Dou.</i> <i>HOSACKIA</i> . ( <i>D. Hosack</i> , M.D., F.R.S., of New York.) <i>Leg. Pap. Lot.</i> Sp. 1—2.      |        |                     |              |                  |       |             |       |   |     |               |      |
| 17824  | -      | bicolor Dou.        | two-coloured | ⚥ Δ or ½ jl.s    | Y.w   | N. Amer.    | 1826. | D | co  | Bot. reg.     | 1257 |
| <i>Lötus pinnatus Hook.</i> Bot. mag. 2913.  |        |                     |              |                  |       |             |       |   |     |               |      |

Page 650. CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

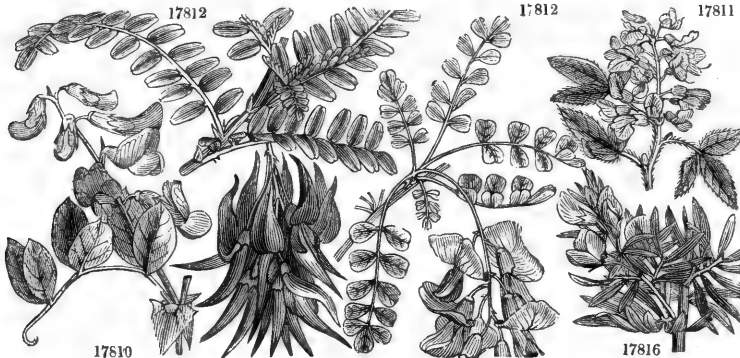
Order 2. POLYANDRIA. Stamens indefinite.

2718. *Eudesmia*. Limb of calyx 4-toothed. Petals joined into a deciduous operculum. Bundles of stamens 4, alternating with teeth of calyx. Caps. 4-celled, 4-valved. Flws. pedunculate.

2719. *Canadilla*. Cal. of 5 oval, mucronate, permanent sepals. Petals 5, obovate or orbicordate, deciduous. Stams. indefinite. Style filiform. Carpels 2-5, ovate, opening on the inside.

POLYANDRIA.

|  |        |                  |             |               |    |                |        |       |     |           |           |      |
|--|--------|------------------|-------------|---------------|----|----------------|--------|-------|-----|-----------|-----------|------|
| 1610. <i>MELALEUCA</i> .   |        |                  |             |               |    |                |        |       |     |           |           |      |
| 17825  | -      | Fraseri Hook.    | Fraser's    | ⚥ Δ or 1½ ... |    | Pa.Ro          | N.S.W. | 1829. | C   | p.l       | Bot. mag. | 3210 |
| Sp. 26—50.   |        |                  |             |               |    |                |        |       |     |           |           |      |
| 1613. <i>BEAUFO'RTIA</i> .   |        |                  |             |               |    |                |        |       |     |           |           |      |
| 17826  | 10970a | Dampieri Cun.    | Dampier's   | ⚥ Δ or 2 my   | Pk | Hartog's I.... |        | C     | s.p | Bot. mag. | 3272      |      |
| Sp. 3—5.   |        |                  |             |               |    |                |        |       |     |           |           |      |
| 2718. *1613a. <i>EUDE'SMIA R. Br.</i> <i>EUDESMIA</i> . ( <i>Eu</i> , well, <i>desme</i> , bundle; stamens.) <i>Myrtacæ</i> Sp. 1—1. |        |                  |             |               |    |                |        |       |     |           |           |      |
| 17827  | -      | tetragona R. Br. | four-angled | ⚥ Δ or 16 jl  | W  | N. Holl.       | 1824.  | C     | s.p | Sw. au.   | 21.       |      |



History, Use, Propagation, Culture.

2715. *Clíanthus* 17812 *punicus* is a splendid half-hardy shrub, which well deserves a place in every collection. It is very readily increased by cuttings and by seed, and thrives in peat or any light rich soil. In New Zealand it is called *kouain-gutukaka*, or the parrot's bill; and it is said to grow there to the size of a large tree.

2716. *Adesmia* is a genus of South American plants, some of which are shrubby; the appearance of several of them resembles that of *Genista*, and may be increased in the same manner.

- 17808 Glabr. or pubes. Lvs. with 4-6 pairs of ellipt. rarely ov. or obl. lfts. Stip. small semisagitt. lanceol. with lobe deflexed and about eq. in length to stips. [acute angularly toothed at base, Leg. convex narrow  
 17809 Stem flexuous winged, Wings ciliate pubes. Lvs. with 3-4 pairs of ov. obt. glauces. lfts. Stip. semisagitt. ov.  
 17810 Stem 4-gonal glabr. Lvs. glauc. with 4-5 pairs of ov.-obl. glabr. mucronul. lfts. Stip. semisagitt. about size of lfts. Leg. obl. rather falcate inflated
- 17811 Bran. round hoary as are lvs. Lvs. trifoliate, Lfts. oval toment. on margin, Flws. tern. alm. bractless, Cal. membran. pubes. Leg. glabr.
- 17812 Minutely pubes. Lfts. altern. obl. retuse coriaceous, Flws. racemose, Calyx 5-toothed smooth
- 17813 Lfts. roundish ellipt. retuse, Rac. droopg. few-flwd. Callosities of vexillum papilliform, Leg. rather coriaceous pubescent  
 [3-jointed covered with long plumose bristles
- 17814 Much bran. Bran. striat. pubes. divaric. spinose, Lvs. 6-pairs of small orbicul. lfts. on short pets. pubes. Leg. 17815 Stem diffuse hardly pubes. Lvs. 7-9 pairs of oval-obl. ent. pubes. lfts. Rac. elongat. Leg. pendul. with 7-8 rather hispid joints
- 17816 Silky erect much branched very leafy, Lfts. 3-pairs lin. lanceol. Pedunc. axillary solit. Cal. 5-cleft, Legumes 3-jointed [lfts. Pod of 4 to 6 1-seeded joints
- 17817 Unarmed clammy with numer. tubercul. shining glands, Lvs. of 9-14 pairs of cuneat.-obl. cren. coriac. nrly. sess.  
 17818 Spiny, Leaflets 5 pairs oval obtuse glabrous, Teeth of calyx semiovate acute reflexed, Legumes bristly 2 or 3 joints [Leg. straight compressed mucron. pendul. 8-10-seeded
- 17819 Lvs. pinnate with 5 7 or 10 pairs of oval retuse mucronul. lfts. rather undul. on margins, Rac. axill. slender,  
 17820 Lvs. pinnate with 5 pairs of obovato-ellipt. flat slightly pubes. lfts. Rac. axill. longer th. lvs. Leg. subcylind. glabr. 6-10-seeded
- 17821 Stem erect flexuose a little branch. villous, Lvs. of 5 ellip. hairy lfts. Pedunc. axill. elong. Racemes obl. spicate. Flowers erect [lvs. Spikes cylindric. hairy as are rachis and bract.
- 17822 Lvs. pinnately trifol. pubes. Lfts. ovate mucron. Petioles scabr. from glands, Pedun. axill. 4 times longer than  
 17823 Covered with down intermixed with glands, Leaflets round. oval heads con. Pedunc. very long axill. Bracteaes obl. concave, very hairy, Stem creeping
- 17824 Glabrous, Flws. umbel. 6-10 in each umbel bractless, Leaves with 7-9 leaflets

2720. *Blumenbäckia*. Tube of cal. spirally twisted. Limb 5-parted. Petals 10; 5 outer ones cucullate, and the 5 inner ones scale-formed, each scale enclosing 2 sterile filaments. Fertile stams. disposed in 5 bundles. Fruit dividing into 10 parts at base.

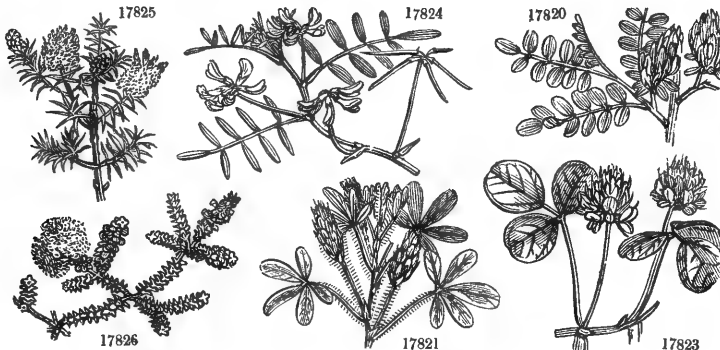
2721. *Scyphanthus*. Cal. deeply 5-parted, permanent, equal. Petals 5. Stams. numerous, perigynous; 10 outer ones destitute of anthers, and placed by twos opposite the scales, and longer than the rest, which are disposed in 5 fascicles opposite the petals. Caps. prismatic, silique-formed, crowned by tube of calyx, 3-valved at apex. Seeds oval, wrinkled.

### POLYANDRIA.

17825 Lvs. altern. lin.-subul. compress. reflexo-patent slightly atten. at base acumin. with mucro at point, Flws. in subglob. spike terminated by 2 or 3 annotinous shoots

17826 Leaves oppos. decussate many-nerved keeled on the back ovate or oval glaucous

17827 The only species



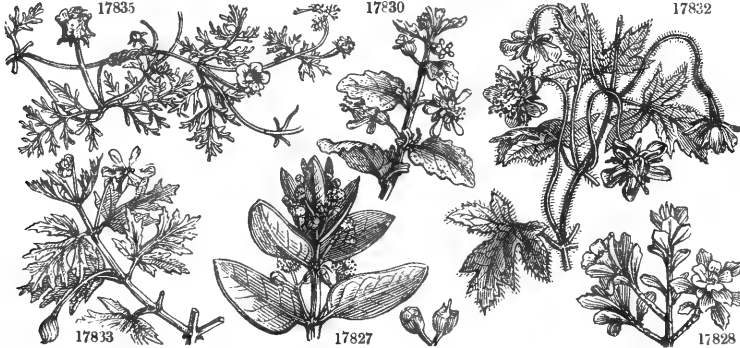
and *Miscellaneous Particulars.*

2717. *Hosackia*. The species of *Hosackia* are rather showy, and well adapted for ornamenting flower-borders and rockwork. They will grow in any common garden soil, and are easily increased by seeds, or by division of the root.

2718. *Eudessmia*. For culture and propagation see *Melaleuca*, in p. 652.



2719. \*1613b. CANDO'LEEA Lab. (*Aug. Py. DeCandolle*, F.R.S., F.M.L.S.&c., Geneva.) *Dilleniaceæ*. Sp. 1.—1.  
 17828 - *cuneiformis* Lab. wedge-shaped  $\square$  or  $\gamma$  ... Y N. Holl. 1824. C s.p Bot. mag. 2711
1619. LOA'SA.  
 17829 11054a hispida L. hispid  $\times$  [O] or 2 jl.au Y Sp. 8—9. Lima 1830. S s.l Bot. mag. 3057  
*ambrosiifolia* Juss., and *Lindl.* in Bot. reg. 1390.
- 17830 11054b incana Griseb. hoary  $\times$   $\Delta$  cu 2  $\frac{1}{2}$  o.n W Peru 1830. S co Bot. mag. 3048  
 17831 11054c álba D. Don white-flowered  $\circ$  or 1 jl.o W Chile 1835. S s.l Bot. mag. 3632  
 17832 11054d lateriflora Hook. brick-red fluid  $\times$   $\circ$  or 20 jl.o R Fucum 1851. S co Sw. fl.gar. 2.s.192  
*aurantiaca* Hort., *punicea* R. & P. ? *coccinea* Hort., *Caliphora lateriflora* Benth., *C. punicea* Presl ?
2720. \*1619a. BLUMENBACHIA Schr. (*J. F. Blumenbach*, F.R.S., prof. med., Göttingen.) *Loasaceæ*. Sp. 2—2.  
 17833 insignis Schrp. remarkable  $\times$   $\circ$  or  $\frac{3}{4}$  jl.n W Monte Vid. 1826. S r.m Sw. fl. gar. 170  
 17834 - multifida Hook. multifid-leaved  $\circ$  or 1 jl.n Gsh.n.Y B. Ayres 1826. S r.m Bot. mag. 3569
2721. \*1619b. SCYPHANTHUS Swt. SCYPHANTHUS. (*Skyphos*, a cup, *anthos*, a flower.) *Loasaceæ*. Sp. 1.—1.  
 17835 - grandiflorus Swt. great-flowered  $\frac{3}{4}$   $\circ$  or 2 aus Y Chile 1827. S s.l Sw. fl. gar. 238



History, Use, Propagation, Culture,

2719. *Candollea*. Requires the same treatment as that recommended for *Melaleuca*, in p. 652.  
 2720. *Blumenbachia* is a genus of ornamental annuals, and requires the usual treatment of such.

Page 660. CLASS XIX. — SYNGENESIA. STAMENS 5. ANTHERS united by their edges.

Order 1. ÆQUALIS. Florets of the disk and ray all hermaphrodite.

2722. *Craspedia*. Heads 5-flwd. homogamous, girded by bracteas seated on a cylindrical woolly rachis, receptacle narrow. Paleæ entire. Scales of involucre membranous. Corollas tubular, 5-toothed. Anthers setiferous at the base. Achænia oblong, villous. Pappus in one series, composed of filiform plumose bristles.
2723. *Erythrolæna*. Involuc. conical; inner lvs. imbricated, outer ones reflexed, spiny-toothed. Receptacle convex, pilose. Flowers hermaphrodite, tubular, with a 5-parted limb and a 5-angled tube. Filaments glandular. Anthers bisetose at the base. Stigma bifid. Pappus sessile, plumose.
2724. *Admia*. Heads many-flwd. Involucrum campanulate, imbricate. Scales narrow, acute. Receptacle naked, convex. Tube of corolla slender, glabrous. Anthers terminated by obtuse appendages. Lobes of style elongated. Achænia 5-angled, naked at top.
2725. *Osothamnus*. Head 3-20-flowered, homogamous. Receptacle alveolate, usually naked. Involucrum imbricate. Scale scarious, obtuse. Corolla 3-toothed. Anthers bisetose at the base. Achænia obovate. Pappus in one series, composed of filiform scabrous bristles.

Order 2. SUPERFLUA. Florets of the disk hermaphrodite, of the ray female.

2726. *Leptostilma*. Involuc. equal, hemispherical. Receptacle paleaceous. Flowers of the ray ligulate, female; those of the disk hermaphrodite, tubular, 5-toothed. Pappus capillary.
2727. *Adenotrichia*. Involucrum double, many-lvd.; outer lvs. squarrose, subulate, glandular. Flowers of the ray ligulate, almost entire, female; those of the disk tubular, filiform, hermaphrodite. Receptacle naked. Pappus pilose.
2728. *Diplopappus*. Ray flowers in 1 series, female; those of the disk hermaphrodite, tubular. Pappus in 2 series. Corollas of the disk regular. Achænia beakless.
2729. *Brachyglottis*. Heads 9-10-flowered, heterogamous. Ray flowers in 1 series, female, ligulate, shorter than the disk; disk flowers tubular, 5-toothed, hermaphrodite. Receptacle naked. Involucrum oblong, surrounded by 1 row of linear scales. Achænia oblong. Pappus in 1 series, composed of dense scabrous bristles, which are combined at the base.
2730. *Rhodanthe*. Heads many-flwd. Flowers hermaphrodite. Pappus in 1 series, hair-formed, plumose. Achænia beakless, woolly. Receptacle naked.
2731. *Diplocoma*. Involucrum many-lvd. imbricated. Flowers of the ray female, ligulate; those of the disk hermaphrodite, tubular. Achænia of the rays bald at the top; those of the disk pappose. Pappus double, unequal.
2732. *Néja*. Involucrum many-lvd. imbricated. Receptacle pitted. Flowers of the ray female, ligulate; those of the disk hermaphrodite, tubular, 5-toothed. Achænia uniform. Pappus double; outer paleaceous, inner pilose.
2733. *Mutisia*. Involucrum many-lvd. imbricated. Receptacle naked. Flowers of the ray ligulate, female; those of the disk hermaphrodite, bilabiate. Filaments papillose. Anthers bisetose at the base. Achænia a little beaked. Pappus in many series, plumose.
2734. *Chaetachæna*. Heads many-flwd. heterogamous, ray-formed. Involucrum hemispherical, imbricate, with linear flat scales. Receptacle pilose or fringed. Ray flowers bilabiate; outer lip large, 3-toothed; inner one small, bipartite. Corollas of the disk tubular, 5-cleft, glabrous. Anthers bisetose at the base. Achænia beakless, somewhat compressed. Pappus in two series, setaceous, scabrous.
2735. *Lasihenia*. Head many-flowered, homogamous. Flowers of the ray female, tubular, obliquely truncate. Receptacle conical, papillose. Scales of involuc. in one series, combined into a toothed ciliated cup. Corolla short, with an inflated throat and a 5-toothed limb. Achænia compressed, pubescent. Pappus composed of 5-10-toothed paleæ.

17828 Leaves smooth obovately cuneated blunt at the top entire, Branches cinereous rough

17829 Lvs. altern. bipinnatifid, Lobes bluntish, Pedic. extra-axill. Lbs. of cal. lanceol.-linear acute shorter than petals

17830 Clthd. with harsh barbed white hairs and a few stinging ones intersp. Lvs. scatter. petiol. spread. ov. acute

17831 Canescent. Lvs. oppos. palmate toothed, Cal. segms. long and linear, Outer appendages hatchet-formed awned

17832 Climbing. Lvs. cord. palmate lobed, Petals sessile keeled, Append. 3-lbd. truncate each furnished inside with 2 bristles, Caps. spiral ribbed

17833 Lower lvs. generally 7- but sometimes 5-lobed; upper ones deeply bipinnatifid

17834 Leaves palmate with bipinnatifid lobes, Flowers bifurcateated, Petals hispid

17835 Stem dichotomous, Segments of leaves obtuse ciliated



and Miscellaneous Particulars.

2721. *Scyphanthus* is a twining annual, with somewhat curious inflorescence. It is said to have been lost soon after its introduction in 1827

2736. *Baëria*. Head many-flowered, heterogamous, radiate. Scales of involucre about 10, flat, in 2 rows. Receptacle conical, naked. Flowers of the disk hermaphrodite, 5-toothed; those of the ray female, ligulate, fertile, in 1 series. Achænia fusiform, somewhat tetragonal, glabrous.

2737. *Eriophyllum*. Head many-flowered, radiate. Flowers of the ray female, ligulate. Flowers of the disk hermaphrodite, 5-toothed, glandular. Involucre ovate, with 1-2 series of adpressed scales. Receptacle naked, or a little fringed. Achænia turbinate or linear, tetragonal, glabrous. Palæ of pappus 4-8, oval or oblong, membranous.

2738. *Lagenophora*. Head many-flowered, heterogamous. Flowers of the ray ligulate, female, in 1 series; those of disk tubular, 5-toothed, hermaphrodite, male. Receptacle flat, naked. Scales of involucre in 2 series, acute, adpressed. Achænia of the rays compressed, oblong, beakless; those of the disk abortive.

2739. *Oxyura*. Head many-flowered, radiate. Flowers of the ray 10-12, in 1 series, ligulate, female; those of the disk tubular, 5-toothed, hermaphrodite. Scales of involucre in 1 series, convolute, each drawn out into leafy appendage at top. Receptacle paleaceous. Branches of the styles of the disk flowers drawn out each into a hispid appendage. Achænia compressed, glabrous.

2740. *Cladanthus*. Heads many-flowered, heterogamous. Flowers of the ray ligulate, neuter; those of the disk tubular, hermaphrodite, 5-toothed. Receptacle conical, paleaceous, intermixed with threads. Scales of involucre in 1 series, scarious at top. Achænia compressed, glabrous.

2741. *Eriocomma*. Involucre few-lyd. Receptacle paleaceous. Palæ cucul. mucronate. Flowers of the ray 4-10-ligulate, neuter; those of the disk hermaphrodite, 5-toothed. Achænia cuneated, glabrous at top, enclosed by the persistent palæ.

2742. *Viguiera*. Heads many-flowered, heterogamous. Flowers of the ray neuter, ligulate; those of the disk hermaphrodite, 5-toothed. Involucre semiglobose, scales nearly equal, each drawn out into leafy appendage at top. Receptacle paleaceous. Achænia compressed, obovate, pubescent, crowned by four lamellæ and two awns from the angles.

2743. *Calliopsis*. Heads many-flowered, heterogamous. Flowers of the ray neuter, in 1 series, ligulate, 3-5-toothed; those of the disk hermaphrodite, tubular, 5-toothed. Involucre in 2-series, outer scales short, squarrose, inner ones large, erect, combined. Receptacle flat, paleaceous. Achænia compressed, glabrous, incurved, truncate, with a minute epigynous disk.

2744. *Plectocéphalus*. Involucre globose, imbricate. Appendages to scales cartilaginous, pectinated. Receptacle clothed with setaceous palæ. Flowers of the ray neuter, funnel-shaped, radiate; those of the disk hermaphrodite, tubular, quinquefid. Pappus uniform, pilose, scabrous, caducous.

#### Order 4. NECESSARIA. Florets of the ray female, of the disk male.

2745. *Moscària*. Involucre 5-lyd. Receptacle paleaceous. Palæ of two forms; outer palæ cucul. gibbous at the base, and truncated at apex. Flowers all hermaphrodite, bilabiate, equal. Pappus paleaceous, very short.

2746. *Centrocclinium*. Involucre subglobose or cylindrical, imbricate. Flowers of the disk tubular, 5-toothed, deeply-cleft on one side; those of the ray 7-12 in number; bilabiate, inner lip very minute, bipartite; outer lip very long, 3-fid. Anthers blaristate, stigma entire. Pappus unequal, scabrous. Receptacle hispid.

*ÆQUALIS.*

2722. \*1624a. CRASPEDIA *Lessing.* CRASPEDIA. (*Kraspedon*, a fringe; pappus.) *Compósitez.* Sp. 1—2.  
 17836 - - macrocéphala *Hook.* large-headed  $\text{£} \Delta$  | or  $1\frac{1}{2}$  ... Ysh.W V. D. L. 1834. S s.l Bot. mag. 3415.  
 2723. - - \* ERYTHROLÆNA *Swt.* (*Erythros*, red, *læna*, cloak; scales of calyx.) *Comp. Card.* Sp. 1—1.  
 17837 - - conspicua *Swt.* conspicuous  $\text{£} \odot$  or 8 s.o Pa.Y Mexico 1825. S r.m Sw. fl. gar. 134
1689. STEVIA.  
 17838 - fasciculáris *Dec.* close-headed  $\text{£} \perp$  | pr 1 ... W Mexico 1837. C co Bot. reg. n. s. 59
2724. \*1692a. ALOMIA *Kth.* ALOMIA. (*A*, privative, *loma*, a fringe.) *Comp. Eup.* Sp. 1—1.  
 17839 - - ageratoides *Kth.* Ageratum-like  $\text{£} \Delta$  | or  $1\frac{1}{2}$  jl.au W N. Spain 1824. C s.l H. & B. f. 354.
1705. CHRYSOCOMA.  
 17840 - - squamata *Lab.* scaly-stalked  $\text{£} \Delta$  | or 2 my Y Sp. 10—14.  
 Leptorhynchos squamatus *Less.* N. S. W. 1837. C co Bot. mag. 3625
2725. \*1705a. OZOTHAMNUS *R. Br.* (*Ozos*, branch, *thamnus*, shrub.) *Comp. Card. Vern.* Sp. 2—3.  
 17841 - - cinereus *R. Br.* grey  $\text{£} \perp$  or 1 ap.s Y V. D. L. 1820. C p.l Lab. n. h. 2. 182  
 Chrysocoma cinerea *Lab.*  
 17842 - - rosmarinifolius *R. Br.* Rosemary-lyd  $\text{£} \perp$  | or 1 ap.s Y V. D. L. 1822. C s.p Lab. n. h. 2. 181  
 Eupatorium rosmarinifolium *Lab.*

*SUPERFLUA.*

1725. ANTENNA'RIA.  
 17843 11782a hyperborea *D. Don* northern  $\text{£} \Delta$  | pr  $\frac{1}{2}$  jl Wsh I. of Skye mou D p.l Eng. bot. 2640  
 dioica  $\beta$  hyperborea *Dec.* Sp. 9—8.
1730. HELICHRYSUM.  
 11815 bracteatum Sp. 23—47.  
 $\beta$  involuero-álbido whitish-involucr.  $\odot$  or 3 jl.o Y Cambr. 1833. ? S co Bot. reg. 1814  
 17844 11815a bicolor *Lindl.* two-coloured  $\odot$  or 3? au Y V. D. L. 1835. S co Bot. reg. 1814
1735. MADIA.  
 17845 11859a elegans *D. Don* elegant  $\odot$  or  $1\frac{1}{2}$  aut Y Sp. 3—3.  
 Madaria elegans *Dec.* N.W.Am. 1831. S co Bot. reg. 1458
1736. ERIGERON.  
 17846 - - speciosum *Dec.* showy-flowered  $\text{£} \Delta$  | or 2 jl.o P Sp. 22—42.  
 Stenactis speciosa *Lindl.* California 1831. D co Bot. reg. 1577
2726. \*1736a. LEPTOSTELMA *D. Don.* (*Leptos*, slender, *stelma*, crown; slender rays form.) *Comp. Ast.* Sp. 1—1.  
 17847 - - máximum *D. Don* largest  $\text{£} \Delta$  | or 6 s.n Wsh Mexico 1827. D co Sw. fl. gar. 2.s.38
1738. SENE'CIO.  
 17848 - - ampulláceus *Hook.* flask-headed ?  $\odot$  or 2 ... Y Sp. 64—105.  
 17849 - - Tussiláginis *Lindl.* Coltsfoot-lyd  $\text{£} \Delta$  | or 1 w.sp Li Texas 1834. ? S co Bot. mag. 3487  
 Pericállis Tussiláginis *D. Don*, Sw. fl. gar. 2. s. 223., Cineraria tussilaginoides *Webb.*  
 $\beta$  Waterhousiana *Pax.* Waterhouse's  $\text{£} \Delta$  | or 2 mr.jn R hybrid 1835. C 1.p Pax. mag. 4.219
2727. \*1738a. ADENOTRICHIA *Lindl.* ADENOTRICHIA. (*Aden*, a gland, *thris*, hair.) *Comp. Jacobææ.* Sp. 1—1.  
 17850 - - amplexicaulis *Lindl.* stem-clasping  $\text{£} \Delta$  | pr 2 my Y Chile 1826. S co Bot. reg. 1190
1739. A'STER.  
 17851 12012a cassiarábica *F.&M.* Arabian Cassia  $\text{£} \Delta$  | or 2 s P Sp. 110—157.  
 Russia 1834. D co Bot. gard. 672
2728. \*1739a. DIPLOPAPPUS *Cass.* (*Diploos*, double, *pappus*, pappus; fruit.) *Compós. Astér.* Sp. 1—1.  
 17852 - - incanus *Lindl.* hoary-herbage  $\text{£} \Delta$  | or 2 aut Li.Y California 1832. C s.l Bot. reg. 1693
2729. \*1740a. BRACHYGLOTTIS *Forst.* (*Brachys*, short, *glottis*, tongue.) *Compós. Jacobææ.* Sp. 1—1.  
 17853 - - repánda *Forst.* spreading  $\text{£} \perp$  | or 8 ... .. N. Zeal. 1834. C 1.p
1741. CINERA'RIA.  
 17854 12121a pulchella *Swt.* neat  $\text{£} \perp$  | or  $1\frac{1}{2}$  f.my P Sp. 36—62.  
 Canaries 1818. C 1.p  
 Brachyrhynchos cymbalaristólius *Dec.*  
 17855 12137a aurantiaca *Hoppe* orange  $\text{£} \odot$  | el  $\frac{2}{3}$  my.jl O Switzerl. 1819. D p.l Sw. fl. gar. a. 256  
 Senécio aurantiacus *Dec.*  
 17856 - - macrophýlla *Led.* long-leaved  $\text{£} \Delta$  | or 8 jl.au Y Sp. 36—62.  
 Ligularia macrophýlla *Dec.* Altai Mts. 1831. S lt Bot. gard. 524



History, Use, Propagation, Culture,

2722. *Craspedia* is a genus of ornamental herbaceous plants, increased by division of the root and by seed, and thrives in good light loam.  
 2723. *Erythrolæna* 17837 *conspicua* is an ornamental biennial, and delights in a warm sheltered situation, planted in rich garden soil.  
 2724. *Alomia*. A mixture of sand and loam suits this genus, and cuttings root readily in sand under a bell-glass.

## ÆQUALIS.

- 17836 Lvs. oblong altern. gradually smaller upwards lower and root lvs. longest and broader upw. so as to be spatul. clthd. with appress. rather silky hairs
- 17837 The only species
- 17838 Lvs. opposite rhomb. lanceol. deeply serrat. upper ones sessile, Infloresc. fastigate
- 17839 The only species
- 17840 Bran. downy erect slender virgate leafy, Lvs. lin.-lanceol. lowerm. 1½ to 2 in. long acute passing into small scales clthd. with white toment. ben. Scales of involucre numer.
- 17841 Lvs. linear obtuse revolute on the margins clth. with cinereous cobwebbed tomentum, Corymb. panicled, Involucr. hemispher. woolly
- 17842 Lvs. linear mucron. with revolute margins cobwebbed and muricate above and tomentose beneath, Corymb terminal, Involucr. cobwebbed and rusty

## SUPERFLUA.

- 17843 Stolones procumbent, Flower stems simple, Lvs. spatulate, Upper ones lin. tomentose on both surfaces but almost glabrous in an adult state, Corymbs terminal simple
- 17844 Lvs. lin. lanceol. acumin. obtuse at the base roughly ciliated upper ones subulate, Stem glabrous branch. Bract. of involucre acute
- 17845 Receptacle conical pilose, Flowers of the disk bearded in the limb, Stems diffuse
- 17846 Stem erect corymbose many-flwd. glabrous Lvs. ciliat. acute quite entire rad. ones spatulate, Stem ones ovate lanceol. somewhat stem-clasping
- 17847 The only species
- 17848 Lvs. obl. obt. semiamplexic. at base thick and fleshy entire rad. lvs. spatul. Panic corymbose, Invol. cylindr. [of many closely placed linear scales
- 17849 Lvs. cord. stalked angular sharply toothed white and woolly ben. upper ones amplexic. Capitula numerous in corymbose panicle
- 17850 The only species
- 17851 Erect pilose, Lvs. ovate acute serrated tapering at the petioles, Infloresc. paniculate corymbose
- 17852 Lvs. lin. obt. hoary half stem-clasp. Stem corymbose, Bran. 1-flwd. Lfts. of involucre squarrose glandular
- 17853 Lvs. ovate repandly sinuate, Panicle compound divaricate
- 17854 Glabrous erect, Lower lvs. petiol. lyrate downy beneath, Terminal lobe reniform toothed, Upper lvs. sessile amplexic. lanceol. and little toothed uppermost ones quite entire, Pedunc. 1-headed
- 17855 Stem simple rather woolly, Rad. lvs. ellip. repandly toothed, Stem lvs. lanceol. entire, Infloresc. corymbose [leafless, Achania glabrous
- 17856 Smoothish, Stem simple furrowed, Radical lvs. ellip. toothed cauline one amplexic. Panicle elong. crowded



and Miscellaneous Particulars.

2725. *Ozothamnus*. A mixture of peat and loam suits this genus, and the species may be increased by cuttings.
2726. *Leptostélma*. This genus may be increased by division of the root, and will thrive in good garden soil.
2727. *Adenotrichia*. Culture, &c., see *Leptostélma*, above.
2728. *Diplopáppus*. This genus may be increased by cuttings, and the plants thrive in a sandy loam.
2729. *Brachyglóttis*. For soil and propagation see *Diplopáppus*, above.

- 17857 - - renifolia Mey. kidney-leaved  $\Delta$  or  $\frac{1}{2}$  in Y Russia 1833. D r.m Bot. gard. 619  
 Ligularia renifolia Dec.
1746. GRINDELIA.  
 17858 12178a coronopifolia Leh. Coronopus-lyd  $\Delta$  or  $1\frac{1}{2}$  jl.s Y Mexico Sp. 7-9. 1826. C 1,p
2730. \*1747a. RHODANTHE Lindl. (Rhodon, rose, anthos, flower; inner scales rose-eld.) *Compósita*. Sp. 1-1.  
 17859 - Manglésii Lindl. Capt. Mangles's  $\square$  or  $1\frac{1}{2}$  my.n Ro.y Swan Riv. 1832. S lt Bot. reg. 1702
1747. PODOLEPIS Grah.  
 17860 - - gracilis Leh. slender  $\Delta$  pr 3 jl.s Pk N. S. W. 1826. S co Sw. fl. gar. 285
2731. \*1751a. DIPLOCOMA D. Don. (Diploos, double, kome, hair; pappus two forms.) *Comp. Card. Fern.* Sp. 1-1.  
 17861 - - villósa D. Don villous  $\Delta$  or 1 my.jl Y Mexico 1826. D co Sw. fl. gar. 246  
 Doronicum villósum Sessé.
2732. \*1751b. NEJA D. Don. NEJA. (Without meaning.) *Comp. Aster.* Sp. 1-1.  
 17862 - - gracilis D. Don slender  $\Delta$  or 1 au Y Mexico 1828. C 1,t Bot. cab. 1814
2733. \*1752a. MUTISIA Cav. (Celestine Mutis, the discoverer, a S. Amer. bot.) *Compós. Labrat.* Sp. 3-3.  
 17863 - - arachnoidea Mart. cobweb-like  $\square$  or 6 jl.au R Brazil 1823. C p.1 Bot. mag. 2705  
 speciosa Bot. mag.
- 17864 - - latifolia D. Don broad-leaved  $\square$  or 10 P o Pa.Pk.y Valpar. 1832. C p.1 Sw.fl.gar.2.s.288  
 17865 - - ilicifolia Hook. Holly-leaved  $\square$  or 10 ... S. Amer. 1832. C 1,p Bot. mis. 1.7
2734. \*1752b. CHÆTACHLÆNA D. Don. (Chæite, hair, chlains, covering; points of invol. scales.) *C. Lab.* Sp. 1-1.  
 17866 - - odorata D. Don sweet-scented  $\Delta$  or 1 au.s R Chile 1830. S s.1  
 Onoseris odorata Dec., Leysera odorata R. & P.
2735. \*1754a. LASTHENIA Dec. LASTHENIA. (Meaning of the name not given.) *Comp.* Sp. 2-2.  
 17867 - - glabrata Lindl. smooth-surfaced  $\circ$  or 1 my.jl Y Californ. 1834. S co Bot. reg. 1780  
 Hologymne glabrata Bartl. Bot. mag. 3730.
- 17868 - - glaberrima Dec. smoothest  $\circ$  or 1 my.jl Y Californ. 1834. S co Bot. reg. 1823?
2736. \*1754b. BAERIA F. & M. BAERIA. (Professor Baer, of the University of Dorpat.) *Comp.* Sp. 1-1.  
 17869 - - chrysostoma F. & M. golden-mouthed  $\circ$  el 1 ap.jn Y Californ. 1835. S co Sw. fl. gar. 395
2737. \*1755a. ERIOPHYLLUM Lag. (Erion, wool, phyllon, a leaf; woolly foliage.) *Comp. Helian.* Sp. 1-2.  
 17870 - - cæspitosum Lag. turfy  $\Delta$  or 1 my.jn Y N. Amer. 1826. D co Bot. reg. 1167  
 Trichophyllum lanatum Nut., Actinella lanata Ph., Bahia lanata Dec., Helentium lanatum Spr.
2738. \*1756a. LAGENO'PHORA Endl. (Lagenos, flask, phoros, bearing.) *Comp. Ast.* Sp. 1-1.  
 17871 - - Försteri Endl. Forster's  $\Delta$  or ... Y.P N. Zeal 1837. D lt.1
1758. DA'HLLIA.  
 17872 12207a Cervantésii Lag. Cervantes'  $\Delta$  or 7 n S Mexico ... R p.1 Sw.fl.gar.2 s.22  
 Georgina Cervantésii W.
1759. BE'BERA.  
 17873 12209a incana Lindl. hoary-herb.  $\Delta$  or 1  $\frac{1}{2}$  n Go Sp. 2-3. Mexico 1828. S lt.1 Bot. reg. 1602  
 Dysodia incana Dec.
1760. TAGE'TES.  
 17874 12210a flrida Sot. florid  $\Delta$  or 1 jl.n Y Mexico Sp. 10-15. 1827. D co Sw.fl.gar.2 s.35  
 17875 12212a corymbosa Sot. corymbosa  $\Delta$  or  $1\frac{1}{2}$  au.s P Mexico 1825. S co Sw. fl. gar. 151  
 $\beta$  lutea  $\circ$  or  $1\frac{1}{2}$  au.s Y Mexico 1825. S co
2739. \*1769a. OXYU'RA Dec. OXYURA. (Orus, sharp, oura, a tail; involucre.) *Comp. Senec.* Sp. 1-1.  
 17876 - - chrysanthemoides Dec. Chrysanth.-lk.  $\circ$  or  $1\frac{1}{2}$  jn.s Y Californ. 1834. S lt.1 Bot. reg. 1850
2740. \*1777a. CLADANTHUS Cas. (Klados, branch, anthos, flower; on branches.) *Comp. Anth.* Sp. 1-2.  
 17877 - - canescens Sot. whitish  $\Delta$  or 1 mr.au Y Canaries 1829. S s.1 Sw.fl.g. 2.s.ic.in



History, Use, Propagation, Culture,

2730. *Rhodanthe* is a very elegant little tender annual, and highly deserving a place in every greenhouse, and it requires to be grown in a good light soil.  
 1747. *Podolepis* 17860 *gracilis* is a very pretty annual, deserving a place in every flower border.  
 2731. *Diplocoma*. A handsome but rather tender herbaceous plant, requiring a light soil, with slight protection in severe weather.  
 2732. *Neja* may be readily increased by cuttings, and will thrive in a good light soil.  
 2733. *Mutisia* is an exceedingly interesting genus of shrubby climbers, with leaves terminating in tendrils, by the prehension of which the stems are supported. *M. latifolia* represents a family of climbers so very different from every other hitherto propagated in British gardens, that we cannot but strongly recommend it for trial against every conservative wall. (*Arb. Brit.*)  
 2734. *Chætachlæna*. A very pretty herbaceous plant, of easy culture.

- 17857 Glabrous, Stem 1-4-headed, Lvs. spatulate toothed, Lower ones renif. Upper ones somewhat rhomb. Petioles naked woolly at base, Achænia glabrous
- 17858 Lvs. sessile thickish lin. pinnatifidly toothed wrinkled glabrous, Heads solitary, Involucr. clammy, Outer scales spreading
- 17859 The only species
- 17860 Glabrous branch. Scales of involucr. glandular along the spike obtuse, Cauline lvs. adnate by the auricles to the stem.
- 17861 The only species
- 17862 The only species
- 17863 Scandent, Lvs. pinnate, Lfts. 6-7 ov.-lanceol. very acute sess. cobwebbed ben. terminat. by large branching tendril, Stip. ellipt. Flws. solit. Lower scales acute and reflexed [equal truncate
- 17864 Stem winged, Lvs. cord. obl. dentately spinose woolly beneath, Scales of involucr. appendiculate, Rays of pappus
- 17865 Glabrous, Stem terete, Lvs. amplexicaul. cord. oval spinosely toothed reticulated
- 17866 Lvs. sessile obl. lanceol. attenuated at the base, Outer scales of involucr. ending each in a long flexuose bristle
- 17867 Quite glabr. Involucr. 15-toothed, Pappus wanting, Achænia mucron. at apex
- 17868 Branchl. and pedicels pubesc. Involucr. 15-toothed, Pappus of 5 paleæ
- 17869 The only species
- 17870 Decumbent, Stem and under side of lvs. tomentose, Lvs. altern. pinnatif. upper ones lin. entire, Pedunc. elong. 1-headed tomentose
- 17871 Lvs. glabr. obovate orbicular acutely toothed petiolate, Petioles ciliated
- 17872 Stem soid not pruinose, Ligulate flowers of the ray without any style
- 17873 Stem hairy, Lvs. pinnate rather hairy, Lfts. lin. acute channeled some entire and some 3-fid. Peduncles 1-headed
- 17874 Stem erect branch. Lvs. lanceol. sharply serrated the lower serratures awned, Ligulæ usually 3
- 17875 Stem and branches erect angular, Lvs. opposite and altern. pinnate, Lfts. 6-8 pairs nar. serrat. dotted, the serrats. of the upper lvs. awned, Peduncles corymbose 1-headed
- 17876 The only species
- 17877 The whole plant caescent



and Miscellaneous Particulars.

2735. *Lasthènia* is a genus of ornamental annuals, which may be sown in the open border; and as the plants, under ordinary circumstances, flower in about 6 weeks after the seeds are sown, it will be found necessary to have several sowings to keep up a good appearance.

2736. *Bæria*. An elegant annual, requiring the same management as *Lasthènia*.

2737. *Eriophyllum* is a desirable and showy herbaceous perennial, is readily increased by division, and thrives in any good garden soil.

2738. *Lagenophora* is a showy perennial, easily increased by division.

2739. *Oxyūra* 17876 *chrysanthemoides* is an ornamental annual. It may be sown in the open border, where it is intended to remain.

2740. *Cladanthus*. A genus of very ornamental annuals, may be sown the open border.

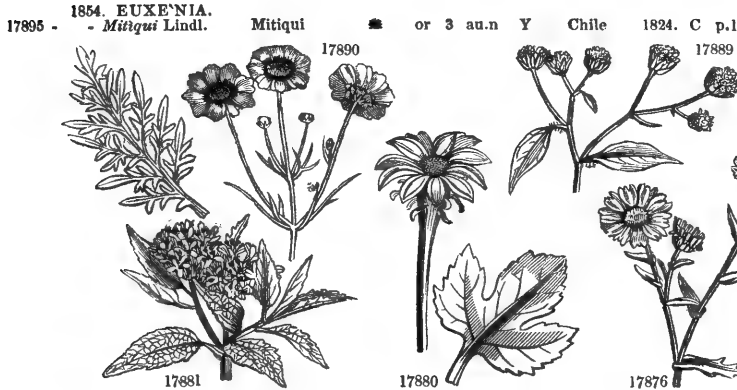
FRUSTRANEA.

1798. HELIA'NTHUS.  
 17878 12436a lenticularis Dou. lenticular O or 6 au Y Sp. 27—33. N. Amer. 1827. S co Bot. reg. 1265  
 17879 12456a Hoókeri G. Don Hooker's  $\Delta$  or 3 jlo Y ..... D co Bot. mag. 2778  
     pubescens Hook.  
 17890 - speciosus Hook. showy O or 5 sn R Jorullo. 1833. S co Bot. mag. 3295  
     Leighta speciosa Dec.  
 2741. \*1800a. ERIO'COMA Kth. ERIOCOMA. (Erion, wool, kome, hair; paleæ.) Comp. Helianth. Sp. 1—1.  
 17881 - - frágrens D. Don fragrant  $\square$  or 3 s W Mexico 1828. C co Sw. fl. g. 2s. 44.  
 1801. GAILLA'RDIA.  
 17882 12471a Drummondii Dec. Drummond's  $\Delta$  or 2 au Car. y Louisiana 1833. D lt Bot. mag. 3551  
     bicolor  $\beta$  Drummondii integririma Hook., picta D. Don, Sw. fl. gar. 2. s. 267.  
 17883 12471b aristata Ph. awned  $\Delta$  or 1 jlo Y N. Amer. 1812. D c  
 1804. COREO'PSIS.  
 17884 12477a grandiflora Hogg large-flowering  $\Delta$  or 3 au.s Y Sp. 24—24. N. Amer. 1826. S r.m Sw. fl. gar. 175  
 17885 12479a filifolia Hook. thread-leaved O or 2 au.s Y Texas 1835. S p.l Bot. mag. 3505  
 17886 12489a diversifolia Hook. various-leaved O or 2 jl B.o.br. Texas 1825. L co Bot. mag. 3474  
 17887 12492a longipes Hook. long-stalked O el 2 mr.au Y Texas 1835. S co Bot. mag. 3586  
 17888 - - coronata Hook. crowned O or 2 su.aut Y.br.sp Texas 1835. S co Bot mag. 3460  
 2742. \*1804a. VIGUIERA Kth. VIGUIERA. (L. G. A. Viguier of Montpellier, botanist.) Comp. Heli. Sp. 1—13.  
 17889 - - helianthoides Kth. Sunflower-like  $\square$  or 3 jl.au Y Cuba 1825. C p.l H. & B. 4. 379  
 2743. \*1804b. CALLIO'PSIS Robb. (Kallistos, most beautiful, opis, eye; of fl.) Comp. Helian. Sp. 3—5.  
 †12488 tinctoria Dec., Diplosastera tinctoria Tausch.  
      $\beta$  atrosanguinea M. dark-blood-tid-ful O or 3 jlo D. Eld. N. Amer. 1823. S co Bot. gard. 538  
 17890 - - Atkinsoniana Dou. Atkinson's O or 2 au Y.br Columbia 1826. S co Bot. reg. 1376  
 17891 - - Drummondii W. Don Drummond's C or 2 s Y.rsh.br ..... 1835. S co Sw. fl. gar. 2.s. 315  
 1816. SPHENO'GYNE. Sp. 8—10.  
 17891a 12530a speciosa Maund showy O or 1 jl.au Del. Y S. Amer. 1836. S co Bot. gard. 625  
 2744. \*1819a. PLECTOCE'PHALUS D. Don. (Plektos, plaited, kephale, head; involucre.) Comp. Carol. Sp. 1—1.  
 17892 - - americana D. Don American O or 3 au.s Li Arkansas 1824. S s.l Sw. fl. gar. 2. s. 51  
     Centauræa americana Nut.

NECESSARIA.

2745. \*1824a. MOSCARIA Dec. MOSCARIA. (Moschos, musk; scent.) Comp. Lab. Sp. 1—1.  
 17893 - - pinnatifida R. & P. pinnatifid-lob  $\Delta$  or 3 au.s W Chle 1827. S co Sw. fl. gar. 229  
     Gastrocárpha runcinata D. Don.  
 2745. \*1829a. CENTROCLYNIUM D. Don. (Kentrion, sharp point, kline, bed.) Compós. Labiat. Sp. 1—2.  
 17894 - - appressum Hook. appressed-scaled  $\square$  or 2 jn Ro Peru 1830. S lt Bot. mag. 3115  
     Onóseris appressa Dec.

SEGREGATA.



History, Use, Propagation, Culture,

2741. Eriocoma. A handsome fragrant annual.  
 2742. Viguiera. An ornamental stove plant.  
 2743. Calliopsis. A very showy genus of annuals, of very easy culture, and deserving a place in every garden.

## FRUSTRANEA.

- 17878 Stem hispid, Lvs. altern. petiol. ov. 3-nerved serrate, Heads large drooping, Scale of invol. expanded scabr. on the back, Paleæ 3-fid, Achænia biaristate [subul. or lin.-lanceol. slightly downy ciliat.
- 17879 Lvs. oppos. sess. subamplexic. ov.-lanceol. crenato-serrate very hairy ab. scabr. to touch, Scale of invol. imbric.
- 17880 Leaves cordate entire and 3-lbd. Pedun. swollen upwards, Involucrum foliaceous, Paleæ very acute
- 17881 Lvs. cord. obl. toothed tomentose acute, Corymbs compound, Throat of corolla campanulate about equal to the length of the tube
- 17882 Annual rather downy, Lvs. narrow undivided rather ent. Scales of invol. ciliated at the base with a very short glabrous subulate appendage
- 17883 Perennial, Invol. very hairy at the base with lin.-lanceol. scales, Cors. of the disk very hairy
- 17884 Stem erect branch. furrow. glabr. Lvs. oppos. sess. ciliated at base, lower ones biternate, upper ones ternate or 3-partite, Ligulæ acutely 5-toothed [bipin. Segms. alm. filiform rath. fleshy furrowed above
- 17885 Stem erect slender bran. especially upwards striat. and glabr. as is every part of plant, Lvs. oppos. pinnatif. and
- 17886 Lvs. generally glabr. petiolat. obovato-spathul. and undivided ternate pinnate and even bipinnate, Lifts. obov. or oval and very obt. those of lowermost lvs. most orbicular
- 17887 Stem erect but weak and flex. Lvs. oppos. and connate, lower ones ent. rest more or less pinnatif. or bipinnatif. Segms. lin.-lanceol. flaccid glabr. Pedun. elongated
- 17888 Stem ditto, Lvs. oppos. in remote pairs spatul. tapering at base undivided or cut in pinnated manner, Pedun. elongat. Achæn. obl. ov. bearing 2-3 white chaffy scales
- 17889 Stem glabr. Lvs. altern. ov. acumin. quite entire 3-nerved scabrous above and pilose beneath, Petioles ciliated, Receptacle conical hollow [obl. minutely tubercled on both sides
- †12488 Glabr. Radical lvs. pinnate or bipinnatifid, Outer scales of involucrum very short acute, Ligulæ trifid, Achænia
- 17890 Radical lvs. bipinnatifid cauline ones pinnate, Outer scales of invol. lin. obl. Ligulæ 3-toothed, Achænia smooth
- 17891 Pilose, Upper lvs. ternate, Segms. ovate, Achænia ventricose tuberculated [margined with a short wing

17892 Lvs. obl. membran. undiv. Pedunc. ventric. at top, Outer scales of involuc. 3 times as short as their appendages

## NECESSARIA.

17893 The only species

17894 Lvs. lanceol. waved nrly. ent. white and cottony ben. Pedunc. naked, Invol. cylindr. fimbriat. with many close-pressed subulate scales

## SEGREGATA.

17895 Lvs. oval lanceol. cuneate at the base and acumin. at apex coarsely serrated in the middle



and Miscellaneous Particulars.

2744. *Plectocéphalus*. A very curious and striking annual.
2745. *Gastrocérpha*. A handsome strong-growing annual.
2746. *Centrocénium*. A showy plant, requiring rather a moist high temperature.



## Page 748. CLASS XX. — GYNANDRIA.

**ORCHIDACEÆ.** — “The uses to which the plants of this family are applied, are few, but in several instances highly romantic. In Demerara, that most deadly of all poisons, the ‘Wourali,’ is thickened by the juice of the *Catasetum*; and in Amboyna the true ‘Elixir of Love’ is prepared from the minute farina-like seeds of *Grammatophyllum speciosum*. In Mexico, where the ‘language of flowers’ is understood by all, the *Orchidaceæ* seem to compose nearly the entire alphabet. Not an infant is baptised, not a marriage is celebrated, not a funeral obsequy is performed, at which the aid of these flowers is not called in by the sentimental natives, to assist the expression of their feelings; they are offered by the devotee at the shrine of his favourite saint, by the lover at the feet of his mistress, and by the sorrowing survivor at the grave of his friend: whether, in short, on fast days or feast days, on occasion of rejoicing or in moments of distress, these flowers are sought for with an avidity which would seem to say that there was ‘no sympathy like theirs,’ — thus, ‘Flor de los Santos,’ ‘Flor de Corpus,’ ‘Flor de los Muertos,’ ‘Flor de Maio,’ ‘No me olvidés’ (or ‘Forget me not’), are but a few names out of the many that might be cited, to prove the consideration in which our favourites are held in the New World. Nor are these the only honours that are paid to them: for Hernandez assures us that in Mexico the Indian chiefs set the very highest value on their blossoms, for the sake of their great beauty, strange figure, and delightful perfume; while in the East Indies, if Rumphius is to be credited, the flowers themselves positively refuse to be worn, except by princesses or ladies of high degree. In Honduras, again, the large hollow cylindrical stalks of a fine species of *Epidendrum* [*E. tibicinum*] are made into trumpets by the little boys and girls of the country; and the pseudo-bulbs of several of the more succulent species are used instead of resin for the strings of their guitars. The following are, however, almost the only known instances in which the tribe do any direct service to mankind. The bulbs of *Maxillaria bicolor* contain a large quantity of an insipid watery fluid, which is greedily sucked by the poor natives of Peru in the dry season; a fluid of a similar nature is obtained from what is probably *Zelia* in Mexico, and is administered as a cooling draught in fevers; from the roots of some of the orchises, the nutritive substance called ‘Salep’ is obtained; in New Zealand certain species are of considerable importance as esculents; and in Guiana, the soles of the shoemaker are as much indebted to the viscid matter obtained from the *Catasetum* and *Cyrtopodiums*, as are the poisoned arrows of the Indians.” (*Bate. Orch.*, p. 2.)

Mr. Bateman, speaking of the fragrance of many of this order, says: “We question whether ‘Araby the blest’ can boast of any perfumes that can at all compete in sweetness with those exhaled by such plants as *Angræcum odoratissimum* Lindl. *MSS.*, ‘*Tetrapeltis fragrans*, *Aerides odoratum*, and *Epidendrum aromaticum*. Other species emit odours which remind the recipient of the smell of a druggist’s shop, of the milk of the cocoa-nut, of fresh hay, of wallflowers, violets, pomatum, aniseed, and angelica, of noyau, cinnamon, allspice, citron, musk, and honey. Some of these yield no fragrance, except in the daytime; but there are others which, like *Epidendrum nocturnum* and *Brassavola nodosa*, are aromatic only by night; and there are none, we believe, which are positively offensive at any hour, either of the night or day.” (*Id.*, p. 4.)

The attention and curiosity are excited no more by the beauty and delicacy of the blossoms of many of this tribe, than by the very close resemblances they bear to objects of the animal kingdom. In our native species we find the bee, fly, spider, lizard, man, &c., surprisingly imitated; and in those of warmer climates, swans, eagles, doves, pelicans, &c. &c.

The cultivation of *Orchidaceæ* may be mentioned under two heads, namely, that of terrestrial and that of epiphytal *Orchidaceæ*.

**Terrestrial *Orchidaceæ*** should never have a great volume of external air admitted at once, however fine the weather may be. To prevent the house (which should have a southern aspect) from becoming too hot, a thick canvas shading should be drawn over it during summer sunshine. During the growing season, *Orchidaceæ* require a moderately moist heat, varying from 65° to 85°; in the dormant season, from 60° to 75° is quite sufficient; in the season of rest the house should be kept dry. *Orchidaceæ* in pots should be sparingly watered in the growing season; in the dormant state, little or no water should be given. The secret of growing these plants is to take care never to kill the old roots: when too much water is given, while the plants are in a growing state, almost all the old roots invariably perish. (*Paxton* in part.)

**Epiphytal *Orchidaceæ*** may be grown in the same house with, and receive nearly the same treatment as, terrestrial *Orchidaceæ*, except that they require to be grown on, instead of in, the soil, attached to blocks of wood, or in baskets, or any rustic construction in the basket way, and suspended from the roof, or by any other suitable means. In the outset, before the plants are established on the soil, or wood, where they are intended to be grown, it is very necessary to secure firmly the plant, and such roots as may be already formed, to the wood or soil, by means of bast or pegs, as judgment shall direct. The best kind of soil for growing epiphytal *Orchidaceæ* on is found to be good surface peat, cut into pieces of 1 in. to 2 in. square; this should be placed over a considerable quantity of drainage, in order to carry off superfluous water, and at the same time, if they are plunged in a tan-bed, will allow the heat to rise more freely than if the pots were entirely filled with soil.

“It is of the greatest importance to preserve and encourage the roots; and, as they are generally protruded near the surface of the soil, it should be raised several inches above the level of the pot, in a pyramidal form, in order that they may have full room to push out.” (*Bot. Reg.*)

Syringing the plants moderately, when in a growing state, till the flowers are nearly expanded, helps their growth much.

For some other particulars respecting this order, see p. 748. to 767.

## Order 1. MONANDRIA. Stamen 1.

1. MALAXIDÆÆ. — Pollen cohering in masses of a fine waxy texture, without any of the cellular substance by which the grains are connected, remaining under the form of a distinct gland lying upon the stigma, or of a transparent caudicula between the pollen masses and the gland.

§ 1. *Pleurothallææ*. Column erect, drawn out a little at the base.

- +1894 *Pleurothallis*, page 749.
- +1913. *Octombria*, page 749.
- 2747 *Lepanthes*. Sepals spreading, connate at the base. Petals 2, free and short. Labellum 2-lobed at apex, and combined with the column. Column elongated, cylindrical, 2-winged. Pollen masses 2.
- 2748. *Specklinia*. Sepals conniving, equal, distinct; lateral ones saccate at the base, gibbous outside. Petals conforming to the sepals, but much smaller. Labellum free, saccate at base. Column short, free, membranaceously winged. Anther 1-celled. Pollen masses 2. (No species given.)
- +1924 *Stelis*, page 750.
- 2749. *Oberonia*. Sepals spreading or reflexed, usually equal, free. Petals smaller than the sepals. Labellum ascending, of various forms, usually elongated, always more or less 4-lobed. Column small, free. Stigma elevated. Anther 2-celled. Pollen masses 2, pear-shaped, solid. (No species given.)
- +1927. *Microstylis*, page 750.
- +1925. *Malaxis*, page 750.
- +1882. *Covallorhiza*, page 749.
- 3750. *Apiktrum*. Petals equal, connivent. Labellum unguiculate, not drawn out at the base. Column free. Anther seated below the summit of the column. Pollen masses 4, oblique, lenticular.
- 2751. *Acianthus*. Sepals subringent, acuminate, free. Petals smaller, acuminate. Labellum free, entire, bicallous at base, with a naked disk. Column semiterete, clavate. Anther term., recumbent, 2-celled. Stigma ovate, transverse. Pollen masses 8.
- +1928 *Liparis*, page 751.
- 2752. *Cælia*. Sepals distinct, equal, spreading. Petals nearly equal, but a little smaller than sepals. Labellum

quite entire, unguiculate, continuous with the base of the column. Column short, continuous with ovarium, drawn out a little at base. Anther 2-celled. Pollen masses 4, by pairs.

- †1904. *Pholadota*, page 749.  
†1897. *Celogyne*, page 749.

§ 2. *Dendrobium*. Column recumbent, drawn out much at the base.

2753. *Megacanthium*. Sepals erect, unequal; lateral ones the smallest, combined with the column. Petals short. Labellum short, quite entire, articulate with the base of the column. Column short, marginate, disk-formed. Anther obsoletely 2-celled. Pollen masses 4, cohering by pairs.

2754. *Bolbophyllum*. Sepals erect, acumin., nearly equal; lateral ones combined, or connate with the base of the column, and oblique at the base. Petals short. Labellum articulated with the foot of the column, unguiculate, usually entire. Column short, bidentate or 2-horned in front. Anther 2-celled. Pollen masses 4, free, very unequal, sometimes combined in one, and sometimes cohering by pairs.

2755. *Cirrhopetalum*. Sepals ringent; lateral ones acumin., drawn out at the base, adnate to the column, much longer than upper one. Petals short, apiculate. Labellum entire, articulated with base of column. Column small, drawn out at base, and furnished with 2 petaloid horns at top. Anther 2-celled. Pollen masses 4, 2 inner ones smaller.

2756. *Triss*. Sepals equal, ovate, spreading, connate at the base. Petals small, erect. Labellum small, undivided. Column short, semiterete, emarginate, free. Anther 2-celled, drawn out into a petaloid, cuneated, emarginated membrane at the apex. Pollen masses 4, 2 inner ones smaller.

2757. *Brydium*. Flowers villous. Sepals conniving, lateral ones equal at the base. Petals narrower and shorter than the sepals, reflexed between them. Labellum undivided, unapiculate, constricted at the base. Column short. Pollen as in *Eria*.

- †1912. *Eria*, page 749.

2758. *Aporum*. Sepals fleshy, erect; lateral ones larger, oblique, connate with the column. Petals smaller than upper sepal. Labellum articulated with foot of the column, undivided, or 3-lobed. Limb crested, callous, or naked. Column semiterete, drawn out at base. Anther sess., 2-celled, sometimes membran. at apex. Pollen masses 4, colateral by pairs.

- †1908. *Pogonochyia*, page 749.

- †1900. *Dendrobium*, page 749.

2759. *Pastönia*. Sepals 6, spreading, equal. Labellum conforming to the petals. Column erect, terete, subclavate, a little shorter than the petals. Anther termin., opercular, deciduous. Pollen masses 8, narrow, clavate, cohering at tops.

II. EPIDENDRÆ. — Pollen cohering in masses of a fine waxy texture, with cellular substance. Caudiculæ not transparent, and connected with the stigma by means of a gland, as in *Panda*; but powdery, and very often turned back on the face of the pollen masses. Anther terminal, opercular.

- †1907. *Epidendrum*, page 749.

2760. *Dinema*. Sepals and petals nearly equal, spreading. Labellum large, membranous, undivided, unguiculate, combined with the base of the column. Column short, bicornute. Anther 2-celled. Pollen masses 4, adnate by pairs to 2 replicate caudiculae.

2761. *Encyclia*. Sepals and petals nearly equal, connivent. Labellum cuculate, involving the columns, 3-lobed at apex, callous at base. Column free, semiterete, clavate, parallel with the labellum. Anther 4-celled, with marginate dissepiments. Pollen masses 4. Collateral caudiculæ 4, revolute.

2762. *Chysis*. Sepals a little connate, spreading. Petals conforming to the sepals. Labellum 3-lobed, spreading; Column marginate, channeled, rustic. Anthers roundish, glabrous. Pollen masses 8; the four outer ones thin, and the four inner ones thicker, beak convex.

2763. *Phynga*. Sepals membranous, equal, connate at the base. Petals small, obliquely adnate to the base of the sepals. Labellum fleshy, tubercular, undivided, connate with the base of the column, and furnished with a bladder-formed sac at the base. Column fleshy, short, 2-lobed, antheriferous at the base. Pollen masses 4, adnate to 2 twin powdery threads.

- †1903. *Isochilus*, page 749.

2764. *Hartwegia*. Perianth spreading, coloured. Lateral sepals drawn out at the base, adnate to the labellum. Labellum connate with the column, gibbous at base, ovate. Anther 4-celled. Pollen masses 4. Caudiculæ replicate.

- †1914. *Brasavola*, page 749.

2765. *Lælia*. Sepals flat, lanceol., equal. Petals larger than sepals, fleshy, flat. Labellum 3-parted, lamellate, twisted round the column. Column wingless, fleshy, channeled in front. Pollen masses 8, with 4 elastic caudiculae.

2766. *Schomburgkia*. Sepals and petals similar, spreading, all free and equal at the base. Labellum difform, membranous, 2-3-lobed, cuculate, connate at the base, with the margin of the column tumid above the base with lamellate veins. Column marginate. Pollen masses 8.

- †1906. *Cattleya*, page 749.

- †1905. *Broughtonia*, page 749.

2767. *Leptodes*. Sepals and petals linear, nearly equal, spreading. Labellum 3-lobed, parallel with the column. Lateral segms. short, convolute around the column, middle segm. obl. with reflexed margins. Column short, thick, semiterete. Pollen masses 6, incumbent; 2 upper ones pear-shaped, oblique, compressed; 4 lower ones unequal and thinner.

- †1911. *Blètia*, page 749.

2768. *Crybe*. Sepals and petals similar, lanceol. conniving, lateral ones oblique at the base. Labellum large, membran., cuculate, never expanded, half-connate with the clavate marginate column.

2769. *Pesomèria*. Sepals nearly equal, free, deciduous. Petals conform, adnate to the base of the column, persistent. Labellum connate with the base of the column, gibbous at the base, with an undivided convolute limb. Column clavate, semiterete. Pollen masses 4, cuneate.

- †2770. *Phæus*.

Sepals and petals nearly equal, spreading, free. Labellum usually cucul., adnate with the base of the column, spurred, entire, or 3-lobed, usually keeled, lamellose or crested above. Column erect, continuous with the ovarium, semiterete, marginate, elongated. Anther 8-celled. Pollen masses 8, nearly equal.

III. VA'NDRÆ. — Pollen cohering in masses of a fine waxy texture. Caudiculæ separating along with the gland of the stigma, and forming a strict adhesion with the pollen masses. Anther terminal, rarely dorsal, opercular.

2771. *Nandæes*. Perianth ringent. Upper sepal arched, lateral ones connate to the labellum at the base. Petals conforming to the lateral sepals, free. Labellum fleshy, undivided, connate with the column. Column winged. Anther 2-celled, beaked. Pollen masses 4, collateral, sessile.

2772. *Aspasia*. Perianth spreading, equal; lateral sepals free, the upper one connate with the petals at the base. Labellum oblong, concave, spurless, obsoletely 4-lobed, half-connate with column. Column parallel with the labellum, semiterete, marginate. Pollen masses 2, pear-shaped, furrowed behind. Caudiculæ flat, cuneated.

- †1902. *Ornithidium*, page 749.

2773. *Sophonitis*. Perianth spreading. Sepals nearly equal, imbricated, free. Labellum entire, cucul., connate with the base of the column, with a simple transverse crest in the middle. Column free, winged on both sides at the apex. Anther 8-celled. Pollen masses 8.

- †1890. *Trischia*, page 749.

- †1902. *Ornithocéphalus*, page 749.

2774. *Cirrhæa*. Perianth spreading. Sepals free, equal. Petals linear, flexuose. Labellum unguiculate, continuous with the column, tripartite. Column erect, clavate, terete, with a nearly square horizontal stigma, and a

- tandril beak. Anther dorsal, membranous, subunilocular. Pollen masses 2, parallel, oblong, compressed, with a short-horned caudicula, and an incurved gland.
2775. *Sarcoclitus*. Perianth spreading. Lateral sepals connate with the claw of the labellum beneath. Petals conform to the sepals. Labellum spurless, continuous with the claw of the labellum, slipper-shaped; middle lobe fleshy, solid. Pollen masses 2, sessile on a deltoid gland.
- †1892. *Maxillaria*, page 749.
- †1891. *Xylobium*, page 749.
2776. *Bifrenaria*. Sepals spreading, free, nearly equal. Lateral one adnate to the produced base at the column. Petals about half the size of the sepals. Labellum articulated to the mucronate base of the column, cucullate, 3-lobed, callous in the middle. Column short, semiterete, mutic. Anther mutic, somewhat crested. Pollen masses 4, incumbent, with two distinct caudiculae.
2777. *Trigonidium*. Sepals equal, cohering into the form of a trigonal cup, spreading at the top. Petals about half the size of the sepals, veiny. Labellum short, 3-lobed, articulated with the column, fleshy in the middle. Column short, free, semiterete. Anther 1-celled. Pollen masses 4, cohering. (No species given.)
2778. *Trichopilia*. Sepals and petals equal, spreading, narrow. Labellum large, petaloid, convolute, parallel with the column, 3-lobed. Column terete, clavate. Anther 1-celled, compressed, convex in front. Pollen masses 2, adhering to a slender cuneate caudicula. Gland small.
2779. *Dicryphia*. Sepals free, erect, equal. Petals conform to the sepals, but smaller. Labellum 3-lobed, fleshy, articulated with the column. Column continuous with the ovary, semiterete, clavate in front at the base. Anther obsoletely bilocular. Pollen masses 4, flattened, incumbent, with short linear caudicula, and a binate gland.
2780. *Govenia*. Perianth bilabiate. Lateral sepals falcate. Petals conniving under the upper sepal. Labellum quite entire, spurless, concave, articulated with the column, sessile. Column terete, margined on both sides at the apex, drawn out a little at the base. Anther hood-formed, 1-celled. Pollen masses 4, solid, incumbent, with a short caudicula, and a small triangular gland.
2781. *Batemannia*. Flower ringent. Sepals spreading, lateral ones unguiculate. Petals broader than sepals, oblique at base, adnate to the produced base of the column. Labellum articulate to the column, 3-lobed, cucullate. Column semiterete. Anthers small, 2-celled, membranous. Pollen masses 2, 2-lobed behind, with a triangular gland and no caudicula.
2782. *Cycnolches*. Perianth spreading. Lateral sepals lanceolate, upper one narrow. Petals broader than sepals, falcate. Labellum free, spurless, lanceolate, quite entire, continuous with the column, with an abrupt callous claw. Column elongated, arched, clavate at apex, fringed with two falcate auricles. Anther 2-celled. Pollen masses 2, furrowed, with a linear caudicula and a thick gland.
2783. *Myanthus*. Perianth flattened. Sepals free, equal, similar to the petals, but narrower. Labellum flat, obovate, tridentate, shorter than the sepals. Column erect, terete, bicirrhose at the base. Anther and pollen masses as in *Catasium*.
- †1889. *Catasium*, page 749.
2784. *Monachanthus*. Perianth flattened. Sepals and petals equal, turned backwards. Labellum fleshy, undivided, ventricose, much larger than the sepals. Column short, thick, mutic. Anther and pollen masses as in *Catasium*.
2785. *Mormodes*. Upper sepal a little arched, narrow, lateral ones reflexed. Petals broader than the sepals, erect. Labellum ascending, 3-lobed, cuneate, apiculate, articulated with the column. Column semiterete, mutic. Pollen masses 4, connate by pairs, fixed to thick caudicula, and adhering to thick fleshy gland.
2786. *Stanhopea*. Perianth membranous, spreading, or reflexed. Sepals free, subundulate. Petals narrower than sepals. Labellum free, spurless, fleshy, and horned on both sides. Column very long, marginate. Anther 2-celled. Pollen masses 2, elongated, cleft, caudicula shorter than the 2-lobed gland.
2787. *Gongora*. Perianth flattened. Lateral sepals free, upper one connate to the back of the column. Petals smaller, adnate to the middle of the column. Labellum continuous with the base of the column, free, unguiculate. Column very long, arched, clavate, marginate. Anthers subbilocular. Pollen masses 2, linear, sessile on a cuneate caudicula.
2788. *Coryanthes*. Perianth spreading. Sepals dilated, flexuose, conduplicate. Petals erect, much smaller than the sepals. Labellum large, unguiculate, galeate, continuous with the base of the column, 3-dentate. Column terete, 2-horned at the base, elongated, recurved at apex, 2-winged. Anther 2-celled. Pollen masses 2, compressed, sulcate behind, with a linear arched caudicula and a lunate gland.
2789. *Angulda*. Perianth globose. Sepals and petals free, concave, nearly equal. Labellum unguiculate, cucullate, 2-lobed, with an intermediate reflexed segment. Column semiterete, clavate, 2-horned at apex. Anther beaked. Pollen masses 2, with a lanceolate caudicula and small ovate gland. (No species given.)
2790. *Ferisτέρα*. Perianth globose. Sepals somewhat connate with the base of the labellum. Petals smaller than the sepals. Labellum erect, articulated in the middle. Column erect, semiterete, dilated at the base. Anther crestless, 2-celled. Pollen masses 2, cleft behind. Gland sessile, naked, involving the beak.
- †1885. *Cymbidium*, page 749.
- †1901. *Camaridium*, page 749.
2791. *Gröbya*. Perianth flattened, bilabiate. Lateral sepals connate at the base. Upper sepal erect, shorter. Petals dilated, erect, connivent, much larger than the sepals. Labellum 3-lobed, naked, articulated with the base of the column, smaller than the sepals. Column erect, semiterete, arched, thickened at the base. Pollen masses 2-lobed behind, adnate to two short caudiculae. Gland oval.
2792. *Acropora*. Sepals spreading, upper one galeate, lateral ones divaricated. Petals short, oblique, truncate at apex. Labellum unguiculate, articulate at the base of the column, 3-lobed; the middle lobe smaller and saccate. Column erect, marginate, saccate at the base. Pollen masses 2, linear, convolute, with a linear subulate caudicula and a minute gland. Beak subulate.
2793. *Grammatophyllum*. Perianth flattened, spreading. Sepals and petals nearly equal. Labellum articulate with the column, short, 3-lobed, cucullate. Column arched, erect, semiterete, callous at the base. Anthers subbilocular. Pollen masses 2, globose, sulcate at the base, sessile upon the extremity of an arched gland.
- †1898. *Geodorum*, page 749.
2794. *Sobraña*. Perianth large, rather fleshy, flattened, spreading. Sepals and petals nearly equal. Labellum cucullate, involving the column, narrowed at the base, 2-lobed. Column erect, elongated, marginate, clavate, winged on both sides at the apex. Anther 2-celled. Pollen masses 2, with a linear caudicula.
2795. *Acanthophippium*. Perianth ventricose. Sepals agglutinate. Lateral sepals adnate to the claw of the column. Labellum unguiculate, articulate with the base of the column, 3-lobed, complicate, with a lamellate disk. Anther fleshy, 2-celled. Pollen masses 8, unequal, sessile.
- †1929. *Calypso*, page 750.
- †1921. *Eulophia*, page 759.
2796. *Dipodium*. Perianth spreading. Petals and sepals equal. Labellum auricled on both sides beneath the middle, bearded in the disk, saccate at the base, and connate with the column. Column erect, marginate, semiterete. Anther membranous, 2-celled. Pollen masses 2, obliquely 2-lobed, fixed to two caudiculae.
2797. *Galeandra*. Perianth spreading or connivent. Sepals and petals ascending, free. Labellum funnel-shaped, spurred, undivided, sessile, sometimes fringed on the margin. Column erect, winged. Anther helmet-shaped, with a recurved crest. Pollen masses 2, excavated behind, with a short caudicula and elongated gland.
2798. *Zygopetalum*. Perianth flattened. Sepals and petals ascending, nearly equal, connate with the claw of column. Labellum mutic, undivided, spreading, with an ascending claw and large transverse fleshy crest. Column short, arched, semiterete. Anther subbilocular. Pollen masses 2, almost sessile on a transverse gland.
2799. *Huntleya*. Perianth flattened, nearly equal. Lateral sepals involute at the base in front. Labellum flat, unguiculate, spreading, rhomboid, fringed at the base, articulated with the base of the column. Column clavate, cucullate at apex, winged in the margin. Anther 2-celled, mutic. Pollen masses 4.
2800. *Stenia*. Perianth flattened, nearly equal. Lateral sepals oblique at the base. Labellum continuous with

- the base of the column, concave, appendiculated in the disk. Column semiterete, drawn out at the base, rounded at the apex, mutic. Anther 2-celled. Pollen masses 4, linear, twin; dorsal one small. Caudicula nearly square, acute.
- +1896. *Cyrtopodium*, page 749.
2801. *Cyrtopera*. Perianth flattened. Sepals and petals ascending, nearly equal, connate with the claw of the column. Labellum spurless, concave, 3-lobed, with callous crested or tubercled veins. Column semiterete, marginate. Anther 1-2-celled. Pollen masses 2, 4-lobed behind, with a subulate unguiculate caudicula.
- +1887. *Lissochilus*, page 749.
- +1893. *Notyfia*, page 749.
2802. *Masdevallia*. Perianth closed. Sepals acuminate, or awned, connate into a campanulate tube. Petals short. Labellum short, oblong, concave, entire, articulated with the column. Column erect, linear, channelled. Pollen masses 2, with a short caudicula.
2803. *Cryptochilus*. Perianth tubular, contracted at the throat, gibbous in front at the base. Sepals connate, except at the apex. Petals free, rather smaller than the sepal. Labellum undivided, free, continuous to the base of the column. Column semiterete. Anther 2-celled. Pollen masses 8, adhering by pairs to common glands.
- +1919. *Ionopsis*, page 751.
2804. *Quekettia*. Perianth cylindrical. Sepals linear, equal, gibbous at the base; lateral ones connate. Petals linear, of equal length. Labellum oblong, entire, mutic, parallel with the column, excavated at the base, bicallose. Column semiterete, erect, arched on both sides at the apex. Anther 1-celled. Pollen masses 2, excavated behind; with a linear caudicula and a minute gland.
- +1883. *Rodriguezia*, page 749.
- +1884. *Gomœna*, page 749.
2805. *Burlinghama*. Perianth membranous, convolute, oblique. Sepals unguiculate, shorter than the labellum; lateral ones concave at the base, connate. Petals unguiculate, parallel with the labellum. Labellum 2-lobed, parallel with the column, with a channelled lamellate claw. Column terete, clavate. Stigma horned on both sides. Anther 1-celled. Pollen masses 2, excavated behind, adnate to a subulate elastic caudicula.
2806. *Comparétia*. Perianth ringent. Middle sepal and petal short, free, somewhat galeate; lateral ones connate, one-spurred. Labellum free, flattened, orbiculate, unguiculate, furnished with 2 spurs, which are hidden within the spur of the sepals. Column free, erect, mutic. Pollen masses 2, adnate to beaked cuneated caudicula.
- +1898. *Macradenia*, page 749.
- +1909. *Cryptarrhena*, page 749.
- +1895. *Oncidium*, page 749.
2807. *Fernandezia*. Perianth spreading. Sepals free. Petals conniving under the upper sepal. Labellum spurless, free, 3-lobed, tubercled on the disk. Column short, eared on both sides. Anther 2-celled. Pollen masses 2, obovate.
2808. *Scaphyphyllois*. Sepals connivent. Lateral ones drawn out at the base, a little connate with the foot of the column, upper one linear, convex. Petals a little shorter than the sepals. Labellum oblong, channelled, continuous with the column, with a repand margin. Column marginate. Pollen masses 4, sessile on a cuneated gland.
2809. *Pachyphyllois*. Perianth connivent. Sepals and petals free, equally acute. Labellum free, undivided, sessile, furnished with one tubercle at the base, and two at the apex. Column petaloid. Pollen masses 2. (No species given.)
2810. *Dicheia*. Perianth connivent. Sepals and petals free, acute, equal. Labellum unguiculate, naked, spurless, deltoid, articulated with the column. Column erect, terete, wingless. Anther 2-celled. Pollen masses 4, by pairs, collateral, with a cuneate caudicula and a minute gland.
2811. *Mitoma*. Perianth flattened. Petals revolute, and lateral sepals connate at the base, sessile. Labellum large, dilated, undivided, sessile, connate with the column, lamellate at the base. Column short, semiterete, eared at the apex. Pollen masses 2, adnate to an oblong caudicula.
2812. *Cyrtochilum*. Perianth flattened. Sepals free, lateral ones unguiculate. Petals a little smaller than sepals. Labellum free, undivided, continuous to the base of the column with a tuberculated claw. Column short winged. Anther 2-celled. Pollen masses 2, with a filiform caudicula and a minute gland.
- +1886. *Brassia*, page 749.
2813. *Tetrapeltis*. Perianth somewhat spreading. Sepals free, equal. Petals very narrow, of equal length. Labellum free, sessile, saccate, geniculate, 3-lobed. Column erect, length of petals semiterete, clavate. Rostellum straight. Pollen masses 4, globose, pitted behind, adhering by pairs to two narrow caudiculae connected by a common gland.
2814. *Phalenopsis*. Perianth flattened, spreading. Sepals free. Petals larger than the sepals, dilated. Labellum connate with the column, free, 3-lobed, callous at the base; middle lobe narrower, bicirrhous. Column lying upon the ovarium, semiterete. Rostellum gladiate. Anther 2-celled. Pollen masses 2, nearly globose, with a flat spatulate caudicula and a large caudate gland.
- +1916. *Vanda*, page 750.
2815. *Camarotis*. Perianth flattened. Lateral sepals connate with the back of the labellum, free at apex. Petals a little smaller than the sepals, free. Labellum obovate, channelled, appendiculate at apex. Column erect, terete, free, beaked. Anther dorsal, apiculate, subbilobular. Pollen masses 2, with a very long subulate caudicula and a forked rostellum.
- +1918. *Renanthera*, page 750.
2816. *Mioropera*. Perianth equal, spreading. Lateral sepals adnate to the base of the labellum. Labellum continuous with the base of the column, slipper-shaped, 3-lobed; middle lobe very small. Column short, with a large inflexed rostellum. Pollen masses 2, with a subulate caudicula.
2817. *Saccolabium*. Perianth flattened, spreading. Sepals equal to the petals, lateral ones usually largest. Labellum undivided, spurred, connate with the base of the column. Column erect, semiterete, with subulate rostellum. Anther semibilobular. Pollen masses 2, nearly globose, with an elongated caudicula and a minute gland.
2818. *Cleisostoma*. Sepals and petals spreading, linear, nearly equal. Labellum spurred, connate with the base of the column, 3-dentate. Column semiterete. Anther semibilobular. Pollen masses 2, 2-lobed, nearly globose, with a filiform caudicula and a hooked minute gland. (No species given.)
- +1915. *Sarcanthus*, page 750.
2819. *Ecceclades*. Perianth spreading, rtingent, or connivent, nearly equal, free. Labellum free, sessile, articulate with the column, spurred, naked, or bilamellate at the base. Column elongated, semiterete. Anther 2-celled. Pollen masses 2, furrowed behind, with a narrow caudicula and a minute gland.
- +1917. *Aerides*, page 750.
- +1922. *Aeránthes*, page 750.
- +1921. *Angresium*, page 750.
2820. *Trichocentrum*. Perianth spreading, free, equal. Labellum sessile, spurred, flat, 2-lobed, lamellöse at the base, connate with the base of the column. Column short, semiterete, thick, winged on both sides. Anther 2-celled, mutic. Pollen masses 2, complicate, with a cuneated caudicula and a minute gland.
- +1923. *Calánthe*, page 750.
- IV. ОРНУ'ДЕЖ. — Pollen cohering in innumerable waxy masses, collected on a cobwebbed elastic axis, fixed to the glands of the stigma. Anther terminal, erect, or resupinate, persistent, with complete cells.
- +1859. *O'rchis*, page 748.
- +1864. *Anacamptis*, page 748.
- +1858. *Gymnadenia*, page 748.
- +1860. *Nigritélla*, page 748.
- +1865. *Aceras*, page 748.
- +1857. *Platanthera*, page 748.
- +1868. *Hermannium*, page 748.
- +1867. *Chamórchis*, page 748.
- +1861. *Habenaria*, page 748.

2821. *Bonatea*. Perianth and anther of Habenaria. Upper lip of stigma free, cucullated, or complicated; process of the stigma sometimes long and sometimes short.
2822. *Cynorchis*. Sepals equal, connivent. Petals fixed under the upper sepal. Labellum connate with the column, spurred, usually 4-parted. Sepals larger than the petals, and of a different texture. Column short. Anther horizontal or resupinate, with distinct elongated cells. Rostellum flat, 3-partite. Pollen glands naked. Lobes of stigma 2, fleshy.
- †1862. *Bartholina*, page 748.
- †1856. *Satfirium*, page 748.
- †1855. *Disa*, page 748.
- †1863. *Serapias*, page 748.
2823. *Pterygodium*. Perianth subringent. Lateral sepals exterior, horizontal, concave. Labellum inserted in the middle of the column, between the remote cells of the anther.
2824. *Corycium*. Perianth ringent. Petals equal at the base, erect; lateral ones connate. Petals free, concave. Labellum unguiculate, connate with the face of the column, appendiculate in front. Anther dorsal, resupinate. Glands naked.
- †1866. *Ophrys*, page 748.
2825. *Disperis*. Perianth ringent, of 4-5 sepals. Lateral sepals exterior, horizontal, somewhat spurred. Labellum erect from the base of the column, and connected with it. Anther revolute, drawn out in two segments, which are bent in front.

- V. GASTRODIE'Æ. — Anther terminal, opercular. Pollen masses cohering in granules, which finally become waxy, and are indefinite in number.
2826. *Gastrodia*. Perianth tubular, 5-lobed. Lobes secund. Labellum closed, free, unguiculate, lying on the column. Column long, hollow at top. Anther deciduous, with approximate cells. Pollen masses large, composed of numerous angular particles.

- VI. ARETHU'SEÆ. — Anther terminal, opercular. Pollen masses as in tribe Neottiæ.
- †1881. *Calceana*, page 749.
2827. *Corysanthes*. Perianth ringent. Helmet large. Lower lip 4-parted, short, hidden by the labellum. Labellum large, cucullate, or tubular. Anther 1-celled, 2-valved, persistent. Pollen masses 4, powdery.
2828. *Pterostylis*. Perianth ringent, 4-leaved, inner leaflet bifid. Labellum unguiculate, almost enclosed, appendiculate, or gibbous at the base. Column connate with the base of the galea, winged at apex. Anther persistent, with approximate cells. Pollen masses 2 in each, all compressed, powdery.
- †1877. *Arethusa*, page 749.
- †1879. *Pogonia*, page 749.
- †1878. *Calopogon*, page 749.
2829. *Glossodia*. Perianth of 5 equal spreading sepals. Labellum dissimilar, short, undivided, glandless. Appendage between the column and the labellum. Anther terminating the membranous dilated column, with approximate cells. Pollen masses 2 in each cell, compressed, powdery.
2830. *Chloroclea*. Perianth membranous. Outer sepals nearly equal; lateral ones deflexed; upper one, along with the inner ones, conniving into a galea. Labellum sessile, cucullate, entire or 3-lobed, with a crested disk. Column elongated, semiterete, marginate. Anther 2-celled. Stigma lying on the top of the column. Pollen masses 2, bipartite, cohering behind.

MONANDRIA.

- \*2747. - LEPAN'THES Swz. (*Lepos*, bark, *anthos*, flower; habit.) *Orchid. Malaz. Pleur.* Sp. 1—1.
- 17896 - tridentata Swz. 3-toothed-leaf  $\text{☒} \triangle \text{cu} \frac{1}{2} \text{ja}$  P.y Jamaica 1834. D mo Bot. reg. 1762
- \*2750. - APLE'CTRUM Swf. (*A*, without, *plektron*, a spur; flower.) *Orchid. Malaz. Pleur.* Sp. 1—1
- 17897 - hiemalis Swf. wintry  $\text{☒} \triangle \text{cu} \text{l} \dots$  Br N. Amer. 1827. O s.p  
Corallorhiza hiemalis Nut.
- \*2751. - ACIA'NTHUS R. Br. (*Akis*, point, *anthos*, flower; bristly tips.) *Orchid. Malaz. Pleur.* Sp. 1—3.
- 17898 - caudatus R. Br. tailed  $\text{✱} \triangle \text{or l myjn}$  Br N. Holl. 1824. R l p
- \*2752. - CÆ'LIA Lindl. CÆLIA. (*Koilos*, hollow; pollen masses.) *Orch. Malaz. Pleur.* Sp. 1—0.
- 17899 - Baueriana Lindl. Bauer's  $\text{☒} \triangle \text{cu} \text{l} \dots$  Jamaica ... R l p Sm. ic. pict. 14
- \*2753. - MEGACLI'NIUM Lindl. (*Megas*, large, *kline*, to bend; spike.) *Orch. Malaz. Dendrob.* Sp. 1—3.
- 17900 - maximum Lindl. largest  $\text{☒} \triangle \text{cu} \text{l au}$  G S. Leone 1836. D p.r.w Bot. reg. 1959
- \*2754. - BOLBOPHY'LLUM Thou. (*Bolbos*, bulb, *phyllo*n, leaf; mode of leafing.) *Orch. Mal. Den.* Sp. 2—9
- 17901 - leopardenium Lindl. leopard-spotted  $\text{☒} \triangle \text{spl} \dots$  Ysh. G.F.E. Indies ... D p.r.w
- 17902 - saltatorium Lindl. dancing  $\text{☒} \triangle \text{pr} \frac{1}{2} \text{d}$  R S. Leone 1835. D p.r.w Bot. reg. 1970



- †1880 *Epidactis*, page 749.  
 2831. *Caladéna*. Perianth bilabiate, glandular outside. Upper lip flattish. Labellum unguiculate, cucullate, somewhat 3-lobed, or narrowed at the apex, ornamented with rows of glands in the disk. Column membranaceously dilated. Anther persistent, with approximate cells. Pollen masses 2 in each cell, compressed, half 2-lobed, powdery.  
 2832. *Eriochilus*. Perianth bilabiate. Outer lateral sepals unguiculate; inner ones erect, smaller. Labellum unguiculate, inappendiculate, with a pubescent glandless disk. Column semiterete, simple at top. Anther persistent, mutic, with approximate cells. Pollen masses 4 in each cell.  
 2833. *Chilolöttis*. Perianth bilabiate. Outer lateral sepals channelled, and terete at the apex. Labellum unguiculate, glandular in the disk, and furnished with a tongue-shaped appendage at the base. Column bifid at apex. Anther persistent, with proximate cells. Pollen masses 2 in each cell, compressed, powdery.  
 2834. *Cytostigis*. Perianth bilabiate. Sepals mutic, 4 lateral ones nearly equal, spreading. Labellum dissimilar, stretched out, flat, obtuse, undivided, bicallose at the base. Column semiterete, dilated at apex. Anther persistent, with approximate cells. Pollen masses as in *Chilolöttis*.  
 2835. *Microtis*. Perianth ringent. Outer lateral sepals sessile; inner ones almost similar, ascending. Labellum dissimilar, oblong, obtuse, callous at the base. Column funnel-shaped. Anther furnished with a membranous auricle on both sides. Pollen masses 2 in each cell, powdery, fixed by the base.

VII. NEOTTIÆ. — Anther parallel with the stigma, and erect. Pollen masses simple, or consisting of granules in a loose state of cohesion.

- †1874. *Spiránthes*, page 749.  
 †1875. *Stenorhynchos*, page 749.  
 †1873. *Neóttia*, page 749.  
 †1876. *Listera*, page 749.  
 2836. *Pelária*. Sepals conniving into a cylinder. Outer lateral ones dependent, connate with the base of the column. Labellum entire, stretched out, spurred at the base, connate with the ovarium.  
 2837. *Sauroglossum*. Perianth connivent. Lateral sepals linear, arcuately spreading, running into the ovarium at the base. Labellum linear, channelled, callous at the base. Column elongated, semiterete, drawn out at the base, and somewhat spatulate at the apex. Rostellum ovate. Pollen masses 2, 2-lobed, with a very short caudicula.  
 †1870. *Gódyera*, page 748.  
 2838. *Anactochilus*. Perianth ringent. Upper sepal, along with the petals, forming a galea; lateral sepals spreading. Labellum connate with the column at the base spurred, with a channelled inflexed claw, and a 2-lobed spreading limb. Column short, with membranous, dilated, involute margins. Stigma bicallos at the base. Pollen masses 2, powdery, 2-lobed, with very short caudicula, and an oblong gland.  
 †1872. *Ponhtëva*, page 748.  
 2839. *Cránichis*. Perianth resupinate, subringent. Labellum arched. Anther as in *Neóttia*.  
 †1826. *Prescótia*, page 750.  
 2840. *Calochilus*. Perianth ringent. Inner sepals sessile, smaller than the outer ones, erect. Labellum longer than the sepals, sessile, acuminate, with the margins and disk bearded. Anther parallel with stigma, persistent.  
 2841. *Presepillum*. Perianth ringent; galea in front; 2 outer sepals usually cohering, inner ones unequal-sided. Labellum ascending, undivided, spurless, unguiculate. Column bipartite. Anther parallel with the stigma, persistent, with approximate cells. Pollen masses 2 in each cell, powdery, fixed to the top of the stigma.  
 †1871. *Diària*, page 748.  
 †1930. *Vanilla*, page 751.

MONANDRIA.

17896 Leaf ovate acute marginate triden. at apex, Flws. triquetrous at base, Sepals acuminate

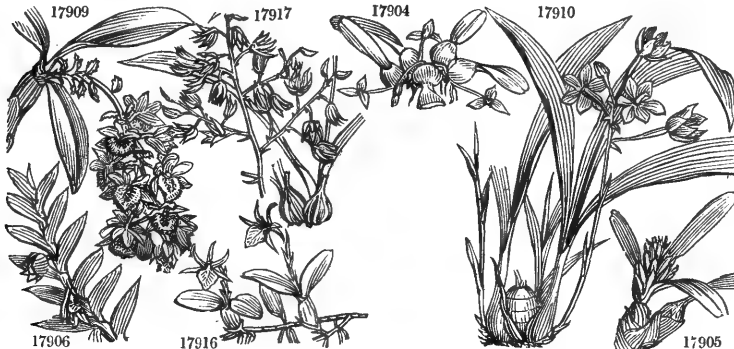
17897 The only species

17898 Scape 1-2-flwd. Horns very long, Margins of lvs. undulated

17899 The only species

17900 Upper sepal acute lateral ones acum. reflex. with involute margins, Labellum linear revolut

17901 Pseudo-bulbs tufted ovate obl. Lvs. coriaceous stiff ovate obl. solitary petiolate, Flws. rad. fascicled, Labellum [fleshy quite entire  
 17902 Pseudo-bulbs ov. comp. wedged, Lvs. sol. acute shorter than rac. Bractees ov. membran. Sepals pubesc. Labellum ovate feathered at top



- \*2755. - CIRRHOPE'TALUM Lindl. (*Kirrhos*, tawny, *petalon*, petal; flowers.) *Orch. Mal. Dendr.* Sp. 1-3.  
 17933 - Thourasii Lindl. Thouras's  $\text{£} \square$  cu 1 jl Y.B Soc. Isles ... D p.r.w Bot.reg.n.s.11  
 Bolbophylum longiflorum Thou., Zygoglossum umbellatum Reinz.
- \*2756. - TRIAS Lindl. TRIAS. (*Trias*, three; open flower forming a triangle.) *Orch. Malax. Dendröb.* Sp. 1-1.  
 17904 - oblonga Lindl. oblong  $\text{£} \square$  el ... n Din.G.P E. Indies ... D p.r.w Wal. pl. as.
- \*2757. - BRYOBIUM Lindl. (*Bruo*, to sprout, *bio*, to live; bulbs.) *Orch. Malax. Dendröb.* Sp. 1-1.  
 17905 - pubescens Lindl. pubescent  $\text{£} \square$  cu 1 n G E. Indies 1836. D p.r.w
- \*2758. - A'PORUM Blume. (*Aporuz*, a running shoot; appearance.) *Orch. Malax. Dendröb.* Sp. 1-1.  
 17966 anceps Lindl. two-edged-stmd  $\text{£} \square$  cu  $\frac{1}{2}$  year Y.G Bengal 1826. D p.r.w Bot. reg. 1239
1900. DENDROBIUM. Sp. 13-32.  
 17907 12922a noble Lindl. noble  $\text{£} \square$  pr 2 f Gsh.Y.P China 1836. D p.r.w Sert. orch. 3
- 17908 12922b carulifescens Wal. bluish  $\text{£} \square$  or 2 ap B.P India 1837. D trunks Sert. orch.18  
 17909 12925a densiflorum Wal. dense-flowered  $\text{£} \square$  or  $\frac{1}{2}$  my Y Nepal 1830. D p.r.w Bot. reg. 1828
- \*2759. - PAXTONIA Lindl. (*J. Paxton*, F.L.S. cond. of *Mag. of Bot.*, a successful cultiv.) *O. M. D.* Sp. 1-1.  
 17910 - rosea Lindl. rose-coloured pr  $\frac{1}{2}$  s.o Ro Philippines 1837. D p.l Bot. reg. n.s.60
1907. EPIDENDRUM. *Orch. Epidendree.* Sp. 20-71.  
 17911 12939a odoratissimum Lindl. sweetest-sect  $\text{¥} \square$  fra 1 su G.Y Rio Jan. 1827. D p.r.w Bot. reg. 1415  
 Encyclia patens Hook in Bot. mag. 3013., Macradenia lutescens Bot. Cab. 1566, but not of Bot. reg.
- 17912 12939b oncidioidea Lindl. Oncidium-like  $\text{£} \square$  fra 3 jn Y.br S. Amer. 1823. D p.r.w Bot. reg. 1623  
 17913 12939e aromaticum Bate. aromatic  $\text{£} \square$  el 3 my Pa.Y Guatem. 1835. D p.r.w Bate. orch. 10  
 17914 12947a bicornutum Hook. two-horned  $\text{£} \square$  fra  $\frac{1}{2}$  ap W.sp Trinidad 1831. D p.r.w Bot. mag. 3332
- 17915 12942a floribundum Hook. many-flowered  $\text{£} \square$  el 1 n G.B Mexico ... D p.r.w Bot. mag. 3637
- \*2760. - DINE'MA Lindl. (*Dis*, double, *nema*, a filament; filaments.) *Orch. Epidend.* Sp. 1-  
 17916 - polybalbon many-bulbed  $\text{£} \square$  cu 1 au W Jamaica 1832. D p.r.w Bot. cab. 1230  
 Epidendrum polybalbon.
- \*2761. - ENCYCLIA Hook. ENCYCLIA. (*Egkyklee*, to wrap round; column by lip.) *Orch. Epid.* Sp. 1-1.  
 17917 viridiflora Hook. green-flowered  $\text{£} \square$  cu 1 f G Rio Jan. 1827. D p.r.w Bot. mag. 2831
- \*2762. - CHYSIS Lindl. (*Chysis*, a melting; pollen masses, as it were, fused together.) *Orch. Ep.* Sp. 1-1.  
 17918 - aurea Lindl. golden-flwd  $\text{£} \square$  or 1 s Go Venezuela 1834. D p.r.w Bot. reg. 1937
- \*2763. - PHYSPINGA Lindl. (*Phusa*, a bladder; shape of labellum.) *Orch. Epidend.* Sp. 1-1.  
 17919 - prostrata Lindl. prostrate  $\text{£} \square$  cu 1 au G.P Demerara 1837. D p.r.w
- \*2764. - HARTWEGIA Lindl. (*M. Theodore Hartweg*, bot. collect. to Lond. Hort. Soc.) *Or. Ep.* Sp. 1-1.  
 17920 - purpurea Lindl. purple  $\text{£} \square$  or ... P Vera Cruz 1837. D p.r.w
- \*2765. - LÆLIA Lindl. LÆLIA. (*Lælia*, a vestal virgin.) *Orch. Epidend.* Sp. 6-20  
 17921 - anceps Lindl. two-edged-sepd  $\text{£} \square$  el  $\frac{1}{2}$  d Pa.P Mexico 1833. O p.r.w Bot. reg. 1751  
 ß Barkeriana Lindl. Barker's  $\text{£} \square$  el  $\frac{1}{2}$  d P Mexico 1833. O p.r.w Bot. reg. 1947  
 17922 - autumnalis Lec. autumnal  $\text{£} \square$  spl 3 auo Li.P Mexico 1836. D p.r.w Bate. orch. 9
- \*2766. - SCHOMBURGKIA Lindl. (*R. J. H. Schomburgk*, a traveller in Guiana.) *Orch. Epid.* Sp. 1-1.  
 17923 - marginata Lindl. bordered  $\text{£} \square$  or 4 au.s R.y Surinam 1834. D trees Sert. orch. 13
1906. CATTLEYA. *Orchidæcæ Epidendree.* Sp. 20-30  
 17924 12936z Mossiae Hook Mrs. Moss's  $\text{£} \square$  or 1 ju.au P S. Amer. 1836. D p.r.w Bot. mag. 3669  
 17925 12935y Perrinii Lindl. Perrin's  $\text{£} \square$  or 1 ... P Brazil ... D p.r.w Bot. reg. n.s. 2
- 17926 12937b guttata Lindl. spotted-flwd  $\text{£} \square$  or 1 ... G.Bd.W.P Brazil 1827. D p.r.w Bot. reg. 1406
- 17927 12937c pumila Hook. dwarf  $\text{£} \square$  el  $\frac{1}{2}$  jl.au P S. Amer. 1837. D p.r.w Bot. mag. 3656
- \*2767. - LEPTOTES Lindl. LEPTOTES. (*Leptos*, slender; leaves.) *Orchidæcæ Epidendree.* Sp. 1-1.  
 17928 - bicolor Lindl. two-ld-flwd  $\text{£} \square$  or  $\frac{1}{2}$  ap W.a Brazil 1831. D p.r.w Bot. reg. 1625
1911. BLETTIA *Orch. Epidend.* Sp. 9-15.  
 12957 verecunda  
 ß Shepherdii Lindl. Shepherd's  $\text{¥} \square$  or 2 ja.m Dp.P Jamaica 1825? D p.l Bot. mag. 3319  
 17929 12957a pátula Hook. spreading-flwd  $\text{¥} \square$  el 2 mr P Hayti 1830. O p.l Bot. mag. 3518  
 17930 12957b gracilis B. C. slender-scaped  $\text{¥} \square$  pr  $\frac{1}{2}$  jl.au Y.a Mexico 1830. D p.l Bot. reg. 1681
- 17931 12957c reflexa Lindl., reflexed-sepaled  $\text{¥} \square$  or 2 n P.g.w Mexico 1833? O p.l Bot. reg. 1760
- \*2768. - CRYBE Lindl. (*Krubeis*, concealed; column hidden by floral envelopes.) *Orch. Epidend.* Sp. 1-1.  
 17932 - rosea Lindl. rose-coloured  $\text{£} \square$  or 1 ju Pa.G Mexico 1834. D p.r.w Bot. reg. 1872
- \*2769. - PESOMERIA Thou. (*Pipto* (*peso*), to fall, and *meros*, a part.) *Orch. Epidend.* Sp. 1-1.  
 17933 - tetragona Thou. 4-cornered-stmd  $\text{£} \square$  cu 2 d Br Mauritius 1837. D p.r.w



17903 Petals ciliated and arc as well as the upper sepal awned, Lvs. obl. obtuse emarginate shorter than the scape

17904 Lvs. oblong

17905 The only species

17906 Lvs. fleshy acute, Flws. sol. or twin, Sepals fleshy, Stems pendulous, Labellum emarginate crenulated

17907 Stems terete pendulous, Lvs. obl. obliquely emarginate obtuse, Flws. twin, Sepals oval, Petals conforming to the sepals but larger, Labellum roundish cucullate cordate

17908 Stem erect fleshy, Lvs. obl. obtuse emarginate, Racemes horizont. 2-3-fwd. Sepals linear obtuse spreading

17909 Stems articulated clav. pendulous leafy at top, Lvs. obl. acute. Racemes later many-fwd. Labellum rhomb. unguiculate serrul. retuse

17910 The only species

[Labellum almost free 3-lobed with a callous depressed disk

17911 Lvs. oval corrugated twin ensif. Rac. almost simple, Sepals obl. and are as well as the cuneated petals spreading,

17912 Lvs. oval 2-edged ensif. Panicle term. branched, Sepal and petals obovate unguiculate spreading, Labellum

17913 Pseudo-bulb large 1-2-leaved, Scape paniced, Sepals lanceol. Labellum 3-lobed, Middle lobe orbicular

17914 Lvs. few lin. obl. obtuse coriaceous, Raceme term pedunc. few-fwd. Sepals and petals equal, Labellum 3-lobed,

Middle lobe lanceol. acute horned inside at base.

17915 Lvs. lanceol. obl. acum. submembran. Panicle term. Sepals reflex. lanceol. Petals filiform, Labellum 4-lobed bituberculate at base, Middle lobe lin.

17916 The only species.

17917 The only species

17918 The only species

17919 The only species

17920 The only species

17921 Lvs. twin or sol. lanceol. Scape 2-edged 2-fwd. clothed with keeled scales, Ovarium clammy, Disk of labellum lin. elong. 3-lobed. at apex, Pseudo-bulbs ovate distant 4-angled

17922 Lvs. obl. lanceol. keeled arched, Scape elong. many-fwd. Pseudo-bulbs turbin. furrowed

17923 Petals and Sepals undulated obtuse, Mid. lobe of labellum round acute

17924 Flws. large, Sepals lanceol. Petals ellip. ovate ungui. with curled margins, Labellum obov. 2-lobed crenul.

17925 Sepals obl. lin. obtuse, Lateral ones falcate narrower than obtuse petals, Labellum obl. lanceol. 3-lobed, Mid.

lobe obl. obtuse undulated, Lvs. obl. coriaceous

17926 Flowers fleshy, Sepals lin. obl. obtuse, Petals conform. to sepals but a little broader undul. Labellum 3-lobed,

Middle lobe obcord. with tuberculated disk, Lvs. concave

17927 Sepals obl. acute upper one recur. narrower than petals, Petals oval obl. obtuse undul. Mid. lobe of labellum short obtuse undulately lacinated, Lvs. obl. lanceol.

17928 The only species

[emarginate transversely plicate 6 unequal lamellæ on the disk

17929 Lvs. lanceol. Scape tall branched, Flws. spreading, Sepal lanceol. ellip. spreading, Labellum cucul. Mid. lobe

17930 Lvs. obl. lanceol. plicate, Scape simple, Sepals and Petals nearly equal lanceol. acumin. Labellum 3-lobed mid. lobe emarginate undulated with a solitary lamellæ in the disk

17931 Lvs. narrow ensif. plicate, Scape simple 2-4-fwd. Sepals lin. lanceol. lateral ones reflex. Petals cun. lanceol. Labellum 3-lobed, Mid. lobe narrow undulated furnished with 5 lamellæ on the disk

17932 The only species

17933 The only species

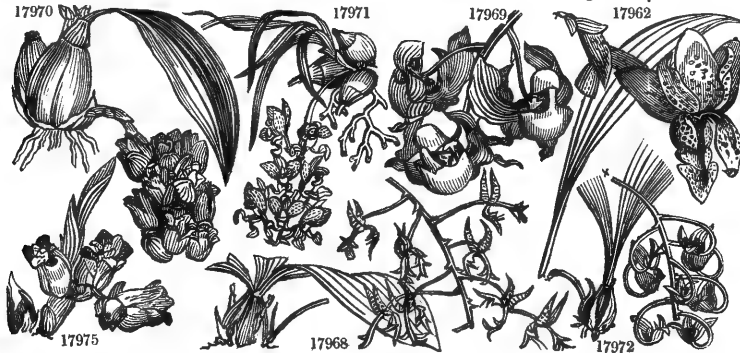




- \*2770. - PHAÏUS Lour. PHAÏUS. (*Phaio*, to shine; splendour of flowers.) *Orch. Epidénd.* Sp. 1—2.
- 17934 - - álbis Lindl. white  $\text{£} \square$  spl 2 j l W.P.G Nepal 1837? D p.l Bot. reg. n. s. 23
- \*2771. - NANO'DES Lindl. NANODES. (*Nanodes*, pygmy; size of plant.) *Orch. Vandæc.* Sp. 1—1.
- 17935 - - discolor two-colored  $\text{£} \square$  cu  $\frac{1}{2}$  au G.P Rio Jan. 1827. D p.r.w Bot. reg. 1541
- \*2772. - ASPA'SIA Lindl. (*Aspaxomai*, I embrace; column by labellum.) *Orch. Vandæc.* Sp. 1—2.
- 17936 - - variegata Lindl. variegated-flwd  $\text{£} \square$  fra  $\frac{1}{2}$  f G.sp.y.r S.Amer. 1836. O p.r.w Bot. reg. 1907
- \*2773. - SOPHRONITIS Lindl. SOPHRONITIS. (*Sophron*, modest; appearance.) *Orch. Vandæc.* Sp. 1—6.
- 17937 - grandiflora Lindl. large-flowered  $\text{£} \square$  or  $\frac{1}{2}$  ... S Organ Mts. 1837. D p.r.w Bot. mag. 3709
- Cattleya coccinea* Lindl. in text of Bot. reg. t. 1919.
- \*2774. - CIRRHÆA Lindl. CIRRHÆA. (*Cirrhus*, a tendril; form of rostellum.) *Orch. Vandæc.* Sp. 2—5.
- 17938 - - viridi-purpurea Lod. green & purple  $\text{£} \square$  or  $\frac{1}{2}$  my G.P.spt. Brazil 1827. D lt.moss.ptah. Bot. cab.1967
- Gongora viridi-purpurea Hook. Bot. mag. 2978., C. Loddigésii Lindl., C. dependens B. R., Cymbidium dependens Bot. Cab. 936.
- 17939 - - tristis Lindl. dull-cld-flwd  $\text{£} \square$  cu  $\frac{1}{2}$  jn D.P.G.R Mexico 1834. O p.r.w Bot. reg. 1889
- \*2775. - SARCOCHYLUS R. Br. SARCOCHILUS. (*Sarz*, flesh, *cheilos*, a lip.) *Orchid. Vandæc.* Sp. 1—1.
- 17940 - - falcatus R. Br. falcate-lvd  $\text{£} \square$  or  $\frac{1}{2}$  ap W.pk N. Holl. 1821. D p.r.w Bot. reg. 1832
- 1899. MAXILLA'RIA. *Orchid. Vandæc.* Sp. 10—40.
- 17941 - - Henchmannii Hook. Henchmann's  $\text{£} \square$  cu 1 ap.my P Mexico 1835. D p.r.w Bot. mag. 3614
- 17942 - - Warreana Lod. Warre's  $\text{£} \square$  or 2 au W.P.Y Brazil 1829. D p.r.w Bot. cab. 1884
- 17943 - - cristata Lindl. crested-labell.  $\text{£} \square$  or  $\frac{1}{2}$  j l W.P Trinidad 1834. O p.r.w Bot. reg. 1811
- 17944 - - Rollissonii Lindl. Rollisson's  $\text{£} \square$  or  $\frac{1}{2}$  au Y Brazil 1836. D p.r.w Bot. reg. n. s. 40
- 17945 - - atreofalva Hook. golden-brown  $\text{£} \square$  pr 1 my.jn Go.Br S. Amer. 1836. D p.r.w Bot. mag. 2789
- 17946 - - vitellina Lindl. yolk of egg-cld  $\text{£} \square$  or  $\frac{1}{2}$  jn Y.B Brazil 1838. D p.r.w Bot. reg. 1839.12
- \*2776. - BIFRENA'RIA Lindl. BIFRENA'RIA. (*Bis*, twice, *frænum*, a bridle.) *Orchid. Vandæc.* Sp. 1—2.
- 17947 - - aurantiaca Lindl. orange-cld  $\text{£} \square$  or  $\frac{1}{2}$  o O Demer. 1834. D p.r.w Bot. reg. 1875
- \*2778. - TRICHOPLYLLA Lindl. TRICHOPLYLLA. (*Thrix*, hair, *plyllon*, cap; cap of anther.) *Orch. Vandæc.*
- 17948 - - tortilis Lindl. twisted-petaled  $\text{£} \square$  cu  $\frac{1}{2}$  ja W.c Mexico 1835. D p.r.w Bot. reg. 1863
- \*2779. - DICRYPTA Lindl. (*Dic*, two, *krypto*, to conceal; pollen masses.) *Orchid. Vandæc.* Sp. 3—10.
- 17949 - - crassifolia Lindl. thick-lvd.  $\text{£} \square$  cu 1 year Y Brazil 1830. D p.r.w Bot. reg. 1028
- Heterotáxis crassifolia* Lindl. Bot. reg.
- \*2780. - GOVEN'IA Lindl. (*James Robt. Gowen, Esq.*, an English botanist.) *Orchid. Vandæc.* Sp. 2—2.
- 17950 - - superba Lindl. superb-aspected  $\text{£} \square$  spl 5 f.mr O Mexico 1828. D s.lt Bot. reg. 1795
- 17951 - - liliacea Lindl. Lily-flwd  $\text{£} \square$  el 1 j l Psh.W Mexico 1837. D p.l Bot. reg. n. s. 13
- \*2781. - BATEMA'NNIA Lindl. (*Jas. Bateman, Esq.*, Knypersley Hall.) *Orchid. Vandæc.* Sp. 1—1.
- 17952 - - Colleyi Lindl. Colley's  $\text{£} \square$  or  $\frac{1}{2}$  au P.w.g Demer. 1834. D p.r.w Bot. reg. 1714
- \*2782. - CYCNO'CHES Lindl. (*Kyknos*, swan, *uchen*, neck; column of flower.) *Orchid. Vandæc.* Sp. 2—2.
- 17953 - - Loddigésii Lindl. Loddiges's  $\text{£} \square$  fra 1 jn.j l G.spt Surinam 1830. D p.r.w Bot. reg. 1742
- 17954 - - ventricosus Bate. ventricose-lip  $\text{£} \square$  or 2 ... G.w Guatem. 1835. D p.r.w Bate. orch. 5
- \*2783. - MYA'NTHUS Lindl. (*Myia*, fly, *anthos*, flower; appearance dried.) *Orch. Ván.* Sp. 2—3, and 2 vars.
- 17955 - - cernuus Lindl. drooping-infior.  $\text{£} \square$  or  $\frac{1}{2}$  my Lu.G.P Rio Jan. 1832. D p.r.w Bot. reg. 1721
- Catasætum trifidum Hook. Bot. mag. 3262.
- 17956 - - barbatus Lindl. bearded-labell.  $\text{£} \square$  cu  $\frac{1}{2}$  f.mr G.P Demer. 1834. D p.r.w Bot. reg. 1778
- 1899. CATASE'TUM. *Orchid. Vandæc.* Sp. 8—11.
- 17987 12892a maculatum Kth. spotted-flwd  $\text{£} \square$  or 3 ... G.spt.N. Gren. 1836. D p.r.w Bate. orch. 2
- 17958 12892b purum Nees spotless  $\text{£} \square$  or 1 w Y.g Brazil 1824. D p.r.w Bot. mag. 3388
- inapértum Hook. ex. fl. semiapértum Hook.
- 17959 12892c luridum Lindl. lurid-flwd  $\text{£} \square$  or 1 s.n G.y.br Brazil 1832. D p.r.w Bot. reg. 1667
- Nos. 12893. & 12894. in p. 756. are only varieties of *C. tridentatum*.
- \*2784. - MONACHA'NTHUS Lindl. (*Monachos*, monk, *anthos*, flower; labellum.) *Orchid. Vandæc.* Sp. 1—2.
- 17960 - - discolor Lindl. dingy 2-cld  $\text{£} \square$  or 1 n P.y Demer. 1834. D p.r.w Bot. reg. 1735
- \*2785. - MORMO DES Lindl. (*Mormo*, a goblin; appearance of flowers.) *Orchid. Vandæc.* Sp. 1—1.
- 17961 - - atropurpurea Lindl. dark-purple  $\text{£} \square$  cu  $\frac{1}{2}$  d D.P Sp. Main 1834. D p.r.w Bot. reg. 1861
- \*2786. - STANHOPEA Hook. (*Earl Stanhope*, Pres. of the Medico-Bot. Soc.) *Orchid. Vandæc.* Sp. 7—8.
- 17962 - - insignis Hook. remarkable  $\text{£} \square$  or 1 j lo P Trinidad 1826. D p.r.w Bot. mag. 2948
- Ceratocyllus insignis Lindl.
- 17963 - - tigrina Bate. tiger-spotted  $\text{£} \square$  spl 2 mr.jn Y.P Mexico 1836. D p.r.w Bot. reg. 1839
- 17964 - - grandiflora Lindl. large-flowered  $\text{£} \square$  or 2 j lo P Trinidad 1824. D p.r.w Bot. cab. 1414
- 17965 - - ebúrnea Lindl. ivory-lipped  $\text{£} \square$  or  $\frac{1}{2}$  j l W.P Rio Jan. 1828. D p.r.w Bot. reg. 1529



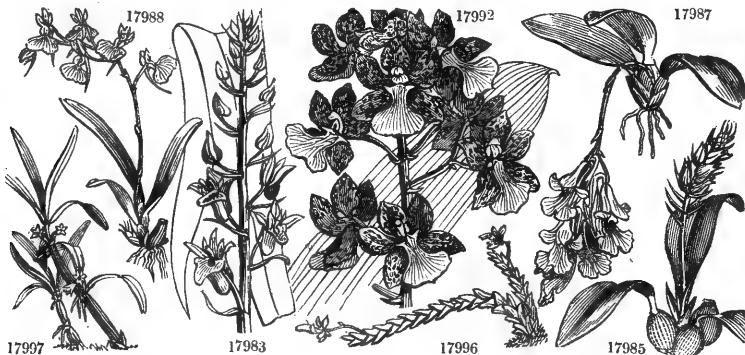
- [obl. cucul. denticu. with 5 crests in the disk, Spur emarginate  
 17934 Caulescent, Lvs. obl. lanceol. acute glauc. beneath, Sepals and petals obl. lanceol. acute nearly equal, Labellum
- 17935 The only species
- 17936 Pseudo-bulbs obl. 2-edged, Sepals lin. obl. Petals somewhat rhomb. acute, Lateral lobes of labellum recur. Mid. one fleshy serrated
- 17937 Pseudo-bulbs obl. cylind. 1-lvd. Petals ellip. round. Sepals obl. lanceol. smaller, Labellum small 3-lobed, Mid. lobe flattish acumin.
- 17938 Lvs. obl. lanceol. Petals lin. arched, Mid. lobe of labellum cuneated equal to lateral ones
- 17939 Lvs. obl. lanceol. Petal lin. spatulate, Labellum sagit. Mid. lobe lin. abruptly acute, Lateral ones acumin.
- 17940 The only species
- 17941 Pseudo-bulbs oval obl. compressed smooth bearing a sol. lin. ligul. leaf, Pedunc. 1 fwd. Petals and sepals erect obl. acute, Labellum obscurely 3-lobed [obovate obl. undivided
- 17942 Lvs. obl. lanceol. acumin. plicate, Scape radical many-fwd. Sepals ovate concave, Petals smaller, Labellum
- 17943 Pseudo-bulbs ovate bearing a sol. obl. lanceol. plicate leaf, Scape pendu. 2-fwd. Sepals and petals lanceol. acute equal, Labellum 3-part. Mid. lobe fringed
- 17944 Pseudo-bulbs roundish compressed bearing 2-obl. lanceol lvs. Scape 1-2-flowered, Sepals keeled, Labellum 3-lobed
- 17945 Pseudo-bulb compressed tetragonal bearing a sol. 3-nerv. leaf, Flws. racem. Petals oval 2 lower ones drawn out into a horn at base, Labellum obovate subtrilobed crested.
- 17946 Pseudo-bulb ovate bluntly angular bearing a lanceol. chan. leaf, Raceme droop. Labellum cuneate 3-lobed, Mid. lobe 2-lobed crenulated
- 17947 Pseudo-bulb roundish compressed 2-lvd. Lvs. obl. plicate, Raceme erect, Lateral lobes of labellum semicord. Mid. one transverse subundulated callous at the base
- 17948 The only species
- 17949 The only species
- 17950 Labellum ovate cord. Spike cylind. Bractees acumin. Lvs. obl. acum. narrowed at the base
- 17951 Labellum ovate cucul. at base, Spike obl. Bractees obl. cucul. Lvs. obovate lanceol. Root tuberous
- 17952 The only species
- [short winged claw, Column slender arched clavate on both sides  
 17953 Sepals lin. obl. Lateral ones ovate obl. pendulous, Petals obl. lanceol. Labellum spreading obl. entire with a  
 17954 Sepals and petals lanceol. acumin. reflexed, Labellum entire ventricose acumin. callous at the base with a short claw, Column arched much shorter than upper sepals
- 17955 Labellum not bearded
- 17956 Labellum bearded with succulent hairs
- 17957 Two inner calycine segments spotted, Labellum ciliated
- 17958 Leaves linear-lanceolate, Perianth spreading obsoletely dotted, Labellum ventricose incurved at apex ciliated
- 17959 Leaves oblong 5-plicate, Perianth globose scarcely spotted, Labellum ventricose straight at apex
- 17960 Raceme loose many-fwd. Labellum hemispherical with flat margins and fringed in the middle
- 17961 The only species
- 17962 Labellum constricted in the middle, Flws. pendulous
- 17963 Lateral sepals large roundish oblong much broader than the petals
- 17964 Labellum oblong constricted in the middle, Scape erect 2-fwd. shorter than the petals
- 17965 Labellum obl. constricted in the middle, Scape pendulous 2-flowered twice as long as the petals



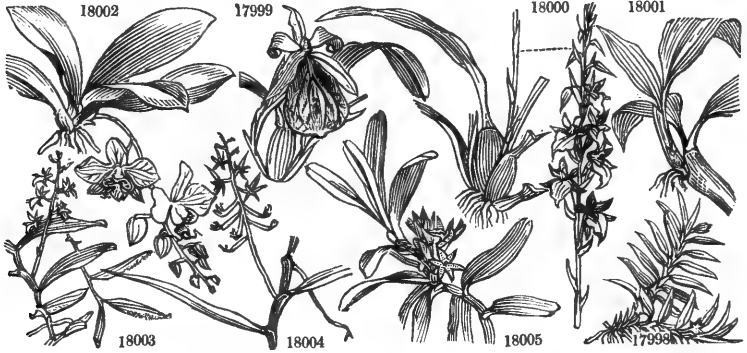
- 17966 - - *quadrifloris* Lindl. four-horned £ 2 pr 2 in Y.sp.a Sp. Main 1836. D p.r.w Bot. reg. n.s.5  
 17967 - - *oculata* Lindl. eyed £ 2 ei 2 in.jl Pa.Y Mexico 1829. O p.r.w Bot. reg. 1800
- \*2787. - - GONGORA R. & P. (*Anton. Caballero y Gongora*, a friend of Mutis.) *Orchid. Vándæa.* Sp.1-6.  
 17968 - - *maculata* Lindl. spotted-flwd £ 2 or 2½ my Y.spt Demer. 1832. D p.r.w Bot. reg. 1616
- \*2788. - - CORYANTHES Hook. (*Korys*, helmet, *anthos*, flower; shape of lip.) *Orchid. Vándæa.* Sp. 1-3.  
 17969 - - *maculata* Hook. spotted-lipped £ 2 spl 1 in Y.P Demer. 1829. D p.r.w Bot. mag. 3102
- \*2790. - - PERISTERIA Hook. (*Peristera*, a dove; its column resembles.) *Orchid. Vándæa.* Sp. 1-4.  
 17970 - - *cérina* Lindl. waxen £ 2 or 1 in Y Sp. Main 1835. D p.r.w Bot. reg. 1953
- \*2791. - - GROBYA Lindl. (*Lord Grey of Groby*, a patron of horticulture.) *Orchid. Vándæa.* Sp. 1-1.  
 17971 - - *Amherstæ* Lindl. *Lady Amherst's* £ 2 or ½ s Och.s Brazil 1829. D p.r.w Bot. reg. 1740
- \*2792. - - ACROPE'RA Lindl. (*Akros*, the extremity, *pera*, a bag; append. to labell.) *Orchid. Vándæa.* Sp.—  
 17972 - - *Loddigesi* Lindl. Loddiges's £ 2 or ¾ au.s Pa.Y.P Mexico 1828. D p.r.w Bot. mag. 3563
- \*2793. - - GRAMMATOPHY'LLUM Blume. (*Grammata*, letters, *phyllon*, leaf.) *Orchid. Vándæa.* Sp. 1-4.  
 17973 - - *speciosum* Blume. showy £ 2 spl 6 ... Y.br E. Indies 1837. D p.r.w Ru. Am.
- \*2794. - - SOBRA'LIA R. & P. SOBRA'LIA. (*F. M. Sobral*, a Spanish botanist.) *Orch. Vándæa.* Sp. 1-4.  
 17974 - - *Caravata* Lindl. Caravata £ 2 or 2 ... Guiana ... D p.r.w Aub. gu.
- \*2795. - - ACANTHOPHI'PIUM Bl. ACANTHOPHIPIUM. (Application unknown.) *Orchid. Vándæa.* Sp. 1-3.  
 17975 - - *bicolor* Lindl. 2-clid.-*perianth.* £ 2 or ¾ in Y.r Ceylon 1833. O p.pots. Bot. reg. 1730
- \*2796. - - DIPO'DIUM R. Br. (*Dis*, two, *pous*, foot; threads of pollen masses.) *Orchid. Vándæa.* Sp. 1-1.  
 17976 - - *punctatum* R. Br. spotted £ 2 or 1½ in.au R N. Holl. 1822. D p.l Sm.ex.bot.1.12
- \*2797. - - GALEA'NDRA Lindl. (*Gale*, a weasel, *aner*, a male; flowers.) *Orch. Vándæa.* Sp. 1-3.  
 17977 - - *gracilis* Lindl. slender £ 2 or 1½ au.o G S. Leone 1832. D p.l Bot. reg. 742.
- \*2798. - - ZYGOPETALUM Hook. (*Zygos*, yoke, *petalon*, petal; joined at base.) *Orchid. Vándæa.* Sp. 3-6.  
 17978 - - *Mackãii* Hook. Mackay's £ 2 or 1 in.jl B.g.v Brazil 1825. D p.r.w Bot. mag. 2748  
     *β crinitum* Lindl. hairy-lipped £ 2 or 1 o W.spot.g Brazil 1829. D p.r.w Bot. mag. 3402  
     *maxillare* Paz. tooth-like-flwd £ 2 or 1 in.jl B.g S. Amer. 1829. D p.r.w Paz. mag. 271  
 17980 - - *Murrayanum* Gard. ms. Murray's £ 2 cu ¾ ... G.w Brazil 1837. D p.r.w Bot. mag. 367
- \*2799. - - HUNTLE'YA Bate. (*Rev. John Thomas Huntley*, of Kimbolton.) *Orchid. Vándæa.* Sp. 1-2.  
 17981 - - *metægris* Lindl. Guinea-hen £ 2 spl 1 in Y.r.w Brazil 1838. D p.r.w Bot. reg. 1839
- \*2800. - - STE'NIA Lindl. STENIA. (*Stenos*, narrow; pollen masses.) *Orchid. Vándæa.* Sp. 1-1.  
 17982 - - *pálida* Lindl. pale-flowered £ 2 pr ½ au Y Demer. ... D p.r.w Bot. reg.n.s.20
- \*2801. - - CYRTOPE'RA Lindl. (*Kurtos*, convex, *pera*, a pouch; labellum.) *Orch. Vándæa.* Sp. 1-1.  
 17983 - - *Woodfordii* Woodford's £ 2 or 1 o P Trinidad 1814. D p.r.w Bot. mag. 1814
- \*2802. - - MASDEVA'LLIA R. & P. (*Joseph Masdevall*, a Spanish botanist.) *Orch. Vándæa.* Sp. 1-1.  
 17984 - - *infracta* Lindl. broken £ 2 cu ... ... Wsh.Y Org.Mnts. ... D p.r.w
- \*2803. - - CRYPTOCHLUS Wall. (*Kruptos*, hidden, *cheilos*, lip; by calyx.) *Orchid. Vándæa.* Sp. 1-1.  
 17985 - - *sanguinea* Wall. blood-coloured £ 2 pr 1 in S Nepal ... D p.r.w Bot. reg.n.s.23
- \*2804. - - QUEKE'TTIA Lindl. (*E. J. Quekett*, F.L.S., a skilful veget. anatomist.) *Orch. Vándæa.* Sp. 1-1.  
 17986 - - *microscópica* Lindl. minute £ 2 cu ¾ ... Brazil ... D p.r.w
- \*2805. - - BURLINGTONIA Lindl. BURLINGTONIA. (*Countess of Burlington*.) *Orchid. Vándæa.* Sp. 1-1.  
 17987 - - *cándida* Lindl. snow-white £ 2 de 1 ap W Demer. 1834. D p.r.w Bot. reg. 1927
- \*2806. - - COMPARE'TTIA Pöp. (*A. Comparetti*, an Italian botanist.) *Orchid. Vándæa.* Sp. 1-2.  
 17988 - - *coccinea* Lindl. scarlet £ 2 or ¾ au S Brazil 1837. D p.r.w Bot. reg.n.s.68
1895. ONCIDIUM. *Orchid. Vándæa.* Sp. 18-41.
- 17989 - - *leucochillum* Bate. white-lipped £ 2 or 1 au.s W.g Guatem. 1835. D p.r.w Bate. orch. 1  
 17990 - - *Lemonianum* Lindl. *Sir C. Lemon's* £ 2 or ¾ my Y.spt Havann. 1835. D p.r.w Bot. reg. 1789  
 17991 - - *Cavendishianum* Bate. Cavendish's £ 2 or 4 in Y.g Guatem. 1836. D p.r.w Bate. orch. 3
- 17992 - - *Lanceanum* Lindl. Lance's £ 2 or 1½ in.jl V.y.c Surinam 1834. D p.r.w Bot. reg. 1837  
 17993 - - *Russellianum* Lindl. Russell's £ 2 or 1 ... Li.P Rio Jan. 1835. D p.r.w Bot. reg. 1830
- 17994 - - *Forbesii* Hook. Forbes's £ 2 or 1 o S.v Org.Mnts.1837. D p.r.w Bot. mag.3705
- 17995 - - *raniferum* Lindl. frog-bearing £ 2 pr 1 au.s Y.spt Brazil 1838. D p.r.w Bot. reg.n.s.43
- \*2807. - - FERNANDE'ZIA R. & P. (*George Garcias Fernandez*, a Spanish bot.) *Orch. Vándæa.* Sp. 1-2.  
 17996 - - *élegans* B. R. elegant £ 2 cu ¾ in.jl Y Trinidad 1817. D p.r.w Bot. mag. 2715  
     *Lockhartia elegans* Hook.
- \*2808. - - SCAPHYGLÓTTIS Pöp. (*Skaphe*, boat, *glotta*, a tongue; labellum.) *Orchid. Vándæa.* Sp. 1-1.  
 17997 - - *violæea* Lindl. violet-clid-flwd £ 2 cu ¾ f R.v Demer. ... D p.r.w Bot. reg. 1901



- 17966 Labellum constricted in the middle, Lvs. obl. acute at both ends on short petioles  
 17967 Labellum constricted in the middle ovate acuminate
- 17968 Leaves obovate obl. 5-plicate lateral, Sepals truncate at top with acute angles which are drawn out into two tendrils.
- 17969 Lvs. broad lanceol. Scapes nodding many-flwd, Labellum spotted with purple inside
- 17970 Scape short pendulous, Raceme dense, Middle lobe of labellum curled on the margin Column wingless
- 17971 The only species
- 17972 The only species
- 17973 Stem fleshy, Lvs. ensif. plicate, Scape radical
- 17974 Lvs. lanceol. pubesc. Heads imbricate termin.
- 17975 Petals obl. lanceol. acutish, Lateral lobes of labellum rounded, Perianth ovate
- 17976 Scales radical distant, Labellum straight with a pubescent disk
- 17977 Lvs. lin. lanceol. acumin. shorter than scape, Perianth spreading, Labellum fringed in the margin  
 [lum obovrd. pubesc.
- 17978 Lvs. lorately lanceol. striat. recurved at apex shorter than raceme, Sepals and petals obl. lanceol. acute, Labellum  
 [obovate
- 17979 Lvs. lanceol. undul. acumin. longer than flexuose raceme, Sepals and petals ovate obl. acute. Labellum  
 17980 Lvs. lanceol. striat. longer than racem. Racemes many-flwd. Sepals and petals ovate lanceol. acute, Lobes of labellum obl. Lateral ones erect, Middle one large reflexed
- 17981 Sepals and petals ovate acumin. tessellated, Labellum unguiculate concave, Hood of column crested
- 17982 The only species
- 17983 Stems fusiform fleshy, Lvs. lanceol. plic. Scape radical many-flwd. Sepals lanceol. Petals obl. convulvng
- 17984 Lvs. obov. obl. on short petioles length of scape, Flws. ventricose, Sepals awned
- 17985 The only species
- 17986 The only species
- 17987 Racemes pendulous, Anterior sepal 2-lobed at apex, Upper sepal as well as the petal obtuse, Labellum furnished with two rows of fleshy lamellæ
- 17988 The only species
- 17989 Scape tall paniced, Sepals and petals obl. obtuse spreading [free, Petals obl. undul.  
 17990 Pseudo-bulbs very small 2-lvd. Lvs. compressed acum. sulc. above, Scape few-flwd. Sepals small spatul. apicul.  
 17991 Leaf erect fleshy, Scape tall paniced, Sepals ovate obtuse upper one arched, Petals obl. obtuse undulated, Labellum large 3-lobed [undulated margins
- 17992 Bulbless, Lvs. obl. acute striat. fleshy, Scape compound racemose, Sepals and petals obl. obtuse concave with subundul. Lamellæ on the disk of labellum truncate
- 17993 Pseudo-bulbs ovate ribbed 2-lvd. Lvs. ligul. lanceol. Raceme few-flwd. radical, Sepals and petals ovate obl. subundul. Lamellæ on the disk of labellum truncate
- 17994 Pseudo-bulbs obl. furrowed compressed, Leaf lanceol. coria. Scape paniced many-flwd. Petals and sepals obovate undulated, Disk of labellum tubercularly crested at the base [acute spreading
- 17995 Pseudo-bulbs ovate furrowed 2-lvd. Lvs. broad linear shorter than the paniced scape, Sepals and petals oblong
- 17996 Lvs. ovate obtuse keeled, Flws. paniced, Labellum hastate, Lateral lobes acuto, Middle lobe oblong obtuse
- 17997 Lvs. lin. emarginate at the apex, Flws. usually twin, Labellum lin. apicul. repand



- \*2810. - *DICHÆA Lindl.* DICHÆA. (*Diche*, in two rows; disposition of leaves.) *Orch. Vandæe.* Sp. 1-3.
- 17998 - *graminoides* Grass-like  $\text{E} \Delta$  cu 1 au St Guiana 1823. D p.r.w Hook. ex. fl.
- \*2811. - *MILTONIA Lindl.* (*Kamara*, a chamber, *ous*, an ear; top of labellum.) *Orch. Vand.* Sp. 1-1.
- 17999 - *spectabilis Lindl.* showy  $\text{E} \Delta$  or 1 ... R.g Brazil 1835. D p.r.w Bot. reg. 1992
- Macrochilus Frydæus K. & W. Fl. cab. 45.*
- \*2812. - *CYRTOCHLUM H. & K.* (*Kyrtos*, convex, *cheilos*, lip; labellum.) *Orchid. Vandæe.* Sp. 1-4.
- 18000 - *bictoniense Bate.* Bicton  $\text{E} \Delta$  or 2 n R Guatem. 1836. D p.r.w Bate. orch. 6
- \*2813. - *TETRAPFLITIS Wall.* (*Tetra*, four, *pette*, buckler; pollen masses.) *Orchid. Vandæe.* Sp. 1-1.
- 18001 - *frāgrans Wall.* sweet-scented  $\text{E} \Delta$  or ... W Nepal ... D p.r.w
- \*2814. - *PHALENO'PSIS Blume.* (*Phalaina*, a moth, *opsis*, resemblance.) *Orchid. Vandæe.* Sp. 1-1.
- 18002 - *amabilis Blume* lovely  $\text{E} \Delta$  or 1½ ju W.n.y Manila 1836. D p.r.w Bot. reg. n.s.34
- \*2815. *CAMAROTIS Lindl.* (*Kamara*, a chamber, *ous*, an ear; top of labellum.) *Orch. Vand.* Sp. 1-0.
- 18003 - *purpurea Lindl.* purple  $\text{E} \Delta$  or 1 ... P India 1838 D p.r.w
- \*2815. *MICROPERA Lindl.* MICROPERA. (*Mikros*, small, *pera*, pouch.) *Orchid. Vandæe.* Sp. 1-3.
- 18004 - *pallida* pale-coloured  $\text{E} \Delta$  or 2 ... Y Silhet ... O m.s
- \*2817. - *SACCOLABIUM Blume.* (*Saccus* a sack, *labium*, a lip; labellum.) *Orchid. Vandæe.* Sp. 1-4.
- 18005 - *papillosum Lindl.* pimples  $\text{E} \Delta$  or 1 a.u.s W.spot Inds 1828. D p.potsh. Bot. reg.1582
- \*2819. - *CECOC'LADES Lindl.* (Probably from *oikeo*, to inhabit, *klados*, a branch.) *Orch. Vand.* Sp. 2-2.
- †12979 *falcata Lindl.* falcate  $\text{E} \Delta$  pr ½ n.d W China 1815. D p.r.w Bot. mag.2097
- Angræ cum falcatum in p. 764., No. 12978. is also referable to this genus.*
- 1921. *ANGRÆCUM.* *Orchid. Vandæe.* Sp. 3-5.
- 18006 - *eburneum Thou.* ivory-lipped  $\text{E} \Delta$  or 1½ n.ja G.w Madagas. 1826. D p.r.w Bot. reg. 1522
- 18007 - *caudatum Lindl.* tailed-labellumed  $\text{E} \Delta$  cu 1½ au W.y.g S.Leone 1834. D r.w Bot. reg. 1844
- \*2820. - *TRICHOCE'NTRUM Pöp.* (*Thrix*, hair, *centron*, spur or centre.) *Orchid. Vandæe.* Sp. 1-1.
- 18008 - *fiscum Lindl.* brown-tued  $\text{E} \Delta$  cu ½ jl G.w.p.Mexico 1835. D p.r.w Bot. reg.1951
- \*2821. - *BONATEA W.* BONATEA. (*Bonato*, prof. of botany at Padua.) *Orchid. Ophrydæe.* Sp. 1-1.
- 18009 - *speciosa W.* showy  $\text{E} \Delta$  el 2 au W C. G. H. 1820. D s.p Bot. cab. 284
- \*2822. - *CYNO'RCHIS Thou.* Dog ORCHIS. (*Kyon*, a dog, *orchis*.) *Orchid. Ophrydæe.* Sp. 1-1.
- 18010 - *fastigiata Lindl.* fastigate  $\text{E} \Delta$  cu ½ ap G.b I. France 1835. R s.l Bot. reg. 1998
- \*2823. - *PTERYGO'DIUM Swz.* (*Pterygodes*, wing-like; sepals.) *Orchid. Ophrydæe.* Sp. 1-2.
- 18011 - *alatum Swz.* winged  $\text{E} \Delta$  or 1 jn.au ... C. G. H. 1821. R 1.p
- \*2824. - *CORYCIUM Swz.* CORYCIUM. (*Korys*, a helmet; form of flower.) *Orchid. Ophrydæe.* Sp. 1-2.
- 18012 - *orobanchoides Swz.* Orobanche-like  $\text{E} \Delta$  or ½ jn.au Y.p C. G. H. 1825. R 1.p Bot. reg. n. s. 45
- \*2825. - *DISPER S Swz.* (*Dis*, two, *pera*, pouch; outer lateral segms. of perian.) *Orchid. Op* Sp.1-3.
- 18013 -  *cucullata Swz.* hooded  $\text{E} \Delta$  or ½ jn.jl P C. G. H. 1822. R 1.p
- \*2826. - *GASTRO'DIA R. Br.* (*Gaster*, a belly, *odous*, a tooth; top of column.) *Orchid. Gastrodiæe.* Sp.1-1.
- 18014 - *sesamoides R. Br* Sesamum-like  $\text{E} \Delta$  cu ½ ap.my W N. Holl. 1826. D p.r.w
- \*2827. - *CORYSANTHES R. Br.* (*Korys*, helmet, *anthos*, fl.; helmet large.) *Orch. Arethasæe.* Sp. 1-3.
- 18015 - *fimbriata R. Br.* fringed  $\text{E} \Delta$  or ... jl.au D.Br N. Holl. 1824. R p.l Par. lon. 83?
- \*2828. - *PTERO'STYLIS R. Br.* (*Pteron*, wing, *stylos*, style; col. at top winged.) *Orch. Areth.* Sp. 1-2.
- 18016 - *Banksii R. Br.* Banks's  $\text{E} \Delta$  cu 1½ d Y.w N. Zeal. 1826. D p.l Bot. mag. 3172
- \*2829. - *GLOSSO'DIA R. Br.* (*Glossa*, tongue, *eidos*, like; append. within fl.) *Orchid. Areth.* Sp. 1-2.
- 18017 - *minor R. Br.* smaller  $\text{E} \Delta$  pr ... jn.au B N. Holl. 1824. R p.l
- \*2830. - *CHLORE'A Lindl.* CHLOREA. (*Chloros*, green; hue of the flower.) *Orchid. Arethasæe.* Sp. 1-1.
- 18018 - *longibractæata Benth.* long-bracted  $\text{E} \Delta$  cu 1 s.o W.Y Chile 1837. D 1.p Botanist, 94.
- \*2831. - *CALADE'NIA R. Br.* (*Kalos*, beautiful, *aden*, gland; disk of labellum.) *Orch. Areth.* Sp. 1-9.
- 18019 - *carnea R. Br.* flesh-coloured  $\text{E} \Delta$  or ... P N. Holl. 1826. R p.l
- \*2832 - *ERIOCHI'PLUS R. Br.* (*Erion*, wool, *cheilos*, lip; disk of labell. pubesc.) *Orch. Areth.* Sp. 1-1.
- 18020 - *autumnalis R. Br.* autumnal  $\text{E} \Delta$  or 1 n.d R N. Holl. 1823. R p.l Lab. n.h.2.211.2
- Epipactis cucullata Lab.*
- \*2833. - *CHILOGLO'TTIS R. Br.* (*Cheilos*, lip, *glotta*, tongue; app. to lip.) *Orch. Arethasæe.* Sp. 1-1.
- 18021 *diphylla R. Br.* two-leaved  $\text{E} \Delta$  or ½ ... R N. Holl. ... R p.l Bauer n. h. 8
- \*2834. - *CYRTO'STYLIS R. Br.* CYRSTOSTYLIS. (*Kyrtos*, convex, *stylos*, style.) *Orch. Areth.* Sp. 1-1.
- 18022 - *reniformis R. Br.* reniform-leaved  $\text{E} \Delta$  cu ½ my.jn ... N. Holl. 1823. D p.l
- \*2835. - *MICRO TIS R. Br.* (*Mikros*, small, *ous*, ear; auricle on each side of column.) *Orch. Areth.* Sp. 1-4.
- 18023 - *alba R. Br.* white  $\text{E} \Delta$  cu 1 my.jn W N. Holl. 1826. R 1.p



17998 Stems erect, Lvs. lin. acute, Petals and sepals acute, Labellum cuneately sagittate, Capsule glabrous

17999 The only species

18000 Pseudo-bulbs oblong compressed, Lvs. linear ensif. Raceme secund terminal many-fwd

18001 The only species

18002 The only species

18003 The only species

18004 The only species

18005 Lvs. ligulate oblique at the apex cuspidate, Racemes very short capitate, Sepals fleshy lin. ovate obtuse

18006 Stem simple, Lvs. coriac. shining, Spikes many-fwd. secund, Labellum cord. cusp. Spur parallel with the  
 18007 Lvs. lorate channelled emarginate, Spike radical pend. flex. 4-fwd. Labellum obovate beaked serrulated, Spur  
 very long

18008 Lvs. obl. acute obliquely twisted longer than the racemes, Labellum glabrous bilamellate at the base, Wings  
 of column serrated

18009 Stem leafy, Lvs. obl. subundul. Raceme many-fwd. compact, Bracteas cucul. acumin. Flws. gateate, Petals  
 bipartite

18010 Lvs. twin radical obl. lanceol acumin. Stem furnished with one scale, Raceme corymbose, Labellum 4-parted,  
 Spur very long filiform

18011 Stem many-lvd. Lvs. broad lanceol. Labellum 3-lobed, Middle lobe very narrow

18012 The only species

18013 Stem 2-lvd. 1-fwd. Lvs. obl. pubesc. beneath as well as the bracteas, Ovarium glabrous

18014 The only species

18015 Labellum spurless cucullate at the bottom and dilated at top with inflexed fringed margins

18016 Stem leafy 1-fwd. Lvs broad lanceol. keeled below and sheathing at the base, Labellum obl. bluntish somewhat  
 uncinat equal in length to the column

18017 Appendage 2-partite, Lobes parallel and blunt

18018 The only species

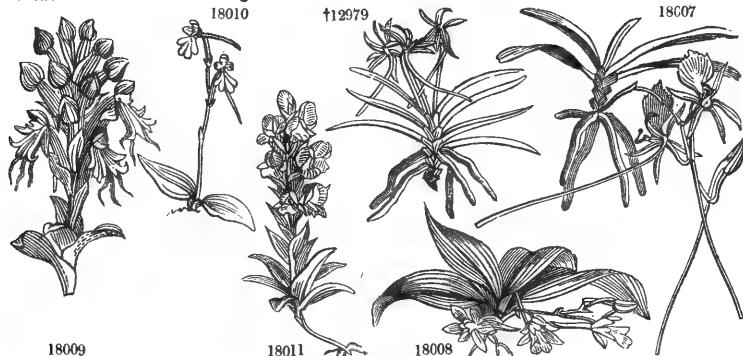
18019 Sepals acute, Column and labellum striped, Glands in 2 rows, Middle lobe fringed, Disk naked

18020 The only species

18021 The only species

18022 The only species

18023 Lower sepals revolute inner ones linear, Lower half of labellum linear upper half dilated and bifid with a  
 thickened disk and undulated margins



- \*2836. - PELE'XIA *Poit.* PELEXIA. (*Pelex*, a helmet; large.) *Orchidææ Neottiææ.* Sp. 1—1.
- 18024 - spiranthides *R. Br.* Spiranthes-like  $\text{♀} \square \square$  or  $\frac{2}{3}$  ap W W. Indies 1823. D 1 p Bot. reg. 985.  
Neottia adnata *Swz.*
- \*2837. - SAUROGLO'SSUM *Lindl.* (*Saura*, a lizard, *glossa*, a tongue.) *Orchid. Neottiææ* Sp. 1—1.
- 18025 - elatum *Lindl.* tall  $\text{♀} \square \square$  pr  $1\frac{1}{2}$  mr W. ysh Brazil 1832. D s.p Bot. reg. 1618
- \*2838. - ANECTOCHYLUS *Blume.* (*Anoiktos*, open, *cheilos*, lip; apex spreading.) *Orch. Neottiææ.* Sp. 1—1.
- 18026 - setaceus *Blume.* fringe-flowered  $\text{♀} \square \square$  cu  $\frac{1}{2}$  jn R.w.g Java 1836. D p.r.w Bot. reg. 2010
- \*2839. - CRA'NICHIS *Swz.* CRANICHIS. (*Kranos*, a helmet; form of flower.) *Orchid. Neottiææ.* Sp. 1—8.
- 18027 - muscosa *Swz.* Moss  $\text{♀} \square \square$  cu  $\frac{1}{2}$  ... ... Jamaica ... D s.p
- \*2840. - CALOCHYLUS *R. Br.* (*Kalos*, beautiful, *cheilos*, lip.) *Orchid. Neottiææ.* Sp. 1—2.
- 18028 - campêstris *R. Br.* field  $\text{♀} \triangle \square$  or  $\frac{2}{3}$  ... Br N. Holl. 1824. D 1 p
- \*2841. - PRASOPHYLLUM *R. Br.* (*Prason*, leek, *phyllo*, leaf; similarity.) *Orchid. Neottiææ.* Sp. 1—7
- 18029 - fuscum *R. Br.* brown  $\text{♀} \triangle \square$  or 1 ... Br N. Holl. 1824. R 1 p

HEXANDRIA.

- 1934. ARISTOLO'CHIA. Sp. 27—38
- 18030 18011a caudata *Lindl.* tailed-lipped  $\frac{2}{3} \square \square$  cu 5 jn Ld Brazil 1828. Sk lt.l.r Bot. reg. 1453
- 18031 18019a chilensis *Lindl.* Chilian  $\frac{2}{3} \square \square$  cu 6 s P.G Chile 1832. D s.l Bot. reg. 1680
- 18032 18030a cymbifera *Mart.* boat-flowered  $\frac{2}{3} \square \square$  or 20 jl.au Y.P St. Paul 1829. C p.l Bot. reg. 1543
- 18033 - trifida *Lam.* triid-leaved  $\frac{2}{3} \square \square$  cu 15 ...Gsh. Y.B.R Caraccas ... C p.l Botanist, 3
- 18034 - - saccata *Wall.* pouch-flowered  $\frac{2}{3} \square \square$  cu 20 s Y.psh.R Silhet 1829. C 1.p Bot. mag. 3640
- 18035 - - ciliosa *Benth.* fringed  $\frac{2}{3} \square \square$  cu 6 s P.G N.Patag. 1836. C s.l.p Botanist, 96.

Page 768. CLASS XXI. — MONECIA.

Order 2. DIANDRIA. Stamens 2.

2842. *Ceratola* Cal. 2-ld. membranaceous, with 4 scales at base. Petals 2, converging into a tube. Stamens 2. Stigma 6-cleft. Berry globose, 2-stoned.

Order 4. TETRANDRIA. Stamens 4.

2843. *Sarcococca*. Flowers monecious. Calyx of male flowers 4, equal sepals. Stamens 3-4 exerted. Calyx of female flower of many imbricated sepals. Ovarium 2-celled. Cells 2-seeded. Stigmas 2, sessile. Drupe 1-celled, 1-seeded.

DIANDRIA.

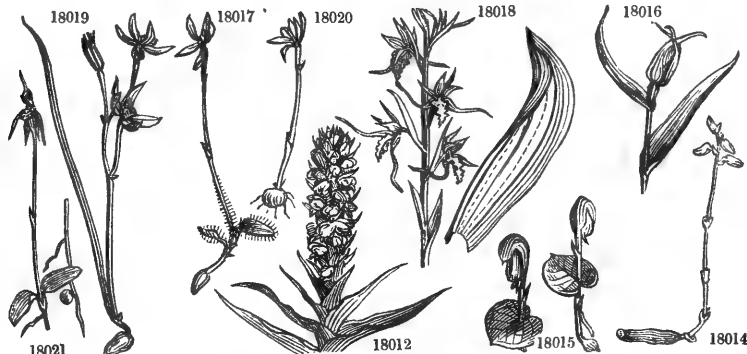
- 2842. \*1940a. CERATI'OLA *L.* CERATIOLA. (*Keraton*, a little horn; stigma.) *Empetrææ.* Sp. 1—1.
- 18036 - - ericoides *L.* Heath-like  $\text{♀} \square \square$  pr  $1\frac{1}{2}$  jn.jl Br N. Amer. 1826. C s.p Bot. mag. 2758

TETRANDRIA.

- 2843. \*1957a. SARCOCO'CCA *B. R.* (*Sarz*, flesh, *kokkos*, a berry; substance of.) *Euphorbiææ.* Sp. 1—1.
- 18037 - - pruniförmis *B. R.* plum-shaped  $\text{♀} \square \square$  or 4 jn.jl Pa. Y Nepal 1820. C p.l Bot. reg. 1012

POLYANDRIA.

- 1989. BEGO'NIA. Sp. 32—54.
- 18038 13349a sanguinea *Rad.* bloody-lvd  $\text{♀} \square \square$  or  $1\frac{1}{2}$  ap.au W Brazil 1832. D co Bot. mag. 3520



History, Use, Propagation, Culture,

2842. *Ceratola* 18036 *ericoides* is a small heath-like evergreen shrub, grown in British gardens in peat soil, and may be propagated by cuttings.

18024 The only species

18025 The only species

18026 Lvs. ovate or oval acute discoloured, Spike generally 4-fwd. Outer sepals pubescent, Labelum multifid towards the base, Sack of labelum subdidymous

18027 Root fasciated filiform tomentose, Radical lvs. spatulate ovate, Cauline ones sheathing, Flowers spreading, Labellum dotted inside

18028 Labellum a little longer than the perianth furnished with a semilanceol. acum. point, Column 2-gland. at the base, Spike 4-8-fwd.

18029 Ovaria obovate 3 times longer than bractea, Sepals acumin. hind ones cohering at the base

HEXANDRIA.

- [Lip. cord. cuspid. the cusp twisted filiform  
 18030 Lower lvs. renif. 6-angular 3-lobed, Upper lvs. 3-partite, Cal. cylind. ventricose and 6-spurred at the base,  
 18331 Lvs. renif. emarg. undul. pubesc. beneath, Limb of cal. ventric. at base obl. oblique emarg. on both sides  
 peduncul. 1-fwd. bractless pubesc. [one longer inflated with a broad emarg. undul. lamina  
 18032 Glabrous, Lvs. cord. renif. Flws. solit. Tube obov. Limb cylind. bilabiate, Upper lip. lanceol. acute, Lower  
 18033 Glabrous, Stems furrow. Lvs. 3-lobed, Cal. cylind. incurv. Lip. cord. cusp. Appendage 6-parted reflexed  
 [more silky ben. th. above, Flws. forming large pouch, Throat circular vertical  
 18034 Lvs. 12 to 15 in. long and 4 in. broad scatt. ovato-cord. atten. at apex slightly waved and sinuat. ent. edges  
 18035 Glabrous, Lvs. cord. renif. Peduncul. 1-fwd, Tube of perianth obliquely ventric. at base stretched out from  
 the mid. to the apex cylindrical, Limb orbicul. ciliated.

Order 7. POLYANDRIA. Stamens more than 6.

2844. *Pterocarya*. Male flws. in spikes. Stams. in a flower many. Female flws. in long pendulous spikes, and distant, sessile, and without bractea. Cal. connate with the ovary, except in a terminal portion, which is cleft into ? 3-5 unequal lobes. Ovary, and the part of the cal. that is connate with it, taken together, flaggon-sh., bearing 2 wings above the base. Cell 1. Ovule 1, erect. Fruit subdrupaceous, angled, not opening, containing a bony nut. Embryo without albumen.

Order 8. MONADELPHIA. Stamens united into a single body.

2845. *Picea*. Differs from *Pinus* and *Abies* in having the cones erect. The strobile is cylindrical, and has its carpels not thickened at the tip. Both carpels and bractea separate from the axis of the strobile; and the leaves are obviously 2-ranked in direction.

DIANDRIA.

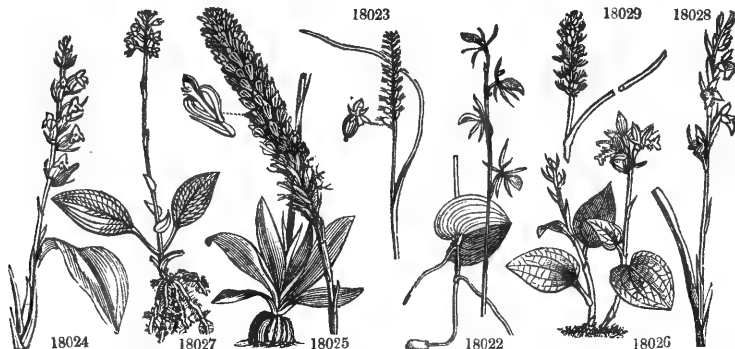
18036 Flws. in axils of upper lvs. solitary except a small abortive one by the side of the principal flower

TETRANDRIA.

18037 The only species

POLYANDRIA.

18038 Stems several from crown of root, Lvs. subpelt. uneq.-cordate acumin. [both surfs. green ab. blood-red ben. leathery succulent glabr. and shining on



and Miscellaneous Particulars.

2843. *Sarcobacca*. The stigmas of this plant are so like those of the common box, that, in the absence of fruit, there would be little apparent reason to suspect a difference from *Buxus*, to which genus the narrow-leaved variety bears a great resemblance.



|       |         |   |   |         |             |       |                     |          |   |      |                |
|-------|---------|---|---|---------|-------------|-------|---------------------|----------|---|------|----------------|
| 19039 | 13350a  | <i>semperflorens Lk.</i>  | ever-flowering                          | ☐ or 2  | ap.s        | Pk    | Brazil              | 1829.    | C | l.p  | Bot. mag. 2920 |
| 18040 | -       | <i>diversifolia Grah.</i>   | various-leaved                          | ☐ or 1  | o           | Pk    | Mexico              | 1829.    | C | l.p  | Bot. mag. 2966 |
| 18041 | 13351a  | <i>papillosa Grah.</i>  | papillose                               | ☐ or 3  | ap.s        | Pk    | Brazil              | 1826.    | C | l.p  | Bot. mag. 2846 |
| 18042 | -       | <i>insignis Grah.</i>   | remarkable                              | ☐ or 2  | d           | Pk    | S. Amer.            | 1826.    | C | l.p  | Bot. mag. 2900 |
| 18043 | 13343a  | <i>villosa B. R.</i>  | villous                                 | ☐ or 2  | jl          | W     | S. Amer.            | ...      | S | l.p  | Bot. reg. 1252 |
| 18044 | -       | <i>dipetalata Grah.</i>   | two-petaled                             | ☐ or 3  | ap.s        | Pk    | Bombay              | 1827.    | C | l.p  | Bot. mag. 2849 |
| 18045 | -       | <i>longipes Hook.</i>   | long-pedicelod                          | ☐ or 3  | mr.au       | W     | Mexico              | 1828.    | C | p.l  | Bot. mag. 3001 |
| 18046 | -       | <i>heracleifolia S. &amp; C.</i>  | Heracleum-lfd                           | ☐ or 2  | year        | Ro    | Mexico              | 1831.    | D | r.m  | Bot. reg. 1668 |
| 18047 | -       | <i>Fischeri Otto</i>  | Fischer's                               | ☐ or 1  | 1/2 f.mr    | W     | ...                 | 1835.    | C | l.p  | Bot. mag. 3532 |
| 18048 | -       | <i>geraniifolia Hook.</i>   | Geranium-lfd                            | ☐ or 1  | 1/2 s       | W.R   | Lima                | 1833.    | D | lt   | Bot. mag. 3387 |
| 18049 | -       | <i>monoptera Otto</i>   | one-winged                              | ☐ or    | au          | W     | Brazil              | 1829.    | D | l.p  | Bot. mag. 3564 |
| 18050 | -       | <i>octopétala Herit.</i>  | eight-petaled                           | ☐ or 2  | o.n         | Gsh.W | Peru                | 1835.    |   | l.p  | Bot. mag. 3559 |
| 18051 | -       | <i>grandiflora Fl. Cab. 25.</i>   | grandiflora                             |         |             |       |                     |          |   |      |                |
| 18051 | -       | <i>parvifolia Otto</i>  | small-leaved                            | ☐ or 3  | year        | W     | C. G. H.            | 1835.    | C | l.p  | Bot. mag. 3720 |
| 18052 | -       | <i>petalodes Lindl</i>  | petaled                                 | ☐ or 1  | ap          | Ro.w  | Brazil              | 1832.    | C | lt.l | Bot. reg. 1757 |
| 18053 | -       | <i>platanifolia Pax.</i>  | Plane-tree-lvd                          | ☐ or 10 | s           | Pksh  | Brazil              | 1829.    | C | lt.l | Bot. mag. 3591 |
| 2844. | *1999b. | PTEROCA'RYA Kth.  | (Pteron, a wing, karya, common walnut.) |         |             |       | <i>Juglandaceæ.</i> | Sp. 1—1. |   |      |                |
| 18054 | -       | <i>caucásica Kth.</i>   | Caucasian                               | ☐ or 4  | tm 40 ap.my | Ap    | N. Amer.            | ...      | S | co   | A. b. pl. 199  |
|       |         | <i>Juglans fraxinifolia Lam., J. pterocarpa Mx., Rhus obscura Bieb., Fraxinus levigata Hort. Par.</i> |   |         |             |       |                     |          |   |      |                |

MONADELPHIA.

†2012. *PTNUS L.* PINE. (*Pinos*, Gr., used by Theophrastus to designate the pine tree. *Pinos* has for its root *pinos*, which signifies fat; because the trees of this genus furnish pitch and tar. Others derive the word from *pin*, or *pyra*, a mountain or rock, *Celti.*; habitat.) *Coniferæ.* Sp. 40—40.

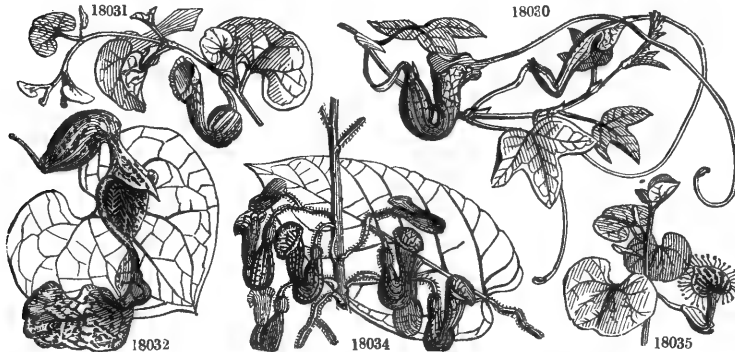
I. BIRNĒ. — Leaves generally two in a sheath.

I. SYLVE'STRES.

|       |  |                          |   |       |       |    |  |       |     |                     |                   |
|-------|--|--------------------------|---|-------|-------|----|--|-------|-----|---------------------|-------------------|
| 13502 | <i>sylvēstris L.</i>                                 | wood, Scotch             | ♂ | m 80  | my    | Ap | Scotland sc.alp                          | S     | s.l | Lamb. pin. 1. 1     |                   |
|       | 1 <i>vulgāris A. b. f. 2046</i>                      |                          |   |       |       |    | 3 <i>uncinata A. b. f. 2047</i>          |       |     | 5 <i>rigēnsis</i>   |                   |
|       | 2 <i>horizontalis</i> (Highland Pine, Speyside Pine) |                          |   |       |       |    | 4 <i>haguēnsis</i>                       |       |     | 6 <i>genevēnsis</i> |                   |
| 13503 | <i>pumilio Hæ.</i>                                   | dwarf                    | ♂ | or 12 | ap.my | Ap | Carniola                                 | 1779. | S   | s.l                 | Lamb. pin. 5      |
|       | 2 <i>rubræflōra</i>                                  |                          |   |       |       |    | 3 <i>Fischeri</i>                        |       |     |                     |                   |
| 13506 | <i>Banksiāna Lamb.</i>                               | Banks's Scrub            | ♂ | or 12 | my.jn | Ap | Huds. Bay                                | 1785. | S   | s.l                 | Lamb. pin. 7. 3   |
| 13512 | <i>inops Ait.</i>                                    | poor, Jersey             | ♂ | tm 50 | my    | Ap | N. Amer.                                 | 1739. | S   | s.l                 | Lamb. pin. 18. 13 |
| 13514 | <i>mltis Mx.</i>                                     | soft-leaved              | ♂ | tm 50 | my.jn | Ap | N. Amer.                                 | 1739. | S   | s.l                 | A. b. f. 2072-6   |
|       | <i>P. variabilis Pursh,</i>                          | Lamb. pin. ed. 2. l. 14. |   |       |       |    | A. b. f. 2131. and No. 13514. in p. 802. |       |     |                     |                   |
| 13505 | <i>pūngens Mx.</i>                                   | prickly coned            | ♂ | tm 50 | ...   | Ap | N. Amer.                                 | 1804. | S   | s.l                 | Mic. ar. 1. 61. 5 |

II. LARICIONES.

|       |                      |                     |   |       |     |    |   |       |   |     |                     |
|-------|----------------------|---------------------|---|-------|-----|----|---|-------|---|-----|---------------------|
| 13504 | <i>Laricio Poir.</i> | Corsican Larch      | ♂ | tm 80 | ... | Ap | Corsica                                       | 1814. | S | s.l | Lamb. pin. 2. 28. 9 |
|       | 1 <i>corsicāna</i>   |                     |   |       |     |    | 3 <i>caramānica, syn. P. romāna H. cel. P</i> |       |   |     |                     |
|       |                      | 2 <i>subviridis</i> |   |       |     |    |   |       |   |     |                     |



History, Use, Propagation, Culture

2844. *Pterocarya* 18054 *caucásica*. This tree is "sufficiently hardy to be classed among ornamental trees of the third rank. It is readily propagated by layers. For small gardens and diminutive arboretums this tree may serve very well to exemplify the *Juglandaceæ*. Care should be taken to train it to a single stem, and not to plant it in soil so rich and moist as to prevent it from ripening its wood. Perhaps something might be gained, in point of hardness by grafting it upon the common walnut." (*Arb. Brit.*, vol. iii. p. 1452.)

- 18039 Very smooth, Lvs. ov.-rotund. obt. at base rarely little cord. uneq. apicul. Marg. minutely serrat. subciliat. Largest wing of cap. trian. projecting
- 18040 Smth. and shining herbac. Stem obscurely angled transparent. Root lvs. renif. nrly eq. at base broadly cren. on long pets. Stem lvs. sublob. sharply and uneq. serrat. Upper ones uneq. cord.
- 18041 Stem erect terete, Lvs. very uneq. cord. acumin. somewh. undul. and bullate crisped, Upper surf. bright green shining occasionally spot. with white having distant papillæ red ben.
- 18042 Lvs. altern. on smooth shining pets.  $\frac{1}{2}$  length of lvs. uneq. cord. acumin. slightly concave pale green and sparingly strig. ab. paler or red ben. obscurely lbd. dbly. serrat.-ciliat. crisped
- 18043 Lvs. semicord. obsolete to toothed obtuse, Petioles and branches villous larger, Wing of capsule roundish
- 18044 Lvs. semicord. acute somewh. lbd. uneq. and doubly serrato-dent. above green with white spots below blood-cld. when old blanched, Wings of cap. rounded subequal
- 18045 Stem thick rough with thick short hairs or glands, Lvs. altern. large a span or more long sheathed when young with ov.-obl. decid. bractea very uneq. rotund-cord.
- 18046 Lvs. all radic. bright green ab. paler ben. subpelt. cord-palm. hairy with 7 strong radiating nrvs. very promin. bel. Lbs. lanceol. obl. undulat. sinuate unequal [Bright red ben. M. flws. 4-pet. F. flws. 6-pet.
- 18047 Stem erect swollen at joints red, Lvs. uneq. cord. acute indistinctly sinuat. glabr. on both surfs. when young
- 18048 Very smooth, Lvs. equally cord. plaited cut into many uneq. very acute inciso-serrate lvs. Margin red, M. flws. 4-pet. Outer and larger alm. orbic. and red, 2 inner obov. waved white
- 18049 Stem erect genicul. and swollen at joints dull red minutely papill. and downy, Rad. lvs. somewh. renif. trunc. at base, Stem lvs. rndsh. obliq.-cuneat. papill. and red ben. Germ. 1-winged
- 18050 Stemless, Lvs. on long succul. downy pets. cord. dply. lbd. and serrat. slightly downy, M. flws. 2 in. in diam. of 8-9 obov. spreading uneq. pets. F. flws. smaller generally 6 pets.
- 18051 Suffrutic. glabr. Lvs. unequally cord. at base pale and crystalline ben. with promin. reddish veins, Lbs. subacute distantly serrat. with minute bristle on base of each fissure
- 18052 Lvs. equal-sided orbicular 5-9-lobed serrated cucullated, Male flowers of 2 sepals and 2 petals, Female flowers of 4 sepals and 4 petals, Wings of fruit nearly equal.
- 18053 Shrubby, Lvs. altern. pet. renif. nrly. eq. at base hispid on both surfs. Lobes acute contort. serrulato-dentic. Stips. oppos. ov. acute invol. herbac.
- 18054 Lvs. with about 19 lifts. ovate-oblong acuminate argutely serrat. glabr. each with lower side of its base attached the petiole

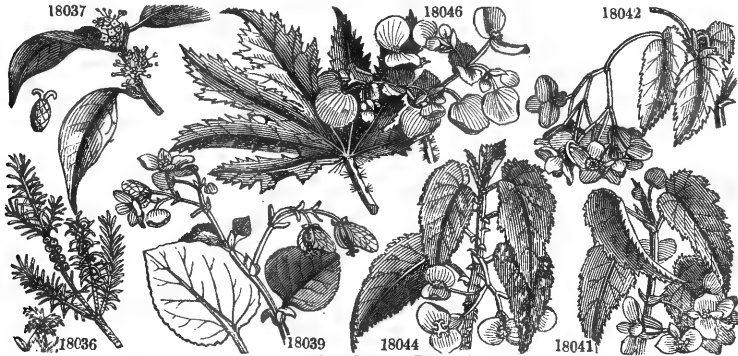
MONADELPHIA.

\* Cones having the scales without prickles.

- 13502 Lvs. rigid in pairs, Young cones stalked recurved, Crest of the authers very small, Lvs. somewhat waved and [twisted, Edges finely serrulated
- |              |              |             |
|--------------|--------------|-------------|
| 7 monophylla | 9 intermèdia | 11 tortuosa |
| 8 scariosa   | 10 altaica   |             |
- 13503 Bran. generally recumb. Lvs. short stiff somewhat twist. thickly distrib. over bran. with long lacerat. woolly white sheaths, Cones  $1\frac{1}{2}$ -2 in long. and  $\frac{1}{4}$ -1 in. broad.
- 4 *Mughus*; syn. No. 13507., *P. montana* Baum. Cat., 5 nana A. b. f. 2062  
 echinata Hort., uncinata Dec. (*Knee Pine*)
- 13506 Lvs. in pairs, divaric. oblique  $1-1\frac{1}{2}$  in. long, Cones recurved twisted  $1\frac{1}{2}$ -2 in. long, Crest of anthers dilated

\*\* Cones large, having the scales furnished with prickles.

- 13512 Lvs. in pairs  $1\frac{1}{2}$ -2 $\frac{1}{2}$  in. long, Cones drooping oblong-conic.  $2\frac{1}{2}$ -3 $\frac{1}{2}$  in. long and  $1-1\frac{1}{2}$  in. broad, Scales awl-sh. with promin. prickles, Crest of anth. short broad jagged [small slender mucro pointing outwards
- 13514 Lvs. long slend.  $2\frac{1}{2}$ -4 in. long, Cones small ovate-conic. 2 in. long and 1 in. broad, Scales termin. in a very
- 13505 Lvs. short and thickly set  $2\frac{1}{2}$  in. long including sheath, Cones top-sh. very large yellow  $3\frac{1}{2}$  in. long and  $2\frac{1}{2}$  in. broad, Scales with hard incurv. prickl. thick broad at base
- 13504 Lvs. lax twice length of cones 4-6 in. long, Cones conical often in pairs rarely in threes or fours varying from 2-4 in. and more in length, Scales very slightly pointed



and Miscellaneous Particulars.

2012. *Pinus*. For information relative to this genus, see p. 802. 804.; and also for extensive and valuable information relative to Conifere generally, too extensive for the limits of this work, see *Arboretum et Fruticetum Britannicum*, vol. iv. p. 2103. 2152; and relative to the Scotch Fir, p. 2153. 2166.

|       |        |  |                            |           |             |         |          |       |     |   |
|-------|--------|--|----------------------------|-----------|-------------|---------|----------|-------|-----|---|
| 18055 | 13504a | austrilaca Hoss  | Austrian, <i>Black</i> ♀   | tm ... .. | Ap          | Austria | 1835.    | S     | s.l | A. b. f. 2005   |
| 18056 | 13504b | Pallasiana Lamb.   | Pallas's                   | ♀         | tm 60 my    | Ap      | Siberia  | 1820. | S   | s.l Lamb.pin.2.1.1  |
| 18057 | 13504c | pyrenæica Lap.   | Pyrenean                   | ♀         | tm 50 ...   | Ap      | Pyren.   | 1834. | S   | s.l A. b. f. 2090-93  |
|       | 13513  | resinosa Ait.<br>rùbra Mx.   | resinous, <i>Red</i> ♀     | ♀         | tm 50 my    | Ap      | N. Amer. | 1756. | S   | s.l Lamb.pin.20.14  |
|       |        |  |                            |           |             |         |          |       |     | iii. PINA'STRI.   |
|       | 13508  | Pinaster Ait.<br>2 Escarènus, syn. P. P. Aberdonie<br>3 Lemoniànus | Pinaster, <i>Cluster</i> ♀ | ♀         | tm 60 ap.my | Ap      | S. Eur.  | 1596. | S   | s.l Lamb. pin.94,5<br>4 minor, syn. P. maritima<br>5 foliis variegatis<br>6 maritimus |
|       | 13509  | Pinea L.<br>2 fragilis   | Stone Pine                 | ♀         | tm 60 my    | Ap      | S. Eur.  | 1584. | S   | s.l Lamb.pin.11.6,7,8<br>4 americana  |
|       |        |  |                            |           |             |         |          |       |     | iv. HALEPE'NSES.  |
|       | 13511  | halepensis Ait.<br>2 minor   | Algeria                    | ♀         | tm 40 my    | Ap      | Levant   | 1633. | S   | s.l Lamb.pin.2.30.10<br>4 genuensis, syn. P. genuensis Cook                           |
| 8088  | 13511a | brütia Ten.<br>conglomerata Graf.                                  | Calabrian                  | ♀         | tm ... ..   | Ap      | Calabria | ...   | S   | s.l Lamb. pin. 3. 82  |

II. TERNA'TÆ. — Leaves 3 in a sheath.

v. TERN'DÆ.

|  |       |                      |                             |   |             |    |          |       |   |                       |
|--|-------|----------------------|-----------------------------|---|-------------|----|----------|-------|---|-----------------------|
|  | 13515 | Tern'da L.           | Frankinc. <i>Loblolly</i> ♀ | ♀ | tm 30 my.jn | Ap | N. Amer. | 1713. | S | s.l Lamb.pin.23.16,17 |
|  |       | β alopecuròidea Ait. | Foxtail-lk.                 | ♀ | tm 30 my.jn | Ap | ...      | ...   | S | s.l                   |
|  | 13518 | rigida Mil.          | rigid                       | ♀ | tm 50 my.jn | Ap | N. Amer. | 1759. | S | s.l Lamb.pin.25.18,19 |
|  | 13517 | serótina Mx.         | late, <i>Pond</i>           | ♀ | or 40 my.jn | Ap | N. Amer. | 1713. | S | s.l Mic. ar. 1. 86,7  |

vi. PONDEROSA.

|       |        |                |              |   |           |    |          |       |   |                    |
|-------|--------|----------------|--------------|---|-----------|----|----------|-------|---|--------------------|
| 18059 | 13517a | ponderosa Dou. | heavy-wooded | ♀ | tm 50 ... | Ap | N. Amer. | 1828. | S | co A. b. f. 2132-7 |
|-------|--------|----------------|--------------|---|-----------|----|----------|-------|---|--------------------|

vii. SABINIANAÆ.

|  |       |                 |                        |   |             |    |           |       |   |                     |
|--|-------|-----------------|------------------------|---|-------------|----|-----------|-------|---|---------------------|
|  | 18060 | 13517b          | Sabine's               | ♀ | or 110 f.mr | Ap | Californ. | 1832. | S | s.l Lamb.pin.2.80   |
|  | 18061 | 13517c          | Coulter's              | ♀ | or 100 ...  | Ap | Californ. | 1832. | S | s.l Lamb.pin.3. 83  |
|  |       |                 | macrocarpa Lindl. var. |   |             |    |           |       |   |                     |
|  | 13521 | longifolia Ros. | long-leaved            | ♀ | or 40 ...   | Ap | Nepal     | 1801. | S | p.l Lamb. pin.29.21 |

viii. GERARDIANAÆ.

|       |        |                                 |          |   |           |    |           |     |   |                     |
|-------|--------|---------------------------------|----------|---|-----------|----|-----------|-----|---|---------------------|
| 18062 | 13521d | Gerardiana Wall.<br>Neosa Govan | Gerard's | ♀ | or ... .. | Ap | E. Indies | ... | S | p.l Lamb.pin.2.2.79 |
|-------|--------|---------------------------------|----------|---|-----------|----|-----------|-----|---|---------------------|

ix. AUSTRALIS.

|  |        |                           |                   |   |           |    |          |       |   |                    |
|--|--------|---------------------------|-------------------|---|-----------|----|----------|-------|---|--------------------|
|  | 13519' | australis Mx<br>β excelsa | southern<br>lofty | ♀ | tm 60 ... | Ap | N. Amer. | 1730. | S | s.l Lamb.pin.27.20 |
|  |        |                           |                   | ♀ | tm ... .. | Ap | N. Amer. | 1830. | S | s.l                |

x. CANARIENSES.

|  |       |                                     |                 |   |           |    |           |       |   |                      |
|--|-------|-------------------------------------|-----------------|---|-----------|----|-----------|-------|---|----------------------|
|  | 13520 | canariensis C. Sm.<br>adunca Bosc f | Canary          | ♀ | or 60 ... | Ap | Canaries  | 1815. | S | s.l Lamb. pin.2.1.28 |
|  | 18063 | 13520a                              | sinensis Lamb.  | ♀ | or 40 ... | Ap | China     | 1825. | S | s.l Lamb.pin.2.1.29  |
|  | 18064 | 13520a                              | insignis Dou.   | ♀ | or ... .. | Ap | Californ. | 1833. | S | s.l A. b. f. 2170-72 |
|  | 18065 | 13520b                              | Teocote S. & D. | ♀ | or ... .. | Ap | Mexico    | 1826. | S | p.l Lamb.pin.2.1.20  |
|  | 18066 | 13520c                              | pátula S. & D.  | ♀ | or ... .. | Ap | Mexico    | ...   | S | p.l Lamb.pin.2.1.10  |

xi. LLAVEANAÆ.

|       |        |               |            |   |           |    |        |       |   |                      |
|-------|--------|---------------|------------|---|-----------|----|--------|-------|---|----------------------|
| 18067 | 13520d | Llaveana Otto | La Llave's | ♀ | or ... .. | Ap | Mexico | 1830. | S | s.l A. b. .. 2177-79 |
|-------|--------|---------------|------------|---|-----------|----|--------|-------|---|----------------------|

III. QUI'NÆ. — Leaves 5 in a sheath.

xii. OCCIDENTALES.

|       |        |  |             |   |             |    |           |       |   |                     |
|-------|--------|--|-------------|---|-------------|----|-----------|-------|---|---------------------|
| 18068 | 13520e | occidentalis Suz.<br>Larix americana Tou.                        | western     | ♀ | tm 80 my.jn | Ap | W. Indies | 1826. | S | co Lamb.pin.2.1.23  |
| 18069 | 13520f | Montezumæ Lamb.  | Montezuma's | ♀ | or ... ..   | Ap | Mexico    | ...   | S | p.l Lamb.pin.2.1.23 |
| 18070 | 13520g | Ocote Loud.<br>"Ocote Pine of the Mexicans;"<br>oocarpa Schiede. | Ocote       | ♀ | or 40 ...   | Ap | Mexico    | 1838. | S | p.l G.m xv. p. 237  |

18053

18054



- 18055 Lvs. 2-5 in. long seldom and but little twisted when young erect when older standing out and curved towards twig, Points prickly [slightly tuberculate ending in very small prickles  
 18056 Lvs. in pairs very long erect rigid channeled, Sheaths very short, Cone ovate-oblong often recurved, Scales 18057 Lvs. long in tufts at extremities of shoots, Brans. dispersed naked scaly when young, Conical smooth little recurved, Seeds hard [of lvs. Scales dilated in middle unarmed  
 13513 Bark red, Lvs. in pairs 4 in. to 5 in. long, Cones reddish brown ovate-conical rounded at base and half length

- 13508 Lvs. in pairs rigid very long, Cones conical in whorls [short. than lvs. 4 in. to 6 in. long and 1½ in. to 2¼ in. wide of 3 4 or even as many as 8 together rarely solit. much  
 7 chinensis 9 novus holländicus, syn. P. 10 st. helénicus  
 8 nepalensis nova-zeländica Ait. 11 Massoniana

- 13502 Lvs. in pairs, Cones ov. obt. nrly. as long as lvs. Scales with recurv. deciduous points, Seeds bony with very short wings;

- 13511 Lvs. in pairs very slender, Cones pyramidal rounded at base turned downwards smooth solitary or in [pairs stalked

- 18058 Lvs. in pairs very long slender wavy, Cones sess. crowded ovate smooth, Scales truncate at apex flattish umbilicate

*\* Cones hardly so long as the leaves ; the scales with prickles.*

- 13515 Lvs. in threes elongated, Cones often in pairs short. th. lvs. obl. pyramidal rather truncate at apex, Scales with sharp prickles turned inwards [Male cats. elongat. Crest of anth. dilat. and roundish  
 13518 Lvs. in threes, Cones ov.-obl. in threes or fours much short. th. lvs. Scales terminat. by rough thorny point,  
 13517 Lvs. in threes very long. Male cats. erect incumbent, Cones ovate, Scales having very small mucros, Seed very small, Wing ½ in. to ¾ in. in length

- 18059 Lvs. in threes much long. than cones flexible tortuous with short sheaths, Cones ov. reflex. Apices of scales [termin. in conic. minute recurv. spine

*\*\* Cones having the scales hooked.*

- 18060 Lvs. in threes very long, Cones ovate echinate very large, Scales long awl-shaped incurved and spiny at apex.  
 18061 Lvs. ditto and compressed, Sheaths ragged, Cones obl. solit. very large, Scales wedge-sh. apex elongat. thickened lanceol. mucron. compress. hooked [thick recurved  
 13521 Lvs. in threes very long and slender pendul. Sheaths long, Cones ovate-oblong, Scales elevated at apex very

- 18062 Lvs. in threes short, Sheaths deciduous, Cones ovate-obl. 8 in. long and about 5 in. broad, Scales thick blunt recurved at apex

- 13512 Lvs. in threes very long, Male cats. long cylindric. of a tawny blue divergent, Cones very long tessellated with tumid tubercles ending in very small mucros

- 13520 Lvs. in threes and spreading rough, Crest of anthers round entire, Cones oblong tuberculate

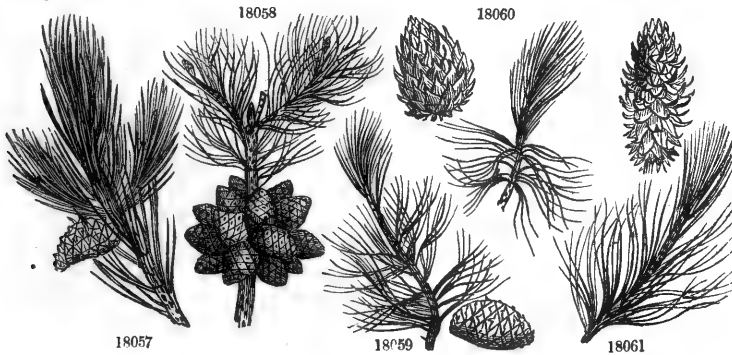
- 18063 Lvs. in threes sometimes twos very slender, Male cats. short, Cones ovate, Scales truncate at apex without any [point  
 18064 Lvs. 3 sometimes 4 in a sheath much twisted varying greatly in length longer than cones grass green, Cones ovate pointed. Scales tuberculate. [dilat. at apex somewh. trapezoid  
 18065 Lvs. in threes compressed flexuous scabrous, Sheaths about ½ in. long, Cones ovate smoothish drooping, Scales 18066 Lvs. in threes very slender 2-channeled spreading, Sheaths about 1 in. long, Cones ovate-oblong polished

- 18067 Lvs. short narrow triquetrous slightly twisted glauc. generally in threes often in twos sometimes in fours, Cones conic. pointed, Scales slightly tubercled without prickles

- 18068 Lvs. in fives slender, Sheaths persistent, Cones conical half length of lvs. Scales thickened at apex with very [small mucros

- 18069 Lvs. in fives erect triquetrous, Sheaths about 1 in. long persistent, Cones oblong about 9 in. long tuberculate

- 18070 Lvs. in fives long. erect triquetrous, Sheaths short persistent, Cones ovate 4-5 in. long, Scales tubercled 4-angular



xiii. LEIOPHYLLÆ.

18071 13520*a* lelophylla S. & D. smooth-leaved ♀ — or ... .. Ap Mexico ... S p.l Lamb.pin.2.1.21

xiv. CEMBRÆ.

13523 *Cembra* L. Cembran ♀ tm 60 my Ap Siberia 1746. S s.l Lam.pi.34.23.34  
*a sibirica* ♂ pygmæ'a, syn. P. C. pùmila γ helvética

xv. STROBIL.

13522 *Strobilus* L. Strobilus, *Weymouth* ♀ tm 100 ap Ap N. Amer. 1705. S s.l Lamb. pin. 31.22  
*β alba* γ *brevifolia* ♀ tm 100 my,jn Ap Nepal 1823. S co Lamb.pin.2.1.33  
 18072 13516*a* *Lambertiana* Dougl. Lamb., *Gigantic* ♀ tm 150 ... Ap N. Amer. 1827. S p.l Lamb.pin.2.1.34  
 18073 13516*b* *monticola* Dougl. mountain ♀ tm ... .. Ap Californ. 1831. S p.l Lamb.pin.2.3.87

IV. DU'BIÆ. — Doubtful to which section it belongs.

13074 13516*c* *californiana* Los. California ♀ tm 50 my Ap California. 1829. S s.l

†2013. *ABIES* *Sal.* (*Abies*, to rise ; aspiring habit : or, *apios*, pear tree : form of fruit.) *Coniferae*. Sp.10—10.  
 13530 *excelsa* *Dec.* lofty, *Norway* ♀ tm 120 ap Ap N. Europe 1548. S s.l Lamb.pin.2.1.35  
*communis* *Hort.*, *Picea* *Mill.*, *Pinus* *Abies* *L.*, *P. excelsa* *Lam.*, *P. Picea* *Duroi*, *Prussian* *Fir*.

1 communis A. b. f. 2212 3 carpatica 5 foliis variegatis  
 2 nigra A. b. pl. 338a 4 pendula 6 Clambrasiliana No. 13529. in p. 804.

13531 *alba* *Mz.* white ♀ tm 50 my,jr Ap N. Amer. 1700. S s.l Lamb.pin.2.1.36  
*Pinus* *alba* *Ait.*, *P. canadensis* *Duroi*, *A. curvifolia* *Hort.* ; *Single* *Spruce*, *American*.  
*β nana* *Dickson* dwarf or ... .. Ap ..... L s.l  
 13533 *nigra* *Ait.* black ♀ tm 70 my,jn Ap N. Amer. 1700. S s.l Lamb.pin.2.1.37  
*Pinus* *nigra* *Ait.*, *P. mariana* *Ehr.*, *A. mariana* *Wangh.* ; *Double* *Spruce*, *American*.  
 13532 *rubra* *Poir.* *Neufoundland*, red ♀ tm 50 my Ap N. Amer. 1755. S s.l Lamb.pin.2.1.38  
 18075 13532*a* *Smithiana* *Wall.* *Smith's* ♀ tm 50 ... Ap Kamaon 1818. S s.l Lamb. pin. 3. 88  
*Pinus* *Smithiana* *Wall.*, *P. Kātrow* *Royle*, *A. Morinda* *Hort.*, *Himalayan* *Spruce*.  
 13528 *orientalis* *Tourn.* *Oriental* ♀ or 30 my Ap Levant 1825. S co Lamb.pin.2.1.39  
*Pinus* *orientalis* *Lamb.*, *A. excelsa* *var. ? A. B.*

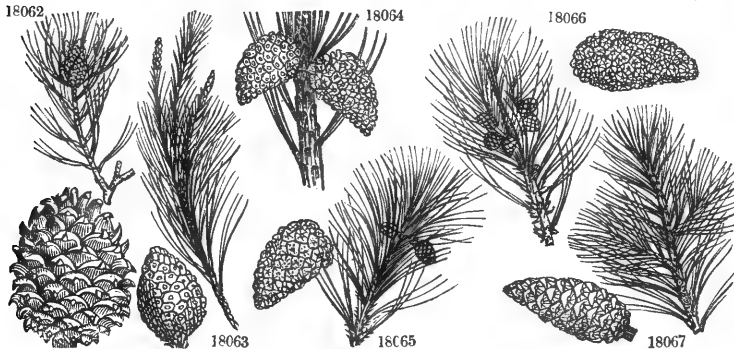
18076 13528*a* *Douglasii* *Lindl.* *Douglas's* ♀ tm 100 my Ap N. Amer. 1826. S s.l Lamb. pin. 3. 90  
*P. taxifolia* *Lamb. pi. 2. 2. 47. Ph.*, *A. californica* *Hort.*, *Trident-bracted* and *Nootka* *Fir*.

18077 13528*b* *Menziesii* *Dougl.* *Menzies's* ♀ tm ... .. Ap California 1831. C s.l Lamb. pin. 3. 89  
*P. Menziesii* *Lamb.*, *Warted-branched* *Spruce* *Fir*.

13527 *canadensis* *L.* *Canadian* ♀ or 60 my Ap N. Amer. 1736. S s.l Lamb. pin. 1. 45  
*P. canadensis* *L.*, *P. americana* *Duroi*, *P. A. americana* *Marsk.*, *Hemlock* *Spruce*.

19078 13527*a* *cephalonica* *A. B.* *Cephalonian* ♀ or 60 ... Ap Cephalonia 1824. C s.l A. b. f. 2235-36  
*A. taxifolia* *Hort.*, *A. luscombeana* *Hort.*, *Mount* *Enos* *Fir*.

2845. \*2013*a*. *PICEA* *D. Don.* (*Piz*, pitch ; the tree producing abundance of resin.) *Coniferae*. Sp. 9—9.  
 †13525 *pectinata* *D. Don* pectinate ♀ tm 100 my Ap Germany 1603. S s.l Lamb.pin.2.1.40  
*Abies* *Picea* *No. 13525..*, *A. pectinata* *Dec.*, *Pinus* *Picea* *L.*, *Pinus* *Abies* *Duroi*, *A. alba* *Mill.*  
*A. vulgaris* *Poir.*, *A. taxifolia* *Hort.*, *A. excelsa* *Lk.*  
*β tortuosa* (*twisted-branched*) γ *foliis variegatis* (*variegated-leaved*)



History Use, Propagation, Culture,

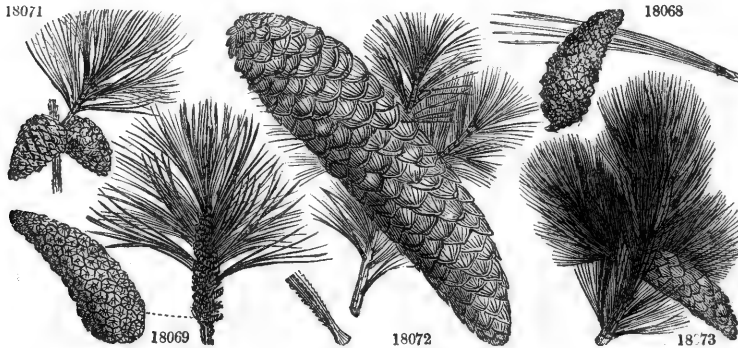
2845. *Picea*. "Some confusion exists in the works of modern authors respecting the silver fir and the spruce ; partly, as it would appear, from the circumstance of Linnæus having made an erroneous application of the names given to these trees by Pliny. The tree which Theophrastus calls *Elate*, Pliny calls *Abies*, and Linnæus *Pinus Picea* ; while the tree that Pliny calls *Picea*, and which is our spruce fir, is named by Linnæus *Pinus Abies*. The silver fir was esteemed by the Romans for its use in carpentry, and for the construction of vessels. . . . The wood of the silver fir is elastic, and the colour is whitish. The grain is irregular, as the fibres which compose it are partly white and tender, and partly yellow or fawn-coloured, and hard. The narrower the white lines are, the more beautiful and solid is the grain of the wood. In the Vosges, it is said that the external layers are more compact than the internal ones, which may arise from the practice of barking the trees there before they are cut down. The weight of this wood varies exceedingly, according to the age of the tree, the place where it grew, and even the part of the trunk from which it was taken. According to Hartig, the wood of a tree 80 years old weighs 66 lbs. 14 oz. per cubic foot green, and 41 lbs. 5 oz. when dry ; while that of a tree 40 years old weighs only 37 lbs. 9 oz. when dry. It shrinks considerably in drying, like all white woods. It is used for planks, and carpentry of all kinds, for the masts of small vessels, for joists and rafters, and for building the boats for navigating rivers. It is said to endure a long time when used as piles, and to be much employed in Holland for that purpose. In the Vosges it is used in every department of agriculture, carpentry, joinery, and even cabinet-making and sculpture. In England, the wood of the silver fir has been chiefly used for flooring ; and, according to Arthur Young, and also to Mitchell, boards sawn out of full-grown trees

- 18071 Lvs. in fives very slender, Sheaths deciduous, Cones ovate stalked, Scales depressed truncate brown scarious white and torn on the margin
- 13523 Lvs. in fives, Sheaths deciduous, Cones ov. erect ab. length of lvs. Scales when young pubes. Wings of seed obliterated, Crest of anth. kidney-sh.
- 13522 Lvs. slender without sheaths, Male cats. small, Cones cylindrical long and pendulous, Cotyledons 6 to 10 [smooth pendulous long. than lvs.]
- 13516 Lvs. in fives very long and slender loose, Crest of anthers roundish truncate simple lacerated, Cones cylindric.
- 18072 Lvs. in fives rigid roughish, Sheaths very short, Cones thick very (14 in. to 16 in.) long cylindric, Scales loose roundish
- 18073 Lvs. in fives short smoothish obtuse, Cones cylindrical and smooth about 7 in. long, Scales loose and pointed
- 18074 Leaves in twos and threes, Cones much longer than the leaves, Sheaths short black

1. *Leaves tetragonal, awl-shaped, scattered in insertion.*

- 13530 Lvs. scattered quadrangular, Cones cylindric. 5 in to 7 in. long and from 1½ in. to 2 in. broad termin. pendent, Scales naked truncate at summit flat
- |  |                     |  |
|--|---------------------|--|
| 7 <i>Clanbrasiliana stricta</i>                                | 9 <i>tenuifolia</i> | 11 <i>monströsa</i> , syn. <i>A. monströsa</i> |
| 8 <i>pygmaea</i> ; syn. <i>nana Hort.</i> , <i>élegans Sm.</i> | 10 <i>gigantæa</i>  | <i>Sm. of Ayr.</i>                             |
- 13531 Lvs. somewhat glauc. scattered round the brans. erect quadrangular, Cones obl.-cylind. pendul. lax. Scales with entire margins
- 13533 Lvs. solit. regularly disposed all round the brans. erect very short somewh. quadrang. Cones ov. pendul. Scales somewh. undulat. crenulat. or divided at apex
- 13532 Lvs. solit. awl-sh. acuminate, Cones obl. blunt, Scales round somewhat 2-lobed entire [on margin]
- 18075 Lvs. compress. 4-gonal straight awl-sh. sharp-pointed, Cones ov.-obl. Scales obov.-roundish coriac. rigid smooth
- 13528 Leaves solitary tetragonal, Cones ovate-cylindrical, Scales rhomboid
11. *Leaves flat, generally glaucous beneath, imperfectly 2-ranked.*
- 18076 Lvs. flat blunt entire pectinate silvery ben. Cones ovate-obl. Bractees elongated linear 3-pointed, Cones about 4 in. long
- 18077 Lvs. acute flat silvery ben. turned in every direction, Cones cylindric, Scales scarious gnawed on the margin
- 13527 Lvs. solit. flat slightly denticulate obtuse 2-ranked, Cones oval termin. pendent naked scarcely longer than the leaves
- 18078 Lvs. subulate flat dark green above silvery ben. terminat. in sharp spine, Petioles very short dilated lengthwise at point of attachment to brans.

†13525 Lvs. solit. flat obtuse 2-ranked points turned up, Cones axill. cylindric. erect, Scales with long dorsal bractea, Anth. with short crest with 2-teeth



and Miscellaneous Particulars.

may be laid down at once, without any risk of their shrinking. As fuel, the wood of the silver fir is to that of the beech as 1079 is to 1540, and that of the spruce as 1079 is to 1211. The charcoal is to that of the beech as 1127 is to 1600. Though the charcoal is much inferior to that of the beech, yet it is preferred for heating iron that is to be forged, as producing the heat more slowly, in consequence of which the iron is more pliant to work. The bark may be employed for tanning leather, and is used generally in some parts of Switzerland. A resinous sap flows from the trunk and branches, called *larmes de sapin*. This sap is bitter, acrid, and viscous, and its smell approaches to that of the citron; it is healing, balsamic, and antiseptic. The resinous fluid is found in small tumours or blisters, under the epidermis of the bark, and in the green cones, from the latter of which it is collected about midsummer. From the resin of this tree are manufactured Strasburg turpentine (so called from a large forest of silver firs, the Hockwald, near Strasburg), colophony, and white pitch. The quantity of potash furnished by the bark and wood is in proportion of 2 lbs. of potash to 1000 lbs. of wood and bark, which places the silver fir in the rank of 21 in a series of 73 ligneous plants. In some parts of Europe, the young cones, reduced by boiling to a pulp, and preserved with sugar, are eaten as a sweetmeat. This conserve is put into tea, to which it is said to communicate an agreeable odour. The leaves serve for litter; and, in Switzerland, according to Kasthoffer, are given to sheep and goats: but they are said to give the milk a peculiar taste.

"The silver fir, like all the other *Abietinæ*, will attain a large size on soils of a very opposite description; but a loam, rather rich and deep than otherwise, appears to suit it best." (*Arb. Brit.*, vol. iv.)

|        |        |  |                       |   |           |    |           |       |   |     |                    |
|--------|--------|--|-----------------------|---|-----------|----|-----------|-------|---|-----|--------------------|
| 18079  | 13'25a | <i>Pichta</i> A. B.  | Pitch                 | ♂ | tm 50 my  | Ap | Siberia   | 1820. | S | s.l | Led. ic. p.f.r.499 |
|        |        | <i>Pinus Pichta</i> Lo. C., <i>P. sibirica</i> Led., <i>A. Pichta</i> Fis.   |                       |   |           |    |           |       |   |     |                    |
| †13526 |        | <i>balsamea</i> L.   | balm of <i>Gilead</i> | ♂ | or 20 my  | Ap | N. Amer.  | 1696. | S | s.l | Lamb.pin.2.141     |
|        |        | <i>Pinus balsamea</i> L., <i>Pinus</i> <i>A'bies balsamea</i> Marsh., <i>A'bies</i> <i>Taxi</i> fòlio, &c. <i>Hort. Angl.</i> , <i>A. balsamifera</i> N. <i>Dub.</i> , <i>A. balsamifera</i> Mx. |                       |   |           |    |           |       |   |     |                    |
|        |        | <i>β longifolia</i> Booth  | long-leaved           | ♂ | or 20 my  | Ap | .....     | ...   | C | s.l |                    |
| †13524 |        | <i>Fraseri</i> Ph.   | Fraser's              | ♂ | or 30 my  | Ap | Pennsyl.  | 1811. | S | s.l | Lamb.pin.2.142     |
|        |        | <i>Pinus Fraseri</i> Ph., <i>A'bies Fraseri</i> Lindl.   |                       |   |           |    |           |       |   |     |                    |
| 18080  | 13524a | <i>grandis</i> Dou.  | great                 | ♂ | tm 170 my | Ap | N. Calif  | 1831. | S | s.l | Lamb. pin. 3. 94   |
|        |        | <i>Pinus grandis</i> Dou. ms., <i>A'bies grandis</i> Lindl.  |                       |   |           |    |           |       |   |     |                    |
| 18081  | 13524b | <i>amblylis</i> Dou.   | lovely                | ♂ | tm ...    | Ap | N. Calif. | 1831. | S | s.l | A. b. f 2247-48    |
|        |        | <i>P. grandis</i> ?  |                       |   |           |    |           |       |   |     |                    |
| 18082  | 13524c | <i>nobilis</i> Dou.  | noble                 | ♂ | tm ...    | Ap | N. Amer.  | 1831. | S | s.l | A. b. f. 2249-50   |
|        |        | <i>Pinus nobilis</i> Dou. ms., <i>A'bies nobilis</i> Lindl.  |                       |   |           |    |           |       |   |     |                    |
| 18083  | 13524d | <i>Webbiana</i> Wall.  | Webb's                | ♂ | tm 90 ... | Ap | Nepal     | 1822. | C | s.l | Lamb. pin. 2. 44   |
|        |        | <i>Pinus Webbiana</i> Wall., <i>P. spectabilis</i> Lam. monog., <i>A'bies Webbiana</i> Lindl.  |                       |   |           |    |           |       |   |     |                    |
| 18084  | 13524e | <i>Pindrow</i> Royle   | Pindrow               | ♂ | tm 100 my | Ap | Kamaon    | 1837. | C | s.l | Lamb. pin. 392     |
|        |        | <i>Pinus Pindrow</i> Royle ill. t. 86., <i>Taxus Lambertiana</i> Wall., <i>P. Webbiana</i> var.?   |                       |   |           |    |           |       |   |     |                    |

Page 816. CLASS XXII. — DICECIA.

Order 4. TETRANDRIA. Stamens 4.

2846. *Garrya*. M. flws. in pendulous catkin-like racemes within connate bracteas. Cal. 4-leaved. Stam. 4.— Female flws. in pendulous catkin-like racemes, within connate bracteas. Cal. connate, with a 2-toothed 1-celled ovary. Styles 2, setaceous. Ovules 2, pendulous, with funiculi as long as themselves. Fruit a berried pericarp, not opening, 2-seeded. Embryo very minute, on the base of a great mass of fleshy albumen.

TETRANDRIA.

|        |             |                           |  |   |             |          |                   |          |   |     |                |
|--------|-------------|---------------------------|--|---|-------------|----------|-------------------|----------|---|-----|----------------|
| 2057.  | SHEPHERDIA. |                           |  |   |             | Sp. 2—2. |                   |          |   |     |                |
| 18085  | 13878a      | <i>argentea</i> Nut.      | silvery  | ♂ | or 10 ap.my | Ap       | Missouri          | 1818.    | L | p.l | A. b. f. 1208  |
| 2058.  | HIPPOPHAE.  |                           |  |   |             | Sp. 2—2. |                   |          |   |     |                |
| 18086  | 13879a      | <i>salicifolia</i> D. Don | Willow-leaved  | ♂ | or 8 ..,    | Ap       | Nepal,            | 1822.    | L | p   | A. b. f. 1207  |
|        |             | <i>conferta</i> Wall.     |  |   |             |          |                   |          |   |     |                |
| *2846. | -           | GA'RRYA Lindl.            | ( <i>Nicholas Garry</i> , secretary of Hudson's Bay Co.) |   |             |          | <i>Garryaceæ.</i> | Sp. 1—1. |   |     |                |
| 18087  |             | <i>elliptica</i> Lindl.   | elliptic-leaved  | ♂ | cu o        | G        | N. Calif.         | 1828.    | L | 1   | Bot. reg. 1686 |

OCTANDRIA.

\*2847. 2067a. RHODGOLA L. ROSE ROOT. (*Rhodon*, a rose; roots smelling like roses.) *Crassulacæ.* Sp. 1—2.  
18088 - - *rosea* L. Rose-smelling ♂ Δ or 1 my.jl Y Britain moun. D co Eng. bot. 508

MONADELPHIA.

|       |            |                          |           |   |              |          |        |       |   |     |                 |
|-------|------------|--------------------------|-----------|---|--------------|----------|--------|-------|---|-----|-----------------|
| 2112. | ARAUCARIA. |                          |           |   |              | Sp. 4—4. |        |       |   |     |                 |
| 18089 | 14047a     | <i>brasiliiana</i> Lamb. | Brazilian | ♀ | □ tm 100 ... | Ap       | Brazil | 1819. | S | p.l | Lamb.pin.2.12.5 |
|       | 18075      |                          |           |   | 18077        |          |        |       |   |     | 18076           |



History, Use, Propagation, Culture.

2846. *Garrya* 18088 *elliptica* is an evergreen hardy shrub, with thick coriaceous leaves, like some species of evergreen viburnum. " This is probably the greatest botanical curiosity sent home by Douglas; for it appears to represent a natural order altogether distinct from any previously known, and connecting certain well-known natural orders in an unexpected and satisfactory manner. In its amentaceous inflorescence, imperfect flowers, superior calyx, and mode of germination, *Garrya* is very similar to *Cupulifera*, from which it differs most essentially in its wood without concentric circles or dotted vessels, its opposite exstipulate leaves, simple fruit, and minute embryo lying in a great mass of albumen. The latter characters bring it near *Piperacæ* and their allies, especially *Chloranthæ*, with which its zoneless wood (for *Chloranthus* has no annual zones), simple fruit, and opposite leaves, also agree; but the stipules

- 18079 *Lvs. solit. tetragon. dark green, Cones cylindric. erect, Scales cuneate-obov. rounded at apex quite entire convex externally*  
 †13526 *Lvs. solit. silvery ben. apex emarginate or entire somewh. recurv. and spreading, Cones cylindric. violet-coloured and pointing upwards*
- †13524 *Lvs. linear emarginate silvery ben. Cones oblong squarrose, Bracteoles somewh. leafy obcordate mucron. half-exserted reflexed*  
 18080 *Lvs. flat obtuse emargin. pectinate silvery ben. Cones cylindric. Bracteoles ovate acumin. irregularly dentate very short*  
 18081 *Lvs. flat obtuse entire, Cones cylindrical, Bracteoles very short pointed, Scales triangular upper margin rounded entire*  
 18082 *Lvs. mostly on one side the brans. falcate short acute silvery ben. Cones cylindric. Bracteoles elongat. spathul. gnawed imbricated backwards*  
 18083 *Lvs. 2-rowed lin. flat obtusely emargin. silvery ben. Cones cylindric. Scales kidney-sh. roundish, Bracteoles oblong apiculate*  
 18084 *Lvs. 2-rowed lin. flat same colour on both sides sharply 2-toothed at apex, Cones oval, Scales trapezoidoecordate, Brac. roundish emarg. irreg. crenulat.*

## Order 7. OCTANDRIA. Stamens 8.

2847. *Rhodola*. Barren flowers. Cal. 4-partite. Petals 4. Glands 4, emarginate. — Fertile flowers. Cal. 4-partite. Petals 4. Glands 4, emarginate. Germens 4. Caps. 4, many-seeded.

## Order 13. MONADELPHIA. Stamens united into one body.

2848. *Ampeliscyos*. Male flowers with a turbinate 5-cleft calyx, and a fringed 5-petaled corolla, and 5 stamens, which are disposed in 3 bundles. — Female flowers having the limb of the calyx 5-toothed, corolla as in the male, and a 3-5-lobed stigma. Fruit fleshy, long, furrowed, divided into 3 twin cells. Seeds compressed, reticulated.

## TETRANDRIA.

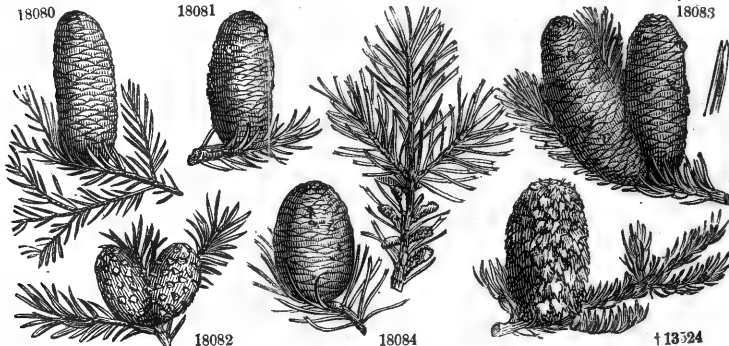
- 18085 *Lvs. obl.-ov. obtuse on both surfaces glabrous and covered with silvery peltate scales*  
 18086 Thornless upright-branched, *Lvs. lanceol. obt. whitely tomentose as are the branchlets*  
 18087 Young brans. pubes. and purplish when older smooth and greyish, *Lvs. oppos. exstipul. wavy on short footst. obl.-acute leathery dark green and shining ab. hoary ben.*

## OCTANDRIA.

18088 The only species

## MONADELPHIA.

18089 *Lvs. loosely imbricat. lanceol. mucron. glauc. green keeled ben. Fem. cats. roundish-oval, Scales* [at apex recurved



and Miscellaneous Particulars.

of *Chloranthæ*, together with its achlamydeous bisexual flowers and articulated stems, distinctly separate that order." (*Bot. Reg.*) "Only the male plant of *G. elliptica* is in the country. When in flower (which it is from December til. April), the plant has a most striking graceful appearance, from its slender pendulous catkins, many of which are 8 in. to 1 ft. in length. It was at first grown in peat, but appears to prefer a loamy soil. It is readily increased by layers, and by cuttings in sand under a hand-glass." (*Arb. Brit.* iv. 2031.)

2847. *Rhodola* 18088 *rdæa* is a plant with the habit of *Sedum Telephium*. It is found on wet rocks, on the mountains of the north of England and Ireland, and in the north-west of Scotland, abundant; likewise on cliffs by the sea-shore. It is the badge of the Highland clan *Gunn*.



- 18090 14047b Cunninĝhåmi G. Don Cunningham's ♀ □ or 30 ... Ap N. Holl. 1824. S p.1  
 Altinĝia Cunninĝhåmi Nor.  
 2114. TA'XUS. Sp. 2-3.  
 18091 14063a canadensis W. Canadian ♀ or 20 f.ap Ap Canada 1800. S co  
 2848. \*2122a. AMPELOSI'CYOS. (Ampelos, a vine, sicyos, a cucumber.) Cucurbitæcæ. Sp. 1-1.  
 18092 - scåndens Thou. climbing ♂ □ cu 20 jl P Zanzibar 1825. C p.1 Bot.m.2681 2751, 2  
 Jollifia africana Boj.

Page 852. CLASS XXIII. — POLYGAMIA.

Order 2. DICECIA. Flowers dioecious.

2849. *Galactodendron*. Fruit globose, rather fleshy, having the appearance of a walnut, containing a one-seeded nut.

MONÆCIA.

2127. ACA'CIA. Sp. 95-273.  
 14145 decapeins  
 β præmorså Grah. bitten-leaved ♂ □ or 3 mr.jn Y N. Holl. 1830. C s.l.p Bot. mag. 3244  
 18093 - tristis Grah. dull-green ♂ □ or 18 mr.ap Y N. Holl. 1828. C s.l.p Bot. mag. 3420  
 18094 - verniciflua Cun. varnish-flowing ♂ □ or 6 mr.my Y N. Holl. 1823. C s.l.p Bot. mag. 3266  
 18095 - gravæolens Cun. strong-scented ♂ □ or 15 ap.jn Y V. D. L. ... C s.l.p Bot. mag. 3276  
 18096 - brevipes Cun. short-pedicled ♂ □ or 6 ap Y N. S. W. 1810. C s.l.p Bot. mag. 3358  
 18097 - undulæfolia Cun. waved-leaved ♂ □ or 4 ap.jn Y N. S. W. 1824. C s.l.p Bot. mag. 3394  
 18098 - elongata Sieb. long-branched ♂ □ or 6 ap.jn Y N. S. W. 1823. C s.l.p Bot. mag. 3337  
 18099 - Cunninĝhåmi Ait. Cunningham's ♂ □ or 4 ap.jn Y N. Holl. 1823. C s.l.p Hook. ic. 1225  
 18100 - umbråsa Cun. shade-inhabg. ♂ □ fra 25 ap Pa. Y N. S. W. 1823. C s.l.p Bot. mag. 3338  
 18101 - intermedia Cun. intermediate ♂ □ or 8 ... Y N. Holl. 1818. ? C s.l.p Bot. mag. 3203  
 18102 - plumåsa Lowe feathery-leaved ♂ □ or 20 ? ... Y ..... C s.l.p Bot. mag. 3366  
 18103 - prænsans Lowe holding, prickles ♂ □ or 40 ... Y ..... C s.p.1 Bot. mag. 3408  
 18104 - pentadænia Lindl. 5-glanded ♂ □ or 5 ap Y . ... 1830. C s.p.1 Bot. reg. 1521  
 2143. A'CEER. Sp. 19-19.  
 18105 14278z oblongum Wall. oblong-leaved ♂ □ or 20 f G.w Nepal 1824. S co A. b. f. 112  
 18106 14284a macrophyllum Ph. long-leaved ♂ □ or 25 my.jn G N. Amer. 1812. L co Hook. am. t. 38

DICECIA.

2849. \*2158a. GALACTODE'NDRON Hum. Cow TREE. (Gala, milk, dendron, a tree.) Urticæcæ. Sp. 1-1.  
 18107 - ðtile Hum. useful ♀ □ ... 50 ... Caraccas 1829. S l.p Bot. mag. 2733-4



History, Use, Propagation, Culture,

2848. *Ampelocycos* 18092 scåndens. "The fruit" of this plant "is 3 ft. long, and 8 or 10 inches in diameter, full of seeds as large as chestnuts (264 in one fruit), which are as excellent as almonds, and have a very agreeable flavour; and, when pressed, they yield an abundance of oil, equal to that of the finest olives. It is a perennial plant, and grows at the margins of the forest, enveloping the trees with its branches, while its trunk is frequently seen with a circumference of 18 in." (*Bot. Mag.*) The name of this plant among the Indians of Zanzibar is *Koumè*.  
 2849. *Galactodendron* 18107 ðtile. "M. de Humboldt was the first to bring the Cow Tree of Caraccas into notice. 'We returned,' he says, in his valuable *Rélation Historique*, vol. ii. p. 106., 'from Porto Cabello to the Valley of Araguas, stopping at the plantation of Barbula, through which the new road to Valencia is to pass. For many weeks, we had heard a great deal of a tree whose juice is a nourishing milk. The tree itself is called the Cow Tree, and we were

- 18090 Decandrous, Lvs of young tree vertically compressed spinuloso-mucron. straight, of full-grown tree lanceol. acute imbric. Cones ovate, Scales with membranac. wings on margin
- 18091 Lvs. linear 2-ranked crowded revolute, Male flowers globose always solitary
- 18092 Lvs. altern. pedate of five obl.-ov. lfts. with waved and distinctly toothed margins pointed at both ends, Seeds orbic. compress. reticul. veined

2850. *Senecãrpus*. Flowers polygamo-deciduous. Cal. 5-cleft. Petals 5, oblong. Ovary 1, sessile, 1-celled. Stams. 5, all fertile. Styles 3. Nut compressed, heart-shaped, seated on a thick depressed torus. Leaves simple.

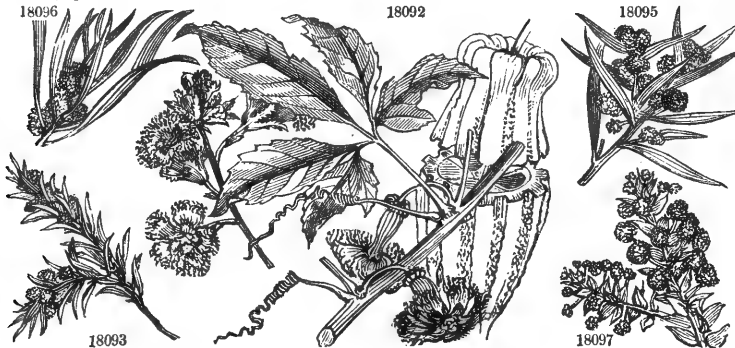
2851. *Melanorrhœa*. Flowers hermaphrodite. Sepals 5, caducous, cohering valvately. Petals 5, rarely 6, imbricate in æstivation. Stam. numerous, inserted in the torus. Style 1. Fruit indehiscent, depressedly kidney-shaped, stalked. Leaves simple.

## MONÆCIA.

- 18093 Stms. like strong rigid straight and spreading setæ at first soon becoming brown decid. Phyllod. falcate with [2 uneq. nrvs. Pedunc. subsolit.  $\frac{1}{2}$  length of lvs.]
- 18094 Phyllodia lin.-lanceol. 2-nrvd. falcate attenuated at base, Heads of flws. globose axillary twin, Young branches [young brans. Heads of flws. usually twin axill.]  
viscid
- 18095 Phyllodia lanceol. tapering at both ends shining 2-nrvd. with a gland on upper margin at base clammy as are [narrow elongated]
- 18096 Phyllod. lanceol. obl. and frequently narrow lanceol. 4 to 6 in. long falcate striate usually 3-nrvd. Pedun. very short. axill. solit. Younger phyllod. clthd. with grey scale-like process
- 18097 Phyllodia obliquely ov. undulat. and marginat. 1-nrvd. glabr. ending in hooked twisted point, Heads of flws. axill. solit. Pedun. beset with adpress. pill
- 18098 Phyllod. altern. lin. acute with callous point falcate with 3 elevated longitud. lines on each side and an oblong gland on upper edge nr. base, Cor. 5-lb. Pedun solit. or 2 or 3 together
- 18099 Lvs. lin. falcate mucron. 2-3-nrvd. scattered twice as long as pedunc. Heads of flws. axill. solit. Leg. very
- 18100 Phyllodia obliquely ov.-lanceol. tapering at both ends ending in hooked mucrone with a gland on upper margin, Heads of flws. racemose [rather obt. reflex. at apex]
- 18101 Phyll. lin.-lanceol. acute atten. at base obscurely 3-nrvd. Spikes cylindric. Cor. quadrifid, Segms. oblongo-ovate
- 18102 Prickly, Lvs. 2-pinn. Lfts very small lin. rather obt. straight or nrly. so 40 or 50 pairs of thereab. Spikes obl. abbreviat.  $\frac{1}{4}$  in. long. Leg. 5 to 6 in. long 1 in. broad flat 1-celled dry
- 18103 Clthd. with hooked prickles. Lfts. 16-20 with generally an odd one at base almost lin. acute very uneq. at base, Brac. ov. or lanceol. decid. ferrugineo-pubes. Heads globose very dense
- 18104 Unarmed glabrous branched angular, Lvs. with 4 or 5 pairs of pinnae and each pinna with about 24 pairs of obl. obtuse lfts. a depressed gland on the petiole between each of the pinnae, Heads pedicellate solitary [smooth separated]
- 18105 Lvs. obl.-lanceol. acumin. quite entire coriac. smooth rounded at base, Rac. compound, Wings of fruit parallel
- 18106 Lvs. digit. 5-lobed with roundish recesses, Lbs. somewh. 3-lb. repandly toothed pubes. ben. Rac. compound erect, Stam. 9 with hairy flam. Ovary very hairy

## DICEIA.

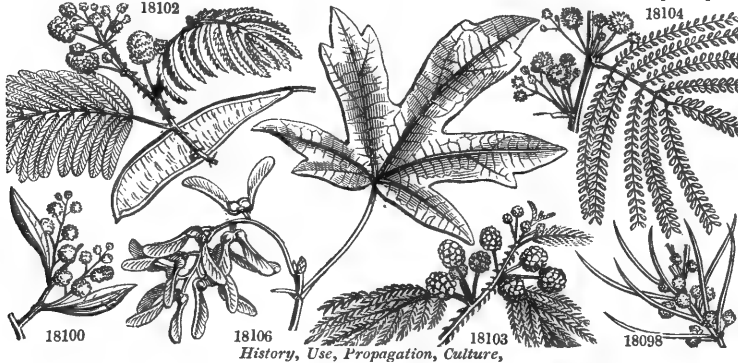
18107 The only species



and Miscellaneous Particulars.

assured that the negroes on the farm, who are in the habit of drinking large quantities of this vegetable milk, consider it as highly nutritive; an assertion which startled us the more, as almost all lactescent vegetable fluids are acrid, bitter, and more or less poisonous. Experience, however, proved to us, during our residence at Barbula, that the virtues of the Cow Tree, or *Palo de Vaca*, have not been exaggerated. This fine tree bears the general aspect of the Star-apple Tree (*Chrysophyllum Cambo*); its oblong, pointed, coriaceous, and alternate leaves are about 10 in. long, and marked with lateral nerves, that are parallel, and project beneath. The flower we had no opportunity of seeing; the fruit is somewhat fleshy, and contains one or two kernels. Incisions made in the trunk of the tree are followed by a profuse flow of gluey and thickish milk, destitute of acidity, and exhaling a very agreeable balsamic odour. It was offered to us in calabashes; and, though we drank large quantities of it, both at night before going to bed, and again early in

2850. \*2164a. SEMECA'RPUS L. (*Semeio*, to mark, *karpos*, fruit; use of juice.) *Terebinthaceæ*. Sp. —1.  
 18108 - Anacárdium L. Anacardium ♀ fr 20 ... G.y E. Indies 1820. C r.m Ru. am. 1 70  
 Anacárdium longifólium Lam., *Cassárium* Spr.  
 2851. \*2164b. MELANORRHŒA Wall. (*Melas*, black, *rheo*, to flow; juice.) *Terebinthaceæ*. Sp. 1.—1.  
 18109 - usítata Wall. common ♀ us 50 ... R E. Indies 1829. C 1.pWal.pl.as.ra.11,12



History, Use, Propagation, Culture,

the morning, we experienced no uncomfortable effects. The viscosity of this milk alone renders it rather unpleasant to those who are unaccustomed to it. The negroes and free people, who work in the plantations, use it by soaking bread in it made from Maize, Manioc, Aropa, and Cassava. Slaves become visibly fatter during the season when the *Palo de Vaca* yields most milk. When exposed to the air, this fluid displays on its surface, probably by the absorption of the atmospheric oxygen, membranes of highly animal nature, yellowish and thready, like those of cheese; which, when separated from the more watery liquid, are nearly as elastic as those of caoutchouc, but in process of time exhibit the same tendency to putrefaction as gelatine. The people give the name of cheese to the curd which thus separates when brought into contact with the air, and say that a space of 5 or 6 days suffices to turn it sour, as I found to be the case in some small quantities that I brought to New Valencia. The milk itself, kept in a corked bottle, had deposited a small portion of coagulum, and, far from becoming fetid, continued to exhale a balsamic scent. When mingled with cold water, the fresh fluid is coagulated with difficulty; but contact with nitric acid produced the separation of the viscid membranes.

"This wonderful tree appears peculiar to the cordillera of the shore, especially from Barbula to the Lake of Maracaybo. Some individual Cow Trees are also said to exist near the village of San Mateo, and likewise in the Valley of Caucagua, three days' journey to the east of Caraccas.

"At Caucagua, the natives call the tree which yields this nutritive fluid, Milk Tree (*Arbol de leche*)."

"The wood forming the body of the trunk is white, very close-grained, and hard, resembling the boxwood of Europe. The soil which these trees inhabit is dark and rich, and must be damp or very wet all the year round." (*Bot. Mag.*)

2851. *Semecárpus* 18108 *Anacárdium* is a lofty tree with spreading branches. Leaves about 18 in. long, and about 4 or 5 broad. Flowers small, of a greenish yellow colour. Receptacle of the fruit when ripe yellow, about the size of the nut, which is black; the cover or shell is composed of 2 laminae, the inner hard, the outer less so and leathery; between them are cells which contain the black, corrosive, resinous juice, for which this nut has been long known; the juice is of a pale milk-colour till perfectly ripe, when it becomes black. The wood of this tree is reckoned of no use, not only on account of its softness, but also because it contains much acrid juice, which renders it dangerous to cut down and work upon. The fleshy receptacles on which the seeds rest are roasted in the ashes, and eaten by the natives; their taste is very like that of roasted apples: unroasted, they taste astringent and acrid, leaving a painful sensation on the tongue for some time. The kernels are rarely eaten. The green fruit, well pounded into a pulp, makes good birdlime. The pure, black, acrid juice of the shell is employed by the natives externally to remove rheumatic pains, aches, and sprains: in tender constitutions it often produces inflammation and swelling; but where it has not these effects it is an efficacious remedy. It is employed by the Telinga physicians in the cure of almost every kind of venereal complaint. It is in general use for marking cotton cloths; the colour is improved and prevented from running by a little mixture of quicklime and water. This juice is not soluble in water, and is only

18108 Lvs. oblong bluntish glauc. ben. more or less covered on the nerves beneath with scabr. down, Panicle terminal tomentose

18109 Leaves obovate very blunt villous



and Miscellaneous Particulars.

diffusible in spirits of wine, for it soon falls to the bottom, unless the menstruum be previously alkalisied. The solution is then pretty complete, and of a deep black colour. It sinks in expressed oils, but unites perfectly with them; alkaline lixivium acts upon it with no better success than plain water. (*Don's Mill.*, ii. 63.) Culture, &c., see *Melanorrhoea*'s below.

2851. *Melanorrhoea* 18109 *usitata*. This tree is a native of Hindostan, in a large valley called Kadbbu, in the kingdom of Manipur, Silhet, and Tipperah, as well as in the Burmese empire, on the banks of the Irrawadi, where it is called *Theet-tee* or *Zit-si*. This is identical with the majestic *Kheu* or varnish tree of Manipur, on the north-east frontier districts of Silhet and Tipperah. Mr. M. R. Smith, who has resided a long time in Silhet, considers this the same as the varnish tree of the Chinese, in the eastern and north-eastern provinces. It is procurable in great quantities from Manipur, where it is used for painting river craft, and for varnishing vessels destined to contain liquid. The drug is conveyed to Silhet for sale by the merchants. On being handled it occasions extensive erysipelatous swellings, attended with pain and fever, but never of long duration. In the neighbourhood of Prome a considerable quantity of varnish is extracted from the tree, but very little at Martaban, owing, it is supposed, to the poorness of the soil, and partly also to there being none of the people in that part whose business is to perform the process, although it is very simple. Short joints of a thin sort of bamboo, sharpened at one end, and shut up at the other, are inserted in a slanting direction into holes made in the trunk and principal branches, and left there for 24 or 48 hours; after which they are removed, and their contents emptied into a basket previously varnished over. Sometimes a hundred bamboos may be seen sticking into the tree at once during the collecting season, which last as long as the tree is destitute of leaves, namely, from January until April, and they are renewed as long as the juice will flow. In its pure state it is sold at Prome at the rate of 1 tical, or 2s. 6d., the viss; and at Martaban, 2 Madras rupees the viss, although of an inferior quality to that sold at Prome, being usually mixed with oil of sesamum. A tree is reckoned to produce 2 to 3 or 4 viss annually, a viss being equal to 3 lb. Every article of household furniture destined to contain solid or liquid food is lacquered over with it. The article to be varnished with it must be prepared with calcined bones, after which the varnish is laid on thinly, either in its pure state, or variously coloured. The process of drying is the most difficult part, being effected in a very slow and gradual manner, by the articles thus varnished being placed in subterraneous vaults for many months. The drug is also used as a size gite in the process of gilding; nothing more being required than to besmear the surface of the article to be gilded with it, and immediately to apply the gold leaf. If it is considered how very extensively that art is practised by the Burman nation, it being among their most frequent acts of devotion and piety to contribute to the gilding of their numerous religious edifices and idols, it will be evident that a great quantity of the drug must be consumed for that purpose alone. Finally, the beautiful Pall writing of the religious order of the Burmas, on ivory, palm leaves, or metal, is entirely done with this varnish in its native and pure state. (*Don's Mill.*, ii. 67.) A mixture of loam and peat will suit this tree; and ripened cuttings will root in sand, under a hand-glass, in heat.

## ALPHABETICAL LIST,

## COMPREHENDING

SUCH GENERIC NAMES AS ARE NOT TO BE FOUND IN THE BODY  
OF THIS WORK,

*Which Names are either synonymous with some of those already given, or not sufficiently popular to be included in detail in this Supplement.*

To this are added their derivations, authorities, and natural orders, the number of the genus to which each should be annexed in the arrangement, and also the numbers of the species with which they are synonymous.

- 2852 \*121a ABILDGAA'RDIA Vahl. (*Prof. Abildgaard*, of Copenhagen.) monostácha Vahl. Cyperácea. A curious perennial bog plant, a native of New Holland, and introduced in 1819.
- 2853 \*2100a ABU'TA Aub. (*Abutua*, its name in Gulana.) rufescens Aub. Menisperm. A stove climber, attaining the height of 10 ft. It produces yellowish-green flowers, and was introduced from Guiana in 1820.
- 2854 68 ACÉ'NA L. (*Akaina*, a thorn; the berries.) . . . . . Sanguisorb. Syn. Nos. 475. to 482. in p. 26.
- 2855 \*1082a ACERATIUM Dec. (*A. priv.*, *keras*, a horn; anthers without.) oppositifolium Dec. Eleocarpacea. A stove shrub, a native of Amboyna, whence it was introduced in 1818. It produces white flowers, and thrives in a mixture of peat and loam.
- 2856 \*1565a ACHYRONIA W. (*Achyron*, chaff; branches and leaves chaffy.) villosa W. Leg. Pap. Lot. Gen. A New Holland shrub, producing its yellow flowers in July and August. Introduced in 1819.
- 2857 1650a ACHYRONOPHORUS D. Don. (*Achyron*, chaff, *phoreo*, to bear; receptacle.) maculatus D. Don. Comp. Cich. No 11316, also 11315. and 11320.
- 2858 1029f ACOTIS D. Don. (*Akis*, a point, *ous*, an ear; petals.) . . . . . Melastomácea. Nos. 6016. and 5434.
- 2859 \*517a ACUMADENIA B. & W. (*Alme*, a point, *aden*, a gland; anthers.) tetragona Hill. Rutácea. Adenandra tetragona Swt. A Cape shrub, producing white flowers from April to July. Introduced in 1798.
- 2860 1117b ACUMENA Dec. (*Acmena*, a nymph of Venus's.) floribunda Dec. Myrtácea. No. 6936. in p. 416.
- 2861 1281b ACROCEPHALUS Benth. (*Akron*, summit, *kephale*, head; flowers.) capitatus Benth. Labiácea. No. 8472. in p. 510.
- 2862 1985e ACROCOMIA Mart. (*Akros*, top, *kome*, tuft; leaves.) . . . . . Palmácea. Nos. 13321. and 13322.
- 2863 \*1975a ACROGLOCHIN Schr. (*Akros*, summit, *glochis*, spear point.) chenopodioides Schr. Amarantácea. Amaranthus Acroglochis Spr. An interesting annual, a native of Nepal, producing its green flowers in July and August. Introduced in 1824.
- 2864 \*399c ACROTRICHA R. Br. (*Akros*, a point, *thrix*, hair; corolla.) cordata R. Br. Epacridácea. A genus of white-flowered New Holland shrubs, which may be increased by cuttings, and grown in a sandy peat soil.
- 2865 1804b ACTINOMERIS Nut. (*Aktin*, a ray, *meris*, part.) squarrosa Nut. Comp. Hel. No. 12411., also Nos. 12494. and 12495.
- 2866 \*237a ADENANTHOS Lab. (*Aden*, a gland, *anthos*, a flower.) obovata Lab. Proteácea. A shrub producing red flowers. Introduced from New Holland in 1826.
- 2867 1464b ADENOCAEPUS Dec. (*Aden*, a gland, *karpos*, fruit.) . . . . . Leg. Pap. Lot. Gen. No. 10439. in p. 624.
- 2868 462a ADENOPHORA Fis. (*Aden*, a gland, *phoreo*, to bear) . . . . . Campanulácea. Nos. 2646. 2649. and 2650. in p. 164.
- 2869 \*211a AEGOPOGON Ham. (*Aix*, a goat, *pogon*, a beard.) pusillus Beauv. Graminácea. A curious little annual grass, a native of South America. Introduced in 1822.
- 2870 \*1328a ÆOLLANTHUS Mart. (*Atollo*, to vary, *anthos*, flower.) suaveolens Mart. Verbenácea. A tender annual, producing its white flowers in July and August. It is a native of Brazil, and was introduced in 1825.
- 2871 1635b ÆTHONIA D. Don. (*Æthon*, one of Phebus's horses.) fruticosa D. Don. Comp. Cich. No. 11245. also 11281.
- 2872 \*677a AGASYLLIS Spr. (Greek name of the gum ammoniac plant.) caucásica Spr. Umbellifera. Siler caucasicum Spr. An uninteresting white-flowered biennial, introduced from Caucasus in 1818.
- 2873 1741a AGATHÆA Cas. (*Agathos*, excellent; flowers beautiful.) celestis Cas. Comp. Jacob. No. 12144. also No. 12140.
- 2874 1627a AGATHYRSUS D. Don. (*Agathos*, pretty, *thyrsus*, a thyrsé.) sibiricus D. Don. Comp. Cich. No. 11116. also 11109, 11110, 11111, 11112, and 11117.
- 2875 1581a AGATY Rin. (*Agaty*, its name in the Sanscrit language.) grandiflora Desv. Leg. Pap. Lot. Gal. No. 10521. in p. 630.
- 2876 \*244a AGNOSTUS Cun. (*Agnostos*, unknown; provisional name.) sinuata Cun. ? Proteácea. An ornamental evergreen green-house tree, attaining the height of 15 ft. A native of Moreton Bay. Introduced in 1830.
- 2877 206a AGROPYRUM Beauv. (*Agros*, a field, *pyros*, wheat.) . . . . . Graminácea. Nos. 1238, 1239, 1240. 1242. 1245. p. 70.
- 156 AGROSTIS L. (The Greek name for all grasses. *Agros*, a field.) spica vénti W. Graminácea. Anemagróatis spica vénti Trin. Apèra spica vénti Beauv.
- 2878 \*2034b AGYNEVA L. (*A. priv.*, *gyne*, woman; neither style nor stigma.) impubes L. Euphorbiácea. An uninteresting annual, producing its green flowers in July and August. Introduced from China in 1820.
- 2879 711b AYA Haw. (A poetic name; a warrior in siege of Troy.) . . . . . Amaryllácea. Nos. 4051. 4050. 4049. 4041. 4036. 4037. 4040. 4038. 4048. 4045. 4047. and 4046.
- 265 ALCHEMILLA L. (*Alkemtych*, its Arabic name.) arvensis Sm. Rosácea. A'phanes arvensis L. No. 1519.

- 2880 \*702b ALDROVA'NDA L. (*Ulysses Aldrovandus*, an Italian nat.) vesiculosa L. Droseraceæ. A curious little bog plant, produces white flowers, is a native of Italy, and was introduced in 1823.
- 2881 1586a ALBICA'RA Thou. (Arabic name of the plant.) Maurdrum Thou. Leg. Pap. Hed. Euh. No. 10550. in p. 630.
- 2882 \*309a ALLIO'NIA L. (*Charles Allioni*, prof. bot. at Turin.) . . . . . Nyctaginaceæ. A genus of ornamental annuals of which two species were introduced from Cumana in 1820; *A. violacea* and *A. incarnata*.
- 2883 \*541c ALSODE'A Thou. (*Alsodes*, leafy.) pauciflora Thou. Violaceæ. A genus of white-flowered shrubs, natives of Madagascar, may be increased by cuttings, and grown in a mixture of peat and loam.
- 2884 \*411a ALSTONIA R. Br. (*Dr. C. Alston*, prof. of med. at Edinb.) scholaris R. Br. Apocynaceæ. *Nerium tinctorium Hort.* The species are natives of the East Indies. For other particulars see *Alsodæa*, above.
- 2885 2112a ALY'NGIA Nor. (*Alting*, some obscure German bot.) excelsa Nor. Coniaceæ. No. 14048. in p. 846.
- 2886 1586b ALYSICA'RPUS Nees. (*Alysis*, chain, *karpos*, fruit.) . . . . . Leg. Pap. Hed. Euh. Nos. 10551, 10552, 10553, and 10557.
- 1401 ALY'SSUM L. (*A. priv.*, *lyssa*, canine madness, sup. med. qual.) maritimum Lam. Crucifacæ. *Glyce maritima Lindl.*
- 2887 \*411c ALY'XIA R. Br. (*Alyxis*, anxiety; gloomy appearance.) daphnoides Cum. Apocynaceæ. A shrub producing white fragrant flowers. It is a native of the Norfolk Islands, whence it was introduced in 1831. A mixture of peat and loam suits the plant.
- 2888 \*507a ALZA'TEA R. & P. (*J. A. de Alzate*, a Span. naturalist.) verticillata R. & P. Celastraceæ. A tree, a native of Peru. Introduced in 1824.
- 2889 \*1464m AMI'CIA H. & B. (*J. B. Amici*, a celebrated physician.) zygomeris Dec. Leg. Pap. Hed. Euh. A stove climber, introduced from Mexico in 1824.
- 2890 1552a AMI'CA'RA Ell. (*Amphi*, on both sides, *karpos*, fruit; and above and under ground.) . . . . . Leg. Pap. Phas. Nos. 10296, 10297, and 10300.
- 2891 1294c AMPHIBIUM Kth. (*Amphi*, around, *lobos*, a pod.) paniculata Kth. Bignoniaceæ. No. 8535. in p. 314.
- 2892 \*139a AMPHIPO'GON R. Br. (*Amphi*, around, *pogon*, a beard.) strictus R. Br. Graminaceæ. A perennial grass, a native of New Holland. Introduced in 1823.
- 2893 \*1547a A'MPHODUS Lindl. (*Amphi*, on both sides; *odous*, a tooth.) ovatus, Lindl. Leg. Pap. Phas. A curious perennial stove twiner, produces its purple flowers in July and August, and was introduced from Trinidad in 1820.
- 2894 726a ANANA'SSA Thun. (*Nanas*, the name in Guiana.) sativa B. R. Bromeliaceæ. No. 4108., also Nos. 4110, and 4119. in p. 246.
- 2895 \*586a ANA'NTHRIX Nut. (*A*, without, *antherix*, an awn.) viridis Nut. Asclepiaceæ. *Asclæpias viridis Wall.* A curious little herbaceous plant, producing yellowish green flowers. A native of North America. Introduced in 1812.
- 2896 2129b ANATHE'RUM Beauv. (*A*, priv., *ather*, awn; valves of calyx awnless.) muticum R. & S. Graminaceæ. No. 14212. in p. 860.
- 2897 \*241c ANCHIE'TEA Hil. (*P. Anchieta*, a Brazilian writer on plants.) pyrifolia G. Don. Violaceæ. *Calyptrion pyrifolium Mart.* An ornamental stove climber, growing to the height of about 3 ft., and producing white flowers in July and August. Introduced from Brazil in 1822.
- 2898 1516b ANDI'RA Lam. (Its name in Brazil.) inermis H. & B. Leg. Cæs. Geoff. No. 10029. in p. 604.
- 2899 \*1421a ANDRO'SKIA Dec. (*Ant. Andrzejewski*, a Russian botanist.) integrifolia Dec. Crucifacæ. *Sisymbrium integrifolium L.* A genus of uninteresting annuals and biennials, natives of Siberia.
- 2900 1499a ANDRO'SMUM All. (*Aner*, a man, *hatma*, blood; colour of juice.) officinale AU. Hypericaceæ. No. 10040. in p. 556.
- 2901 1843a ANGIANTHUS Wall. (*Aggos*, a vessel, *anthos*, flower.) adreus Wal. Comp. Echln. No. 12772. in p. 744.
- 2902 1117a ANGO'PHORA Cav. (*Aggos*, a vessel, *phoreo*, to bear; form of fruit.) . . . . . Myrtaceæ. Nos. 6935 and 6937. in p. 416.
- 2903 \*845a ANGUILLA'RIA R. Br. (*Anguilla*, an eel; twisted seeds.) indica R. Br. Melanthaceæ. A little half-hardy dark-purple-flowered herbaceous plant, a native of Tranquebar, may be increased by division, and grown in a sandy peat soil. Introduced in 1810.
- 2904 \*254a ANISACA'NTHA R. Br. (*Anisos*, unequal, *akantha*, a spine.) divaricata R. Br. Chenopodiaceæ. A curious New Holland shrub, introduced in 1824; may be increased by cuttings, and grown in a mixture of peat and loam.
- 2905 107a ANISANTHUS Swt. (*Anisos*, unequal, *anthos*, a flower.) . . . . . Iridaceæ. Nos. 704. and 706. in p. 42.
- 2906 1282b ANISOCHI'LUS Wall. (*Anisos*, unequal, *cheilos*, lip.) carnosæ Benth. Labiaceæ. No. 8199. in p. 498.
- 2907 \*380a ANISODUS Lk. (*Anisos*, unequal, *odous*, a tooth; cal.) stramonifolius G. Don. Solanaceæ. *Whitlæya stramonifolia Swt.* An ornamental perennial with yellowish green flowers. A native of Nepal, introduced in 1823.
- 2908 1401c ANODO'NTA Dec. (*A*, destitute, *odontos*, of a tooth; stamens.) . . . . . Crucifacæ. Nos. 9068, 9070, 9071, and 9072.
- 2909 212b ANTHE'PHORA Schreb. (*Anthos*, a flower, *phoreo*, to bear.) elegans Schreb. Graminaceæ. No. 13179. in p. 780.
- 2910 \*2129g ANTHISTEMIA W. (*Anthistemi*, to resist; harshness of stubble.) ciliata Retz. Graminaceæ. *Andropogon quadrivialis L.*
- 2911 \*420a ANTHOLEI'STA Afx. (*Anthos*, a flower, *kleistos*, shut up.) macrophylla G. Don. Apocynaceæ. An evergreen stove tree, attaining the height of 20 ft., and producing white flowers. It is a native of Sierra Leone, was introduced in 1820, and thrives in a mixture of peat and loam.
- 2912\* 83b ANTHONON R. & P. (*Anthos*, a flower, *odon*, a tooth.) paniculatum Mart. Hippocrateæ. A stove shrub producing yellowish green flowers. Introduced from Rio Janeiro in 1818, and thrives in a mixture of peat and loam.
- 2913 \*1163a ANTHOLOMA Lab. (*Anthos*, a flower, *loma*, a fringe.) montana Lab. Marcegraviaceæ. A New Holland shrub, introduced in 1810; may be increased by cuttings, and grown in sandy loam.
- 2914 261a ANOTIS Dec. (*A*, priv., *ous*, *otos*, an ear; teeth of cal.) ciliolata G. Don. Rubiaceæ. *Hedyotis ciliolata Hook.*
- 2915 1730c APHELES'XIS D. Don. (*Aphelus*, simple, *exis*, habit; plants.) . . . . . Comp. Vern. Nos. 11798, 11807, 11808, and 11810.
- 2916 769g APIC'RA W. (*Apikros*, not bitter; unlike bitter aloes.) . . . . . Ajoineæ. Nos. 4388, 4405, to 4412. in p. 262.
- 2917 1553c A'PIOS Boer. (*Aptos*, a pear; form of roots.) tuberosa Moem. Leg. Pap. Phas. No. 10313. in p. 618.
- 2918 998a APOPHY'LLUM J. (*Haploos*, simple, *phyllon*, leaf; lvs. simple.) patavinum J. Rutaceæ. No. 8893. also 5891. and 5892.
- 2919 \*2129c APLU'DA L. (*Apluda* aff; involucre.) aristata L. Graminaceæ. *Andropogon involucreatus Kion.*
- 2920 \*272a AQUA'RTIA Jac. (*B. Aquart*, Jacquin's comp. in Amer.) tomentosa Jac. Solanaceæ. A South American shrub producing white flowers. It was introduced in 1819, and requires to be grown in a sandy loam.
- 2921 \*1034b AQUILA'RIA L. (*Aquila*, an eagle; called Bois d'Aigle by French colonists.) malaccensis Lam. Samy-daceæ. *A. ovata Cav.* An ornamental stove shrub introduced in 1823. It produces greenish yellow flowers, and thrives in a mixture of loam and peat.
- 2922 664a ARCHANGE'LICA Hoffm. (Supposed *archangelic* virtues.) officinalis Hoffm. Umbellaceæ. No. 3677. also 3681. in p. 220.

- 2923 1019a *ARCTOSTA'PHYLOS* *Adan.* Bear's Grape. (*Arktos*, bear, *staphyle*, a grape.) . . . . *Ericacæe*. Nos. 5966, and 5967.
- 2924 920a *AREMO'NIA* *Dec.* (Changed from *Agrimonia*.) *agrimoniloides* *Dec.* *Rosacæe*. No. 6657, in p. 398.
- 2925 425a *ARGA'NIA* *R. & S.* (*Argam*, its aboriginal name.) *Sideroxyylon R. & S.* *Sapotacæe*. No. 2938. in p. 180.
- 2926 2006a *ARISA'RUM* *Tou.* (Adopted from the Greeks.) vulgare *Kth.* *Aracæe*. No. 13477, in p. 900.
- 2927 \*150a *ARISTI'DA* *L.* (*Arista*, an ear of corn.) stipuloides *R. Br.* *Graminacæe*. A native of New Holland, and was introduced in 1826.
- 2928 1128b *ARMENI'ACA* *Tou.* (Originally from Armenia.) vulgâris *Lam.* *Rosacæe*. No. 7056. also Nos. 7057, 7058, and 7044.
- 2929 \*649a *ARACACA'IA* *Bancroft.* (Euphonised from *Arracacha*, its name in Santa Fè.) *esculentâ* *Dec.* *Umbellacæe*. *Codium Arracacha* *Hook.*
- 2930 2132a *ARRHENATHE'RUM* *Beauv.* (*Arrhen*, male, *ather*, point; male spikes awned.) . . . *Graminacæe*. Nos. 14227, and 14228, p. 860.
- 2931 \*1353a *ARTANE'MA* *D. Don.* (*Artao*, to append, *nema*, filament; fil. toothed.) fimbriatûm *D. Don.* *Scrophulariacæe*. *Torëntia scabra* ? *Grah.* An ornamental green-house perennial, producing pale blue flowers from June till August. Introduced from Moreton Bay in 1830.
- 1721 *ARTEMI'SIA* *L.* (*Artemis*, one of the names of Diana.) *campëstris* *L.* *Comp. Anthem.* *Oligosporus campëstris* *Cass.*
- 2932 \*1578a *ARTHROLO'BIVM* *Desv.* Joint-Vetch. (*Arthron*, a joint, *lobos*, a pod; jointed seed-vessel.) *ebracteatum* *Desv.* *Leg. Hed.* Found on "sandy ground near Grand Havre, Guernsey, but rare." — *Hook*
- 2933 \* *ASAGRE'IA* *Lindl.* (*Dr. Asa Gray*, one of the auths. of Fl. of N. Amer.) *officialis* *Schl.* *Melanthacæe*. *Helonias officinalis* *D. Don* is the *Veratrum officinale* of Schlecht. It is a half-hardy, bulbous-rooted, white-flowered perennial. Introduced from Mexico in 1839.
- 2934 1680a *ASCARIC'DA* *Cass.* (*Ascaris*, an intestinal worm, *caedo*, to kill.) *antelmintica* *Swt.* *Comp. Vern.* No. 11504, in p. 688.
- 2935 711d *ASSA'NACUS* *Haw.* (*Assaracus*, a Trojan prince.) . . . . *Amaryllacæe*. No. 4027, in p. 240.
- 2936 \*610a *ASTARTE'A* *Dec.* (*Astarte*, the Syrian Venus.) *fasciculâris* *Dec.* *Myrtacæe*. *Melaleuca fasciculâris* *Lab.*
- 2937 \*578c *ASTE'PHANUS* *R. Br.* (*A*, without, *stephanos*, crown; stamens.) triflorus *R. Br.* *Asclepiadacæe*. A genus of Cape twiners, two species of which were introduced in 1816; they bear white flowers, and require to be grown in a mixture of peat and loam.
- 2938 264a *ASTEROCE'PHALUS* *Vail.* (*Aster*, star, *kephale*, head; seeds.) . . . . *Dipsacæe*. No. 1569, to 1594, in p. 69.
- 2939 1043a *ASTY'LBÆ* *Ham.* (*A*, intensive, *stilbe*, brightness.) *decandra* *D. Don.* *Saxifragacæe*. No. 6109, in p. 38.
- 2940 \*1985g *ASTROCA'RYVM* *Mey.* (*Astron*, star, *karyon*, nut.) *Murumura* *Mart.* *Palmacæe*. A palm attaining the height of 40 ft. Introduced from Brazil in 1825.
- 2941 1578a *ASTROLO'BIVM* *Desv.* (*Astron*, star, *lobos*, pod; disposition.) . . . . *Leg. Pap. Hed. Cor.* Nos. 10611, 10513, and 10514.
- 2942 1002c *ATALA'NTIA* *Corr.* (*Atalanta*, the daughter of Schœneus.) *monophylla* *Dec.* *Aurantiacæe*. No. 5902, in p. 356.
- 2943 1627b *ATALA'NTHUS* *D. Don.* (*Atalos*, soft, *anthos*, a flower.) *pinnatus* *D. Don.* *Comp. Cich.* No. 11151, also 11149, and 11152.
- 2944 2130a *ATHEROPO'GON* *Mhl.* (*Ather*, awn, *pogon*, beard; awns bearded.) *apludoides* *W.* *Graminacæe*. No. 14218, in p. 860.
- 2945 \*1985f *ATHEROSPE'RNA* *Lab.* (*Ather*, awn, *sperma*, seed.) *moschata* *Lab.* *Calycanthacæe*? A New Holland tree growing to the height of 30 ft., and producing its white flowers in May and June. Introduced in 1824.
- 2946 1226a *ATRA'GENE* *L.* (A name given by Theophrastus to a species of *Clématis*.) *Ranunculacæe*. Nos. 7963, 7964, and 7965, in p. 482.
- 2947 \*2007d *ATTA'LIA* *Hum.* (*Attalus*, magnificent; trees.) *excelsa* *Mart.* *Palmacæe*. A genus of Brazilian palms, the species varying from 10 ft. to 70 ft. in height.
- 2948 \*62a *AUDIBERTIA* *Benth.* (*M. Audibert*, of Tarascon, a nurseryman.) *incana* *Benth.* *Labiacæe*. *Sálvia carnosa* *Her. Dou.*
- 2949 533d *AUDOUINIA* *Brong.* (*A. Audouin*, an entomol. and friend of Brongniart.) *capitata* *Brong.* *Bruniacæe*. No. 2949, in p. 180.
- 2950 537a *BALSAMINA* *Riv.* (*Balsamine*, a name used by Dioscorides.) *hortensis* *Desp.* *Balsaminacæe*. No. 3016, also 3017, in p. 134.
- 2951 \*889a *BALSAMODENDRON* *Kth.* (*Balsamon*, balsam, *dendron*, tree.) *zeylanicum* *Kth.* *Terebinthacæe*. *Amÿris zeylanica* *Retz.* A tree attaining the height of 30 ft., a native of Ceylon; may be increased by cuttings, and grown in a mixture of peat and loam.
- 2952 \*984c *BA'PHIA* *Afr.* (*Baphe*, a dye; use.) *nitida* *Lod.* *Leg. Swartzieæ*. A tree growing to the height of about 30 ft., and producing white flowers from June to November. It is a native of Sierra Leone, and was introduced in 1793.
- 2953 \*412a *BEAUMONTIA* *Wal.* (*Diana*, the lady of Col. T. Beaumont.) *grandiflora* *Wall.* *Apocynacæe*. An elegant white-flowered stove twiner, a native of the East Indies. Introduced in 1820.
- 2954 803a *BELLEVALIA* *Lap.* (*P. R. Belleval*, a French botanist.) *operculata* *Lap.* *Asphodèleæ*. No. 4774, in p. 278.
- 2955 1749a *BELLIDIASTRUM* *Cas.* (*Bellis*, daisy, *astrum*, an affix signifying like.) *Michëlii* *Cas.* *Comp. Vern.* No. 12186, in p. 716.
- 2956 2136a *BENINCASA* *Savi.* (*Count Benincasa*, an Italian nobleman.) *cerifera* *Savi.* *Cucurbitacæe*. *Cucurbita cerifera* *Fis.*
- 2957 533c *BERA'RDIA* *Brong.* (*Berard*, prof. of Chemistry at Montpellier.) . . . . *Bruniacæe*. Nos. 2994, and 3006.
- 2958 503a *BERCHE'MIA* *Neck.* (*M. Berchem*, a French botanist.) . . . . *Rhamnacæe*. Nos. 2894, and 2895, in p. 176.
- 2959 \*1002d *BERGERA* *Kon.* (*C. J. Berger*, prof. of bot. at Kiel.) *Konigii* *Rox.* *Aurantiacæe*. A curious East Indian shrub, producing its white flowers in June and July. It may be increased by layers, and grown in a mixture of peat and loam.
- 2960 \*1070a *BERGIA* *L.* (*P. J. Bergius*, M.D., prof. nat. hist. Stockholm.) *verticillata* *W.* *Caryophylleæ*. A curious little reddish-white-flowered annual, a native of Egypt. Introduced in 1820.
- 2961 1266a *BENINGERIA* *Neck.* (*Beringer*, probably a man's name.) . . . . *Labiacæe*. Nos. 8339, 8342, 8343, 8344, 8346, 8347, and 8348.
- 2962 \*1178a *BERRYA* *Rox.* (*Dr. Berry*, who first introd. it to Calcutta bot. gar.) *Aromilla* *Rox.* *Thiicæe*. A tree, a native of the East Indies, whence it was introduced in 1818. It thrives in a mixture of peat and loam.
- 2963 \*1196a *BERTHOLETIA* *H. & B.* Brazil Nut. (*L. C. Bertholet*, a celebrated chemist.) *excelsa* *H. & B.* *Lecythacæe*. A stove tree attaining the height of 100 ft. It is a native of Para, may be increased by cuttings, and grown in a mixture of peat, loam, and sand.
- 2964 533a *BERZELIA* *Brong.* (*Berzelius*, a celebrated chemist.) . . . . *Bruniacæe*. Nos. 2995, and 3001.
- 2965 \* *BERBERA* *Schultes* *fl.* (*Dr. Besser*, prof. of botany at Brody.) *elegans* *Lindl.* *Liliacæe*. An ornamental bulbous-rooted plant, producing its crimson-coloured flowers from June till October. Introduced from Mexico in 1839.

- 2966 618a *BI'FORIS* Spr. (*Bis*, double, *foris*, a flap; fruit.) testiculatus *Bieb.* Umbellacæe. No. 3477. in p. 208.  
 2967 270c *BIGELO'VIA* Spr. (*Prof. Bigelow*, of N. Amer.) . . . . . Rubiacæe. Nos. 1649. and 1652. in p. 94.  
 2968 \*1613a *BILLO'VIA* Coll. (*Mad. Tecopilla Bilali*, of Turin.) acerôsa *Coll.* Myrtacæe. A New Holland shrub, producing its red flowers from July till September. Introduced in 1816.  
 2969 \*1428a *BIVONA'IA* Dec. (*Ant. Bivoni Bernardi*, an Ital. botan.) lutea *Dec.* Cruciacæe. *Thlâspi luteum Biv.* An uninteresting little yellow-flowered annual. Introduced from Italy in 1824.  
 2970 \*1301a *BLE'PHARIS* J. (*Blepharis*, the eyelashes; bractæas of cal.) capensis *Pers.* Acanthacæe. A biennial, introduced in 1818, and producing its blue flowers in July and August.  
 2971 60a *BLEPHI'LIA* Raf. (*Blepharis*, eyelash; sepals fringed?) . . . . . Labiacæe. Nos. 365. and 366. in p. 22.  
 2972 123a *BLY'SMUS* Panz. (*Blasmos*, a source or spring; locality.) compressus *Panz.* Cyperacæe. No. 849. in p. 48.  
 2973 117b *BOBA'RTIA* L. (*Jacob Bobart*, prof. of bot. at Oxford, 1669.) . . . . . Iridacæe. Nos. 826. and 831. in p. 43.  
 2974 \*81b *BOLD'IA* Lag. (*D. Boldo*, a Spanish botanist.) purpurascens *Cav.* Nyctaginacæe. An herbaceous stove plant, a native of Cuba, whence it was introduced in 1820.  
 2975 \*1437a *BO'LEUM* Desv. (*Bolos*, a ball; round pods.) âsperum *Desv.* Cruciacæe. *Vella âspera Pers.* A pretty half-hardy undershrub. Introduced from Spain in 1820, and producing its cream-coloured flowers from May to July.  
 2976 \*39a *BOLIVAR'IA* Schleg. (In honour of the great *Bolívar*.) trifida *Schleg.* Jasminacæe. An ornamental green-house shrub, producing its yellow flowers in July. A native of Chile. Introduced in 1828.  
 2977 \*825a *BONGA'RDIA* Mey. (*H. G. Bongard*, a French botanist.) Rauwolfii *Mey.* Berberacæe. *Leontice Chrysoگونون L.* A yellow-flowered tuberous-rooted perennial. Introduced from Persia in 1836.  
 2978 43a *BONNA'YA* Lk. (*Bonny*, a German botanist.) *veronicaefolia Spr.* Scrophulariacæe. No. 269. in p. 16.  
 2979 \*1190a *BONNET'IA* Schreb. (*Charles Bonnet*, a Genevese naturalist.) palustris *Vahl.* Guttacæe. A stove tree, producing red flowers. A native of Trinidad. Introduced in 1819.  
 2980 \*1086b *BO'NCIA* Lam. (*L. Bosc*, Direct. of Roy. Bot. Gard. at Paris.) senegalensis *Lam.* Capparidacæe. *Podôria senegalensis Pers.* A stove shrub introduced in 1824, may be increased by cuttings, and grown in light rich soil.  
 2981 \*1010a *BOSWEL'ITA* Rox. Olibanum Tree. (*Dr. John Boswell*, of Edinburgh.) serrata *Stack.* Terebinthacæe. A medicinal tree, a native of the East Indies, introduced in 1820. It produces pale yellow flowers, and may be grown in a mixture of loam and peat.  
 2982 \*693a *BOUSSINGAU'LTIA* H. B. & K. (*J. B. Boussingault*, a celeb. naturalist.) baselloides *Hum.* Chenopodiacæe. A whitish-flowered tuberous-rooted green-house plant, a native of South America. Introduced in 1838.  
 2983 \*769d *BOWIE'IA* Haw. (*J. Bowie*, a collect. of plants for Kew gar.) myriacantha *Haw.* Hemerocallidæe. A curious little creeper with yellowish-green flowers, a native of Monte Video. Introduced in 1827.  
 2984 \*658a *BOWLES'IA* R. & S. (*W. Bowles*, an Irish botanist.) tenera *Spr.* Umbellacæe.  
 2985 1731a *BRACHYLE'NA* R. Br. (*Brachys*, short, *lana*, cloak; calyx.) nereifolia *Swt.* Comp. Vern. No. 11820. in p. 702.  
 185 *BRACHYPO'DIUM* Beauv. (*Brachys*, short, *pous*, foot.) loliacum *R. & S.* Graminacæe. *Catapodium loliacum Lk.*  
 2986 \*2032a *BRADLE'YA* Gae. (*Rich. Bradley*, first prof. of bot. Cambridge.) sinica *Gae.* Euphorbiacæe. A curious stove shrub. Introduced from China in 1816.  
 2987 \*1586c *BREMONTIE'RA* Dec. Sand Wood. (*M. Bremontier*, an agriculturist.) Ammoxylon *Dec.* Leg. Pap. Hed. Euth. A stove shrub, a native of the Mauritius. Introduced in 1826.  
 2988 646b *BRIGNO'LIA* Bert. (*J. L. Brignoli*, a prof. at Verona.) panicifolia *Brig.* Umbellacæe. No. 3601. in p. 210.  
 2989 \*1516c *BRONNIA'RTIA* H. & B. (*M. Adolphe Brongniart*, a Fr. bot.) podalyrioides *Kth.* Leg. Geof. A half-hardy undershrub, producing flesh-coloured flowers from September to November. A native of New Spain. Introduced in 1827.  
 2990 \*1175e *BROWNLO'VIA* Rox. (The late *Lady Brownlow*, daughter of Sir A. Hume.) elata *Rox.* Tilliacæe. A tree growing to the height of 60 ft., a native of the East Indies, produces yellow flowers, is increased by cuttings, and thrives in sandy loam. Introduced in 1820.  
 2991 \*617a *BRUNO'NIA* Sm. (*Robt. Brown*, Esq., a learned syst. botan.) australis *R. Br.* Goodeniæe. An ornamental blue-flowered New Holland perennial. Introduced in 1834.  
 2992 1464r *BRY'IA* Br. (*Bryo*, to sprout, seeds germin. before falling.) E'benus *Dec.* Leg. Pap. Dalb. No. 10034. in p. 604.  
 2993 \*1059a *BUCHANA'NIA* Rox. (*T. Buchanan*, now Hamilton, M.D.) angustifolia *Rox.* Terebinthacæe. *Mangifera axillaris Lam.* A genus of East Indian trees, producing white flowers, of which two species were introduced in 1820.  
 2994 \*864a *BUGINVILLE'IA* Com. (*Bougainville*, a Fr. navigator.) spectabilis *J.* Nyctaginacæe. An ornamental stove climber, growing to the height of 15 ft. and producing pink flowers. Introduced from South America in 1829.  
 2995 \*320a *BULLIA'RTIA* Dec. (*M. Bulliard*, a Fr. botanist.) Vaillanti *Dec.* Crassulacæe. A curious little aquatic annual, with white flowers, a native of the South of Europe. Introduced in 1825.  
 2996 1007a *BUNCHO'SIA* J. (*Bunchos*, coffee, *Arab*; similar seeds.) . . . . . Malpighiacæe. Nos. 6371. to 6375. and also 6379.  
 2997 \*786a *BURCHARD'IA* R. Br. (*H. Burchard*, M.D., a bot. author.) umbellata *R. Br.* Melanthacæe. A New Holland white-flowered herbaceous plant. Introduced in 1820.  
 2998 \*702a *BY'BLIS* Sal. (*Zyblis*, the daughter of Miletus.) iniflora *Sal.* Droseracæe. A curious little bog plant, producing blue flowers. A native of New Holland, whence it was introduced in 1800.  
 2999 1054a *BYRSO'NIMA* Rich. (*Byrsa*, a hide; used for tanning.) . . . . . Malpighiacæe. No. 6380. to 6384. in p. 380.  
 3000 1548h *CAJANUS* Dec. Pigeon Pea. (*Cajang*, its name in Malabar.) flavus *Dec.* Leg. Pap. Phas. No. 10443. in p. 624.  
 3001 175a *CALAMAGRO'STIS* Adam. (*Kalamos*, a reed, *agrostis*, grass.) . . . . . Graminacæe. Nos. 999. 1068. 1069. 1070.  
 3002 ?1819a *KALLOS'PHALUS* Mey. (*Kallos*, beauty, *kephale*, head; flws.) nitens *Mey.* Comp. Cynar. *Centaurea nitens Bieb.* No. 12691. in p. 738.  
 3003 1635a *CALIOPE'IA* D. Don. (*Calliope*, one of the Muses.) âurea *D. Don.* Comp. Cich. No. 11186. in p. 672.  
 3004 \*795a *CALIPRO'RA* Lindl. (*Kale*, pretty, *prora*, front; its beauty.) lutea *Lindl.* Asphodelæe. An ornamental bulbous-rooted plant, producing its yellow flowers in July. Introduced from New California in 1831?  
 3005 \*662a *CALLI'SACE* Fis. (*Kallos*, beauty, *sakos*, a buckler; seeds.) dahurica *Fis.* Umbellacæe. An uninteresting green-flowered perennial, a native of Siberia. Introduced in 1816.  
 3006 892i *CALLI'STA* D. Don. (*Kallistos*, most beautiful; flws.) Walkeri *D. Don.* Ericacæe. Type. No. 5217. in p. 308.  
 3007 1739a *CALLISTE'MMA* Cas. China Aster. (*Kallistos*, prettiest, *stemma*, crown; flws.) hortense *Cas.* Comp. Vern. No. 12032. in p. 710.  
 3008 1117a *CALLISTE'MON* R. Br. (*Kallistos*, most beautiful, *stemon*, stamen.) . . . . . Myrtacæe. Nos. 6941. to 6950. (6947. excepted.)  
 3009 \*2018a *CAL'LITRIS* Ven. (*Kallos*, beauty; appearance.) quadrivalvis *Ven.* Conacæe. A tree attaining the



- height of from 15 ft. to 20 ft. A native of Barbary. Introduced in 1815, and flowering from February to May.
- 3010 892<sup>r</sup> CALLUNA *Sal.* (*Kalluno*, to adorn; *flwa.*) vulgaris *Sal.* Ericaceæ. Type, No. 5268. in p. 310.
- 3011 1569<sup>e</sup> CALOPHACA *Fis.* (*Kalos*, beautiful, *phake*, lentil.) wolgárica *Fis.* Leg. Pap. Lot. Gal. No. 10442 in p. 624.
- 3012 \*541<sup>b</sup> CALYPTRIUM *Ging.* (*Kalypra*, a veil, *ion*, a violet.) Aubletii *Ging.* Violaceæ. *Viola Hybánchez Aub.* A climber, a native of Guiana. Introduced in 1823. It produces cream-coloured flowers.
- 3013 \*1126<sup>a</sup> CALYTRIX *Lab.* (*Kalyz*, a calyx, *trizos*, triple.) glabra *R. Br.* Myrtaceæ. A genus of New Holland shrubs which produce white flowers, are increased by cuttings, and grown in sandy peat.
- 3014 \*809<sup>a</sup> CAMASSIA *Lindl.* (*Quamash* or *Cumas*, its name in North-West America.) esculenta *Lindl.* Asphodelæ. *Quamásia esculenta Raf.* A dark-purple-flowered, hardy, bulbous-rooted plant. Introduced from Columbia in 1827.
- 3015 765<sup>a</sup> CAMPELIA *Rich.* (*Kampe*, a bending, *helios*, the sun.) Zemônia *Rich.* Commelinaceæ. No. 4372. in p. 260.
- 3016 \*49<sup>a</sup> CAMPYLANTHUS *Roth.* (*Kampylos*, a curve, *anthos*, a flower.) salsoloides *Roth.* Primulacæ. An evergreen green-house shrub, with purplish blue flowers, introduced from Tenerife in 1825, and requiring to be grown in a sandy peat soil.
- 3017 1464<sup>g</sup> CANAVALLIA *Dec.* (*Canavali*, its Malabar name.) ensiformis *W.* Leg. Pap. Phas. No. 10288. in p. 616.
- 3018 649<sup>a</sup> CARNOBYLLUM *Gac.* (*Kapnos*, smoke, *phylon*, a leaf.) africanum *Gac.* Umbellacæ. No. 3610. *Rúmia capensis Lk.*
- 3019 729<sup>b</sup> CARAGUATA *Plu.* (Its name in South America.) lingulata *Lindl.* Bromeliacæ. No. 4138. in p. 248.
- 3020 \*1079<sup>a</sup> CARALLIA *Rox.* (*Cavallie* in the Teluga lang., in Hindoostan.) lucida *Rox.* Pomaceæ. An East Indian tree producing yellow flowers. Introduced in 1820.
- 3021 \*989<sup>c</sup> CARAPA *Aub.* (*Carape*, its name in Guiana.) guianensis *Aub.* Meliaceæ. A tree attaining the height of 20 ft., and producing yellow flowers. Introduced in 1824.
- 3022 1674<sup>e</sup> CARDUNCULLUS *Dec.* (A diminutive of *Cardunculus*.) vulgaris *Dec.* Comp. Cord. No. 11484. also 11483.
- 3023 \*2159<sup>a</sup> CARGILLIA *R. Br.* (*Dr. James Cargill*, of Aberdeen.) laxa *R. Br.* Ebenaceæ. A genus of New Holland trees, growing to the height of about 15 ft., may be increased by cuttings, and grown in a mixture of loam and peat.
- 3024 1674<sup>a</sup> CARLOWITZIA *Moen.* (*Carlowitz*, some obscure botanist.) salicifolia *Moen.* Comp. Card. No. 11478. in p. 686.
- 3025 1602<sup>a</sup> CARMICHAELIA *R. Br.* (*Capt. Dugald Carmichael*, F.L.S.) australis *R. Br.* Leg. Pap. Lot. Trif. No. 10950. in p. 644.
- 3026 \*414<sup>b</sup> CARPONIUM *R. Br.* Sweet Pishamin. (*Karpas*, a fruit, *dinos*, a circle; round fruit.) dulcis *G. Don.* Apocynaceæ. A native of Sierra Leone, introduced in 1822. It produces green flowers, and thrives in a mixture of peat and loam.
- 3027 \*1212<sup>b</sup> CARPODONTOS *Lab.* (*Karpas*, a fruit, *odontotos*, toothed.) lucida *Lab.* Hypericaceæ. A tree, a native of New Holland, whence it was introduced in 1820.
- 3028 594<sup>b</sup> CARUNCULARIA *Haw.* (*Caruncula*, fleshy protuberance; *fi.*) pedunculata *Haw.* Asclepiaceæ. No. 3339. in p. 202.
- 3029 1999<sup>a</sup> CARYA *Nut.* (*Karyon*, a nut.) . . . . Juglandaceæ. Nos. 13378. to 13384.
- 3030 \*1205<sup>a</sup> CARYOCAR *L.* Butter Nut. (*Karyon*, a nut; bearing nuts.) tomentosa *W.* Rhizobolacæ. *Pêkea sp. Aub.* A genus of fruit-bearing trees growing to the height of about 100 ft. Natives of Guiana.
- 3031 \*1034<sup>a</sup> CASARIA *L.* (*J. Casarius*, cooperator in Hort. Malab.) ramiflora *Vahl.* Samydaceæ. *Iroucâna guianensis Aub.* A genus of stove shrubs, producing greenish yellow flowers, may be increased by cuttings and grown in sandy loam.
- 3032 1016<sup>b</sup> CASSANDRA *D. Don.* (*Cassandra*, the daughter of Priam and Hecuba.) calyculata *D. Don.* Ericaceæ. No. 5959. in p. 360.
- 3033 1016<sup>a</sup> CASSIOPE *D. Don.* (*Cassiope*, the mother of Andromeda.) hypnoides *D. Don.* Ericaceæ. No. 5938. in p. 358.
- 3034 \*877<sup>a</sup> CASTELA *Turp.* (*M. Castel*, author of a poem upon plants.) erecta *Turp.* Rhamnaceæ. A West Indian shrub, introduced in 1825, is increased by cuttings, and may be grown in a mixture of peat and loam.
- 3035 170<sup>a</sup> CATABROSA *Beauv.* (*Katabrosis*, food.) aquatica *Beauv.* Graminacæ. No. 1041. in p. 58.
- 3036 2014<sup>a</sup> CEDRUS *Barrl.* (*Cedron*, a brook in Judea; plentiful on its banks.) Libani *Barrl.* Coniáceæ. No. 13537. in p. 806.
- 3037 174<sup>a</sup> CENTOTHECA *Desv.* (*Kenteo*, to prick, *theka*, a sheath.) lappacea *Desv.* Graminacæ. No. 914. in p. 52.
- 3038 892<sup>c</sup> CERAMIA *D. Don.* (*Keramon*, a little pitcher.) urceolaris *D. Don.* Ericaceæ. Type, No. 5354. in p. 314.
- 3039 \*541<sup>d</sup> CERANTHERA *Beauv.* (*Keras*, a horn, *anthera*, an anther.) subintegrifolia *Beauv.* Violaceæ. An ornamental shrub with white flowers, a native of Gulana. Introduced in 1824.
- 3040 1129<sup>a</sup> CERASUS *J.* (Originally from *Cerasus*, a town of Pontus in Asia.) . . . . Rosaceæ. Nos. 7026. to 7043, and also 7048, and 7049, 7053, 7054, and 7055.
- 3041 2019<sup>b</sup> CERRATOSA *Burm.* (*Keras*, horn, *anthos*, fl.; inner segms.) tuberosa *J.* Cucurbitaceæ. No. 13554. in p. 808.
- 3042 \*141<sup>a</sup> CERESIA *Pers.* (*Ceres*, a goddess; inventress of tillage.) elegans *Pers.* Graminacæ. *Páspalum membranaceum Flug.* An ornamental grass, introduced from Peru in 1816.
- 3043 1660<sup>a</sup> CESTRINUS *Cass.* (*Cestrinus*, the son of Helenus and Andromache.) carthamoides *Cass.* Comp. Card. No. 11460. in p. 684.
- 3044 \*150<sup>b</sup> CHÆTARIA *Beauv.* (*Chaite*, an awn or bristle.) hystrix *Beauv.* Graminacæ. An uninteresting East Indian plant, introduced in 1820.
- 3045 1552<sup>a</sup> CHÆTOCALYX *Dec.* (*Chaite*, bristle, *kalyz*, calyx; teeth.) vincentina *Dec.* Leg. Pap. Lot. Clit. No. 10310. in p. 618.
- 3046 119<sup>a</sup> CHÆTOSPORA *R. Br.* (*Chaite*, a bristle or awn, *spora*, a seed.) ferruginea *Hum.* Cyperaceæ. No. 848. in p. 43.
- 3047 \*615<sup>a</sup> CHAILLETIA *Dec.* Rat Poison. (*M. Chaillet*, a Swiss botanist.) Toxicaria *G. Don.* Chaillitiaceæ. A poisonous shrub, a native of Sierra Leone, introduced in 1824, produces white flowers, and requires to be grown in a mixture of peat and loam.
- 3048 2085<sup>c</sup> CHAMÆLIRIUM *W.* (*Chamai*, ground, *leirion*, lily.) carolinianum *W.* Melanthaceæ. No. 4934. in p. 292.
- 3049 \*552<sup>a</sup> CHAMISSOIA *H. & B.* (*M. Chamisso*, who accompanied Kotzebue.) altissima *H. & B.* Amarantaceæ. *Achyranthes altissima L.* An evergreen shrub, growing to the height of about 5 ft., produces yellow flowers, is a native of Jamaica, and was introduced in 1816.
- 3050 1271<sup>a</sup> CHASMO'NIA *Lindl.* (*Chasmas*, to gape wide; calyx.) incisa *Lindl.* Labiáceæ. No. 8378. in p. 506.
- 3051 \*1463<sup>a</sup> CHEIROSTEMON *H. & B.* (*Cheir*, hand, *stemon*, a stamen.) platanoides *H. & B.* Bombacææ. A stove tree, a native of New Spain, whence it was introduced in 1820.
- 165 CHILO'GHLOA *Beauv.* (*Chilos*, fodder, *chloa*, grass.) arenaria *Schr.* Graminacæ. *A'chnodon arenarius Trin.* No. 1030.
- 3052 1294<sup>f</sup> CHILOPUS *D. Don.* (*Cheilos*, a lip, *opsis*, resemblance; flower.) saligna *D. Don.* Bignoniaceæ. No. 8557. in p. 514.
- 3053 1029<sup>b</sup> CHITONIA *D. Don.* (*Chiton*, a coat of mail; calyx scaly.) . . . . Melastomacæ. Nos. 6013. and 6014. in p. 364.

- 3054 711 $\alpha$  CHLORA'STER Haw. (*Chloros*, green, *aster*, a star; corona.) fissus Haw. Amaryllaceæ. No. 4019. in p. 240.
- 3055 \*989 $\alpha$  CHLOROXYLON Dec. (*Chloros*, green, *xylos*, wood.) Swietènia Dec. Meliaceæ. Swietènia Chloroxylon Roz. A timber tree attaining the height of 100 ft., a native of the East Indies. Introduced in 1820.
- 3056 \*999 $\alpha$  CHOÏ'SYA H. & B. (*J. D. Choisy*, a Genevese botanist.) ternàta H. & B. Rutaceæ. An ornamental stove shrub, a native of Mexico. Introduced in 1825. It produces white flowers in July and August, and thrives in a mixture of loam and peat.
- 3057 892 $\beta$  CHO'NA D. Don. (*Chonc*, a funnel; figure of cor.) sanguinea D. Don. Ericaceæ. Type, No. 5171. in p. 306.
- 3058 2131 $\alpha$  CHRYSOPOGON Trin. (*Chrysos*, gold, *pogon*, beard; yellow.) griffilus Trin. Graminaceæ. No. 14224. in p. 866.
- 3059 1804 $\alpha$  CHRYSOSTEMMA Lessing. (*Chrysos*, gold, *stemma*, crown; flws.) tripteris Lessing. Compòsitæ. No. 12482. in p. 732.
- 176 CHRYSORUBUS P. S. (*Chrysos*, gold, *oura*, a tail; the flowers.) echinatus P. de B. Graminaceæ. Phalòne echinata Dumort.
- 3060 \*458 $\beta$  CINCHO'NA L. (Cured Countess of Cinchon of a fever.) officinalis L. Rubiaceæ. A medicinal tree, introduced from Peru in 1810. It produces red flowers, and requires to be grown in a mixture of loam and peat.
- 3061 934 $\alpha$  CINNAMOMUM R. Br. (*Kinamon*, cinnamon, *Arab.*) verum Swt. Lauraceæ. No. 5640. also Nos. 5641, 5642, 5643, and 5647.
- \*1665 CP'BSIUM Pahl. (*Kirkos*, a swelled vein; supposed to heal.) . . . . . Comp. Card. The genus CNI'CUS in p. 682.
- 3062 \*1778 $\alpha$  CLADANTHUS Cas. (*Klados*, a branch, *anthos*, a flower; on bran.) arabicus Cas. Comp. Anth. No. 12334. in p. 724.
- 3063 654 $\alpha$  CLADOSTACHYS D. Don. (*Klados*, a branch, *stachys*, a spike.) . . . . . Amarantaceæ. Nos. 3144, and 3145. p. 192.
- 3064 \*004 $\alpha$  CLAUSE'NA Brm. (Not explained.) pentaphylla Dec. Aurantiaceæ. *Limonia* pentaphylla Herb Lam.
- 3065 \*1175 $\beta$  CLEY'ERA Thun. (*A. Cleyer*, M.D., a German botanist.) japonica Thun. Ternstroemiaceæ. A greenhouse shrub, introduced in 1820, may be increased by cuttings, and grown in sandy peat.
- 3066 1029 $\alpha$  CLIDEM'IA D. Don. (*Clidemius*, an ancient Greek botanist.) . . . . . Melastomaceæ. Nos. 6004, and 6007. in p. 364.
- 3067 1944 $\alpha$  CNEMIDOSTACHYS Mart. (*Cnemis*, spoke of wheel; *stachys*, spike.) Chamelæ'a Spr. Euphorbiaceæ. No. 13057. in p. 774.
- 1665 CNI'CUS L. (*Knizo*, to prick, or wound.) lanceolatus W., Eriolepis lanc. Cass.; palustris L., Onótrophe palustris Cass. Comp. Card.
- 3068 1493 $\alpha$  COCLOSYP'NUM Kth. (*Kochlo*, to twist, *sperma*, seed.) Gossypium Kth. Bombaceæ. Bómbax Gossypium L.
- 3069 1290 $\alpha$  CODONOPHORA Lindl. (*Kodon*, a little bell, *phorea*, to bear.) lanceolata Lindl.; grandiflora Lindl. Gesneriaceæ. No. 8521. and No. 8524. in p. 512.
- 3070 \*1322 $\alpha$  COLEBROO'KSA Sm. (*H. T. Colebrooke*, an accomplished botanist.) oppositifolia Sm. Verbenaceæ. A white-flowered shrub, a native of Nepal, whence it was introduced in 1820.
- 3071 \*2032 $\beta$  COLLIGUA'JA Mol. (Its native name.) odorifera Mol. Euphorbiaceæ. A greenish-yellow-flowered shrub, a native of Chile. Introduced in 1831.
- 3072 \*836 $\beta$  COLOPH'NIA Kth. (Yielding a resin like *Colophon.*) mauritiàna Kth. Terebinthaceæ. A purple-flowered stove tree, introduced in 1826.
- 3073 510 $\alpha$  COLUBRI'NA Brong. (*Coluber*, a snake; twisted stems.) ferruginosa Brong. Rhamnaceæ. No. 2870. also Nos. 2971, 2880, and 2922.
- 3074 569 $\alpha$  COMA'NDRA Nutt. (*Kome*, hair, *aner*, an anther.) umbellata Nutt. Santalaceæ. No. 3187. Hamiltonia umb. Spr.
- 3075 1151 $\alpha$  COMAROP'SIS Rich. (*Comarum*, marsh cinquefoil, *opsis*, appearance.) ragarioides Dec. Rosaceæ. No. 7576. in p. 452.
- 3076 \*506 $\alpha$  CONDA'LIA Cav. (*A. Condal*, a Spanish physician.) microphylla Cav. Rhamnaceæ. *Zizyphus myrtoides* Or. A curious half-hardy shrub, with green flowers. A native of Chile. Introduced in 1824.
- 3077 673 $\alpha$  CONDYLOCA'RFUS Hafm. (*Kondyle*, a knob, *karpos*, fruit.) officinalis Koch. Umbellaceæ. No. 3738. also 3740.
- 3078 \*1959 $\alpha$  CONOCE'PHALUS Blume. (*Konos*, a cone, *kephale*, head; form.) naucleiflorus Lindl. Urticaceæ. *Urtica naucleiflora* Ros. A curious stove shrub, growing to the height of 10 ft., and producing its yellow flowers at all seasons. Introduced from Chittagong in 1820.
- 3079 621 $\alpha$  CONOP'ODIUM Koch. (*Konos*, a cone, *podion*, a little foot; disk.) . . . . . Umbellaceæ. Nos. 3490. and 3491. in p. 210.
- 3080 \*720 $\beta$  CONO'STYLIS R. Br. (*Konos*, a cone, *stylos*, a style.) aculeata R. Br. Hamodoraceæ. A genus of New Holland herbaceous plants, requiring to be grown in a sandy peat soil.
- 3081 711 $\alpha$  CORBULA'RIA Haw. (*Corbula*, a small basket; form of corona.) . . . . . Amaryllaceæ. Nos. 4030, 4031, 4034. and 4033.
- 3082 \*814 $\alpha$  CORDYLI'NE R. Br. (*Kordyle*, a club.) hemichrysa Com. Asphodelæe. A stove shrub, a native of Bourbon, introduced in 1823. It may be increased by suckers, and grown in vegetable soil.
- 3083 2045 $\alpha$  CORE'MA D. Don. (*Korema*, a broom; habit of plant.) alba D. Don. Empetraceæ. No. 13821. in p. 826.
- 3084 1744 $\alpha$  CORVISA'RTIA Merat. (*M. Corvisart*, a man's name.) Helénium Merat. Comp. Vern. No. 12147. in p. 714.
- 3085 76 $\alpha$  CORYCA'RFUS Zea. (*Korys*, a helmet, *karpos*, a fruit.) arundinaceus. Graminaceæ. No. 1108. in p. 62.
- 3086 \*510 $\alpha$  CORYNOCA'RFUS Forst. (*Korynce*, a club, *karpos*, fruit.) levigatus Forst. Myrsinaceæ. An evergreen tree, introduced from New Zealand in 1823. It may be increased by layers, and grown in a light rich soil.
- 3087 \*2085 $\alpha$  COSCI'NIUM Col. (*Koskinion*, a little sieve; cotyledons perforated.) fenestratum Col. Menispermaceæ. Menisperm. fenestrat. Gal. A stove climber, growing to the height of about 10 ft., and producing greenish-yellow flowers. Introduced from Ceylon in 1800.
- 3088 \*978 $\beta$  COULT'RIA Kth. (*Dr. Coulter*, a botanical author.) tinctoria Dec. Leg. Cæs. Cass. *Poinciana Turra* R. & P. An ornamental shrub, producing orange-coloured flowers. A native of Carthage, whence it was introduced in 1822.
- 3089 280 $\alpha$  COUTO'NSIA Aubl. (Its name in Guiana.) spicata Aubl. Gentianaceæ. No. 1797. in p. 98.
- 3090 \*1159 $\alpha$  COWA'NIA D. Don. (*James Cowan*, an English merchant.) plicata D. Don. Rosaceæ. A pretty evergreen shrub, producing red flowers in June. It is a native of Mexico.
- 3091 1300 $\alpha$  CRANIOLA'RIA L. (*Kranion*, a skull; supposed resemblance in capsule.) ànnua L. Sesameæ. No. 8577. in p. 516.
- 3092 \*603 $\alpha$  CRE'SSA L. (*Cressa*, a native of Crete; abounds there.) erética L. Convolvulaceæ. A curious little trailing annual with purple flowers. A native of the Levant. Introduced in 1822.
- 3093 2032 $\alpha$  CROZO'PHORA Neck. (Not explained.) tinctoria L. Euphorbiaceæ. No. 13629. in p. 812.
- 3094 \*542 $\alpha$  CRYPTA'NDRA Sm. (*Kryptos*, hidden, *aner*, a man; stamens.) ericifolia Sm. Rhamnaceæ. A genus of curious shrubs natives of New Holland. They produce white flowers, and require a sandy peat soil.
- 3095 934 $\alpha$  CRYPTOCA'RYA R. Br. (*Kryptos*, hidden, *karya*, a nut.) glaucescens R. Br. Lauraceæ. A genus of

- New Holland trees, growing to the height of about 15 ft., and producing their white flowers from April to June.
- 3096 \*411b *CAYPTO'LEPIS R. Br.* (*Kryptos*, hidden, *lepis*, a scale.) *élegans* *Lod.* Apocynacæ. An ornamental stove twiner, a native of Brazil, whence it was introduced in 1824.
- 3097 1701a *CULCITUM Bomp.* (*Culcita*, a stuffed bed; heads of paleæ.) *salicinum Spr.* Comp. Jac. No. 11615. in p. 692.
- +2010 *CUNNINGHAMIA R. Br. (J. & A. Cunningham, travellers in N. S. W.) lanceolata R. Br.* Conacæe No. 13499. in p. 802.
- 3098 \*882a *CUPANIA L. (Father Franc. Cupani, an Italian Capuchin.) . . . . Sapindacæe. A genus of stove trees and shrubs, producing white or nearly white flowers; the species may be increased by cuttings, and will thrive in a mixture of peat and loam.*
- 8099 699c *CURTO'GYNIS Haw.* (*Kurtos*, curved, *gynec*, a style.) *undulata Haw.* Crassulacæe. No. 3982. in p. 230.
- 3100 \*1464a *CYAMOPHIS Dec.* (*Kyamos*, bean, *opsis*, resemblance.) *psoraleoides Dec.* Leguminosæ. Pap. Lot. Cit. *Dólíchos psoraleoides Lam.* *Dólíchos fabaeformis Herit.* *Psoralea tetragonolobus L.* *Lupinus trifoliolatus Cav.* An annual, a native of Arabia, and produces its purple flowers in July and August. Introduced in 1813.
- 3101 765b *CYANOTIS D. Don.* (*Kyanos*, blue, *ous*, an ear.) *cristata D. Don.* Commelinacæe. No. 4371. in p. 260.
- 3102 \*401a *CVATHODES Lab.* (*Kyathos*, a cup, *eidós*, like; nectary.) *Oxycedrus R. Br.* Ericacideæ. *Styphèlia Oxycedrus Lab.* An evergreen shrub, a native of Van Diemen's Island. Introduced in 1822.
- 3103 2004a *CYCLANTHUS Poit.* (*Kyklos*, a circle, *anthos*, a flower.) *Plumieri Poit.* Aracæe.
- 3104 2129c *CYMOPOGON Spr.* (*Kymbe*, boat, *pogon*, beard; valves of calyx.) *Schœnânthus Spr.* Graminacæe. No. 14210. in p. 860.
- 3105 904a *CYMINOSMA Gac.* (*Kyminon*, cumin seed, *osme*, smell.) *pedunculata Dec.* Rutacæe. No. 5493. in p. 320.
- 3106 808a *CZACKIA Andr.* (*Andrejouskii Czack*, a Russian bot.) *Liliâstrum Andr.* Asphodèleæ. No. 4825. in p. 280.
- 3107 1016b *DABECIA D. Don.* (Called in Ireland *St. Dabec's Heath*.) *polifolia D. Don.* Ericacæe. No. 5412. in p. 316.
- 3108 \*2016a *DACRYDIUM Sol.* (*Dakry*, a tear; gummy exudation.) *cupressinum Sol.* Conacæe. *Thalâmia cupressina Spr.* A New Zealand tree, growing to the height of about 20 ft., and was introduced in 1825.
- 3139 \*1503a *DACTYLICAPNOS Wall.* (*Daktulos*, finger, *kapnos*, fumitory; berries.) *thalictrifolia Wall.* Fumariacæe. *Diléylia scândens Don.* A half-hardy climber, producing its yellow and brown flowers from August to October. Introduced from Nepal in 1831.
- 3110 \*2156a *DALRYMPLEA Rox.* (*Aless. Dalrymple*, auth. *Oriental Repertory*.) *pomifera Rox.* Celastracæe. *Turpinia pomifera Dec.* A shrub, a native of Nepal. Introduced in 1820, and thrives in sandy loam.
- +2011 *DAMMARA Rumm.* (Its name in Amboyna.) *orientalis Lamb.* Conacæe. No. 13500, also 13501.
- 3111 569e *DARLINGTONIA Dec.* (*Dr. Darlington*, an American botanist.) . . . . Leguminacæe. Nos. 14166. and 14167. in p. 858.
- 3112 892n *DASYANTHES D. Don.* (*Dasys*, hairy, *anthos*, flower; cor. hairy.) *Sparmanni D. Don.* Ericacæe: Type, No. 5146. in p. 306.
- 3113 \*1581c *DAUBENTONIA Dec.* (*M. Daubenton*, a celebrated naturalist.) *punicea Dec.* Leg. Pap. Lot. Gal. *Æschynoméne miniata Or.* An ornamental stove shrub, producing its vermilion-coloured flowers in July and August. Introduced from New Spain in 1820.
- 3114 1034b *DEGODON Gen.* (*Dekas*, ten, *odous*, a tooth; calyx.) *verticillatus EU.* Salicacæe. No. 6640. in p. 398.
- 3115 \*1191a *DELIMA L. (Delimo, to shave off; lvs. used for polishing.) sarmentosa L.* Dilleniacæe. *Tetræcera sarmentosa Vahl.* A yellow-flowered stove climber, a native of Ceylon. Introduced in 1820.
- 3116 170b *DESCHAMPSIA Beauv.* (*M. Deschamps*, M. D., a French bot.) . . . . Graminacæe. Nos. 1042, 1043, and 1045.
- 3117 892d *DESMA D. Don.* (*Desme*, a little bundle; flowers crowded.) *conferta D. Don.* Ericacæe. Type, No. 5332. in p. 312.
- 3118 1580d *DESMODIUM Dec.* (*Desmos*, band; stams. joined?) . . . . Leg. Pap. Hed. Euh. Nos. 10554, 10555, 10556, 10558, 10560, 10561, 10563, 10566, to 10580, 10582, and 10600.
- 3119 \*1985f *DESMONCUS Mart.* (*Desmos*, band, *ogkos*, hook; tendrils at apex of lvs.) *polycanthus Mart.* Palmacæe. A genus of palms which grow to the height of about 6 ft.
- 3120 \*229n *DESVAUZIA R. Br. (N. Desvaux, a French botanist) Billardièri Ait.* Desvauziacæe. A tender annual, introduced from New Holland in 1825.
- 3121 \*1367a *DIACIA Lk.* (*Dis*, two, *akton*, little bladder; two protuberances at base of cor.) *Bergiana Lk.* Scrophulariacæe. An uninteresting little annual, introduced from the Cape in 1815.
- 3122 \*1092b *DIACRA Forst.* (*Dis*, double, *keras*, a horn; anth. 2-horned.) *dentata Forst.* Elæocarpaceæ. *Eriostemon dentatus Col.* A green-house shrub, a native of New Zealand, and produces its white flowers in July. Introduced in 1810.
- 3123 1580e *DICERMA Dec.* (*Dis*, twice, *herma*, prop; bracts at cal. base.) . . . . Leg. Pap. Hed. Euh. Nos. 10548. and 10562.
- 3124 \*1464f *DICHELUS Dec.* (*Dis*, twice, *cheilos*, lip; calyx.) *lebeckioides Dec.* Leg. Pap. Lot. Gen. A yellowish-white-flowered Cape shrub, introduced in 1826.
- 3125 \*517a *DICHOSMA Dec.* (*Dicha*, without, *osme*, smell.) *bifida Dec.* Rutacæe. *Diósma bifida Jac.* An ornamental white-flowered Cape shrub.
- 3126 \*1443a *DIDYSMIS Dec.* (*Dis*, twice, *desmos*, band; silicles of two joints.) *bipinnatus Dec.* Cruciacæe. *Sinapis bipinnata Desf.* An uninteresting annual, a native of N. Africa; introduced in 1827, and produces its white flowers in June and July.
- 3127 2004b *DIEFFENBACHIA Bot.* (*M. Dieffenbach*, a German botanist?) *seguinum Bot.* Aracæe. No. 13451. in p. 798.
- 3128 143 *DIGITARIA Sco.* (*Digitus*, a finger; heads being fingered.) *sanguinalis P. S.* Graminacæe. *Syntherisma vulgare Schreb.*
- 3129 168a *DIGRAPHIS Trin.* (*Dis*, twice, *grapho*, to mark.) *arundinacea Trin.* Graminacæe. *Baldingeria arundinacea Dum.* No. 1032. in p. 58.
- 3130 \*387c *DINETUS Svt.* (*Dinetos*, that may be twined.) *racemosa Svt.* Convolvulacæe. *Porâna racemosa Rox.* A white-flowered twining annual, introduced from Nepal in 1823.
- 3131 \*1548e *DIOCLEA Kth.* (*Diocles Curvastinus*, an ancient Greek botanist.) *möllis Dec.* Leg. Pap. Phas. *Dólíchos mollis Jac.*
- 3132 \*270a *DIODORA L. (Diodos, a journeying; wayside plant.) virginica L.* Rubiacæe. A genus of curious little trailers, mostly natives of the West Indies.
- 3133 711g *DIOMIDES Haw.* (A Grecian hero at the siege of Troy.) . . . . Amaryllacæe. Nos. 4009, 4043.
- 3134 1797a *DIOMEDIA Cas.* (*Diomedea*, daughter of Phorbas.) *glabrata Kth., No. 12426.* in p. 728.; *bidentata Cas.* No. 12425. Comp. Helian.
- 3135 \*1577b *DIPHACA Lou.* (*Dis*, double, *phake*, a lentil; two seeds in a pod.) *côchin-chinensis L.* Leg. Pap. Hed. Euh. *Dalbèrgia Diphaca Per.*
- 3136 \*1569b *DIPHYSA Jac.* (*Dis*, double, *physa*, bladder; inflated append. to pod.) *carthagenensis Jac.* Leg. Pap. Lot. Gal. An ornamental yellow-flowered stove shrub. Introduced in 1827.
- 3137 \*136a *DIPLAZIA Rich.* (*Diplazo*, to double; the glumes.) *karatifolia Rich.* Cyperacæe. An uninteresting stove plant, a native of Guiana. Introduced in 1825.

- 3138 \* **DIPLOLÆNA** Desf. (*Diploos*, double, *lena*, cloak; double involucre.) *Dampieri* Desf. Rutaceæ. A curious green-house shrub, growing to the height of about 4 ft. Introduced from the Swan River in 1837.
- 3139 \*580a **DIPLOLEPIS** R. Br. (*Diploos*, double, *lepis*, a scale.) . . . . . Asclepiaceæ. A genus of uninteresting twiners, with green flowers, natives of China.
- 3140 \* **DIPLOPLETIS** Endl. (*Diploos*, double, *pletis*, a shield; bilamellate disc.) *Huglii* Endl. Sapindaceæ. A white-flowered under-shrub. Introduced from the Swan River in 1837.
- 3141 \*40a **DIPLOPHYLLUM** Leh. (*Diploos*, double, *phyllon*, a leaf.) *veronicaeforme* Leh. Scrophular. *Veronica Crista-Galli* Stev. A curious trailing annual with blue flowers, a native of Caucasus. Introduced in 1813.
- 3142 \*2007a **DIPLOTHEMIUM** Mart. (*Diploos*, double, *thema*, spathe.) *maritima* Mart. Palmaceæ. A palm growing about 10 ft. high. Introduced from Brazil in 1823.
- 3143 1459b **DISYMMMA** Lab. (*Dis*, double, *stemma*, a crown; crown double.) *Herbertiana* Dec. Passifloraceæ. Nos. 9426. and 9427.
- 3144 \*420b **DISSOLÆNA** Lou. (*Dis*, double, *solen*, a tube; tube of corolla.) *verticillata* Lou. Apocynaceæ. *Cébera chinensis* Spr. An ornamental green-house shrub, a native of China. Introduced in 1812.
- 3145 \*1191b **DOLIOCARPUS** Rol. (*Dolios*, deceitful, *karpos*, fruit; poisonous.) *Calinda* Gm. Dilleniaceæ. *Calinda scandens* Aub. A stove climber, producing yellow flowers. It is a native of Guiana, and was introduced in 1822.
- 3146 \*399a **DRACOPHYLLUM** R. Br. (*Drakon*, a dragon, *phyllon*, a leaf.) *secundum* R. Br. Epacridaceæ. A genus of New Holland shrubs with white flowers, and requiring to be grown in sandy peat.
- 3147 1514a **DREPANOCARPUS** Mey. (*Drepanon*, sickle, *karpos*, fruit.) *lunatus* Mey. Leg. Pap. Dalb. No. 10026. in p. 604.
- 3148 646c **DREPANOPHYLLUM** Hofm. (*Drepanon*, scythe, *phyllon*, leaf; form.) *agreste* Hofm. Umbellaceæ. No. 3600. in p. 216.
- 3149 \*1205b **DRIMYS** Forst. (*Drimys*, acid; bark acid and aromatic.) *Winteri* Forst. Magnoliaceæ. *Wintera aromatica* Mur. A medicinal tree, a native of Magellan. Introduced in 1827.
- 3150 \*606a **DRUMMONDIA** Dec. (*Mr. Drummond*, botanical collector.) *mitelloides* Dec. Saxifragaceæ. *Mitella pentandra* Hook. A curious hardy perennial, producing its yellowish flowers in June. It is a native of the Rocky Mountains.
- 3151 \*659a **DROUSA** Dec. (*M. Le Dru*, a botanist.) *oppositifolia* Dec. Umbellaceæ. An uninteresting little white-flowered creeper. Introduced from Tenerife in 1824.
- 3152 688a **DRYMARIA** W. (*Drymos*, a forest; habitation.) *cordata* W. Caryophyllaceæ. No. 1291. in p. 74.
- 3153 1373a **DRYMONIA** Mart. (*Drymonia*, woodland; inhabits forests.) *bicolor* Mart. Gesneriaceæ. No. 8923. in p. 534.
- 3154 \*2056a **DRYPETES** Vahl. (*Drypto*, to lacerate; spiny.) *crœca* Poit. Rhannaceæ. *Schœfferia lateriflora* Sw. A West Indian shrub, introduced in 1820.
- 3155 \*119c **DULACIUM** Pers. (Name of the island where found.) *spathaceum* Pers. Cyperaceæ. A curious hardy bog-plant, a native of North America. Introduced in 1818.
- 3156 \*1608a **DURIO** L. (*Durio*, a thorn, *Malay*; spinous fruit.) *zebethinus* L. Malvaceæ. A stove tree, attaining the height of 60 ft. Introduced from the East Indies in 1825.
- 3157 594g **DUVALIA** Haw. (*M. Duval*, a French botanist.) . . . . . Asclepiaceæ. Nos. 3333. to 3337. in p. 202.
- 3158 1985b **DUVAUA** Kth. [cl. xxi ord. 17.] (*M. Duvaux*, a French botanist.) . . . . . Terebinthaceæ. No. 13985. and 13986.
- 3159 1464a **DYBENUS** L. (*Abnous*, ebony, *Arabic*.) . . . . . Leg. Pap. Hed. Euh. Nos. 10214. and 10219. p. 614.
- 3160 1060c **ECHENIUS** Dec. (*Echeveri*, a botanical draughtsman.) . . . . . Crassulaceæ. Nos. 6410. and 6414. in p. 382.
- 3161 1800c **ECHINOCRA** Moen. (*Echinus*, a hedgehog; receptacle.) . . . . . Comp. Hel. Nos. 12469. and 12470.
- 3162 \*153a **ECHINOPOGON** Beauv. (*Echinus*, prickly, *pogon*, a beard.) *ovatus* Beauv. Graminaceæ. *Agrôstis ovatus* Lab. A New Holland grass. Introduced in 1820.
- 3163 892b **ECTASIS** D. Don. (*Ektasis*, extension; stamens prominent.) *Plukenetii* D. Don. Ericaceæ. Type, No. 5114. in p. 304.
- 3164 \*904b **ELAPHRIUM** Jac. (*Elaphros*, contemptible; wood.) *glabrum* Jac. Rutaceæ. *Fagâra Elaphrium* W. A stove tree, a native of Carthage. Introduced in 1818.
- 3165 \*2023a **ELATERIUM** L. (*Elater*, an impeller; elastic seed-vessel.) *carthaginense* L. Cucurbitaceæ. A twining annual, grows to the height of about 5 ft., and produces its yellow flowers in June and July. Introduced in 1823.
- 3166 \*1588b **ELEIOTIS** Dec. (*Eleios*, dormouse, *ous*, ear; leaves.) *sordida* Dec. Leg. Pap. Hed. Euh. *Hedysarum sordium* L. *Hállia sordida* W. *Onobrychis sordida* Desf. An uninteresting tender biennial, with red flowers. Introduced from the East Indies in 1817.
- 3167 \*893a **ELLIORTIA** Mhl. (*Stephen Elliot*, a N. Amer. botan.) *racemosa* Mhl. Ericaceæ. A half-hardy white-flowering shrub, a native of Georgia, may be increased by layers and grown in a sandy peat soil.
- 3168 \*228b **ELODEA** Mx. (*Elodes*, growing in marshy places.) *gulanensis* Mx. Fluvialeæ. A tender annual aquatic, producing white flowers. Introduced in 1820.
- 3169 \*124a **ELYNA** Schr. (*Elyo*, to cover.) *spicata* Schr. Cyperaceæ. A small European bog plant. Introduced in 1819.
- 3170 \*435a **EMBELLA** Brm. (*Embilla*, its name in Ceylon.) *robusta* Rox. Myrsinaceæ. An East Indian tree, producing greenish white flowers. Introduced in 1823.
- 3171 \*246c **EMBOTHRUM** Forst. (*En*, in, *bathrion*, a little pit; anthers.) *strobilinum* Lab. Proteaceæ. An ornamental New Holland shrub, producing yellowish green flowers in April. Introduced in 1824.
- 3172 2027b **EMBLICA** Gae. (Its name in the Moluccas.) *officialis* Gae. Euphorbiaceæ. No. 13616. also 13613.
- 3173 856a **EMEX** Neck. (Probably without meaning.) *spinosa* Camp. Polygonaceæ. No. 5028. in p. 294.
- 3174 \*1443b **ENARTHOCARPUS** Lab. (*Ennea*, nine, *arthron*, joint, *karpos*, fruit.) *pteroëarpus* Dec. Cruciferae. *Raphanus pteroëarpus* Pers. An uninteresting yellow-flowered annual, a native of Egypt. Introduced in 1823.
- 3175 2127a **ENTADA** Adan. (Its name in Malabar.) *monostachya* Dec. Leg. Mim. *Mimosa Eutilla* W., also No. 14110. in p. 854.
- 3176 170c **ERIANCHNE** R. Br. (*Erion*, wool, *achne*, a glume.) *obtusa* R. Br. Graminaceæ. No. 1044. in p. 58.
- 3177 \*215a **ERIANTRIS** Mx. (*Erion*, wool, anθος, a flower.) *saccharoides* Mx. Graminaceæ. *Saccharum giganteum* Pers. A North American grass, in appearance resembling the sugar-cane. Introduced in 1826.
- 223 **ERIOCAULON** L. (*Erion*, wool, *kaulos*, a stem.) *septangulare* E. B. Eriocauloneæ. *Nasmythia articulata* Huds.
- 3178 1492a **ERIODENDRON** Dec. (*Erion*, wool, *dendron*, tree; wool in pods.) *leianthum* Dec. No. 9942. in p. 592; *anfractuosum* Dec., No. 9943. Bombaceæ.
- 3179 892p **ERIODYSMIA** D. Don. (*Erion*, wool, *desme*, a little bundle.) *capitata* D. Don. Ericaceæ. Type, No. 5298. in p. 310.
- 3180 \*20b **ERISMA** Rud. (*Erisma*, contest; genus long disputed.) *floribundum* Rud. Vochyaceæ. A blue-flowered stove tree, a native of Guiana. Introduced in 1825.
- 3181 \*984b **ERYTHROPHILE** Vm Afr. Red Water Tree. (*Erythros*, red, *phleas*, a water plant.) *guineensis* G. Don. Leg. Mim. *Azêlia grandis* Hort. A poisonous tree, a native of Sierra Leone. It grows to the height of 100 ft., and produces pale yellow flowers. Introduced in 1793.
- 3182 \*1056a **ERYTHROXYLON** L. (*Erythros*, red, *xylon*, wood.) *laurifolium* Lam. Erythroxyleæ. A genus of timber trees, natives of the Mauritius. They produce greenish yellow flowers, and may be grown in sandy loam.

- 1313 1337a EUCHROMA Nut. (*Eu*, well, *chroma*, colour; bracteas.) coccinea Nut. Scrophulariæcæ. No. 8748. in p. 524.
- 1314 \*1428b EUNOMIA Dec. (*Eu*, well, *nome*, fodder; used for fodder.) oppositifolia Dec. Crucifæcæ. Lepidium oppositifolium Lab., Iberis oppositifolia Pers., Thlâspi oppositifolia Poir., Lepia oppositifolia Desv. A half-hardy herbaceous plant, producing its white flowers in June and July. Introduced from Syria in 1827.
- 1315 882b EUPHORIA Com. (*Euphoros*, fertile; fruit.) . . . . . Sapindæcæ. Nos. 5101. and 5102. p. 302.
- 1316 \*1161a EUPOMATIA R. Br. (*Eu*, well, *pomazo*, to close with a lid; flower bud.) laurina R. Br. Anonacæcæ. A New Holland shrub, growing to the height of about 4 ft., and thriving in a mixture of sand, loam, and peat. Introduced in 1824.
- 1317 1739a EURYBIA Cass. (*Eurybica*, wide-spreading; its creeping offsets.) corymbosa Cass. Comp. No. 12062. in p. 710.
- 1318 892c EURYLEPIS D. Don. (*Eurys*, broad, *lepis*, a scale; calyx scales dilated.) Halicacaba D. Don. Ericacæcæ. Type, No. 5190. in p. 308.
- 1319 892k EURYLOMA D. Don. (*Eurys*, broad, *loma*, margin; limb of corolla dilated.) Aitoní D. Don. Ericacæcæ. Type, No. 5219. in p. 308.
- 1319 892f EURYSTEGIA D. Don. (*Eurys*, broad, *stega*, a cover; calyx large.) glauca D. Don. Ericacæcæ. Type, No. 5269. in p. 310.
- 1319 \*579a EUSTEGIA R. Br. (*Eu*, good, *stega*, a covering.) hastata E. Br. Asclepiacæcæ. Apocynum hastatum Thun. A white-flowered trailer, a native of the Cape, whence it was introduced in 1816.
- 1319 2130b EUSTACHYS Desv. (*Eu*, well, *stachys*, a spike; large.) petrea Desv. Graminæcæ. No. 14214. in p. 860.
- 1319 1985c EUTRYPA Gac. (*Euterpes*, pleasing; habit of tree.) caribæa Spr. Palmacæcæ. No. 13496. in p. 800.
- 1319 1705b EUTHYMIA Nut. (*Eu*, well, *thames*, crowded; flowers.) graminifolia Nut. Comp. Vern. No. 12092., also 12093.
- 1319 \*301e EVOZIA Forst. (*Euo*dia, a sweet smell.) triphylla Dec. Rutacæcæ. Fagaria triphylla Lam. An East Indian shrub, producing white flowers. Introduced in 1821.
- 1319 994a FABA'GO Led. (*Faba*, a bean; lvs. resemble those of the bean.) major D. Don. Zygophyllacæcæ. No. 5872. in p. 352.
- 1319 1553b FAGELLA Neck. (Not explained.) bituminosa Neck. Leg. Pap. Phas. No. 10306. in p. 618.
- 1319 \*437a FAGREA Thun. (*J. T. Fagraeus*, M.D., a friend of Thunberg.) zelânica Thun. Apocynacæcæ. Willughbeia zelânica Spr. A white-flowered evergreen tree. Introduced in 1816. It requires to be grown in a mixture of sandy peat and loam.
- 1319 \*292a FERNE'LIA J. (*J. Fernel*, physician to Henry II. of France, died in 1558.) obovata Lam. Rubiacæcæ. A genus of evergreen shrubs, natives of the Isle of France, of which two species were introduced in 1816.
- 1320 668a FERULA'GO Koch. (*Ferula*, to strike; used as rods.) nodiflora Koch. Umbellacæcæ. No. 3701. in p. 220.
- 1320 1838 FILAGO L. (*Filum*, a thread; covered with.) germanica L., Gifolia vulgaris Cass.; gallica L., Lúgna subulata Cass. Comp. Vern.
- 1320 \*998b FLINDERSIA R. Br. (*Capt. M. Flinders*, a celeb. voyager.) australis R. Br. Meliacæcæ. A New Holland timber tree, attaining the height of 60 ft. Introduced in 1823.
- 1320 \*1126b FORTYDIA Com. (*Fortius*, fetid; odour of wood.) mauritiana Lam. . . . . A stove tree, growing to the height of 25 ft., and producing white flowers. Introduced in 1825.
- 1320 \*1082c FRIE'RIA Dec. (*Elias Fries*, of the Univ. of Lund.) peduncularis Dec. Elæocarpaceæcæ. Elæocarpus pedunculatus Lab. A green-house shrub, a native of Van Diemen's Land. Introduced in 1818. It produces white flowers, and thrives in a mixture of peat and loam.
- 1320 \*1175c FRIEZIERIA Swz. (*A. F. Frazier*, a traveller in Peru and Chile.) theaeoides Swz. Ternstroemiæcæ. A shrub, a native of Jamaica, whence it was introduced in 1818. It may be increased by cuttings, and thrives in sandy loam.
- 1320 \*1662a FROLOVIA Led. (*Frolou*, a Russian botanist.) lyrata Led. Comp. Cynar. Saussurea Frolodvii Led. A sulphur-coloured-flowered perennial, a native of Altaia. Introduced in 1834.
- 1320 \*134a FUIRE'NA Rth. (*G. Fuirén*, a Danish bot.) umbellata Rth. Cyperacæcæ. A curious perennial bog plant, a native of the West Indies. Introduced in 1825.
- 1320 \*984c GAGNEB'NA Neck. (Of no meaning.) axillaris Dec. Leg. Mim. Mimosa pterocarpa Lam. An evergreen shrub, a native of the Mauritius, whence it was introduced in 1824.
- 1320 1739e GALATHE'LLA Cass. (Meaning not given.) punctata Ness. Comp. Vern. No. 12008. in p. 708.
- 1320 711f GANYMEDES Haw. (A son of Tros, and cup-bearer to Jupiter.) . . . . . Amariyllacæcæ. Nos. 4025. 4021. and 4023.
- 1321 769e GASTREA Haw. (*Gaster*, a belly; base of flowers.) . . . . . Hemerocallidæcæ. Nos. 4427. to 4439. in p. 262.
- 1321 \*8a GASTROCHYLUS Wall. (*Gaster*, a belly, *cheilos*, lip; bellied lip.) pulcherrimus Wall. Scitamineæcæ. An ornamental stove perennial, producing yellow and pink flowers in August. Introduced from Rangoon in 1828.
- 1321 786a GASTRONEMA Herb. (*Gaster*, a belly, *nema*, a filament.) clavatum Herb. Amariyllacæcæ. No. 4209. in p. 250.
- 1321 \*571a GAUDICHAU'DIA H. & B. (*C. Gaudichaud*, accomp. Freycinet.) cynanchoides H. & B. Malpighiacæcæ. An ornamental stove twiner, growing to the height of about 10 ft. Introduced from Mexico in 1824.
- 1321 \*2080a GEO'NOMA W. (*Geonomos*, skilled in agriculture; propagation.) pinnatifrons W. Palmacæcæ. An ornamental palm, growing to the height of 15 ft. Introduced from Caraccas in 1821.
- 1321 497a GEO'PHILA D. Don. (*Ge*, the earth, *phileo*, to love.) reniformis D. Don. Rubiacæcæ. No. 2814. in p. 172.
- 1321 \*1460a GILLIE'SIA Lindl. (*Dr. Gillies*, of Concepcion, in Chile.) graminea Lindl. Gilliesiacæcæ. A curious half-hardy bulbous-rooted plant, producing its green flowers in June and September. Introduced from Chile in 1825.
- 1321 699b GLOBULEA Haw. (*Globulus*, a globule; stems.) . . . . . Crassulacæcæ. Nos. 3874. 3876. 3880. 3885. 3890. in p. 230.
- 1321 \*1581b GLOTTIDIUM Desv. (*Glottis*, superior opening of larynx; legume.) floridanum Desv. Leg. Pap. Lot. Gal. Sesbania dispersa Ph., Sesbania vesicaria Spr., S. platycarpa Pers., Phaca floridana W., Æschynomene platycarpa Mx. A tender annual, producing its yellow flowers in July and August. A native of Florida, whence it was introduced in 1816.
- 1322 \*2040a GNE'TUM L. (From *gnemon*, its name in the Island of Ternate.) Gndmon L. Urticacæcæ. An East Indian tree, introduced in 1815. It may be increased by cuttings, and the plants thrive in a mixture of peat and loam.
- 1322 \*1431b GOLDBACHIA Dec. (*C. L. Goldbach*, of Petersburg, botanist.) lævigata Dec. Crucifæcæ. Râphanus lævigatus Bieb. An ornamental annual, producing its pale blue flowers from May to July. A native of Astracan. Introduced in 1827.
- 1322 \*2007b GOMUTUS Rum. (Its name in Malabar?) saccharifer Spr. Palmacæcæ. A palm, growing to the height of 40 ft. Introduced from the Moluccas in 1820.
- 1322 \*321a GONOCARPUS Thun. (*Gonia*, an angle, *karpos*, fruit; seeds.) micranthus Thun. Salicacæcæ. A curious white-flowered annual. A native of China. Introduced in 1806.
- 1322 594b GONOSTEMON Haw. (*Gonia*, an angle, *stemon*, a stamen.) . . . . . Asclepiacæcæ. No. 3307. in p. 200.
- 1322 \*91a GOUFFE'IA Robil. (*Gouffé* of la Cour, a botanist of Marseilles.) holostoides G. & M. Caryophyllacæcæ. A simple white-flowered annual. Introduced from Russia in 1836.
- 1322 †1605 GUAZUMA Plu. (Its name in Mexico.) ulmifolia Lam. Bytneriacæcæ. No. 10935. in p. 650.

- 3227 \*1594a *GULDENSTEDTIA* Fls. (*J. A. Guldenstaedt*, naturalist.) pauciflora *Fls.* Leg. Pap. Lot. Astr. *Actrágalus pauciflorus* *Pall.*
- 3228 \*252b *GYMNOSTACHYS* R. *Br.* (*Gymnos*, naked, *stachys*, spike.) ánceps *R. Br.* Arácææ. An ornamental New Holland plant. Introduced in 1820. It requires to be grown in a mixture of peat and loam, and may be increased by suckers.
- 3229 1448b *GYNANDROPSIS* Dec. (*Gynandros*, hermaphrodite, *opsis*, appearance.) pentaphylla *Dec.* Capparacææ. No. 8326. in p. 558.
- 3230 892a *GYPSOCA'LLIS* *Sat.* (*Gypsos*, lime, *kallistos*, most beautiful.) vågans *Sat.* Ericacææ. Type, No. 5370. in p. 314.
- 3231 \*2146a *GYROCARPUS* *Jac.* (*Gyro*, to turn round, *carpos*, fruit; in air.) americanus *Jac.* Laur. affines. *Jacquin* *Gay.* A West Indian tree. Introduced in 1816.
- 3232 \*1241a *GYROSTEMON* Desf. (*Gyros*, circle, *stemon*, stamen; concentric arrangement.) attenuatus *Hook.* Tilliacææ. Codonocarpus australis *Cun.* A curious green-house tree, growing to the height of 25 ft. Introduced from Moreton Bay in 1830.
- 3233 \*558a *HABLUZZIA* Bieb. (*M. C. von Háblitz*, auth. of Travels in Crimea.) tannóid a *Bieb.* Chenopodiacææ. A deciduous perennial climber, producing its white flowers from July to October. A native of Caucasus. Introduced in 1828.
- 3234 414a *HÆMADICTYON* *Lindl.* (*Haima*, blood, *dictyon*, a net; leaves.) venosum *Lindl.* Apocynacææ. No. 2364. in p. 146.
- 3235 1569a *HALIMODENDRON* *Fis.* Salt Tree. (*Halimos*, maritime, *dendron*, tree.) argenteum *Fis.* Leg. Pap. Lot. Gal. No. 10473.
- 3236 1635a *HALOSTEPHIUM* *D. Don.* (*Hapalos*, soft, *stephos*, crown; hairy receptacle.) . . . Comp. Cich. Nos. 11213, 11214, 11215, 11250, and 11253.
- 3237 1553a *HARDENBERGIA* Benth. (*Frances Countess Hardenberg*, sister of Baron Hügel.) monophylla *Benth.* Leg. Pap. Phas. No. 10319. in p. 618.
- 3238 \*986b *HARDWICKIA* *Rox.* (*Major-Gen. Hardwick*, E. I. C. Artillery.) binata *Rox.* Leg. Cas. Cass. A genus of East Indian trees, which grow to the height of about 40 ft., and produce yellow flowers.
- 3239 \*1617a *HARONGA* *Thou.* (Its name in Madagascar.) madagascariensis *Chot.* Hypericacææ. *H. paniculata* *Lo. C.* A yellow-flowered stove shrub. Introduced in 1825.
- 3240 1630a *HARPALYCE* *D. Don* (*Harpalyce*, daughter of Lycurgus.) álba *D. Don.* Comp. Cich. No. 11146., also 11147, and 11148.
- 3241 769f *HAWORTHIA* *Duval.* (*A. H. Haworth*, F.L.S., a distinguished botanist.) Hemerocallidææ. Nos. 4385, to 4387, 4389, to 440., 4413, 4414, 4416, 4418, to 4426, and 4440.
- 3242 1739c *HAYTONIA* *Caley.* (*John Hayton*, gardener attached to Macartney's embassy to China.) argophylla *Caley.* Comp. Vern. No. 11961., also 11957, in p. 706.
- 3243 \*889b *HEDWIGIA* *Swz.* (*John Hedwig*, a cryptogamist, died 1799.) balsamifera *Swz.* Terebinthacææ. A West Indian tree, growing to the height of 40 ft. Introduced in 1820. It may be increased by cuttings, and grown in a mixture of loam and peat.
- 3244 295a *HEDYOTIS* *W.* Indian Madder. (*Hedys*, sweet, *ous*, an ear; leaves like ears.) . . . Rubiacææ. Nos. 1760, and 1761.
- 3245 \*1002c *HEISTERIA* *L.* Bois Perdrix. (*Laurence Heister*, prof. bot. Halstadt, died 1758.) coccinea *Jac.* Olacacææ. An ornamental West Indian tree, producing scarlet flowers. Introduced in 1822.
- 3246 711p *HELENA* *Haw.* (The daughter of Leda and Jupiter, most beautiful woman of her time.) . . .
- 3247 646a *HELOSCLADIUM* *Koch.* (*Helos*, marsh, *skiadion*, umbel.) nodiflorum *Koch.* Umbellacææ. No. 3596., also 3597, and 3604.
- 3248 \*248a *HEMELCYNIA* *R. Br.* (*Hemius*, half, *kleio*, to shut up?) Básteri *R. Br.* Proteacææ. *Dryandra falcata* *R. Br.* A green-house shrub, producing its yellow flowers in June. A native of Lucky Bay.
- 3249 \*42a *HEMIMERIS* *L.* (*Hema*, half, *meris*, a part; a half flower.) montana *L.* Scrophulariacææ. An ornamental herbaceous green-house plant, a native of the Cape. Introduced in 1816.
- 3250 1674b *HERACANTHA* *Lk.* (*Heros*, noble, *akantha*, thorn; flws.) . . . Comp. Card. Nos. 11480, and 11481. p. 686.
- 3251 711o *HERMIONE* *Haw.* (The daughter of Menelaus and Helena.) . . . Amaryllacææ. Nos. 4015, 4014, 4016, 4013, 4004, 4003, 4008, 4007, 4006, 4005, 4012, 4011, and 4020.
- 3252 799a *HESPEROSCOPIDUM* *Lindl.* (*Hesperos*, evening, *skordon*, garlic; smell.) hyacinthinum *Lindl.* Aspl. odéææ. No. 4609. in p. 272.
- 3253 \*109a *HETERANTHERA* *Beauv.* (*Heteros*, variable, *aner*, anther.) . . . Pontederacææ. No. 736. in p. 44.
- 3254 2129a *HETEROPOGON* *Beauv.* (*Heteros*, variable, *pogon*, beard; awns.) contortus *Beauv.* Graminacææ. No. 14209. in p. 860.
- 3255 1055c *HETEROPTERIS* *H. & B.* (*Heteros*, various, *pteron*, wing; capsule.) . . . Malpighiacææ. Nos. 6388, 6389, 6391, and 6395.
- 3256 \*1072a *HETEROPTROPA* *Morr.* (*Heteros*, variable, *trope*, change; plant variable.) asaroides *Morr.* Asaracææ. A curious green-house perennial, producing its purple flowers in April and May. Introduced from Japan in 1836.
- 3257 \*1464c *HEYLANDIA* *Dec.* (*M. Heyland*, artist employed by Decandolle.) hebecarpa *Dec.* Leg. Pap. Lot. Gen. Hallia monophylla *Desv.*
- 3258 \*153b *HIEROCHLOA* *Gm.* (*Hieros*, holy, *chloe*, grass.) borealis *R. & S.* Graminacææ. No. 14229. in p. 860. *Hólcus borealis* *Schr.*, *H. odoratus* *L.* It was discovered by the late Mr. G. Don, in a narrow mountain valley called Kella, in Angushire.
- 3259 367b *HIPPION* *Spr.* (*Hippos*, a horse, *ion*, a violet.) viscidum *Spr.* Gentianacææ. No. 1726. in p. 98.
- 3260 \*417a *HOLARRHENA* *R. Br.* (*Holos*, entire, *arrhen*, a male; anthers.) villosa *At.* Apocynacææ. An East Indian shrub. Introduced in 1820.
- 3261 \*2164c *HOLIGARNA* *Rox.* (Its name in Karnata.) longifolia *Rox.* Terebinthacææ. An East Indian tree, growing to the height of 60 ft. Introduced in 1828.
- 3262 \*1203a *HOMALIUM* *Jac.* (*Homalos*, equal; stamens.) racemosum *Jac.* Homalinacææ. A West Indian shrub, producing its white flowers from May to July. Introduced in 1816.
- 210 *HORADNUM* *L.* (According to Bodeus à Stapel, *horadus*, heavy.) distichon *L.* Graminacææ. Zeebriciton distichum *G. Bauh.*
- 3263 \*1034c *HORRELLIA* *Cham.* (*John Horke*, prof. of Physiol. at Berlin.) congesta *Don.* Rosacææ. A curious white-flowered hardy perennial, a native of North America, whence it was introduced in 1825.
- 3264 \*228c *HOUTTUYNIA* *Thun.* (*Dr. Houttuyn*, a virtuoso of Amsterdam.) cordata *Thun.* Arácææ. A curious little herbaceous stove plant, producing yellowish green flowers. A native of Japan, and was introduced in 1820.
- 3265 \*1463b *HUGONIA* *L.* (*Dr. A. J. Hugo*, a friend of Haller's) mystax *L.* Chenelacæi affines. A stove shrub, a native of Ceylon, producing its yellow flowers in June and July. Introduced in 1818.
- 3266 199a *HYDROCHLOA* *Hav.* (*Hydros*, water, *chloa*, grass.) . . . Graminacææ. Nos. 1173, 1195, and 1201.
- 3267 1304a *HYDROPHILA* *R.* (*Hydros*, moist, *phileo*, to love; habitat.) ringens *R. Br.* Acanthacææ. No. 8606. in p. 518.
- 3268 \*458a *HYMENODICTYON* *Wall.* (*Hymen*, a membrane, *dictyon*, a net.) thyriflorum *Wall.* Rubiacææ. Cinchona thyriflora *Rox.* An East Indian tree, introduced in 1819. It produces yellowish green flowers, and thrives on a mixture of loam and peat.
- 3269 \* *HYMENOPYRAMIS* *Wall.* (*Hymen*, membrane, *pyramis*, pyramid.) brachiata *Wall.* Verbenacææ. An East Indian shrub, introduced in 1832.

- 3270 \*2078a *HYPHÆNE* *Gac.* (*Hypphaino*, to entwine; fibres of fruit.) coriacea *Gac.* Palmacæe. Cucifera thebæica *Del.* A palm, growing to the height of 20 ft. A native of Egypt. Introduced in 1824.
- 3271 1464a *HYPOCALYPTUS* *Thun.* (*Hypso*, under, *kalypto*, to veil.) obcordatus *Thun.* Leg. Pap. Lot. Gen. No. 10110. in p. 608.
- 3272 \*128a *HYPOLYTRUM* *Rich.* (*Hypso*, under, *elytron*, covering; bract under glume.) argenteum *Vahl.* Cyperacæe. A native of the East Indies, whence it was introduced in 1824.
- 3273 \*2046a *HYPOLÆNA* *R. Br.* (*Hypso*, under, *chlaina*, cloak; base of fruit.) fastigiata *R. Br.* Restiicæe.
- 3274 \*134b *HYPOLYTRUM* *Vahl.* (*Hypso*, under, *elytron*, involucrum.) senegalense *Rich.* Cyperacæe. A bog plant introduced from Senegal in 1824.
- 3275 \*1010b *YCICA* *Aub.* (Its name in Guiana.) heterophylla *Dec.* Terebinthacæe. *Amÿris heterophylla* *W.* A genus of stove trees, bearing white flowers. A mixture of loam and peat suits them.
- 3276 711c *YULU* *Haw.* (Son of Tros and Callirhoe; from whom Troy had its name Ilium.) . . . . . Amari-  
llicæe. No. 4026. in p. 240.
- 1744 *YNULA* *L.* (Corrupted from *Helonium*.) crithmifolia *L.* Comp. Card. Vern. Limbardiâ tricipis *Cass.*
- 3277 \*148a *ISA'CHNE* *R. Br.* (*Isos*, equal, *achne*, a glume.) australis *R. Br.* Graminacæe. A New Holland bog plant. Introduced in 1820.
- 3278 1246a *ISA'NTHUS* *Mx.* (*Isos*, equal, *anthos*, flower; regular corolla.) cæruleus *Mx.* Labiicæe. No. 8485. in p. 512.
- 3279 833b *ISE'RTIA* *Schreb.* (*P. E. Isert*, a Danish surgeon on coast of Guinea.) coccinea *Vahl.* Rubiicæe. No. 13315. in p. 788.
- 3280 \*1770a *ISMÆLIA* *Cass.* (Meaning unknown.) maderensis *D. Don.* Com. Anth. A half-hardy shrub introduced in 1834.  
122 *ISOLEPIS* *R. Br.* (*Isos*, equal, *lepis*, a scale; flower of equal scales.) fluitans *R. Br.* Cyperacæe. Helicogeton fluitans *Link.*
- 3281 \*447a *JABOROSA* *J.* (*Jaborosa*, Arabic name for mandrake; affinity.) runcinata *Lam.* Solanacæe. A pretty herbaceous green-house plant. Introduced from Plata in 1831.
- 3282 1119a *JAMBOS* *SA* *Bum.* (*Jambos*, aboriginal name.) vulgaris *Dec.* Myrtacæe. No. 6959. also 6958. and 6951.
- 3283 2033a *JANIPHA* *Kth.* (*Janipaba*, its name in Brazil.) *Mânihot* *Kth.* Euphorbiacæe. No. 13649. in p. 814.
- 3284 \*83c *JO'HNIA* *Rox.* (*Rev. Dr. John*, of Tranquebar.) salacioides *Rox.* Hippocrateæe. A stove shrub with yellowish-green flowers, a native of the East Indies. Introduced in 1822.
- 3285 711m *JONQUILLA* *Haw.* (*Jonquille*, Fr., dim. of *juncus*, Lat., a rush.) . . . . . Amari-  
llicæe. No. 4017. in p. 240.
- 3286 \*1118a *JOSSYNIA* *Com.* (Not known.) orbiculata *Dec.* Myrtacæe.  
1927 *KALANCHE* *E. Adan.* (Chinese name.) . . . . . Sempervivacæe. Nos. 5629, 5630, and 5631.
- 3289 698a *KALOSA'NTHUS* *Haw.* (*Kalos*, beautiful, *anthos*, a flower.) . . . . . Crassulacæe. Nos. 3865. to 3870. and 3884. p. 230.
- 3289 1674a *KENTROPHYLLUM* *Neck.* (*Kentron*, spine, *phyllon*, leaf.) arborescens *Hook.* Comp. Card. No. 11485. in p. 686.
- 3290 \*2034c *KIRGANELLA* *J.* (*Kirganelli*, its Malabar name.) elegans *J.* Euphorbiacæe. *Phyllanthus Kirganella* *W.* An ornamental stove shrub. Introduced from the Mauritius in 1820.  
142 *KNA'PPIA* *E. B. (Mr. M. Knapp, who wrote on British grasses.)* agrostidea *E. B.* Graminacæe. Chame-  
grostis minima *Schr.*, *Mibora* verna *Beauv.*, *Stürmia* minima *Beauv.*
- 3291 \*270b *KNOXIA* *L.* (*Robert Knox*, an English traveller in 1681.) zeylanica *L.* Rubiicæe.
- 3292 1401b *KONIGIA* *R. Br.* (*Charles König*, F.R.S., British Museum.) maritima *R. Br.* Cruciacæe. No. 9069. *Adyssetum maritimum* *Lk.*
- 3293 \*1685a *KUHNIA* *L.* (*Adam Kuhn*, of Pennsylvania, pupil of Linnæus.) Critonia *W.* Comp. Eup. *Critonia Kuhnia* *Gac.* A genus of somewhat ornamental white-flowered perennials, natives of South America.
- 3294 \*1985i *KU'NTHIA* *Hum.* (*C. S. Kunth*, an acute French botanist.) montana *Hum.* Palmacæe. An ornamental palm growing to the height of about 10 ft. Introduced from New Grenada in 1820.
- 3295 \* *LABI'CHEA* *Benth.* (*M. Labiche*, a French naval officer.) lanceolata *Benth.* Labiicæe. A green-house shrub, a native of the Swan River. Introduced in 1837.
- 3296 1548b *L'ABLAB* *Adan.* (*Lablab*, the Arabic name of the convolvulus.) vulgaris *Savi.* Leg. Pap. Phas. No. 10270., also No. 10285. p. 606. genus *Lablavia* *D. Don.*
- 3297 113a *LACHNA'NTHUS* *Ell.* (*Lachne*, wool, *anthos*, a flower.) . . . . . Hæmodoracæe. No. 751. in p. 44.
- 3298 \*1179b *LÆ'TIA* *L.* (*J. de Laet*, of Antwerp, author of a History of America.) Thámnia *Suz.* Bixicæe. A West Indian shrub, introduced in 1834. It produces its white flowers from June to August.
- 3299 2019a *LAGENA'RIA* *Spp.* Bottle Gourd. (*Lagena*, a bottle; form of fruit.) vulgaris *Ser.* Cucurbitacæe. No. 13561.
- 3300 \*984a *LAGON'CHUM* *Bieb.* (*Lagos*, a hare, *onychion*, a little nail.) Stephanidium *Bieb.* Leg. Mim. Mimosa micrantha *Vahl.* A half-hardy deciduous shrub, producing its yellow flowers in July and August.
- 3301 566a *LAHAYE* *R. & S.* (*M. Lahaye*, a botanical gardener.) . . . . . Paronychiacæe. Nos. 3181. and 3182. in p. 194.
- 3302 892b *LAMP'ROTES* *D. Don.* (*Lamprote*, splendour; calyx glistening.) calycina *D. Don.* Ericacæe. Type, No. 5237. in p. 308.
- 3303 \*996a *LARREA* *Cav.* (*J. A. H. de Larrea*, a Spanish bot.) nitida *Cav.* Zygophyllacæe. An ornamental under-shrub, a native of South America, whence it was introduced in 1823. It produces its yellow flowers in June and July.
- 3304 1714a *LASIOSPERMUM* *Lag.* (*Lasios*, woolly, *sperma*, seed.) pedunculare *Lag.* Comp. Anthem. No. 11656., also 11657. and 11658.
- 3305 \*539a *LAVRA'RIA* *Dec.* (*Vandelli*, *Marquis de Lavradio*.) montana *Mart.* Violacæe. A pretty Brazilian under-shrub, producing purple flowers. Introduced in 1826.
- 3306 \*1195a *LE'CYTHIS* *L.* (*Lekythos*, an oil jar; seed-vessel.) grandiflora *Aub.* Lecythacæe. A genus of stove trees and shrubs, which produce whitish yellow flowers, may be increased by cutting sand grown in sandy loam.
- 3307 2128a *LEIMANTHIUM* *Mx.* (*Lemon*, meadow, *anthos*, flower.) virginicum *W.* Melanthacæe. No. 14205. in p. 860.
- 3308 \*1985a *LEOPOLDINA* *Mart.* (The late Empress of Brazil.) pilchra *Mart.* Palmacæe. A palm, attaining the height of 60 ft. A native of Brazil. Introduced in 1825.
- 3309 1256b *LEPECHINIA* *W.* (*John Lepechin*, a Russian botanist.) spicata *W.* Labiicæe. No. 8265.
- 3310 \*1301b *LEPIDA'GATHIS* *W.* (*Lepis*, a scale, *agathis*, a ball.) cristata *W.* Acanthacæe. An East Indian perennial, introduced in 1820, and thrives in sandy loam.
- 3311 \*119b *LEPIDOSPERMA* *Lab.* (*Lepis*, a scale, *sperma*, a seed.) gladiata *R. Br.* Cyperacæe. A curious green-house perennial bog plant. Introduced from New Holland in 1819.
- 3312 \*1424a *LEPTA'LEUM* *Dec.* (*Leptaicos*, slender; leaves.) filifolium *Dec.* Cruciacæe. *Sisymbrium filifolium* *W.* A curious little yellow-flowered annual. Introduced from Siberia in 1820.
- 3313 39a *LEPTANDRA* *Nut.* (*Leptos*, slender, *aner*, anther.) . . . . . Scrophulariacæe. Nos. 182. and 183. in p. 14.
- 3314 \*2047a *LEPTOCARPUS* *R. Br.* (*Leptos*, slender, *karpos*, fruit.) tenax *R. Br.* Restiicæe. *Schenbodium tenax* *Lab.*
- 3315 \*569b *LEPTOMERIA* *R. Br.* (*Leptos*, slender, *meris*, a part; habit.) Billardièri *R. Br.* Santalacæe. *Thesium drupaceum* *Lab.* A genus of curious little white-flowered New Holland shrubs, two species of which were introduced in 1823.
- 3316 \*2046b *LEPYRODIA* *R. Br.* (*Lepyrodes*, scaly; bractæas within scales of spikes.) gracilis *R. Br.* Restiicæe.
- 3317 1738a *LE'RIA* *Dec.* (*Leri*, a friend of Decandolle's.) nitans *Dec.* Comp. Labiat. No. 11882. in p. 704.
- 3318 \*1175d *LETTSMIA* *R. & P.* (*J. Cockley Lettson*, an English naturalist.) tomentosa *R. & P.* Ternstroemiacæe.

- A shrub growing to the height of about 4 ft. Introduced from Peru in 1823. and thrives in sandy loam.
- 3319 114b LEUCOCOBYNE Lindl. (*Leukos*, white, *koryne*, club; sterile anthers.) *xioides* Lindl. Asphodelaceae. No. 752. in p. 44.
- 3320 1730a LEUCOSTEREMMA D. Don. (*Leukos*, white, *stemma*, a crown; flowers.) *vestitum* D. Don. Comp. Vern. No. 11795. in p. 700.
- 3321 1016c LEUCOTHOË D. Don. (*Leucothoe*, a beautiful nymph beloved by Apollo.) . . . . . Ericaceae. Nos. 5948, 5954, 5955, 5957, and 5958.
- 3322 665b LEVISTICUM Koch. (*Lewo*, to assuage; relieves flatulency.) *officinale* Koch. Umbellaceae. No. 3683. in p. 220.
- 3323 \*1173a LEWISIA Ph. (*Capt. M. Lewis*, who accompanied Clarke to Rocky Mountains.) *rediviva* Ph. Crassulaceae. A fusiform-rooted white-flowered perennial, a native of North America. Introduced in 1826.
- 3324 \*604a LINCOLA L. (Probably a man's name.) *rhytidifolia* Swz. Bruniaceae. *Diosma dentata* Thun. A genus of white-flowered Cape shrubs, which may be increased by cuttings, and grown in a mixture of peat and loam.
- 3325 725a LITTEA Brig. (*Duke of Lytta*, near Milan.) *geminiflora* Brig. Bromeliaceae. No. 4102. in p. 244. *Bonapartea juncea* Hav. & Hort.
- 3326 \*2108a LODOCEA Com. (*Laodice*, the daughter of Priam and Hecuba.) *sechellarum* Lab. Palmaceae. *Cocos maldivica* Gm. An ornamental palm, attaining the height of 80 ft. A native of Seychelles.
- 3327 1717a LONAS Adan. (Probably without meaning.) *inodora* Gae. Comp. Anthem. No. 11663. in p. 696.
- 3328 1512a LONCHOCARPUS H. & B. (*Logche*, lance, *karpos*, fruit.) *latifolius* H. & B. Leg. Pap. Lot. Gal. No. 10033. in p. 604.
- 3329 892g LOPHONDA D. Don. (*Lophos*, crest, *aner andros*, a man or stamen.) *pyramidalis* D. Don. Ericaceae. Type, No. 5376. in p. 314.
- 3330 1130a LOPHIRA Banks. African Scrubby Oak. (*Lophos*, a crest; bract. of flower.) *africana* Banks. Lophireae.
- 3331 \*1492a LOPHIMIA Mart. (*Lopimos*, easy of decortication.) *mala-cophylla* Mart. Malvaceae. *Sida mala-cophylla* Lk. An evergreen stony shrub, producing its red flowers from July to September. A native of Bahla. Introduced in 1823.
- 3332 1580a LOUREA Neck. (Not explained.) *vespertilidnis* Desv. Leg. Pap. Hed. Euh. No. 10559. in p. 630.
- 3333 1148a LOWEA Lindl. (*Rev. Mr. Lowe*, travelling bachelor of the University of Cambridge.) *berberifolia* Lindl. Rosaceae. No. 7463. in p. 442.
- 3334 427a LUCUMA J. (Its Peruvian name.) *mammosa* J. Sapotaceae. No. 2409. in p. 150.
- 3335 \*1619c LUMEA W. (*Charles Vander Luhe*, a German botanist.) *paniculata* Mart. Tiliaceae. A stove climber producing rose-coloured flowers. A native of Brazil. Introduced in 1823.
- 3336 \*450a LYCOSERIS R. & S. (*Lycium* and *serissa*; *serissa*-like lictum.) *capensis* R. & S. Solanaceae. An uninteresting Cape shrub, producing green flowers. Introduced in 1820.
- 3337 450b LYCOPELISICUM Thou. (*Lychos*, wolf, *persikon*, peach; aphrodisiac.) *esculentum* Dun. Solanaceae. No. 2517., also 2516, 2518, 2519, 2520. p. 156.
- 3338 1016d LYONIA Nut. (*J. Lyon*, an American collector of plants.) . . . . . Ericaceae. Nos. 5939, 5940, 5941, 5946, 5947, 5951, 5952, 5953, and 5956.
- 3339 \*415a LYONSIA R. Br. (*J. Lyons*, an English botanist.) *straminea* R. Br. Apocynaceae. Has straw-coloured flowers. A native of New Holland. Introduced in 1820.
- 3340 1073a MACLEAYA R. Br. (*A. MacLeay*, secretary to Liu. Soc.) *cordata* R. Br. Papaveraceae. No. 6583. in p. 392.
- 3341 \*519a MACROSTYLIS B. & W. (*Makros*, long, *stylis*, a style.) *barbata* Hill. Rutaceae. *Agathosma barbata* Spr.
- 3342 943a MACROTROPIS Dec. (*Makros*, long, *tropis*, a keel; flower.) *foetida* Dec. Leg. Pap. Soph. No. 5673. in p. 343.
- 3343 \*1164a MACROTYUS Raf. (*Makros*, long, *ous*, ear; capsule.) *racemosa* Raf. Ranunculaceae. *Actaea racemosa* L. A North American deciduous perennial, and produces its white flowers from April to June.
- 3344 442a MAESA J. (*Maas*, its Arabian name.) *indica* Wall. Myrsinaceae. No. 2457. in p. 154.
- 3345 1495a MALACHODENDRON Cav. (*Malachos*, soft, *dendron*, tree.) *ovatum* Cav. Ternstroemiaceae. No. 9950. in p. 592.
- 3346 †1479 MALVAESCUS Dil. (*Malva*, mallow, *viscus*, glue.) *arbreus* Cav. Malvaceae. No. 9804. also Nos. 9805. and 9806.
- 3347 \*2007c MANICARIA Gae. Wine Palm. (*Manica*, a glove; *spathe*.) *sacifera* Gae. Palmaceae. Attains the height of 30 ft. A native of the East Indies. Introduced in 1823.
- 3348 \*212c MANSURUS L. (*Mansia*, scaly lizard, *ovata*, tail; spikes.) *granularis* Swz. Graminaceae. A curious East Indian perennial grass. Introduced in 1821.
- 3349 \*68a MARGYRICARPUS R. & P. (*Margaran*, pearl, *karpos*, fruit; resemblance.) *setosus* R. & P. Rosaceae. A curious green-flowered stove shrub. Introduced from Peru in 1829.
- 3350 \*908a MARLEA Rox. (*Mariya*, its Bengal name.) *begoniaefolia* Rox. . . . . A yellow-flowered green-house shrub, a native of China.
- 3351 \*2153b MAXIMILIANA Mart. (*Maximilian*, Prince Weid-Neuwied.) *regia* Mart. Palmaceae. A palm growing to the height of 60 ft. A native of Brazil, whence it was introduced in 1825.
- 3352 \*1413a MEGACARPA Dec. (*Megas*, great, *karpos*, fruit.) *laciniata* Dec. Cruciferae. *Biscutella megacarpa* Fis. A yellow-flowered biennial. Introduced from Siberia in 1818.
- 3353 663a MELANOSELINUM Hoffm. (*Melas*, black, *selinum*, parsley; appearance.) *deciplens* Hoffm. Umbellaceae. No. 3676. in p. 220.
- 3354 \*1118b MELANOPSEIDUM Col. (*Melas*, black, *psidium*, guava.) *nigrum* Col. Rubiaceae. A stove tree, producing cream-coloured flowers. Introduced in 1823.
- 3355 \*904c MELICOPE Forst. (*Meli*, honey, *kope*, incision; nectary of notched glands.) *ternata* Forst. Rutaceae. A New Zealand shrub introduced in 1822. It may be increased by cuttings, and grown in a mixture of peat and loam.
- 3356 \*752a MELOCANNA Trin. (*Melon*, apple, *kanna*, a reed.) *bambusoides* Trin. Gramineae. *Bambusa bac-cifera* Rox. A native of the East Indies, attaining the height of 20 ft. and requiring to be grown in loam.
- 3357 \*1940b MELOTHRIA L. (*Melothron*, supposed to be bryony; similarity.) *foetida* Desv. Cucurbitaceae. *Trichosan-ctoidissima* L. A genus of uninteresting trailing annuals, which produce yellow flowers from June to September.
- 3358 \*1401a MENOCTES Desv. (*Mene*, the moon, *okkos*, eye; seeds?) *unifolium* Desv. Cruciferae. *Alyssum unifolium* Step. An ornamental little annual, a native of Caucasus, whence it was introduced in 1817. It produces its yellow flowers in June and July.
- 3359 \* MENONVILLEA Dec. (*M. Thierry de Menonville*, a French naturalist.) *filifolia* Fisch. Cruciferae. An elegant greenish-white-flowered annual. Introduced from Chile in 1836.
- 3360 \*1029g MERIANA Swz. (*M. S. Merian*, an entomological authoress.) *leucantha* Swz. Melastomaceae. A genus of ornamental shrubs, natives of Jamaica. Three species are introduced, *M. leucantha*, *M. purpurea*, and *M. coccinea*.
- 3361 \*2413a MERTENSIA Kth. (*Professor F. C. Mertens*, of Bremen.) *laevigata* Kth. Urticaceae.
- 3362 346a MESSERSCHMIDIA L. (*D. Messerschmid*, a German botanist.) . . . . . Boraginaceae. No. 2004. and 2005. in p. 124.
- 3363 \*581a METASTELMA R. Br. (*Meta*, instead of, *stelma*, crown; append.) *parviflorum* R. Br. Asclepiaceae. A curious whitish-green-flowered West Indian twiner.



- 3364 1029a *Miconia* R. & P. (*Dr. D. Micon*, a Spanish botanist.) . . . . Melastomaceæ. Nos. 6001. 6003. 6005. 6008. and 6015. in p. 364.
- 3365 \*40b *MICRANTHEMUM* *Mr.* (*Mikros*, small, *anthos*, flower.) orbiculatum *Mr.* Primulaceæ. A pretty white-flowered perennial trailer. A native of Carolina. Introduced in 1826.
- 3366 \*1546b *MICRANTHEMUM* *Poir.* (*Mikros*, small, *anthos*, flower.) cochini-chinensis *Lou.* Leg. Pap. Phas. A deciduous stove twiner, producing its white flowers from June to August.
- 3367: 280b *MICROCALYX* *Lk.* (*Mikros*, small, *kalos*, pretty.) filiforme *Lk.* Gentianeæ. No. 1728. in p. 98.
- 3368 \*313a *MICROCALYX* *Beauv.* (*Mikros*, small, *lenos*, wool; flower-stalk.) stipoides *Beauv.* Graminaceæ. *Ehrharta stipoides* *Lab.* A curious grass, a native of New Holland, introduced in 1822.
- 3369 \*603b *MICROTE* *A. Swz.* (*Microtes*, smallness; of parts of fructification.) mayupurensis *G. Don.* Phytolaceæ. *Andriocarpus mayupurensis* *Kth.* A genus of curious little white-flowered tender annuals.
- 3370 \*817a *MILLETA* *Cav.* (*Judice* *Milla*, chief gardener at royal gardens, Madrid.) biflora *Cav.* Asphodelææ. A white-flowered bulbous-rooted plant, a native of Mexico, whence it was introduced in 1826.
- 3371 \*353a *MILLINGTONIA* *Rok.* (*Sir T. Millington*, Sav. Prof. Oxford.) simplicifolia *Rok.* Oleaceæ. An ornamental stove tree, producing yellow flowers. A native of the East Indies. Introduced in 1828.
- 3372 \*281a *MITRASACME* *R. Br.* (*Mitra*, a mitre, *akme*, a point.) . . . . Gentianeæ. A genus of rather pretty New Holland herbaceous plants, producing white flowers, and requiring to be grown in sandy loam.
- 3373 \*28a *MNIA* *Rum Forst.* (*Mniarum*, mossy.) biflorum *Forst.* Chenopodiaceæ.
- 3374 \*552b *MOGYPHANES* *Mart.* (Not explained.) virgata *Schr.* Amarantaceæ. A curious loose-growing biennial or perennial. Introduced from Russia in 1836.
- 3375 \*751a *MORINIA* *Coll.* (*Ignatio Morinero*, director of Turin bot. gar.) pilcata *Coll.* Hypoxidaceæ. A scarlet and yellow flowered herbaceous stove plant. A native of Java. Introduced in 1820.
- 3376 665a *MOLOPOSPERMUM* *Koch.* (*Molops*, a wheel, *sperma*, a seed.) peloponnesiacum *Koch.* Umbellaceæ. No. 3685. in p. 220.
- 3377 \*147a *MONACHNE* *Beauv.* (*Monos*, one, *achne*, a glume.) unilateralis *Beauv.* Graminaceæ. *Milium villosum* *Lk.* An uninteresting tender annual, a native of the West Indies. Introduced in 1819.
- 3378 1110a *MONANTHES* *Haw.* (*Monos*, one, *anthos*, a flower.) polyphylla *Haw.* Cruciferae. No. 6338. in p. 408.
- 3379 \*1220a *MONODORA* *Dunal.* (*Monos*, one, *doron*, gift; fruit solitary.) Myristica *Dunal.* Anonaceæ. *Anoda Myristica* *Gae.* An ornamental shrub, a native of Jamaica. It may be increased by cuttings, and grown in a mixture of peat and loam.
- 3380 464a *MONOPSIS* *Sal.* (*Monos*, one, *opsis*, a face.) conspicua *Sal.* Lobeliaceæ. No. 2742. in p. 168.
- 3381 \* *MONOTANIS* *Brong.* (*Monos*, one, *taxis*, series; male and female flowers.) simplex *Brong.* Euphorbiaceæ. A New Holland shrub, which may readily be increased by cuttings, and grown in a mixture of peat and loam.
- 3382 \*182a *MONTANOYA* *Lal.* (*Montano*, a Mexican patriot.) grandiflora *Lal.* Comp. Helian. A genus of uninteresting yellow-flowered Mexican shrubs. They are readily increased by cuttings, and thrive in good common earth.
- 3383 \*387a *MORENOYA* *Lal.* (*P. Moreno*, a Mexican botanist.) patula *Lal.* Convolvulaceæ. A genus of scarlet-flowered Mexican twiners. A mixture of peat and loam suits the species.
- 3384 979a *MORINGA* *Dec.* (Its Malabar name.) pterygosperma *Dec.* Leg. Cæs. Cass. No. 5852. in p. 350.
- 3385 \* *MORISIA* ? *D. Don.* (*Prof. Moris*, the discoverer.) hypogæa ? *D. Don.* Cruciferae. A curious and pretty half-hardy perennial, producing its yellow flowers in April. It is a native of Sardinia. Introduced in 1833. A light sandy loam suits the plant.
- 3386 \* *MORNA* *Lindl.* (*Morna*, a heroine of the Northern romances.) nitida *Lindl.* Compositæ. An elegant green-house under-shrub. Introduced from Sardinia in 1826.
- 3387 \* *MORREYA* *Lindl.* (*Professor Charles Morrey* of Liège.) odorata *Lindl.* Asclepiaceæ. A native of Buenos Ayres, produces fragrant green flowers, may be increased by cuttings, and grown in a light rich soil.
- 3388 1281a *MOSCHOSMA* *Rehb.* (*Moschos*, musk, *osme*, smell; odour.) ocyroides *Benth.* Labiaceæ. Nos. 8469. and 8475. in p. 510.
- 3389 +1030 *MOURVIA* *J.* (*Mourira*, its name in Guiana.) myrtilloides *Aub.* Memecylaceæ. No. 6022. in p. 364.
- 3390 1548g *MUCUNA* *A. Adan. & Dec.* Cow Itch. (*Mucuna-Guaca*, name in Brazil.) . . . . Leg. Pap. Phas. Nos. 10293, 10294, and 10295, also Nos. 10268, and 10269.
- 3391 \*1440a *MURICARIA* *Desv.* (*Muricatus*, full of prickles.) prostrata *Desv.* Cruciferae. *Bunias prostrata* *Desf.* An uninteresting trailing annual, producing its white flowers in June and July. Introduced from the South of Europe in 1821.
- 3392 1459a *MURUCU* *La J.* (*Murucuja*, its name in Brazil.) ocellata *Pers.* Passifloraceæ. No. 9400., also 9401. 183 *MYGALURUS* *Lk.* (*Mygale*, a field mouse; *oura*, a tail.) . . . . Graminaceæ. *Vulpia* species. Nos. 1118, 1119, and 1122.
- 3393 1121a *MYRCIA* *Dec.* (A surname of Venus.) æris *Dec.* Myrtaceæ. No. 6978. and 6980.
- 3394 1577c *MYRIADENUS* *Desv.* (*Myrios*, innumerable, *aden*, gland.) tetraphyllus *Desv.* Leg. Pap. Hed. Euh. *Ornithopus tetraphyllus*.
- 3395 685a *MYRICARIA* *Desv.* (*Myrike*, Greek name of tamarisk.) germanica. Tamaricaceæ. No. 3926. in p. 228.
- 3396 \*940a *MYROSPERMUM* *H. & B.* (*Myros*, balsam, *sperma*, a seed.) toluiferum *Mr.* Leg. Pap. Soph. A medicinal tree, a native of South America. It may be readily increased by cuttings, and thrives in a mixture of peat and loam.
- 3397 \*1978a *NAJAS* *W.* (*Najas*, a water nymph; habitat.) major *All.* Fluviaceæ. *N. monosperma* *W.* A curious annual aquatic, a native of Europe. Introduced to England in 1816.
- 3398 \*752b *NASTUS* *J.* (*Nastos*, the Greek name for a kind of reed.) latifolia *Spr.* Graminaceæ. *Bambusa latifolia* *H. & B.* A native of Cuzana, whence it was introduced in 1818. It grows to the height of 20 ft.
- 3399 \*1796a *NECTAROSCORDUM* *Lindl.* (*Nektar*, honey, *skorodon*, garlic.) sciculum *Uc.* Asphodelææ. *Allium sciculum* *Uc.*
- 3400 2075a *NEGUNDO* *Moe.* (Meaning unknown.) fraxinifolium *Nut.* Aceraceæ. No. 14294. in p. 869.
- 3401 \*1118a *NEGLITRIS* *Gae.* (*Ne*, priv., *elytron*, seed-case; berry unpartitioned.) *Jambosella* *Gae.* Myrtaceæ. *Psidium decaspermum* *L. fil.* A white-flowered stove shrub, growing to the height of 10 ft. Introduced from the Society Isles in 1810.
- 3402 \*48a *NELSONIA* *R. Br.* (*Dr. Nelson*, a botanist who accompanied Capt. Cook.) hirsuta *R. Br.* Acanthaceæ. An uninteresting red-flowered East Indian plant. Introduced in 1818.
- 3403 \*2075b *NEPENTHES* *Raf.* (*Nepos*, grove, *ops*, eye, *anthos*, flower.) canadensis *Dec.* Celastraceæ. *fascicularis Raf.* *Flex canadensis Mr.*
- 3404 1394a *NEUROLOMA* *Dec.* (*Neuron*, a nerve, *loma*, a fringe.) arabidiflorum *Dec.* Cruciferae. No. 9164. in p. 548.
- 3405 \*2023c *NEUROSPERMA* *Raf.* (*Neuron*, a nerve, *sperma*, seed.) cuspidata *Raf.* Cucurbitaceæ. A trailing annual, producing its yellow flowers from June to September. Introduced from Kentucky in 1827.
- 3406 1580c *NICOLSONIA* *Dec.* (*M. Nicolson*, wrote on nat. hist. of St. Domingo.) barbata *Dec.* Leg. Pap. Hed. Euh. *Hedysarum barbatum* *L.*
- 3407 \*1162b *NIEBUHRIA* *Dec.* (*Carslen Niebuhr*, a traveller in Arabia.) caffra *Dec.* Capparidaceæ. *Cratæva caffra* *Burc.* A New Holland shrub, introduced in 1818. It thrives in a sandy peat soil, and produces white flowers.
- 3408 1699a *NOCCA* *Cav.* (*Dominic Nocca*, a professor at Ticin.) rubra *Swz.* Comp. Vern. No. 11600. in p. 692.

- 3409 \*541a NOISETTIA H. & B. (*L. C. Noisette*, nurseryman at Paris.) longifolia H. & B. Violaceae. An ornamental shrub, producing cream-coloured flowers. A native of Cayenne, whence it was introduced in 1824.
- 3410 \*483a NONATELLA Aub. (Its name in Guiana.) officinalis Aub. Rubiaceae. Psychotria involucrata Swz. A native of Guiana, introduced in 1827. It is a green-flowered evergreen shrub.
- 3411 \*1163b NORANTEA Aub. (*Gonoro-Antegri*, its name in Guiana.) guianensis Aub. Marograaviaceae. *A'scyrum violaceum Aub.* A shrub, producing pale violet-coloured flowers. Introduced in 1818.
- 3412 1350a NYCTERINIA D. Don. (*Nyctieris*, nocturnal; expansion of flowers.) . . . . Scrophulariaceae. Nos. 8927 and 8928. p. 528.
- 3413 594f OBEUSIA Haw. (*Obeus*, fat; flowers.) . . . . Asclepiaceae. Nos. 3331, 3332, in p. 200.
- 3414 \*420a OCHROSA J. (*Ochros*, pale; wood.) horbónica J. Apocynaceae. Cérbera horbónica Spr. A stove shrub, introduced from Bourbon in 1823, requiring to be grown in a mixture of peat and loam.
- 3415 892g OCTOPERA D. Don. (*Okto*, eight, *pera*, a sack; capsule 8-celled.) Bergiana D. Don. Ericaceae. Type, No. 5395. in p. 316.
- 3416 \* ODONTARRHENA Mey. (*Odous*, a tooth, *arrhen*, a male; filaments.) microphylla Led. Cruciferae. A pretty little perennial trailer, introduced in 1832, and thrives in a mixture of loam and peat.
- 3417 \*1985b OENOCARPUS Mart. (*Oinos*, wine, *karpos*, fruit.) *Batavia* Mart. Palmaceae. A palm, attaining the height of 40 ft. A native of South America, whence it was introduced in 1820.
- 3418 711c OILEUS Haw. (A king of the Locrians, and father of Ajax.) obcissus Haw. Amaryllidaceae. *Narcissus obcissus Haw.*
- 3419 \*83d O'LAZ L. (*Olaz*, a furrow; the flower.) scandens Rox. Olacaceae. A white-flowered East Indian climber. Introduced in 1820.
- 3420 \*2026a OMALANTHES Grab. (*Homalos*, smooth, *anthos*, flower.) populifolia Grab. Euphorbiaceae. A New Holland shrub, producing its white flowers from July to September. Introduced in 1825.
- 3421 \*969a OMPHALOBUM Jac. (*Omphalos*, the navel, *lobos*, a pod.) Schottia Jac. Legum. Cass. Schottia latifolia Jac. A Cape shrub, producing pale purple flowers from May to July. Introduced in 1820.
- 3422 \* ONCORHYNCHUS F. & M. (*Onkos*, tumour, *rhyngchos*, beak; lip.) tenellus F. & M. Rhinanthaceae. A delicate biennial. Introduced in 1837.
- 3423 1588a ONOBRYCHIS Tou. (*Onos*, ass, *brycho*, to gnaw.) sativa Lam. Leg. Pap. Hed. Euh. No. 10597, also Nos. 10584, 10598, 10599, 10603, and 10604.
- 3424 671a OPO'PANAX Koch. (*Opos*, juice, *panax*, the plant yielding it.) Chironicum Koch. Umbellaceae. No. 3725. in p. 222.
- 3425 1632a OPORINIA D. Don. (*Oporinos*, autumnal; time of flowering.) autumnalis D. Don. Comp. Cich. No. 1167. in p. 670.
- 3426 594e O'RBEA Haw. (*Orbis*, an orb; flower.) . . . . Asclepiaceae. Nos. 3314 & 3330. in p. 200.
- 3427 626a ORLA'YA Hofm. (*Orlay*, probably the name of some botanist.) . . . . Umbellaceae. Nos. 3523 and 3528. in p. 210.
- 3428 1377d ORMOCA'REUM Beauv. (*Ormos*, necklace, *karpos*, fruit.) senoides Dec. Leg. Pap. Hed. Euh. No. 10587 in p. 682.
- 3429 845b ORNITHOGLOSSUM Sal. Bird's Tongue. (*Ornis*, bird, *glossa*, tongue; petals.) viride Sal. Melanthaceae. No. 4921.
- 3430 \*664b OSTE'RICUM Hofm. (*Osteon*, a bone; seeds.) pratense Hofm. Umbellaceae. *Angelica pratensis Spr.*
- 3431 \*85b OUVREA Aub. (A Caribbe name.) bijuga Dec. Leguminaceae. An East Indian shrub. Introduced in 1823.
- 3432 \*989c OXALIA Cun. (*John Oxley*, late surveyor-general of N. S. W.) xanthoxylon Cun. Meliaceae. A New Holland timber tree, attaining the height of 100 ft. Introduced in 1828.
- 3433 814 OXY'BAPHUS R. & P. (*Oxys*, acid, *baphe*, dyer's colour.) . . . . Nyctaginaceae. Nos. 569, 570, 571. in p. 36.
- 3434 \*578b OXYPH'TALUM R. Br. (*Oxys*, sharp, *petalon*, a petal.) appendiculatum Mart. Apocynaceae. A stove twiner. Introduced from Brazil in 1823.
- 3435 4857 OXY'RIA Hill. (*Oxys*, acid.) reniformis Sm. Polygonaceae. No. 5034. in p. 294.
- 3436 769c PACHIDE'NDRON W. (*Pachys*, thick, *dendron*, a tree.) . . . . Hemerocallidaceae. Nos. 4472, 4447, 4448, 4454, and 4455. in p. 262.
- 3437 1548c PACHYRHIZUS Rich. (*Pachys*, thick, *rhiza*, root; tuberous.) angulatus Rich. Leg. Pap. Phas. No. 10284. in p. 616.
- 3438 892b PAC'CEA D. Don. (*Pachys*, thick; substance of corolla.) ardens D. Don. Ericaceae. Type, No. 5280. in p. 310.
- 3439 \*50a PADEROTA L. (Ancient name of a sp. of *Acanthus*.) Bonarota L. Scrophulariaceae. A little annual rock plant, producing blue flowers. A native of Austria, whence it was introduced in 1818.
- 3440 \*483b PALICOURIA Aub. (*Le Palticour*, of Guiana.) crœcea R. & S. Rubiaceae. Psychotria crœcea Swz. A West Indian shrub. Introduced in 1823. It may be increased by cuttings, and thrives in sandy loam.
- 3441 \* PANÆTIA Cass. (Not explained.) filva Lindl. Com. Helich. A pretty annual, producing its red and golden-coloured flowers in May. Introduced from the Swan River in 1837.
- 3442 \*205a PAPPOPHORUM Schreb. (*Pappos*, down, *phoreo*, to carry.) nigricans R. Br. Graminaceae. An uninteresting New Holland grass. Introduced in 1822.
- 3443 \*2007e PARIANA Aub. (Its name in Guiana.) campestris Aub. Graminaceae. A curious stove undershrub, introduced from Cayenne in 1803.
- 3444 \*1548d PAROCHETUS Ham. (*Para*, nigh, *ochetos*, a brook.) communis Hum. Leg. Pap. Phas. A purple-flowered half-hardy creeper. Introduced from Nepal in 1820.
- 3445 \*413b PARSONSIA R. Br. (*Dr. Parsons*, a Scotch botanist.) corymbosa R. Br. Apocynaceae. *Echites corymbosa Jac.* A South American twiner. Introduced in 1820.
- 3446 429a PATAGONULA L. (*Patagonia*, its native country.) americana L. Boraginaceae. No. 2420. in p. 150.
- 3447 594i PECTINARIA Haw. (*Pecten*, a comb.) articulata Haw. Asclepiaceae. No. 3299. in p. 200.
- 3448 \*2147a PENTACRYPTA Leh. (*Pente*, five, *krypte*, a vault.) atropurpurea Leh. Umbellaceae. An uninteresting purple-flowered stove perennial. A native of Mexico. Introduced in 1829.
- 3449 \*1616a PENTADE'SMA R. Br. Butter and Tallow Tree. (*Pente*, five, *desme*, bundle; stamens.) butyræa R. Br. Guttiaceae. A stove tree, growing to the height of 30 ft. Introduced from Sierra Leone in 1822.
- 3450 77a PEPERO'MIA R. & P. (Analogous to *Piper*.) . . . . Piperaceae. Nos. 500, 503, and 520. to 543. in p. 28.
- 3451 160a PERIBALIA Trin. (*Periballo*, to encompass.) hispánica Trin. Graminaceae. No. 1008. in p. 56.
- 3452 \*1448a PERITOMA Dec. (*Peritome*, a cutting round about; base of cal.) serrulata Dec. Capparidaceae. *Cledome serrulata Ph.* An ornamental annual, producing its purple flowers from June to August. A native of Missouri. Introduced in 1823.
- 3453 934b PE'RSSIA Gac. Alligator Pear. (Used by Theophrastus for an Egyptian tree.) gratissima Gac. Lauraceae. No. 5651.
- 3454 1128a PE'RSSICA Tou. (Originally from *Persia*.) vulgaris Lam., No. 7020.; levis Dec., No. 7020.  $\beta$ . Rosaceae.
- 3455 465a PETROMA'RULA Pers. (*Petra*, a rock, *maron*, an herb.) pinnata Pers. Campanulaceae. No. 2760. in p. 168.
- 3456 673a PETROSELI'NUM Hofm. (*Petra*, a rock, *selinon*, parsley; habitat.) sativum Hofm. Umbellaceae. No. 3617., also 3603, and 3690.
- 3457 \*1093a PHACOSP'ERMA Haw. (*Phakos*, a lentil, *sperma*, a seed.) peruviana Haw. Ficoidaceae. A perennial stove plant, producing its purple flowers in June and July. Introduced in 1820.
- 3458 808b PHALANGIUM Hs. (*Phalang*, a venomous spider; cures bite.) . . . . Asphodelaceae. Nos. 4804. and 4824. in p. 290.

- 3459 \* PHA'RUM *Herb.* (*Pharos*, a veil; ovarium in membranous cup.) fistulosum *Herb.* Asphodelææ. A purple-and-white-flowered bulbous-rooted plant. A native of Mexico. Introduced in 1831.
- 3460 \* PHILODENDRON *Lindl.* (*Phileo*, to love, *dendron*, a tree; habit.) crassivernum *Lindl.* Aracææ. A curious greenish-white flowered Brazilian climber, growing to the height of about 20 ft. Introduced in 1835.
- 3461 711 PHILO'GYNE *Haw.* (*Phileo*, to love, *gync*, a female; and anthers conniving over the stigma.) . . . . . Amaryllidææ. Nos. 4022, and 4021.
- 3462 1730b PHENO'COMA *D. Don.* (*Phoinos*, bloody, *kome*, hair; involucre.) prolifera *D. Don.* Comp. Vern. No. 11803, in p. 702.
- 3463 212a PHOLI'RUS *Trin.* (*Pholis*, a scale, *oura*, a tail.) pannonicus *Trin.* Graminææ. No. 1280, in p. 72.
- 3464 174b PHRAGM'ITES *Trin.* (*Phragmos*, a hedge; forming hedges.) communis *Trin.* Graminææ. No. 1072, in p. 60.
- 3465 739a PHYC'TILA *Lindl.* (Dim. of *phykos*, red alkanet; colour.) . . . . . Amaryllidææ. No. 4243, and 4244, p. 252.
- 3466 \*2016b PHYLLO'CLADUS *Rich.* (*Phyllon*, a leaf, *klados*, a branch.) rhomboidalis *Rich.* Conacææ. Podocarpus asplenifolia *Lab.* A tree attaining the height of 20 ft. A native of Van Diemen's Land, whence it was introduced in 1825.
- 3467 1016g PHYLLO'DOCE *Sal.* (One of Cyrene's attendant nymphs.) taxifolia *Sal.* Ericacææ. No. 5413, in p. 316.
- 3468 \*1464a PHYLLO'LOBUM *Fis.* (*Phyllon*, a leaf, *lobos*, a pod.) zanzibarënsë *Boj.* Leg. Phyllol. An uninteresting herbaceous stove plant. Introduced in 1826.
- 3469 665a PHYSSOP'FERUM *Cus.* (*Physsa*, to inflate, *sperma*, seed.) commutatum *Spr.* Umbellacææ. No. 3687, in p. 220.
- 3470 \*2108b PHYTHALPHAS *R. & P.* (*Phyton*, plant, *elephas*, ivory.) macrocarpa *R. & P.* Pandanacææ. An ornamental stove shrub, introduced from Peru in 1832.
- 3471 \*1577c PICTE'TIA *Dec.* (*Pictet*, a celeb. physician.) squamata *Dec.* Leg. Pap. Hed. Euh. Robinia squamata *Vahl.*
- 3472 \*904a PIERA'RDIS *Rox.* (*Mr. Pierard*, of Kew Green.) sapida *Rox.* Sapindacææ. A stove tree, growing to the height of 20 ft., and producing yellow flowers. A native of Sumatra. Introduced in 1820.
- 3473 1016f PI'ERIS *D. Don.* (A general appellation of the muses, Pierides,) japonica *D. Don.* Ericacææ. No. 5945, in p. 360.
- 3474 943a PIPTA'NTHUS *Swt.* (*Pipto*, to fall, *anthos*, flower; soon falling off.) nepalënsis *Swt.* Leg. Pap. Soph. No. 5680, in p. 342.
- 3475 141b PIPTATHE'RUM *Beauv.* (*Pipto*, to fall, *ather*, an awn.) . . . . . Graminææ. Nos. 931, 932, and 933, in p. 52.
- 3476 1060b PISTON'IA *Dec.* (*Pistron*, a cup; affinity to Cotyledon.) hispânica *Dec.* Crassulacææ. No. 6416, in p. 382.
- 3477 \*280c PLAD'DERA *Rox.* (*Pladaros*, abounding in juice.) virgata *Rox.* Gentianacææ. An East Indian biennial, producing red flowers. Introduced in 1820.
- 3478 \*1565g PLAGIO'LOBUM *Swt.* (*Plagios*, transverse, *lobos*, a pod.) siliifolium *Swt.* Leg. Pap. Lot. Gen. *Hovea siliifolia Cun.* A genus of ornamental blue-flowered New Holland shrubs; may be increased by cuttings, and grown in sandy peat.
- 3479 \*1294g PLATYCA'RFUM *Kth.* (*Platys*, broad, *karpos*, seed-pod.) orinocënsë *Kth.* Bignoniacææ. A tree, attaining the height of 20 ft., and producing pale rose-coloured flowers. Introduced in 1813.
- 3480 \*1464a PLATYCHILUM *Delav.* (*Platys*, broad, *cheilos*, lip; corolla.) . . . . . Celsidnum *Her. am. Leg. Pap. Lot. Gen.* Gompholobium Celsidnum *Hort.* A yellow-flowered New Holland shrub, which thrives in a mixture of sandy loam and peat. Introduced in 1820.
- 3481 462c PLATYCO'DON *A. Dec.* (*Platys*, broad, *kodon*, a bell.) grandiflora *A. Dec.* Campanulacææ. No. 2647, in p. 164.
- 3482 673d PLATYSP'ERUM *Hofm.* (*Platys*, broad, *sperma*, seed.) pulcherrimum *Koch.* Umbellacææ. No. 3527, also No. 3521.
- 3483 1557a PLATYSTYLIS *Swt.* (*Platys*, broad, *stylis*, style.) sessilifolia *Swt.* Leg. Pap. Vic. No. 10335, in p. 618.
- 3484 \*938a PLE'EA *Mz.* (*Pleias*, the seven stars; flowers.) tenuifolia *Mz.* Juncacææ. A curious little brown-flowered bog plant. Introduced from Carolina in 1824.
- 3485 1029d PLERO'MA *D. Don.* (*Plevroma*, fulness; cells of capsule.) . . . . . Melastomacææ. Nos. 6018, and 6019, in p. 364, also Nos. 5430, 5434, and 5436, in p. 318.
- 3486 665b PLEUROSP'ERUM *Hofm.* (*Pleurom*, a rib, *sperma*, seed.) austriacum *Hofm.* Umbellacææ. No. 3686, in p. 220.
- 3487 1603a POCO'CKIA *Ser.* (*Rd. Poccocke*, a traveller in the Levant.) critica *Ser.* Leg. Pap. Lot. Trif. No. 10776, in p. 640.
- 3488 594c PODO'NTHE'S *Haw.* (*Pous*, a foot, *anthes*, a flower.) . . . . . (Asclepiacææ.) Nos. 3308, to 3314, in p. 200.
- 3489 \*856b PODO'PTERUS *Kth.* (*Pous*, a foot, *pteria*, a wing.) mexicanus *Kth.* Polygonacææ. An ornamental greenhouse undershrub. Introduced in 1825.
- 3490 \* PODOTHE'CA *Cass.* (*Pous*, foot, *theca*, sheath; stalks of achenia.) angustifolia *Cass.* Comp. Sencæ. Podosperma angustifolia *Lab.* A curious yellow-flowered annual. Introduced in 1837.
- 3491 \*1282a POGOSTE'MON *Desf.* (*Pogon*, a beard, *stemon*, a stamen.) plectranthoides *Desf.* Labiacææ. A little white-flowered half-hardy undershrub. It may readily be increased by cuttings, and grown in sandy peat.
- 3492 \*1464n POIRE'RIA *Ven.* (*J. L. M. Poiret*, editor of *Encyc. Botanique.*) scandens *Ven.* Leg. Pap. Hed. Euh. *Turpinia punctata Pers.* Glycine punctata *W.* A stove climber. Introduced from Caraccas in 1823.
- 3493 1030a POI'VREA *Com.* (*N. Poivre*, intendant of the Mauritius in 1766.) cocinea *Dec.* Combretacææ. Nos. 5562, and 5563.
- 3494 1097a POLANI'SIA *Raf.* (*Poly*, very much, *anisos*, unequal; stamens?) . . . . . Cappariidææ. Nos. 9323, 9324, and 9325, in p. 558.
- 3495 2129b POLLI'NIA *Spr.* (*Cyrus Pollini*, prof. at Verona.) . . . . . Graminææ. Nos. 14208, and 14211.
- 3496 \*1092a POLY'PTERIS *Nut.* (*Polys*, many, *pteron*, a wing.) integrifolia *Nut.* Comp. Heliántheæ. Hymenopáppus integrifolius *Spr.*
- 3497 1495b POLY'SPORA *Swt.* (*Polys*, many, *spora*, seed; fruit.) axillaris *Swt.* Ternstroemiææ. No. 9956, in p. 596.
- 3498 540c POMBA'LIA *Van.* (*Marquis de Pombal*, a Portuguese statesman.) Ituba *Ging.* Violacææ. No. 3072, in p. 188.
- 3499 \*387b PORA'NA *Brm.* (*Poreno*, to journey; extension of branches.) volubilis *Brm.* Convolvulacææ. An East Indian white-flowered twiner, attaining the height of 50 ft. Introduced in 1820.
- 3500 \*693a PORANTHE'RA *Rud.* (*Poros*, a pore, *anthera*, an anther.) ericifolia *Rud.* . . . . . A curious little white-flowered New Holland undershrub. Introduced in 1824.
- 3501 \*880a PORLIE'RA *R. & P.* (*P. Antoine Porlier*, a Spanish promoter of botany.) hygrométrica *Fl. Per.* Zygophylacææ. An ornamental undershrub, a native of Peru, whence it was introduced in 1820. The plant thrives in a mixture of sandy loam and peat.
- 3502 \*2134a POTAMO'PHILA *R. Br.* (*Potamos*, river, *phileo*, to love.) parviflora *R. Br.* Graminææ.
- 3503 \*1059b POUPA'NTIA *Com.* (Called *Bois de Poupant*, by inhabitants of Bourbon.) borbonica *Lam.* Terebinthacææ. A purple-flowered timber tree, growing to the height of about 40 ft. Introduced in 1825.
- 3504 \*1311a PRE'MONA *L.* (*Premnon*, a stump of a tree; trunk.) reticulata *J.* Verbenacææ. Introduced from Jamaica in 1819; may be increased by cuttings, and grown in sandy loam.

- 1630 *PRENA'NTHE'S* L. (*Prenes*, drooping, *anthos*, flower.) murâlis L., *Mycëlis angulôsa* Cass.; *âleracifolia* L., *Phacëlium apandâtes* Cass. Comp. Cich.
- 3505 \*411c *PRESTO'NIA* R. Br. (*Dr. C. Preston*, a correspondent of Ray.) tomentôsa R. Br. Apocynacæ. A genus of stove twiner, which may be increased by cuttings, and thrive in a mixture of peat and loam.
- 3506 1565a *PRIESTLE'YA* Dec. (*M. Priestley*, a physiological botanist.) . . . . . Leg. Pap. Lot. Gen. Nos. 10428. to 18434. in p. 624.
- 3507 463a *PRISMATOCAR'PUS* *Herit.* (*Prisma*, a prism, *karpos*, fruit.) nitidus *Herit.* Campanul. No. 2694., also 2693. 2695, 2696, 2697, and 2698.
- 3508 \*1962a *PRO'CRIS* Com. (*The wife of Cephalus*.) punctâta *Ham.* Urticacæ. An uninteresting green-house perennial, producing green flowers in July and August. A native of Nepal. Introduced in 1820.
- 3509 \*228a *PROSERPINA* C. L. (*Proserpo*, to creep.) palustris L. Haloragæ. A curious white-flowered annual aquatic. A native of Canada. Introduced in 1818.
- 162 *PSAMMA* Beauv. (*Psammos*, sand; its place of growth.) arenâria Beauv. Graminacæ. *Ammôphila arenâria* Hort.
- 3510 1548f *PSOPHOCAR'PUS* Neck. (*Psophos*, a sound, *karpos*, a fruit.) tetragonolobus Dec. Leg. Pap. Phas. No. 10276. in 616. .
- 3511 \*1439a *PSYCHINE* Desf. (*Psyche*, a butterfly; wing of seed.) stylôsa Desf. Cruciacæ. *Thlâspi Psychine* W. An uninteresting annual, a native of the South of Europe. Introduced in 1818.
- 3512 \*300a *PTELE'DIUM* Thous. (Diminutive of *ptelea*, an elm.) ovatum Thous. Celastracæ. *Ptêlea ovata* Lou., *Seringia ovata* Spr. An evergreen shrub, a native of Madagascar, and was introduced in 1818. It is increased by cuttings, and thrives in a mixture of sandy peat and loam.
- 3513 261c *PTEROCPHALUS* Vail. (*Pteron*, wing, *kephale*, head; seeds.) . . . . . Dipsacæ. Nos. 1569, 1560, and 1561. in p. 90.
- 3514 \* *PTEROSTE'GIA* F. & M. (*Pteron*, wing, *stegos*, covering; involucre winged.) drymarioides F. & M. Polygonacæ. An annual.
- 3515 \*1788a *PTILOSTE'PHIUM* Kth. (*Ptilon*, feather, *stephos*, crown; pappus.) coronopifolium Kth. Comp. Helian. A genus of curious yellow-flowered tender annuals, natives of Mexico.
- 3516 642a *PTYCHOTIS* Koch. (*Ptyche*, a plait, *ous*, an ear; petals.) ammôides L. Umbellacæ. No. 3581. in p. 214.
- 3517 1464l *PUBERA'RIA* Dec. (*M. N. Puerari*, Prof. at Copenhagen.) tuberosa Dec. Leg. Pap. Lot. Clit. No. 10578. in p. 632.
- 3518 \*246a *QUADRIA* R. & P. (*Antoine de la Quadra*, a Spanish cultivator.) heterophylla R. & P. Proteacæ. *Guevina Avellana* Mol. An evergreen green-house tree, attaining the height of 40 ft. A native of Chile. Introduced in 1826.
- 3519 \*20c *QUALEA* Aub. (Name given to the tree by the Indians of Guiana.) violacæ Mart. Vochycacæ. A Brazilian tree. Introduced in 1824.
- 3520 711l *QUE'RIA* Haw. (*Nicholas Le Queit*; discoverer of original species.) . . . . . Amaryllacæ. No. 4035. in p. 240.
- 3521 533b *RASPALIA* Brong. (*Raspail*, a French botanist.) microphylla Brong. Bruniacæ. No. 2998. in p. 184.
- 3522 1800a *RATA'PADA* Raf. (Meaning unknown.) columnaris Raf. Compositæ. No. 12462. in p. 730.
- 3523 \*1355a *REHMANNIA* Libosch. (An unexplained name.) chinensis Fis. Scrophulariacæ. *Gerârdia glutinôsa* Bunge. A curious dingy-flowered perennial. Introduced in 1835.
- 3524 \*1464i *REQUI'NIA* Dec. (*M. Requin*, of Avignon, a French, botanist.) obovâta Dec. Leg. Pap. Lot. Gen. Podalyria obovâta Lam. A stove shrub, producing its yellow flowers in July. Introduced from Senegal in 1825.
- 3525 \*200a *RHABDO'CHLOA* Beauv. (*Rhabdos*, a twig, *chloa*, grass.) virgâta Beauv. Graminacæ. *Cynosurus virgatus* L. *Chloris poëiformis* Humb. A pretty annual grass, introduced from the West Indies in 1820.
- 3526 1818a *RHAPON'TICA* Dec. (*Rha*, rhubarb, *Ponticus*, of Pontus.) scariôsa Dec. Comp. Card. No. 12612., also 12598.
- 3527 \*1157a *RHE'DIA* L. (*Henr. van Rheede van Draakenstein*, patron of botany.) javânica Hort. Guttacæ. An evergreen stove tree, introduced in 1826. It may be increased by cuttings, and grown in a mixture of sandy loam and peat.
- 3528 769b *RHIPIDODENDRON* W. (*Rhipis*, a fan, *dendron*, a tree.) plicâtile Haw. Hemerocallacæ. No. 4473. in p. 264.
- 3529 1553a *RHYNCHO'SIA* Lou. (*Rhynchos*, beak; keel.) . . . . . Leg. Pap. Phas. Nos. 10298. 10301, 10302. 10304, 10305, 10309, and 10311. in p. 618.
- 3530 869a *RICHAR'DIA* Kth. (*L. C. Richard*, an eminent Fr. bot.) æthiôpica Kth. Aracæ. No. 5069. in p. 298.
- 3531 \*483b *RICHARDSONIA* Kth. (*Richard Richardson*, an Engl. bot.) scâbra Kth. Rubiacæ. No. 4936. in p. 298.
- 3532 1086a *RICHIE'A* R. Br. (*Mr. Richie*, a traveller, died at Tripoli, 1820.) frâgrans R. Br. Cappariacæ. No. 6601. in p. 396.
- 3533 1456a *RIEDLE'YA* Ven. (*M. Riedle*, accompanied Capt. Baudin round the world.) . . . . . Byttneriacæ. Nos. 9386, and 9387. p. 564.
- 3534 \*336a *RINDERA* Pal. (*Rinder*, dean of medicine in Moscow.) levigâta R. & S. Boraginacæ. *R. tetrâspis* Pal. Cynoglossum *Rindera* Pal. An ornamental perennial, producing red flowers. Introduced from Siberia in 1818.
- 3535 \*2129a *RIPID'IUM* Trin. (*Rhipidium*, little fan; applicat. not evident.) Ravennæ Trin. Graminacæ. *Eriânthus Ravennæ* Beauv.
- 3536 \*786c *RIPOGONUM* Forst. (*Ripos*, a flexible twig, *gonos*, a shoot.) âlbium R. Br. Smilacæ. A perennial climber, a native of New Holland. Introduced in 1820.
- 3537 \*1059e *ROBER'GIA* Schreb. (*Laurent Roberg*, prof. med. at Upsal.) frutescens W. Terebinthacæ. It produces white flowers. A native of Guiana, and was introduced in 1823.
- 3538 1641a *ROD'GIA* Spr. (*Rodig*, a friend of Sprengel's.) . . . . . Comp. Cich. Nos. 11310, and 11313.
- 3539 993a *ROSPERA* Lindl. (*J. Roeper*, author of Monograph of German and Hungarian Euphorbiacæ.) aurantiaca Lindl. Zygophylacæ.
- 3540 756a *RO'HDGA* Roth. (*Mich. Rohde*, of Bremen, in Germany.) japonica Roth. Aracæ. No. 4319. in p. 256.
- 3541 \*184a *ROSTRARIA* Trin. (*Rostrum*, a beak.) pubescens Trin. Graminacæ. *Bromus dactylôides* Roth, *Dactylis pûngens* Horn. An European annual grass. Introduced in 1820.
- 3542 1521a *RUDOLPHIA* W. (*W. J. H. Rudolph*, a botanist of Jena.) dûba Ham. Leg. Pap. Phas. No. 10368. in p. 618.
- 3543 \*529b *RUYSCHIA* Jac. (*F. Ruyseh*, M.D., a celebrated Dutch anatomist.) clusie'folia Jac. Margaaviacæ. A native of the West Indies, and was introduced in 1823. It produces purple flowers.
- 3544 \*988a *SANDORICUM* Cav. Sandal Tree. (*Santoor*, the aboriginal name.) indicum Cav. Meliacæ. A West Indian timber tree, growing to the height of about 40 ft., and producing white flowers. Introduced in 1820.
- 3545 \*583a *SARCOLOBUS* R. Br. (*Sarz*, flesh, *lobos*, a pod.) globôsus R. Br. Asclepiacæ. A white-flowered East Indian twiner, growing to the height of about 16 ft. Introduced in 1823.
- 3546 \*1212e *SAURAU'YA* W. (*Saurauyo*, a Spanish botanist?) excelsa W. Ternstroemiacæ. A shrub, a native of Caracass. Introduced in 1820, and thrives in a mixture of peat and loam.
- 1041 *SAXIFRAGA* L. (*Saxum*, stone, *frango*, to break; medical qualities.) . . . . . Saxifragacæ. *Leigyne* species Don. Nos. 6072, 6080, 6083, 6084, and 6085.
- 3547 182a *SCHEDONOR'BUS* Beauv. (*Schedon*, near to, *oros*, a mountain.) . . . . . Graminacæ. Nos. 1091. 1099. 1101, 1102. 1108, 1109, and 1111. in p. 62.
- 3548 \*786b *SCHELHAMMERIA* R. Br. (*C. C. Schelhammer*, prof. at Jena.) undulâta R. Br. Melanthacæ. A small evergreen purple-flowered herbaceous plant, a native of New Holland. Introduced in 1824.
- 3549 711k *SCHISANTHES* Haw. (*Schizo*, to cut, *anthos*, a flower; petals.) . . . . . Amaryllacæ. No. 4010. in p. 240.

- 3550 \*673b SCHIZOME'RIA D. Don. (*Schiza*, to cut, *meris*, part; cut petals.) ovata D. Don. Araliaceæ. A white-flowered New Holland shrub. Introduced in 1825.
- 3551 †882 SCHMIDÉ'LIA L. (*C. C. Schmidt*, prof. bot. acad. of Erlang.) . . . Sapindaceæ. Nos. 5099. and 5100. in p. 302.
- 3552 76b SCHMIDTIA Trat. (*Schmidt*, a German botanist.) súbtilis Trat. Graminaceæ. Coleanthus súbtilis R. & S.
- 3553 \*647a SCHULTZIA Spr. (*M. Schultz*, a celeb. Germ. botan.) crinita Spr. Umbellaceæ. Stolon crinitum Pall. An uninteresting umbelliferous biennial, a native of Siberia, whence it was introduced in 1818.
- 3554 696a SCIODAPHYLUM Br. (*Skiodas*, shady, *phylon*, leaf.) digitatum G. Don. Araliaceæ. No. 8863. in p. 230.
- 3555 311c SCOPOLIA Jac. (*G. A. Scopoli*, celebrated professor of botany, died 1789.) carníolica Jac. Solanaceæ. No. 2188. in p. 136.
- 3556 \*2153a SEAFORTHIA R. Br. (*Francis Lord Seaforth*, a botanical patron.) elegans R. Br. Palmaceæ. An ornamental palm. Introduced from New Holland in 1822.
- 3557 \*2023b SECHUM Br. Choko. (*Seitso*, to fatten; given to hogs.) edible Rr. Cucurbitaceæ. Sicyos edulis Jac.
- 3558 1577a SECURIGERA Dec. (*Securis*, hatchet, *gero*, to bear; pods.) Coronilla Dec. Leg. Pap. Hed. Cor. No. 10504. in p. 628.
- 3559 1427a SENEBIERIA Poir. (*J. de Senebier*, of Geneva, a vegetable physiologist.) Corónopus Poir. Cruciacæ. No. 9207. in p. 550.
- 3560 1741b SENECELLIS Gæ. (Diminutive of Senecio ?) . . . . . Comp. Jacob. No. 12132. in p. 714.
- 3561 \*1056b SETHIA Kth. (*S. Sethi*, writer on culinary vegetables.) indica Dec. Erythroxylææ. Erythroxylon monóphyllum R. An East Indian timber tree, growing to the height of about 40 ft., and producing yellow flowers. Introduced in 1824.
- 3562 669b SILAUS Bes. (A name used by Pliny.) pratensis Bes. Umbellaceæ. No. 3630., also No. 3599.
- 3563 669a SILER Sco. (*Sailo*, to shoot up; quick growth.) trilobum Sco. Umbellaceæ. No. 3704. Laserpitium aquilefolium Spr.
- 3564 \*1002b SIMABA Hil. (Its name in Gulana.) gulanensis Aub. Simarubaceæ. Zingera amara W. A white-flowered stove shrub. Introduced in 1826.
- 3565 1002a SIMARUBA Aub. (*Simarouba*, its name in Gulana.) officinalis Dec. Simarubaceæ. No. 5901. in p. 354.
- 3566 \*237b SIMSIA R. Br. (*John Sims*, M. D., an English botanist.) anethifolia R. Br. Proteaceæ. A small shrub, growing about 1½ ft. high. A native of New Holland, whence it was introduced in 1825.
- 3567 \*2034a SIPHONIA Rich. (*Siphon*, a pipe; use of exudation, Indian rubber.) Cakichu Rich. Euphorbiaceæ. *Hensia* gulanensis Aub. *S. elastica* Pers. *Jatropha elastica* L. A stove shrub. Introduced from Gulana in 1823.
- 3568 \*1215a SMEATHMANIA Sol. (*Smeathman*, an African traveller.) levigata Sol. Passifloraceæ. A shrub, a native of Sierra Leone, producing its white flowers in February and March. Introduced in 1822.
- 3569 \*1431a SOBOLÉWSKIA Bieb. (*G. Sobolewski*, a Russian bot.) lithóphila Bieb. Cruciacæ. Crámbe macrocarpa Bieb. An uninteresting white-flowered biennial. Introduced from Iberia in 1824.
- 3570 1547b SOJA Moen. (*Sofa*, its name in Japan.) hispida Moen. Leg. Pap. Vic. No. 10289. in p. 616.
- 3571 540b SOLA Ging. (*W. Sole*, author of an essay on genus *Méntha*.) cóncolor Ging. Violaceæ. No. 3055. in p. 186.
- 3572 \*2159b SORINDEIA Thou. (Meaning unknown.) madagascariensis Thou. Terebinthaceæ. A purple-flowered stove shrub, growing to the height of 8 ft.; may be increased by cuttings, and thrives in a mixture of peat and loam.
- 3573 542b SOULANGE Brong. (*Soulange-Bodin*, a nurseryman, near Paris.) . . . . . Rhamnaceæ. Nos. 3080. 3084, 3085, and 3387.
- 3574 \*1332a SPARTOTHAMNUS Cun. (*Spartos*, broom, *thamnos*, a shrub; habit.) jánceus Cun. Myoporaceæ. An ornamental shrub, producing its white flowers in August and September. It is a native of New Holland, whence it was introduced in 1819.
- 3575 1294d SPATHODEA Beauv. (*Spathe*, sheath; flower sheathed at base.) uncata Spr. Bignoniaceæ. Nos. 8537. 8552, and 8553.
- 3576 463b SPECULARIA F. & M. (From the ancient name *Speculum Veneris*.) . . . . . Campanulaceæ. Nos. 2695, 2696, 2697, and 2698.
- 3577 \*1056c SPERGULA'STRUM Mx. (From similarity to *Spergula*.) lanuginosum Mx. Caryophyllaceæ. Micropétalon lanuginosum Pers. A curious little perennial, producing its purplish-white flowers in June and July. Introduced from North America in 1821.
- 3578 \*83c SPERMATXYRON Lab. (*Sperma*, a seed, *zyron*, acute.) strictum Dec. Olacaceæ. A New Holland shrub. Introduced in 1820.
- 3579 1472b SPHERALCEA Hil. (*Sphaira*, a globe, *alcea*, marsh-mallow.) . . . . . Malvaceæ. Nos. 9758, 9759, 9760, and 9761.
- 3580 \*1573a SPHEROSPHYSA Dec. (*Sphaira*, sphere, *physa*, bladder; pods.) cáspica Dec. Leg. Pap. Lot. Gal. *Phaca salsula* Bieb., *Colutea cáspica* Bieb. An ornamental perennial, producing its red flowers in July and August. Introduced from Siberia in 1818.
- 3581 \*1620a SPHEROSTEMA Blume (*Sphaira*, globe, *stema*, stigma.) propinquum Blume. Anonaceæ. An ornamental yellow-flowered stove twiner. Introduced from Nepal in 1828.
- 3582 \* SPHEROSTYGMA F. & M. (*Sphaira*, a globe, *stigma*, a stigma.) hirta F. & M. Onagraceæ. A curious ? biennial. Introduced from Russia in 1836, and produces its yellow flowers in August and September.
- 3583 \*421a SPHENODESME Jack. (*Sphenos*, to wedge up, *desme*, fascicle; flws. by bracteas.) pentándra Jack. Verbenaceæ. An ornamental East Indian climber. Introduced in 1823.
- 3584 1722a SPIRALÉPIS D. Don. (*Spira*, a spire, *lepis*, a scale; twisted.) . . . . . Comp. Vern. Nos. 11774. 11776, and 11777.
- 3585 \*520a SPIRANTHEA St. Hil. (*Spira*, spiral, *anthera*, an anther.) odoratissima St. Hil. Rutaceæ. *Terpananthus jasminodorus* Nees. Reddish white flowers. A native of Brazil, and was introduced in 1823.
- 3586 533c STAA'VIA Thuu. (*Martin Staaf*, a correspondent of Linnaeus's) ciliata Brong. Brunellaceæ. No. 3004. in p. 184.
- 3587 \*904d STADMANNIA Lam. (*M. Stadmann*, a botanical traveller.) australis R. Br. Sapindaceæ. A tree, attaining the height of 30 ft. A native of New Holland. Introduced in 1823, and thrives in a mixture of sandy loam and peat.
- 3588 \*1424b STANLEYA Nut. (*Edw. Ld. Stanley*, F.R.S., V. P. of Lin. Soc.) pinnatifida Nut. Cruciacæ. *Cleome pinnata* Ph. An ornamental half-hardy perennial, producing its yellow flowers in June and July. It is a native of Louisiana, and was introduced in 1816.
- 3589 \*1464g STAUROCANTHUS Lk. (*Stauros*, cross, *akantha*, spine.) aphyllus Lk. Leg. Pap. Lot. Gen. *Ulex* mitis Host, *U. genistoides* Brot. A hardy yellow-flowered evergreen shrub. Introduced from Spain in 1823.
- 3590 \*1431c STERIGMA Dec. (*Sterigma*, a support; stamens joined at base.) tomentosum Dec. Cruciacæ. *Cheiranthus tomentosus* W. A genus of curious yellow-flowered biennials.
- 3591 \*1386a STEVENIA Adams (*C. Steven*, a Russian botanist.) alyssoides Fie. Cruciacæ. An uninteresting little annual, producing white flowers from May to July. A native of Siberia, whence it was introduced in 1824.
- 3592 1320a STREPTIUM Rox. (*Streptos*, twisted; spiral tube of corolla.) ásperrum Rox. Verbenaceæ. No. 8676. in p. 520.
- †1495 STUARTIA Cav. (*John Stuart*, Marquess of Bute, a distinguished botanist.) virgínicá Dec. Ternstroemiaceæ. No. 9949. in p. 592.
- 3593 \*588a STYLANDRA Nut. (*Stylos*, a column, *aner*, a man; anthers.) púmila Nut. Asclepiaceæ. *Podostigma pubescens* Spr.

- 3594 261b *SUCCI'SA* Vahl. (*Succisus*, lopped; appearance of roots.) *pratensis* Moen. Dipsacæ. No. 1563., and also Nos. 1549. and 1558.
- 3595 \*1198a *SWA'ERTZIA* W. (*Olof Swartz*, a celebrated botanist.) *pinnata* W. Leg. Swartziæ. A white-flowered stove shrub. Introduced from Trinidad in 1820.
- 3596 \*1546a *SWEE'TIA* Dec. (*Robert Sweet*, F.L.S., author of several botanical periodicals.) *longifolia* Dec. Leg. Pap. Phas. Galega *longifolia* Jac. A genus of ornamental purple-flowered stove twiners. They may be increased by cuttings, and grown in sandy peat.
- 3597 \*1985a *SY'AGRUS* Mart. (The first who wrote the Trojan war in verse.) *cocoides* Mart. Palmæcæ. A palm attaining the height of 20 ft. Introduced from Brazil in 1824.
- 3598 \*463a *SYMPHIA'NDRA* A. Dec. (*Symphyo*, to grow together, *aner*, anther.) *péndula* A. Dec. Campanulæcæ. *Campanula péndula* Bieb.
- 3599 \*284a *SYMPHYZA* Lich. (*Sympiesco*, to press together.) *capitulata* Lich. Ericæcæ. *Blæ'ria bracteata* Wall.
- 3600 252a *SYMPLOCAR'PUS* Nut. (*Symploke*, connexion, *karpos*, fruit.) *foetidus* Nut. Aracæcæ. No. 1504. in p. 88.
- 3601 892m *SYRINGO'DEA* D. Don. (*Syrizx*, a reed or pipe; corolla long tubular.) *vestita* D. Don. Ericæcæ. Type, No. 5184. in p. 366.
- 3602 1122a *SYZY'GIUM* Gæe. (*Zuzygium*, its aboriginal name.) *caryophyllifolium* Dec. Myrtæcæ. No. 6984, also 6968. and 6982.
- 3603 \*986a *TACHY'GALIA* Aub. (*Tachygali*, its name in Guiana.) *bijuga* Dec- Leg. Cæs. Cas. A Brazilian tree, growing about 20 ft. high. Introduced in 1822.
- 3604 1459c *TACO'NIA* J. (*Tacco*, its name in Peru.) *peduncularis* Pers. Passifloræcæ. No. 9428. in p. 366.
- 3605 762a *TALIE'RA* Mart. (Its aboriginal name.) *bengalensis* Spr. Palmæcæ. No. 4358. in p. 258.
- 3606 \*896a *TALIE'SIA* Aub. (*Touichti*, its name in Guiana.) *guianensis* Aub. Sapindæcæ. An ornamental red-flowered shrub, introduced in 1824, and thrives in a mixture of peat and loam.
- 3607 1328b *TAMO'NIA* Aub. (*Tamone*, its name in Guiana.) *curassavica* Suz. Verbenæcæ. No. 472. in p. 26.
- 3608 \*1336a *TANÆ'CIUM* Suz. (*Tanækes*, stretched out; stem.) *pinnatum* W. Solanæcæ. A genus of little white-flowered annuals, natives of Siberia.
- 3609 \*1430a *TAUSCHERIA* Fis. (*Sign. F. Tausch*, prof. at Prague.) *lasiocarpa* Fis. Crucifæcæ.
- 3610 1580f *TAVERNIÈ'RA* Dec. (*J. B. Tavernier*, an Eastern traveller.) *nummularia* Dec. Leg. Pap. Hed. Euh. *Hedysarum nummularifolium* Dec.
- 3611 1797b *TELE'KIA* Baum. (Not explained.) *speciosa* Baum. Comp. Helian. No. 12433. in p. 630.
- 3612 657a *TENO'RIA* Spr. (*M. Tenore*, professor of botany at Naples.) . . . . Umbellæcæ. Nos. 3650. to 3655. in p. 218.
- 3613 \*1175a *TENSTRA'EMIA* L. (*M. Tenstræm*, a Swedish naturalist.) *brévipès* Dec. Ternstroemiæcæ. A genus of stove shrubs, growing about 6 ft. high, are increased by cuttings, and thrive in a good sandy loam.
- 3614 \*2061a *TETRA'DIUM* Lou. (*Tetradion*, a quaternion; fructification.) *trichotomum* Lou. Terebinthæcæ. *Ericæa trichotoma* Spr. A tree growing to the height of 20 ft. Introduced from China in 1820, and thrives in a mixture of peat and loam.
- 3615 288a *TETRAMER'IUM* Gæe. (*Tetra*, four, *merion*, subdivision; fruit.) *odoratissimum* Gæe. Rubiæcæ. No. 2805. in p. 170.
- 3616 \*209a *TETRAPO'GON* Desf. (*Tetra*, four, *pogon*, a beard.) *villösus* Desf. Graminæcæ. A curious annual grass. Introduced from Barbary in 1818.
- 3617 \* *TETRAPO'MA* Taurez. (*Tetra*, four, *poma*, a cover; capsule 4-valved.) *barbareæfolium* Taurez. Crucifæcæ. An uninteresting yellow-flowered biennial. Introduced in 1834.
- 3618 \*1055b *TETRA'ERIS* Cav. (*Tetra*, four, *pierson*, a wing; capsule.) *bukifolia* Cav. Malpighiæcæ. *Tripteris bukifolia* W. A stove shrub, native of St. Domingo. It produces yellow flowers, may be increased by cuttings, and grown in a mixture of peat and loam. Introduced in 1823.
- 3619 2046c *THAMNOCHOR'TUS* Berg. (*Thamnos*, shrub, *chorios*, grass; habit.) *dichotomus* R. Br. Restiæcæ. No. 18826. in p. 828.
- 3620 1495c *THE'RA* L. (*Thea*, the Chinese name for tea.) . . . . Camelliæcæ. Nos. 9951. and 9952. in p. 594.
- 3621 \*411d *THE'NAR'DIA* Kth. (*M. Thénard*, a distinguished French chemist.) *floribunda* Kth. Apocynæcæ. A blue-flowered stove twiner, introduced from Mexico in 1823, may be increased by cuttings, and requires to be grown in a mixture of peat and loam.
- 3622 1480a *THESPÉ'SIA* Corr. (*Thespestios*, divine; planted about tropical churches.) *popúinea* Corr. Malvæcæ. No. 9812. in p. 586.
- 3623 \*886b *THOU'NIA* Poit. (*And. Thouin*, of the Jardin des Plantes, Paris.) *pinnata* Turp. Sapindæcæ. A white-flowered shrub, a native of New Spain. Introduced in 1823.
- 3624 662b *THYSSÉL'NUM* Hoffm. (*Thyo*, to burn, *selinon*, parsley; acid.) *palustre* Hoffm. Umbellæcæ. No. 3669. in p. 220.
- 3625 \*2085b *TILLACO'RA* Col. (*Thiakora*, its name in Bengal.) *racemosa* Cal. Menispermæcæ. *Menispermum polycarpon* Rox. A stove climber, attaining the height of 20 ft. A native of the East Indies. Introduced in 1800.
- 3626 \*1352a *TITTMANNIA* Rchb. (*Tittmann*, a man's name.) *ovata* Rchb. Scrophulariæcæ. *Hornemánnia ovata* Lk. A pretty little red-flowered trailing annual, a native of the Society Isles, whence it was introduced in 1816.
- 3627 \*1029e *TOCO'CA* Aub. (*Tococo*, its name in Guiana.) *Aublétii* D. Don. Melastomæcæ. *Melastoma physophora* Vahl. A genus separated by Prof. Don from *Melastoma*. T. *Aublétii* has pale red flowers, and was introduced from Guiana in 1826.
- 3628 \*485a *TOCOYE'NA* Aub. (Its name in Guiana.) *longiflora* Aub. Rubiæcæ. *Meriána speciosa* W. An ornamental yellow-flowered shrub, a native of Guiana. Introduced in 1826.
- 3629 \*83a *TONSÉ'LLA* Vahl. (*Ravoua-tonnelle*, a Caribbe name.) *scândens* Vahl. Hippocéræcæ. A green-flowered stove climber, introduced from Guiana in 1824.
- 3630 \*659b *TRACHYME'NE* Rud. (*Trachys*, rough, *hymen*, membrane; involucre.) *linearis* Spr. Umbellæcæ. A genus of curious shrubs, natives of New Holland. They may be increased by cuttings, and grown in a sandy peat soil.
- 3631 635a *TRAGI'UM* Spr. (*Tragos*, a goat; odour.) *Antsum* L. Umbellæcæ. No. 3562. in p. 212.
- 3632 921a *TRAGOP'YRUM* Bieb. Goat's Wheat. (*Tragos*, a goat, *pyros*, wheat.) . . . . Polygonæcæ. Nos. 5579. and 5583.
- 3633 \*2108c *TRÉ'WIA* L. (*G. J. Trevis*, of Nuremberg, botanical author.) *nudiflora* L. Euphorbiæcæ. T. *macrophylla* Roth. A stove shrub growing to the height of 6 ft. Introduced from the East Indies in 1796.
- 3634 172a *TRICHÆ'TA* Beauv. (*Treis*, three, *chaete*, a bristle.) *ovata* Beauv. Graminæcæ. *Bromus ovatus* Cav. *Trisetum ovatum* Pers. It is, besides the synonymes given above, the *Avèna ovata* of Spr. It was introduced from the South of Europe in 1824.
- 3635 \* *TRICH'NIUM* R. Br. (*Trichinos*, composed of hairs; flowers shaggy.) *alopecurifolium* Lindl. Amarantæcæ. A curious half-hardy annual, producing purple and blue flowers from March to October. Introduced from New Holland in 1836.
- 3636 \*2041a *TRICHO'CLADUS* Pers. (*Trichion*, hairy, *klados*, branch.) *crintus* Pers. . . . . A Cape shrub, introduced in 1823, is readily increased by cuttings, and thrives in a mixture of sandy-peat and loam.
- 3637 156a *TRICHO'CHLOA* Dec. (*Thriz*, hair, *chloa*, grass.) . . . . Graminæcæ. No. 1009. in p. 56.
- 157 *TRICHO'DIUM* Schrdd. (*Thriz*, hair, *eidos*, like; inflorescence.) *caninum* Schrdd. Graminæcæ. *Astragalus caninus* Beauv. No. 157.
- 3638 \*215b *TRICHO'ENA* R. & S. (*Thriz*, hair, *lena*, a cassock.) *micrantha* R. & S. Graminæcæ. *Sæcharum Teneriffæ* L. *Panicum Teneriffæ* of Sprengel. A pretty perennial tender grass. Introduced from Teneriffe in 1825.

- 3639 \*1755a TRICHOPHYLLUM Nut. (*Thrix*, a hair, *phyllon*, a leaf.) oppositifolium Nut. Comp. Hellanth. An ornamental yellow-flowered perennial, a native of the Missouri.
- 3640 591a TRIDEN'TEA Haw. (*Tridens*, a trident; flowers.) . . . . . Asclepiaceæ. Nos. 3300, 3301, 3302, 3303. 3305. in p. 200.
- 3641 \*1459d TRIGONIA Aub. (*Treis*, three, *goma*, an angle; fruit.) villosa Aub. Hippocrateæ. A stove shrub, a native of Cayenne, whence it was introduced in 1820.
- 3642 \*1055a TRIOPTERIS L. (*Treis*, three, *pteron*, a wing; capsule.) jamaicensis L. Malpighiaceæ. A yellow-flowered climber. Introduced in 1822.
- 3643 \*605c TROCHISANTHES Koch. (*Trochiskos*, a small wheel, *anthos*, flower.) nodiflora Koch. Umbellaceæ. Ligisticum nodiflorum Vii.
- 3644 594d TROMA'TRICHES Haw. (*Tromos*, fear, *thrix*, hair.) . . . . . Asclepiaceæ. Nos. 3515, 3316, and 3317. in p. 200.
- 3645 711b TRO'S HAW. (Son of Erichthonius, third king of Dardania.) pucilliformis Haw. Amaryllaceæ. No. 4028, also 4029.
- 3646 626b TURGE'NIA Hofm. (*Turgeo*, to swell; seeds.) latifolia Hofm. Umbellaceæ. No. 3525. in p. 210.
- 3647 699a TURGO'SIA Haw. (Etr. for Pyrgosia: *pyrgos*, tower; inflorescence.) . . . . . Crassulaceæ. Nos. 3897, 3898, 3907, and 3908.
- 3648 \*988b TURRÆ'G L. (*G. Turraea*, prof. of bot. at Padua.) virens L. Meliaceæ. A white-flowered East Indian tree, growing to the height of 20 ft. Introduced in 1820.
- 3649 \*442a ULLO'G Pers. (*Antonio Ulloa*, a Spanish naturalist.) parastitica Pers. Solanaceæ. Juanulloa parastitica R. & P. An ornamental red-flowered stove plant, a native of Peru. Introduced in 1824. It may be increased by cuttings, and grown in a stiff rich soil.
- 3650 1060a UMBILICUS Dec. (*Umbilicus*, the navel; hollow-leaved.) serratus Dec. Crassulaceæ. No. 6415, also 6418, 6419, and 6436.
- 3651 \*1219a UNO'NA L. (*Uno*, to unite; stamens with germens.) Nardum Duval. Anonaceæ. A brown-flowered stove climber. Introduced from Malabar in 1820.
- 3652 1580b URA'RIA Desv. (Not explained.) . . . . . Leg. Pap. Hed. Euh. Nos. 10565, 10584, and 10605.
- 3653 \*924a URVILLE'G Kth. (*D. d'Urville*, a French navigator and botanist.) ferruginea R. Br. Sapindaceæ. A white-flowered Brazilian climber, growing to the height of about 25 ft. It may be increased by cuttings, and thrives in sandy peat. Introduced in 1823.
- 3654 \*413a VALLA'RIS R. Br. (*Vallo*, to enclose; used for fences in Java.) pergulans Brm. Apocynaceæ. Pergularia glabra W. A white-flowered stove twiner. Introduced from the East Indies in 1818.
- 3655 \*2044a VALISNERIA L. (*Antonio Vallisneri*, an Italian botanist.) spiralis L. Hydrocharaceæ. A very curious, brown-flowered, half-hardy, perennial aquatic. Introduced from the South of Europe in 1818.
- 3656 1464b VASCO'G Dec. (*Vasco de Gama*, a celebrated Portuguese circumnavigator.) perfoliata Dec. Leg. Pap. Lot. Gen. No. 10085. in p. 608.
- 3657 699d VATA'NTHES Haw. (*Vau*, the letter V, *anthos*, a flower.) chloræiflora Haw. Crassulaceæ. No. 3904. in p. 230.
- 3658 1464e VIBO'RGIA Spr. (*Eric Viborg*, an acute Danish botanist.) orbicordata Thun. Leg. Pap. Lot. Gen. No. 10083. in p. 608.
- 3659 117c VIUSSU'XIA Lar. (*M. Viussucx*, a physician of Geneva.) . . . . . Iridaceæ. Nos. 808, 809, 811, 812, 813, 822, and 828.
- 3660 1548a VIGNA Savi. (*Dominic Vigna*, commentator on Theophrastus.) glabra Savi. Leg. Pap. Phas. No. 10272. in p. 616.
- 3661 \*1617b VISME'A Van. (*De Visme*, a Lisbon merchant.) guianensis Pers. Hypericaceæ. Hypericum guianense Aub. The Guiana wax-tree is a stove shrub, producing its yellow flowers from July to October. Introduced in 1824.
- 3662 \*886c VITMA'NNSIA Vahl. (*F. Vitmann*, prof. at Milan, 1792.) elliptica Vahl. Malpighiaceæ. A tree, growing to the height of about 20 ft., a native of Ceylon, whence it was introduced in 1817.
- 3663 \*1516a VOANDZ'ELIA Thou. (*Voaandzou*, its name in Madagascar.) subterranea Thou. Legum. Cæsalp. Geoff. Glycine subterranea L.
- 3664 \*20a VOCHY'SIA Poir. (Its Caribe name.) excelsa Lam. Vochyaceæ. A yellow-flowered evergreen stove tree, a native of Trinidad, introduced in 1825, is readily propagated by cuttings, and thrives in sandy peat.
- 3665 \*367a VOYIRIA Lam. (*Voyria*, name of the Caripons.) odsea Aubl. Gentianaceæ. A red-flowered stove plant, a native of Guiana, whence it was introduced in 1822. It thrives in a mixture of loam and peat.
- 3666 \*85a VOYRIPA Aub. (A Caribe name.) bifolia Aub. Leguminaceæ. A stove shrub, introduced from Guiana in 1823, and thrives in sandy loam.
- 3667 \*569d WALKER'IA Schreb. (*H. Walker*, founder of Cambridge bot. gar.) serrata W. Ochnaceæ. A yellow-flowered stove tree, growing to the height of about 12 ft. A native of Malabar. Introduced in 1824.
- 3668 \*1985d WALLI'CHIA Rox. (*Dr. Nath. Wallich*, superintendant of Calcutta botanic garden.) caryotoides Rox. Palmaceæ. A palm, growing to the height of about 25 ft. Introduced in 1825 from the East Indies.
- 3669 \*631a WALLRO'THIA Spr. (*Dr. F. Wallroth*, a German botanist.) tuberosa Spr. Umbellaceæ. Banium alpinum Kit., Ligisticum alpinum Spr. A little uninteresting plant, introduced from Hungary in 1823.
- 3670 \*992a WALLSU'RA Rox. (*Wallarsi*, its Telinga name.) robusta Rox. Meliaceæ. A stove tree, growing to the height of 20 ft. A native of the East Indies, whence it was introduced in 1827.
- 3671 204a WANGENHEIMIA Trin. (*F. A. J. Wangenheim*, a German botanist.) Lima Trm. Graminaceæ. No. 1228. in p. 68.
- 3672 \*1737a WERNE'RIA Kth. (*A. G. Werner*, a celebrated mineralogist.) rigida Kth. Comp. Jac. Dordanicum peruvianum Lam. A pretty little herbaceous perennial green-house plant. Introduced from Quito in 1828.
- 3673 \* WIGA'NDIA H. & B. (*John Wigand*, a bishop of Lithuania.) caracasana H. B. & K. Hydroleaceæ. An ornamental stove undershrub. Introduced in 1836.
- 3674 510b WILLEME'RIA Brong. (*P. R. Willemet*, author of Herbarium Mauritianum.) africana Brong. Rhamnaceæ. No. 2923. in p. 178.
- 3675 \*420c WILLUGHBEIA Sco. (*F. Willughby*, a distinguished English naturalist.) edulis Rox. Apocynaceæ. A low East Indian tree, growing about 10 ft. high. Introduced in 1818. A mixture of peat and loam suits it.
- 3676 1552a WISTA'RIA Nut. (*Caspar Wistar*, a prof. in Pennsylvania.) Consequana Loudon. Leg. Pap. Phas.
- 3677 \*1212a WO'RMIIA Rib. (*Olaus Wormius*, a Danish physician and botanist.) dentata Dec. Dilleniaceæ. Dillenia dentata Thun. A stove tree, attaining the height of 20 ft., and producing yellow flowers. A native of Ceylon, whence it was introduced in 1818.
- 3678 \* XANTHOSIA Dec. (*Xanthos*, yellow; tomentum in some species.) rotundifolia Dec. Umbellaceæ. A white-and-red-flowered green-house undershrub. Introduced from Port Jackson in 1836.
- 3679 2027a XYLOPHY'LLA L. (*Xylon*, wood, *phyllon*, leaf; rigidity of foliage.) . . . . . Euphorbiaceæ. Nos. 13618, and 18519.
- 3680 1016c ZENO'WIG D. Don. (A queen of Palmyra, distinguished for virtue and learning.) speciosa D. Don, Ericaceæ. No. 5943. in p. 358.
- 3681 \*1821a ZEXME'NIA Lal. (An anagram of Ximenesia.) tagetiflora D. Don. Com. Hel. A half-hardy yellow-flowered perennial. Introduced from Mexico in 1829.
- 3682 1553b ZI'CHYA Hug. (*Countess Molly Zich*, a botanist at Vienna.) coccinea Hug. Leg. Pap. Phas. No. 10316. in p. 618.
- 3683 783a ZIGADENUS Mx. (*Zygos*, a yoke, *aden*, a gland; two in sepals.) . . . . . Melanthaceæ. Nos. 4987, and 4988. in p. 292.
- 3684 650a ZIZIA Koch. (*J. B. Zizit*, a German botanist.) atrea Koch. Umbellaceæ. No. 3615. in p. 216.

## SUPPLEMENTARY LIST.

2701. *ABUTILON*.  
 18110 - - striatum *Dick.* 縐 □ or 4 all sea. O. c. Brazil 1837. C r. lt. l. Botanist, 144  
 A green-house shrub of great beauty, producing at all seasons, on long slender stalks, its bell-shaped orange-coloured flowers, which are strongly veined with crimson.
357. *ANAGALLIS*.  
 There are many seedling varieties of *Anagallis* in cultivation, all of which contribute greatly to the ornament of the flower-garden. The varieties at present in most general cultivation are *A. Phillipsii*, *bicolor*, *speciosa*, *elegans*, &c. Mr. Joseph Plant, of Cheadle, Staffordshire, has produced many desirable varieties, as have also other nurserymen and amateurs.
1208. *AQUILEGIA*.  
 18111 - - glauca *Lindl.* glaucous 3 △ or 2 my. ju Pa. Y Himal. 1839. D co Bot. reg. 1840, 46  
 18112 - - fragrans *Benth.* fragrant 3 △ or 2 my Pa. Y Himal. 1839. D co Botanist, 181  
 This species differs from *A. glauca* in having the spurs of the petals hooked inwards, and the leaves not being glaucous. The flowers are also larger and handsomer.
515. *BILLARDIERA*.  
 18113 17013a linearis *Lindl.* linear-lvd 2 □ or 5 s. n B Swan Riv. 1839. C l. s. p. Bot. reg. 1840, 3  
 syn. *Sollya linearis Lindl.*  
 The intense blue, large size, and great abundance of its flowers, render this species, for ornamental purposes, preferable even to the well-known *S. heterophylla*.
287. *BOUVARDIA* 1740 triphylla  
 β splendens *Grah.* splendid 2 □ or 2 ap. n S? Mexico 1838. D co Bot. mag. 3781  
 γ angustifolia *Hort.* narrow-lvd 2 □ or 2 au. s S Mexico 1838. C s. l. Pax. mag. vii. 100
3036. *CE'DRUS*.  
 18114 - - *Deodara Rox.* Deodara ↑ tm 90 my Ap Nepal 1822. S s. l. Lamb. p. 2. 8. 4  
 This is the most celebrated coniferous plant of the Himalayas, according to Dr. Royle. It is called by the Hindoos *Devadara*, or the tree of God, and is regarded as sacred by them. "In England, the specimens of it are at present small; but the feathery lightness of its spreading branches, and the beautiful glaucous hue of its leaves, render it, even when young, one of the most ornamental of the coniferous trees." (*Arb. Brit.*)
1741. *CINERARIA* 12143 lanata *L'Her.* syn. *Senecio Heritièri Dec.*  
 β cyanophthalmus *Hook.* blue-eyed 2 □ or 2 ... W. B. hybrid ... C lt. R. Bot. mag. 3827  
 A very elegant hybrid, remarkable for the intense blue of its disk and whiteness of its ray.
537. *CLAYTONIA* 3014 alsinoides *Ph.* syn. *Limnia alsinoides Haw.*  
 This species, of which a figure is given in p. 185., was, in 1837, observed by Mr. Joseph Paxton, "in an elevated part of a large plantation bordering Chatsworth Park, unquestionably wild; . . . as its situation is such as not to offer any probability of either seeds or plants being conveyed there by any other means than by nature." (*Baxter's British Phanogamous Botany*, vol. iv. pl. 253.)
890. *CORREA*.  
 18115 5094a *Harrisii Paxt.* *Mr. Harris's* 2 □ or 2 ap. ju C hybrid 1837. C s. p. l. Paxt. mag. vii. 79  
 A splendid hybrid, between *C. pulchella* and *C. speciosa*, raised by Mr. Beaton, gardener to T. Harris, Esq., of Kingsbury. Its flowers are of a brilliant crimson.
310. *CUSCUTA* epilinum.  
 A species new to the British Flora, found on the *Linum usitatissimum*, by J. E. Bowman, Esq., at Ellesmere. T. B. Flower, Esq., found the same species on flax, on the road side between West Harptree and Cheddar, July 31, 1840; and it has this year (1840) made its appearance on a small bed of flax in the experimental compartment of the Oxford Botanic Garden.
3685. 592a. *CYRTOCERAS Bennet.* *CYRTOCERAS.* (*Kurtos*, curved, *keras*, horn; segments of crown.) *Ascle-*  
 18116 - - reflexum *Bennet* reflexed 2 □ or ... au W. Y Manilla 1838. C lt. l. Bot. reg. 1839, 18  
 syn. *Hoya coriacea Blume.*
2617. *DEUTZIA*.  
 18117 - - corymbosa *R. Br.* corymb-flwg 2 or 5 ju W Nepal 1838. C co Bot. reg. 1840, 5  
 This very beautiful species of *Deutzia* forms a handsome hardy shrub, producing abundance of white lemon-scented flowers, in loose corymbs. It also bears forcing in the same manner as the Persian lilac, &c.
3686. - - *LEMONIA Lindl.* *LEMONTIA.* (*Sir C. Lemon*, Bart. M. P. patron of bot.) *Rutidacæ.* 5. 1. 1-1.  
 18118 - - spectabilis *Lindl.* beautiful-flwd 2 □ or 3? ju. au C Cuba 1839? C lt. l. Bot. reg. 59-1840
1471. *MA'LOPE* 9708 trifida  
 γ grandiflora *Hort.* large-flwd O spl 3 jl. o Rosy C gardens ... S co L. f. g. ann. 16, 4  
 A most desirable ornamental annual.
3687. 1308a. *MEYENIA Nees.* *MEYENIA.* (*Dr. Meyen*, a distinguished Prussian botanist.)  
*Hawtayneana* Wall. syn. *Thunbergia Hawtayneana*, p. 1228. Botanist, 188.
2520. *PETYNIA* 16903 phenicea.  
 The hybrids and varieties of this species are very numerous, as it hybridises freely with *P. nyctagini-*  
*flora.* Some of the flowers of the hybrids, or varieties, are very large, handsome, and fragrant.



2521. *PHARBITIS*. Lear's  $\frac{1}{2}$   $\square$  spl 30 in. s Dk. B. n Ceylon 1839. C. r. l. l Pax. mag. vi. 267
- 18119 - Lear's East. Lear's  $\frac{1}{2}$   $\square$  spl 30 in. s Dk. B. n Ceylon 1839. C. r. l. l Pax. mag. vi. 267  
This very beautiful species has the stem clothed with hair, and the leaves, which are often deeply cut, covered with pubescence; and the stems are shrubby. It is of the easiest culture, protruding roots at nearly all its joints, if kept in vigorous growth.
3688. 47b. *PHLOGAGANTHUS* Nees. *PHLOGACANTHUS*. (*Phlogeos*, flaming, and *acanthus*; flowers.) *Acan-*  
18120 - *curviflorus* Nees *curved-flwd*  $\frac{1}{2}$   $\square$  or 6 n Y. n Sylhet 1839. C. r. l. l Bot. mag. 3783  
*Justicia curviflora* Wal.  
It is a handsome stove shrub, producing large thyrs-like racemes of flowers and leaves about a foot in length.
369. *PHLOX*.  
18121 - *Coldryana* Hort. *Coldry's*  $\frac{1}{2}$   $\Delta$  or 2 su Psh hybrid '... D r. l Pax. mag. 197  
This very ornamental phlox was raised by Mr. Coldry, late foreman of the Bristol Nursery.
16869. *Drummondii* var. *formosa* Hort.  
A very splendid variety, producing its flowers, which are of a rich carmine colour, from early in the season till nipped by the frost. It is readily propagated by cuttings, and requires the same treatment as the species.
1091. *PORTULACA*.  
18122 - *Thellusonii* Lindl. *Mr. Thelluson's*  $\square$  spl 1 su S S. Europe 1839. S p. s. l Bot. reg. 1840, 31  
syn. *P. grandiflora rutila* Bot. Reg. 1839.
62. *SALVIA*.  
18123 - *pätens* Cav. *spreading-flwd*  $\frac{1}{2}$   $\square$  spl 3 all sea B S. Amer. 1838. C r. l. l Botanist, 109.  
This very splendid half-hardy salvia should find a place in every flower-garden. It is of the easiest culture; either by cuttings, which will root freely in a warm border under a hand-glass, if put in early in the season; or by seed, which, however, is but sparingly ripened in this country.
44. *SCHIZANTHUS*.  
In the body of the work this genus has been inserted at p. 16. in the class *Diándria*, and also at p. 534. in class *Didynámia*, it will be necessary therefore to cancel it from p. 534.  
A very distinct and desirable variety, from the great dissimilarity in the colour of its flowers to those of any other, being white with bright yellow lower lip, was raised by Mr. Priest of Reading, in 1833, and is now become pretty general in flower-gardens, under the name of *S. Friestii*. It is figured in Mrs. Loudon's Ladies' Flower-Garden of Ornamental Annuals, pl. 42. f. 5.
1141. *SPIRÆA*.  
18124 7146a *barbata* Wal. bearded  $\frac{1}{2}$   $\Delta$  or 2 in W Nepal 1835? D co Bot. reg. 2011  
This is synonymous with the *Hoteia japonica* of *Mor. and Decaisne*.
3689. 739a. *SPREKELIA*  
A new name given by Mr. Herbert to a portion of the genus *Amarfills*, of which *A. formosissima* is the type.
1322. *VERBENA*.  
The great beauty of the flowers of several species of this genus, and their peculiar adaptation to summer and autumn ornament, have caused them of late to be carefully attended to by the trade and by amateurs, and consequently many and very elegant varieties have been produced. The following, not enumerated in the Supplement, are in most general cultivation: *V. Meléndres* *superba*, *spléndens*, *Tweediana* *superba*, *Arrandiana*, *Neillii*, *Eyeriana*, *Hyländii* (nearly allied to *Aublétia*), shrubby pink, &c.

# ALPHABETICAL LIST

OF

ALL THE GENERA GIVEN IN THE BODY OF THIS WORK

WHICH HAVE UNDERGONE ANY CHANGE IN THEIR NOMENCLATURE SINCE THE PUBLICATION OF THE SAME,

TOGETHER WITH THE NAMES OF GENERA DIVIDED FROM THEM.

|                      |   |                        |   |           |                      |   |                         |   |        |
|----------------------|---|------------------------|---|-----------|----------------------|---|-------------------------|---|--------|
| <i>A'bies</i>        | = | <i>Picea</i>           | - | Page 1974 | <i>Bácharis</i>      | = | <i>Brachylaena</i>      | - | 1285   |
| <i>Acácia</i>        | = | <i>Darlingtonia</i>    | - | 1288      | <i>Bæobotrys</i>     | = | <i>Maesa</i>            | - | 1283   |
| <i>Achánia</i>       | = | <i>Malvastriscus</i>   | - | 1293      | <i>Ballöta</i>       | = | { <i>Lophanthus</i>     | - | 1222   |
| <i>A'chras</i>       | = | <i>Lucuma</i>          | - | 1293      |                      |   | { <i>Röylea</i>         | - | 1222   |
| <i>Actinophýllum</i> | = | <i>Sciodaphýllum</i>   | - | 1293      | <i>Banistèria</i>    | = | <i>Heteropteris</i>     | - | 1291   |
| <i>Æsculus</i>       | = | <i>Pavia</i>           | - | 1182      | <i>Barringtonia</i>  | = | <i>Straväätum</i>       | - | 1238   |
| <i>A'gathis</i>      | = | <i>Dammara</i>         | - | 1288      | <i>Bartsia</i>       | = | <i>Euchroma</i>         | - | 1290   |
| <i>Agrimönia</i>     | = | <i>Aremönia</i>        | - | 1284      | <i>Bèlis</i>         | = | <i>Cunninghämia</i>     | - | 1288   |
|                      |   |                        |   |           | <i>Bèrberis</i>      | = | <i>Mahönia</i>          | - | 1180   |
| <i>Agröstis</i>      | = | { <i>Anemagröstis</i>  | - | 1282      | <i>Besleria</i>      | = | <i>Drymonia</i>         | - | 1289   |
|                      |   | { <i>Apèra</i>         | - | 1285      |                      |   | { <i>Amphilobium</i>    | - | 1283   |
|                      |   | { <i>Calamagröstis</i> | - | 1285      | <i>Bigöndia</i>      | = | { <i>Chilopsis</i>      | - | 1286   |
|                      |   | { <i>Catabrosa</i>     | - | 1286      |                      |   | { <i>Spathödea</i>      | - | 1298   |
| <i>Aira</i>          | = | { <i>Deschämpsia</i>   | - | 1288      |                      |   | { <i>Tecoma</i>         | - | 1224   |
|                      |   | { <i>Eriächne</i>      | - | 1289      | <i>Bocconia</i>      | = | <i>Macleaya</i>         | - | 1293   |
| <i>Airöpsis</i>      | = | <i>Periballia</i>      | - | 1295      | <i>Bömbax</i>        | = | <i>Eriodéndron</i>      | - | 1289   |
| <i>Alchemilla</i>    | = | <i>A'phanes</i>        | - | 1282      | <i>Bonapártea</i>    | = | <i>Littæa</i>           | - | 1293   |
| <i>A'llium</i>       | = | <i>Hesperoscördum</i>  | - | 1291      | <i>Borböndia</i>     | = | <i>Vascöa</i>           | - | 1300   |
|                      |   | { <i>A'picra</i>       | - | 1283      | <i>Brachypöidium</i> | = | <i>Catapöidium</i>      | - | 1285   |
|                      |   | <i>Gastèria</i>        | - | 1290      | <i>Brodiaea</i>      | = | <i>Leucocöryne</i>      | - | { 1293 |
| <i>A'loe</i>         | = | <i>Hawörthia</i>       | - | 1291      |                      |   | { <i>Ananassa</i>       | - | 1283   |
|                      |   | <i>Fachidéndron</i>    | - | 1295      | <i>Bromèlia</i>      | = | { <i>Billbergia</i>     | - | 1176   |
|                      |   | <i>Rhipidodéndron</i>  | - | 1297      | <i>Bromus</i>        | = | { <i>Tricheeta</i>      | - | 1289   |
|                      |   | <i>Rhipidodéndron</i>  | - | 1297      |                      |   | { <i>Berárdia</i>       | - | 1284   |
| <i>Alyssum</i>       | = | { <i>Adysetum</i>      | - | 1292      |                      |   | { <i>Berzèlia</i>       | - | 1284   |
|                      |   | { <i>Anodönteä</i>     | - | 1283      | <i>Brünia</i>        | = | { <i>Raspälia</i>       | - | 1297   |
|                      |   | { <i>Glyce</i>         | - | 1283      |                      |   | { <i>Stävåia</i>        | - | 1298   |
|                      |   | { <i>Koniga</i>        | - | 1292      | <i>Bubröna</i>       | = | <i>Guaxama</i>          | - | 1290   |
| <i>Amarfyllis</i>    | = | { <i>Phycèlia</i>      | - | 1296      | <i>Bupthálmum</i>    | = | <i>Diphaca</i>          | - | 1288   |
|                      |   | { <i>Sprekèlia</i>     | - | 1302      | <i>Bupleurum</i>     | = | <i>Tenöria</i>          | - | 1299   |
| <i>Amerimnum</i>     | = | { <i>Arya</i>          | - | 1285      | <i>Cacalia</i>       | = | <i>Culcitium</i>        | - | 1288   |
|                      |   | <i>Lonchocárcpus</i>   | - | 1293      |                      |   | { <i>Cereus</i>         | - | 1202   |
| <i>Amýgdalus</i>     | = | <i>Pèstica</i>         | - | 1295      |                      |   | { <i>Echinocactus</i>   | - | 1200   |
| <i>Anagris</i>       | = | <i>Pipanthus</i>       | - | 1296      | <i>Cactus</i>        | = | { <i>Epiphýllum</i>     | - | 1202   |
| <i>Ancistrum</i>     | = | <i>Acæna</i>           | - | 1282      |                      |   | { <i>Mammillaria</i>    | - | 1200   |
|                      |   | { <i>Cassandra</i>     | - | 1286      |                      |   | { <i>Melocactus</i>     | - | 1200   |
|                      |   | { <i>Cassiope</i>      | - | 1286      | <i>Caladätum</i>     | = | <i>Opuntia</i>          | - | 1202   |
| <i>Andrómeda</i>     | = | <i>Leucöthöe</i>       | - | 1293      |                      |   | { <i>Pereskia</i>       | - | 1202   |
|                      |   | <i>Lyöndia</i>         | - | 1293      | <i>Cála</i>          | = | <i>Dieffenbächia</i>    | - | 1288   |
|                      |   | <i>Pleris</i>          | - | 1296      | <i>Cála</i>          | = | <i>Richardia</i>        | - | 1297   |
|                      |   | <i>Zenöbia</i>         | - | 1300      | <i>Calyndria</i>     | = | <i>Oxybaphus</i>        | - | 1295   |
|                      |   | { <i>Anathèrum</i>     | - | 1283      | <i>Calyptánthes</i>  | = | <i>Syzygium</i>         | - | 1299   |
| <i>Andropögon</i>    | = | { <i>Cymbopögon</i>    | - | 1288      |                      |   | { <i>Pölyspora</i>      | - | 1296   |
|                      |   | { <i>Heteropögon</i>   | - | 1291      | <i>Camèlia</i>       | = | { <i>Thüs</i>           | - | 1299   |
|                      |   | { <i>Pollinia</i>      | - | 1296      |                      |   | { <i>Adenöphora</i>     | - | 1292   |
| <i>Angélica</i>      | = | <i>Archangélica</i>    | - | 1283      |                      |   | { <i>Platycödon</i>     | - | 1286   |
| <i>Angræcum</i>      | = | <i>Oceöclades</i>      | - | 1266      | <i>Campánula</i>     | = | <i>Prismatöcärcpus</i>  | - | 1227   |
| <i>Anthèricum</i>    | = | <i>Czäckia</i>         | - | 1288      |                      |   | { <i>Specularia</i>     | - | 1298   |
|                      |   | { <i>Phalängium</i>    | - | 1295      |                      |   | { <i>Wahlenbergia</i>   | - | 1164   |
| <i>Anthýllis</i>     | = | <i>E'benus</i>         | - | 1289      | <i>Cápparis</i>      | = | <i>Morisönia</i>        | - | 1288   |
| <i>Apèrgia</i>       | = | <i>Oporinea</i>        | - | 1295      | <i>Caragána</i>      | = | <i>Halimodéndron</i>    | - | 1291   |
| <i>A'pium</i>        | = | <i>Petroselinum</i>    | - | 1295      | <i>Carpopögon</i>    | = | <i>Mucöna</i>           | - | 1294   |
| <i>Araucária</i>     | = | <i>Altingia</i>        | - | 1283      |                      |   | { <i>Carduncellus</i>   | - | 1286   |
| <i>A'rbutus</i>      | = | <i>Arctostáphylos</i>  | - | 1284      | <i>Cárthamus</i>     | = | <i>Heracanthia</i>      | - | 1291   |
| <i>Arëca</i>         | = | <i>Euterpe</i>         | - | 1290      |                      |   | { <i>Cerinthýllum</i>   | - | 1292   |
| <i>A'rnicä</i>       | = | <i>Bellidästrum</i>    | - | 1284      | <i>Cassinia</i>      | = | <i>Anganthus</i>        | - | 1283   |
| <i>Artemisia</i>     | = | <i>Oligösporus</i>     | - | 1284      | <i>Catasètum</i>     | = | <i>Myánthes</i>         | - | 1295   |
| <i>A'rurum</i>       | = | <i>Arisárum</i>        | - | 1284      | <i>Caucalis</i>      | = | <i>Oriäya</i>           | - | 1292   |
|                      |   | { <i>Calamagröstis</i> | - | 1285      |                      |   | { <i>Turgènia</i>       | - | 1300   |
| <i>Arúndo</i>        | = | { <i>Phragmites</i>    | - | 1296      | <i>Ceanöthus</i>     | = | <i>Willemètia</i>       | - | 1300   |
|                      |   | { <i>Callistemma</i>   | - | 1285      | <i>Cénchrus</i>      | = | <i>Centotheca</i>       | - | 1286   |
|                      |   | { <i>Eurýbia</i>       | - | 1290      | <i>Centaurea</i>     | = | { <i>Callicèphalus</i>  | - | 1285   |
| <i>A'ster</i>        | = | <i>Galatèlia</i>       | - | 1290      |                      |   | { <i>Plectocèphalus</i> | - | 1252   |
|                      |   | <i>Haxtöndia</i>       | - | 1291      |                      |   | { <i>4 P</i>            | - |        |
| <i>Athanasia</i>     | = | <i>Lönas</i>           | - | 1293      |                      |   |                         |   |        |
| <i>Avèna</i>         | = | <i>Tricheeta</i>       | - | 1299      |                      |   |                         |   |        |

|                |   |                 |   |      |
|----------------|---|-----------------|---|------|
| Centaurea      | = | Rhapontica      | - | 1277 |
| Cephalaria     | = | { Pterocéphalus | - | 1287 |
|                |   | { Succisa       | - | 1299 |
| Cherophyllum   | = | Conopodium      | - | 1287 |
| Chilochloa     | = | A'chnodon       | - | 1286 |
| Chlidris       | = | { Atheropogon   | - | 1284 |
|                |   | { Edistachys    | - | 1290 |
| Chrysarrus     | = | Phalome         | - | 1287 |
| Cineraria      | = | { Agathae       | - | 1282 |
|                |   | { Seneciois     | - | 1298 |
| Cinna          | = | Trichochloa     | - | 1293 |
| Clématis       | = | Atragene        | - | 1284 |
| Cleome         | = | { Gynandropsis  | - | 1291 |
|                |   | { Polanisia     | - | 1296 |
| Cnicus         | = | { Cirsium       | - | 1287 |
|                |   | { Eriolepis     | - | 1287 |
|                |   | { Onotrophe     | - | 1287 |
| Cnidium        | = | Silau           | - | 1298 |
| Cocœa          | = | Acrocoemia      | - | 1282 |
| Coffea         | = | Tetramerium     | - | 1289 |
| Comarum        | = | Comaropsis      | - | 1287 |
| Combrœtum      | = | Potruca         | - | 1286 |
| Conium         | = | { Capnoplyllum  | - | 1286 |
|                |   | { Rûmia         | - | 1286 |
| Corallorhiza   | = | Aplœctrum       | - | 1258 |
| Côrchorus      | = | Kerria          | - | 1210 |
| Cordia         | = | Patagonula      | - | 1295 |
| Coreopsis      | = | { Actinomeris   | - | 1282 |
|                |   | { Chrysostemma  | - | 1287 |
| Coriandrum     | = | Biforis         | - | 1285 |
| Coronilla      | = | Securigera      | - | 1298 |
| Coronopus      | = | Senebiera       | - | 1298 |
| Corypha        | = | Tadiœa          | - | 1299 |
|                |   | { Echeverria    | - | 1196 |
|                |   | { Pistorinia    | - | 1296 |
| Cotyledon      | = | { Umbilicus     | - | 1300 |
|                |   | { Curtogyne     | - | 1288 |
|                |   | { Globulea      | - | 1290 |
|                |   | { Turgosia      | - | 1300 |
|                |   | { Vauanthes     | - | 1300 |
| Crassula       | = | { Stranvaesia   | - | 1206 |
|                |   | { Richia        | - | 1297 |
|                |   | { Ethonia       | - | 1282 |
|                |   | { Hypoclyptus   | - | 1292 |
|                |   | { Neurocarpum   | - | 1242 |
|                |   | { Viborgia      | - | 1300 |
| Croton         | = | Crotophora      | - | 1287 |
| Cucurbita      | = | Lagenaria       | - | 1292 |
| Cynara         | = | Cestrinus       | - | 1286 |
| Cyrtanthus     | = | Gastronema      | - | 1290 |
|                |   | { Adenocarpus   | - | 1282 |
|                |   | { Capanea       | - | 1285 |
|                |   | { Calophaca     | - | 1286 |
| Dafcus         | = | Platyspermum    | - | 1296 |
| Dactyloctenium | = | Cladostachys    | - | 1287 |
| Digitalis      | = | Syntherisma     | - | 1288 |
| Dilatris       | = | Lachnanthes     | - | 1292 |
| Dimocarpus     | = | Euphodia        | - | 1290 |
| Dinebra        | = | Wangenheimia    | - | 1300 |
| Diosma         | = | Audouinia       | - | 1284 |
|                |   | { Canavalia     | - | 1286 |
|                |   | { Lidalab       | - | 1292 |
|                |   | { Pachyrhizus   | - | 1295 |
|                |   | { Psophocarpus  | - | 1292 |
|                |   | { Saja          | - | 1298 |
|                |   | { Vigna         | - | 1300 |
| Dracoccephalum | = | Physoctegia     | - | 1222 |
| Echites        | = | Hemadictyon     | - | 1291 |
| Elaeodendron   | = | Argenia         | - | 1284 |
| Elichrysum     | = | { Leucostemma   | - | 1293 |
|                |   | { Phœnocomma    | - | 1296 |
| Empetrum       | = | Corœma          | - | 1287 |
|                |   | { Callista      | - | 1285 |
|                |   | { Calluna       | - | 1286 |
|                |   | { Ceramia       | - | 1286 |
|                |   | { Chœna         | - | 1287 |
|                |   | { Dasyanthes    | - | 1288 |
|                |   | { Dœmia         | - | 1288 |
|                |   | { Ectasis       | - | 1288 |
|                |   | { Eriodœmia     | - | 1289 |
|                |   | { Eurolœma      | - | 1290 |
|                |   | { Eurylepis     | - | 1290 |
|                |   | { Eurystegia    | - | 1290 |
|                |   | { Gypsocallis   | - | 1291 |
|                |   | { Lamprœtis     | - | 1292 |
|                |   | { Lophandra     | - | 1293 |
|                |   | { Octopœra      | - | 1295 |
|                |   | { Pachyusa      | - | 1295 |
|                |   | { Syringœdea    | - | 1299 |
|                |   | { Nycterinia    | - | 1295 |
|                |   | { Nasmythia     | - | 1289 |
| Erinus         | = | Jambœa          | - | 1292 |
| Eriocaulon     | = | { Stravadium    | - | 1288 |
|                |   | { Syraggium     | - | 1289 |
| Eugenia        | = | { Jambœa        | - | 1292 |
|                |   | { Stravadium    | - | 1288 |
|                |   | { Syraggium     | - | 1289 |

|              |   |                  |   |        |
|--------------|---|------------------|---|--------|
| E'zacum      | = | { Coutibeia      | - | 1287   |
|              |   | { Hippion        | - | 1291   |
|              |   | { Microcole      | - | 1294   |
| Ferula       | = | Ferulago         | - | 1290   |
| Festuca      | = | { Corycarpus     | - | 1287   |
|              |   | { Schenobdruis   | - | 1297   |
| Filago       | = | { Gilgola        | - | 1290   |
|              |   | { Logfia         | - | 1290   |
| Geoffroya    | = | Andra            | - | 1283   |
| Gesnera      | = | { Codonophora    | - | 1287   |
|              |   | { Pentarhphia    | - | 1294   |
|              |   | { Rytidophyllum  | - | 1294   |
| Ghnia        | = | Tamonia          | - | 1299   |
| Gladitolus   | = | Anisanthus       | - | { 1150 |
|              |   |                  | - | 1283   |
|              |   | { Amphicarpa     | - | 1283   |
|              |   | { Apios          | - | 1283   |
|              |   | { Chaetocalyx    | - | 1286   |
|              |   | { Fagelia        | - | 1290   |
|              |   | { Rhynchostia    | - | 1297   |
|              |   | { Rudolphia      | - | 1297   |
|              |   | { Wistaria       | - | 1300   |
|              |   | { Spathia        | - | 1298   |
| Gnaphalium   | = | Bonnaya          | - | 1285   |
| Gratiola     | = | Isertia          | - | 1292   |
| Guettarda    | = | Telekia          | - | 1299   |
| Hallia       | = | { Athagi         | - | 1283   |
|              |   | { Alysicarpus    | - | 1283   |
|              |   | { Desmodium      | - | 1288   |
|              |   | { Dicœma         | - | 1288   |
| Hedysarum    | = | { Lobrea         | - | 1293   |
|              |   | { Onobrychis     | - | 1295   |
|              |   | { Ormocarpum     | - | 1295   |
|              |   | { Pueraria       | - | 1297   |
|              |   | { Uraia          | - | 1300   |
|              |   | { Aphelœxis      | - | 1283   |
|              |   | { Leucostemma    | - | 1293   |
|              |   | { Phœnocomma     | - | 1296   |
|              |   | { Chamœlirium    | - | 1286   |
|              |   | { Zigadœnus      | - | 1300   |
|              |   | { Funkia         | - | 1178   |
| Hemercallia  | = | Mahœria          | - | 1294   |
| Hermannia    | = | Neurobœma        | - | 1294   |
| Hesperis     | = | Thespesia        | - | 1292   |
| Hibiscus     | = | { Ethonia        | - | 1282   |
|              |   | { Calliopœa      | - | 1285   |
| Hieracium    | = | { Hapalostœphium | - | 1291   |
|              |   | { Arrhenatherum  | - | 1284   |
| Holcus       | = | { Chrysopogon    | - | 1287   |
|              |   | { Drymaria       | - | 1289   |
| Holosteum    | = | Zœcœum           | - | 1291   |
| Hœrdeum      | = | Lepechinia       | - | 1292   |
| Horminum     | = | Hœya             | - | 1301   |
| Hoyœa        | = | Cyrtœceras       | - | 1293   |
| Hypocyanus   | = | Scopolia         | - | 1293   |
| Hyperanthera | = | Moringa          | - | 1294   |
| Hypœricum    | = | Androsœmum       | - | 1283   |
| Hypocœchia   | = | Achyrorrhœus     | - | 1282   |
| Hyssopus     | = | Lophanthus       | - | 1222   |
| Impatiens    | = | Balsamina        | - | 1284   |
| I'nulla      | = | { Corvisartia    | - | 1287   |
|              |   | { Limbœria       | - | 1292   |
| Ionidium     | = | Pombœria         | - | 1296   |
| Ipomœa       | = | Pharbitis        | - | 1158   |
| Isoplepis    | = | Heliogeton       | - | 1292   |
| Jambœifera   | = | Cymitœsma        | - | 1288   |
| Jatropha     | = | Jambœa           | - | 1292   |
|              |   | { Cœrya          | - | 1286   |
|              |   | { Pterocœrya     | - | 1270   |
| Juglans      | = | Phlogocanthus    | - | 1302   |
| Justicia     | = | { Hardenbergia   | - | 1291   |
|              |   | { Zichya         | - | 1300   |
| Kennœdia     | = | { Chamœgrœstis   | - | 1292   |
|              |   | { Midœra         | - | 1292   |
|              |   | { Stœrnia        | - | 1292   |
| Lagœsca      | = | Nœcca            | - | 1294   |
| Larix        | = | Cœdrus           | - | 1286   |
| Laserpitium  | = | Siler            | - | 1298   |
| Laurus       | = | { Cinnamœmum     | - | 1287   |
|              |   | { Pœrœa          | - | 1295   |
| Lavandula    | = | Anisochilus      | - | 1283   |
| Leptanthus   | = | Heteranthera     | - | 1291   |
| Leucodium    | = | A'cis            | - | 1176   |
|              |   | { Levisticum     | - | 1293   |
|              |   | { Molopospermum  | - | 1294   |
|              |   | { Petroselinum   | - | 1295   |
|              |   | { Physospermum   | - | 1296   |
|              |   | { Pleurospœrum   | - | 1296   |
|              |   | { Atalœmia       | - | 1284   |
|              |   | { Priestliœya    | - | 1297   |
|              |   | { Monopœlis      | - | 1294   |
|              |   | { Siphocampylus  | - | 1164   |
|              |   | { Carmichaelia   | - | 1286   |
|              |   | { Hosœckia       | - | 1244   |
|              |   | { Talœma         | - | 1218   |
| Lidus        | = |                  |   |        |
| Magnolia     | = |                  |   |        |

|                     |   |                              |                      |   |                                |
|---------------------|---|------------------------------|----------------------|---|--------------------------------|
| Malpighia           | = | { <i>Bunchosia</i> - 1285    | <i>Priva</i>         | = | <i>Streptium</i> - 1298        |
|                     |   | { <i>Byrsónima</i> - 1285    | <i>Prúnus</i>        | = | { <i>Armentaca</i> - 1288      |
| <i>Málva</i>        | = | <i>Sphaerácea</i> - 1298     |                      | = | <i>Cérasus</i> - 1286          |
| <i>Márica</i>       | = | { <i>Bobártia</i> - 1285     | <i>Paámna</i>        | = | <i>Ammóphila</i> - 1297        |
|                     |   | { <i>Sisynehium</i> - 1150   | <i>Psychótria</i>    | = | <i>Geóphila</i> - 1290         |
| <i>Marróbium</i>    | = | <i>Beringéria</i> - 1284     | <i>Pterocárpus</i>   | = | <i>Drepanocárpus</i> - 1289    |
| <i>Martýria</i>     | = | <i>Craniolária</i> - 1287    | <i>Quássia</i>       | = | <i>Simarúba</i> - 1298         |
| <i>Melánthium</i>   | = | <i>Ornithoglossum</i> - 1295 | <i>Réatio</i>        | = | <i>Thamnochórtus</i> - 1299    |
|                     |   | <i>Acíotís</i> - 1282        | <i>Rhámnus</i>       | = | <i>Colubrina</i> - 1287        |
| <i>Melástoma</i>    | = | { <i>Chitónia</i> - 1286     |                      | = | { <i>Acíotís</i> - 1282        |
|                     |   | { <i>Chitémia</i> - 1287     | <i>Rhéxia</i>        | = | { <i>Pleróma</i> - 1296        |
|                     |   | <i>Micónia</i> - 1284        | <i>Richárdia</i>     | = | <i>Richardsónia</i> - 1297     |
|                     |   | <i>Pleróma</i> - 1296        | <i>Róchea</i>        | = | <i>Kalosánthes</i> - 1292      |
| <i>Melilótus</i>    | = | <i>Pocóckia</i> - 1296       | <i>Rósa</i>          | = | <i>Lówa</i> - 1293             |
| <i>Melóchia</i>     | = | <i>Riedléia</i> - 1297       | <i>Rudbéckia</i>     | = | { <i>Echinácea</i> - 1289      |
| <i>Méntha</i>       | = | { <i>Aphanochilus</i> - 1222 |                      | = | <i>Ratabáda</i> - 1297         |
|                     |   | { <i>Dysophýlla</i> - 1222   | <i>Ruéliá</i>        | = | <i>Calóphanes</i> - 1226       |
| <i>Menziésia</i>    | = | <i>Dabac'cia</i> - 1288      |                      | = | <i>Goldfússia</i> - 1236       |
|                     |   | <i>Phyllodoce</i> - 1296     | <i>Rùmex</i>         | = | <i>Hygrophila</i> - 1291       |
|                     |   | <i>Acménia</i> - 1282        | <i>Rúta</i>          | = | <i>Strobilánthes</i> - 1236    |
| <i>Metrosidéros</i> | = | { <i>Acropóra</i> - 1283     |                      | = | <i>Pyrea</i> - 1289            |
|                     |   | { <i>Callistemon</i> - 1285  | <i>Santolna</i>      | = | <i>Aplóphýllum</i> - 1293      |
|                     |   | <i>Piptathérum</i> - 1296    | <i>Saxifraga</i>     | = | <i>Leiógyne</i> - 1297         |
| <i>Milium</i>       | = | <i>Eniáda</i> - 1289         | <i>Scabiósa</i>      | = | <i>Asterocéphalus</i> - 1284   |
| <i>Mimósa</i>       | = | <i>Laháya</i> - 1292         | <i>Schnus</i>        | = | <i>Duváda</i> - 1289           |
| <i>Mólia</i>        | = | <i>Chasmonía</i> - 1286      | <i>Schæ'nus</i>      | = | { <i>Blísmus</i> - 1285        |
| <i>Moluccélla</i>   | = | <i>Blephília</i> - 1285      |                      | = | { <i>Chatéspora</i> - 1286     |
| <i>Monárda</i>      | = | <i>Sarcocáulon</i> - 1236    | <i>Scélla</i>        | = | <i>Belleváda</i> - 1284        |
| <i>Monsónia</i>     | = | { <i>Bobártia</i> - 1285     | <i>Sédum</i>         | = | <i>Umbilleus</i> - 1300        |
|                     |   | <i>Cypélla</i> - 1234        | <i>Sellnum</i>       | = | <i>Melanosellnum</i> - 1293    |
| <i>Moræ'a</i>       | = | <i>Diétea</i> - 1150         |                      | = | <i>Thyssellnum</i> - 1289      |
|                     |   | <i>Homéria</i> - 1284        | <i>Sempervivum</i>   | = | <i>Monánthes</i> - 1294        |
|                     |   | <i>Yicuséchia</i> - 1300     | <i>Seriola</i>       | = | <i>Rodígia</i> - 1287          |
| <i>Mygalúrus</i>    | = | <i>Vúlipa</i> - 1294         | <i>Seshónia</i>      | = | <i>Agáti</i> - 1287            |
| <i>Mýrtus</i>       | = | <i>Mýrcia</i> - 1294         | <i>Séseli</i>        | = | <i>Ptychótis</i> - 1292        |
|                     |   | <i>A'jar</i> - 1282          | <i>Sida</i>          | = | <i>Abátion</i> - 1286          |
|                     |   | <i>Assaracus</i> - 1284      | <i>Sison</i>         | = | <i>Petrosellnum</i> - 1295     |
|                     |   | <i>Chloráster</i> - 1287     |                      | = | { <i>Brignólia</i> - 1285      |
|                     |   | <i>Corbulária</i> - 1287     | <i>Stum</i>          | = | { <i>Drepanophýllum</i> - 1289 |
|                     |   | <i>Diomèdes</i> - 1288       |                      | = | <i>Helosciádium</i> - 1291     |
|                     |   | <i>Ganymèdes</i> - 1290      | <i>Stum</i>          | = | <i>Siláus</i> - 1298           |
|                     |   | <i>Heléna</i> - 1291         | <i>Smyrniú</i>       | = | <i>Zilá</i> - 1300             |
| <i>Narcissus</i>    | = | <i>Hermione</i> - 1291       |                      | = | <i>Lycopérsicum</i> - 1293     |
|                     |   | <i>Ilíus</i> - 1292          | <i>Solidágo</i>      | = | <i>Euthámia</i> - 1290         |
|                     |   | <i>Ionquília</i> - 1292      | <i>Sónchus</i>       | = | <i>Agathýrsus</i> - 1282       |
|                     |   | <i>Óileus</i> - 1295         | <i>Spermacóce</i>    | = | <i>Bigelóvia</i> - 1285        |
|                     |   | <i>Philógyne</i> - 1296      | <i>Spiræ'a</i>       | = | <i>Hoteia</i> - 1302           |
|                     |   | <i>Quétia</i> - 1297         | <i>Stáchys</i>       | = | <i>Sphácele</i> - 1292         |
|                     |   | <i>Schisanthes</i> - 1287    |                      | = | { <i>Carunculária</i> - 1286   |
|                     |   | <i>Trós</i> - 1300           |                      | = | <i>Duvália</i> - 1289          |
| <i>Narthécium</i>   | = | <i>Abáma</i> - 1294          |                      | = | <i>Gonostémon</i> - 1290       |
| <i>Negúndium</i>    | = | <i>Negúndo</i> - 1294        | <i>Stapélia</i>      | = | <i>Obésia</i> - 1295           |
| <i>Neóttia</i>      | = | <i>Peléxia</i> - 1293        |                      | = | <i>O'rbea</i> - 1295           |
| <i>Nesæ'a</i>       | = | <i>Décodon</i> - 1288        |                      | = | <i>Pectinária</i> - 1295       |
|                     |   | <i>Érocécephalus</i> - 1282  |                      | = | <i>Podánthes</i> - 1286        |
| <i>O'cymum</i>      | = | <i>Moschósma</i> - 1294      |                      | = | <i>Tridéntea</i> - 1300        |
| <i>Onóphlia</i>     | = | <i>Berchémia</i> - 1284      | <i>Stizobóbius</i>   | = | <i>Tromotrícho</i> - 1300      |
| <i>Odenlándia</i>   | = | <i>Hedyótis</i> - 1291       |                      | = | <i>Mucúna</i> - 1294           |
| <i>Onobórda</i>     | = | <i>Carlówitzia</i> - 1286    | <i>Stuártia</i>      | = | { <i>Malachodéndron</i> - 1293 |
| <i>Ophiúrus</i>     | = | <i>Pholúrus</i> - 1296       |                      | = | <i>Talnum</i> - 1198           |
| <i>Ornithopus</i>   | = | <i>Astrolóbius</i> - 1284    | <i>Talnum</i>        | = | <i>Myricária</i> - 1294        |
| <i>Ornítrophe</i>   | = | <i>Schmidélia</i> - 1298     | <i>Támarix</i>       | = | <i>Microméria</i> - 1222       |
| <i>O'robis</i>      | = | <i>Platýstyliis</i> - 1296   | <i>Thýmus</i>        | = | <i>Thunbérkia</i> - 1302       |
| <i>Oróntium</i>     | = | <i>Róhdes</i> - 1297         | <i>Tigrídia</i>      | = | <i>Cypélla</i> - 1294          |
| <i>Oxýlobium</i>    | = | <i>Macrótropis</i> - 1293    | <i>Tillándia</i>     | = | { <i>Billbérkia</i> - 1176     |
| <i>Oxýria</i>       | = | <i>Oxýria</i> - 1295         |                      | = | <i>Caragána</i> - 1286         |
| <i>Pancrátium</i>   | = | <i>Isméne</i> - 1174         | <i>Tordýllum</i>     | = | <i>Condýlocárpus</i> - 1287    |
|                     |   | <i>Disémma</i> - 1289        | <i>Tournéfortia</i>  | = | <i>Messerschmidia</i> - 1298   |
| <i>Passiflora</i>   | = | { <i>Murucúdia</i> - 1294    |                      | = | { <i>Tradescántia</i> - 1286   |
|                     |   | <i>Tacsonia</i> - 1299       | <i>Trágia</i>        | = | <i>Cyanótis</i> - 1288         |
| <i>Pastináca</i>    | = | <i>Opóponax</i> - 1295       |                      | = | <i>Cnemidótachys</i> - 1287    |
| <i>Petaloma</i>     | = | <i>Mouriria</i> - 1284       | <i>Trichódium</i>    | = | <i>Agráglus</i> - 1299         |
|                     |   | <i>Baldingera</i> - 1288     | <i>Trichosánthes</i> | = | <i>Ceratósánthes</i> - 1286    |
| <i>Phálaris</i>     | = | <i>Digraphis</i> - 1288      |                      | = | <i>Isánthus</i> - 1292         |
| <i>Phýlica</i>      | = | <i>Soullángia</i> - 1298     | <i>Tripsacum</i>     | = | <i>Anthéphora</i> - 1283       |
| <i>Phyllánthus</i>  | = | { <i>Emblíca</i> - 1289      |                      | = | <i>Trichæ'ta</i> - 1299        |
|                     |   | <i>Xylophýlla</i> - 1300     | <i>Trisetum</i>      | = | <i>Agropyrum</i> - 1282        |
| <i>Phyteúma</i>     | = | <i>Petromárule</i> - 1295    | <i>Triticum</i>      | = | <i>Léria</i> - 1292            |
| <i>Pimpinélla</i>   | = | <i>Trágium</i> - 1299        | <i>Tussilágo</i>     | = | <i>Leimánthium</i> - 1292      |
| <i>Pinus</i>        | = | <i>Picea</i> - 1274          | <i>Verátrum</i>      | = | <i>Actinómeris</i> - 1292      |
| <i>Piper</i>        | = | <i>Peperómia</i> - 1295      | <i>Véresina</i>      | = | <i>Kalanchoé</i> - 1292        |
| <i>Plectránthus</i> | = | <i>Cóleus</i> - 1222         | <i>Vérónia</i>       | = | <i>Ascaricáda</i> - 1284       |
| <i>Póa</i>          | = | <i>Hydrochloa</i> - 1291     | <i>Verónica</i>      | = | <i>Leptándra</i> - 1292        |
| <i>Polygonum</i>    | = | <i>Tragopyrum</i> - 1299     |                      | = | <i>Sóla</i> - 1298             |
| <i>Póchos</i>       | = | { <i>Symplocárpus</i> - 1284 | <i>Zórnia</i>        | = | <i>Dicérma</i> - 1288          |
|                     |   | <i>Atalánthus</i> - 1284     |                      | = | <i>Zygophýllum</i> - 1290      |
|                     |   | <i>Harpályce</i> - 1291      |                      | = | <i>Fabágo</i> - 1290           |
| <i>Prenánthes</i>   | = | <i>Mycéllis</i> - 1297       |                      | = |                                |
|                     |   | <i>Phacéasium</i> - 1297     |                      | = |                                |

# GENERAL INDEX,

COMPREHENDING

THE SYSTEMATIC AND ENGLISH GENERIC NAMES, AND THE ENGLISH AND SYSTEMATIC SYNONYMES IN COMMON USE.

In this Index, the systematic names are distinguished as classical, i. e. names applied to plants by the ancients, by the first letter being in *Italic*, as *A'bies*; as commemorative, by the terminating letter or letters being in *Italic*, as *Banksia*; and as aboriginal, or of uncertain derivation, by the whole word being in *Italic*, as *E'ruca*. All the other names are formed, in almost every case, from the Greek, but sometimes from the Greek and Latin. Where *n.* is added after the name, it refers to the note: *s.* indicates a synonyme.

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|-----------|-----------|------------|------|-----------|--------------|------------|---------------------------|-----------|-----------|------------|----------------------|----------------------------|-------|
| Lin. Arr. | Nat. Arr. | Spec. Gen. | Gen. | Lin. Nat. | Arr. Arr.    | Spec. Gen. | Gen.                      | Lin. Nat. | Arr. Arr. | Spec. Gen. | Gen.                 |                            |       |
| 1294      |           |            | 813  |           | 214          | 1079       | Actinòdus                 | 644       | 1299      |            | Agráculus, <i>s.</i> | 157                        |       |
| 840       |           |            | 2087 |           | 508          | 1079       | A'cynos                   | 1276      | 398       | 1067       | Agriumbia            | 1101                       |       |
| 1084      |           |            | 2013 |           | 244          |            | Adam's apple, <i>n.</i>   |           | 398       |            | Agriomy              | 1101                       |       |
| 1274      |           |            | 2852 |           | 268          |            | Adam's needle             | 781       | 1282      |            | Agropyrum            | 2877                       |       |
| 1282      |           |            | 1196 |           | 1196         |            | Adámia                    | 2612      | 388       |            | 1058                 | Agrostemma                 | 1066  |
| 650       | 1060      |            | 1609 |           | 592          | 1059       | Adansónia                 | 1471      | 1198      |            |                      |                            |       |
| 118       |           |            | 323  |           | 888          |            | Adder's tongue            | 2209      |           | 56         | 1089                 | Agrostis                   | 156   |
| 1154      |           |            | 850  | 1082      | Adèlia       |            | 2118                      |           | 1289      |            |                      | A. see Echinopogon         | 3162  |
| 614       | 1066      |            | 1546 |           | 180          | 1067       | Adenándra                 | 518       | 1282      |            |                      | Agrynja                    | 2878  |
| 1282      |           |            | 2853 |           | 1282         |            | A. see Acmadènia          | 2859      | 1020      | 1092       |                      | Agryrium                   | 2400  |
| 1236      |           |            | 503  | 1063      | Adenanthèra  |            | 982                       |           | 866       |            |                      | Alánius                    | 2150  |
| 1301      |           |            | 2701 |           | 1282         |            | Adenanthos                | 2856      | 58        | 1089       |                      | Aira                       | 170   |
| 856       |           |            | 2127 |           | 1282         |            | Adenocárpus               | 2867      | 160       | 1089       |                      | Airópsis                   | 56    |
| 1278      |           |            | 1282 |           | 1282         |            | Adenóphora                | 2868      | 762       |            |                      | Air plant                  | 1917  |
| 1282      |           |            | 2854 | 1248      | Adenotrichia |            | 2727                      |           | 578       | 1093       |                      | Aitónia                    | 1462  |
| 814       | 1082      |            | 2038 | 1244      | Adésmia      |            | 2716                      |           | 428       | 1069       |                      | Aizbon                     | 1144  |
| 1097      |           |            | 117. | 2194      | 1090         |            | Adiántum                  | 884       | 1282      |            |                      | A'jaz                      | 2879  |
| 1264      |           |            | 2795 |           | 98           | 1072       | Adina                     | 286       | 494       |            | 1079                 | A'juga                     | 1242  |
| 516       | 1079      |            | 1301 | 600       | 1056         |            | Adlúmia                   | 1505      | 1220      |            |                      |                            |       |
| 686       | 1074      |            | 1671 | 484       | 1054         |            | Adónis                    | 1230      | 302       |            |                      | A'kee-tree                 | 885   |
| 864       |           |            | 2143 | 328       | 1070         |            | Adóxa                     | 930       | 468       | 1068       |                      | A'kingum                   | 1193  |
| 1278      |           |            | 1865 | 1044      | 1093         |            | Adysétum, <i>s.</i>       | 3282      | 176       |            |                      | Alatèrus                   | 2892  |
| 1282      |           |            | 2855 | 2134      | 1089         |            | Adórium                   | 2497      | 274       | 1086       |                      | Albúca                     | 797   |
| 584       | 1069      |            | 1479 | 96        | 1079         |            | E'gílops                  | 862       | 88        | 1067       |                      | Alchemilla                 | 255   |
| 726       | 1073      |            | 1781 | 468       | 1062         |            | E'ginétia, <i>s.</i>      | 2514      | 391       |            |                      | Alcohol, <i>n.</i>         |       |
| 1212      |           |            | 2636 | 1160      |              |            | E'gíphila                 | 274       | 928       | 1091       |                      | Alcyonidium                | 2267  |
| 1286      |           |            | 165  | 216       | 1070         |            | E'gle                     | 1196      | 780       | 1083       |                      | Alder                      | 1955  |
| 926       | 1091      |            | 2259 | 1282      |              |            | E'góchloa                 | 2523      | 1283      |            |                      | Aldrovánda                 | 2880  |
| 58        | 1089      |            | 166  | 1282      |              |            | E'gopódium                | 652       | 690       |            |                      | Ale-cost, <i>n.</i>        |       |
| 150       | 1076      |            | 427  | 764       | 1085         |            | E'gopógus                 | 2869      | 970       | 1092       |                      | Alectória                  | 2354  |
| 190       | 1090      |            | 552  | 762       | 1085         |            | E'gólánthus               | 2870      | 268       | 1086       |                      | Alétris                    | 776   |
| 1286      |           |            | 192  | 1080      |              |            | E'gíranthes               | 1922      | 812       | 1082       |                      | Aleurites                  | 2028  |
| 1282      |           |            | 2856 | 630       | 1066         |            | E'rides                   | 1917      | 216       |            |                      | Alexanders                 | 650   |
| 1282      |           |            | 2857 | 1288      |              |            | E'ruca                    | 806       | 846       |            |                      | Alexandrian                |       |
| 1258      |           |            | 2751 | 1290      |              |            | E'schynómene              | 1582      |           |            |                      | laurel                     | 14046 |
| 744       | 1072      |            | 1842 | 296       | 1060         |            | E. see Daubentonia        | 3113      | 868       |            |                      | Algaroba-bean, <i>n.</i>   |       |
| 792       | 1083      |            | 1992 | 1182      |              |            | E. see Glottidium         | 3219      | 1283      |            |                      | Alhagi                     | 2881  |
| 1022      | 1092      |            | 2407 | 552       | 1057         |            | E'sculus                  | 866       | 205       |            |                      | Alicant soda, <i>n.</i>    |       |
| 1282      |           |            | 2858 | 1282      |              |            | E. see Pavia              | 2593      | 294       | 1087       |                      | Alisma                     | 861   |
| 1176      |           |            | 2566 | 218       | 1071         |            | E'thionèma                | 1429      | 1087      |            |                      | ALISMA'CEÆ, Or. 166.       | 407   |
| 364       | 1068      |            | 1031 | 864       |              |            | E'thonia                  | 2871      | 146       | 1076       |                      | Allamánda                  | 2187  |
| 1282      |           |            | 2859 | 694       |              |            | E'thusa                   | 661       | 882       | 1090       |                      | Allantodia                 | 2187  |
| 728       | 1074      |            | 1793 | 260       |              |            | African almond            | 2142      | 550       | 1057       |                      | Alliaria                   | 1423  |
| 1282      |           |            | 2860 |           | 1063         |            | African Beabane           | 1706      | 480       |            |                      | Alligator apple, <i>n.</i> |       |
| 834       | 1081      |            | 2072 | 718       |              |            | African lily              | 767       | 334       |            | 1081                 | Alligator pear             | 5651  |
| 474       |           |            | 1205 | 346       | 1069         |            | African lote              | 12212     | 1760      |            |                      |                            | 934   |
| 474       | 1054      |            | 755  | 1289      |              |            | African mar-<br>rigold    | 971       | 1294      |            |                      | Alliònia                   | 2882  |
| 256       | 1089      |            | 2477 |           |              |            | Afzèlia                   |           | 272       | 1086       |                      | Allium                     | 796   |
| 1038      | 1093      |            | 2861 | 260       |              |            | A. see Erythro-<br>phlèum | 3181      | 880       | 1090       |                      | A. see Nectaro-<br>scórdus | 3399  |
| 1282      |           |            | 2862 | 986       |              |            | Agapánthus                | 767       | 74        |            |                      | Alliosórus                 | 2180  |
| 1282      |           |            | 2863 | 986       | 1092         |            | Agaric                    | 2365      | 454       | 1061       |                      | All-see                    | 221   |
| 1264      |           |            | 2732 | 1152      |              |            | Agáricus                  | 2365      | 418       |            |                      | Allspice                   | 1157  |
| 1080      | 1092      |            | 2403 | 1282      |              |            | Agástachys                | 2513      | 420       |            |                      | Allspice-tree              | 6985  |
| 1040      | 1093      |            | 2480 | 1282      |              |            | Agásthia                  | 2872      | 780       | 1083       |                      | Almond                     | 1128  |
| 878       | 1090      |            | 2169 | 804       | 1084         |            | Agathæ'a                  | 2873      | 260       | 1086       |                      | A'línus                    | 1955  |
| 1282      |           |            | 2864 | 304       | 1081         |            | A'gathis                  | 2011      | 1248      |            |                      | A'líoe                     | 770   |
| 460       | 1055      |            | 1164 | 182       | 1063         |            | A'gathophýllum            | 1077      | 534       | 1078       |                      | Alómia                     | 2724  |
| 1293      |           |            | 3343 | 1293      |              |            | Agathósma                 | 520       | 56        | 1089       |                      | Alonèda                    | 1377  |
| 1250      |           |            | 2737 | 1282      |              |            | A. see Macrostylis        | 3341      | 518       | 1079       |                      | Alopecurus                 | 164   |
| 294       | 1087      |            | 860  | 1282      |              |            | Agathýrsus                | 2874      | 368       |            |                      | Aloýsia                    | 1313  |
| 1282      |           |            | 2865 | 244       | 1087         |            | Agáti                     | 2875      | 4         |            |                      | Alpine-brook               | 1041  |
| 230       | 1070      |            | 637  | 690       | 1073         |            | Agáve                     | 724       | 1144      |            | 1085                 | Alpinia                    | 8     |
| 1082      | 1093      |            | 2436 | 1282      |              |            | Agératum                  | 1687      | 228       | 1059       |                      | Alsine                     | 688   |
|           |           |            |      |           |              |            | Agnóstus                  | 2876      | 1283      |            |                      | Alsodèa                    | 2883  |









| Lin. Nat. | Sp.                   | Gen.                      | Lin. Nat. | Sp.  | Gen.                | Lin. Nat.               | Sp.    | Gen.                       |
|-----------|-----------------------|---------------------------|-----------|------|---------------------|-------------------------|--------|----------------------------|
| 185       |                       | <i>Calamagrostis</i>      | 3001      | 546  |                     | 814                     |        | Castor-oil plant           |
| 508       |                       | <i>Calamint</i>           | 1277      | 1232 | 1057                | 1412                    |        | Candy-tuft                 |
| 508       | 1079                  | <i>Calamintha</i>         | 1277      | 74   |                     | 219                     | 772    | 1083                       |
| 1224      |                       | <i>Calámpelis</i>         | 2668      | 394  | 1061                | 1085                    | 1083   | CASUARINÆ, Or. 144.        |
| 266       | 1088                  | <i>Calámu</i>             | 753       | 2    | 1085                | 1                       | 1286   | Catabrosa                  |
| 1798      |                       | <i>Calandrinia</i>        | 2621      | 1144 | 2                   | 26                      | 1077   | <i>Catápa</i>              |
| 764       | 1085                  | <i>Calánthe</i>           | 1923      | 834  | 1083                | 2073                    | 678    | 1073                       |
| 1144      | 2                     | 1085                      | 3         | 164  | 1085                |                         | 1285   | Catanánche                 |
| 202       |                       | <i>Calathian violet</i>   | 3368      | 600  |                     | 756                     | 1085   | Catapodium, s.             |
| 18        | 1078                  | <i>Calceolária</i>        | 51        | 1006 | 1092                | 2675                    | 463    | 1262                       |
| 1146      |                       |                           | 622       | 142  | 1072                | 482                     | 374    | C. see <i>Myánthus</i>     |
| 148       |                       |                           | 1324      | 1162 | 1077                | 389                     | s. 380 | Catchfly                   |
| 520       | 1079                  | <i>Caldásia</i>           | 1907      | 1082 | <i>Cántua</i>       | 856                     | 93     | Catch-weed, n.             |
| 694       | 1074                  | <i>Cálea</i>              | 1716      | 172  |                     | 628                     | 856    | Catechu, n.                |
| 696       | 1076                  | <i>Caleacte</i>           | 1481      | 226  |                     | 100                     | 1072   | Caterpillar                |
| 756       | 1084                  | <i>Caledna</i>            | 1830      | 402  | 1058                | 350                     | 1067   | <i>Catesbæa</i>            |
| 740       | 1074                  | <i>Caléndula</i>          | 1441      | 458  |                     | 362                     | 550    | Cathartocárpus             |
| 556       | 1057                  | <i>Calépinu</i>           | 2333      | 1286 |                     | 498                     | 498    | Catmint                    |
| 554       | 1092                  | <i>Caléium</i>            | 1011      | 1458 | 1058                | 1162                    | 584    | Cat's-claw mimosa, n.      |
| 356       |                       | <i>Calico-bush</i>        | 5915      | 1011 |                     | 3618                    | 576    | Cat's-ear                  |
| 1289      |                       | <i>Calínæ, s.</i>         | 3145      | 458  | 1058                | 774                     | 1162   | Cat's-tail                 |
| 298       | 1089                  | <i>Cállia</i>             | 869       | 1238 |                     | C. see <i>Morisónia</i> | 2705   | 494                        |
| 96        | 1079                  | <i>Callicárpá</i>         | 272       | 1180 |                     | C. see <i>Stéphania</i> | 2589   | 760                        |
| 1285      |                       | <i>Callicépalus</i>       | 3002      | 532  | 1078                | 13682                   | 1260   | 1085                       |
| 398       | 1070                  | <i>Callicoma</i>          | 1099      | 1071 | CAPRIFOLIÆ, Or. 82. | 1262                    | 210    | 1071                       |
| 406       | 1081                  | <i>Calligonum</i>         | 1106      | 170  | 1071                | 474                     | 555    | Cauliflow                  |
| 1285      |                       | <i>Calliopæa</i>          | 3003      | 1164 |                     | 1409                    | 286    | 1055                       |
| 1282      | 1285                  | <i>Calliopsis</i>         | 2743      | 546  | 1087                | 453                     | 161    | Caulophýllum               |
| 1178      |                       |                           | 2577      | 160  | 1078                | 1569                    | 161    | Cayenne butter, n.         |
| 1285      |                       | <i>Calliprôra</i>         | 3004      | 626  | 1066                | 3019                    | 178    | Cayenne pepper, n.         |
| 1285      |                       | <i>Callisace</i>          | 3005      | 1286 |                     | 3020                    | 1168   | 1063                       |
| 96        | 1087                  | <i>Callisia</i>           | 87        | 1286 |                     | 598                     | 826    | 1083                       |
| 1285      |                       | <i>Callista</i>           | 3006      | 202  |                     | 3021                    | 806    | Cecropia                   |
| 324       | 1066                  | <i>Callistachys</i>       | 952       | 1286 |                     | 655                     | 806    | Cedar of Goa               |
| 1285      |                       | <i>Callistémma</i>        | 3007      | 218  |                     | 1392                    | 182    | 1062                       |
| 1285      |                       | <i>Callistémon</i>        | 3008      | 542  | 1057                | 48                      | 8      | 1062                       |
| 8         | 1069                  | <i>Callitriche</i>        | 27        | 4    | 1085                | 11458                   | 1668   | 1301                       |
| 1285      |                       | <i>Cállitris</i>          | 3009      | 166  |                     | 925                     | 1286   | Cædrus                     |
| 1286      |                       | <i>Callûna</i>            | 3010      | 328  | 1060                | 1072                    | 460    | Celandine                  |
| 1170      |                       | <i>Calobótrya, s.</i>     | 850       | 684  | 1072                | 3022                    | 178    | 1063                       |
| 1012      | 1092                  | <i>Calócera</i>           | 2380      | 1286 | 1074                | 1655                    | 178    | 1063                       |
| 1286      |                       | <i>Calochilus</i>         | 3840      | 686  |                     | 1947                    | 216    | 1070                       |
| 1182      |                       | <i>Calochórtus</i>        | 2590      | 1086 |                     | 3023                    | 1090   | CELLULÆRES, Div. 2.        |
| 1178      |                       | <i>Calochórtus, s.</i>    | 2574      | 774  | 1089                | 2025                    | 192    | 1080                       |
| 182       | 1063                  | <i>Calodéndrum</i>        | 528       | 596  | 1068                | 1499                    | 217    | 1070                       |
| 1286      |                       | <i>Calóphaca</i>          | 3011      | 1286 |                     | 3023                    | 1090   | CELLULÆRES, Div. 2.        |
| 1226      |                       | <i>Calóphanes</i>         | 2672      | 842  | 1069                | 438                     | 534    | 1078                       |
| 466       | 1061                  | <i>Calophýllum</i>        | 1189      | 152  | 1077                | 1669                    | 864    | 1083                       |
| 756       | 1084                  | <i>Calopogon</i>          | 1878      | 684  | 1074                | 1669                    | 1018   | 1092                       |
| 242       | 1086                  | <i>Calostémma</i>         | 715       | 684  |                     | 3024                    | 52     | 1089                       |
| 652       | 1068                  | <i>Calothámmus</i>        | 1612      | 1286 |                     | 2004                    | 722    | 1073                       |
| 932       | 1091                  | <i>Cálóthrix</i>          | 2286      | 798  | 1087                | 965                     | 1092   | Cenomyce                   |
| 714       | 1074                  | <i>Calva</i>              | 1743      | 1286 |                     | 1046                    | 734    | 1074                       |
| 19        | 1077                  | <i>Calátropis</i>         | 584       | 372  |                     | 2156                    | 1285   | C. see <i>Callicépalus</i> |
| 490       | 1054                  | <i>Cáltha</i>             | 1239      | 868  |                     | 252                     | 1085   | C. see <i>Plectocépha-</i> |
| 354       |                       | <i>Caltrops</i>           | 996       | 688  |                     | 1490                    | 734    | Centaury                   |
| 1083      | CALYCA'NTHÆ, Or. 138. |                           | 592       | 1059 |                     | 1731                    | 1286   | Centotheca                 |
| 454       | 1083                  | <i>Calycánthus</i>        | 1157      | 792  | 1083                | 1996                    | 6      | 1072                       |
| 1063      | CALICYFLOÆ, Subc. 2.  |                           | 702       | 1073 |                     | 3026                    | 1282   | Centroclínium              |
| 1072      | CALYCE'Æ, Or. 88.     |                           | 792       | 1083 |                     | 3027                    | 724    | 1074                       |
| 36        | 1080                  | <i>Calymenia</i>          | 81        | 1286 |                     | 1549                    | 96     | 1080                       |
| 764       | 1085                  | <i>Calýpsø</i>            | 1929      | 1286 |                     | 1438                    | 174    | 1072                       |
| 418       | 1068                  | <i>Calyptránthes</i>      | 1122      | 616  | 1066                | 1947                    | 96     | 1072                       |
| 1286      |                       | <i>Calyptrion</i>         | 3012      | 556  | 1057                | 625                     | 96     | 1072                       |
| 1283      |                       | C. see <i>Anchiètea</i>   | 2897      | 210  | 1070                | 1875                    | 90     | 1072                       |
| 140       | 1077                  | <i>Calystægia</i>         | 387       | 420  |                     | 1675                    | 690    | 1074                       |
| 1214      |                       | <i>Cálythrix</i>          | 2645      | 686  | 1074                | 655                     | 1286   | Cerámia                    |
| 1286      |                       | <i>Cálytrix</i>           | 3013      | 36   | 1087                | 3028                    | 936    | 1091                       |
| 760       | 1085                  | <i>Camaridium</i>         | 1901      | 218  | 1070                | 3029                    | 1286   | Ceranthera                 |
| 1180      |                       | <i>Camdásia</i>           | 2581      | 1286 |                     | 3030                    | 1036   | 1059                       |
| 1286      |                       |                           | 3014      | 1286 |                     | 1120                    | 1268   | Cérasus                    |
| 550       | 1057                  | <i>Camellina</i>          | 1425      | 1286 |                     | 2007                    | 1036   | 1033                       |
| 592       | 1062                  | <i>Camellia</i>           | 1476      | 416  | 1068                | 3031                    | 772    | 1081                       |
| 1238      |                       |                           | 1062      | 800  | 1088                | 2316                    | 1054   | Ceratocépalus              |
| 148       | 1077                  | <i>Caméraria</i>          | 417       | 813  |                     | 935                     | 1262   | Ceratocillus, s.           |
| 162       | 1075                  | <i>Campánula</i>          | 463       | 334  | 1064                | 3032                    | 66     | 1089                       |
| 1164      |                       |                           | 1286      | 1816 |                     | 13649                   | 2033   | 868                        |
| 1075      | CAMPANULÆ, Or. 90     |                           | 3015      | 348  | 1067                | 974                     | 1196   | Ceratónchia                |
| 1286      |                       | <i>Campèlia</i>           | 332       | 1081 |                     | 790                     | 1093   | Ceratopétalum              |
| 332       | 1081                  | <i>Campfire-tree</i>      | 5643      | 934  |                     | 682                     | 1286   | Ceratophýllum              |
| 333       | 1081                  | <i>Camphor, n.</i>        |           | 326  | 1063                | 1848                    | 148    | 1077                       |
| 88        | 1081                  | <i>Camphoróma</i>         | 254       | 744  | 1073                | 3766                    | 679    | 1295                       |
| 372       |                       | <i>Campion</i>            | 1047      | 224  |                     | 3033                    | 346    | 1067                       |
| 1286      |                       | <i>Campylánthus</i>       | 3016      | 1286 |                     | 2850                    | 1286   | Cércis                     |
| 788       |                       | <i>Canada rice</i>        | 13313     | 1979 |                     | 536                     | 1202   | Céresus, n.                |
| 288       | 1075                  | <i>Canarina</i>           | 834       | 1280 |                     | 1594                    | 410    | Céresia                    |
| 58        |                       | <i>Canary-grass</i>       | 168       | 334  | 1081                | 2601                    | 122    | 1078                       |
| 1286      |                       | <i>Canavalia</i>          | 3017      | 792  | 1083                | 3034                    | 198    | 1077                       |
| 890       |                       | <i>Candleberry myrtle</i> | 2035      | 1190 |                     | 1337                    | 1286   | Cestrinus                  |
| 1246      |                       | <i>Canélla</i>            | 2719      | 1286 |                     |                         |        |                            |
| 212       |                       | <i>Candy carrot</i>       | 3556      | 634  | 1078                |                         |        |                            |











| Lin. Nat.       | Sp. Gen.               | Lin. Nat.   | Sp. Gen.                 | Lin. Nat.          | Sp. Gen.                      |
|-----------------|------------------------|-------------|--------------------------|--------------------|-------------------------------|
| 132 } 1069      | Greek valerian         | 630 1066    | Hállia                   | 1584               | 1086 HEMEROCALLIDÆÆ, Or. 159. |
| 1158 } 423      | Greengage, n.          | 1291        | H. see Heylandia         | 3257               | 260 1086 Hemerocallis         |
| 940             | Green laver            | 15272 2308  | 330 1069 Haloragis       | 932                | 1291 Hemiclida                |
| 752             | Green man              | 12835 1865  | 942 1091 Halymenia       | 2315               | 196 1077 Hemiclamus           |
| 822             | Green oster            | 13732 2042  | 104 1071 Hamamelis       | 81                 | 1291 Hemimeris                |
| 84 } 1081       | Grevillea              | 239         | 216                      | 312                | 878 1090 Hemionitis           |
| 466 1060        | Grewia                 | 1185        | 173 1073 Hamburg parsley | 484                | 216 Hemlock                   |
| 466 1061        | Grias                  | 1188        | 870 1082 Hamélia         | 2162               | 804 Hemlock spruce            |
| 384 1067        | Griælum                | 1063 1287   | H. see Comandra          | 3074               | 834 1083 Hemp                 |
| 254 1066        | Griffithia             | 741         | 1291 Hapalostèphium      | 3236               | 688 Hemp agrimony             |
| 938 1091        | Griffithsia            | 2297        | 1291 Hardenbèrgia        | 3237               | 502 Hemp nettle               |
| 900 1091        | Grimmia                | 2223        | 68 } 72                  | 199                | 406 Hen and chicken           |
| 716 } 1074      | Grindèlia              | 1746        | 862 } Hard grass         | 2134               | 136 1078 Henbane              |
| 1260 } 302 1068 | Grislea                | 877         | 1291                     | 3238               | 802 Henbit                    |
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| 1264            | Gubya                  | 2791        | 278                      | 4770 803           | 480 1054 Hepatica             |
| 190             | Gromwell               | 330 218     | 1172 } 1070              | Hare's-ear         | 293                           |
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| 494             | Ground pine            | 8097 1242   | 1291                     | Harpalyce          | 3239                          |
| 704 } 1074      | Groundsel              | 1738        | 1170                     | Harrisònia         | 3240                          |
| 1248 } 702      | Groundsel-tree         | 11821 1732  | 100 1063                 | Hartògia           | 2552                          |
| 640             | Gruyère cheese, n.     | 892         | 892                      | Hart's-tongue      | 301 222                       |
| 1072            | Guaco of Peru          | 1260        | 1260                     | Hartwegia          | 2188 726                      |
| 352 1062        | Guaiacum               | 993         | 222                      | Hartwort           | 2764 354                      |
| 304 1063        | Guadrea                | 888         | 1083                     | Haschisch          | 673                           |
| 480 1055        | Guattèria              | 1222        | 100                      | Hassagay-tree      | 300                           |
| 416 1068        | Guava                  | 1118        | 220 1071                 | Hasselquistia      | 666                           |
| 1062            | Guayacine              | 3226        | 638                      | Hatchet vetch      | 1595                          |
| 1290            | Guazuma                | 3774 679    | 452                      | Hautboy            | 7569 1151                     |
| 224             | Guelder rose           | 4222 738    | 672                      | Hawweed            | 1685                          |
| 252             | Guernsey lily          | 1981        | 1291                     | Hawòrthia          | 3241                          |
| 788 1073        | Guettarda              | 3618        | 1291                     | Hawthorn           | 1132                          |
| 1297            | Guevina, s.            | 979         | 1067                     | Haxtònia           | 1324                          |
| 350 1067        | Guinea-hen weed, n.    | 1176        | 1176                     | Haxlòckia          | 3242                          |
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| 857             | Gum arabic, n.         | 74192 2127  | 518 1079                 | Hebenstrelitzia    | 892                           |
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| 1061            | Guzmánia               | 583         | 1152                     | Hedyotis, s.       | 2814 290                      |
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| 750 1085        | Gymnadenia             | 2171        | 630 1066                 | Hedýsarum          | 1588 1291                     |
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| 944 1091        | Hallseria              | 2322        | 1089                     | Helvèlla           | 3260                          |
| 524 1078        | Hallèria               | 1338        | 1089                     | Helvèlla           | 3260                          |

















| Lin. | Nat.                | Sp.  | Gen. | Lin. | Nat. | Sp.  | Gen.               | Lin.    | Nat.     | Sp.  | Gen.                         |
|------|---------------------|------|------|------|------|------|--------------------|---------|----------|------|------------------------------|
| 424  | } <i>Pyracantha</i> | 7072 | 1132 | 678  | 1073 |      | <i>Rhagadtolus</i> | 1653    | 464      |      | <i>Roucon, n.</i>            |
| 1206 |                     | 192  |      | 192  |      |      |                    | 562     | 208      |      | <i>Rough chervil</i>         |
| 956  | 1092                |      |      | 862  |      |      |                    | 2139    | 302      | 1089 | <i>Roxburghia</i>            |
| 722  | 1073                |      |      | 1063 |      |      |                    |         | 334      |      | <i>Royal bay</i>             |
| 362  | 1075                |      |      | 176  | 1063 |      |                    | 503     | 364      | 1076 | <i>Royena</i>                |
| 1176 |                     |      |      | 866  | 1088 |      |                    | 2153    | 1222     |      | <i>Rufolea</i>               |
| 424  | } 1067 <i>Pyrus</i> | 1133 |      | 1297 |      |      |                    | 3526    | 94       | 1072 | <i>Rubia</i>                 |
| 1208 |                     |      |      | 121  | 1058 |      |                    |         | 3527     | 1040 | 1083                         |
| 1054 |                     |      |      | 334  | 1081 |      |                    | 938     | 450      | 1067 | <i>Rubigo</i>                |
| 130  | 1077                |      |      | 318  | 1068 |      |                    | 900     | 730      | 1074 | <i>Rudbeckia</i>             |
| 1297 |                     |      |      | 318  | 1081 |      |                    | 1340    | 1240     |      | <i>Rudolphia</i>             |
| 66   |                     |      |      | 1178 |      |      |                    | 2575    | 1297     |      |                              |
| 1297 |                     |      |      | 1297 |      |      |                    | 3528    | 354      |      | <i>Rue</i>                   |
| 278  |                     |      |      | 414  | 1069 |      |                    | 1112    | 516      |      | 1079 <i>Ruellia</i>          |
| 1180 |                     |      |      | 1022 | 1092 |      |                    | 2405    | 1226     |      |                              |
| 1286 |                     |      |      | 1088 | 1093 |      |                    | 2475    | 1226     |      | <i>R. see Calophanes</i>     |
| 354  | 1063                |      |      | 394  | 1071 |      |                    | 1078    | 1226     |      | <i>R. see Goldfussia</i>     |
| 1264 |                     |      |      | 1071 |      |      |                    | 2412    | 1226     |      | <i>R. see Strobilanthes</i>  |
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| 794  | 1083                |      |      | 3520 | 1250 |      |                    | 2730    | 234      | 1060 | <i>Rulingia</i>              |
| 76   | 1080                |      |      | 2000 | 1279 |      |                    | 2847    | 75       |      | <i>Rum, n.</i>               |
| 56   |                     |      |      | 227  | 1228 |      |                    | 2676    | 292      | 1081 | <i>Rumex</i>                 |
| 894  |                     |      |      | 1190 |      |      |                    | 1014    | 106      | 1090 | <i>Rupia</i>                 |
| 426  | 1067                |      |      | 1134 | 942  | 1091 |                    | 2312    | 208      |      | <i>Rupture-wort</i>          |
| 364  | 1068                |      |      | 1028 | 358  |      |                    | 1013    | 846      | 1086 | <i>Ruscus</i>                |
| 352  | 1062                |      |      | 989  | 1194 |      |                    | 1014    | 258      |      | <i>Rush</i>                  |
| 1038 | 1093                |      |      | 2470 | 1270 |      |                    | 2844    | 344      |      | <i>Rush-broom</i>            |
| 108  | 1059                |      |      | 301  | 86   | 1081 |                    | 346     | 50       |      | <i>Rush-nut</i>              |
| 556  | 1057                |      |      | 1443 | 334  | 1081 |                    | 938     | 532      |      |                              |
| 606  | 1066                |      |      | 1527 | 224  | 1064 |                    | 681     | 1230     |      | 1078 <i>Russelia</i>         |
| 388  |                     |      |      | 1067 | 1297 |      |                    | 3529    | 1060     |      | <i>Russian mats</i>          |
| 742  |                     |      |      | 1833 | 48   | 1089 |                    | 120     | 1092     |      | <i>Rust</i>                  |
| 838  | 1086                |      |      | 2084 | 1080 | 1093 |                    | 2432    | 354      | 1062 | <i>Ruta</i>                  |
| 970  | 1092                |      |      | 2355 | 190  |      |                    | 550     | 1062     |      | <i>RUTA'CEÆ, Or. 49.</i>     |
| 786  |                     |      |      | 1971 | 1168 |      |                    | 1297    | 1212     |      | <i>Ruscia</i>                |
| 132  | 1078                |      |      | 374  | 96   | 1080 |                    | 1687    | 278      |      | <i>Ryanea</i>                |
| 832  |                     |      |      | 2063 | 922  | 1091 |                    | 2255    | 72       | 1088 | <i>Rye</i>                   |
| 168  | 1075                |      |      | 468  | 288  | 1088 |                    | 837     | 70       |      | <i>Rye-grass</i>             |
| 274  |                     |      |      | 795  | 288  |      |                    | 833     | 1224     |      | <i>Rytidophyllum</i>         |
| 174  | 1072                |      |      | 490  | 1297 |      |                    | 3530    | 938      | 1091 | <i>Rythphaea</i>             |
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| 556  | 1057                |      |      | 1443 | 542  | 1057 |                    | 1396    | 74       | 1089 | <i>Saccharum</i>             |
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| 290  |                     |      |      | 3174 | 1297 |      |                    | 3534    | 1299     |      | <i>S. see Tricholea</i>      |
| 426  | 1067                |      |      | 1196 | 1297 |      |                    | 3535    | 1266     |      | <i>Saccolabium</i>           |
| 548  | 1057                |      |      | 536  | 86   | 1081 |                    | 3536    | 476      |      | <i>Sacred bean</i>           |
| 1297 |                     |      |      | 3521 | 928  | 1091 |                    | 253     | 38       | 1085 | <i>Saffron</i>               |
| 450  |                     |      |      | 1149 | 1297 |      |                    | 2270    | 22       |      |                              |
| 1297 |                     |      |      | 3522 | 676  | 1073 |                    | 3537    | 1146     | 1079 | <i>Sage</i>                  |
| 1286 |                     |      |      | 3047 | 626  | 1066 |                    | 1647    | 1302     |      |                              |
| 256  |                     |      |      |      | 1296 |      |                    | 1568    | 23       |      | <i>Sage-apple, n.</i>        |
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| 848  |                     |      |      | 1297 |      |      |                    | 3538    | 632      |      | <i>Saintfoin</i>             |
| 802  |                     |      |      | 1297 |      |      |                    | 1883    | 868      |      | <i>St. John's bread</i>      |
| 1043 |                     |      |      | 1297 |      |      |                    | 467     |          |      |                              |
| 418  |                     |      |      | 1297 |      |      |                    | 3539    | 3540     |      |                              |
| 226  |                     |      |      | 681  |      |      |                    | 1851    | 170      |      | <i>St. John's wort</i>       |
| 588  | 1059                |      |      | 1482 |      |      |                    | 1168    | 296      |      | <i>St. Peter's wort</i>      |
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| 762  | 1085                |      |      | 22   | 1079 |      |                    | 1033    | 204      | 1081 | <i>Salvia</i>                |
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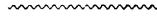
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